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Summary

This document results from task 3.3, which deals with the preliminary analysis of the 596 cases of energy citizenship and their distribution among the typology ideal-types elaborated in D2.2. The analysis and typology development will facilitate the creation of new insights into the diversity of energy citizenship.

D3.2 encompasses a catalogue of cases organised by the conceptual types that were identified in task 2.2. It entails a presentation of each typology type, including refinements based on the outcomes of the empirical work. Following the description of each typology type, a presentation of exemplary cases catalogued in EnergyPROSPECTS is included, as well as some other cases where typologisation is less certain. These cases raise interesting issues related to our study of energy citizenship.

All the cases of energy citizenship mapped in EnergyPROSPECTS are included in this deliverable. Additionally, the catalogue will also be made available as a searchable online database at a later point during the project.

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Introduction

This deliverable is part of the iterative process for the typology development, as represented in the following figure:

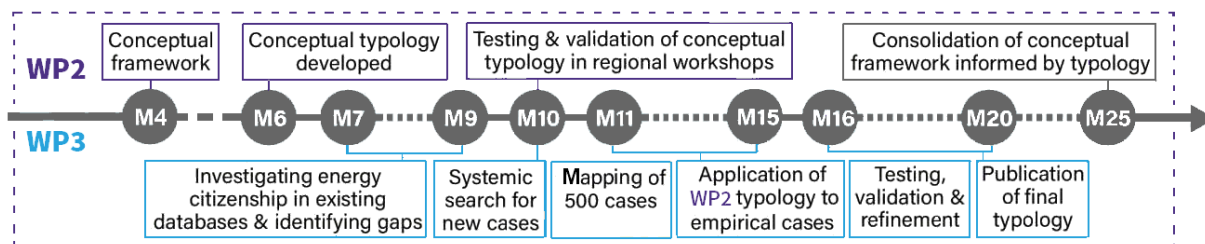


Figure 1: Iterative typology development process informed by theory and practice

To do so, D3.2 intends to explore further the conceptual typology elaborated in D2.2. (Debourdeau & al., 2021) and confront it with the close to six-hundred cases that have been mapped in spring of 2022. As a reminder, ten tentative conceptual ideal-types of energy citizenship (ENCI) have been identified on the basis of the distinctions elaborated in the conceptual framework (Pel et al., 2021), which is shown below:

	AGENCY			INDIVIDUAL			COLLECTIVE		
OUTCOME-ORIENTATION	PRIVATE	ORGANISATIONALLY EMBEDDED	PUBLIC	CITIZEN-BASED, CO-CREATED AND ORGANISATIONALLY FOSTERED			SOCIAL MOVEMENTS		
REFORMATIVE	1. DO THEIR BIT (In the household) Complying with the green energy system	3. DO THEIR BIT (within organisations) Energy citizenship within organisations	5. MAKE THEIR VOICE HEARD Participating in societal energy discussions	7. DO THEIR SHARE Joining green energy projects	9. DO THE JOB Facilitating the energy transition through alignment activities				
TRANSFORMATIVE	2. DO THEIR OWN (In the household) The change-making energy citizen	4. DO IT THEIR WAY (within organisations) The energy-related change-maker in organisations	6. MAKE THEIR VOTE COUNT Mobilising votes for energy transition	8. GO AHEAD Building, expanding and linking citizen-based organisational forms	10. MAKE THEIR CLAIMS Protesting against the current energy system				

Figure 2: Matrix of the 10 ideal-types of energy citizenship

Considering the number of cases mapped to be made available in a forthcoming searchable database, this deliverable encompasses an organised catalogue of cases, using the (modified) typology for systematisation¹. The detailed methodology is explained in chapter 1. Part 1 and 2 cover the distinction between individual and collective agencies. Within these two parts, each chapter (2 to 6) is dedicated to a specific agency, and aims at exploring the corresponding reformative and transformative types. For these two first parts and five first chapters, some cases are selected out of the mapping for each type according to the following parameters:

- Clear-cut cases that are exemplary of each of the 10 types. These clear-cut cases cover various European areas and underline the diversity of the cases that can be assigned to the form of ENCI described in each ideal-type.
- Less clear-cut cases or, in other words, cases that have been assigned a type whilst presenting some uncertainties, especially with regard to the bundle of attributes that is orienting the case towards the reformative or transformative side. For those less clear-cut cases, a clear emphasis is also put on the uncertainties related to the type's assignment, since the corresponding cases are opening up further thoughts on the ideal-types and the usefulness of a typology of ENCI. In this part of the work, we agreed upon the removal of a few cases which did not show enough characteristics to be an ENCI-case.
- While working on both exemplary and uncertain cases, some refinements to be undertaken in the type profile emerged and the profile descriptions have been updated accordingly.

¹ For the clarity of the demonstration, the exhaustive lists of the cases for each type are provided in annex II.



Chapter 1: Methodology

The elaboration of this catalogue and the selection of the presented cases result from a methodological process based on the various data provided through the mapping of cases of energy citizenship (ENCI) in Europe. During this mapping process, the EnergyPROSPECTS consortium collected altogether 596 cases of ENCI.

Data collection: overview of the ENCI mapping methodology

The data that this document builds on, comes from the ENCI mapping process that the EnergyPROSPECTS consortium completed between November 2020 and May 2021. The methodology for the desk-based mapping is described in detail in deliverable 3.1 (Vadovics et al., 2022); here we provide a very brief summary.

The objective of the mapping process was to capture the diversity of ENCI in Europe rather than to map each and every existing ENCI. The definition of ENCI adopted in the project is intentionally broad (see D2.1 / Pel et al, 2021) in order to ensure that as many as possible, including latent forms of ENCI, are considered. Since there is a huge variety of cases and initiatives available that would fit our definition, and mapping them all would go beyond the scope and resources of the project, there was a need to further define what is considered a case within the research focus of the EnergyPROSPECTS project. Thus, the consortium decided that the ENCI mapping activity will cover cases that:

- are **based in European countries** (including EU, EEA and accession countries);
- are **currently active or were concluded not earlier than 2015** when the Energy Union Strategy was published;
- are **focused on direct energy production and/or consumption** (e.g., in households, organizations, etc.), **mobility** (with a direct connection to energy issues), or have a **more holistic overall focus on sustainable and just energy**.

Furthermore, to ensure that within this scope the greatest diversity of ENCI is achieved, a sampling strategy with five categories of diversity that had to be met was developed:

1. Geographical diversity;



METHODOLOGY

2. Diversity in the main focus of the cases (i.e. in terms of direct energy production/consumption, mobility and holistic cases);
3. Diversity in mapping both individual and collective cases;
4. Diversity relating to the ideal-types described in the conceptual typology; and finally
5. Ensuring that cases with a variety of additional foci on gender, disadvantaged groups, low-tech/high-tech/behaviour change-based solutions, rural/urban setting are mapped.

With this methodological guidance, the ENCI mapping process resulted in 596 cases mapped in all European countries. The distribution of cases mapped between countries are shown in the map below.

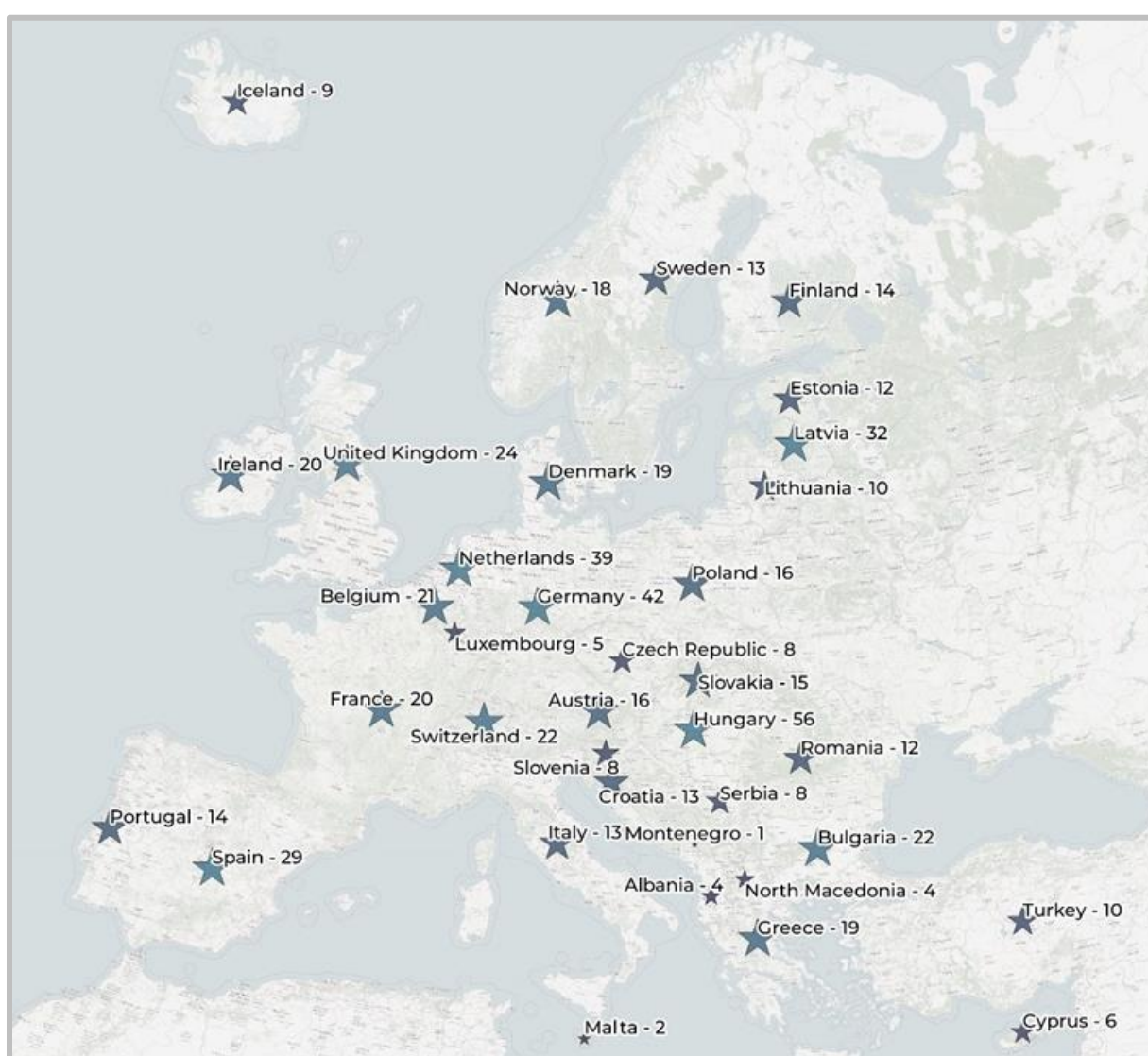


Figure 3: Distribution of the mapped ENCI cases between countries

Data validation

As a very important first step, to ensure the validity of the data collected, ENCI mapping started with a testing and standardisation phase of the mapping survey methodology. The mapping survey template developed collaboratively in the project (for details, please refer to Vadovics et al., 2022) was first tested by several partners. An internal training of all case researchers followed. After the training, all partners started using the survey template for a set period of time, which was then followed by a standardisation workshop. In this joint workshop two well-documented cases, one individual and one collective, were studied first individually, and then discussed by case researchers.

Once the data collection for the mapping was completed, GDI started the organisation and checking of data, paying particular attention to the questions related to the typology, and the placement of cases in the typology. During this process, we discovered that in some cases researchers had not selected a main type for their cases, or possibly selected more than one type (which they were instructed not to do for the main type, while they had the option to select several secondary ideal types for each case, as relevant for the case). After filtering out these problematic cases, case researchers were asked to reconsider the cases and decide about their assignment in the typology. At the same time, they were also asked to review the unproblematic cases as well in case of a necessary revision. Based on their responses, the database was updated.

An important element of the analysis presented below, was to check all the cases where researchers could not assign their case under to one of the conceptual types (see Annex II – Unassigned and problematic cases), or indicated that they are uncertain about their decisions. These cases can greatly contribute to the refinement and development of the typology, as they point out characteristics that are not clear even to some researchers, and which are worth being discussed in more detail when characterising an ENCI type.

Before starting the analysis, GDI had the idea that it would be worthwhile for one researcher to review all cases for proper classification, in order to work with a truly standardised dataset. However, having reviewed the Hungarian cases this way, we had to conclude that different researchers put different emphasis on the characteristics of the typology which can lead to divergent results. This is especially true for those cases (approximately two thirds of all cases) that contain characteristics of two of the ideal types or more. The assignment to one of the main ideal-types and the secondary ideal-type(s) depends on the focus adopted by the researcher. We also recognised that the different country contexts the cases are embedded in, play an important role e.g. for classifying a case as being reformative or transformative. Thus, any typologisation is driven, at least to some extent, by the individual approach of the researcher. The mapping considered this aspect, posing the question (“Why do you think this case is an example of ENCI?”). In addition to a brief



description of the case required in the mapping survey, an answer as to why the researcher thought the case was a case of energy citizenship was also included. Reading the response to this question helped to understand the researcher's perspective.

We concluded that since the researchers consistently reflected the mapping process, which we double-checked when asking about uncertain cases (see above), further reassessment is not necessary.

After completing the various data validation processes, two different methodological steps were taken to analyse the data. First, based on the main ideal-type selected, we organised the ENCI database of 596 cases into 11 data tables: 10 tables refer to the 10 ideal-types and another data table was made for cases that could not clearly be assigned to any of the 10 types. These data tables are used to create the catalogue of cases (see Annex II) as well as to select the clear-cut (i.e. exemplary) and uncertain cases (see details in the next section).

Finally, it needs to be noted that the mapping of ENCI was **a desk-based research process**; consequently, no interviews were conducted and cases were not observed *in situ* either. For this reason, the information collected is based on data publicly available in documents, on websites, and various research papers published on selected cases. This is a limitation of our mapping, and thus case researchers had the option to select “I don’t know, not enough information is available on this aspect.” in the mapping survey for many mapping questions. In the subsequent phase of the research 40 cases out of the 596 were selected for detailed study, and thus for these cases more detailed information will be collected and their placement in the typology reviewed and re-assessed. Based on the analysis of the 40 cases and the lessons learnt there regarding the typology, the EnergyPROSPECTS team will be able to draw further conclusions.

Data analysis

Methodology for selecting the exemplary and uncertain cases

In the development of the EnergyPROSPECTS conceptual typology (Debourdeau et al., 2021), a bundle of attributes was used to define and describe the reformative/transformational outcome-orientation dimension of the typology. In order to gain information on these attributes through the empirical mapping of ENCI cases, case researchers were asked to collect information on them one by one, in addition to categorising the ENCI case in the typology table. This is a key part of the process of the



empirical validation of the typology. By doing so, we are able to study to what extent the bundle of attributes can be associated with a particular ideal-type².

These attributes are the following, shown in more detail in Annex I:

- Citizen power/control;
- Equity/justice;
- Environmental sustainability;
- Contesting the current energy system.

In general, the reformative dimension, based on the conceptual typology, is associated with a low(er) level of citizen power/control, equity/justice as well as environmental sustainability, and no or only a very basic level of questioning or contesting the current energy system. In contrast, the transformative dimension can be described by high(er) levels of citizen power/control, with equity and justice more firmly in the focus of the cases as well as deep(er) environmental sustainability. Transformative cases of ENCI also tend to contest the current energy system, partly through offering alternative and new ways of producing and consuming energy as well as participating actively in the energy system, often contributing to its change and development (Debourdeau et al., 2021).

Thus, to test how these attributes are manifested in real life cases of ENCI, the researchers were asked to determine – based on information obtained through desk research – to which extent they were applicable to the case (please see Annex I for an extract of the mapping template with the relevant questions). Basically, for each attribute or aspect researchers could select from 6 options:

- The case does not consider this aspect.
- Low (level of consideration)
- Medium (level of consideration)
- High (level of consideration)
- This aspect is not relevant to this case.
- There is not enough information available through desk research.

For some attributes (e.g., citizen power/control), an additional option was also included “not relevant because the case is individual”.

² The ENCI mapping methodology, including the full mapping template, can be found in D3.1 (Vadovics et al, 2022). The questions referring to the four attributes are also included in Annex I. of the current document.

Table I: The numbering used to organise and rank the cases under each typology type

Options	Number assigned if the case is categorised as a reformative type	Number assigned if the case is categorised as a transformative type
The case does not consider this aspect.	1	1
Low	2	2
Medium	3	3
High	4	4
This aspect is not relevant // Other	5	0
There is not enough information.	5	0
Not relevant because the case is individual.	1*	4*

* The numbering for cases that were evaluated as “not relevant because the case is individual” differed between cases categorised as reformative and transformative to support the ordering of cases: for reformative types we used an ascending order, and thus these cases needed to be at the top, and for transformative types we used a descending order, and these cases also needed to be at the top. As this evaluation was only used in the case of “individual” types of ENCI, there was a danger of missing typical cases illustrating relevant ideal types if a less flexible approach of numbering was used.

In order to be able to organise the cases and see which of them matched the definition of the typology type in question the best, we assigned a number to each of the 6 + 1 options, with the help of which we created a list of organised cases for each of the 10 ideal-types (see Annex II). The numbering followed the logic presented in Table I (above).

After ranking the cases based on their scores, those cases that best match the definition of the type based on the four attributes used to define them, are at the top of each type table presented in Annex II. Thus, we selected the clear-cut cases from the rest. The cases that are found on a lower rank in the tables are generally the less clear-cut and uncertain cases. We investigate the various reasons for that below in Part 1 and Part 2, for each ideal-type.

In the ENCI mapping template further attributes of energy citizenship were also examined and information collected on them (e.g. passive/active citizenship, pragmatic/transformational orientation, hybridity, laggard/frontrunner distinction, etc.). In some cases, the responses provided to these questions are helpful to explain the uncertainty of typologisation. Still, it needs to be mentioned that the analysis of all the attributes would go beyond the scope of this deliverable, so it will be presented elsewhere.

Below, in Part 1 and Part 2, the ten ideal types of energy citizenship are presented following the same structure: first a description of the ideal type, which is then followed by exemplary cases mapped for that type. Then, for each type we also include cases where the placement raises some typologisation related issues (i.e. uncertain cases). Finally, we conclude with some reflections on each type. Table II below shows the distribution of the mapped cases organised by ideal types.

Table II: The distribution of ENCI cases mapped by ideal types

	Individual			Collective		Other
	Private	Organizationally embedded	Public	Citizen-based and Hybrid	Social movements	
Reformative	79 (13,3%)	31 (5,2%)	39 (6,5%)	115 (19,3%)	33 (5,5%)	19 (3.2%)
Transformative	33 (5,5%)	27 (4,5%)	8 (1,3%)	136 (22,8%)	76 (12,8%)	



Part 1: Individual ideal-types of Energy Citizenship

Chapter 2: Private ENCI in the household - From “Do their bit” to “Do their own”

Type 1: “Do their bit (in the household)”

Complying with the green energy transition

Type 1 conceptual profile

<i>Agency</i>	Type 1 refers to individuals who try to “do their bit” by changing their individual practices and equipment in their household towards more energy efficiency and/or prosuming. Type 1 encompasses passive as well as more active energy citizens (see below) and frontrunners (e.g., smart and/or renewable technologies user) as well as late adopters.
<i>Personal and identity engagement</i>	This type may be fostered by various form of concerns and motivations that do not belong to ENCI as such. The individualistic forms of engagement encompassed in type 1 entangle energy transition issues with various other sorts of concerns (that may even predominate), ranging from narrow to enlightened self-interest (on the narrow side: financial/economic ones; on the enlightened self-interest: related to health, e.g., desire for cleaner air).
<i>Outcome-orientation</i>	Rooted in the private sphere, this type of engagement takes mostly the form of a “compliant participation” and often reacts to “top-down” public or NGO-led campaigns and other sorts of information. These activities aim at reforming the energy system by targeting the “citizen-as-consumer” and turning the passive consumer into a more active one, by e.g., enhancing the acceptance for energy saving technologies or “low cost” change of behaviour.
<i>Reformative</i>	



<i>Incremental change</i>	Consequently, this type 1 of ENCI results from the various possible modes of conformation to emerging / new social norms, normality and constraints associated with mainstream energy transition. Compliant individual citizens become involved in transition processes in an atomistic way, and the energy transition process is resulting from the aggregation of these separate entities, limiting the induced change potential to incrementalism.
<i>Confirmation of the basic principles of the current energy system</i>	Considering its confirmative-reformative features, the “do their bit” type does not question the basic structural characteristics of the current energy system.
<i>Confirmation of the basic principles of the current energy system</i> <i>Low energy democracy</i> <i>Empowerment</i>	This type of involvement is associated with a low level of energy democracy: individualised citizen’s engagement is limited to the small to medium changes of practices in the private sphere, not encompassing empowering participation beyond the household.
<i>Energy justice</i>	This type of involvement is associated with a low level of energy democracy: individualised citizen’s engagement is limited to the small to medium changes of practices in the private sphere, not encompassing empowering participation beyond the household. Questions of energy justice do not necessarily play a major role in the engagement of this type. However, there are certain campaigns / activities that combine the issue of saving energy with social questions (e.g., support for low-income people to reduce their energy costs).
<i>Environmentally shallow</i>	In line with the low level of engagement, the degree of commitment to environmental sustainability is variable but mostly shallow, when existing. Engagement is mostly aimed at increasing energy efficiency and/or providing renewable forms of energy, which encompasses the risk of rebound effects. More fundamental sufficiency-oriented practice changes are less prominent in this type.



Examples

Type 1 can be found on a whole continuum, from the most latent forms (i.e., the passive energy user that makes a tiny step toward more efficiency) to more committed ones (i.e., user equipped with smart meter and appliances) up to the most manifest and visible ones (i.e., the prosumer, for which environmental and energy issues may play a role alongside considerations of efficiency and financial opportunity). This type is particularly manifest through the visible “pragmatic” energy citizens.



Empirical insights on type 1: mapping

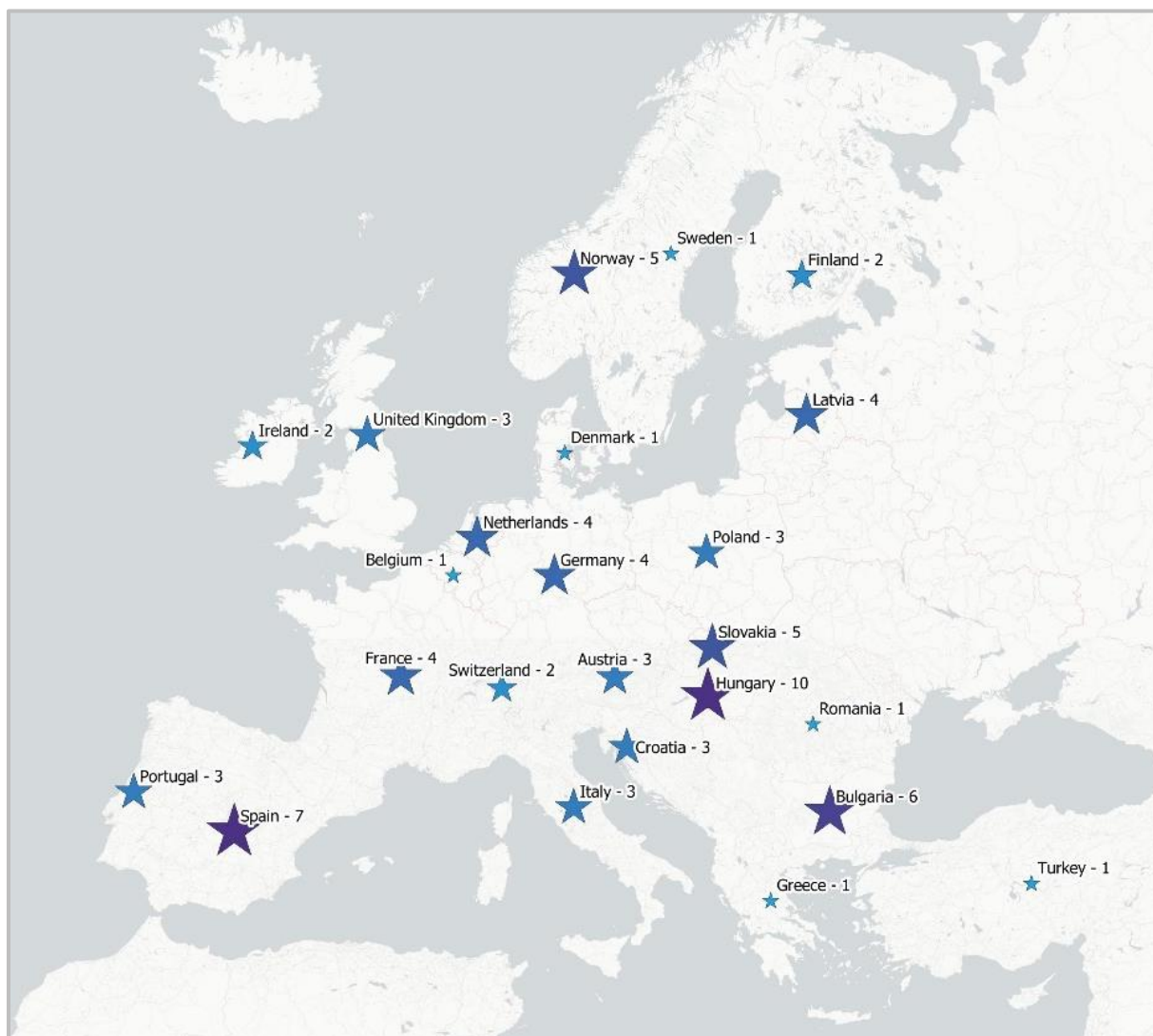


Figure 4: Geographic distribution of cases assigned mainly to type 1

79 cases are assigned to type 1 in the mapping, which represents around 7.5% of the cases. These cases are rather distributed among the European countries, since most of them mapped at least one case that is attributed to this type. Type 1 cases are notably well represented in Hungary, Spain, Bulgaria, Slovakia and Norway, with at least 5 cases of type 1 each.

Exemplary cases

The Home Energy Saving Kit in Ireland



The Home Energy Saving Kit was developed by Dublin's energy agency to help citizens understand their energy use and identify key areas of their home that should be improved for energy efficiency. The kit can be borrowed free of charge from libraries across Ireland. It contains five practical tools and six exercises that help citizens to conduct their own home energy audits and to find the easiest and most effective areas to reduce their energy consumption. The home energy saving kit is an enabler for individual citizenship as it improves the leeway for individual citizens to become active in energy savings.

„Energie gegen Armut“ (Energy against poverty) in Austria



Through the project "Energy against Poverty", the customers of Energie Graz are asked for donations of five euros or more, every donation up to 5,000 euros is doubled by Energie Graz. Via a trust account and a notary, the donations go in equal parts to Caritas and the social welfare office, which take care that the money ends up

where it is needed. Emergency aid and sustainable measures: 40 percent goes to emergency aid so that electricity and heating bills can be paid, 60 percent of the donations are used to buy low-energy electrical appliances. 1,500 households had to have their electricity cut off in 2021 and the project helps to further fill the emergency aid pot through voluntary donations.

Anna Wijmans in the Netherlands



Anna is a citizen in the city of Amsterdam who wanted to live in a house that is independent of gas. And she made it! After a year of searching and trying to find solutions in her house in Rochdale (house cooperation) she has now installed isolation curtains and in 4 years time she will have paid off her own purchase costs due to the low energy bill (in summer about €20/month, in winter about €37/month). Anna also wants to install solar panels but that is not allowed (yet) in the rental house she is living. Anna is asking anyone who

wants follow her example to contact her. She is an active energy citizen who wants to help more people to follow her transition in a house without gas. This individual case study is an example of a latent, less obvious case study of type 1. Anna is trying to find solutions to help her energy transition to live in a house without gas and she made it, calling for others to join her.

Uncertain or challenging cases

KafEco



KAFECO

KafEco is a student company established in the end of 2020 by four high school students in Ruse, Bulgaria. Their idea was to develop an alternative eco-friendly heating from waste material, namely by producing a briquette from coffee grounds and sawdust (a residual product from processing clean wood). The coffee grounds are collected from places where coffee is consumed: from households, and from small neighbourhood restaurants to large fast-food chains. The sawdust is collected from local carpenters in Ruse.

KafEco already reached its prototype phase, with testing results showing that its briquettes are more calorific than wood (radiates more heat, releasing less harmful emissions into the air compared to other solid fuels (mainly wood and coal)). The sale of the briquettes is expected to start in a year, after all the testing and certifications are finished successfully. The main aim of KafEco is to make consumers change their mindset and lifestyle and move to a more sustainable and environmental-friendly one by starting consuming eco materials for heating.

KafEco is considered an ENCI example since it showcases citizens actions towards developing an alternative to solid fuel heating by recycling waste materials (namely coffee grounds and sawdust). It also aims to contribute to consumers changing their mindset towards taking actions to prevent the environment for the current and future generations.

Why uncertain?

During the ENCI mapping validation process, from the aspect of citizen power as well as equity and justice, this case was categorised as “not considering”, revealing that this case does not yet consider these important aspects of energy citizenship, and thus the case fits the description of type 1. However, concerning environmental sustainability and challenging the current energy system, the case was categorized as “high”, revealing that regarding these aspects, the case is more transformative than the type 1 categorization would generally imply.

Solar Garden from Friends of the Earth in Spain



The case offers people the chance to become co-owner of a photovoltaic installation on a roof by participating in one or more financial holdings. The 10 Kw plant is in Leganés (Madrid). The electricity generated is supplied to buildings in the area to avoid energy losses. Because of its interest in promoting renewable energies and contributing to curbing climate change, standing up to the energy oligopoly and moving towards community energy, the case can be seen as a case

of ENCI, of ideal type 1.

Why uncertain?

Besides assigning the case mostly to type 1, it has also been assigned to two secondary types:

- Type 3, since “the case also refers to individual actors [who] participate, through an organisation, in the improvement of a common good that brings them particular economic benefit”.
- Type 4, since the case “also refers to collective actors in a transformative way because, in addition, the participation of citizens in providing capital has a broader purpose in terms of contributing to curbing climate change, supporting a transformation towards policies that are respectful of people, now and in the future, and positioning itself in favour of people and the environment, as opposed to the government's energy policy, which benefits the large electricity companies”.

Moreover, “this case presents difficulties for the conceptualisation of the ENCI typology because, although its objectives seem to include a radical change in the way of thinking and approaching energy citizenship, in a profound and democratic way, the way it is managed suggests that what the initiative is looking for is the mostly provision of capital. The activities proposed do not really fit to the formulated objectives. Moreover, the information provided is not fully transparent or readily available”.

This case underlines that a certain amount of checked informations is required to the assignment of an empirical case to an ideal-type. Uncertainty or lack of information lead to consider various possible types for the cases.

Type 2: “Do their own (in the household)” *The change-making energy citizen*

Type 2 conceptual profile

<i>Agency</i>	Type 2 refers to individuals who make the choice to “do their own” in their household as a form of engagement toward energy transition, notably by seeking ethical consumption as well as conscious energy choices such as self-sufficiency or even autarky to complement energy efficiency practices. This type tends to include a higher share of active energy citizens and frontrunners that act as a role-model for a more fundamental energy transition.
<i>Personal and identity engagement</i>	Thus, this form of individual ENCI commitment implies a high degree of personal, affective and identity engagement, since it relies on a broad set of alternative practices towards more sustainable lifestyles, from energy production/ consumption, to mobility, to food practices.
<i>Outcome-orientation</i>	If deployed in the private sphere, this type of engagement is mostly rooted in a sociotechnical environment that enables such individualised “bottom up” and alternative practices aimed at departing themselves from the citizen-as-consumer scheme.
<i>Transformative</i>	Consequently, this type refers mostly to transformative forms of individual engagement in the energy transition, that are meant to break radically with the current centralised energy system. Reflecting upon their role as individuals in the energy system, those individuals are attempting to act accordingly (for instance, by opting for off-grid energy systems).
<i>Radical change Contestation of the current energy system</i>	
<i>High energy democracy Empowerment</i>	The degree of energy democracy associated with this type is noticeably higher than for type 1. Indeed, seeking for more autonomy and self-sufficiency implies a high degree of self-empowerment, and radical choices in terms of allocation of financial resources and capabilities. In that



Energy justice

respect, this type cannot be strictly “individual”, but refers more to a “libertarian” view, that is not mainly driven by individualistic concerns. Also, it includes individuals who contest the current consumption-based economic system and are concerned with the social effects of such a system.

Environmentally deep

Similarly, the adoption of proactive and self-sufficient practices in type 2 is largely induced by a high level of awareness of the ecological limits and the need for more far-reaching changes of the production/ consumption patterns. Individuals see themselves as part of structural changes towards a more resilient, flexible and controllable energy system linked to the visions of “small is beautiful” and “soft technologies”.



Empirical insights on type 2: mapping

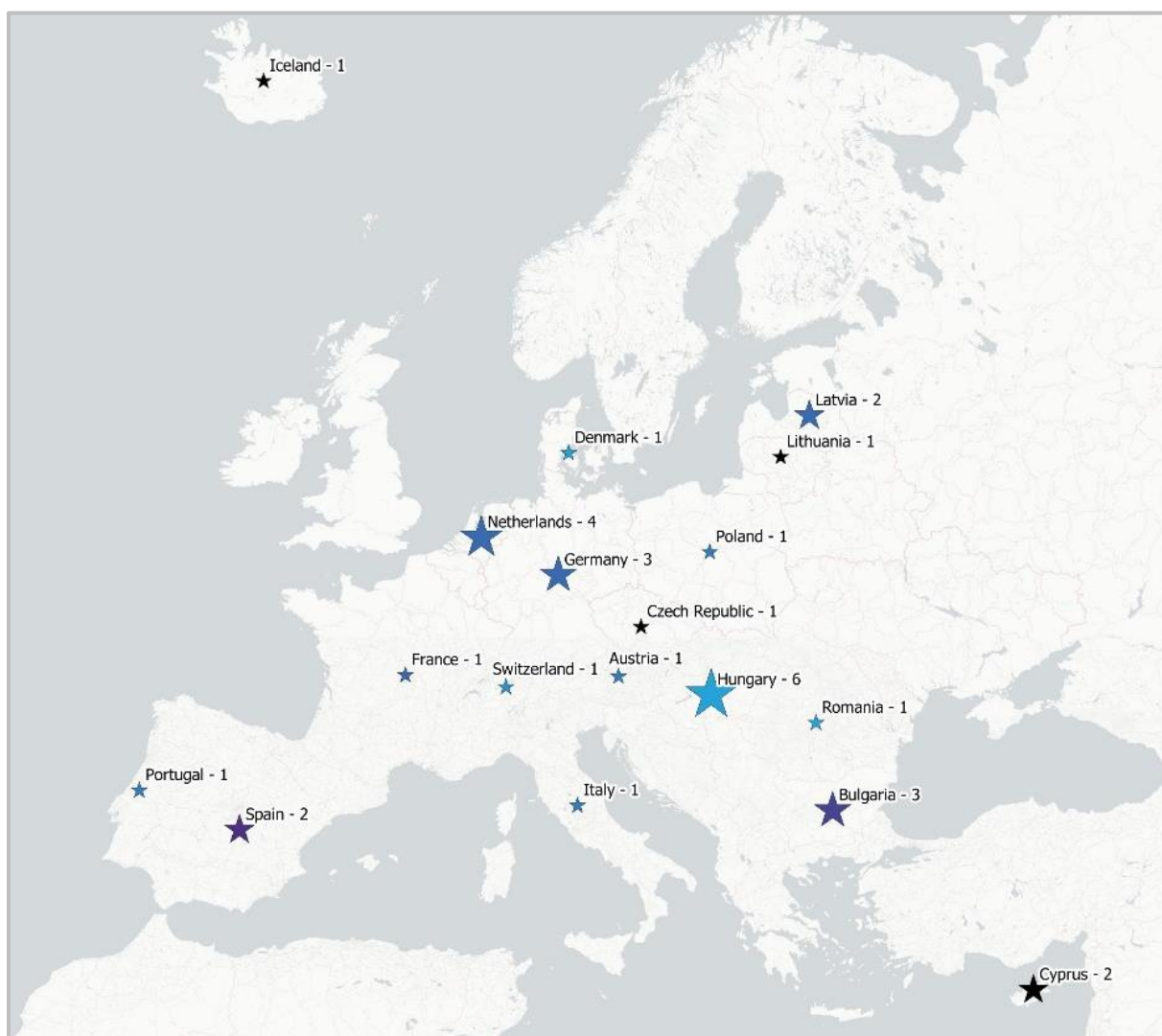


Figure 5: Geographic distribution of cases assigned mainly to type 2

33 cases are assigned to type 2 in the mapping, which is a rather low number compared to the total number of cases. but is probably partly resulting from the sampling strategy developed for the mapping, which had a stronger focus on collective cases, which can also be found more easily via desk research (Vadovics et al, 2022). Type 2 cases represent less than half of the cases assigned type 1, which is also a coherent result, considering that transformative cases might be harder to find.. The type 2 cases are rather well distributed in continental Europe, but rather absent from the cases mapped for UK, Ireland and the Scandinavian countries. Cases of type two are particularly well represented in Hungary, Netherlands, Bulgaria and Germany, with at least 3 cases of type 2.

Exemplary cases

Dr István Dóry in Hungary



https://www.vezess.hu/magazin/2019/06/04/kozlekedes-szintzetu-napenergiaval-lme-9-napcsiga/#napcsiga_002

Dr István Dóry is a physicist, currently a lecturer at EDUTUS University. More than 10 years ago, he and his wife moved from the capital to Egyházaskölyk, a small village in the western region of the country. They deliberately chose a place where there are no major roads but good train transport - and where they can live a sustainable lifestyle. István has been involved as a climate coordinator (i.e. community organiser, leader) for 6 seasons in the EnergyCommunities programme (residential energy saving programme) organised by GreenDependent. He is also the founder and builder of the SunSnail (NapCsiga), an Island operated solar-energetic vehicle, which means it uses only the electricity produced by the mounted solar panels. SunSnail is capable of transporting 1-2 people and 300-400 kg of load and its designed cruising speed is 25 km/h.

Both in his personal and in his professional life, he considers sustainability as a priority. He is very strict, regularly produces lifestyle "reports" (like carbon footprint calculation), also encourages and teaches others to do the same. His, and his family's, lifestyle can be a real role model for those wanting to live a sustainable lifestyle. As such, the case is exemplary of type 2.

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LivingWagon in Austria



<https://wohnwagon.at/>

Considering that the way we build and live has a massive impact on other areas (mobility, social structures, supply infrastructure, etc.), LivingWagon wants to stir things up and launch projects that serve as flagships for sustainable housing. Projects that show how a good life could work for everyone, that is self-determined, ecological and social and can also be fun. In this perspective, WW offers solution for self-sufficient and even autarcic lifestyles, in accordance with the principles: "with the nature", "for the people" and community-oriented.

This was categorised as a type 2 case of ENCI within our research study as LivingWagon offers to the individuals various solutions to opt for a more self-sufficient housing, based on cooperation, community principles and DIY.

Gabriella Révész, eco architect and activist in Hungary



By her own definition: "mother of three happy children, cyclist, recycler, zero waste activist, idealist, small town gardener, community engine". Gabriella is an eco architect focusing on environmentally sound ways of building, especially on straw-bale and adobe houses. She is a founder and the president of the Hungarian Strawbuilders Association, built her own house with her husband and many friends, opened her house to experts and lay people too and organises workshops there. Besides, she is an active member of several local civil organisations, groups in Gödöllő, Hungary, the cyclist group, "eco picnic" group, she organises film screenings on sustainability related issues, and is an active zero waste activist. She is also a member of the local organic food box system (CSA).

She is also a conscious energy citizen actively advocating different ways of sustainable lifestyles among other citizens.

Uncertain or challenging cases

Sponti-car in Switzerland



Sponti-Car is a start-up that offers e-car sharing in cooperation with local authorities solely with ecologically sound electric vehicles. Citizens have easy access to an electric car that is provided at the locations of the municipal administrations along with a charging station. The vehicle is also used by the employees of the respective administrations for work trips. Energy citizenship manifests itself in the case in that it offers community residents a

simple way to make their individual lifestyle more sustainable by using a publicly provided e-vehicle instead of their own car.

Why uncertain?

Sponti-car fits the description of type 2 and does contribute to the transformation of the current energy system since it challenges the idea of everybody owning a private car in rural areas by providing a e-car sharing service. However, beyond this, the case does not challenge other structural elements of the energy system. Furthermore, the voice of citizens, at this point, is limited (they can only participate through municipal consultation processes,), and while one of the key motivations is to provide equal access to e-car sharing to rural areas, beyond this justice or equity concerns are not raised. The case illustrates that an initiative can be characterised as transformative even if not all the attributes of a transformative case are fully met.

Chapter 3: Organisationally embedded ENCI - from “Do their bit” to “Do it their way”

Type 3: “Do their bit (within organisations)” *Energy citizenship within organisations*

Type 3 conceptual profile

Agency

Type 3 refers to individual practices as embedded in various sorts of organisations individuals are engaged in, such as the workplace, the kindergarten, schools, universities, and so on. More and more organisations are currently endorsing energy transition as an added logic of actions. Thus, the individuals who are embedded in such organisations are meant to adopt this logic and to conform with the behaviours that are considered as organisational citizenship behaviours. In some cases, they are also the ones who are initiating the integration of this logic. This form of energy citizenship strongly relies on the attachment of individuals to an organisation.

Personal and identity engagement

Therefore, the degree of personal and identity engagement in this type is highly tied with the ones that initiated this added logic within the organisation: When the added logic emanates from the organisation itself (equivalent to a “top-down” form), the individuals have at least to cope with it and with the related normativities. For instance, they are encouraged to adopt new efficiency practices within the organisation’s buildings and/or to take this new logic into account in their everyday work. (However, they can also take a very active role in supporting organisational changes.) When the energy transition logic is raised by individuals (equivalent to a “bottom-up” form), the level of engagement depends on the acknowledgement by other colleagues and the organisational leaders. This latter case can also lead to quite substantial organisational changes.



<i>Outcome-orientation</i>	If the impulse towards energy transition comes from the organisation itself, it allows the embedded energy citizen to participate to a lower or greater extent with their own ideas and engagement in advancing organisational energy related issues. The other possibility is that the individuals involve themselves in raising energy awareness in the organisation, starting energy action staff groups, and motivating low- or high-cost measures.
<i>Reformative</i>	As described, the degree of change associated with such “manifest” added logic appears to be highly variable, but belongs mostly to the reformative and incremental forms of change. The individuals of this type of ENCI are acting within a given organisational structure which in its core is following another main logic than energy transition (“good education” in Kindergarten and schools, “developing new products or services for a competitive market” in companies, etc.). The added energy transition logic has to be compatible with the respective main logic and dominant organisational structures and routines. Depending on that compatibility and openness of the organisational leaders for change the leeway for ENCI and its forms can be very different.
<i>Incremental change</i>	
<i>Confirmation of the basic principles of the current energy system</i>	This type of ENCI contributes only to a small extent to changes of the basic structural characteristics of the energy system: outside of the energy sector in a large sense, there is little probability that energy transition can become a main concern for any organisation with a remote field of activity (public or private).
<i>Low (to medium) energy democracy</i>	
<i>Empowerment</i>	At the individual level, such incremental goals may result from a strong engagement and growing energy and climate concerns within the organisation. For instance, when employees or students of a university decide to finance solar panels on the organisation’s rooftop, the individuals feel empowered, notably because they managed to overcome a certain organisational inertia.
<i>Energy justice</i>	Within these forms of ENCI, the focus is seldomly placed on energy justice or environmentally deep sustainability: the inherent rationality of organisations makes it hardly possible for individuals to engage beyond “doing their bit”



within an organisation they belong to. Yet, this type might also be oriented toward energy justice by creating favorable settings and/or endorsing structural changes for sustainable energy production and consumption.

Environmentally shallow (to medium)

Organisational engagement of ENCI can take very different forms, which are linked to low or medium environmental outcomes. Leeway for changes can be motivated and/or strengthened by financial motives (saving energy as cost reducing strategy) and respective governmental incentives (for example, installing renewable energy, or changing the heat/cooling system). Organisations can also see the possibility for improving their image by acting as pioneers in the energy transition process.

Examples

Some examples of type 3 are:

- Individual(s) involved in motivating the organisation to install solar panels on the roof of its building (e.g., school, university, public facility, company).
- Individuals initiating energy saving campaigns in their organisation (technical and behavioural changes).
- Individuals involved in setting up an internal energy policy within their organisation, e.g., with the goal to reach “climate neutrality” until a certain point of time (e.g., university, municipalities).



Empirical insights on type 3: mapping

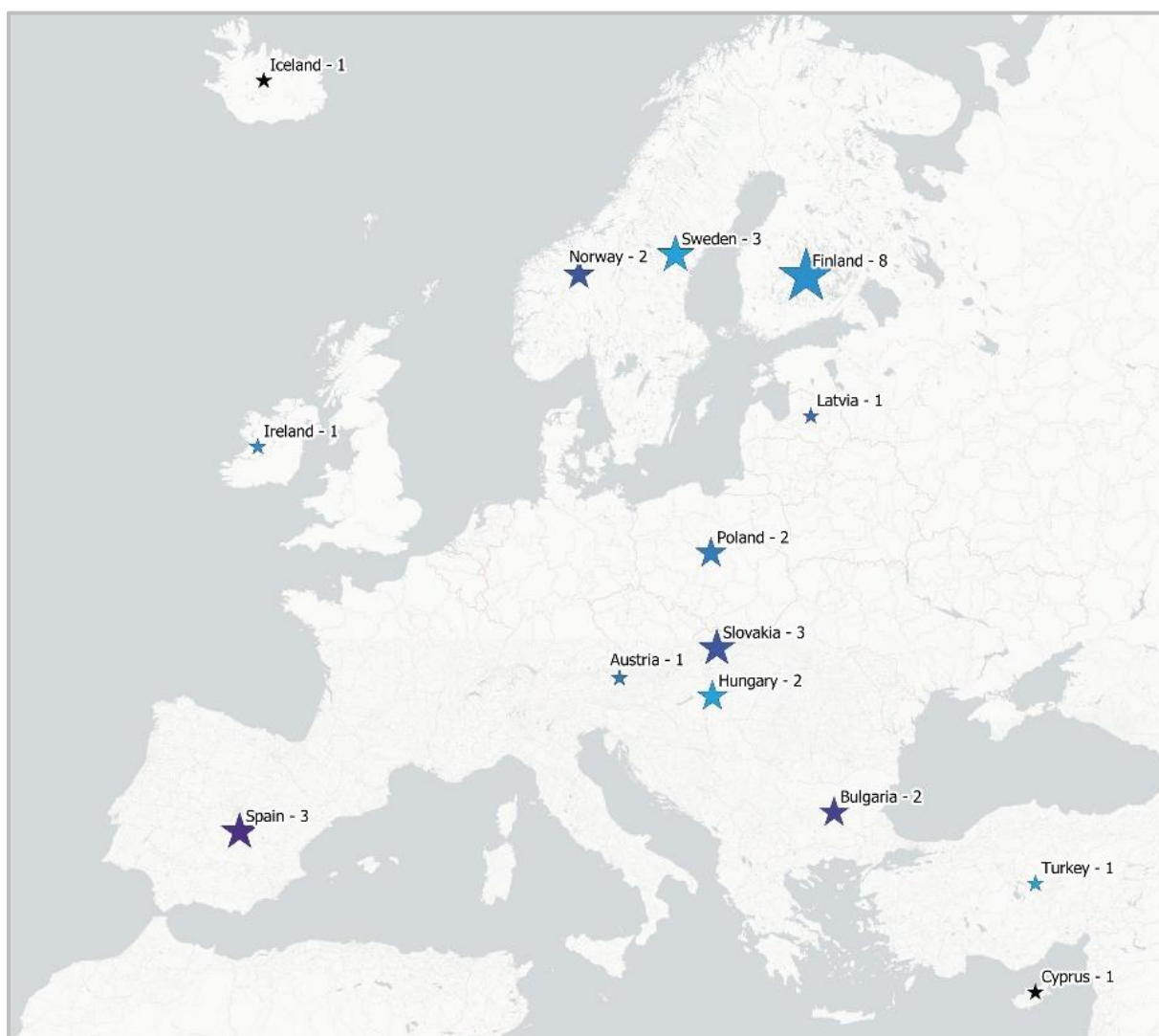


Figure 6: Geographic distribution of cases assigned mainly to type 3

31 cases are assigned to type 3 in the mapping, with probably results from the difficulty to find and identify such organisationally embedded individual cases. This type is particularly represented within the cases mapped for Finland (8 cases), Sweden, Slovakia and Spain (with 3 cases each). In many countries, no cases are assigned to this type, and notably in the UK, Italy, Netherlands, Belgium, Germany or France.

Exemplary cases

Coaches for Energy and Climate (Sweden)



The project Coaches for Energy and Climate was funded by the Swedish Energy Agency and the European Regional Development Fund through the National Regional Fund Programme. Through the programme, the Swedish Energy Agency provided funding and capacity building for municipal Energy and Climate Advisors to specifically target small and medium-sized enterprises (energy use <300MWh/year) and support their efforts to improve their energy efficiency, and contribute to the transition to a low-carbon economy. The programme, which was free of charge for participating companies, combined individual coaching with group lectures, trainings and energy walks. Networking and exchange of experiences between companies was also an important part of the project. By participating, companies were helped to reduce energy costs, improve profitability and reduce their carbon footprint. Coaches for Energy and Climate was a programme that aimed to support ENCI within SMEs, which assigns this case to type 3.

EURONET 50/50 in Spain

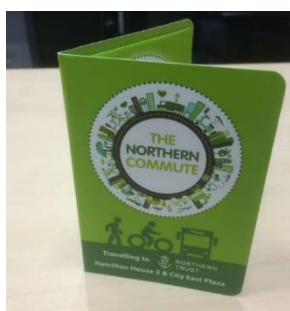


This case aims to mobilize energy savings through the implementation of the 50/50 methodology in 500 schools and nearly 50 other public buildings from 13 EU countries (114 from Spain specifically). The 9-step methodology increases energy awareness of the building users and actively involves them in energy-saving actions. The schoolchildren learn about how to be more efficient with

energy and the importance of doing so, and bring this information and influence back home to their families for a greater impact.

The 9-step methodology increases energy awareness of the building users and actively involves them in energy-saving actions

The Northern Commute in Ireland



Northern Commute is a project and a Smarter Travel Brand of Limerick offices of the financial services company "Northern Trust". It was created with the aim of reducing the amount of single occupied cars being driven to the offices. Among other measures, a scheme for staff carpooling was set up. The project is associated with the Carpooling scheme provided by Transport for Ireland (TFI), the public transport brand of the National Transport Authority. The case involves employees that actively participate in a car-pooling scheme, the exact motivation for which is difficult to identify. Nevertheless, the carpooling scheme, on

which this initiative is based, aimed at reducing pollution and CO2 emissions associated with vehicle use, which could arguably make it a case of energy citizenship of type 3.

Uncertain or challenging cases

Granada in transition in Spain



Project initiated by a group of people from Granada (Spain) to create a portal for support and dissemination of all existing initiatives that face current challenges such as climate change, the economic and social crisis, inequalities and dependence on fossil fuels and their derivatives. To do this, they have established links of mutual support and participation with other related groups. They carry out online courses and some training projects.

It seems an interesting case because of its development from a group of citizens aware of the need to embark on a transition path towards a more sustainable, equitable and humane physical and social environment. The project is framed against a backdrop of , larger networks (e.g. Movement in Transition at the national level, Transition Network at the global level and Transition Town Totnes

(TTT) and therefore can draw on the resources they have, creating an organisation that spreads and creates local projects. Transition movement (of which GET is a part) tries to promote the awareness of a territory (town, neighborhood, city, etc.), about the profound consequences of climate change and peak oil, as well as the the need for each local transition group to find the best solutions with their resources.

Why uncertain?

The case has been classified as high for the citizen power / control and the environmental sustainability criteria and medium for the justice and equity and the contestation of the energy system. **As such, it can also be seen as located at the boundary between reformative and transformative outcome orientation.**

Type 4: “Do it their way (within hybrid organisations)” *The energy-related change maker in organisations*

Type 4 conceptual profile

<i>Agency</i>	Type 4 refers to the form of ENCI in which organisationally-embedded individuals endorse an energy transition logic up to the point of turning the organisation into a fully-fledged ENCI actor. Therefore, this type pertains mostly to organisations that are entering or already belong to energy-related sectors. It can also include citizens in (mostly) public organisations who make the energy transition a core part of their identity by implementing innovative technological, engineering and human behaviour interventions. This type of ENCI encompasses mainly active forms and mostly frontrunners.
<i>Personal and identity engagement</i>	The organisational context is characterised by a true organisational culture towards energy transition. Citizenship strongly shapes the identity and practices of individuals who are involved in it and constantly nurture their engagement.
<i>Outcome-orientation</i>	To do so, energy transition must become at least a key logic of the organisation, thus making it evolve accordingly by developing new practices, business models, technological innovations, partnerships, and so on.
<i>Transformative</i>	Individuals within such organisations are somehow committed to turn them into fully-committed ENCI actors, combining common good perspectives with other aims such as financial performance. The contribution of these organisationally-embedded individuals to radical transformation of the energy system may be decisive by providing new capacities and innovation proposals that are the basis for potential radical change.
<i>Radical change</i>	



Contestation of current energy system

For instance, they may intend to renew energy markets by introducing alternative market devices and framings aimed at contesting the current energy system and its core principles, while enhancing energy democracy, e.g., through local energy markets. As such, the current view of energy as a commodity may be transformed and critical changes in the functioning of the energy system might be introduced. It is particularly the case of those who are embedded in the numerous “intermediary” and “change agent” organisations that enact the energy transition and have the capacity to push it forward.

High energy democracy

Oriented towards energy commons, taking part in renewable energy projects and initiatives such as energy cooperatives and communities, this “Do it their way” type of ENCI tends to deal with energy democracy, citizens’ empowerment and energy justice as a high value, and attempts to foster these values.

*Empowerment
Energy justice**Environmentally deep*

Regarding the environmental outcome orientation, the type tends to a deep understanding and favours far-reaching structural changes in direction of a more resilient, flexible and risk-minimising energy system.

Examples

Some examples of type 4 are:

- Individuals involved in energy market newcomers and other start-ups, who are ambitioning to transform the energy system (for instance, at the local scale), through renewable energy sharing/exchange or flexible markets aimed at optimising production and consumption.
- Individuals who are willing to support the creation of energy sharing communities or neighbourhoods through the organisation they are involved in, with a concern for the “common good” at all the stages of the process.



Empirical insights on type 4: mapping



Figure 7: Geographic distribution of cases assigned mainly to type 4

27 cases are assigned to type 4 in the mapping, so a bit less than for the type 3. The distribution of the cases among the European countries varies significantly for this type 4, which is particularly represented in Germany and Denmark, with respectively 5 and 4 cases assigned to this type. Type 4 is assigned to 1-2 cases in most of the countries (Ireland, UK, Sweden, Finland, Latvia, Lithuania, Poland, Slovakia, Hungary, Austria, Switzerland, Bulgaria and Spain). It is not represented in Belgium, Italy and France.

Exemplary cases

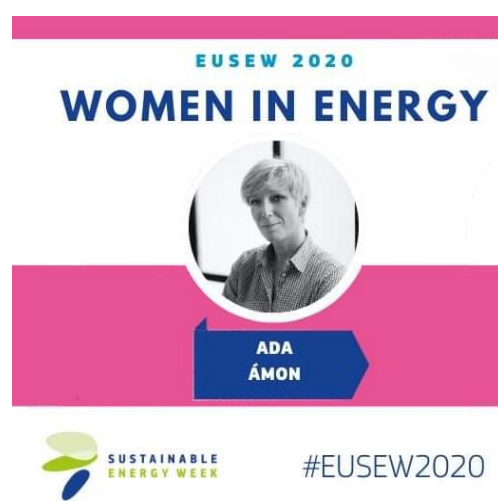
Holger Laudeley in Germany



Holger Laudeley is often described as "Mr energy Transition" or as the "Phovoltaic Pope". He's an engineer that founded his company in 1982 "Laudeley Betriebstechnik" in the field of media technology. In the mid-1980s, the company began to focus on regenerative technologies. Initially, Laudeley's company mainly renovated flats and company buildings for energy efficiency. In the early 90s, the company also built low-energy and passive houses. He's claiming for more individual energy autonomy for the individuals and

launched 25 years ago the first solar PV plug-in modules to install on the balcony that can provide 10% of the electricity consumption of the household and reduce its carbon footprint. The company's self-developed company building is still considered a showcase project today, as it produces virtually no energy costs. Furthermore,) Holger Laudeley and his team develop state-of-the-art products and services in the field of renewable energies. This is a case exemplary for type 4 since Holger Laudeley can be considered as a pioneer in the field of the development of alternative renewable energy solutions that enable people to take part in the energy transition by renovating their house according to high energy efficiency standards and to get more energy autonomy - and consequently adopt practices that support ENC.

Ada Ámon - Women in Energy EUSEW award winner in Hungary



Ada Ámon, energy and climate policy expert, was one of the winners of the European Sustainable Energy Award for Women in Energy in 2020. She founded the influential clean energy think tank EnergiaKlub and has been working as a senior expert at E3G and other energy and environmental organisations. Through her latest role as Chief Advisor to the Mayor of Budapest on Climate Affairs and head of the city's newly established climate department, she is now changing the lives of communities in Budapest. Her progressive programme of renovating urban buildings to lower their energy consumption will not only reduce greenhouse gas emissions, but also bring energy savings and lower costs for residents, as well as cleaner air for the city.

Ada is working to ensure that energy efficiency is a key issue for policies and that citizens are involved in the transition to clean energy. She also intends to give citizens a direct say in deciding what environmental measures should be implemented in their city.

Hörmann's Hydrogen house in Germany



The Hörmanns are owners of a photovoltaic company and they work every day to implement the latest technical possibilities in the field of renewable energies. They therefore wanted to build their new private house as energy-efficient as possible and use the solar energy from the summer also in the winter. They implemented a concept for the long-term storage of solar energy using hydrogen. With this concept, it is possible to

completely cover the energy demand of the building with photovoltaic systems on the roof and facade and a hydrogen storage unit even in winter. On sunny days, excess solar energy is stored in a battery and hydrogen is produced, which is later converted back into electricity using a fuel cell. The main "waste product" is heat, which is used sensibly in the house for heating and hot water. The heart of the hydrogen house is a module with an electrolyser and fuel cell. The electrolyser produces hydrogen, while the fuel cell generates electricity and heat for the house as needed. To show what the system can do, they decided to do without an electricity connection. The newly built house has been running completely self-sufficiently since December 2018 and there is still enough electricity to power several electric vehicles.

This is a case from type 4 of ENCI since the Hörmanns have developed a fully autarcic house by combining technologies, and they offer these solutions now to other citizens who would like to follow their example.

Uncertain or challenging cases

Amadeus Wittwer in Switzerland



Amadeus Wittwer is the founder and executive director of the Swiss Energy Cooperative and has been involved in the Swiss energy transition for many years. He was also substantially contributed to two films on the topic of the digital commons and activities under the title "Energiewende JETZT!"

The individual in this case has been involved in the Swiss energy transition for several years and pioneered multiple projects to provide the socio-technical infrastructure for more PV (electricity commons, pv crowdfunding).

Why uncertain?

This case fits the type 4 description and characteristics with the exception of the environmental sustainability aspect, which is not yet considered by it. For this reason, it is, to some extent, a borderline case between the reformative/transformational dimension.

EFriends in Austria



The eFriends is a community that shares regionally generated green electricity with each other. eFriends are either electricity producers (for example, because they operate a PV system on their roof) or electricity consumers. The revolutionary eFriends technology is installed in the meter boxes of their houses and flats. Via the eFriends app, they find and connect to each other and decide from whom they want to buy electricity or to whom they want to deliver surplus electricity and at what price.

It is a case of energy citizenship of type 4 because citizens are involved in a start-up/ company that tries to transform the energy system by enabling people to share/ sell the renewable energy they produced but are not using with others who participate in the eFriends system.

Why uncertain?

The case has been considered as transformative basically considering its high contestation of the current energy system. For the other criteria, it is “medium” (for equity and justice and environmental sustainability) and even “low” for the citizen power/ control, since “the case does not really provide citizens with options for voicing their views or taking part in decision making processes”, which is true at the organisational scale (i.e. that of the energy sharing system configuration) but does not prevent the users from exerting an effective control privately. The assignment to the type 2 as a secondary types underlines the key importance of the perspective adopted to assign a case a certain type: “there is the perspective of individuals in an organisational setting, namely the founders of the start-up, but also individuals at the household level who are producing their own energy and want to share it.” **A case can thus entail various forms of energy citizenship depending on the perspective adopted to describe and analyse the case. This confirms the relevance of the typological approach to account for the diversity of forms of ENCI that can be encountered in empirical cases.**

Chapter 4: Public ENCI: from “Make their voice heard” to “Make their vote count”

Type 5: “Make their voice heard”

Participating in societal energy discussions

Type 5 conceptual profile

Agency

Type 5 refers to individuals who engage publicly towards energy transition by expressing their voice and expecting their voices to be heard. This type encompasses a range of more or less active ENCIs.

Acting within the general framings of the deliberative democracy, this type comes mostly into being through (1) legally prescribed consultations in which citizens are invited to express their views on energy transition in general, or regarding a specific project or initiative; (2) long-lasting and often institutionalised consultative agencies or committees, in which selected citizens are invited to get access to information and express their concerns on energy-related issues; (3) digital participation platforms that are adopted as regular consultation and (limited) proposal-making citizen bodies. It encompasses also public individuals that intervene in and give shape to the public and political debate around the climate-energy transition.

Personal and identity engagement

By participating in such deliberative processes, some citizens become a lot more aware of energy transition issues, and as a result, they might engage themselves actively in ENCI thereafter through other means than sole deliberation. Similarly, politically engaged individuals tend to raise public awareness and consequently the potential for commitment. Also, type 5 can represent an intermediary stage towards more committed ENCI forms.



Outcome-orientation
Reformative
Incremental change

Constrained by the very framing of the political debate or, more specifically, that of the consultative or deliberative process (notably because the mode and scope of participation are mainly predetermined by the incumbents — projects managers, political actors, etc.), this type of ENCI is mostly on the reformative side and aims at taking part in incremental changes. These forms of citizen participation from above (or “top down”) tend to enhance acceptability and acceptance of certain measures. Most of the time, citizens are asked to react to plans and measures developed by experts, which already implies information and power imbalances.

Low energy democracy

Citizen voices are not powerful enough to become mandatory. Consequently, the control and governance of the process is not in citizens’ hands, though they can influence further developments (depending on the aim and design of the participation process).

Empowerment

Within the processes themselves, citizens empowerment remains limited. However, deliberative procedures may also provide unintended consequences, for instance when the debates escape from the predetermined and closed space of what can be discussed. Local legal-compliant consultations regarding energy projects sometimes result in an enlarged scope and a re-appropriation of the process by citizens.

Energy justice

Designed to foster acceptance, the processes related to this form of ENCI consider energy justice in a formal-procedural and, consequently, often limited way. Generally, the ways participants are selected and the information they receive indicate the considerations given to energy justice — which is, for instance, deeper when participants are chosen by drawing lots and are informed by a diverse panel of experts.

Environmentally shallow

In such processes environmental concerns are either taken for granted or considered as constraints to overcome, which does not leave much space for deep environmental ENCI.



Examples

Some examples of type 5 are:

- Citizen consultations, fora, etc., i.e., events in which citizens are “invited” to express their view on the national energy policy or a specific local project.
- Institutionalised consultative committees such as the local information commission (CLI) and/or the local information and monitoring committee (CLIS) in the surroundings of the French nuclear plants.
- Digital consultation platforms such as Decidim (Barcelona), which has been adopted in several other European countries.



Empirical insights on type 5: mapping

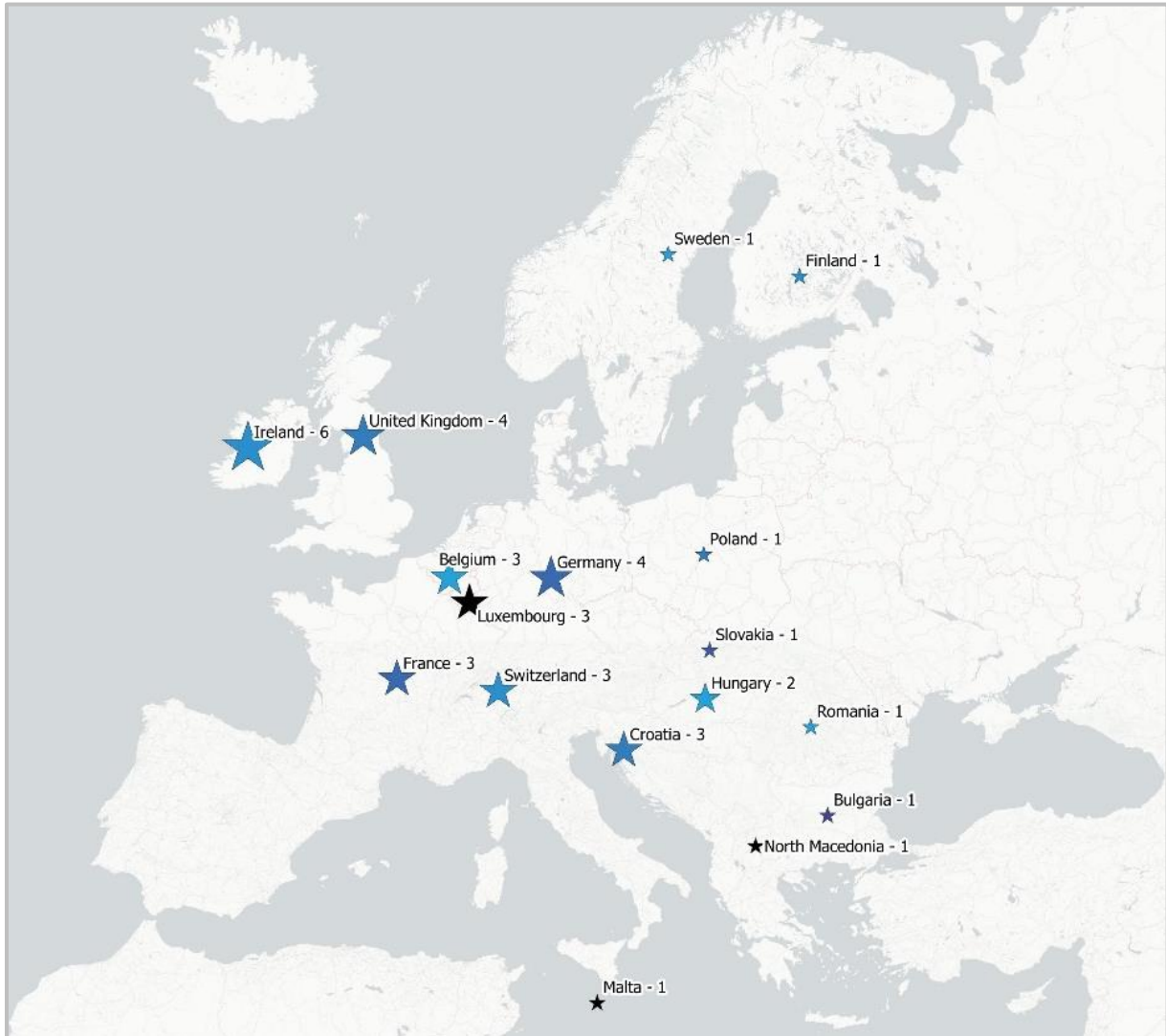


Figure 8: Geographic distribution of cases assigned mainly to type 5

The 39 cases assigned to type 5 are rather well distributed across Europe, with noticeable absence of this type for the Netherlands, Spain, Portugal and Italy. Type 5 is particularly well represented in Ireland, the UK, France, Belgium, Luxembourg, Switzerland and Germany, with at least 3 cases in each country assigned to type 5. For this type, the number of cases from Eastern Europe is noticeably lower than for the other individual types.

Exemplary cases

Citizens' dialogue on the power grid in Germany



The Citizens' Dialogue on the Power Grid stands for an open and transparent exchange on the complex issues of the energy transition and the expansion of the electricity grid in Germany. To this end, the internet site provides information as a neutral body and offers a wide range of information and dialogue opportunities. The purpose is then to conduct a broad-based dialogue on grid expansion as part of the energy transition.

The citizens' dialog on the renewed power grid is thought to be inseparable from the energy transition and the growing share of renewable energy in the mix. The dialog intends to furnish transparent information to the citizens, provides an open platform to raise their questions and organises numerous events. Thus it enables a large citizen participation toward the upcoming energy system.

Our mobility plan for tomorrow in Luxembourg



The aim of the mobility plan is to outline the infrastructure and transport services that are needed to guarantee mobility in the city of Luxembourg. In that framework, an online public consultation was organised between October and November 2021. 8,482 citizens participated at this consultation. Although this is definitely not a manifest case of ENCI, it is a latent one of type 5. This

consultation seeks to find public-supported solutions for an easy access to both the city centre and its surrounding urban areas by a sustainable inner-city transport system that includes appealing and energy less-intensive travel options than driving. To that end, it should be possible to make most journeys using eco-mobility transport modes as part of an efficient public transport network with innovative travel solutions. In addition, commuters should be able to easily reach the capital and move around the city using eco-mobility transport options without losing too much time on their way to their destination.

Citizen consultation on wind power in Habay in Belgium

Consultation des Citoyens de Habay - Bulletin de vote

Mon code unique à reproduire ici :

1. Êtes-vous favorable à un projet éolien sur la territoire de la commune de Habay ?

OUI () NON ()

2. Êtes-vous favorable au projet de 4 éoliennes porté par la société EOLUX (Lussembourg) installé entre l'église de Habay et l'école ?

OUI () NON ()

3. Êtes-vous favorable au projet de 2 éoliennes porté par la société EOLUX (Lussembourg) installé sur les terres agricoles de Neuhouffert ? (projet refusé au 22.03.2021)

OUI () NON ()

4. Êtes-vous favorable au projet de 7 éoliennes porté par la société ASPRAVA, installé au long de l'É41 entre Houderport et l'église ?

OUI () NON ()

5. Êtes-vous favorable au projet de 8 éoliennes porté par la société STORMA, installé entre un champ et l'église de l'école ?

OUI () NON ()

6. Êtes-vous favorable à un autre projet éolien sur un autre site que ceux présentés précédemment ?

OUI () NON ()

7. Êtes-vous favorable à un soutien financier communal dans le cadre d'un projet éolien sur Habay ?

OUI () NON ()

At the end of 2021, the local council of Habay (province of Luxembourg) organised a citizen consultation open to all inhabitants aged 16 or over. The citizens could vote for or against 4 wind projects by paper or electronic vote. Participation in the consultation was not compulsory and the results (62% against) are not binding.

This citizen consultation is a manifest type of ENCI because it explicitly aims at involving citizens in local wind energy projects development.

Uncertain or challenging cases

DOOR – Society for Sustainable Development Design in Croatia



DOOR is a civil society organisation of experts devoted to the promotion of sustainable energy development, founded in 2003. Today DOOR has more than 50 members and seven employees. They have successfully

implemented more than 100 projects with goals ranging from climate change mitigation, encouraging citizens' participation in sustainable energy policy-making, improving education about renewable energy sources and alleviating energy poverty. Within its projects, DOOR has organised more than hundred workshops, round tables, trainings, conferences and other public events attended by several thousand participants, published a dozen manuals, and established continuous cooperation with numerous organisations from Croatia and abroad. DOOR's vision is of a society competent in the field of sustainable energy, in which the public takes part in delivering, monitoring and evaluating public policies and energy plays an important role in social and economic development and decreasing poverty. The researcher considers DOOR a leverage to energy citizenship. It facilitates the energy transition through empowering citizens to participate in sustainable energy policy-making and raising awareness of the existing opportunities for sustainable energy consumption and for reducing carbon footprint of consumers. Citizen engagement and adult and youth education on sustainability issues related mainly to energy are at the core of DOOR activities.

Why uncertain?

The case has been categorised as high for the citizen control, since DOOR gives opportunity to citizens and other stakeholders to take part in adopting public policies in the field of sustainable energy development. Similarly, equity and justice issues are categorised as a high concern, considering that one of the main issues DOOR is working on is alleviating energy poverty in Croatia. The case is also assigned to the ones that are highly contesting the energy system, since in accomplishing its mission, DOOR advocates the preservation of the environment.

However, the case is given the score 25 on the pragmatic/transformativ scale, since „DOOR aims to bring more pragmatic change by engaging citizens in concrete projects and activities, making citizens knowledgeable about the sustainable energy development”, which explain its assignment to a reformative ideal-type. However, though assigned a reformative type, this case tends to be transformative for various aspects, and is somehow at the threshold between reformative and transformative.

Type 6: “Make their vote count”

Mobilising votes for energy transition

Type 6 conceptual profile

<i>Agency</i>	This type refers to individuals who are taking part publicly and vote in decision making processes related to energy transition. Grounded on the basic principle of citizenship in a democratic context, this type encompasses some passive forms as well as very active ones, and can mobilise late adopters as well as frontrunners. It does also encompass publicly engaged individuals that are significantly shaping the political debate on energy transition and sustainability issues and therefore that are impacting the democratic processes.
<i>Personal and identity engagement</i>	Consequently, this type of ENCI, though relating on the idea of “making one’s vote count” may go far beyond the sole act of voting. It depends on a sociotechnical and sociospatial and democratic context, and especially on the ability of collective and organised groups to open up the political space for alternative choices.
<i>Outcome-orientation</i>	This type proceeds from the most traditional forms of citizen engagement and participation in democratic contexts, since it consists in the ability of citizens to make their perspectives and convictions taken into account through voting. By giving citizens the final say in voting, democratic processes aim to make the majority of citizens prevail, which at least theoretically opens up the possibility for radical changes in policies. Whether through a national or local referendum on energy transition issues, or in the course of national or regional elections, citizens are entitled to vote in favour of one or another energy transition proposal and thus to decide collectively about (parts of) their energy future. Therefore, this type requires an appropriate “political offer” that can be conveyed by publicly-involved individuals and that enables the citizen to opt for a transformative and system-contesting orientation (e.g., by voting for the re-municipalisation of the grid property and management at the local scale).
<i>Transformative</i>	
<i>Radical change</i>	
<i>Contestation of current energy system</i>	
<i>High energy democracy</i>	From the concerned individuals’ point of view, this type of ENCI entails a high degree of energy democracy.



Empowerment

Within this type of ENCI, citizens tend to consider themselves as empowered, since their votes count and decisively impact on the decision-making process. However, empowerment here depends on whether the voting options are framed to allow for the manifestation of truly diverse opinions. These framings can stimulate a perception of empowerment or one of disempowerment.

Energy justice

Relying on the procedural equity “one citizen, one vote”, this type of ENCI conveys a formal consideration for energy justice, which can become actual according to the specific context in which citizens are embedded.

Different environmentally orientation (from shallow to deep)

Just like energy justice, a deep environmental sustainability orientation is part of the space of the possible choices in that type of ENCI, yet it still has to be enunciated as such — which is seldom the case in “normal” general elections — but more conceivable at the local scale or in a referendum process. This type encompasses the whole continuum from shallow to deep environmental sustainability.

Examples

Some examples of type 6 are:

- Citizens’ votes are directly targeting climate and energy transition issues (e.g., if climate-change and energy transition have been put at the centre of political debate in the context of a general election campaign).
- Citizens decide by referendum for a specific energy transition pathway (for instance, at a local or regional scale)³.

³ The referendum here is not assumed as a “consultative” procedure (which would refer back to type 5), but as one with a binding effect.



Empirical insights on type 6: mapping

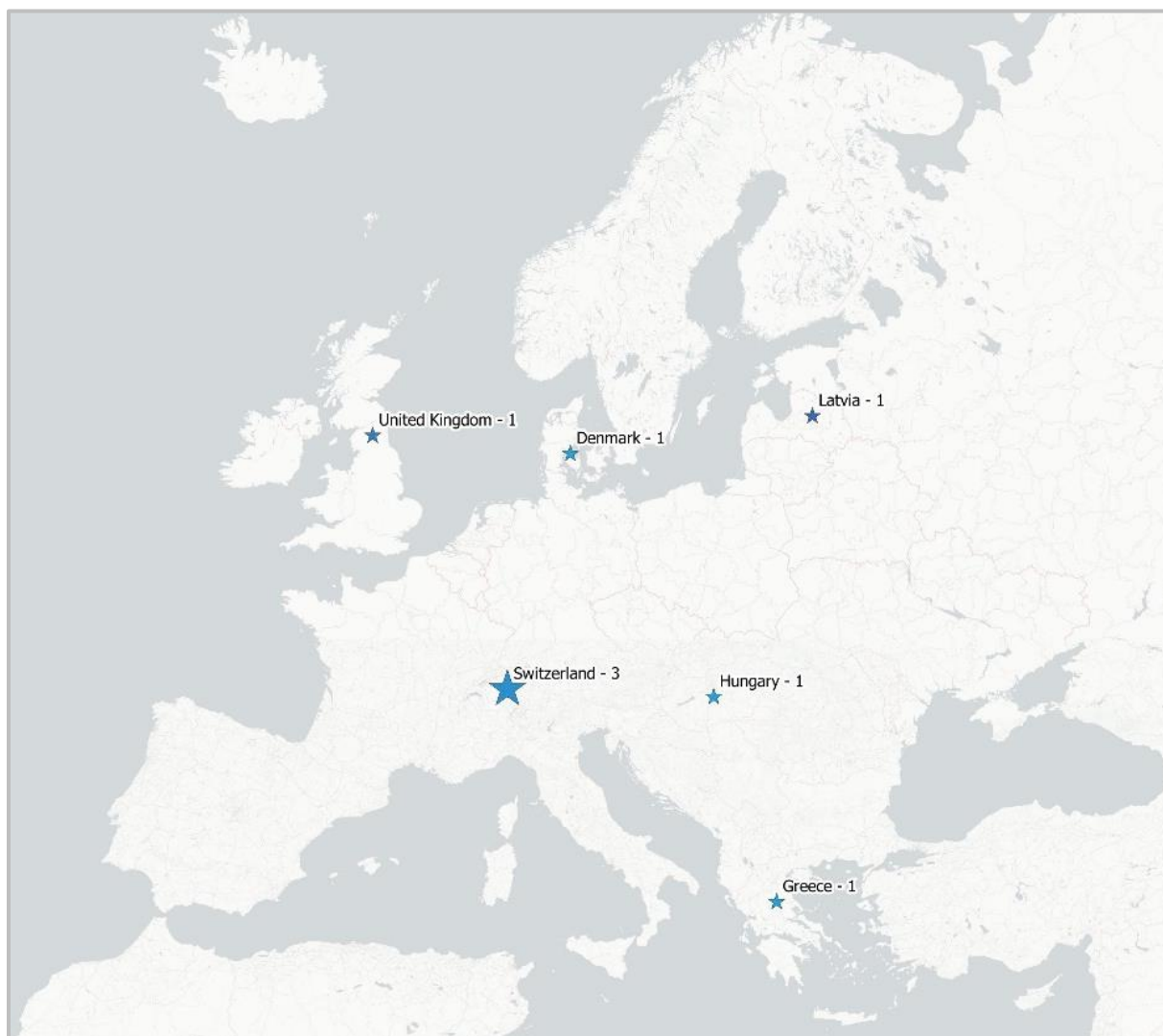


Figure 9: Geographic distribution of cases assigned mainly to type 6

Only six cases are assigned to type 6 in the mapping, which is low but this number is potentially understandable with regards to the requirements associated with the transformative side of the individual-public agency. The type 6 is mapped within a very low number of countries: Switzerland is the most represented country with 3 cases, whilst the UK, Hungary, Latvia, Greece and Denmark assigned type 6 to one of their cases. Considering the focus on the citizen vote, this result is reasonable, since Switzerland has the widest tradition of use of the referendum in whole Europe. Still, it must be kept in mind that the mapping activity was not designed to include each and every case of ENCI in Europe. At the same time, researchers were asked to aim for diversity of ENCI in the countries assigned to them (Vadovics et al, 2022), so the number of cases assigned to each ideal type is indicative of the prevalence of cases in countries.

Exemplary cases

Energy Strategy 2050: Referendum on the Energy Act in Switzerland



On May 21, 2017, the Swiss Energy Strategy 2050 was approved in a nationwide referendum. The strategy comprises a package of measures designed to ensure the country's long-term supply of electricity against the backdrop of the planned nuclear phase-out and to reduce Switzerland's dependence on imported fossil fuels. It includes measures to increase energy efficiency, reduce CO2 emissions, promote renewable energies as well as a ban on permits for new nuclear power plants.

The case constitutes the setting for a prominent form of citizen engagement in the energy domain in Switzerland. Apart from other forms of engagement (informing oneself about the proposed policy, participating in discussions, participating in voting committees), the core of citizen participation in this context consists of casting a vote for or against the proposed law. In the case of the Energy Strategy 2050, 42% of eligible voters (all adult Swiss nationals) cast a vote and approved the Energy Strategy legislative package with a 58% "yes" vote. As such, it is clearly a type 6 of ENCI.

Citizen Assembly in Denmark



The Danish Citizen Assembly on Climate aims to involve a representative sample of the Danish population in the development of Danish climate policy. The Citizens Assembly consists of 99 members, selected on the basis of simple criteria such as age, gender, geography, education and income, in order to best represent the Danish population. The task of the members is to debate and make recommendations on dilemmas related to climate challenges, so that citizens can have their voices heard in the development of climate policy.

The case represents the active citizen involvement in shaping the climate policy and can be assigned to type 6.

Uncertain or challenging cases

Climate Election 2022 in Hungary



The case is about a consortium of NGOs who started a campaign to promote that all parliamentary election candidates who are running in the 2022 elections in Hungary should commit and sign the 7 point green agenda developed by the consortium. It raises awareness on the programme of the candidates and it also tries to shape it through the promotion of the 7 green points, as the candidates commit to what they will implement once elected.

Why uncertain?

The case is transformative in the aspects of environmental sustainability and challenging the current system, mainly through the promotion of the 7 green points and asking candidates to sign up and commit to it. These are transformative especially in the particular socio-economic and political context of the case. At the same time, the 7 green points – although developed by NGOs – were not created with citizen involvement, but citizens can exert control through their votes for candidates, and the justice/equity aspect of the case is also considered “low” as the word justice appears only in one of the agenda point, so it is not in the main focus of the case.

Part 2: Collective ideal-types of Energy citizenship

Chapter 5: Citizen-based and hybrid ENCI: from “do their share” to “go ahead”

Type 7: “Do their share”

Joining energy transition projects

Type 7 conceptual profile

Agency

Type 7 mostly takes the form of a collective assembled by citizens and/or other-than-citizen actors, notably NGO, public authorities and private actors. These often heterogeneous agencies give shape and enact citizens’ willingness to be part of the energy transition along with or guided by other sorts of actors. So, type 7 refers to the many ways through which citizens are collectively involved in the energy realm, e.g., by getting involved in a local climate-energy plan or by taking part in renewable energy projects in which local citizens are offered to buy some shares (though remaining a minority shareholder group). This type is mostly on the active side of ENCI.

Personal and identity engagement

The “do their share” type results obviously from the aggregation of the “goodwill” of citizens who are eager to do their part for the energy transition, but are little inclined to high time-consuming and deeply engaging commitments in energy-oriented collectives.

Outcome-orientation

This type of ENCI rests upon the idea that those committed in the collective are “doing their part” for energy transition, mostly through compliant forms of participation, assigning type 7 to the reformative side.

Reformative

Incremental change

The “do their part” type encompasses incremental changes of many sorts, notably those induced by significant changes in the living conditions of local population (through building renovation for example), by the development of new business models such as the local energy markets or that of renewable energy thanks to public and/or private and citizen fundings



Confirmation of the basic principles of the current energy system

The related energy transition realm in which citizens are entitled to get involved remains a little system-challenging. Within such multi-actor collective agencies, multiple goals and perspectives are entangled, such as profits, reputation, political considerations, and so on, which contribute to confine this type of ENCI to a confirmation of the basic structures of the current energy system. Moreover, such agencies may even lead to a sort of instrumentalisation of ENCI, in which local citizens are entitled to become shareholders to foster local acceptance of a project or to give some facade democratic legitimacy to „top-down” projects driven by financial or political interests.

Low energy democracy

The energy democracy potential associated with this type of ENCI is low, notably because it is embedded into quite closed (and mostly “top-down”) frameworks that are including the possible (minority) participation of citizens and/or inhabitants. Therefore, the projects or initiatives composing this type are seldom in the hands of the citizens, limiting the depth of induced energy democracy.

Empowerment

Consequently, the citizens’ engagement of this type cannot be seen as highly empowering, since it does not allow citizens to exert a real control over the process or project — even if they are embedded in a (rather anonymous) collective.

Energy justice

Similarly, energy justice issues are given little consideration here, especially when participation is conditioned by a financial contribution that is not affordable for the less wealthy. Low consideration for energy justice also appears in a series of restrictive conditions for the citizens to get involved, such as the place of residence, being a houseowner (and not a tenant), and owning many high-tech appliances.

Environmentally shallow

This type of ENCI induces a shallow environmental concern, since the focus is primarily on energy issues, whilst the environment is often either presumed or simply neglected “in the name of” energy requirements.

Examples

Some examples of type 7 are:

- Citizens as minority shareholders in a wind or solar farm project (launched by a private company and possibly with public support), and in which only local inhabitants are entitled to buy shares (notably to foster local acceptance).
- Citizens' participation in a process that enact governmental public policy at the local scale according to a legal framework (e.g., Energy-climate territorial plan in France or PCET), which defines both the requirements and limits of citizen participation, while decision-making remains in the hands of local authorities. According to their characteristics, some energy communities can also belong to this type.



Empirical insights on type 7: mapping



Figure 10: Geographic distribution of cases assigned mainly to type 7

115 cases are assigned to type 7 in the mapping, which makes this type the second most assigned within the mapping (next to type 8 – see below). This type is represented in all the countries for which cases were mapped, and particularly in Hungary (14 cases), Latvia and Netherlands (11 cases), Slovenia (6 cases), Lithuania, Portugal, Spain, Austria and Germany (5 cases). Surprisingly, few cases of type 7 are mapped for France, Sweden, Finland, Czech Republic and Slovakia (1 case) and none for Ireland.

Exemplary cases

İsbike in Turkey



In addition to recreational and sporting use, bicycles can be integrated into the city's transport network, and a sustainable smart bike-sharing system can function as an alternative transport model. Users can rent a bike from one İsbike station and leave it at another; this form could help to replace short trips 3-5 kilometres. İsbike system was developed by İspark, a company of municipality of Istanbul,

with the broad aim of implementing projects that contribute to reducing urban traffic, with a focus on parking issues.

İsbike's slogan is "Healthy Living and Environmentally Friendly Transport", which is what they strive for in their work. By making cycling an everyday activity, they offer a sustainable transport alternative that contributes directly to less air pollution and a healthier urban environment by reducing traffic jams and the pressure on public transport.

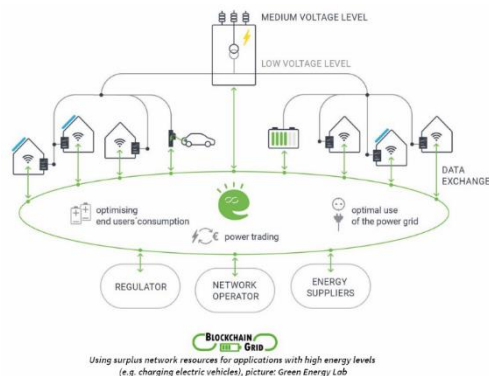
Pedia – Education in Cyprus



An innovation project exclusively for schools in Cyprus. A total building upgrade project for quality education. A project for sustainability and the environment in the school environment. "The PEDIA project (Promoting Energy efficiency & Developing Innovative Approaches in schools) is the first project that comprehensively approaches the needs of school buildings in Cyprus to transform them into Near Zero Energy Buildings (NZEB), while seeking to address chronic and long-standing problems such as heating, air conditioning, lighting and ventilation. The PEDIA project, funded by the EU and coordinated by the Cyprus Energy Office in cooperation with the Environment and Sustainable Development Education Unit of the Ministry of Education, Culture, Sports and Youth, will undertake a wide range of actions aimed at improving the energy efficiency and comfort conditions of at least 25 public school buildings in Cyprus, thus contributing to the achievement of Cyprus' national and European energy and climate objectives.

This is a case of type 7 which is a collaboration of many organisations/agencies in Cyprus that run an innovative project exclusively for Cyprus schools. A total building upgrade project for quality education. A project for sustainability and the environment in the school environment. The project offers also education materials for pupils on raising awareness on energy efficiency and wider energy generation and climate change/mitigation.

Blockchain Grid (LEAF projects 1 and 2) in Austria



Blockchain Grid aims at turning the conventional approach of most congestion management approaches for distribution grids upside down. The project does not consider how to deal with excess utilisation, but rather how to make most use of remaining free grid resources (time-varying power and voltage bands) to the merit of prosumers. This approach is enabled by the high level of trusted automation provided by Blockchain technology. In particular, the approach is to implement a distributed Blockchain-based application that enables prosumers themselves to share free grid resources for their surplus generation and load, whereas the distribution system operator acts as a facilitator. Since autumn 2017, the southern Styrian municipality of Heimschuh has been the scene of a showcase project for local energy communities. As part of the "LEAFS"2 research project, a central community storage facility for photovoltaic electricity was built here. Local residents can feed their self-generated solar power into this

storage facility and then retrieve it when they need it.

This is a case of ENCI since the project aims at optimising the renewable energy use by enabling the storage of the PV power and facilitating the share of the renewable energy at the community scale. Heimschuh thus becomes one of the first "Citizens Energy Communities" (CEC) in Europe, i.e. a local energy community, with the goal of such enabling such "energy islands" to consume locally generated energy locally and thus become largely independent of external power sources. Taken as a whole, the case is of type 7 as led by a big Austrian energy company. At the participants' scale, the case remains as well on the reformative side, therefore it was also (?) assigned to type 1.

Uncertain and challenging cases

NGO Green Liberty in Latvia



Zaļā brīvība

Green Liberty is a non-profit NGO founded in 1993. Its mission is to contribute to the development of a society in which people live in harmony with each other and the environment. Green Liberty aims to raise awareness of the social and environmental consequences of current

trends in consumption, trade, and globalisation, in particular fair trade, climate, energy, and waste, by empowering people to make responsible daily life decisions and to oppose abuses of power. One of its fields of activity is climate and energy. Green Liberty is actively involved in advocacy work with national decision-makers regarding climate policy and follows European and international policy developments, e.g. Green Liberty is represented in the EU Structural funds Monitoring Committees, Committee of National Energy and Climate Plan as well as Environmental consultancy Board. The NGO is also actively promoting a climate-friendly lifestyle and working on climate education and research. Currently, Green Liberty is implementing projects on energy sufficiency, promotion of renewable energy, advocating for a strong climate law, and campaigning on climate and gender.

This NGO is actively engaging in energy debate advocating for more renewables, decarbonisation and democratisation (decentralisation) of the energy system, as well as stronger public engagement in climate and energy policy.

Why uncertain?

The green liberty case has been categorised as “high” for the citizen power and control, the equity and justice, environmental sustainability and contestation of the energy system. However, concerning the passive/active aspect, the case has been scored 76 on the related scale and 73 on the pragmatic-transformative scale, underlining that it has not been considered as fully transformative by the researcher. **This assessment fits with the assignment of the case to type 7 as a main type and type 8 as a secondary type, locating this case at the boundary between type 7 and 8.**



Type 8: “Go ahead”

Building, expanding and linking citizen-based organisational forms

Type 8 conceptual profile

Agency

Type 8 relates to a collective agency composed of citizens and/or other-than-citizen actors, notably NGO public authorities, municipalities or private actors who are engaged in pushing forward the energy transition. This type often takes its origin from a grassroots movement or a visionary organisational initiative, in which citizens are at centre of some innovative and alternative energy transition project, group or community. Many cooperatives and energy communities but also progressive enterprises or municipalities can be seen as part of this type of ENCI, whose purpose is to “go ahead” in the energy transition through direct involvement of active citizens. Consequently, this type is more inclined to attract frontrunners.

The organisational principles of this type of ENCI are meant to be as democratic as possible (e.g., the seven cooperative principles⁴) and to enable an effective engagement of the members of the collective. However, this type refers mostly to hybrid collectives, since “pure” citizens’ organisations are rarely sustaining as such, especially in the energy realm, and thus tend to hybridise with local authorities, for instance, or numerous intermediaries who contribute to the concretisation of the project(s) or initiative(s) pursued by the collective.

Personal and identity engagement

Thus, type 8 can be considered as a frontrunner form of ENCI highly embedded in supportive relations and networks that foster high social capital, knowledge and material resources. Distributed across the collective, these resources are also associated with a high degree of personal and identifying commitment.

⁴ The seven principles are: 1. Open and Voluntary Membership; 2. Democratic Member Control; 3. Members’ Economic Participation; 4. Autonomy and Independence; 5. Education, Training, and Information; 6. Cooperation Among Cooperatives; 7. Concern for Community.



<i>Outcome-orientation</i>	In this type, citizens' governance and decision-making open the possibility of transformative and radical change orientations such as promoting a decentralised and sustainable energy system, fighting energy poverty and inequalities or creating innovative local energy markets grounded on sharing principles rather than neoliberal ones.
<i>Transformative Radical change</i>	
<i>Contestation of current energy system</i>	Centred on social innovation and concrete actions to “go ahead” toward energy transition, this type of ENCI is an active and committed one. However, it can be more or less oriented toward an explicit political engagement in favour of a radical transformation of energy systems (e.g., by keeping this engagement implicit or at the local level).
<i>High energy democracy</i>	A high level of energy democracy is at the root of this type of ENCI, both as a basic principle and as an ideal to enact.
<i>Empowerment</i>	Therefore, in this type, citizens are meant to govern, control and take decisions regarding the initiative or the project throughout its evolution across time (and eventually space). Resources such as space to define and align values, articulate goals, foster specific skills and competencies, as well as connectedness and networks for concerted action are in place, which foster empowerment.
<i>Energy justice</i>	As part of energy democracy, equity and energy justice are mostly given a high consideration.
<i>Environmentally shallow/deep</i>	In a similar way, this type of ENCI generally extends its focus to deep environmental concerns, that are seen as inseparable from the energy issues.
<i>Examples</i>	Some examples of type 8 are: <ul style="list-style-type: none"> - Energy communities in which power is and remains in citizens' hands independent from the hybrid character of the collective. - Energy cooperatives and networks, especially the active ones, that promote active engagement rather than “simple” investment. - Groups or initiatives seeking for low carbon footprint



Empirical insights on type 8: mapping



Figure 11: Geographic distribution of cases assigned mainly to type 8

136 cases are assigned to type 8 in the mapping, which makes it the most frequently assigned type among all the cases mapped. Type 8 is represented in almost all the countries included in the mapping. It is particularly true for Netherlands and Germany (14 cases), Greece and Hungary (11 cases), the UK, Estonia, Switzerland (7 cases) as well as Spain and Ireland (6 cases). However, this type is rather little represented in some Eastern Europe countries such as Poland, Czech Republic, Slovakia, Croatia, Serbia, Albania (1 case), as well as Bulgaria and Lithuania (2 cases). This is also the case for some Western Europe countries such as Portugal, Sweden, Austria, Belgium, with no more than two cases assigned to type 8.

Exemplary cases

Cargonomia in Hungary



Cargonomia is the formalisation of pre-existing cooperation between three socially and environmentally conscious small enterprises operating in or near Budapest. Partners within the project include Cyclonomia Do it Yourself Bicycle Social Cooperative, Zsomboki Biokert, an organic vegetable farm and sustainable agriculture community education centre which distributes weekly vegetable boxes to food communities in Budapest, and Kantaa, a self-organised bike messenger and delivery company. Cargonomia and its partner's activities aim to display how environmentally friendly and equity-based partnerships can create sustainable and meaningful community empowerment opportunities which offer concrete alternatives to standard profit-driven social and economic systems.

Cargonomia is the crossover point between the activities of the partners involved in the project (sustainable food production, promotion of low carbon transport solutions, bicycle competency advocacy). Based on the principles of sustainability and fair trade, a primary goal is to increase access to locally produced products by promoting direct trade from local producers to consumer communities. In addition to the direct marketing of local food products, Cargonomia is also a logistics centre for sustainable urban transport solutions where community members can borrow, rent and buy our locally manufactured cargobikes. And they are also an open space for community activities which focus on sustainable transitions, conviviality and Degrowth.

Enercoop in France



Enercoop is a renewable energy supplier (“100% renewables, 0% nuclear”) operated as a cooperative for local and citizen-based action. It is governed according to democratic principles, acts against energy poverty via a solidarity fund “Energie Solidaire” (also included in the PROSPECTS database), and commits to deliver lower energy bills to its customers. Enercoop works as a

cooperative with a democratic and transparent governance, and fosters citizen-led development of sustainable energy.

Energyland2050 Association in Germany



Energieland2050 association (e.V.) was founded in April 2017 and is based in the Office for Climate Protection and Sustainability of the district of Steinfurt. As an association of 133 representatives from politics, business, science, civil society and the 24 towns and municipalities belonging to the district, it supports the district of Steinfurt in achieving its major goal: To become energy-independent by 2050 - or even sooner. It promotes civic engagement, regional value creation and public discourse on social responsibility and sustainable about social responsibility and sustainable and climate-friendly life. This case is a case of ENCI since it sets a global framing to enable the district to become climate neutral and energy independent in 2050. The case involves the citizens a lot through a series of programs aimed at empowering them to achieve the local energy transition.

Energy Cooperative Elektropionir in Serbia



Elektropionir is a Serbian energy community established in December 2019 by a group of enthusiasts involved in renewable energy production and innovative ways of civic organisation. They aim to empower citizens to actively participate in the energy transition in Serbia and demonstrate that it is possible to produce electricity in an environmentally and economically sustainable way under the cooperative principles. Their first project is to establish a decentralised network of rooftop solar power plants and solar parks collectively owned by citizens, connecting people who want to invest in solar energy. Together, all solar panels will constitute a large “virtual power plant” that will supply energy to the cooperative members, who will become co-owners of the solar PV installations. Elektropionir's objective is to install a production capacity of 25-30kWp by the end of the year.

The initiative presents an energy cooperative in Serbia and as mentioned above it aims to empower citizens to actively participate in the energy transition in Serbia and demonstrate that it is possible to produce electricity in an environmentally and economically sustainable way under the cooperative principles. All these make us consider it a relevant example of energy citizenship.

Uncertain or challenging cases

Bedminster Energy Group BEG (new BS3 Energy Group) in the UK



Bedminster Energy Group BEG (new BS3 Energy Group) is a group of volunteers working to support the community of Bedminster and Southville to act on climate change and to cut their energy bills by improving the energy efficiency of their homes. Emerging in 2012 as a sub-group of a larger organisation in the area called Sustainable Southville, BEG organises events and provides home energy assessments. Instead of relying on a single company for the assessments,

individuals from the community were recruited, some without prior experience, with the aim of supporting the local economy and increasing local knowledge and awareness. The case involves a group of volunteers working in their community for better energy efficiency in homes. The approach of conducting home energy assessments by people from the community itself shows a concern with the local community within energy citizenship activities

However, citizen control and power does not really play a role in this case. There is recognition "that many people are left out of the conversation about the climate crisis". Moreover, the goal of improving one's community and promoting expertise and awareness in the community points to a specific justice aspect that is, however, local and, more specifically, energy justice and related concepts are not mentioned. Environmental sustainability is not considered. Furthermore, there are little contestation elements to the case, with the exception of not commissioning a company with energy audits but relying on the community.

Why uncertain?

This case is categorised by the researcher as "low" for citizen power and control as well as for the contestation of the energy system. Equity and justice criterion is seen as "medium" and environmental sustainability is "not considered". However, according to the researcher, "the case is likely a type 8 as it acts as a community organisation. There is also type 1 ENCI in that the organisation enables home owners to take energy efficiency measures". **This case illustrates that the organisational aspect is considered here as decisive for the outcome orientation, and less weight is given to the bundled attributes that is meant to compose this outcome-orientation. Just like for the previous uncertain case, this aspect has been taken into account in the current formulation of the type 8 profile.**

Chapter 6: Social movements: From “Do the job” to “Make their claims”

Type 9: “Do the job”

Facilitating the energy transition through alignment activities

Type 9 conceptual profile

Agency

Type 9 refers to collective actors who aim at enhancing the acceptance and acceptability of the energy transition in a pragmatic way. They are mostly sticking to the changes promoted by policies and key actors of the current energy sector. This type encompasses very different actors, from trade unions to NGOs and some actions of climate-oriented political parties. It is characterised by more active forms of ENCI.

Personal and identity engagement

This type entails highly heterogeneous forms and degrees of personal engagement. It may correspond to some early stages of ENCI, for instance, within groups or collectives that have been recently created, and who have not yet acquired sufficient knowledge and resources to go beyond the mainstream perspectives on energy transition. On the opposite side of the continuum composing this type, social movements can be found that deliberately endorse the role of an “objective ally” of mainstream energy reform views.

Outcome-orientation

As a result of its highly pragmatic orientation, the “do the job” type of ENCI has to be placed on the reformative side, and it can prove to be efficient in terms of concrete actions and propositions towards energy transition. In that respect, the collectives who represent this type can be seen as “facilitators”, “intermediaries” or “mediators” of energy reforms between the citizens and public authorities, by enhancing dialogue toward acceptability and local compromises on energy issues.



<i>Reformative</i>	Considering that energy transition is reachable only through cumulative small steps, this type of ENCI is mostly supporting incremental change. The collectives are supporting more or less explicitly the mainstream policy views on energy transition.
<i>Incremental change</i>	
<i>Confirmation of the basic principles of the current energy system</i>	This type of ENCI tends primarily to confirm the basic principles of the current energy system. Their contributions tend to fit to the existing frameworks, whether by endorsing them or at least by adapting their action to stay in line with the mainstream views regarding energy transition.
<i>Low energy democracy</i>	Yet, this very pragmatic positioning also induces a limited contribution to energy democracy issues, due to a relative lack of critical perspectives on the energy system that are generally inducing more transformative approaches.
<i>Empowerment</i>	Consequently, though enhancing awareness and acceptability, this type of ENCI does not prove to be either directly empowering or necessarily disempowering. Particular behaviours are facilitated but not the skills or resources to effect change by defining goals, aligning them with values and interests, and creating space for ownership and decision-making.
<i>Energy justice</i>	Energy justice is not given any specific consideration within this type, and, if addressed, it remains bounded by the current sociotechnical structures of the energy system.
<i>Environmentally shallow</i>	Since this type of ENCI focuses primarily on energy issues, the environmental commitment and the respective actions often remain rather shallow.
<i>Examples</i>	Some examples of type 9 are: <ul style="list-style-type: none"> - Non-profit organisations that are promoting debate on and acceptance of transmission power-lines and grid development as a requirement for renewable energy development (Germanwatch or Renewable grid initiative in Germany). - Non-governmental or non-profit organisations committed to enhance the acceptance and acceptability of wind-power or solar farms.



Empirical insights on type 9: mapping



Figure 12: Geographic distribution of cases assigned mainly to type 9

33 cases were assigned to type 9 in the mapping, which is less than the half of the number of cases assigned to type 10. This is quite understandable since a social movement that is reformative and does not challenge the current energy system could appear to contradict itself. However, this type 9 is assigned to cases in many countries across Europe, and particularly in Belgium (5 cases). Most of the countries found 1 or 2 cases of type 9 (Norway, Sweden, Latvia, Ireland, Luxembourg, Poland, Czech Republic, Hungary, Slovakia, Switzerland, Bulgaria, Macedonia, Albania, Greece, Portugal and Spain). In the remaining countries, this type is not represented, notably in the Netherlands, UK, Finland, Austria, Denmark, Italy and Germany.

Exemplary cases

Fossil Free Sweden



Fossil Free Sweden is working to increase the pace of the climate transition. The goal is to build a strong industrial sector and to create more jobs and export opportunities by going fossil free. Fossil Free Sweden was started at the initiative of the Swedish Government in 2015 ahead of the major UN climate conference in Paris and brings together actors in the form of companies, municipalities, regions

and organisations that give their backing to the declaration that Sweden will be one of the first fossil free nations in the world. This is a case that supports ENCI in the industrial sector.

SolarAction in Switzerland



SolarAction

SolarAction is a campaign of the citizens' initiative myblueplanet, which is committed to climate protection in Switzerland. The campaign aims to increase the total area of solar panels on public and private roofs in the canton of Zurich by 1.5 million square meters (or one additional square meter per inhabitant), by 2024. To this end, it supports households, businesses and municipalities by simplifying processes for the deployment of PV systems and assisting municipalities in formulating ambitious energy strategies.

The case is to be understood as a type 9 of energy citizenship in the sense that it supports households to become more active in the construction of PV systems. Moreover, the campaign that represents the case is itself led by a citizens' movement constituted as an NGO.

Solarna Pecka in Albania



The initiative Solarna Pecka was an online crowdfunding campaign to raise funds needed to install a system of solar panels and collectors on the roof of the Visitor Centre Pecka, located in the village of the same name near Mrkonjić Grad in Bosnia-Herzegovina. The Centre is located in an old school building which was given for use to a group of enthusiasts and nature lovers in 2014, and which was then reconstructed into a centre for sustainable

tourism in this rural community.

Solarna Pecka is the first example of solar energy installation set up in the rural Bosnia-Herzegovina and one of the first crowdfunding campaigns in the country focused on RES. As such, it represents an interesting example of citizen participation in promotion and implementation of alternative solutions in electricity supply.

Uncertain or challenging cases

Dublin Cycling Campaign



The Dublin Cycling Campaign is an independent, voluntary cycling advocacy group that has been working to improve the city for all cyclists since 1993. The group lobbies local and national government to bring about improved conditions for cyclists and greater recognition of the benefits of cycling, for instance by getting the 30km/h speed limit put in place in Dublin.

There are two main aspects of energy citizenship in this case. First, the organisation works as a collective on volunteer, citizen-based nature. Second, the activities of the case aim to improve the conditions and motivate others to use their bike instead of car, which might be seen as an act of energy citizenship.

Why uncertain?

Although the citizen power aspect of the case fits the type 9 characterisation (as the researcher observes: “Citizen power/control are not addressed as an issue, the organisation works as a Limited Company”), the equity/justice as well as the environmental sustainability aspect are categorised as “medium”, and especially from the point of view of equity/justice there is a definite move towards transformative outcome orientation (“Access to the organisation is open. Justice framings are framed along the line of division between cycling groups and means of motorised transport. One of the organised campaigns concerned “Women on Wheels”, so there is an emerging gender equity aspect as well”). Finally, “when only considering the transportation system, the case strongly contests the current system through lobbying, protests and awareness campaigns, aiming at restructuring urban traffic systems towards being more bike-friendly.” **Thus, the case is a mix of reformative and transformative elements, for the time being leaning towards reformative.**

Type 10: “Make their claims”

Protesting against the current energy system

Type 10 conceptual profile

<i>Agency</i>	Complementary to type 9, type 10 refers to social movements that are protesting against the current energy system or certain forms of energy transitions, by arguing powerfully for the climate change emergency or by opposing themselves to certain policy-orientations (e.g., off-shore wind power) or to specific projects (e.g., solar or wind farms, or new power-lines) aimed at contributing to energy transition. This type of ENCI includes the most active forms of ENCI, and encompasses frontrunners and early adopters.
<i>Personal and identity engagement</i>	Though defined by a clear political positioning and shared matters of concern, this type is far from constituting a homogeneous form of ENCI. On the contrary, it may take various forms according to its scale of action (from the very local to international movements), its modes of action (such as manifesta-tions, direct action, public campaigns, protest networks, occupying movements, and so on) and its main focus. Yet, it is mostly a type that induces a high personal and identity engagement, as in any social movement.
<i>Outcome-orientation</i>	This type of ENCI refers to collectives who are engaged in social movements, thus deploying very explicit and transformative political claims regarding energy transition. Yet, with regard to everyday life practices and fostering the energy transition process, the performativity of this type remains uncertain and hardly assessable.
<i>Transformative</i>	
<i>Radical change</i>	The “make their claims” type is the most visible type of ENCI, at least within the public space, and all the more since it is opting for radical changes. As such, it turns ENCI into a highly political matter.
<i>Contestation of current energy system/</i>	This type of ENCI is mostly contesting the main characteristics of the existing energy system and claiming for major transformations such as its decommodification, (re)nationalisation and/or drastic decentralisation.



<i>High energy democracy</i>	In line with these radical views on the transition of the energy system, energy democracy represents a key issue for such collective forms of ENCI.
<i>Empowerment</i> <i>Energy justice</i>	Demands for empowerment and energy equity and justice are consubstantial with this type of ENCI, in that they are the basis for their claims.
<i>Environmentally deep</i>	This type of ENCI is also deeply involved with environmental sustainability, and addresses both local critical environmental problems and global issues such as climate change. However, this type is also the one in which the ENCI realm proves to be potentially highly controversial, for instance, when environmental concerns are highlighted as being incompatible with the development of renewable energy (e.g., wind turbines endangering the migration of birds) or when the modes of action are splitting public opinion.
<i>Examples</i>	<p>Some examples of type 10 are:</p> <ul style="list-style-type: none"> - Climate protest movements such as Friday for future, Extinction rebellion. - Protest movements against the construction of new power-lines in Germany, that are claiming for a more decentralised and participative energy transition. - Anti- or pro-nuclear movements. - Protest networks against certain forms of producing renewable energies (e.g., due to environmental or health concerns) such as wind or solar farms.



Empirical insights on type 10: mapping

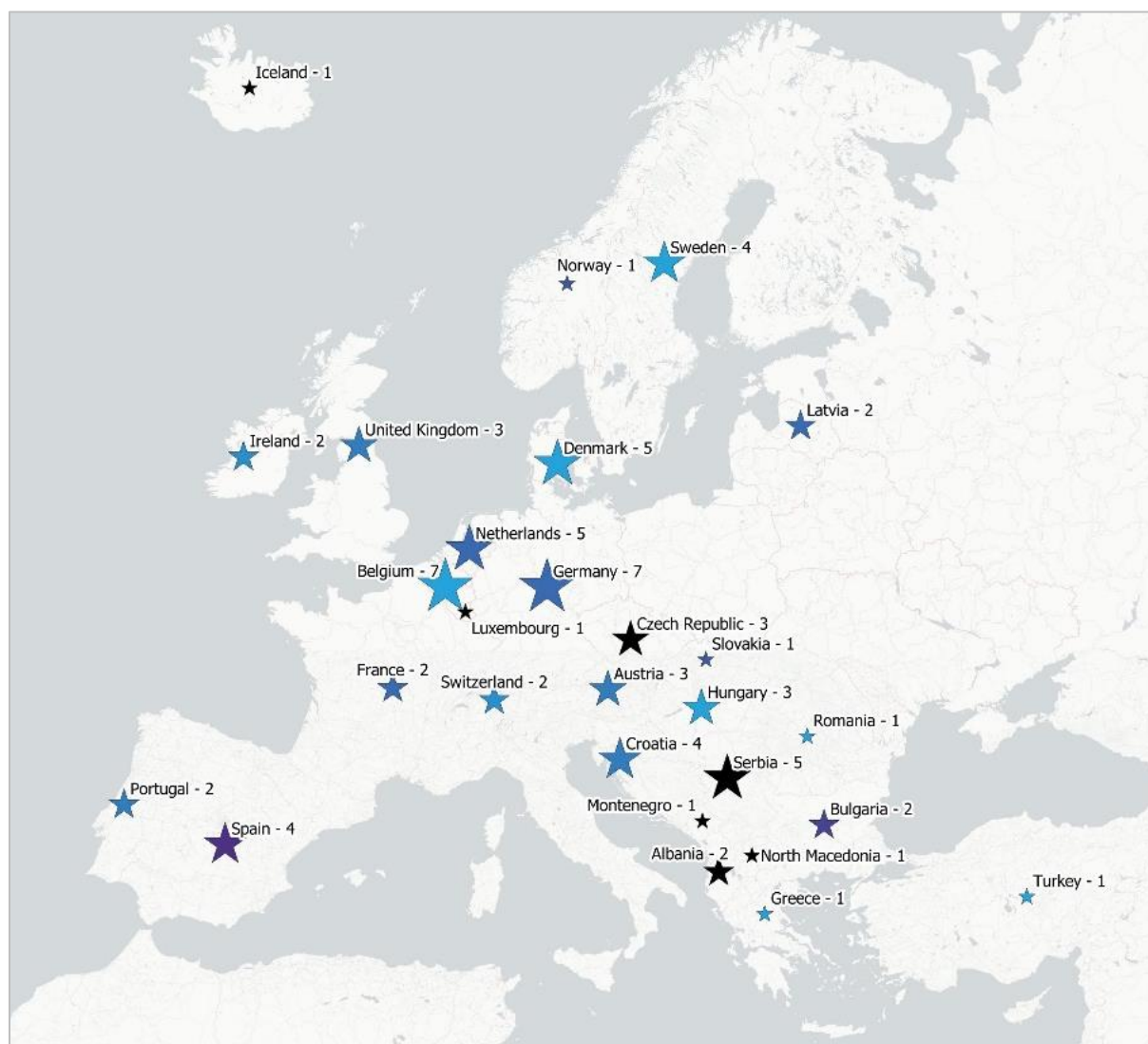


Figure 13: Geographic distribution of cases assigned mainly to type 10

76 cases were assigned to type 10 in the mapping and the type is very well distributed across Europe. Type 10 is particularly well represented in Germany and Belgium (7 cases), Netherlands, Denmark and Serbia (5 cases), Spain and Sweden (4 cases). It is also interesting to note that some movements, e.g., Fridays for Future, or Extinction Rebellion were mapped in quite identical ways in several countries across Europe, representing both Western and Eastern countries.

Exemplary cases

Fridays for Future – Latvia



The Fridays For Future (FFF) movement aims to draw public, media and political attention to the climate crisis through climate strikes and marches. FFF insists that politicians listen to the scientists and develop policies that are in line with the Paris Agreement and urges for immediate action to mitigate emissions and adapt to changing climate. It also stresses global climate injustice and rights of the future generations. Fridays For Future is an informal public movement aiming to draw public, media and political attention to the climate crisis through climate strikes and marches which are part of the direct action civic activities. Specifically aiming to engage children and young people thus addressing the question of future generations.

Women's Resistance against Hydroelectric Power Plants in Turkey



Since the 1980s, Turkey has privatised many riverside areas and built hydropower plants, which, in addition to environmental problems, has made life unpredictable for local people. This process has particularly affected the Black Sea Region, where it has had a major impact on the opportunities for women in agriculture. This process has triggered movements in local communities against private, small-scale, river-based hydropower.

As a result of villagers' protests and legal struggles, several areas have been successfully declared protected. Women have played a particularly important role in the movement and have usually been left out of the consultation process, despite the fact that their lives and work are primarily affected by the investments. Recent studies by ecofeminist perspective refer to the interrelations between gender, environment/nature, natural assets, commons and environmental movements while also discuss the global role of women within the biodiversity protection.

Break Free Switzerland



Since 2015, the activist collective Breakfree Switzerland has been organising civil disobedience actions to protest fossil fuel energy use and production in order to fight climate change. Many of its actions have intended to expose Swiss banks' investments in fossil fuel development.

Break Free Switzerland empowers citizens to take actions against climate change and for climate justice, so it is a transformative form of ENCI. Since it is a social movement, it exemplifies particularly well the type 10.

Uncertain or challenging cases

North Kerry wind turbine awareness group NKWTAG in Ireland



The North Kerry Wind Turbine Awareness Group is a group of local residents and one of the leading voices opposing wind farms in the Northern Kerry region. To this end, it organised petitions, holds information events, and makes appeals in the legal permitting process. The case includes individuals from local civil society who are strongly and publicly engaged around an energy-related issue. However, the engagement does not necessarily concern an intended change, but rather a preservation of the status quo (prevention of wind farms), which could make the case a borderline case of ENCI according to our definition. Nevertheless, the case shows ambitions of democratic co-determination.

Why uncertain?

This case is categorised as “medium” for 3 criteria:

- citizen power and control: “First, the group does not appear to be constituted as a hierarchical organisation, which suggests a certain form of democratic co-determination. However, the organisational form could not be conclusively determined. Second, the case’s concern was also viewed as such by the Kerry County Council - as a democratic institution (opposition to wind farms). In this respect, the case claims that “If this wind farm is allowed to proceed it will be a denial of democracy”. Thirdly, the case was able to raise the concerns of the citizens within the legal system and have finally been heard. However, the case does not involve a formal and strictly binding effect of majority citizen decisions, so it is classified as medium”

- equity and justice: “the case is fundamentally about a justice issue concerning the (expected) environmental impact of windmills on the local population. Also, the lack of public consultation was brought forward as a shortcoming in the approval process of the windmills - as an aspect of procedural justice. However, justice concerns are limited to a certain region and, beyond the objections to the windmills, no other aspects of energy justice are addressed”.

- environmental sustainability “concerns are brought forward in the arguments against the windmills. However, they are framed more in a way of environmental conversation than sustainability (focus on certain species that supposedly are endangered by windmill)”.

The case is also considered as not contesting the energy system, since “the case seeks to prevent development, so it does not contest the existing energy system (understood as physical infrastructure). It does, however, have a highly contestive element if resistance to plans by an actor of the current energy system (plans to build a wind farm by a large developer) is understood as a contestation”.

The assignment to type 10 confirms the absence of transformative outcome orientation while justifying the assignment to type 10: “since the case is organised collectively, it is most similar to type 10. However, it does not aim for a transformative change but rather preservation (except for more co-determination, at best). The case also includes type 5 characteristics in that citizens participate in public debate and legal processes without binding majority power.” The assignment to type 10 here thus refers basically to the organisational form of the case, rather than to the content or the forms of energy citizenship that are induced by the case among its members or participants. **This case entails components that are clearly on the transformative side (such as the opposition to a certain sort of wind farms or the reclaimed democratic process), yet also components that are more reformative – as suggested by the picture that illustrates the case.**

Conclusion

This deliverable has identified and catalogued all the cases of energy citizenship mapped in the EnergyPROSPECTS project. (See Annex 2 for full list). The report has presented a description of each ideal-type, and highlighted exemplary cases catalogued in EnergyPROSPECTS, as well as some other cases where typologisation is less certain. On this basis, first conclusions with regard to the conceptual typology can be enunciated:

- The **two main dimensions of the typology** – i.e., the agency and the outcome orientation - have proven to be helpful to categorise and systematise the broad variety of ENCI forms. A high percentage of the cases could be assigned to one of the ideal types or a mixture of two of them, which confirms the relevance of the 10 ideal-types developed in *D2.2 Conceptual typology of energy citizenship*.
- **Agency:** The agency dimension has been defined in D2.2 as addressing issues such as *Who is doing ENCI? To whom can ENCI be ascribed? Which kinds of configurations of actors can be considered relevant when searching for empirical cases?* Confronting the conceptual approach of this dimension with empirical cases revealed some possible discrepancies that might emerge between the ENCI agency and the case agency, since the “case” as a whole is not always reducible to the forms of ENCI it creates, enables or supports. The mapping has shown that the categorisation can be divergent according to the adopted focus, e.g. if it is put either on the initiators of the case, or on the forms of actions (related to or induced by the case) that are considered as ENCI. Furthermore, the organisational form of a case does not necessarily result in a similar ENCI agency: while the organisation studied as a case can be “collective”, it can address individuals as pupils, households etc., thus raising the question of the accurate characterisation of the ENCI agency.
- **Outcome orientation:** The distinction between reformative and transformative is most of the time pretty clear for the assignment of the cases to one or several ideal-types. However, within the bundle of attributes composing the reformative-transformative distinction, it is rather frequent to encounter reformative cases with transformative attributes and vice versa. These cases underline that there is no clear-cut differentiation between reformative and transformative but that it is a continuum. It also draws attention to the question if some criteria should (or not) be considered as predominant for characterising cases as ‘reformative’ or ‘transformative’. Furthermore – as also could be expected – there are cases that put a greater emphasis on environmental issues (showing a ‘transformative’ outcome-orientation in this attribute) and not to the



CONCLUSION

same extent on issues of energy justice/democracy and vice versa, which makes the assessment of this dimension particularly challenging. All in all, it can however be said that the outcome orientation serves as a distinctive dimension and heuristic to characterise the variety of different ENCI cases.

- The mapping served to get a first overview of the variety of ENCI forms in different European countries. Due to the high number of cases, the empirical analyses were limited to desk research. Not all of the information that would have been necessary to assign certain cases to ideal types were therefore available. The detailed case studies will encompass further empirical analyses as interviews and therefore offer a next option of a refined validation of the typology.

Confronting conceptual ideal-types addressing a concept as complex as energy citizenship with empirical cases proved to be a massive but highly fruitful challenge. Indeed, this confrontation highlights particularly well the role of the typology in understanding the diversity of forms of energy citizenship, but also the importance of the empirical mapping to validate and refine this typology. As a result, the typology is given an empirical accuracy which also opens up its possible uses as a tool for enhancing energy citizenship.



Annex I: ENCI mapping survey questions relating to the four typology attributes mentioned in the conceptual typology (D2.2 (Debourdeau et al, 2021)

Please note, that is an excerpt. For the full survey please consult [D3.1](#) (Vadovics et al, 2022).

*** In terms of the form of ENCI it shapes/enables/supports (or shaped/ enabled/ supported), considering effective citizen power/ control, please select which applies most to this particular case. If needed, please refer to the more detailed explanation provided in [D2.2 Conceptual Typology](#) (p. 31).**

NB: It is possible that this aspect is discussed in case related materials, and the evaluation there is different from your own view / a more objective evaluation. Here, please select your response based on the latter, but in the textbox provided for the next question please make sure to mention this discrepancy.

- o No effective voice citizen power/control
- o **Low:** When expressed (e.g., within “invited” deliberative processes), citizens’ voices remain hardly heard or taken into account. Being a minority, citizens’ voices do not really count or in a voting process, the framings tend to limit the possibility of expressing an opinion.
- o **Medium:** Citizens can express their views, but their voices are not compulsory (within deliberative, representative or consultative processes). Within organised / participative structures, citizens remain a minority group, i.e., unable to impose their views to other groups.
- o **High:** Citizens are committed to deeply renew and restructure the energy system, toward a more democratic and sustainable one. Narratives, actions and proposals are part of the contestation of the dominant system, and result in critics and protests against energy policies and actions as well as in forms of engagement that aim at fundamental changes (e.g., achieving autonomy).
- o This is a case of an individual actor, so this is not relevant.
- o This consideration is not relevant to this case for another reason.
- o I don't know / not enough information is available about this aspect

***Please briefly (in 1-3 sentences) explain your selection.**

*** In terms of the form of ENCI it shapes/enables/supports (or shaped/ enabled/**



supported), considering **energy justice and equity issues**, please select which applies most to this particular case. If needed, please refer to the more detailed explanation provided in **D2.2 (Conceptual Typology)**.

NB: It is possible that this aspect is discussed in case related materials, and the evaluation there is different from your own view / a more objective evaluation. Here, please select your response based on the latter, but in the textbox provided for the next question please make sure to mention this discrepancy.

- o Energy justice/equity is not considered
- o **Low:** Justice or equity are essentially out of scope, or restricted to equal access to markets
- o **Medium:** Equal access is granted to all concerned citizens, but the framings tend to limit them to a certain geographical area or amount of financial contribution, which does not guarantee “real” equity
- o **High:** involvement is fully open, without specific belonging conditions. Issues such as energy poverty, gender and inclusivity are taken into account and foster adaptive measures to guarantee more justice/equity
- o This is a case of an individual actor, so this is not relevant.
- o I don't know / not enough information is available about this aspect.
- o There is another consideration/issue that prevents me for categorizing this case as Low/Medium/High in terms of energy justice and equity (please explain below).

*** Please briefly (in 1-3 sentences) explain your selection.**

*** In terms of form of ENCI it shapes/enables/supports (or shaped/enabled/supported), considering **environmental sustainability**, please select which applies most to this particular case, including if it is a case of an individual actor. If needed, please refer to the more detailed explanation provided in **D2.2 (Conceptual Typology)**.**

NB: It is possible that this aspect is discussed in case related materials, and the evaluation there is different from your own view / a more objective evaluation. Here, please select your response based on the latter, but in the textbox provided for the next question please make sure to mention this discrepancy.

- o Environmental sustainability is not considered.
- o **Low:** If given any consideration, environmental sustainability issues are mostly taken for granted and not explicitly taken into account. In the lowest forms, environmental sustainability tends to be dealt with as a positive or negative externality.



- o **Medium:** Environmental sustainability is part of the process or initiative, but this concern is addressed in a superficial way (focus on efficiency strategies) and without dedicated assessment. Energy remains the main focus.
- o **High:** Environmental sustainability is a core issue, which is followed with a holistic strategy (mix of efficiency, consistency and sufficiency measures). Its assessment through indicators is seen as desirable.
- o I don't know / not enough information is available about this aspect

* Please briefly (in 1-3 sentences) explain your selection, and any other issue that may be important in relation to your selection.

* In terms of the form of ENCI it shapes/enables/supports (or shaped/ enabled/ supported), please select which applies most to this particular case in terms of **contesting the current energy system**, including if it is a case of an individual actor. If needed, please refer to the more detailed explanation provided in **D2.2 (Conceptual Typology)**.

- o This case does not contest the current energy system.
- o **Low:** Citizen involvement/action is essentially system-confirming, which means that citizens generally go along with the basic structures of the energy system.
- o **Medium:** Some system-contesting aspects are part of the process, yet not really appropriated by citizens or considered as a full part of their involvement. Contestation of the system remains “idealistic” or even “utopic”, and is not really meant to come into being.
- o **High:** Citizens are committed to deeply renew and restructure the energy system, toward a more democratic and sustainable one. Narratives, actions and proposals are part of the contestation of the dominant system, and result in critics and protests against energy policies and actions as well as in forms of engagement that aim at fundamental changes (e.g., achieving autonomy).
- o I don't know / not enough information is available about this aspect.

* Please briefly (in 1-3 sentences) explain your selection.

* **Does/did the case shape/enable/support ENCI that explicitly recognize the ecological limit of atmospheric carbon emissions (most typically expressed in CO_{2e})? (e.g. mention of the max. (per capita) carbon footprint, the sustainable carbon footprint, etc.)**

- o **No recognition** or mention of carbon limit or sustainable carbon footprint



- o **Implicit recognition:** No explicit mention of the ecological limit of atmospheric carbon emissions or sustainable carbon footprint. But despite the lack of formal references to either of them, the case is involved in activities to reduce the consumption and/or emission of carbon.
- o **Explicit recognition:** The ecological limit of atmospheric carbon emissions or sustainable carbon footprint is mentioned in core documents and the actors involved in the case are clearly engaged in attempts to reduce consumption and/or emission of carbon.
- o **Explicit recognition with mention/objective of reaching the max. carbon footprint:** In addition to mentioning the ecological limit of atmospheric carbon emissions or sustainable carbon footprint, the maximum sustainable carbon footprint and/or emissions are also defined.
- o I cannot say based on the information available on this aspect.



Annex II: Catalogue of ENCI by ideal-type

Type 1: “Do their bit (in the household)”⁵

Name of case in English	Name of case in original language	Brief overview	Why is this case a case of ENCI?	Country	Effective citizen power/control	Justice/equity	Env. Sustainability	Contesting the current energy system
Ylä-Kivelä Apartment Block	Asunto Oy Keuruun Ylä-Kivelä	Ylä-Kivelä is a residential apartment block in Keuruu, central Finland. The block was built in 1980, has 40 apartments, mostly owner-occupied or private rentals, around 50-60 residents live there. In 2009, the block became the first in Finland to replace their oil-based heating system with a solar thermal and pellet heating system. Since then, they have hosted visits and shared their experiences with other apartment blocks.	The apartment block acts as a collective energy citizen by contributing to change of the energy system.	Finland	no effective voice	not considered	not considered	does not contest
<u>The Home Energy Saving Kit</u>	<u>The Home Energy Saving Kit</u>	The Home Energy Saving Kit was developed by Dublin's energy agency, Codema, to help citizens understand their energy use and identify key areas of their home that should be improved for energy efficiency. The kit can be borrowed free of charge from libraries across Ireland. It contains five practical tools and six exercises that help citizens to conduct their own home energy audits and to find the easiest and most effective areas to reduce their energy consumption.	Latent individual cases are hard to find. The home energy saving kit is an enabler for individual citizenship as it improves the leeway for individual citizens to become active in energy savings.	Ireland	no effective voice	not considered	not considered	does not contest
El Hierro wind farm	Parque Eólico de El Hierro	Although other islands around the world are powered by solar or wind energy, El Hierro is the first to secure a constant supply of electricity by combining wind and water power and with no connection to any outside electricity network	It represents an interesting case, by proposing a supply through the "Wind Power Plant" of electricity derived from clean and renewable sources such as water and wind, although the involvement of citizens seems not to be the central focus of the case.	Spain	no effective voice	not considered	low	does not contest
Students Achieving Valuable Energy Savings (SAVES 2)	Students Achieving Valuable Energy Savings (SAVES 2)	Students Achieving Valuable Energy Savings (SAVES 2) is the continuation and internationalisation of the Student Switch Off (SSO) campaign, which was launched in 2006 by the National Union of Students of the United Kingdom. This campaign was designed to encourage students living in university dormitories to save energy by raising awareness about energy efficiency and smart metering and instituting good sustainability habits to last beyond their time in education. Students are encouraged to take a pledge, and, at the end of the academic year, the dormitory that saved the most energy at each participating university, is rewarded for their efforts. After this scheme was initially expanded to four other European countries (Cyprus, Greece, Lithuania, and Sweden) within the framework of SAVES (1), a further round of expansion to Romania, Bulgaria, and Ireland took place between 2017-2020. Targets included reaching 38,000 students per academic year in dormitories with the campaign and saving a total of 9 GWh of energy.	The case sets the context for individual energy citizenship by students at universities participating in the campaign. It is an attempt to identify ENCI in this group of individuals that might be limited in the scope of action. Participating students act as energy citizens by learning about energy saving issues and making various behavioural adjustments in their lives in dormitories.	United Kingdom	no effective voice	not considered	low	does not contest
<u>Anna Wijmans</u>	<u>Anna Wijmans</u>	Anna is a citizen in the city of Amsterdam who wanted to live in a house that is independent of gas. And she made it! After a year of searching and trying to find solutions in her house in Rochdale (house cooperation) she has now installed isolation curtains and in 4 years, she will have paid off her own purchase costs due to the low energy bill (in summer about €20/month, in winter about €37/month). Anna also wants to install solar panels but that is not allowed (yet) in the rental house she is living. Anna is asking anyone who wants follow her example to contact her. She is an active energy citizen who wants to help more people to follow her transition in a house without gas.	I have included this individual case study as an example of a latent, less obvious case study of our ENCI mapping. Anna is trying to find solutions to help her energy transition to live in a house without gas and she made it, now calling for others to join her.	Netherlands	not relevant because individual	not relevant because individual	not considered	medium

⁵ Cases that are mentioned in Part 1 as **exemplary cases** are in bold and are underlined, while *cases that are used as illustration of uncertainty of placement* are in bold and in italics.

Urban Pioneers Community project	Urban Pioneer Community projekt	The Urban pioneers community project has been launched in Viertel Zwei in Vienna in 2017 and it created Austria's first energy community of that sort. For four years, Wien Energie has been researching innovative mobility, energy and living concepts for urban life in the smart future in the VIERTEL ZWEI urban development area. In the VIERTEL ZWEI urban development area, Wien Energie researched and developed what urban life will look like in the smart future. Innovative mobility, energy and living concepts were used. Among other things, the residents generated their own electricity with a PV system and traded it among themselves using blockchain	It is a case of ENCI since the project is based on co-creation of the smart energy community within Viertel Zwei. Indeed, the potential users of offers and services have the opportunity to actively shape the neighbourhood. Interactive workshops, community events and surveys are used to identify the needs and wishes of residents. The insights gained are then used to develop services and offers.	Austria	medium	low	not considered	does contest	not
<u>Energy against Poverty</u>	<u>Energie gegen Armut</u>	Through the project "Energy against Poverty", the customers of Energie Graz are asked for donations of five euros or more, every donation up to 5,000 euros is doubled by Energie Graz. Via a trust account and a notary, the donations go in equal parts to Caritas and the social welfare office, which take care that the money ends up where it is needed. Emergency aid and sustainable measures: 40 percent goes to emergency aid so that electricity and heating bills can be paid, 60 percent of the donations are used to buy low-energy electrical appliances. 1,500 households had to have their electricity cut off in 2021 and the project helps to further fill the emergency aid pot through voluntary donations.	This is a case of ENCI since the initiative is asking the customers of Energy Graz to donate some money to help the households that are facing energy poverty.	Austria	no effective voice	high	not considered	does contest	not
Maria Zhekova	Мария Жекова	Maria Zhekova is one of the winners of the Master Chef TV show in Bulgaria. After winning the prize, she has become famous for her sustainable lifestyle and for promoting natural way of leaving. She has bought an old house in the mountains in Bulgaria and has started restoring it by using natural materials – wood, wool, straw, clay, natural paints, etc. - sharing the whole process of restoration with her followers on the social media (mainly Instagram) and get them inspired to follow her example. Maria proves and promotes that you can make your home energy efficient by using natural materials – insulate it with wool and straw and clay, also use paints that are produced in a natural low-carbon way. In one word – making your home low-carbon by using materials which production and supply has also been low-carbon. She shows that it is possible to apply eco-construction measures to an old building. Many people are interested in the eco-construction measures that she uses for the restoration of her 200-years old house in the mountains, they ask questions in her Instagram profile, while she has promised to describe the whole process and share it with them after the house is ready. Another passion of Maria is cooking and food photography. She is using natural and seasonal ingredients for her recipes that she is also sharing with her audience. She is also trying to show old traditional recipes and to cook with ingredients that our predecessors have used, especially people living in the mountains.	Maria Zhekova is an example of an influencer that promotes sustainability in many forms – from cooking to achieving energy efficiency with natural materials. We consider her an energy citizen because in the last year she is actively promoting the process of restoring her old house with natural materials and many people got inspired from her story.	Bulgaria	not relevant because individual	not relevant because individual	high	does contest	not
Ray of sun – light of hope	Zraka sunca – svjetlo nade	A fundraising campaign was organised to support the installation of solar systems in 5 households in the Sisak-Moslavina County in Croatia. The households do not have access to electric grid. The campaign was also used to raise awareness about the problem of energy poverty and the fact that many households in Croatia continue to be without access to modern forms of energy, such as electricity. The campaign also wanted to show that solar energy is one of the key solutions to energy poverty and the climate crisis.	This is an interesting example of crowdfunding campaign initiated and implemented by a non-governmental association of citizens, funded by citizens who contributed different amounts to support the purchase of solar panels for energy poor households in rural area of Croatia. The campaign was quite successful and exceeded its original target, making it possible to purchase and install PV panels on 6 instead of 5 houses, as was originally planned.	Croatia	low	medium	not considered	does contest	not
NRW fights energy poverty	NRW bekämpft Energiearmut	Since October 2012, the NRW Verbraucherzentrale (Consumers association) has been offering budget and legal advice on energy poverty to consumer households as part of the state project "NRW combats energy poverty". The aim of the special advice is to secure the energy supply of affected households in the long term and to permanently reduce energy barriers and energy poverty overall.	It is a state project aimed at helping people affected with energy poverty, by giving them advices to secure their energy supply. As such it is a case of energy citizenship.	Germany	not relevant because individual	high	not considered	does contest	not

KDZENERGY, Online portal on energy efficiency for children	KDZENERGY, Online portal on energy efficiency for children	KDZENERGY is an online portal dedicated to information on energy efficiency targeting children between 7 and 14 years old, created by the Italian National Agency for Energy Efficiency ENEA. KDZENERGY was born with the idea of experimenting a new communication model that sees children as the main actors of communication, as spontaneous witnesses who share their experiences, their idea of energy and technology and their proposals to promote an efficient use of energy at home and in the city. Entering the kdzenergy portal, the user is welcomed by E-Prof, an avatar who accompanies you to discover the world of energy and energy efficiency. A quiz game helps us to reflect on how we use energy in our homes and to discover how we can become efficient consumers. KDZENERGY integrates two communication tools that are configured as two video formats: KIDZTED and KIDZDOC. KIDZTED is the format that collects short interviews where children tell and draw their ideas, formulate proposals and solutions relating to the issues of energy efficiency in homes. The KIDZDOCs are short reports that see children as journalists.	The case aims to support children to practice more active ENCI, by information on energy efficiency and technology, aiming to make children the protagonists of the energy transition.	Italy	no effective voice	not considered	medium	low
forumE.ch The Energy Transition Forum for Switzerland	forumE.ch Das Energiewende-forum für die Schweiz	forumE.ch is a freely accessible online platform on which practical questions about the Swiss energy transition are answered and discussed. Citizens can ask for an access practical information on the use of certain renewable technologies as well as contribute such information themselves or participate in more general discussions on the energy system and policies. As more contributions and discussions are added, a collectively built knowledge base for the energy transition in Switzerland is expected to emerge.	The case exhibits elements of energy citizenship, as individuals provide assistance to others without being paid for it but often for civic reasons. It is also an exciting case as citizen engagement takes place online. Finally, there is at least the idea that more fundamental discussions about the energy system and policies could also take place via the platform - even if this has only occurred to a very limited extent so far.	Switzer-land	medium	not considered	not considered	low
Jeasy	Jeasy	Jeasy (a contraction of "journey" and "easy") is an app which offers users the opportunity to record their journeys each time they walk, bike or take public transport in order to generate points, called EcoMiles. These EcoMiles can be saved and then redeemed for benefits/gifts.	Jeasy was founded to actively participate in the development of a smarter and more sustainable mobility. The algorithm behind the app automatically detects the mode of transportation of the user, and it calculates the CO2 impact of the different modes of transport used. As such, it seeks to give incentives to users to "do their bits", when it comes down to reducing the environmental impacts of their trips.	Belgium	no effective voice	not considered	high	low
Energy Action	Energy Action	Established in 1988, Energy Action is Ireland's first community-based energy project to address the problem of fuel poverty in Dublin. Energy Action has insulated 35,000 homes since its inception and has also supported several community-based organisations in other parts of the country through pilot schemes to develop their own capacity to tackle fuel poverty. The service is provided through the Better Energy Warmer Homes Scheme administered by the Sustainable Energy Authority Ireland.	The case has at least two aspects of energy citizenship. Firstly, and mainly, the case is a community-projected dedicated to alleviate people from energy poverty and to promote the energy transition. Second, the households that participate in the scheme can be understood as (rather passive and latent) energy citizens as they improve energy efficiency of their homes.	Ireland	no effective voice	high	not considered	low
Oilfree	Oljefri	Oljefri is a project that makes it easier and safer for homeowners and building owners to replace their oil-fired heating systems and fireplaces with renewable heating solutions. At olifri.no, the Friends of the Earth Norway has collected independent information about climate-friendly energy solutions for homes and buildings. Through collaboration and cooperation with professional and industry organizations and municipalities, Friends of the Earth Norway reach out to house owners with tailor made information about alternative heating. This include presenting a list of professional craftsmen and overlook the process from giving offer to installing solutions in the web portal.	This case (a project) enables civic involvement to develop a more sustainable energy system through the replacement of oil-fired heating systems, even if more on the passive side, since oil heating was banned in 2020 in Norway. Still, Friends of the Earth Norway in partnership with municipalities, professional and industrial organisations support citizens with consultancy, information and subsidies (through ENOVA by the Ministry of Climate and Environment).	Norway	low	low	medium	does not contest
USmartConsumer	USmart Consumer	The project, through actions directed both to consumers and energy operators, aims to promote the correct use of smart meters by consumers and the development of new services related to smart meter by energy operators.	The interest of this USmartConsumer project lies in its proposal to improve, at European level, households (tenants and owners) from the improved information facilities of their smart meter, informing them and involving them in innovative services that help them to save electricity, gas or district heating energy and to obtain user-friendly interfaces, thus improving consumer engagement.	Spain	low	not considered	medium	low

Solar Pools Campaign	Campaña Piscinas Solares	Water purified through electricity produced by solar energy	It seems a clear ENCI case as it aims to contribute to the energy transition and initiate the change towards a new energy model in which the citizen, the consumer, must be considered the centre and not just someone who pays for the system.	Spain	high	not considered	low	does contest	not
Three car-free months	Tre månader utan bil	'Three car-free months' was a mobility pilot project carried out by Umeå municipality in 2019 where the participants had to live their everyday lives for three months without using their cars. The municipality selected 10 households with diverging number of children in different age groups to participate among the 170 applicants. The families got to borrow electric bikes, they got bus passes for free for the whole family, access to an electric cargo bike sharing service and discounted access to a car pool.	'Three car-free months' was a project where the municipality supported 10 households to practice more active energy citizenship in their everyday mobility patterns by parking their private cars for three months and instead using alternative transport modes.	Sweden	no effective voice	not considered	medium	medium	
Carvelo2go e-Cargo-Bike Sharing	Carvelo2go e-Cargo-Bike Sharing	carvelo2go is an e-Cargo bike sharing service in various cities and towns in Switzerland, initiated by the Touring Club Switzerland. An electric cargo bike or "carvelo", which can transport up to 100kg, can be rented on an app and then picked up from a host and returned. These hosts operate the bikes free of charge and are, for example, neighbourhood stores, bakeries or gas station stores. In addition, each Cargovelo is financed by a sponsor who can display its logo for an annual fee of 2500 Swiss francs.	The case sets the condition for individuals to become more engaged in their private mobility behaviour as it allows them to rely on an e-bike also for heavier transports, an area for there had been high reliance on a car so far.	Switzer-land	no effective voice	low	low	medium	
Hiyacar	Hiyacar	Hiyacar is a peer-to-peer car sharing platform with over 100'000 members throughout the UK. The app-based service allows car owners to rent their cars to a vetted community of drivers. It aims to transform local mobility by making better use of the millions of vehicles that sit idle 95% of the time, thus reducing the number of cars that need to be manufactured and the related emissions.	The case provides the context for individual energy citizenship in the mobility sector, in that the users of the service deviate from their usual habits of dealing with vehicles and resort to peer-to-peer rented vehicles. However, it is not said that they do so for reasons of promoting a more sustainable and democratic energy system, but maybe for other reasons such as parking availability, lower costs, etc.	United Kingdom	no effective voice	low	low	medium	
Student Energy Teams	Ученически енергийни екипи	10 Bulgarian schools from 3 urban communities (Sofia, Samokov, and Veliko Turnovo) and 1 rural community (Pavel Banya) participated into an international consortium from 7 EU countries (incl. Bulgaria, The Czech Republic, Germany, Greece, Poland, Portugal, and Romania) in the project Bridging European and Local Climate Action (BEACON) between April 2018 and March 2021. The project's purpose was to enhance international cooperation in climate action and achieve a common vision for implementing the Paris Agreement. The Student Energy Teams in each school (aged 10-12), mentored by their science teachers, were the core actors in the project. They planned and implemented various science-backed activities for educating their peers, teachers, and parents on sustainable energy consumption and production and for reducing the energy consumption in their schools and homes, achieving tangible results.	The initiative is a fantastic example of achieving bottom-up holistic civic engagement in sustainable energy consumption by students, teachers, and parents through large EU project initiatives. By putting middle-school students at the centre, the project managed to bridge and bring together schools, households, and municipalities for a common purpose for reducing energy consumption through science-based regular procedures and techniques, led by the youngsters.	Bulgaria	high	not considered	medium	does contest	not
ProjectZero - SpareKuffert (Saving Suitcase)	ProjectZero - SpareKuffert	The SpareKuffert is one of many initiatives promoted by ProjectZero in the Sønderborg area. The Sparekuffert is a suitcase filled with information about how to save energy by installing more energy efficient versions of different kinds of appliances (lightbulbs, showerheads, energy-saving powerstrips and so on). It also holds meters for measuring energy consumption. The intention is that people substitute their old lightbulbs with the new ones in the suitcase and so on to see how it works - and to be inspired to buying LEDs and watersavers and so on, after having tried them out. The intention is also that people change minor habits.	Municipality engages the local citizens to transform their homes to a lower energy consumption level, by providing them the opportunity to try the simple alternative ways they can find in a suitcase that can be lend.	Denmark	low	not considered	high	low	
CitiCAP - Citizen's cap-and-trade co-created	CitiCAP - Citizen's cap-and-trade co-created	The CitiCAP project (Citizens' cap and trade co-created) was carried out in Lahti between 2018 and 2021 with funding from the EU's Urban Innovative Actions initiative. The CitiCAP project included running a pilot scheme on citizens' personal carbon trading on mobility through a digital application, formulating the City's first Sustainable Urban Mobility Plan, creating a data platform for transport data and building a bicycle highway based on modern design instructions. Lahti was the first city in the world to pilot an application for personal carbon trading (PCT).	The CitiCAP project enables citizens (although a limited group during a limited time) to practice more active ENCI in the private sphere by incentivising environmentally friendly transport modes through its carbon trading scheme, and by facilitating sustainable urban mobility by its sustainable urban mobility plan and a 2.5 km bicycle highway.	Finland	low	not considered	medium	medium	

Slime (Local action service for energy conservation) programme	Slime (Service local d'intervention pour la maitrise de l'énergie)	The programme aims at organizing actions to fight energy poverty and scale up the identification of energy-poor households to offer them tailored solutions. It is based on a 3-step approach of identification, socio-technical audit, and guidance towards sustainable solutions. The methodology allows centralisation of households' reporting and support for mobilization of all local actors towards energy poverty actions. In 2020, about 40 municipalities, regions, and cities implemented the program, allowing a total of 15 000 families to benefit from Slime.	The programme supports and empowers energy-poor households to take action against high energy bills (renovate their homes, ask for public subsidies, move out, ...)	France	no effective voice	medium	medium	low
Velib' Métropole, Large-scale bike sharing in Paris	Velib' Métropole	Velib' is a large-scale bike sharing system in Paris, France, launched in 2007 by the mayor of the city and was operated as a public-private partnership. In 2018, it was rebranded as Vélib' Métropole and a new operator won the contract. Today there are 1400 stations in the city of Paris and the surrounding Ile-de-France region, 20 000 bikes of which 40% are electric. In 2020 the service had 400 000 subscribers.	Velib', bike sharing program, enables citizens to use bikes, without being the owner, and thus facilitates active mobility.	France	no effective voice	medium	low	medium
Energy-saving-check	Stromspar-Check	Advices for people suffering from energy poverty (Hartz IV, Arbeitslosen, social aids beneficiaries, etc.) to make a more efficient use of energy, free emergency aids such as energy-saving and LED lamps, switchable socket strips, TV standby switches, timers and aerators for taps (more on this here). The emergency aids are also installed immediately. Aid to equip households with buy less-consuming appliances (100€ check or more). Has recently developed an application steckys-spartipps.de	This case contributes to energy citizenship by helping the less wealthy people to equip with efficient appliances and to get advices to spare energy in the everyday life and practices. As such, it supports and empowers people toward ENCI.	Germany	not relevant because individual	high	low	low
Carbon footprint calculation in Piliscsaba	Karbon-lábnyom számítás Piliscsabán	GreenDependent Institution, in cooperation with Piliscsaba-Garancstető Association, calculated the yearly carbon footprints of 21 households during 2020 spring. The project was actually a tripartite collaboration, sponsored by Daikin. Although, this was only a pilot project, it shows an important message: components of households' carbon footprints are different, so for their efficient decrease unique solutions are needed. The components of a household's carbon footprint consist of six main categories of which usually households' energy consumption takes the biggest part. At the end of the program, to present and discuss the results and footprint reduction opportunities GreenDependent organized a small event with the community of Garancstető, which was combined with a community tree planting action.	Calculating the carbon footprint is the first step in raising awareness that lifestyle change can reduce the environmental impact of families. Making reductions is inevitable, because the average carbon footprint of Hungarians is significantly higher than the sustainable level. This project can help households to be more conscious about their impact, and of course, their energy usage.	Hungary	low	low	medium	low
Energia su Misura, Energy Poverty Behaviour Change Programme	Energia su Misura	Energia su Misura was a project (2015-2017) in Milano, Italy, that aimed to support vulnerable families living in social housing owned by the local governments, by providing energy advice to improve their energy consumption and reduce their energy costs through the reading of energy bills and the installation of smart devices connected to electrical appliances and the central electricity meter. The project was a cooperation between the Municipality of Milano (local authority), Metropolitana Milanese S.p.A. (social housing provider), Ministry of Economic Development (national authority), RSE S.p.A - Energy Research Institute, (University/Research centre) and actors on the ground. The project also included advice to building administrators on how to improve overall efficiency of the buildings, and public events to raise awareness about energy poverty and vulnerability and about energy efficiency, targeting vulnerable consumers, residents of social buildings and local policymakers.	The project 'Energia su Misura' supported families living in social housing to reduce their energy consumption and their energy bills, and through those acts to practice more active ENCI. Building managers and local authorities were also targeted.	Italy	no effective voice	other	not considered	low
Sonnenplatz	Sonnenplatz	Sonnenplatz Großschönau started in 2001 as an idea from the local association for tourism, village renewal and economic impulses (TDW), which has been committed to the sustainable development of the market town of Großschönau since its foundation in 1972. The project was initiated by the chairman of the association, Josef Bruckner, and the mayor of the market town of Großschönau, Martin Bruckner. After an initial discussion paper with a feasibility study in the summer of 2001, the preparatory work for implementation began. Since 2002, the project has been financially self-supporting. For the optimal implementation of Sonnenplatz Großschönau, Sonnenplatz Großschönau GmbH was founded in 2004. All previous activities of TDW Großschönau in the field of sustainable construction are now bundled in Sonnenplatz Großschönau GmbH. Central tasks of the company were the construction of the 1st European Passive House Village for Test Living® in 2007 and the establishment as a research and competence centre for building and energy of the future in 2011. Since 2013, visitors of all ages can visit SONNENWELT to learn about the topics of energy-efficient building, living and life in the last 10,000 years and learn about the experience the topic of energy for themselves on an exciting tour of the energy experience world. experience the topic of energy first hand. The vision of the research and project work of Sonnenplatz Großschönau GmbH is to spread resource-saving building, living and life more quickly.	It is a case of energy citizenship because the aim of the project is popularising energy-efficient and sustainable construction and renovation for example by educating citizens with the help of an exhibition or by visiting or even living for a few days in a passive house.	Austria	low	low	medium	medium

KafEco	КафЕко	KafEco is a student company established in the end of 2020 by four high school students in Ruse, Bulgaria. Their idea was to develop an alternative eco-friendly heating from waste material, namely by producing a briquette from coffee grounds and sawdust (a residual product from processing clean wood). The coffee grounds are collected from places where coffee is consumed: from households, and from small neighbourhood restaurants to large fast-food chains. The sawdust is collected from local carpenters in Ruse. KafEco already reached its prototype phase, with testing results showing that its briquettes are more calorific than wood (radiates more heat) and burn almost twice as fast, releasing less harmful emissions into the air compared to other solid fuels (mainly wood and coal). The sale of the briquettes is expected to start in a year, after all the testing and certifications are finished successfully. The main aim of KafEco is to make consumers change their mindset and lifestyle and move to a more sustainable and environmental-friendly one by starting consuming eco materials for heating.	KafEco is considered an ENCI example since it showcases citizens actions towards developing an alternative to solid fuel heating by recycling waste materials (namely coffee grounds and sawdust). It also aims to contribute to consumers changing their mindset towards taking actions to prevent the environment for the current and future generations.	Bulgaria	no effective voice	not considered	high	high
Facebook groups for rideshare	Фейсбук групи за споделено пътуване	There are several Facebook groups for rideshare in Bulgaria - the total amount of their members is about 300 000 members and this number is constantly rising (the 3 largest groups increase their members by about 100+ members per week). The three largest groups are the following: "Rideshare Burgas - Sofia and back!" (75 104 members) "Rideshare Plovdiv-Sofia" (62 900 members) and "Rideshare" (47 000 members). Plovdiv and Burgas are the second and the fourth largest cities in Bulgaria, respectively. The other rideshare groups are dedicated to trips to Varna (the third largest city) and other smaller, but popular towns in Bulgaria. Most of these groups were founded in the period 2011-2013 and offer a platform to car owners who are travelling to a particular destination by themselves to share their trip with other people, travelling to the same city, but who don't have or don't want to use their own transportation. Thus, both parties benefit from: 1) sharing the trip expenses; 2) having a company during the trip/meeting interesting people; 3) reducing the number of vehicles on the road and 4) reducing the carbon footprint of the trip.	Facebook groups for rideshare are very popular and all of them have been initiated by ordinary people. Rideshare has positive impact on the environment by reducing the number of vehicles on the road and thus reducing the carbon footprint of trips.	Bulgaria	not relevant	not considered	medium	does not contest
RegHEE - Regional trading of electricity from renewable energies	RegHEE - Regionaler Handel von Strom aus erneuerbaren Energien	The aim of this project is to research, develop and set up a peer-to-peer energy market for decentralised generation and storage units based on a blockchain that simultaneously uniquely identifies the traded electricity. To this end, available blockchain approaches will first be analysed and evaluated, and a concept for the architecture of the system will be developed. Smart contracts will then be developed that represent an automated marketplace for the direct exchange between prosumers and end consumers, as well as complying with the energy industry and regulatory requirements. A centralised comparison system will also be designed and implemented. Both systems will be operated in a field test and then subjected to a comparative evaluation, from which recommendations for action will be derived.	This is a case of ENCI in that the project sets the possibility for the households and other local actors to exchange energy on a local market, and thus to deepen the decentralisation of the energy system.	Germany	medium	low	low	medium
Energy in the Home	Otthonosenergia	Information and awareness raising campaign on energy savings and building energy-efficiency in cooperation with a Budapest district and NGO. Besides online and offline information materials there were online and face to face info days, and citizens could ask for energy audit and a thermal camera recording.	A campaign in cooperation between NGOs and municipality, reaching a high number of citizens.	Hungary	low	low	high	low
RenoHUB	RenoHUB	One-stop-shop model adopted in Hungary to facilitate and support energy efficient renovations of flats and houses. The consortium build-up researches and expert pool, online platform and so far, three offices for direct consultation with citizens.	It provides direct and know-how support for individual citizens to live in a more energy efficient houses. They can help increase the actual renovation rate by supporting potential clients through the various steps of the decision-making process. Their success lies in part with their locally embedded focus, engagement with interested but not yet committed energy users/asset owners and ability to form strong relationships with clients.	Hungary	low	medium	medium	low

GHG Emissions Reduction in Households – Support for the Utilization of Renewable Energy Sources	Siltumnīcefekta gāzu emisiju samazināšana mājāsaiņniecībās – atbalsts atjaunojamo energoresursu izmantošanai	The aim of the new, adopted in March 2022, state support programme is to reduce GHG emissions and improve energy efficiency in households of single-family buildings and two-apartment buildings by providing financial support for three options: the purchase of (1) heat and (2) electricity generation equipment for installation in residential buildings to ensure the production and supply of energy to households, (3) connection of households to the district heating system. The following buildings are eligible: single-family buildings, summer and garden houses, two-apartment buildings, twin, row and separate two-apartment buildings on condition no economic activity is performed in the building. The support is provided for the following RES technologies: (1) the replacement of an existing fossil fuel utilizing heat production boiler with a new RES utilizing heat production equipment, such as - wood biomass boiler suitable for pellets (up to 50 kW capacity), solar heat collectors system (storage tank capacity up to 400 litres), heat pump (up to 50 kW capacity); (2) installation of new solar PV and wind technologies (including inverters) up to total capacity of 11.1 kW. The maximum support intensity is 70% but not higher than 15 thousand EUR per household. The programme is financed by the national Emission Allowances Auctioning Instrument (total assigned sum by EAAI is 20 MEUR), contracting of the approved projects up to 31.12.2023 at the latest.	Single-family and two-apartment buildings is an important target audience for the development of sustainable and democratic energy system. Decision to switch to renewable energy supply is the principal ENCI decision of the owners of these buildings. Also, connection to district heating system promote energy efficiency together with the contribution in improving air quality. Now for up to next two years it is promoted also by the state support programme. With the support of described state programme around 5000 projects in single-family and two-apartments buildings could be implemented.	Latvia	not relevant because individual	medium	medium	medium
State assistance for families with children in purchase of high energy efficiency housing (the programme “Balsts”).	Augstas energoefektivitātes mājokļu iegādes atbalsts ģimenēm ar bērniem (programma “Balsts”)	Latvia has the general terms regarding the state assistance in the purchase or construction of residential space, particularly for families with children. To encourage the energy-efficient dwelling, from the 1st July 2020 the additional assistance, in case of purchase or construction of nearly zero energy dwelling (compared to the general terms), is available for families with children in the form of: (1) increased guarantee for the loan, issued by the commercial institutions, eligible for families with at least one child (pregnancy), (2) increased subsidy, eligible for families with at least three children (two children plus pregnancy).	Families with children is an important target audience for the development of sustainable and democratic energy system. Decision to live in energy efficient dwelling/housing is the principal ENCI decision of the families. It is promoted also by the state support programme. The additional financial support is only the additional motivator, not the main one.	Latvia	not relevant because individual	medium	medium	medium
The Car Sharing	Bildeleringen	Bildeleringen was established in 1996 and today organizes car sharing for more than 3,500 private and business members in the area of Bergen. There are over 350 cars in more than 80 places in Bergen. The idea behind Bildeleringen is that a group of people get together to own or rent cars. The utilization rate is rising, expenses are falling and everyone has modern cars with a high safety standard and good fuel economy. In addition, the area set aside for parking is freed up. The Bildeleringen is organized as a cooperative and is owned by the members. It is operated on a non-commercial basis and any profits go back to the operations.	This case of mobility seems to be a successful grassroots initiative of mobility. Citizens' involvement contributes to a more sustainable and democratic energy system, however the it is not mentioned as a motive.	Norway	medium	medium	not considered	medium
ZEB (Zero Emission Centre) Living Lab	ZEB (Zero Emission Centre) Living Lab	ZEB Living Lab is a multipurpose experimental facility built by Zero Emission Buildings (ZEB), Faculty of Architecture and Fine Arts, NTNU. The Living Laboratory is a test facility that is occupied by real persons using the building as their home. The focus is on the occupants and their use of innovative building technologies like intelligent control of installations and equipment, interactive user interfaces and interplay with the energy system as a whole. The Living Laboratory is used to study various technologies and design strategies in a real-world living environment. ZEB researcher within the fields of architecture, social science, materials science, building technologies, energy technologies, and indoor climate jointly studies the interaction between the physical environment and the users. The Living Laboratory is important in making sure that the solutions developed within ZEB are tested and verified at an early stage. The Living Laboratory also strengthens collaboration between industry partners and researchers.	By giving opportunity to citizens to try to live in these zero emission houses, they get involved in the development of a more sustainable energy system. The collaboration between the researchers and the inhabitants gives benefits for all of them. Moreover, the type of actors involved in the case are also interesting (citizens, university/researchers, construction industry, national funding bodies, banks).	Norway	medium	not considered	medium	medium
TOPTEN ACT	Energismart.no	TOPTEN ACT develops a comprehensive market transformation strategy targeting consumers, manufacturers, retailers, large buyers, consumer associations and other key actors in 16 European countries. It works with these actors to help them embrace and promote energy-efficient products, so that they become the natural choice for consumers. Energismart is a part of TOPTEN ACT, a web-portal which gathers information about more efficient appliances, how to refurbish your home in order to use less energy (this part also includes the information about possible financial help) and offers energy consultancy in the form of “energy specialist”.	This case (a project), even though on the passive side, can be considered as ENCI for its support for consumers in finding more energy-efficient household devices. It aims to empower consumers to 'act': to purchase top energy-efficient products that will save energy over their lifetime. The case is interesting in the sense that it involves many types of actors: consumers, manufacturers, retailers, large buyers, consumer associations and other key actors.	Norway	low	medium	medium	low

Euro-Topten Act (Topten.pt)	Euro-Topten Act (Topten.pt)	the project started in 2007 as an on-line tool, which allows consumers to find the most efficient household machines on the Portuguese market. The key criterion is energy efficiency, but they consider also the lifecycle, impact on health, on the environment and quality. The project is part of Horizon2020. In Portugal it is run by Quercus and ADENE. www.topten.pt	It can be an interesting example that motivates responsible consumption among citizens, as it aims to orient the consumer when choosing appliances that we use daily. The tool aims to show that the consumer plays an active role in combating climate change by reducing energy use (suggestions) and by using it efficiently	Portugal	low	medium	medium	low
Turkish Residential Energy Efficiency Financing Facility (TuREEFF)	Turkish Residential Energy Efficiency Financing Facility (TuREEFF)	As a result of new building energy efficiency legislation and the European Union Energy Performance of Buildings Directive, Turkey's residential building sector needs some support. As the country transitions toward energy conservation and renewable energy, the Turkey Residential Energy Efficiency Financing Facility (TuREEFF) is poised to help. TuREEFF was developed by the European Bank for Reconstruction and Development (EBRD) and supported by the Clean Technology Fund (CTF) and the European Union (EU). TuREEFF had provided up to US\$ 350 million to four local banks, Garanti BBVA, Şekerbank, Türkiye İş Bankası and Yapı Kredi Bankası, funds which were then on-lent to households, construction companies and vendors of energy-saving household equipment.	2,800 people invest in eco-friendly homes thanks to loans and mortgages available via local banks and over 50,000 households benefit from EBRD-led TuREEFF programme. TuREEFF projects help save carbon equivalent absorbed yearly by 330,000 trees.	Turkey	low	not considered	high	medium
Contest for International Energy Saving Day	Конкурс по повод Международния ден за пестене на енергия	The Public Environmental Center for Sustainable Development in Varna, Bulgaria, aided students in learning more about energy consumption and conservation by encouraging them to participate in a contest, in which they were asked to monitor their household's electricity meter over the span of one week. Students were asked to not only analyse their families' consumption habits, but also to propose conservation measures, after which they were to repeat the experiment while implementing them. The school with the most participants received an open lecture on the topic of individual contributions to combating climate change.	This initiative encourages school-age children to develop an interest in energy conservation and sustainable energy practices by offering an incentive and engaging them in friendly competition. It creates suitable conditions for civic involvement and educates students on issues relating to conservation and transition.	Bulgaria	not relevant	not considered	medium	low
EmpowerMed empowering women to fight against energy poverty in the Mediterranean.	EmpowerMed « Donner aux femmes les moyens d'agir contre la précarité énergétique en Méditerranée »	EmpowerMed is a H2020 project implemented between 2019 – 2023 in France and 5 other countries. The overall objective of EmpowerMed is to tackle energy poverty in the coastal areas of Mediterranean countries. Specific objectives are to: 1) raise public awareness on energy poverty and the means for its alleviation, focusing on the specifics of coastal areas, gender and health aspects; 2) implement practical solutions tailored to empower households affected by energy poverty; 3) formulate local, national and EU policy recommendations and promote solutions to tackle energy poverty. Actions will take the form of energy visits to households, installation of saving devices and promotion of energy measures, energy advice training to build capacity of actors and partners, collective assemblies on energy and health, “Do It Together” energy workshops, advocacy campaigns on gender-just policy solutions, and recommendations to tackle energy poverty among several key actors. In France, the pilot is part of a programme for poverty alleviation supported by the industrial group Valorem's Foundation (Watt for Change), Solinergy, a solidarity fund to fight energy poverty of the energy renovation company Effy, and the Rexel Foundation.	The programme empowers citizens affected by energy poverty through on-site visits at their homes and through the installation of solutions. It also fosters capacity building among actors and partners to better tackle energy poverty. It further provides information and a space for exchange and discussion with collective assemblies on energy and health.	France	no effective voice	high	high	low
clear view in the energy transition	Durchblick Energiewende	The project was initiated by the consumer centre Schleswig-Holstein (Verbraucherzentrale Schleswig-Holstein e.V. (VZSH), it provides assistance to understand the options for action and decision making for consumers in regarding the energy transition. The initial focus is on heating networks, local solar energy projects and digitization of the energy supply.	It is a case of energy citizenship because citizens are provided with information on how to be part of the energy transition as a consumer. The goal of the project is that consumers can take an active role in discussions about key themes in the energy transition, namely heating networks, tenant electricity and digitization.	Germany	low	medium	medium	medium
Heat Columns	Hőoszlop - szociális kályhacsere-program	In the winter of 2021-2022, in the settlement of Ág in Baranya County, Habitat for Humanity Hungary built five Heat Columns, which since then provide heat in the homes of families in need in a reliable way. The installation of a heat column significantly improves the quality of life of families: in addition to using less firewood, and reducing air pollution, the families no longer have to get up at night to “feed” the stove. Habitat plans to build additional Heat Columns nationwide as part of a social stove replacement program for energy poor households, and to introduce the model to professionals in the Central and Eastern European region.	Habitat for Humanity has been working with Apro'tech's social stove construction team since 2019 to develop a sustainable stove replacement program. The Heat Column is a cost- and energy-efficient wood-burning stove designed by combining traditional Hungarian tile stoves and a Scandinavian design. It can replace low efficiency, polluting and hazardous iron stoves used by a lot of energy poor households in Hungary.	Hungary	medium	high	medium	does not contest

Tegenstroom	Tegenstroom	Tegenstroom is a social enterprise without financial profit motive, founded by the municipality of Haarlemmermeer. They help the municipality to accelerate the energy transition. Currently, they supply local customers/citizens with 100% solar power generated by local entrepreneurs. This is how they keep the energy and money flows within Haarlemmermeer.	I included this case as a non-profit social enterprise by a municipality as a model of local renewable energy generation and consumption. Tegenstroom aim to supply 100% sustainable and local energy in their municipality. As a result, they have been voted the Netherlands' most sustainable energy supplier since 2015 by the Dutch consumer organisation Consumentenbond and Natuur & Milieu. Also, their wider mission is to ensure that the whole of the Netherlands 'switches' and chooses green energy from local (small) suppliers and entrepreneurs.	Netherlands	not relevant	not considered	low	medium
European Solar Days	Európske solárne dni	The European Solar Days initiative was launched in Austria in 2002 as the "day of the sun" and has gradually been extended to a Europe-wide campaign, which takes place every year during the first weeks of May. It is an educational campaign, the main goal of which is to point out the possibilities and benefits of using solar energy. Slovakia joined the campaign in 2011 thanks to the non-profit organization Slovak Renewable Energy Agency (SK REA), which aims to build a network of partnerships and supporters of the European Solar Days at the regional level. It is the largest campaign on solar energy in the country and is also unique in its form: various entities throughout Slovakia organize their own events, which allows a wide reach to various target groups.	The case has been educating people on renewable (solar) energy, introducing its use to the wider audience for 10 years now. Kindergartens, primary schools, non-profit organizations, entrepreneurs and observatories are organising different workshops, events, presentations, etc. as part of the campaign. Open days in solar power plants, excursions to companies producing photovoltaic panels, discussions in information stands, observations of solar activity, demonstrations of solar equipment or creative workshops on the topic of the sun are all part of the program.	Slovakia	medium	medium	low	medium
Green House	Casita Verde	Basically, they are an experiential learning centre, designed to encourage innovative and sustainable lifestyle techniques, which are within the reach of each of us.	I consider it to be an ENCI case because it is an individual initiative by Chris Dews who sees the need to do something on one of the Spanish islands with the most tourism and its negative consequences	Spain	not relevant because individual	not relevant because individual	high	I don't know / not enough information
Citizens Advice on energy topics	Citizens Advice on energy topics	Citizens Advice is the official consumer body for energy-related issues in the UK. The government supported charity uses research and evidence from the people who contact its advice service every day to understand the problems facing energy consumers. It helps solve these problems by engaging with industry, changing policy and supporting consumers to navigate the market by offering confidential advice online, over the phone, and in person, for free. In 2020 alone, Citizens Advice support consumers on energy issues through 115'000 contacts.	The case is an attempt to approach very latent and passive forms of ENCI. The consumer organization empowers individuals, usually as "consumers", to exercise their rights vis-à-vis energy utilities and provides information on how these individuals can better make decisions in their personal behaviour and household regarding energy. It also addresses the concerns of consumers by participating in (sometimes very technical / policy-detailed) consultation processes, e.g., of regulations by Ofgem the national energy regulator. However, the actual ENCI in this case resides with the represented, advised or supported consumer, and thus is rather to be understood as passive and as a borderline case of ENCI.	United Kingdom	low	high	low	medium

Act4Eco – online platform for energy conscious consumers	Платформа за енергийно отговорни потребители Act4Eco	The “Act4Eco – online platform for energy conscious consumers” Facebook group has been established by ARC Fund in May 2020 in order to provide virtual space for consumers to learn and share experience on energy related topics. Its initial aim has been to promote the Act4Eco platform among energy consumers in Bulgaria. The platform has been developed within Energy Conscious Consumers (ECO2) project and provides open-access knowledge in 9 EU languages on responsible energy consumption at home. With its 260 members the Facebook group contributed to not only increasing the traffic on the Act4Eco platform but also establishing a close Act4Eco community where interesting news on energy efficiency and energy savings are shared along with members’ own experience. The group provides knowledge about how to consume energy in a sustainable way by improving the energy efficiency of homes, how to self-produce energy, what habits are good to change to start saving energy in daily life, and many other interesting questions related with the topic.	Feedback from a few of the members of the Act4Eco Facebook group indicated that the knowledge and advice shared in the group inspired them to implement some simple measures at home in order to improve the energy efficiency – e.g., replacing regular lightbulbs with LED versions, start using solar lamps for outdoor spaces, checking for air leaks and fixing them with easy to implement solutions. It makes us consider that the group has contributed to consumers becoming more energy aware and has inspired them to take action. All these makes us consider the group as an example of a collective ENCI case.	Bulgaria	no effective voice	I don't know / not enough information	medium	medium
Déclics (Challenges for local citizen involvement for climate and sufficiency)	Déclics (Défis citoyens locaux d'implication pour le climat et la sobriété)	The DECLICS programme was launched in 2018 by CLER (Réseau pour la transition énergétique). It replaced a 10-year-old programme called “Positive Energy Families Challenge” founded by the Prioriterre NGO. The purpose of the “Positive Energy Families Challenge” was to support households to implement energy conservation and sufficiency in their daily energy consumption through collective gaming approaches (teams gathering several households). DECLICS was launched following the success of the “Positive Energy Families Challenge”, with the objective to develop and deploy sufficiency measures with a larger scope, encompassing for example waste reduction, mobility, and food. To that end, CLER created a digital platform to allow for all participants to monitor their consumption and get advice to move towards more sufficiency, exchange with the DELICS community, compare their consumption with aggregated data throughout France, get local news on the energy transition, and take part to local challenges of energy sufficiency.	The programme supports mainstreaming of energy sufficiency among families and empowers citizens to take action in their daily life to reduce their bills and increase their well-being.	France	no effective voice	other	high	low
GreenHome demonstration, training and community centre	ZöldLak Bemutatóközpont	GreenHome is a renovated house, turned into community centre to demonstrate that old buildings can be turned into energy efficient as well, using renewable energy. The house at the moment provides trainings on different topics, green energy, zero waste life, woman circle, entrepreneurship skills trainings and serves as an event place as well.	Building renovation has a bad reputation, that it is complicated and expensive, projects demonstrating the opposite serve as best practices.	Hungary	medium	medium	medium	medium
Carbon House	Karbonház	Carbon house exhibition „How big is your footprint?” at the National Botanical Garden. The exhibition aims to raise awareness about the environmental constraints. The transfer of messages is supported by the passive house construction of the Carbon house of 400 m ² . Separable conference area is provided at the first floor for maximum 80 participants. 40 photovoltaic panels ensure the production of electricity required per year for the operation of the building. The renewable energies, geothermal, biomass and solar are used for other facilities of the botanic garden and the buildings of the municipality where the garden is located.	It is a widely visited botanic garden, next to the Ecological Research Institute.	Hungary	low	medium	high	medium
Climate Elves	Klímanócskák	Climate Elves program is a holistic program series for children from 3-11 years, primarily for the children and also for their parents. It contains various programs from climate topics, extreme weather-conditions, to waste and water management and personal resilience, from few hours' indoor workshops, events till outdoor adventure programs and a week-long camp.	It is a holistic program, it has a high visibility in the country, covers several age groups and by now it covers the whole country.	Hungary	low	medium	high	medium
Passive House Open Door Days	Passzívház Nyílt Napok	A popular and successful event of MAPASZ (Hungarian Passive House Association) is the annual passive house open door days (coinciding with the international Passive House Open Door Days) during which anyone interested is invited to visit energy efficient, low-energy buildings, private as well as public ones. The organizers organize visits, including visits around the country to several buildings in buses.	The Open-Door Days are a very effective way in raising awareness related to sustainable building and providing hands-on experience what it is to live in passive house (nearly zero energy building). The long-term objective of the initiative is building more energy efficient houses and also enabling the practical training of experts (architects, engineers).	Hungary	not relevant	low	medium	low

Sustainable Energy Society: Energy Diaries and typical energy consumption profiles of households	Ilgtspējīgas enerģijas sabiedrība: mājsaimniecību Enerģijas Dienasgrāmatas un raksturīgie enerģijas patēriņa profili	10 households from Alūksne local municipality (novads) and 10 households from South Estonia participated in the study on energy consumption habits in households and made a record of their household energy consumption for one month in a specially created "Energy Diary". When writing the Diary, involved households used various equipment and data sources - energy consumption and microclimate metering/monitoring equipment, remote electricity meters, heating and water bills, fuel checks and others. Each of households analysed those results which were considered the most important by the particular household. Also, more than 90 households (total in both Vidzeme and South Estonia) participated in the survey developed by Tartu regional energy agency. Based on the obtained data, the six most characteristic profiles of energy consumers, which can be found in both Latvia and Estonia, have been created and described in the material (book): "Energetic People: six Energy Diaries". The material contains both information, conclusions and advice which are presented in an easy-to-read way, in the form of stories. The six energy consumption profiles include: car use, energy consumption during holidays (Christmas), simple choices for small household, a small farm which get the firewood in its own forest, renovation of an apartment house built during the existence of collective farm (kolhozs), prosumer (solar PV). The activity had been organised in the frame of the EU Interreg Estonia-Latvia cross-border cooperation programme's project "Sustainable Energy Society"	This is the voluntary activity for households. By participating in deep study and filling in Energy Diary the involved households demonstrate active position for ENCI.	Latvia	not relevant	not relevant because individual	medium	medium
SUSTAINCO (Sustainable energy for rural communities)	SUSTAINCO (Sustainable energy for rural communities)	SustainCo, an EU project supported the European vision for the energy performance of buildings, that by 2020 all new buildings should be nearly Zero Energy Buildings. The SustainCo project aimed to raise awareness of, and support development of low energy building projects, with special emphasis on rural areas.	An important aspect of SUSTAINCO project is the focus on rural communities, and that within the partner regions engagement of rural regions was facilitated by the Covenant of Mayors.	Norway	I don't know / not enough information	not considered	medium	medium
CLEAR - enabling Consumers to Learn about, Engage with and Adopt Renewable energy technologies -	'Comunidade energías renováveis: deco proteste	CLEAR's objective is to lower market barriers to the purchase of RES, hence raising consumers capacity to take informed decisions. The result should be a significant uptake in the purchase of renewable energy solutions (RES) by European consumers and therefore an important contribution to the 2020 European targets	I'm not sure, because although the interest of the CLEAR project is clearly linked to approaching alternative forms of consumption, in the Portuguese case it seems that there is too close a link with entrepreneurial and individualistic forms than with the construction of an energy citizenship; moreover, they do not focus only on energy, but rather on consumers of products in general and how to help them, with specific sites on energy consumption in the home, sustainability and mobility.	Portugal	low	medium	high	medium
Green Households II.	Zelená domácnostiam II.	The national project Green Households II is being prepared within the framework of the Operational Program Environmental Quality, which is managed by the Ministry of the Environment of the Slovak Republic. Green Households II is the second stage of support aimed at using the so-called small renewables in family and apartment houses. The implementer is the Slovak Innovation and Energy Agency (SIEA), which is a contributory organization of the Ministry of Economy. Support is provided for electricity generation facilities, namely photovoltaic panels and heat generation facilities, such as solar collectors, biomass boilers and heat pumps. The aim of the project is to increase the share of RES use in households and the related reduction of greenhouse gas emissions.	The case is supporting households to upgrade their homes with RES, thus helping energy transition on the consumer level.	Slovakia	medium	medium	medium	medium
Repowermap	Mapa obnoviteľných zdrojov energie	The first European map showing examples of RES use in a given location was developed as part of the international project REPOWERMAP (Renewable Energy Power Map) in cooperation with other EU countries. Owners, designers, producers as well as villages and municipalities may add their renewable energy examples to the map. The aim of the renewable energy power map is to encourage the use of renewable energy sources. Thanks to the Slovak Renewable Energy Agency's activities within the project, more than 3000 examples of renewable energy sources were added to the "Slovak part of the map" in only 2 years of project participation. The map is still active and is waiting for experiences to be shared.	The initiative is a great tool to connect individuals and communities who are already using renewable energy with those who want to install it. It promotes renewable energies and energy efficiency by making real-world examples visible and provide local information in each person's neighbourhood. Anybody who have installed a renewable energy system or have constructed an energy efficient building, can add such project examples on repowermap.org.	Slovakia	high	medium	low	medium
Solar Garden: Friends of the Earth Spain	Huerta Solar: Amigos de la Tierra España	Offers people the chance to become co-owner of a photovoltaic installation on a roof by means of one or more financial holdings. The 10 Kw plant is in Leganés (Madrid). The electricity generated is supplied to buildings in the area through the grid to avoid energy losses.	Yes, because of its interest in promoting renewable energies and contributing to curbing climate change, standing up to the energy oligopoly and moving towards community energy.	Spain	low	medium	high	medium

Fair (FER) Solutions for a Better Community	Fair (FER) Solutions for a Better Community	Electrical engineering students in Zagreb, Croatia, were taught to conduct audits in households facing energy poverty, and to propose viable energy-saving solutions. This project was the result of a partnership between various institutions, and was created with the intention of improving social conditions for households, as well as potentially reducing their electricity consumption and CO2 emissions. The data gathered from the audits contributed to the creation of a model which identifies cost-efficient energy-saving solutions, thus helping Zagreb to alleviate energy poverty more efficiently.	The project helped future professionals understand the causes of energy poverty and to develop mechanisms to solve the energy-related issues with which each household is faced. It involved students in the direct improvement of their city's social conditions, and provided useful information for the affected households, which could then proceed to implement the measures themselves and encourage other citizens to follow.	Croatia	medium	high	medium	medium
Social housing, Gdańsk, Dolne Młyny	Social housing, Gdańsk, Dolne Młyny	A social housing project on Dolne Młyny street 4. An energy efficient building is a place where also social issues are solved. People recovering from debts, alcohol or drug addiction etc. get housing there, but also help needed to get back to an independent live again.	It is a combination of energy efficiency and social program, initiated by a municipality, as part of a broader policy on city development	Poland	I don't know / not enough information	high	medium	does not contest
Energy Friends	Kamarátka Energia	As a part of their LIVE ENERGY (ŽIŤ ENERGIU) free counselling service, the Slovak Innovation and Energy Agency also offers free energy counselling for schools in Slovakia. The program is called Energy Friends (Kamarátka Energia). On the website the schools can find various inspiring educational materials for teachers and students of primary schools focused on energy savings and the use of renewable energy sources. These materials help to motivate children to use energy efficiently and learn about the benefits and limitations of renewable energy sources. There are also games, interactive presentations and a competition program within the project.	Our future is in the hands of the youth, so their proper education in the fields of energy and sustainability is key for the transition we would like to see in the energy sector.	Slovakia	not relevant	high	low	low
Energy Literacy of Young People - Training of Teachers and Enlighteners in the Rimavská Sobota District	Energetická gramotnosť mladých - školenia pedagógov a osvetárov v okrese Rimavská Sobota	Friends of the Earth-CEPA launched the case, and its aim was to contribute to the expansion of educational priorities of regional schools and educational institutions in the Rimavská Sobota district by increasing energy literacy and awareness of children and youth. Based on a survey and evaluation of the rate and quality of education and information on issues related to energy and climate change in the regional education system, they prepared the content of a training for teachers and professionals in education in the range of 3-4 hours. After addressing and consulting with representatives of schools in the Rimavská Sobota district, they organized three trainings. The training program was designed so that it could be used in the future for educational organizations in other regions that recognize the urgency of increasing energy literacy and awareness of young people.	The case is about training teachers so they can give the necessary education to their students on energy and climate change, and help them become more energy conscious citizens.	Slovakia	medium	high	medium	medium
Skala Ecovillage	Οικοχωριό Σκάλα	The skala ecovillage is a school of life. Skala is focusing on self-sufficiency and sustainability. The participants all work as a community and focusing on notions such as common economy and on a collective way of living.	I included this case study as it started from 2 individuals (a couple) aiming to a more holistic living and towards a sustainable sufficient future. This is a unique case study especially for Greece as it is rare to find such committed individuals wanting to live life differently and to create a community for an eco-friendly way of living.	Greece	medium	high	high	medium
Pedibus Gödöllő	Lábbusz Gödöllő	With Pedibus children can walk to school in an organized setting accompanied by registered local volunteers. There is a map with pre-defined routes, with "stops" (meeting points) and a timetable. One of its main goals to minimise car usage when it comes to taking kids to school.	The project helps families to organise their morning commute to school in a sustainable way.	Hungary	medium	other	I don't know / not enough information	does not contest
Support Programme for Renovation and Energy Efficiency Improvement of Single-Family Building and Two-Apartment Building (for families with child)	Atbalsta programmu viena dzīvokļa un divu dzīvokļu dzīvojamā māju atjaunošanai un energoefektivitātes paaugstināšanai (ģimenēm ar bērnu)	To carry out energy efficiency improvement, including the installation of micro-scale RES utilizing technologies, in single family buildings the particular programme for the first time in Latvia had been adopted in February 2021. This programme had two target audiences: (1) any single-family building outside capital city Riga, edge municipalities of Riga and Jūrmala city, (2) families with three children (including case of pregnancy) living with the family and being in subsistence, independently on the site of the single-family building. The regulation has been re-casted in March 2022. Main recasts relate to: the new programme is (i) aimed to provide technical assistance and the investment grant of defined amount only for the families with at least one child (or pregnancy) independently on the siting of the building, (ii) inclusion of two-apartment buildings (twin, row and separate two-apartment house type); (iii) possibility to install the micro scale (up to 11.1 kW capacity) RES-electricity production technology without performing the energy efficiency improvement measures for the whole building. At the same time the guarantee for the loan, issued by commercial institution, is available for any household of these buildings.	Single-family and two-apartment buildings is an important target audience for the development of sustainable and democratic energy system. Decision to improve energy efficiency and/or switch to renewable energy supply is the principal ENCI decision of the owners of these buildings. Now it is promoted also by the state support programme.	Latvia	not relevant	medium	medium	medium

Kronenberg Energy	EnergieKronenberg	The Foundation EnergieKronenberg together with the inhabitants, companies and organisations of Kronenberg, is committed to a sustainable society. In 2014, they set themselves a very ambitious goal: an energy-neutral Kronenberg by 2030. In the 450-household village of Kronenberg, a bottom-up initiative started in 2015. Residents founded 'EnergieKronenberg', aiming to make the village energy neutral by 2030. A joint study by the foundation and the municipality in 2020 has shown that 'all electric' is the best option for Kronenberg. But this scenario is not easy to implement, because every individual homeowner needs to invest in energy measures.	It is interesting to see how this case will further develop in the future with the involvement of all residents of the village of Kronenberg (that is their ambition). In 2021 the foundation and the municipality will take the next step by analysing small-scale collective solutions, such as two houses sharing a heat pump. Then they will determine technical specifications and then make realistic cost estimates to turn all real estate all electric. After that, the best implementation strategy will be decided. This could be individual step-by-step plans that follow the natural cycle of home maintenance and replacement of old devices or it could be a collective strategy with tighter management, focused on collective purchasing power and efficient workflows. The citizens of Kronenberg will have a large say in this, because without their support it will be difficult to continue. Finally, it will be determined which investment concepts offer the most potential and fit best into the chosen strategy. Through a wide variety of projects, Horst aan de Maas shows the many different forms that sustainable action can take. Most importantly, local stakeholders, especially residents, are continuously involved in the process, ensuring that the necessary transitions take a participatory shape.	Netherlands	high	I don't know / not enough information	low	medium
EcoHouse	EcoCasa	The EcoCasa Project was created in 2004, and since then works permanently on Environmental Awareness/Education in order to save natural resources in our homes. The project focused, in the first years, on energy efficiency, renewable energy and sustainable construction. Later, it expanded its scope to other areas, such as water consumption, sustainable mobility and sustainable shopping	Because the project focused on energy efficiency, renewable energy and sustainable construction, water consumption, sustainable mobility and sustainable shopping	Portugal	I don't know / not enough information	I don't know / not enough information	medium	does not contest
Green Homes	Hogares Verdes	An educational program born in Segovia from the Centro Nacional de Educación Ambiental (CENEAM), now in 12 Spanish communities directed towards families concerned about their environmental impact and their daily decisions and habits. The program seeks to help them by promoting autonomy in the domestic consumption of water and energy and helping them make more ethical purchases	The case aims to raise awareness of environmental problems, the active reduction of greenhouse gas emissions, the training of more responsible consumers, leaders in reducing CO2 emissions and water consumption.	Spain	I don't know / not enough information	I don't know / not enough information	medium	does not contest
Limitless sun, limitless energy	Sol sin límites, energía sin límites	An environmental education program for schools in 16 provinces about the use of solar energy as a clean energy source. Created by la Fundación Oxígeno, with the financial support of la Obra Social de Caja Madrid.	The case aims to promote positive and participatory attitudes towards the use of solar energy, encourage alternatives for energy use that provide economic, social and environmental benefits and inform and educate social agents (city councils, associations, professional groups, promoters, investors, etc.) about the importance and convenience of investing in solar energy	Spain	I don't know / not enough information	I don't know / not enough information	medium	does not contest
Green Walk	Green Walk	Green Walk is part of the World Green Building Week, a campaign to accelerate sustainable buildings for everyone. Organised visits to otherwise closed buildings and houses to learn about resilient net zero built environment. The walks are organised for architects and citizens and are led by experts to teach about technology.	The case is active or ten years, so it is very successful and expanding, is a good tool to raise awareness and build knowledge on technologies decreasing carbon emission.	Hungary	not relevant	medium	high	medium
Individual Building (Renovation) Roadmaps	Individual Building (Renovation) Roadmaps	The iBRoad project works on lifting barriers of renovation by developing an Individual Building Renovation Roadmap for single-family houses. This tool looks at the building as a whole, and provides a customised renovation plan over a long-term horizon (5-30 years). The roadmap makes it possible to improve a building's energy efficiency gradually, taking into account the occupants' needs and specific situation (e.g., financial situation, composition of the household, etc.). By planning ahead and future-proofing technical requirements, the roadmap also helps avoid 'lock-in' - whereby present choices limit the future renovation potential.	The case developed a tool that increases the efficiency of building renovation, the main potential and area of energy use. Help to give individual answers, as general messages and calculations often block concrete actions.	Poland	not relevant	low	medium	I don't know / not enough information

<i>Light for Romania</i>	<i>Lumina prentu România</i>	Iulian Angheluta initiated a campaign in 2014, called as "Light for Romania", under the global NGO "Free Miorita" (created by him). The aim was to bring electricity to remote Romania villages, disadvantaged by location and lack of infrastructure. Since 2013, the project has brought light to homes of 78 families and two churches in 14 counties in Romania, which were previously illuminated by oil lamps, candles, or flashlights. As these homes / villages are not connected to the grid, electricity is produced by solar panels.	This is an interesting ENCI case due to the history of its development from a person who thought about the electricity poverty in some Rumanian region to the creation of an NGO with a lot of initiatives, among them: Light for Romania. Nowadays they receive a lot of support.	Romania	high	high	high	medium
Center for Solar Communities	Centro per le comunità solari	The Center for Solar Communities is a private non-profit association founded in 2015, as a spin-off of a project at Bologna University, with the task of studying and developing useful tools to accompany families in the energy transition towards a Solar World that is powered from renewable energy. They mainly work to: 1. Teach people how to switch energy suppliers, how to do home energy planning, how to renovate a house or buy an electric car; 2. Develop and optimize the tools necessary for the energy transition in relation to the needs of families; 3. Build Solar Cities that respect the environment and humanity, through the management of resources and circularity. 4. Teach how well-being can be expressed through technological progress in a sharing economy.	It is a case where an association enables / supports citizen to become active ENCI, in the household, in organisations and as part of larger communities.	Italy	high	high	medium	I don't know / not enough information
Energiek Moerdijk	Energiek Moerdijk	Energiek Moerdijk is a community cooperative of and for the residents of Moerdijk. The members want us in Moerdijk to no longer be dependent on fossil fuels. Mission: Low-energy and sustainable energy consumption for everyone in the municipality of Moerdijk. We realise this by cooperating and investing in energy saving, sustainable energy production and knowledge transfer. We consider energy a basic necessity of life. Energy should therefore be permanently affordable and sustainable. We want to realise projects with the goal of generating sustainable energy and supplying this to our members and the residents of the municipality of Moerdijk. We seek the strength, support and expertise from the residents and companies of the municipality of Moerdijk.	This is a nice example for out mapping. Moerdijk aims to distribute the revenues from their projects flow back to the own residents. Their vision is also based on the Trias Energetica. This is the basic principle for achieving sustainability consisting of: use as little energy as possible, use sustainable energy, such as solar energy or wind energy, use energy from sources that may run out (natural gas, coal) as smartly as possible.	Netherlands	not relevant	I don't know / not enough information	low	I don't know / not enough information
EnergyMeasures	EnergyMeasures	EnergyMeasures addresses energy poverty in a mid-size city through direct household engagements that are complemented and informed by cutting edge policy and practice innovations.	The project builds direct contact with people living in energy poverty and enables them to be more conscious about their energy bills and consumption.	Poland	I don't know / not enough information	high	medium	I don't know / not enough information
Use your bike instead of your car/By bike to the rush hour	Biciklom na špicu	In April 2017, a one-day event called "Biciklom na špicu" ("By bike to the rush hour") was organised in Zadar, Croatia as part of the "CitiZEN - Sustainable Mobility for Citizens in Europe" project, co-financed by the Europe for Citizens program. The aim of the event was to inspire sustainable mobility in energy-conscious cities through improving plans for sustainable urban mobility of local governments, but also by continuously encouraging activities such as cycling, walking, use of electric vehicles, car-sharing, etc. The planned programme included workshops for children organized by the Association "Eko Zadar", promotion of electric bicycles (Calimero Sport) and electric car (Vocational School Vice Vlatković Zadar) and "Pimp my bike" workshops for decorating bicycles, scooters and others. All participants in the event were invited to go to the city centre on their bicycles, scooters, rollerblades, or other more environmentally friendly means of transport instead of by car, and thus contribute to promoting sustainable mobility.	The case presents a sustainable way of transportation that aims to inspire people to take action to move to greener transportation. It shows a joint commitment of citizens to reducing their carbon footprint. All these make us consider the case as an ENCI.	Croatia	I don't know / not enough information	I don't know / not enough information	high	I don't know / not enough information

Type 2: “Do their own (in the household)”

Name of case in English	Name of case in original language	Brief overview	Why is this case a case of ENCI?	Country	Effective citizen power/control	Justice/equity	Env. Sustainability	Contesting the current energy system
<u>Gabriella Révész, eco-architect and activist</u>	<u>Révész Gabriella, ökoépítész és aktivista</u>	By her own definition: "mother of three happy children, cyclist, recycler, zero waste activist, idealist, small town gardener, community engine". Gabriella is an eco- architect focusing on environmentally sound ways of building, especially on straw-bale and adobe houses. She is a founder and the president of the Hungarian Strawbuilders Association, built her own house with his husband and many friends, opened her house to experts and lay people too who are interested in straw bale houses and organises workshops there. Besides, she is an active member of several local civic organisations, groups in Gödöllő, Hungary, the cyclist group, "eco picnic" group, she organises film screenings on sustainability related issues, and an active zero waste activist. She is also a member of the local organic food box system (CSA).	Gabriella, besides being a professional focusing on environmental and sustainable energy related issues in designing houses (energy efficient, with straw-bale and/or adobe walls, installing sustainable practices - e.g., composting, water cleaning systems, renewable sources), she opened her own straw-bale house and garden as an exhibition for everyone, continuously receiving guests, organising workshops. She is also a conscious energy citizen actively advocating different ways of sustainable lifestyles among other citizens.	Hungary	not relevant because individual	not relevant because individual	high	high
<u>Dr István Dóry</u>	<u>Dr. Dóry István</u>	Dr István Dóry is a physicist, currently a lecturer at EDUTUS University. More than 10 years ago, he and his wife moved from the capital to Egyházasköte, a small village in the western region of the country. They deliberately chose a place where there are no major roads but good train transport - and where they can live a sustainable lifestyle. István has been involved as a climate coordinator (i.e., community organiser, leader) for 6 seasons in the Energy Communities programme (residential energy saving programme) organised by GreenDependent. He is also the creator and builder of the SunSnail (NapCsiga), an Island operated solar-energetic vehicle, which means it uses only that electricity which the mounted solar panels producing. SunSnail is capable of transporting 1-2 people and 300-400 kg of load and its designed cruising speed is 25 km/h	Both in his personal and in his professional life, he considers sustainability as a priority. He is very strict, regularly produces lifestyle "reports" (like carbon footprint calculation), also encourages and teaches others to do the same. His, and his family's, lifestyle can be a real role model for those wanting to live a sustainable lifestyle.	Hungary	not relevant because individual	not relevant because individual	high	high
Gyöngyvér Kazinczy - being free of(f) the grid	Kazinczy Gyöngyvér - hálózatmentes életmód	This case is about an architect, Gyöngyvér Kazinczy, and the house she built (renovated) for her family, and the lifestyle they lead off the grid. Gyöngyvér also writes about their experience, shares advice as well as organizes events when people can visit and learn both about their house and lifestyle in the country, in the Balaton Uplands in Hungary.	Gyöngyvér Kazinczy is a good example of an energy citizen, who in addition to helping others become energy citizens through her profession (she is an architect who designs energy efficient buildings), also lives an energy-sufficient lifestyles with her family, and shares about their experience both online and through open house events organised by her and her family.	Hungary	not relevant because individual	not relevant because individual	high	high
Fruzsina Józsa	Józsa Fruzsina	Fruzsina Józsa is a self-taught expert in natural and traditional buildings. She supports citizens in constructing and renovating homes in a way which has small ecological footprint and cost-effective at the same time. Her services of consultancy, renovation planning and realisation of construction, open farm days, trainings and workshops enable citizens to create their own home from natural and reused materials. This way the pollution of production and of transportation, the wastes and costs can considerably be reduced. At the same time, since these houses are in the countryside, another aim is to enliven the depopulated rural areas and their organic building traditions.	Even though Fruzsina Józsa's case is not closely related to energy, but through her activity of services and teachings she enables citizens to develop a more sustainable and democratic system. She also contests the dominant system by not only aiming to construct zero-waste homes, but homes which are affordable too. Furthermore, as a woman, she serves as a role model by contesting the usual role of women in Hungary.	Hungary	not relevant because individual	not relevant because individual	high	high

Ecovillage Earth houses	Ecovillage Aardehuizen	The Aardehuizen ("Earth houses") is a modern ecovillage on the outskirts of a small town in the eastern countryside of the Netherlands. It is the home of 70 people, mostly families, who have spent 3,5 years of their lives working together to construct each other's houses. The houses were constructed according to the Earthship design by Architect Michael Reynolds. Key design features include the use of recycled, sustainable and locally sourced materials, in order to minimise the environmental impact. In addition, energy is harvested from the sun (both heat & power), water is filtrated organically and recycled, and food is harvested according to permaculture principles.	Aardehuizen, an ecovillage in Olst, is formalised as a housing organisation in which 26 households work together to reduce regional grid congestion by peak shaving electricity (i.e., through installing a local battery and exchanging energy locally). Multi-actor, collaborative formats that aim to experiment with and/or try out novel energy solutions in specific local settings. It includes formats that bring together actors from different societal spheres to work together (rather than to have a dialogue only) in a project-like setting. I choose this case study as Aardehuizen experiments with local energy generation and storage to reduce grid congestion and it is an innovative citizen initiative. For decision-making, we use sociocracy, a decision-making method in which equality and effectiveness are guaranteed. We made our decisions based on consent. This means that each individual adult member bears the decision. The sociocratic organization consisted of a general circle and several working circles, each with its own area of responsibility, underneath. The executives of the workplaces are elected by open elections.	Netherlands	high	high	high	high
bewirk.sh	bewirk.sh	bewirk.sh is an initiative that does educational work regarding the global climate change and possibilities for individual action. The focus is on the individual with their responsibility for living together on earth sustainably. The goal of the initiative is to motivate and enable the individual to be part of a lived democracy and a society with citizens who are active in their community, their city district or their neighbourhood and take action together for the energy transition and protecting the climate.	It is a case of energy citizenship because the individual is targeted to be educated, enabled and empowered to be active against climate change and for sustainability and the energy transition via workshops and local projects.	Germany	high	high	high	high
Energy Audits: Friends of the Earth Spain	Auditorías Energéticas: Amigos de la Tierra España	The project encourages the improvement of energy efficiency and savings in residential homes (thermal and electric, e.g., possible heat losses, characteristics of the domestic electricity) across Galicia, Ibiza, La Rioja, Mallorca, and Madrid. The results of the audits will be used for a study that will help put these types of projects into effect across the population.	Yes, as it is a project that aims to improve efficiency and energy savings in homes, by carrying out studies on domestic habits that will lead to the reduction of CO2 emissions in the domestic sector, thanks to the identification of efficiency and savings measures.	Spain	medium	high	high	high
Energy Cooperative	Cooperativa de Energie	The Cooperativa de Energie is an organisation founded in 2019 by 15 members with the desire to bring the human consumer to the centre of the energy market; that is to design a project in which it acts only in the interest of its members, with a democratic and transparent governance, for the consumption and commercialisation of 100% green energy in Romania.	Yes, because it is a proposal that comes from the citizens themselves and puts the energy consumer at the centre of decisions, seeking a change in the way of understanding energy consumption through a work that involves the common good for the community, support for a Roman initiative and a commitment to empowering citizens to make decisions on how to produce and benefit from 100% green energy.	Romania	high	medium	high	high
<u>Livingwagon (WW)</u>	<u>Wohnwagon (WW)</u>	Considering that the way we build and live has a massive impact on other areas (mobility, social structures, supply infrastructure, etc.), WW want to stir things up and launch projects that serve as flagships for sustainable housing. Projects that show how a good life could work for everyone, that is self-determined, ecological and social and can also be fun. In this perspective, WW offers solution for self-sufficient and even autarkic lifestyles, in accordance with the principles: "with the nature", "for the people" and community-oriented.	This is a case of ENCI since WW offers to individual people various solutions to opt for a more self-sufficient housing, based on cooperation, community principles and DIY.	Austria	high	medium	high	high

Ecovillage Torri Superiore	Ecovillagio Torri Superiore	Torri Superiore is a small medieval village in Liguria, north-west Italy, restored by a community association and turned ecovillage and holiday centre for ecotourism, as well as training, information and cultural promotion in the field of environmental and social sustainability. The guiding principles of Torri Superiore are harmony and respect for people, nature and the environment through sustainability, cooperation, and solidarity. The activities at Torri Superiore are managed by three interrelated organisations: the Torri Superiore Cultural Association; the Ture Nirvane cooperative company Ltd.; and the resident community. Examples of their activities include permaculture and food self-sufficiency, solar thermal panels, photovoltaic systems, small water filter plants, sustainable restoration of the built environment, recycling, and car sharing.	Torri Superiore consisting of the community, the association and the cooperative, enables/supports its residents and to some extent its visitors to practice more active ENCI.	Italy	high	medium	high	high
Green Line Sofia	Зелена линия София	Currently, the obsolete railroad in Sofia spans about 20km, and includes a large number of abandoned facilities (stations, warehouses, etc.). The project aims to repurpose obsolete railroads in Sofia by using them to expand the existing bicycle lanes. In doing so, peripheral neighbourhoods will be linked to the city centre through a sustainable mobility network, and abandoned public areas will be revived. Moreover, traffic will be reduced, and new opportunities for sports, leisure, cultural development, business investments and tourism may arise.	The Green Line is an innovative project which has the capacity to promote sustainable mobility and infrastructure; moreover, it may help contribute to urban revitalization.	Bulgaria	not relevant because individual	not relevant because individual	high	low
Houseboat space	Woonark de ruimte	Ika and Pauline live in a houseboat near Amsterdam. Since 2005 they started a sustainable renovation starting with 4 solar panels on their roof. Now they have 13 solar panels and 10m ² of solar collectors. They enjoy the fact that they can shower and heat their home on clean energy every day. In summer, when the sun is not shining for a day, they choose to take a short shower with lukewarm water instead of heating our home with wood. We live much more with the seasons. They also do not have a gas or electricity meter and their only expenses are maintenance and the costs for the wood pellets.	This case study shows how determined are these houseboat residents to live of the main gas/electricity grid and transform their home into a sustainable and independent one. Both Ika and Pauline are what we call in EP, 'energy citizens'. Especially living on a boat has extra challenges (e.g., space, capacity etc). They managed now to be almost independent from fossil fuels.	Netherlands	not relevant because individual	not relevant because individual	low	high
Off-grid: Renewable Energy Diy (Do It Yourself) for Rural Development	BEZ TĪKLA: Atjaunojamā enerģija - DARI PATS lauku attīstībai	Target group = individual rural homesteads and small farmers... The objective of the project has been to collect and further explore appropriate renewable energy technology solutions and develop physical prototypes and an open license manual to promote decentralized renewable energy generation opportunities. The project involved the installation and demonstration of alternative technologies in selected farms, practical workshops in which experts trained interested rural audience on self-making and installation of such technologies as solar heat panels, solar PV panels, foot-laying equipment capable to generate energy as well as energy active rural house. Wide development of practical handbooks and diversity of communication channels were applied. Good interest from the target audience	The case as the project has been initiated and implemented by the local action (LEADER) groups - a non-profit-making compositions made up of public and private organisations from rural villages having a broad representation. The case manifests itself as "A platform & community for smart solutions & ways to live with energy, a space where we share research, knowledge & experiences to deep our common understanding. We do it for all of us and for the nature. the activities performed have shown that there is good interest for such self-made technologies (WhatsApp group in Latvia involve 241 participant). the case has provided relevant activities for the need of this target group to close the gap of competences and skills - technologies installation and demonstration in selected rural farms, practical workshops, range of handbooks for self-making RES technologies, video advising in YouTube, etc.	Latvia	not relevant because individual	medium	medium	medium
Solidarity Energy	Energie Solidaire	Energie Solidaire is an endowment fund that collects donations from non-energy poor households and energy producers to finance actions to alleviate energy poverty. Energie Solidaire was launched in 2017 by the NGO "les Amis d'Enercoop", which is linked to Enercoop, an alternative energy supplier working as a renewable energy cooperative. The first projects were financed in 2019. It consists of various types of action, mostly for renovation (for example technical assistance for self-renovation programmes) but also free health audits for energy poor households, or replacement of inefficient fridges. Donations can be of two types: micro-donations from individuals (typically by agreeing to pay an additional 1 cent € per kWh), or donations of surplus electricity from energy producers (collected by Enercoop which transforms these kWh in € and transfers it to Energie Solidaire).	The case supports solidarity transfers from non-energy poor households and renewable energy producers towards actions and programme to alleviate energy poverty. As such, it contributes to empowering energy poor households and also supports the commitment of more well-off households to solidarity actions for a just transition.	France	medium	high	medium	medium

Kristīne Garklāva-unofficial influencer	Kristīne Garklāva-neoficiāla influencerē	Kristīne Garklāva is an anchor, public figure in Latvia. World Wildlife Fund ambassador. Fjällräven ambassador and also known as environment activist- using different social media platforms to promote environmentally friendly lifestyle and taking part in different kind of TV programmes concerning environment.	Kristīne Garklāva is public figure in Latvia known for her green lifestyle and also for going a step further by changing some everyday details to become more environmentally friendly, also she has been paying close attention to environmental issues for a long time. In that way she has shown a great example for her social media followers and fans,	Latvia	not relevant because individual	not relevant because individual	high	I don't know / not enough information
Cycle to work	Bringázz a munkába	An awareness raising and motivation campaign to promote cycling to workplaces, as many uses cycling for leisure-time activity, not for everyday transport. The campaign provides many information on cycling for individuals, on cycling and also carries out a championship and gives awards for best visibility and cycled kilometres. Individuals can register and count how many times, how much kilometers they were biking. The campaign has every year a launching event called bike breakfast, where local shops provided bakery products and drinks for bikers at important squares in the city.	The campaign is going on for more than ten years, it is organised every year with a 4-years break. It has a huge visibility and involve variety of stakeholders and provides many information.	Hungary	medium	medium	medium	medium
Installation of hybrid systems in 3 social housing buildings in Plovdiv	Инсталиране на хибридни системи в 3 сгради със социално предназначение в Пловдив	As part of the POWERTY project, financed by the Interreg Europe programme, PVs for collective self-consumption systems are planned to be installed in three social housing buildings in Plovdiv, Bulgaria. The pilot action in Plovdiv tests an innovative hybrid of PV plus Battery Energy Storage System (PV+BESS) as a possible solution for vulnerable households to achieve a significant share of renewable self-consumption and energy independency and thus decrease electricity bills and contribute to the decarbonisation of the energy system, while providing no further stress to the grid. The project implements 3 hybrids consisted of PV+BESS in social housing buildings owned by the Municipality of Plovdiv, which are currently provided to youths and children with disabilities, as a possible solution to alleviate energy poverty of the participating households. The final users are youths and children with disabilities who are currently occupying publicly owned social housing. All pilot installations are planned to be co-supported by the Municipality of Plovdiv, which is going to facilitate the participation of the low-income households and Schneider Electric Bulgaria, who are running a specific fund helping alleviation of energy poverty at local level.	Although the case is implemented within an EU-funded project and has not been initiated by citizens, but by the project and local organisations, we consider the PV and battery installations on the social care buildings an example of an energy citizenship case since citizens are the main beneficiary of the installation, the ones that will consume the energy produced from the sun and the ones that will achieve energy independency. The project targets one of the most vulnerable parts of the society that cannot alone invest in renewable energy but can become prosumer thanks to external funding.	Bulgaria	no effective voice	high	medium	high
Noctisolar Ecolight: light to hope	Noctisolar Ecolight: luz a la esperanza	Project started in Spain in 1999 with the collaboration of a company from the T-SOL sector and Fundación Tierra, with the objectives of: -Provide a response with low-cost, high-efficiency solar technology to the problem of domestic lighting in areas without electrification. More than 1,000 million do not have access to electricity for lighting, having to use systems such as liquid fuels (kerosene, oil, etc.) that create air quality problems inside homes. - Design a portable solar lamp to withstand the harshest environmental conditions providing the maximum amount of light possible. - Create a product demanded by cooperation NGOs given the lack of high-performance solar lighting systems. It ended in 2004 due to the bankruptcy of the T-SOL company and the lack of projection and economic resources.	It is a project initiated by non-profit organizations that has devised high-performance portable solar lamps to combat energy poverty and limit the use of lighting systems that use liquid fuels that negatively affect the quality of the air inside homes. The product also responds to the demand for solar lighting systems by various cooperative NGOs.	Spain	not relevant	high	high	high
Veronika Kiss - responsible travel	Kiss Veronika - felelős utazás	This case is about being responsible for your air travel and to some extent your overseas holidays. On the one hand, making an effort to reduce the need for air travel as much as possible, and on the other for making an effort to compensate for it. In this case Veronika, a Hungarian woman, asked GDI to calculate the carbon footprint of her and her family's travel, and to plant native fruit trees in order to compensate for it - while not thinking that if air travel is compensated for you can do it as much as you like. For Veronika it was also important that the planting of fruit trees contributes to preserving biodiversity, and that they are planted in school gardens or the gardens of NGOs and thus there are some additional social and ecological benefits.	Taking responsibility at the individual level is a new form of energy citizenship, especially with this form of compensation of the travel carbon footprint. This case can be linked to the TreeDependent case, which is a collective case.	Hungary	I don't know / not enough information	high	high	medium

Municipality of Aradippou	Municipality of Aradippou	Aradippou is driving an ambitious local energy transition by engaging local actors as well as national and European partners. The municipality aspires to establish one-stop shops that provide comprehensive solutions for homeowners, encouraging them to engage in upscaling renewable energy projects and increasing energy efficiency. The municipal projects also aim to unleash financial and technological capacity to establish a 'smart grid'. Involvement in various European projects is allowing the city to access European funds and partnerships which will equip it to reach net carbon-neutrality by 2030.	First of all, I have included this case as this is the only case in Cyprus that fitted our ENCI typology. For Cyprus this is an innovative case study involving local residents and a good example for many municipalities to follow. Aradippou joined 11 European pilot cities as a learning partner in the INNOVATE project. The main objective of INNOVATE, which is coordinated by Energy Cities, is to empower municipalities to use their local knowledge about the population, existing building structures and available energy sources. INNOVATE supports cities to deliver tailored energy advice packages adapted to the needs of local consumers and homeowners, bridging the gap between people's motivation and practical feasibility. It facilitates the establishment of 'one-stop shops' in cities like Aradippou, where trained employees provide comprehensive solutions helping to minimise individual residents' efforts and risks.	Cyprus	low	low	medium	high
Clever Net in Sustainable Lochem: Citizen's initiative Lochem Energy	Slim Net in Duurzaam Lochem: Lochem Energie	Slim Net Lochem Background: In4Energy is the consortium of corporations and organisations responsible for the implementation of the field trial Slim Net in Duurzaam Lochem. Within several weeks of start-up, the citizen's initiative "LochemEnergie" over 1000 aspiring members joined up to actively cooperate and accelerate the transition to clean renewable energy. By involving the local residents this project does not only consider the production side of energy management, but also specifically considers the demand side and a balance between both. A smart grid contributes to a sustainable Lochem and eventually a sustainable energy supply chain across the globe.	This pilot is part of the citizen's initiative Lochem energy. I chose this case as it is an initiative of citizens who believe that we should use less energy and that the energy and that this should be produced as much as possible in the municipality of Lochem. The group want to accelerate the energy transition. It is a club with ambition with over 1000 members. Local residents are also involved actively into the projects such as the Slim Net Lochem.	Netherlands	high	medium	I don't know / not enough information	high
Build smart from start	Byg smart fra start	It is a campaign for those who want to build a new house. It consists of an educational website about how to choose the right building materials in order to have the lowest CO2 emission plus free counselling from an expert from EnergiTjenesten (The Energy Service) an independent energy consultancy service run by citizen-based organizations. Some of the cases, where the sustainable construction was realized, are also showcased on the website. The case aims to help home owners to easily and confidently choose climate-friendly, sustainable building materials when building their homes. The two target groups are the private builder who wants a greener climate footprint and construction companies with a focus on sustainability. The project is an inspirational project for the rest of the country's municipalities and construction companies, and is therefore also regularly disseminated to a number of relevant municipal networks.	The aim of the campaign is to get private home owners to build houses that not just follow the current energy efficiency legislations, but cut energy consumption and CO2 emission on the level of choosing the most sustainable building materials possible.	Denmark	medium	not considered	high	low
The Independent	#Независимите	"The Independent" is a documentary series created by the Bulgarian Solar Association. Each episode (of 3 in total) depicts a different story of Bulgarian citizens who have decided to become independent from the grid in various ways, including through sustainable energy production and consumption, urban farming, and others. The documentary shows the most common struggles they face, including resistance from the national energy providers, bureaucratic complexities, lack of local support for urban farming, and others.	"The Independent" illustrates examples of both sustainable and democratic energy production and consumption of citizens, who grow by number and conviction, even though they are disincentivized by national and local government agencies.	Bulgaria	high	I don't know / not enough information	low	high
Sponti-Car	Sponti-Car	Sponti-Car is a start-up that offers e-car sharing in cooperation with local authorities solely with ecologically sound electric vehicles. Citizens have easy access to an electric car that is provided at the locations of the municipal administrations along with a charging station. The vehicle is also used by the employees of the respective administrations for work trips.	Energy citizenship manifests itself in the case in that it offers community residents a simple way to make their individual lifestyle more sustainable by using a publicly provided e-vehicle instead of their own car.	Switzerland	low	low	medium	medium
Climate protection citizens 2.0	Klimaschutzbürger 2.0	In the project "Climate Protection Citizen 2.0", households were sought for a real-life experiment in which sustainable behaviours could be tried out. 18 households from 12 municipalities in the Steinfurt district took part and managed to reduce their ecological footprint by an average of 10 percent. Together with experts, the participants developed measures for climate-friendly behaviour in the areas of nutrition & consumption, mobility and energy saving & living with great events such as a climate cooking course or fuel-saving driving training.	It is a case of ENCI since the people that were taking part in the project "Climate protection citizens 2.0" experimented more civic and sustainable lifestyle to reduce their ecological impact.	Germany	medium	not relevant	high	medium

Energy Transition Oostpoort	Energietransitie Oostpoort	The EnergieTransitie Oostpoort (ETO) working group grew out of an initiative group that ensured that solar panels were installed on the roof of Oostpoort 11 in 2017. These now provide a substantial green contribution to the power supply every year. The working group consists of enthusiastic residents of 7 and 11 with a heart for sustainability and at the same time a pragmatic, critical no-nonsense approach. They started looking at possibilities for making the area even more sustainable. This resulted in information and numerous useful contacts. The working group is supported by Bureau 02025. This organisation connects and supports frontrunners in Amsterdam's energy transition. They can help each other with effective sustainability.	I included this case study because it started by local residents for local residents which fits our definition of ENCI types. Residents of Oostpoort 7 and 11 have joined forces in a working group to investigate what a successful energy transition might look like for these blocks of flats. The basis of the approach: by and for the residents.	Netherlands	high	I don't know / not enough information	not considered	high
Radovan Burkovič	Radovan Burkovič	Radovan Burkovič is an engineer from Ostrava who installed photovoltaic panels on the roof of its house and owns an electric car, which can be charged directly from its own charger in front of the house. Mr. Burkovič's household received an award in 2016 (Renewable Decade award, Renewable Energy for Families category).	It is a manifest case of ENCI because it reflects a high degree of commitment to sustainable lifestyle practices.	Czech Republic	not relevant because individual	not relevant because individual	I don't know / not enough information	I don't know / not enough information
Local heating network in Unterspiesheim	Nahwärmenetz in Unterspiesheim	Michael Bürger's original concept launched in 2020 is to build and operate a local heating network supplying 80 properties. The Bürger family lives on the same property in Schafgasse in Unterspiesheim where the heating centre is located. There are three boilers that are fired with wood chips. Together, the furnaces have a heating capacity of 0.75 megawatts. The buffer tanks right next to them hold 30,000 litres, and another 20,000 litres will circulate in the heat pipes - once they are laid and in operation. The fuel, the woodchips, he gets partly from his own landscape management company; it is the waste wood that accumulates there. He also collects the rest of the wood himself. The customers are bound to him by contract for 15 years - from the time of commissioning. Until then, the customers do not pay a cent. Bürger not only finances the grid, but also the transfer stations in the houses. The customers provide - and pay for - the connection to their home grid.	It is an individual case of ENCI since Michael Bürger and his wife decided to launch their own local heating network next to their house and to supply the neighbourhood with it.	Germany	not relevant because individual	not relevant because individual	I don't know / not enough information	I don't know / not enough information
Energy Shift Filip Koprčina	Energy Shift	Filip Koprčina is the founder of Energy Shift, the blockchain-powered platform that allows citizens to invest in and support solar energy projects around the world. EnergyShift is an innovative project powered by blockchain technology that responds to the twin needs to boost solar energy production and democratise the green energy transition by involving citizens in the process.	This is an individual case study. Filip was frustrated of the way energy is generated and decided to do something about it. Filip wants to put green energy and its operations and placed it in the hands of citizens. He won also the EUSEW EU award for the Young Energy Trailblazer.	Cyprus	not relevant because individual	not relevant because individual	I don't know / not enough information	I don't know / not enough information
Ecocommunities	Ecocomunidades	The families/citizens involved will be connected into eco communities to create low carbon life styles (think globally, act locally), which will follow by a replicable local strategy, applicable also to the national level.	I have decided to include it because the case is a program of the ZERO association that seeks to promote lifestyles compatible with a post-carbon society.	Portugal	I don't know / not enough information		high	high

<p>Students Achieving Valuable Energy Savings 2 (SAVES2)</p>	<p>Students Achieving Valuable Energy Savings 2 (SAVES2)</p>	<p>Students Achieving Valuable Energy Savings 2 (SAVES2, May 2017-Jan 2021) catalysed sustainable energy behaviours among over 219,000 university students in seven countries to help them reduce their exposure to fuel poverty. It incorporated two strands: students living in university accommodation (Student Switch Off) and in the private rented sector. Student Switch Off is an energy-saving competition that reached the students living in the dormitories in the universities of the partner countries. By identifying and training student ambassadors in each dormitory, and by motivating the ambassadors to encourage their peers to save energy, it was created a race between students in dormitories, each competing to save the most energy and win prizes. It tapped into online student communities through social media, using engaging digital communications. In its turn, the private-rented sector engagement work reached students when they were looking for, moving into and living in the private-rented sector. It enabled students to make better informed decisions thereby routing purchase decisions towards higher efficiency properties. The project incorporated national-level partnerships with smart meter delivery agencies to develop student-focused communication materials highlighting the benefits of smart meters. It provided advice and support to students via energy-efficiency and bill management training, peer-to-peer advice sharing via video blogs and regular e-mail and social media communications. The project was built on and continued the previous project SAVES (2014-2017) which had included student behaviour campaign in dormitories only.</p>	<p>Desire to use the different smart tools and advices is clear expression of the ENCI. The tools by themselves cannot bring the energy saving, the desire for lifestyle change is required.</p>	<p>Lithuania</p>	<p>not relevant</p>	<p>medium</p>	<p>low</p>	<p>medium</p>
<p>Step by step commitments for energy saving</p>	<p>Step by step commitments for energy saving</p>	<p>An energy conservation campaigns for households that provoke large scale behaviour changes, with personal contacts and the methodological interventions package to support massive and durable changes: reduced electricity consumption and the investment in energy efficient products and/or high-quality renewable energy products. The innovative method consists of door-to-door contact with households, short interviews, invitation to answer several questions and to try out 1 to 3 simple actions. Then, participants are solicited regularly through email or by phone and are coached over a 20-month period towards the adoption of energy-saving practices, the coaching is managed by a digital web-based system based on behavioural strategy.</p>	<p>It works long term with households, and reaches actual behaviours changes, that can be measured. The commitment of participant is deeper than regular campaigns.</p>	<p>Poland</p>	<p>not relevant</p>	<p>I don't know / not enough information</p>	<p>medium</p>	<p>medium</p>
<p>Carbon Cycling Traveller in Iceland</p>	<p>Carbon Cycling Traveller in Iceland</p>	<p>Hostelling International gives discount for l-carbon travellers (cyclists)</p>	<p>Hostel supports low-carbon travelling in Iceland.</p>	<p>Iceland</p>	<p>low</p>	<p>I don't know / not enough information</p>	<p>I don't know / not enough information</p>	<p>I don't know / not enough information</p>

Type 3: “Do their bit (within organisations)”

Name of case in English	Name of case in original language	Brief overview	Why is this case a case of ENCI?	Country	Effective citizen power control /	Justice/ equity	Env. Sustainability	Contesting the current energy system
<u>The Northern Commute</u>	<u>The Northern Commute</u>	Northern Commute is a project and a Smarter Travel Brand of Limerick offices of the financial services company "Northern Trust". It was created with the aim of reducing the amount of single occupied cars being driven to the offices. Among other measures, a scheme for staff carpooling was set up. The project is associated with the Carpooling scheme provided by Transport for Ireland (TFI), the public transport brand of the National Transport Authority.	The case involves employees that actively participate in a car pooling scheme, the exact motivation for which is difficult to identify. Nevertheless, the carpooling scheme, on which this initiative is based, aimed at reducing pollution and CO2 emissions associated with vehicle use, which could arguably made it a case of energy citizenship	Ireland	Low	not considered	not considered	does not contest
Bike Friendly Workplace	Cykelvänlig arbetsplats	'Bike Friendly Workplace' is a campaign and a competition run by the municipality of Uppsala to encourage employers to facilitate biking to work and for work purposes. Participation is free of charge, and all employers in the municipality can sign up, thereafter a point of contact at the municipality will help them to develop a plan for further efforts. The municipality provides advice, shares best-practices, and other useful resources to help organisations/companies to become more bike friendly. Participants are awarded with a certificate and each year the most bike friendly work places are awarded.	A case of ENCI where a municipality supports organisations to encourage and facilitate biking for their employees in everyday life. Civic involvement in reducing fossil dependency at the organisational level.	Sweden	no effective voice	not considered	Medium	Low
Jätkäsaari Mobility Lab - Helsinki	Jätkäsaari Mobility Lab - Helsinki	The Jätkäsaari Mobility Lab supports innovation and business development of smart, digital, and sustainable mobility through Public-Private-Research-People collaboration. They invest and assist companies and researchers in testing and developing mobility solutions, by enabling tests and pilots in Helsinki's urban environment whilst operating with a strong network of partners and creators.	Primarily enables start-ups and businesses to develop and test their sustainable mobility solutions, i.e. helps change-making organisations to share their solutions with residents and decision-makers.	Finland	no effective voice	not considered	Medium	Low
City of Tampere, The Sustainable Tampere 2030 Program	Kestävä Tampere 2030 ohjelma	The Sustainable Tampere 2030 Program is the city's strategy to reach carbon neutrality by 2030, as a city of "sustainable growth" by reducing emissions from key sectors such as urban development, housing, mobility, energy, and consumption, thus targeting both direct and indirect emissions. The Sustainable Tampere 2030 program is implemented in cooperation with the city's units, businesses, and subsidiaries, as well as other stakeholders, such as citizens and communities. The program defines the measures together with the partners and launches projects to implement them, a number of EU-funded projects are part of the program. Climate-friendly solutions are being sought on joint development platforms with different stakeholders. The Sustainable Tampere 2030 Program is a sub-program to the Tampere Regions 'Smart Tampere Program' and the Carbon Neutral Tampere 2030 Roadmap guides the endeavour.	The case consists of a comprehensive city strategy to reach carbon neutrality to 2030 including a wide range of measures and projects across sectors, creating cooperation between stakeholders, that to diverging degrees include citizens, both in household and organisational settings, enabling and supporting more or less active ENCI.	Finland	no effective voice	not considered	High	Low
<u>Coaches for Energy and Climate</u>	<u>Coacher för energi och klimat</u>	The project Coaches for Energy and Climate was funded by the Swedish Energy Agency and the European Regional Development Fund through the National Regional Fund Programme. Through the programme, the Swedish Energy Agency provided funding and capacity building for municipal Energy and Climate Advisors to specifically target small and medium-sized enterprises (energy use <300MWh/year) and support their efforts to improve their energy efficiency, and contribute to the transition to a low-carbon economy. The programme, which was free of charge for participating companies, combined individual coaching with group lectures, trainings and energy walks. Networking and exchange of experiences between companies was also an important part of the project. By participating, companies were helped to reduce energy costs, improve profitability and reduce their carbon footprint.	Coaches for Energy and Climate was a programme that aimed to support ENCI within SMEs.	Sweden	no effective voice	Low	Medium	Low
<u>EURONET 50/50</u>	<u>EURONET 50/50</u>	Aims to mobilize energy savings through the implementation of the 50/50 methodology in 500 schools and nearly 50 other public buildings from 13 EU countries (114 from Spain specifically). The 9-step methodology increases energy awareness of the building users and actively involves them in energy-saving actions. The schoolchildren learn about how to be more efficient with energy and the importance of doing so, and bring this information and influence back home to their families for a greater impact.	The 9-step methodology increases energy awareness of the building users and actively involves them in energy-saving actions	Spain	Medium	not considered	Medium	does not contest

Hinku Network – Towards Carbon Neutral Municipalities	Hinku-verkosto	The Towards Carbon Neutral Municipalities (Hinku) network brings together municipalities, businesses, citizens, and experts to create and carry out solutions to reduce greenhouse gas emissions, by a bottom-up approach, with at least 80% by 2030. The network aims to create solutions that have economic and social benefits as well as environmental advantages. Some Finnish regions are also involved in the Hinku network. Companies and expert organisations working in the energy and climate sector are also welcome to join the Hinku network. The network is coordinated by the Finnish Environment Institute (SYKE). 80 municipalities, 5 regions, and around 30 partner companies are currently part of the network.	It is the case of a network that enables municipalities, regions and businesses, and indirectly citizens, to become more active ENCI.	Finland	Low	not considered	Medium	Low
Complex – Student Association of the Leadership for Change Master’s Degree Program	Complex – Student Association of the Leadership for Change Master’s Degree Program	Complex is a student association of the Leadership for Change master' degree program at Tampere University, Finland. In addition to represent the students interests at the university, the association also advocates for sustainability at the university and in the city of Tampere. The association aims to give a practical dimension to the program students academic studies through sustainable actions and practices.	Through the focus on sustainable actions and practices, the case enables the students to practice more active ENCI and through advocacy and outreach, and in addition influence their school and the town and its citizens.	Finland	no effective voice	not considered	Low	I don't know / not enough information
Stantec to support Entek Elektrik with Energy Consultancy Services	Stantec, Entek Elektrik'e Enerji Danışmanlık Hizmetleri Verecek	Stantec has launched a project in partnership with Entek Elektrik, one of Turkey's leading utility companies, to support it in its efforts to improve energy efficiency. Entek will cooperate with its business partners in providing Energy Performance Contracting (EPC) services to its clients. Stantec's Istanbul-based team of energy engineers will support Entek in the development of an EPC framework by developing tools, templates, and guidelines; and provide training for Entek and its business partners. The team will also participate in energy audits, perform technical due diligence on energy audit reports, and provide independent Measurement and Verification (M&V) services to ensure proper functioning of EPC services.	Entek Elektrik is part of Koç Holding, the largest industrial conglomerate; while Stantec is a leading energy engineering consulting firm in the Turkish market, providing a comprehensive range of energy services to banks and businesses of all sizes. In response to the ongoing energy transition, Entek is strategically focused on strengthening its portfolio in sustainable and renewable energy investments. In this, working with the experienced Santec could be a great and effective help.	Turkey	Low	not considered	High	Medium
“Climate protection through improved behavior of energy consumers in European schools” (50/50 project)	Проект за опазване на климата чрез подобро поведение на енергопотребителите в европейските училища (Проект 50/50)	The 50/50 project aims to raise awareness among students in 4 Bulgarian schools (2 in Sofia and 2 in Samokov) about the importance of energy efficiency and to encourage them to save energy in their schools. This aim was achieved by the establishment of energy teams of students under the mentorship of several teachers in the 4 pilot schools. The energy teams received educational materials on the topic and were trained about the execution of energy efficiency measures. After that, each energy team began conducting energy tours of the respective school to assess the situation and to identify ways to improve energy consumption. Other activities included train-the-trainer and teacher trainings, conferences/workshops with school authorities and political representatives, provision of guidelines for schools authorities and pedagogical and technical support of the schools. The money saved as a result of the diminished energy consumption in the schools was supposed to be used for organising student trips or any other educational activities.	Students from four schools in Bulgaria were trained to measure the temperature, the light and the carbon dioxide in their classrooms. With the help of the data they recorded, they managed to reduce energy consumption in their schools.	Bulgaria	not relevant	not considered	Medium	does not contest
Skaftskärr, the energy efficient neighbourhood in Porvoo	Skaftskärr, the energy efficient neighbourhood in Porvoo	Skaftskärr is a newbuild area in Porvoo, on the south coast of Finland. During the development of the area, several expert organisations and national actors were involved to elaborate of a model for energy efficient town planning. After the developing/experimentation part of the project was over, the model for energy efficient town planning has been integrated into local town planning, energy efficiency has been made part of the overall city strategy and its business development strategy. Several permanent structures were also retained after the experiment: for example, a permanent working group for different branches of the local administration and stakeholders like the energy, water and waste companies, a system of requirements and incentives for developers purchasing municipal land (including a discount for developers committing to stringent energy targets), smart metering, and a scheme for issuing permits to single-family home self-builders, where the builders are offered intensive training in energy efficiency (anticipatory energy efficiency advice).	The case enables/supports the municipality, the local administration, stakeholders like energy, water, and waste companies, developers and individuals, to practice more active ENCI, when it comes to energy efficiency.	Finland	Medium	not considered	High	Low

Saves 2	Saves 2	Across Europe, Students Achieving Valuable Energy Savings (SAVES 2) supports students in minimising their carbon footprint in their university and private accommodation, raising awareness about energy efficiency and smart metering, and installing good sustainability habits which last beyond their time in education. SAVES 2 builds on the success of our EU Intelligent Energy Europe-funded SAVES project (2014-2017), that expanded the Student Switch Off (SSO) campaign to Cyprus, Sweden, Lithuania and Greece. The SSO campaign is an inter-dormitory energy saving competition, that focuses on a predefined set of activities, encouraging students to save energy in their university dormitories. The dormitory that saves the most energy on each campus, is announced winner and rewarded for their efforts. Energy savings are determined by comparing pre-intervention electricity consumption, with post intervention electricity consumption, in each dormitory. We aim to reach 38,000 students living in dormitories across Europe every academic year between 2017-2020.	I chose this case study as it fits with our ENCI typology on change within organisations (university) and involves students which I haven't seen before. This case and the SSO+ campaign aims to raise awareness amongst students living in the private rented sector helping them reduce their energy costs. It focuses on making students aware of energy performance certificates (EPC), smart meters and energy efficiency, thus helping reduce their exposure to energy poverty.	Cyprus	not relevant	not considered	Medium	does not contest
Tough legs	Beintøft	Beintøft is Norway's largest go to school campaign, and is held in September every year. Beintøft is a national campaign under the auspices of Miljøagentene, the children's environmental protection organization. The competition aims to encourage as many students as possible to walk, cycle or take public transport to and from school, to take care of our planet. By taking action, one will help prevent pollution and reduce the amount of CO2 emissions.	This programme enables Norwegian children to be aware and involved in the development of a more sustainable energy system, in this case focusing on mobility. It might be interesting that children are the target group.	Norway	I don't know / not enough information	not considered	High	Medium
HomeWorkHome	HjemJobbHjem	HjemJobbHjem is a mobility scheme aimed at the corporate market in Nord-Jæren. The goal is to reduce car traffic in urban areas by facilitating that more people choose to walk, cycle or travel by public transport to and from work. HjemJobbHjem is a scheme that will make it easier to get to and from work without a car. The scheme is aimed at companies and public enterprises in Nord-Jæren. Employees of a HjemJobbHjem company can buy discounted 30-day tickets for buses, trains and some boat routes in Rogaland, and everyone gets access to the city bike, regardless of the HjemJobbHjem ticket. The companies must carry out a travel habits survey among the employees, and make an activity plan based on the results. All companies in Stavanger, Sandnes, Sola and Randaberg can apply to become part of the HjemJobbHjem scheme.	For the diversity of cases, this one is about mobility. It is interesting because the project targets companies and not the citizens directly and it is expanding to other counties as well.	Norway	Medium	not considered	Medium	Medium
Greenreality Lappeenranta	Greenreality Lappeenranta	Greenreality is the trademark of the city of Lappeenranta, that aims to be a model city, carbon neutral by 2030 and to create well-being and a sustainable future for the benefit of their businesses and residents, by leading in renewable energy and green technology. Lappeenranta was for example the world's first city to start using only EKOenergy certified renewable electricity with zero emissions. To involve citizens and businesses in its quest, the city has for example implemented school pledges, a Greenreality network for energy and environmental sector companies, and inspires citizens with ideas on how to live a sustainable everyday life on their website. The city has won several European and International titles for its sustainability work, for example the European Green Leaf Award in 2021.	Lappeenranta simultaneously enables citizens to become private and public ENCI through different projects, and acts as a collective ENCI by contributing to change of the energy system (and more holistically) in its municipal role.	Finland	Medium	not considered	High	Medium
Enersol - SK	Enersol - SK	Enersol-SK is the national round of an international voluntary competition for full-time students of secondary schools (grammar schools, secondary vocational schools, high schools). The competition is joining in on the education of students in the subject of environmental education and focuses on the use of alternative energy sources, energy savings, renewable energy sources, reducing emissions in transport. It hopes to develop students' creative competencies, professional-theoretical knowledge and professional-practical abilities and skills in the field of sustainable energy. Pupils defend the results of their work they do in the competition before professional juries. The competition - after the national round - continues abroad in the Czech Republic.	The case is a great way to facilitate energy transition by raising awareness and educating high school students about sustainable, renewable energy. Students solve problems in professional topics focusing on the use of alternative energy sources based on their own observations, examine technical parameters, describe financial savings, assemble products based on their own research, defend their sophisticated products, and research in the field.	Slovakia	Low	Medium	Medium	Medium

Towards resource wisdom project	Kohti resurssiäisäutta – hanke	<p>The “Towards Resource Wisdom” project was a joint undertaking by the Finnish Innovation Fund Sitra and the City of Jyväskylä, where the project was piloted in 2013. The project involved developing an operating model for promoting resource wisdom in medium-sized and large cities and municipalities. The operating model is used to embed resource wisdom in the community as a whole, ranging from the strategy work of city management to the everyday lives of city residents. Introducing the operating model also included the drawing up of a roadmap for resource wisdom by a working group comprising representatives from the city, residents’ associations, businesses and educational institutions. The road map comprises the city’s long-term plans for reaching its targets of becoming carbon neutral and waste free. The plans are divided into five overlapping thematic areas: energy, transport, waste, food and water. Resource wisdom was measured on a regular basis using four indicators: 1) the carbon footprint; 2) the ecological footprint; 3) material loss; and 4) the perceived well-being of city residents. During the project, residents were invited to submit ideas on how to reduce environmental harm and improve social and economic well-being through a web portal. During the pilot, 25,000 residents took part in testing resource-wise ideas in practice, from reducing food waste in public kitchens to letting households try different ways to become more resource wise.</p>	<p>The case both acts as a collective energy citizen by contributing to change of the energy system (and more holistically) as a municipality, and enables/supports citizens to become more active ENCI through its different projects.</p>	Finland	Medium	not considered	High	Medium
2gether4vulnerability	2gether4vulnerability	<p>ASSIST was a 38-month European market activation and policy orientation project to contribute to tackle energy poverty and support vulnerable consumers adopting an holistic and multidisciplinary approach, addressing both the energy and social aspects of energy poverty.</p>	<p>During the project they created a network of trained energy efficiency consultants who then helped the vulnerable consumers.</p>	Poland	Medium	High	Low	Low
Municipality of Li	Iin Kunta	<p>Li is a Finnish municipality with around 10,000 inhabitants that has gained recognition as ‘Europe’s Greenest Town’. It had the goal to reduce 80% of its carbon emissions by 2020, 30 years faster than the EU climate target. Economic rationality and citizen involvement have been key success factors for li. li has adopted sustainable policies that are economically viable and with the involvement of citizens and businesses in three focus areas: energy, transport and resource efficiency. Today the municipality is energy independent and uses wind, hydro, and geothermal power plus bio-based fuels, and sells the surplus to the grid. Since 2010, li has cut its oil consumption by 89% and does no longer use fossil fuels for heating and electricity. Early education is part of the citizen engagement strategy. For example, schools and kindergardens receive half the money saved through energy efficiency on their utility bills and the pupils get to choose how to use the money. Another example of citizen engagement is the yearly climate festival that invites everyone to participate in a common dialogue: artists, scientists, celebrities, political leaders, citizens, and business. Moreover, the municipality aims to be the first zero waste town in the world.</p>	<p>The municipality both acts like a collective energy citizen (in a holistic sens) and enables citizens to a certain degree to practice more active ENCI.</p>	Finland	Medium	Low	High	Medium
Energy management competition for local authorities for uptake and enhance of Sustainable Energy and Climate Action Plans (COMPETE4SECAP)	Energy management competition for local authorities for uptake and enhance of Sustainable Energy and Climate Action Plans (COMPETE4SECAP)	<p>The Compete4SECAP project (C4S) aimed at helping local authorities (LA) put their existing Sustainable Energy Action Plans (SEAPs) into action and helped facilitate the upgrade of SEAPs into Sustainable Energy and Climate Action Plans (SECAPs). C4S had been designed to deliver a systematic approach to energy savings in LA using standardised energy management systems (EMS) according to ISO 50001 or European Energy Award with dedicated online monitoring tool and energy saving competitions, including peer-to-peer learning and exchange. EMS and competitions when combined can trigger significant benefits by providing innovative and efficient way for involvement of LA. Trained and engaged municipal employees are able to better implement energy efficiency projects. An EMS helps the LA to have reliable data for informed decision and further help in monitoring and evaluation of implemented projects. The use of renewable energy and integration of climate adaptation is also facilitated through EMS. Energy competition in municipal buildings is one of the measures that a municipality can take to motivate its employees to re-think about their role in saving energy not only at home but also at work. The C4S had developed the handbook for the energy competition teams, including solutions, tips and advice on how to get their colleagues involved in competitions, and how municipalities can organize such competitions. The C4S had developed also an online tool for monitoring energy use and a wide range of advising materials. More than 30 local authorities and their employees (over 100 buildings) were teaming up to save energy in 2019, with an energy-saving competition.</p>	<p>There is an active participation of municipal employees in energy saving, behind their direct duties.</p>	Latvia	Medium	Medium	Medium	Medium

Arctic Circle Assembly	Arctic Circle Assembly	The Arctic Circle is an organization and its mission is to facilitate dialogue among political and business leaders, environmental experts, scientists, indigenous representatives, and other international stakeholders to address issues facing the Arctic as a result of climate change and melting sea ice.	It is an organization with loads of partners around the world that take part in the yearly assembly to discuss topics related to the Arctic Circle, among others energy related topics are discussed.	Iceland	not relevant	not considered	I don't know / not enough information	does not contest
'EOLPOP – Living from the air of the sky”	'EOLPOP – Viure de l'aire del cel	To celebrate the 25th anniversary of the public opening of the first modern wind turbine, connected to the grid in Catalonia, the local branch of Eurosolar (European Association for Renewable Energies) launched a pioneering initiative: Living from the air of the sky. It involves the installation of a wind turbine with shared ownership among citizens who voluntarily provide the money needed to realize the project. The site chosen is within the municipality of Pujalt (Anoia, Catalunya) for the good wind conditions, easy access, and accessibility to the medium voltage network.	Yes, since its purpose is, through the installation of a wind turbine of shared ownership, to generate clean and green electricity, making possible the solidarity between people living in urban areas and those living in rural areas, while enabling individuals and/or families to show that the energy they use in their daily lives is green and clean, generated at the site where the wind turbine is installed.	Spain	Low	Medium	High	High
Move for the Climate!	Mozdulj a klímáért!	It is a campaign for schools, teacher and students. The campaign is a competition based collecting climate miles while going to school in a sustainable way, having a non-meat or local food days, carrying out climate actions in groups or planting trees. Besides that there are always compulsory campaign elements connected to other actions, and themes (biodiversity, chemical free food, clean water, renewable energy) and optional ones as well. The number of collected climate miles are calculated every years and added up on the global level as well.	It has a community approach and facilitates real climate actions, with strong educational, so transformative elements.	Hungary	not relevant	not considered	High	Medium
Granada in transition	Granada en transición (GET)	Project initiated by a group of people from Granada (Spain) to create a portal for support and dissemination of all existing initiatives that face current challenges such as climate change, the economic and social crisis, inequalities and dependence on fossil fuels and their derivatives. To do this, they have established links of mutual support and participation with other related groups. They carry out online courses and some training projects.	It seems interesting case because of its development from a group of citizens aware of the need to embark on a transition path towards a more sustainable, equitable and humane physical and social environment, based on a larger network, Movement in Transition at the national level, Transition Network at the global level and Transition Town Totnes (TTT), and who act with the resources they have, creating an organization that spreads and creates local projects. Transition movement (of which GET is a part) tries to promote the awareness of a territory (town, neighborhood, city, etc.), about the profound consequences of climate change and peak oil. And also about the need for each local transition group to find the best solutions with their resources.	Spain	High	Medium	High	Medium
ingREeS - Setting up Qualification and Continuing Education and Training Scheme for Middle and Senior Level Professionals on Energy Efficiency and Use of Renewable Energy Sources in Buildings	ingREeS - Nastavenie kvalifikácie a systému ďalšieho vzdelávania a výcviku odborníkov na strednej a vyššej riadiacej úrovni v oblasti energetickej efektívnosti a využívania obnoviteľných zdrojov energie v budovách	From the point of view of fundamental priorities and essential activities, the ingREeS Project is directly linked to the European Build Up Skills Initiative (BUS).The Project has extended the implementation of the Roadmaps established and endorsed under the Pillar I BUS Slovakia and BUS Czech Republic projects focused on enhancement of skills of craftsmen and on-site workers in the sectors of buildings, to middle and senior level construction professionals. The Roadmaps identified key measures for setting up a national qualification and training schemes and other measures for ensuring development of skills essential for the field of buildings in order to contribute to the fulfilment of the Europe 2020 energy targets. IngREeS, together with other related projects, made it happen.	Building on the output of the European BUS Initiative the project offered a hybrid form of education (classical and e-learning) for professionals working in construction on the topic of energy efficiency and the use of renewable energy sources. The lectures were held by the foremost specialists in the field. The project was coordinated by professional organizations and associations bringing together target groups with the vision of building a system of further education for construction professionals at secondary and higher management level, where graduates become more qualified experts in the field of and use of renewable energy sources in buildings.	Slovakia	Medium	not considered	I don't know / not enough information	I don't know / not enough information

Student Switch Off campaigns in Bulgaria	Student Switch Off campaigns in Bulgaria	Sofia University "St. Kliment Ohridski" (UoS) is participating in the Student Switch Off (SSO) campaigns organised within the SAVES2 project. The SSO campaign is an inter-dormitory energy-saving competition, that focuses on a predefined set of activities, encouraging students to save energy in their university dormitories, while SSO+ campaign is focused on students living in the private rented sector, aiming to raise awareness on energy performance certificates (EPC), smart meters and energy efficiency and thus helping students reduce their energy costs and their exposure to energy poverty. Energy savings are determined by comparing pre-intervention electricity consumption, with post intervention electricity consumption, in each dormitory/private accommodation. The ones that save the most energy are announced winners and rewarded for their efforts. The campaigns have been active in UoS for three consecutive academic years in the period 2017 – 2020, with 6 300 students being involved in 2017 – 2018 and 2018 – 2019 academic years, and 3 097 students involved in 2019 – 2020 academic year.	We consider SSO campaigns relevant ENCI cases since they represent collective efforts of students to reduce their energy consumption through change in their behaviour. Moreover, it supports students in minimising their carbon footprint in their university and private accommodation, raising awareness about energy efficiency and smart metering, and installing good sustainability habits which last beyond their time in education.	Bulgaria	I don't know / not enough information	High	Medium	Low
Doppelplus Tyrol	Doppelplus Tyrol	People with low income are coached free of charge by volunteer coaches on how they can contribute to the energy and climate strategy of Tyrol according to their means and at the same time improve their financial situation and quality of life. The Doppelplus initiative was initiated by the project partners Klimabündnis Tirol, Energie Tirol, Komm!unity Wörgl, Caritas and AlpS and financed by the province of Tyrol and the Stadwerke Wörgl. The initial coachings took place from November 2017 until February 2021, since then the initiative is being continued by the initiators.	It is a case of Energy Citizenship because the people being coached are being enabled to save energy and make sustainable changes to their life.	Austria	Medium	High	High	Medium
Social Solar Powerplant	Szociális Naperőmű	The project aims at providing at least one heated (bed)room for socially severely disadvantaged households in Tiszabő (Eastern Hungary) where there is at least one child under the age of 3. As the families do not have enough money to renovate their houses, instead of getting the so called "social timber" donation provided by the local municipalities the households receive electricity generated from the locally installed Social Solar Powerplant, donated by E.ON Hungary and the Hungarian Order of Malta. Furthermore, the households get electric heaters to place in the bedroom where the small child(ren) sleep.	It is a unique initiative of a company and an NGO providing community energy for households in energy poverty, and at the same time it is a socially democratic energy system divided between those in need that helps empower poor families. The programme also creates a sense of community due to the local renewable energy park owned by a non-profit organisation (donated by a company).	Hungary	not relevant	not relevant	Medium	Low
Sustainable Energy Action Plan of Warsaw	Sustainable Energy Action Plan of Warsaw	The Polish capital, Warsaw joined the Covenant of Mayors initiative, signed it in 2009, and submitted the Sustainable Energy Action Plan in 2011. The city committed for 80% of CO2 emissions, 80% of energy consumption and at least 20% of energy produced from RES in 2020. The key actions are modernization of indoor, outdoor and street lightning, complex retrofit of residential and municipal buildings, greening transport system. The action plan consist nor also climate adaptation and energy poverty reduction measures.	It is a long term process, involving many actors on city level, and at the end will need many transformation in order to reach the targets.	Poland	Medium	I don't know / not enough information	High	Medium
ENERGY LITERACY - Schools support the transition on clean energy	ENERGETICKÁ GRAMOTNOSTĚ - Školy podporují prechod na čistú energiu	The Slovak Renewable Energy Agency (Slovenská organizácia pre obnoviteľné zdroje energie, n.o.), in cooperation with schools, prepared a freely distributable educational manual in order to build understanding of energy among pupils and inspire them to implement changes. The manual originally comes from the US, it was put together in 2010 by the United States Department of Energy (DOE) and the American Association for the Advancement of Science (AAAS) and it was adapted to Slovakian conditions in 2016 in cooperation with Ing. Jana Pašková from the Secondary Industrial School of Electrical Engineering. The handbook was presented to the public as part of the 6th European Solar Days awareness raising campaign. The handbook can be used for formal and non-formal education in the field of energy, for the development of curriculum or for the preparation of lessons focused on this issue. The handbook does not seek to identify all energy-related topics, and it prefers to focus only on those areas that are important to all people.	Proper education of young generations in the fields of energy, energy efficiency, energy transition is essential for facing the climate crisis, and so are educational materials that help teachers and educators in their work: give a basic understanding of the overall concept of energy - its sources, production, use and ways of saving it.	Slovakia	I don't know / not enough information	not relevant	Medium	Medium
Climate Students Sweden	Klimatstudenterna Sverige	The association 'Climate Students Sweden' is a student movement that brings together climate student groups to urgently help universities to make their climate research credible to save the future. They do this by advocating for rapid reductions in universities' emissions so that universities "practice what they preach". For them a rapid reduction is to halve emissions from 2019 to 2023 (about 15% per year) to ultimately reach zero emissions by 2030.	'Climate Students Sweden' is a case of manifest energy citizenship, with a holistic focus, in which students engage, advocate and mobilize to ensure that their universities do their part in reducing emissions and contribute to a sustainable future.	Sweden	not relevant	not relevant	High	I don't know / not enough information

Type 4: “Do it their way (within hybrid organisations)”

Name of case in English	Name of case in original language	Brief overview	Why is this case a case of ENCI?	Country	Effective citizen power control /	Justice/equity	Env. Sustainability	Contesting the current energy system
Kurt Gramlich	Kurt Gramlich	Kurt Gramlich is the spokesperson of the citizens’ initiative Gütersloh; member of the Gütersloh Climate council since 2015, of which he is the chairman since 2019. The way he describes himself offers a clear view on its commitment toward ENCI: "With my commitment to climate protection and a life-friendly environment, I want to inspire others to work for a sustainable, environmentally friendly and globally just world. My goal is to strengthen the environmental movement in Bielefeld and OWL again, which has become small, and to enrich it with my knowledge and experience from the world of Free Software. With this wiki, I want to help build a community that cares about our democracy and future with a long-term perspective in mutual respect for each other. This Renewable Energy Forum is intended to be an information hub for this purpose. On 1.12.2018, I decommissioned my car, which I have driven since 1990, a total of 265 000 km. Now I am registered with car sharing, use my folding bike for train journeys and save car insurance and car tax of about 450 EUR / year. I plan to travel by train with http://bahn.guru In November 2017, I travelled by ICE/IC from Gütersloh to Freiburg in 5 hours for 14.90 EUR, no car can keep up, not to mention the exhaust fumes"	This is a case of ENCI since Kurt Gramlich (KG) both considers his own experience as a potential exemplary and is highly committed in fostering ENCI within the citizens’ initiative for energy transition in Gütersloh	Germany	High	not relevant because individual	High	High
<u>Hörmann's Hydrogen house</u>	<u>Hörmann Wasserstoffhaus</u>	The Hörmanns are owners of a photovoltaic company and they work every day to implement the latest technical possibilities in the field of renewable energies. They therefore wanted to build their new private house as energy-efficient as possible and use the solar energy from the summer also in the winter. They implemented a concept for the long-term storage of solar energy using hydrogen. With this concept, it is possible to completely cover the energy demand of the building with photovoltaic systems on the roof and façade and a hydrogen storage unit even in winter. On sunny days, excess solar energy is stored in a battery and hydrogen is produced, which is later converted back into electricity using a fuel cell. The main "waste product" is heat, which is used sensibly in the house for heating and hot water. The heart of the hydrogen house is a module with an electrolyser and fuel cell. The electrolyser produces hydrogen, while the fuel cell generates electricity and heat for the house as needed. To show what the system can do, they decided to do without an electricity connection. The newly built house has been running completely self-sufficiently since December 2018 and there is still enough electricity to power several electric vehicles.	This is a case of ENCI since the Hörmanns have developed a fully autarcic house by combining technologies, and they offer now these solutions to other citizens who would like to fol their example.	Germany	High	not relevant because individual	High	High
<u>Ada Ámon - Women in Energy EUSEW award winner</u>	<u>Ámon Ada - EUSEW díj győztese Women in Energy kategóriában</u>	Ada Ámon, energy and climate policy expert, was one of the winners of the European Sustainable Energy Award for Women in Energy in 2020. She founded the influential clean energy think tank EnergiaKlub and has been working as a senior expert at E3G and other energy and environmental organisations. Through her latest role as Chief Advisor to the Mayor of Budapest on Climate Affairs and head of the city’s newly established climate department, she is now changing the lives of communities in Budapest. Her progressive programme of renovating urban buildings to lower their energy consumption will not only reduce greenhouse gas emissions, but also bring energy savings and lower costs for residents, as well as cleaner air for the city.	Ada is working to ensure that energy efficiency is a key issue for policies and that citizens are involved in the transition to clean energy. She also intends to give citizens a direct say in deciding what environmental measures should be implemented in their city.	Hungary	not relevant because individual	not relevant because individual	High	High
Lorna Gold	Lorna Gold	Dr Lorna Gold is an author, lecturer, and climate activist and has been actively involved in several non-profit organisations. Currently, she is the director of movement building with FaithInvest, an international organization for religious groups and faith-based investors that promotes investments for the benefit of people and the planet. She is also vice-chair of the Laudato Si’ Movement (formerly Global Catholic Climate Movement), which aims to inspire and mobilise communal action for climate and ecological justice. In previous roles, she led Trócaire’s policy, research and advocacy activities in Ireland for almost two decades, was a member of the Ministerial Advisory Group on the National Climate Dialogue in Ireland, and recently published a book called “Climate Generation - Awakening to our Children's Future”	The individual in the case is highly active in the area of climate (including but not limited to energy) in several activities in her public and professional life. It is an interesting case because it also involves a form of community engagement that is often not associated with community energy and energy citizenship, namely faith communities and activities within the framework of the Catholic Church as a global organization.	Ireland	not relevant because individual	High	High	High

<u>Holger Laudeley</u>	<u>Holger Laudeley</u>	Holger Laudeley is often described as "Mr energy Transition" or as the "Phovoltaic Pope". He´s an engineer that founded in 1982 his company Laudeley Betriebstechnik in the field of media technology. In the mid-1980s, the company began to focus on regenerative technologies. Initially, Laudeley Betriebstechnik mainly renovated flats and company buildings for energy efficiency. In the early 90s, the company also built low-energy and passive houses. He´s claiming for more individual energy autonomy for the individuals and launched 25 years ago the first solar PV plug-in modules to install on the balcony that can provide 10% of the electricity consumption of the household and reduce its carbon footprint. The company's self-developed company building is still considered a showcase project today, as it produces virtually no energy costs. Furthermore, Dipl.-Ing. (FH) Holger Laudeley and his team develop state-of-the-art products and services in the field of renewable energies. Due to his involvement in a large number of visionary projects, Holger Laudeley is called the "photovoltaic pope" by the regional press.	This is a case of ENCI since Holger Laudely (HL) can be considered as a pioneer in the field of the development of alternative renewable energy solutions that enable people to take part in the energy transition by renovating their house according to high energy efficiency standards and to get more energy autonomy - and consequently adopt practices that support ENCI;	Germany	High	Medium	High	High
Performance Electrics	Kunststrom	Performance Electrics is an artistic enterprise which operates as an electricity supplier producing and distributing Kunststrom, meaning electricity which is produced through artworks or artistic methods. Kunststrom is produced in different ways, including temporary actions in public space, installations and sculptures. The corporate ethos behind Performance Electrics can be analogised by the metaphor of a network. At Performance Electrics designers, architects, artists and art historians are allinvolved in the artistic production of Kunststrom at differentlocations across the globe such as Brussels, Stuttgart or São Paulo. The headquarters, where research and development takes place, is located at the former train storage station of the Stuttgart public transport service (Wagenhallen Stuttgart).	It is a case of Energy Citizenship because the fact that Performance Electrics is both an art project and electricity supplier makes it a unique and extraordinary endeavour. Its not for -profit philosophy challenges contemporary and established economic models. Performance Electrics invests 100% of its turnover in the research and development of new creative energies and with an ever-expanding client database, which already consists of museums and private households. Performance Electrics is substantially funded through the proliferation and production of its own energy. The many cooperative partnerships ensure that Performance Electrics is able to act at the interface of economics, politics, culture and science and develop a network, which transfers and synthesises collaborative energies between art, technology and economy.	Germany	High	Medium	High	High
Ecotown The Flower of Life	Ecovila La Flor de la Vida	The transition town in Girona (Spain) created a road map for a sustainable future of the city by proposing a number of changes in the areas of energy production, health, education, economy, and agriculture. The Sustainable Ecovila La Flor de la Vida is an innovative project of sustainable urban growth, based on a natural geometric pattern. The concept of this sustainable Ecovila allows the development of an economy that respects human beings, where the project itself marks a new paradigm of economic efficiency. This geometric pattern is "The Flower of Life". It is an ancient symbol that has a perfect shape in propotion and harmony. This harmonic proportion is what makes this Project a new reference for future sustainable garden city design constructions. In this way, the Sustainable Ecovila Project unites respect for the Earth and the Environment, Energy Efficiency, Architectural Beauty and Sustainable Economy.	Promotes the construction of urbanizations with ecological materials, adapted to the latitude and climate of the area to reduce energy consumption and the use of clean renewable energy.	Spain	High	Medium	High	High
Marlous van der Veen	Marlous van der Veen	As DSO Architect Energy Transition at Enexis Group, I work on the transition from today to the near and distant future. My goal is to be a challenger to the organisation, to stretch the frameworks and to offer new perspectives. To seek out boundaries and ask questions. Not because I don't want to and cannot accept how things are now, but because I want to work on how things can be. It is my belief and ambition to make energy accessible always, everywhere and to everyone. This requires renewal and innovation, which I facilitate and initiate from my role as DSO Architect (which is similar to Business Developer), but also from an academic framework. I am doing my PhD at the University of Groningen on the subject of 'system innovation in energy transition', in which I am trying to find an answer to the question: how do we ensure that various innovations interlock and realise change at the system level? In short, how do we make these system innovations in the energy transition possible instead of continuing to talk about them. I try to let professional and academic impact reinforce each other: I bring Enexis lessons from my research and vice versa, I bring the daily practice of energy transition to the academia.	Marlous is a young professional and one out of the 100 sustainable young people in the Netherlands. She is a good example of an individual case for ENCI where she is trying to make a change from within the organisation Enexis and SVn that she is working.	Netherlands	not relevant because individual	not relevant because individual	Medium	High

Better Housing Counselling	Bedre Bolig Rådgivning	BedreBolig Rådgivning is a national initiative provided by Energistyrelsen (the Danish Energy Agency) to homeowners who want to engage in energy renovations of their home. The BedreBolig Rådgivning includes a measuring of energy consumption and general (energy) state of the house, advices about 'good energy behaviour', a priorities list of steps to make and a suggested budget. Part of the programme is the training of the professionals in the industry, so they can provide a holistic approach when it comes to building energy efficient renovations.	The case is a case where the state, the business sector and the public works together for energy transformation of houses.	Denmark	High	High	Medium	High
Zgorzelec Renewable Energy Sources Development and Energy Efficiency Cluster	Zgorzelecki Klaster Rozwoju Odnawialnych Źródeł Energii i Efektywności Energetycznej	The cluster is widely regarded as one of the most successful energy clusters in Poland. Numerous research activities, development and testing of new technologies are conducted in the ZCluster. Within its structure, there is a start-up conducting experiments in the field of energy storage technology, and the Innovation Hub that created Poland's first off-road electric vehicle. Currently, the cluster is building the largest photovoltaic farm in Poland.	Promoting the green energy transition within a county, linking different actors, involving local communities to convince about the benefits of RES in the area.	Poland	High	Medium	Medium	High
Futur 2 Festival	Futur 2 Festival	The Futur 2 Festival is a music festival in Hamburg that took place in 2018 and 2019 free of charge and outside. It is viewing itself as a place for testing out sustainable solutions for open air events. There is a big focus on recycling and resources should mainly be produced on site, for example producing electricity with the help of festival visitors riding bikes.	It is a case of ENCI because people are empowered to individually and collectively find more sustainable ways to visit a music festival.	Germany	Low	High	High	High
Energy City Frederikshavn	Energybyen Frederikshavn	It is in the perspective of Denmark's conversion to a 100% renewable energy country in 2050 that Frederikshavn was chosen as a pilot city to implement such a transition on its territory. It is planned that the municipality continuously edits and integrates concrete action plans for the periods 2020-2030 and 2030-2050 into the climate plan as the new action plans are finalised. This will be done in the context of evaluation of the climate plan.	The city helps the community on several levels to become energy citizens,	Denmark	High	Medium	Medium	High
Association "city for people"	Biedrība "Pilsēta cilvēkiem"	The association "City for People" was established in January 2016 with the aim of promoting the introduction of a good urban environment in Riga and other cities of Latvia. The team and supporters include specialists in various fields - programmers, architects, communication specialists, marketing specialists, urban environment specialists, The goals of the association are: a people-oriented, high-quality public outdoor space where everyone would be safe and pleasant to stay; convenient and safe mobility opportunities in the city and beyond for everyone, regardless of age and health status; environmental protection, promotion of population health. 0 killed and seriously injured in road traffic accidents in Riga and abroad.	Sustainable mobility has direct role in energy transition and reduction of CO2. Transitions towards low-carbon energy systems is part of ENCI, since conventional planning mobility approach has been changing toward sustainable smart mobility to guarantee the participation of all social groups and reduce the effects associated with transport such as energy consumption, CO2 release, air quality, wasted space in the streets or impact on public health.	Latvia	High	Medium	Medium	Medium
Catriona Knott	Catriona Knott	Until January 2022, Catriona was a Development Officer within the Scottish CARES program supporting community renewables. In this role, she supported community groups that want to develop or benefit from community schemes, especially in terms of realization renewable energy projects. Since 2022, she has been Assistant Project Development Manager for Onshore Wind at SSE Renewables. She is also involved on a volunteer basis with the Young Leader Development Program, which aims to empower young people in Scotland to take action on climate change.	The case is an attempt to map ENCI of an individual person embedded in organization(s). The person in the case is engaged in her professional capacity in the energy transition area and in particular also supports other form of ENCI in the form of energy communities.	United Kingdom	not relevant because individual	not relevant because individual	Medium	Low
Paul Kenny	Paul Kenny	Paul Kenny was CEO of the Tipperary Energy Agency, an independent not-for-profit social enterprise that aims to lead the delivery of sustainable energy solutions in Tipperary and beyond, by advocating, educating and innovating on climate action. He also was involved in developing the first community-owned wind farm in Ireland in Templederry. In 2020 he was appointed Special Advisor to Minister Eamon Ryan in the Department of Communications, Climate Action, and Environment.	The case represents an individual that has been strongly engaged in his professional capacity for the energy transition in Ireland. It might also be an interesting case as it raises the question whether individuals in their professional roles may also be considered energy citizens, even if their role is related to a government function.	Ireland	High	not relevant because individual	not considered.	High
Agricultural biogas station in Studzionka	Biogazownia Rolnicza w Studzionce	A private farmer (with 40ha of land) built in Studzionka an experimental agricultural biogas plant with power around 25-30kW. It is fed mostly with chicken manure and pig slurry from the farm. It was driven by the new EU requirements to build in each livestock farm a dunghill.	A private built biogas powerplant, pioneer in breaking through the local regulations and the social acceptance.	Poland	not relevant because individual	not considered	Medium	High
Birgit Hansen - Major of Frederikshavn	Birgit Hansen - Borgmester af Frederikshavn	Birgit Hansen is the mayor of Frederikshavn, Denmark and she plays a significant role in the city's ambitious climate plan that will reduce its CO2 emissions by over 90% by 2050. Created in line with the goals of the Paris Agreement and the C40 Cities Climate Action Planning Framework, the plan is already successfully mobilising the community to achieve a zero carbon society.	Since being elected as mayor in 2014, Birgit has been fiercely driving a sustainability and climate agenda that serves the region's community of just over 60,000 inhabitants.	Denmark	not relevant because individual	I don't know / not enough information	High	High

eFriends	eFriends	The eFriends is a community that shares regionally generated green electricity with each other. eFriends are either electricity producers (for example, because they operate a PV system on their roof) or electricity consumers. The revolutionary eFriends technology is installed in the meter boxes of their houses and flats. Via the eFriends app, they find and connect to each other and decide from whom they want to buy electricity or to whom they want to deliver surplus electricity and at what price.	It is a case of energy citizenship because citizens are involved in a start-up/ company that tries to transform the energy system by enabling people to share/ sell the renewable energy they produced but are not using with others who participate in the eFriends system.	Austria	Low	Medium	Medium	High
Cathy Debenham	Cathy Debenham	Cathy Debenham is founder and, until 2015, was director of YouGen, a platform that helps people and businesses make their homes/buildings more energy efficient or install renewable energy. YouGen provides information and blogs where users can discuss problems and give advice, but also a directory of installers that uses customer reviews to help choose a good installer. The idea to create the platform dates back to 2005, when she wanted to renovate her house in an energy-efficient way, but encountered significant obstacles in finding suitable providers. Since 2017, she has been a British Cycling accredited mountain bike guide.	It is a case of an individual who turned experiences in her private life (problems with energy-efficient renovation of his own house) into an occasion to become active herself and to solve the problem by means of the foundation of an own organization / platform. The case is also interesting because, although it represents an individual, it is no longer active (individual has reoriented herself since 2017 and is active in another area).	United Kingdom	not relevant because individual	not relevant because individual	Low	Low
EcoSchools Iceland	Skólar á grænni grein	Eco-Schools is one of the five educational programs run by the Foundation for Environmental Education (FEE). It is an international award program that guides schools on their journey towards a sustainable school environment. The program provides a simple framework to help make sustainability an integral part of school life. Eco-Schools can help enhance the curriculum and get the whole school united behind important environmental issues. The program strives to bring about changes in the behavior of young people and those connected to them so that good habits learned in schools are followed through into homes and communities. Energy-related programmes are part of it. To get the green flag, schools have to take a seven step program that raises awareness on environmental issues among school teachers, student, staff members. The ES initiative has a number of themes that schools can decide to work with (Energy, Water, Biodiversity, School grounds, Healthy living, Transport, Litter, Waste and Global citizenship) and students/pupils play a central role in choosing the themes they work with.	The programme supports energy citizenship in a holistic way, in children, teachers and other staff members of the schools, through education of the children, it supports forming energy citizenship in the families, and communities linked to these schools/ children.	Iceland	Medium	High	High	does not contest
Amadeus Wittwer	Amadeus Wittwer	Amadeus Wittwer is the founder and executive director of the Swiss Energy Cooperative and has been involved in the Swiss energy transition for many years. He was also substantially contributed to two films on the topic of the digital commons and activities under the title "Energiewende JETZT!	The individual in this case has been involved in the Swiss energy transition for several years and pioneered multiple projects to provide the socio-technical infrastructure for more PV (electricity commons, pv crowdfunding).	Switzerland	High	Medium	not considered.	High
energy portal	energoportal	The goal of energoportál is to support local governments in building their own modern, decentralized and non-fossil energy by providing commercially independent but practical and inspiring information. It was created and managed by Friends of the Earth-CEPA (Priatelía Zeme - CEPA) with partners independently of business and party interests. The portal does not promote any products or services of commercial entities.	The case is a special internet portal for local governments - a collection of knowledge, information, connections, advice, calculators, good practices, sustainable energy strategies, etc., everything municipalities can use for their energy development.	Slovakia	I don't know / not enough information	Medium	High	High
Grundfos Dormitory Living Lab	Grundfos Kolleiget	The Grundfos Dormitory monitors water and energy consumption and is built to optimize the use of water and energy. It is located in Århus, and houses 200 students in 159 apartments.	The Grundfos Dormitory was built in 2021 but it complies with the low-energy class 2015 and the dormitory's board is also dedicated to reducing the energy consumption to an absolute minimum in the coming years by actively involving the residents.	Denmark	Medium	High	Medium	does not contest
FISU – Finnish Sustainable Communities	FISU – Finnish Sustainable Communities	Fisu (Finnish Sustainable Communities) is a network of pioneering communities that aims to achieve zero emissions, waste-free and globally sustainable consumption by 2050. The network consists of 11 municipalities. In each member municipality, the local authorities together with companies and other local actors are building a common vision and roadmap to achieve the goals. They identify new opportunities for collaboration and ways of doing things. The aim is to strengthen the municipal and regional economy, create jobs and promote sustainable well-being. The network works according to the 'resource wisdom model' that includes work with road maps that are monitored with three key indicators: GHG emissions, material loss and ecological footprint.	The case of an intermediary network, that enables and supports municipalities (as collective ENCI) to change the energy system/contribute to the climate transition.	Finland	Low	not considered	High	Medium

Collaborative Recommendations and Adaptive Control for Personalized Energy Saving (enCOMPASS)	Collaborative Recommendations and Adaptive Control for Personalized Energy Saving (enCOMPASS)	The enCompass project aimed to implement and validate an integrated social and technical approach to behavioral change in energy saving. This was done through the development of innovative, user-friendly digital tools that make energy consumption data accessible and understandable to different consumers and stakeholders (residents, workers, students, directors of construction companies, utilities, information technology providers); enabling them to work together to save energy and managing their energy needs in cost-effective and comfort-saving ways. The solutions developed were tested by realistic pilot studies, assessing the impact of elements of behavior change in 3 different types of buildings (residential buildings, schools and public buildings) in 3 different climatic zones and 3 different cultural environments - Greece, Germany and Switzerland. Other partners benefited by the smart applications developments, energy tip database, funenergy game etc. developed within the project and pilot practices experiences.	Desire to use the different tools is clear expression of the ENCI. The tools by themselves cannot bring the energy saving, the desire for lifestyle change is required.	Lithuania	not relevant	Medium	Medium	Medium
Climate Neutral Cities 2030	Klimatneutrala städer 2030	Climate Neutral Cities 2030 is an initiative that involves municipalities to test new ways of working and solutions, to learn from each other and to work for the mission: to create cities that work well for the people who live there, that are good for the economy of citizens, businesses, and society – and – that are good for the climate. The initiative focuses on system innovation that is required to keep global warming below 1.5° and creating a fair and inclusive transition. From the start in 2019, nine municipalities participated. From the autumn of 2021, the initiative was expanded to involve twenty-three municipalities and five national authorities. Climate Neutral Cities 2030 is run by the strategic innovation programme Viable Cities, and Climate Contract 2030 is one of its key tools. Climate Contract 2030 makes it concrete what cities and authorities are committing to and implementing in order to accelerate the climate transition.	By enabling and supporting municipalities in their climate/sustainability transition, Climate Neutral Cities 2030 supports ENCI in a wider sense – it enables citizens to become active private and or public ENCI (in their respective municipalities) and concomitantly acts as a collective energy citizen (as a whole by contributing to change of the energy system through supporting change in cities). With an holistic approach to sustainable urban development, Viable Cities (the actor that runs Climate Neutral Cities 2030) assumes that everyone in society must be involved in the transition: entrepreneurs and researchers, politicians and officials, organisations, and ordinary people. The participation of citizens is recognised as particularly important for a successful transition. In the Climate Contracts, a specific part is dedicated to the cooperation between the private sector, universities, and citizens. It aims to create a just and inclusive transition towards sustainable cities through system innovation.	Sweden	I don't know / not enough information	High	High	I don't know / not enough information
Residential Park Plovdiv	Квартал "Residential Park"	The Residential Park neighbourhood is a project initiated by an individual businessman and carried out RT Consult, an architecture company which turned an abandoned area in Plovdiv's centre into the country's first car-free neighbourhood. It is being constructed to consist of 58 apartment buildings and numerous establishments for entertainment, leisure and commercial purposes. It will also include a park with diverse plant life. The objective is to establish a safe, innovative and environmentally friendly space, where all vehicles will be parked and - if necessary, charged - in an underground area, which will be connected to the neighbourhood itself via elevators and escalators.	Residential Park Plovdiv is considered to be an innovative solution which has the capacity to reduce citizens' carbon footprint, as it discourages the use of vehicles; to reduce noise and air pollution; and to promote sustainability and lifestyle changes.	Bulgaria	not relevant	I don't know / not enough information	Low	Low

Type 5: “Make their voice heard”

Name of case in English	Name of case in original language	Brief overview	Why is this case a case of ENCI?	Country	Effective citizen power control /	Justice/ equity	Env. Sustainability	Contesting the current energy system
<u>Our mobility plan for tomorrow</u>	<u>Onse Mobilitéitsplang fir muer</u>	The aim of the mobility plan is to outline the infrastructure and transport services that are needed to guarantee mobility in the city of Luxembourg. In that framework, an online public consultation was organized between October and November 2021. 8 482 citizens participated to this consultation.	Although this is definitely not a manifest case of ENCI, it is a latent one. This consultation seeks to find public-supported solutions for an easy access to both the city centre and its surrounding urban areas by a sustainable inner-city transport system that includes appealing and energy less-intensive travel options than driving. To that end, it should be possible to make most journeys using ecomobility transport modes as part of an efficient public transport network with innovative travel solutions. In addition, commuters should be able to easily reach the capital and move around the city using ecomobility transport options without losing too much time on their way to their destination.	Luxembourg	no effective voice	not considered	Medium	does contest not
<u>Citizens' dialogue on the power grid</u>	<u>Bürgerdialog Stromnetz</u>	The Citizens' Dialogue on the Power Grid stands for an open and transparent exchange on the complex issues of the energy transition and the expansion of the electricity grid in Germany. To this end, the internet site provides information as a neutral body and offers a wide range of information and dialogue opportunities. The purpose is then to conduct a broad-based dialogue on grid expansion as part of the energy transition.	The citizens' dialog on the renewed power grid is thought to be inseparable from the energy transition and the growing share of renewable energy in the mix. The dialog intends to furnish transparent information to the citizens, provides an open platform to raise their questions and organises numerous events. Thus it enables a large citizen participation toward the upcoming energy system.	Germany	Low	Low	Low	does contest not
<u>Citizen consultation on wind power in Habay</u>	<u>Consultation populaire sur l'éolien à Habay</u>	At the end of 2021, the local council of Habay (province of Luxembourg) organized a citizen consultation open to all inhabitants aged 16 or over. The citizens could vote for or against 4 wind projects by paper or electronic vote. Participation in the consultation was not compulsory and the results (62% against) are not binding.	This citizen consultation is a manifest type of ENCI because it explicitly aims at involving citizens in local wind energy projects development.	Belgium	Medium	not considered	not considered	Low
Michel Huart	Michel Huart	Michel is energy counsellor for ULB (Université Libre de Bruxelles). He works to promote energy efficiency within the university. Concretely, he supports the energy management of the university (which is within the department of infrastructure).	Michel is a latent manifest of energy citizenship because his work is not visible. He worked during three years for free, and now he receives some money via a new public subsidy.	Belgium	not relevant because individual	not considered	High	does contest not
Magdalena Maleeva	Магдалена Малеева	Magdalena Maleeva is a former professional tennis player from Bulgaria, who uses her fame to inspire action against climate change among the wider public. She has founded the environmental organisation Gorichka, whose aim is to create public awareness about urgent environmental problems, including climate change, energy transition and sustainable agriculture. One of her latest initiatives is the “Anonymous Climaticians” community. It is an informal group of people, connected by their concern about climate change. Its members have diverse expertise and know-how in various areas, but share the belief that the climate crisis is one of the most serious problems that mankind is facing. They also believe that it is possible to avoid the worst case scenarios and the first step in this direction is to initiate a discussion in order to come up with viable solutions. The group uses the platform Gorichka to make its readers part of this conversation and to attract new members. Part of the “Anonymous Climaticians” initiative is also a podcast, dedicated to the energy transition dialogue. The latest 7th episode of the podcast was uploaded on 16 January 2022.	Magdalena Maleeva is an influencer who uses her fame of a former tennis player in order to advocate for the climate change cause, including the needed energy transition.	Bulgaria	not relevant because individual	not relevant because individual	High	does contest not

ZeroCarbon.vote	ZeroCarbon.vote	ZeroCarbon.vote is an online consultation tool developed by Energy Systems Catapult, a government-backed not-for-profit research organisation. It is designed to help local authorities and businesses understand how people would prefer to cut their carbon emissions in light of the UK's plans to spend around £300 billion on reducing carbon emissions from 2020 to 2030. In communities where the local council collaborates with zerocarbo.vote to inform the development of a Local Area Energy Plan, residents can participate by filling out a short online questionnaire about their preferences (e.g., regarding heating systems or transport) and reasons for their choices. This participation opportunity was first opened in Bury, a Borough of Manchester, in 2021 and expanded to the entire Great Manchester region in 2022.	The case provides a tool for residents to easily participate in the zero carbon planning strategy of their local authorities. However, it is mainly about aggregation of information, whereas the influence on decision making does not seem to be clear - or significant. However, the case could represent access to a latent form of individual public energy citizenship.	United Kingdom	Low	Medium	Low	does contest	not
Scania Panel 2018	Skånepanelen 2018	The Scania County Administrative Board, Scania Region and the Association of Municipalities of Scania developed a joint climate and energy strategy to achieve a fossil-fuel-free and climate-neutral region by 2030. The strategy provides guidance for climate work and present targets and measures in areas of great importance for the reduction of climate emissions and the energy transition. In order to gain a better knowledge and understanding of the knowledge and attitudes towards different climate policy options, a regional online citizen survey was conducted.	A case of a regional citizen survey, carried out online, to feed into the development of a regional climate and energy strategy, giving the decision-makers better understanding of citizens' knowledge and attitudes towards different climate policy options.	Sweden	Low	not considered	High	Low	
Malta's Draft National Energy and Climate Plan Public Consultation	Malta's Draft National Energy and Climate Plan Public Consultation	Online Public Consultation on the draft National Energy and Climate Plan.	Public consultation online on the national Energy and Climate action plan, open to all citizens (online)	Malta	Low	not relevant because individual	I don't know / not enough information	does contest	not
Citizens' Committee of Luxembourg 2050	Biergerkomitee Lëtzebuerg 2050	From January 2021 to January 2022, 30 citizens worked, at the request of the Ministry of Energy and Spatial Planning, to draw up recommendations on how the "functional cross-border territory of Luxembourg" should develop to become carbon neutral by 2050. In the first phase, the group of citizens had the opportunity to get informed, to immerse themselves in this vast issue of the transformation of a territory towards zero carbon by 2050. They followed twelve videoconferences, which dealt with climate, biodiversity, geography, the functioning of the territory (mobility, housing, labour market), the economy and climate change. The lectures were each followed by a closed discussion between the experts and the group, which was also given the opportunity to intervene and influence the methods or content it wanted to hear. Then, in a second phase, starting in July 2021, the group members met to first of all put everything together, then to structure this mass of information and discuss the conclusions to be drawn, and finally to draft the recommendations.	This case is about citizens giving non-binding inputs about their views on low-carbon transition. Although energy is just one of the topics given the holistic approach, it is central to many of the issues addressed.	Luxembourg	Medium	not considered	High	Low	
LinthGegenwind	LinthGegenwind	The association LinthGegenwind is an alliance of landscape, nature and bird conservationists as well as local residents with the aim of protecting the Linth plain from five 200m wind turbines, which had been planned by the the St. Gallisch-Appenzellische Kraftwerke AG. In 2019, the wind zone designated for this purpose was removed from the cantonal spatial plan and the project was thus terminated.	The case consists of a movement of local citizens that oppose the construction of windmills in their neighboring landscape. It shows intensive and longterm involvement of citizen engagement that works through democratic means at a local and regional level. However, it may be questionable whether the civic engagement in this case actually contributes to the development of a more sustainable energy system.	Switzerland	Medium	Medium	Medium	does contest	not
Christina Noble - Here We Are	Christina Noble - Here We Are	This is an individual case - not sure if we are meant to add details about individuals without permissions here.	Christina Noble is what we call a charismatic leader. She is the voice of her rural community/village and she is always trying to engage/motivate/empower other residents into projects for the benefit for the whole community in Cairndow. I personally know her and interviewed her many times and I think she fits within our ENCI mapping.	United Kingdom	not relevant because individual	not relevant because individual	High	High	

Green Phone Network Croatia	Mreža Zelenih telefona Hrvatske	The first Green Phone was established within the association for environmental protection Green Action (Zelena Akcija) in 1992 to promote and facilitate public participation in solving local environmental problems. It is a citizen service for obtaining information, reporting problems / irregularities, initiating initiatives, organizing street actions, media updates on environmental and nature issues. During the years, other associations decided to launch the same service and today there is a whole Green Phone network that brings together nine environmental associations in Croatia. The aim of the Green Phone network is to encourage citizens to actively participate in environmental protection and to encourage the competent institutions to solve environmental problems more efficiently. Every citizen of Croatia may report an environmental problem or request information calling 072 123 456. Activists and volunteers are solving these problems together with the citizens, in cooperation with the competent institutions, and then monitor their resolution. So far, 8,000 cases have been reported to the Network, which shows that citizens are treating the environment consciously and that they have recognised the quality of Green Phone network's work, which is reflected in meeting the expectations of citizens.	The Green Phone network empowers citizens to have an active role in solving environmental issues and raises their awareness on how to protect the environment. Through the network citizens cooperate with environmental activists and institutions for solving environmental issues including energy matters (air pollution from fossil fuels) and therefore the case can be considered a latent form of energy citizenship.	Croatia	High	not considered	High	does contest	not
National public consultation on Energy and Climate plan	Enquête publique nationale Plan Energie Climat	In accordance with EU law, the Belgian government launched a national public inquiry in June-July 2019. This public consultation allowed citizens and stakeholders to participate in the development of the final national Energy - Climate Plan via email or an online form. More than 60 900 people participated.	Although this public consultation was mandatory, it was a way to engage individuals in voicing their support or concerns about the Belgian plan.	Belgium	Medium	not considered	High	Low	
Bertrand Piccard	Bertrand Piccard	Bertrand Piccard is a Swiss psychiatrist and adventurer. In 2015/2016, he conducted the first successful round-the-world solar-powered flight (Solar Impulse II). He is the founder and chairman of the Solar Impulse Foundation, a non-profit organization that promotes environmental protection and awards the Solar Impulse Efficient Solution Label to 1000 solutions that protect the environment in a profitable way.	The case can be understood as a form of energy citizenship, since Piccard as an individual performed activities that promoted solar technology (first circumnavigation of the world in a solar airplane) and that promoted energy efficiency through the foundation he runs. At first glance, the case might not fit the typical image of energy citizenship, as there is a strong emphasis on technology, efficiency, and also profitability & growth. Nevertheless, the activities of the case can be interpreted as a civic engagement in the energy sector to improve sustainability - with a different conceptualization of sustainable development than many other initiatives.	Switzerland	not relevant because individual	Medium	Medium	Medium	
Cara Augustenborg	Cara Augustenborg	Cara Augustenborg	Cara Augustenborg is an Irish-American environmental scientist, blogger, podcaster, and advocate for climate action based in Ireland. She was chair of Friends of the Earth Ireland (2015-2017) and Europe (2015-2019). In 2021 she was appointed to the Climate Change Advisory Council of Ireland.	Ireland	not relevant because individual	not relevant because individual	High	High	
'Suceava Electromobility – electric vehicles for a «green» municipality»	'Suceava Electromobilitad - vehiculele electrice pentru un municipiu «verde»	Project promotes electromobility in the city of Suceava and throughout Romania. Different types of e-vehicles were supplied and a network of charging stations was constructed. Results: reduced consumption of energy and decreased emission of climate-affecting gases, and a positive example for the use of electric vehicles.	Yes, this is an ENCI case given its interest in the use of electric vehicles to reduce traffic emissions and promote alternative forms of travel, through measures that not only take into account the purchase of the vehicles but also how to make citizens want to purchase a vehicle of this type because the benefits offered (technological, price reduction, availability of recharging points, etc.) are sufficiently attractive to the consumer. The proposal also includes the incorporation of electric buses as charging stations for these vehicles, the implementation of traffic management systems for public transport, real-time information systems and electronic ticketing.	Romania	Low	Medium	High	Low	

PLANTaža association	Udruga PLANTaža	PLANTaža association was founded in 2014 in Osijek by a group of friends and enthusiasts with the aim of promoting ecology through creativity, sustainable lifestyle, social entrepreneurship and developing new values, from the circular economy to new content and ideas. Association's member work together to influence positive changes in the environment, which they achieve through various collaborations and projects both locally and internationally. PLANTaža has so far successfully managed over 140 projects from organic planting workshops and sustainable outdoor art exhibitions to bicycle repair shops and expert-led panel discussions. PLANTaža believes the key to helping the environment is education - and the earlier it begins, the better. One of the projects PLANTaža is most proud of is MOSS, aka, Mobile Solar Panel (in Croatian: "mobilna solarna stanica") which encompasses educational lectures during which kids are taught about the benefits of renewable energy and shown a movable solar panel.	One of the main pillars that PLANTaža association is promoting among its audience and mostly among young people is renewable energy. Moreover, the association gives citizens the opportunity to join activities that result in gaining knowledge and skills about preserving the environment and contributing to sustainable development.	Croatia	no effective voice	not considered	High	I don't know / not enough information
Participatory, ecological and solidarity budget of the Île-de-France Region	Budget participatif, écologique et solidaire de la Région Île-de-France	The Participatory Budget allows associations, communities, public or private structures, or any legal person, to submit their projects to the vote of Île-de-France residents. The projects need to be within one of the major themes of: food; biodiversity and green spaces; cycling and clean everyday mobility; cleanliness, waste, and circular economy; renewable energy and energy efficiency; and environmental health. Region Île-de-France then finances the winning projects with up to €300,000 for large ones and €10,000 for local ones.	The participatory ecological budgeting enables/supports citizens (in a broad sense, all legal entities are eligible to propose their project) to practice more active ENCI through voting, proposing and receiving funding for projects.	France	Low	Medium	Medium	Medium
Hydrogen Citizens' Dialogue	Wasserstoff-Bürgerdialog	On 9 June 2021, the three Hessian Fraunhofer Institutes IEE, IWKS and LBF invited to a digital hydrogen citizen dialogue. More than 100 participants took advantage of the opportunity for exchange and discussion. ""We draw an extremely positive balance of our first hydrogen citizens' dialogue. We are very pleased with the lively participation and the great interest in the topic of hydrogen and research on site," says Anke Weidenkaff, Director of Fraunhofer IWKS and initiator of the Citizens' Dialogue. The aim of the event was not only to give an insight into the research of the three Fraunhofer Institutes in Hesse, but also to take up important suggestions and impulses from the population. "It is not for nothing that we conduct application-oriented research with the aim of finding technical solutions for prompt implementation. The dialogue also made it clear once again that the various research foci and competences of the institutes complement each other very well. By no means have all the challenges surrounding hydrogen been solved and all the questions answered - so the need for further research is great. We take this as an incentive," Weidenkaff sums up."	This is a case of ENCI since it is a citizens Dialogue about the future uses of the hydrogen as a secondary source of energy.	Germany	Low	not considered	I don't know / not enough information	Medium
Public Consultation: Shaping Our Electricity Future	Public Consultation: Shaping Our Electricity Future	EirGrid, the state-owned electric power transmission operator in Ireland, has been tasked by the government to transform the electricity system in anticipation of 70% of Ireland's electricity coming from renewable sources by 2030, as envisioned in the Government's Climate Action Plan (2019). This challenge is being addressed through a strategy outlined in the report, Shaping Our Electricity Future, which presents four different approaches to the development of the grid. Due to the high level of impact and transformative nature of this transition, EirGrid conducted a nationwide consultation process in the form of several online workshops and an online consultation platform to improve engagement with the public and with all stakeholders. Along with the outputs of the workshops, this resulted in several hundred submissions and comments by various stakeholders, including citizens.	The case involves energy citizenship as consultation process run by Eirgrid allowed individual citizens to voice their opinion and views on a key energy topic (grid development), even though their voices resp. the results of the consultation are not compulsory.	Ireland	Medium	Medium	Low	Medium
Citizen Office for Climate	Klima-Bürgerrot	The "Klima-Bürgerrot" is a citizen consultation project announced by the Prime Minister in his Declaration on the State of the Nation on October 12, 2021 as a new initiative within the framework of Luxembourg's policy linked to the fight against global warming. The specific question posed to the 100 people participating to the Klima-Bürgerrot is: "Can Luxembourg and does it want to go further in the fight against climate change?" And if so, by means of which measures? ». The Klima-Bürgerrot began its work at the end of January 2022 and is supposed to present its conclusions in July 2022. At the end of this process, the Klima-Bürgerrot's recommendations will be presented to the Luxembourg Parliament, where they will be debated, and are then likely to influence the new version of the Integrated National Energy and Climate Plan (NECP).	Although many themes will be discussed (construction, transport, agriculture and forestry etc.), energy issues represent one of the core themes of this initiative. 100 citizens have the opportunity to provide proposals on these issues.	Luxembourg	Medium	Medium	High	Low

Citizens' Climate Assembly (Germany)	Bürgerrat Klima	The Citizens' Climate Assembly aims to craft a path toward a climate-friendly way of living and doing business. In a non-partisan and open space, the citizens discuss how the climate goals of the Paris Agreement can be reached ecologically (sustainable for the environment), economically (good for our economy) and socially (fair for all). After all, effective climate protection only works if everyone participates! At the end of the Citizens' Assembly, the participants will all vote on the recommendations, which will then be summarized in a Citizens' Report. After the federal elections, this Citizens' Report will be handed over to the parties in the German Bundestag. This way, the recommendations can be taken into account in the upcoming coalition negotiations. The Citizens' Climate Assembly is the third nationwide citizens' assembly in Germany. This has resulted in the four areas of action in which recommendations for climate protection measures are being developed: Transportation, Buildings and heat, Energy production, Food	The Citizens' Climate Assembly is a case of ENCI since it aims at enhancing citizen participation in the climate policy elaboration, with a clear focus on the energy domain.	Germany	Medium	Medium	Medium	Medium
Dominique Palmer	Dominique Palmer	Dominique Palmer is a British climate justice activist, campaign organiser for Fridays For Future International and the UK Student Climate Network, as well as a public speaker, including at the UN Climate Change Conference in 2019 (COP25). She began her activism with Extinction Rebellion Youth and then became a volunteer in the School Strike for Climate. In her activism, she focuses on intersectionality and marginalized communities, linking the fight against climate change with other justice issues such as gender and race.	The case involves an individual who is working to combat climate change as part of various social movement groups, but also as an individual. The case is interesting because it connects climate change to various justice issues, including gender and race.	United Kingdom	not relevant because individual	High	Medium	High
Sustainable Energy and Climate Action Plan Erzsébetváros	Erzsébetváros Fenntartható Energia és Klíma Akcióterve	One of the Budapest district develops a Sustainable Energy and Climate Action plan. The process is facilitated by the municipality, involving experts and the local stakeholders and citizens. As participatory processes don't have a culture it is a difficult process.	It starts local energy transitions and aims to involve citizens.	Hungary	Medium	Medium	High	Medium
Environmental Research and Information Center "Eco-consciousness" (Eco-svest)	Еко-свест од Скопје	Eko-svest is an association of citizens established in 2002 in Skopje. In 2008, it changed its name to the Environmental Research and Information Center "Eko-svest" in order to best reflect its business, mission and vision. The main goal of establishing the association lies in the need to increase public awareness about the necessity of environmental care in North Macedonia, through information, education and advocacy. Eko-svest implements projects and public campaigns on topics closely related to environmental protection, including sustainable transport, renewable energy sources and energy efficiency, sustainable waste management, protection against chemicals and heavy metals, protection from genetically modified organisms. The Eko-svest mission is to research, inform and act on the promotion of public policies and practices for sustainable living and environment protection. It supports and encourages civic awareness and active participation and promotes practical solutions in cooperation with organizations and institutions. Eko-svest vision is a just, responsible and conscientious society where healthy citizens live sustainably in prosperity and in harmony with the environment. The strategic focus of Eco-svest in the last years and the years to come remains decarbonization and transformation of the society.	Through its activities and projects, the "Eco-svest" center encourages citizens' action towards making environmentally friendly energy choices. Its contribution to energy citizenship is mainly through raising society's awareness for a just transition away from coal use and for protecting the climate.	North Macedonia	no effective voice	I don't know / not enough information	High	Medium
11th Citizens' Energy Forum	11th Citizens' Energy Forum	The 11th Citizens' Energy Forum took place in Dublin in 2019 and welcomed Youth representatives from across Europe to join the discussion on achieving an inclusive energy transition for all and the role of consumers in the changing energy market, alongside policymakers, energy regulators and consumer organisations. The event resulted in a paper with consolidated conclusions, covering how to activate citizens/consumers in key sectors to decarbonise the energy system, sustainable finance for greener and cleaner energy, and an inclusive and accessible energy market.	The case involves ENCI in two ways as (1) young people participate in an event organized by the European commission to debate (2) the role of citizens in the energy transition (yet mostly conceived of as consumers).	Ireland	Low	High	Low	I don't know / not enough information
Our Energy Future	Our Energy Future	"Our Energy Future" is a three-year collaborative project between EirGrid, Friends of the Earth, and the Renewable Grid Initiative to engage the public in light of Ireland's ambitious commitment to increase the share of renewable energy in electricity supply to up to 80% by 2030, which will require a comprehensive energy transition. Aiming to develop an inclusive vision for Ireland's energy future, the project will foster diverse and open dialogues with communities, civil society organizations, local groups and other stakeholders, it will raise awareness and build capacity and it will engage with the Irish Government and in relevant energy policy processes.	The case includes energy citizenship as it represents the context in which communities may engage in discourse on Ireland's energy future. It is an interesting case of a consultation process as it is orchestrated by actors that are not (purely) state actors (non-governmental organisations and publicly owned company).	Ireland	Medium	High	Medium	Medium

Uster citizen assembly for more climate protection	Bürgerpanels Uster für mehr Klimaschutz	In the city of Uster in the canton of Zurich, a citizens' assembly for more climate protection was implemented in 2021, in which 20 randomly selected residents participated over two weekends in a deliberative process on the areas of information dissemination, waste and consumption, urban planning, and mobility. The panel resulted in 44 recommendations addressing both the population and the city authorities.	The institution of the Citizens Assembly offers certain residents an option to engage as citizens in the city's political process on climate and mobility issues. Despite already strongly developed rights of co-determination in Switzerland within the framework of direct-democratic processes, the assembly allows deliberative co-determination that goes beyond a mere yes/no vote. However, the recommendations are not binding on local legislators.	Switzerland	Medium	Medium	I don't know / not enough information	Low
Citizens' Assembly on "How the state can make Ireland a leader in tackling climate change"	Citizens' Assembly on "How the state can make Ireland a leader in tackling climate change"	A citizens' assembly of 100 members, chosen to be representative of the Irish population, engaged in a deliberative process, under impartial and factual advice from experts, to discuss "How the state can make Ireland a leader in tackling climate change". The process resulted in a series of reports and recommendations to the attention of the Parliament of the Republic of Ireland	The case represents the institutional context for effective participation by individual citizens in the area of climate and energy. Energy citizenship is not limited to a singular act of voting, but involves a pronounced deliberative process.	Ireland	Medium	High	Medium	Medium
Citizens' Assembly on Climate in Budapest	Budapesti Közösségi Gyűlés 2020	The first Citizens' assembly in Budapest, ordered by the City Council. The Assembly was facilitated by a professional NGO and climate experts, 50 randomly selected citizens participated, and the after two week-ends facilitated discussions and deliberative processes they came up with a priority list. The list serves the base for updating the Climate Strategy of Budapest City Council.	It was the first Citizens Assembly in municipal settings, after introducing Climate Emergency in the city.	Hungary	Medium	High	High	Medium
Loos-en-Gohelle, pilot town for sustainable development	Loos-en-Gohelle, ville pilote du Développement durable	Located in the heart of the Hauts-de-France Mining Basin, Loos-en-Gohelle suffered head-on from the shock of the closure of the mines at the end of the 1980s. To make the transition from the unsustainable mining model, Loos-en-Gohelle signed a partnership protocol in 2014 with the French Agency for the Environment and Energy Management (ADEME), which recognized it as "a national pilot of transition towards sustainable cities". In this context, the municipality put in place systems to inform, consult and include citizens in projects aimed at transitioning from coal to renewable energies, from thermal sieves to eco-construction, and to rehabilitate landscapes devastated by mining activities etc.	Through various mechanisms, local policy makers aim to inform and consult citizens throughout the development of public projects, so that they are adapted to their needs and expectations. The Fity Fifty system also aim to allow citizens to ask the municipality for financial and technical support, in order to carry out projects of their choice to improve the territory: citizens thus drive change and are enabled to become more active ENCI.	France	Medium	Medium	High	High
Climate Assembly UK	Climate Assembly UK	The Climate Assembly UK was a citizen assembly in 2020 commissioned by six select committees of the House of Commons to deliberate the question "How should the UK meet its target of net zero greenhouse gas emissions by 2050?". The Climate Assembly was formed in response to the UK government and parliament's 2019 commitment to "the net zero target" – the target of reducing emissions by 100% by 2050 - and brought together 108 people from across the UK, selected to be representative of the population in terms of age, gender, ethnicity, educational level, where in the UK they live and whether they live in an urban or rural area, and level of concern about climate change. The assembly culminated in a report for the attention of the U.K. government containing more than 50 policy recommendations to achieve the net-zero target by 2050.	The case represents the context for individual engagement as part of the assembly, in that participating individuals committed to engaging in the deliberative process over several weekends.	United Kingdom	Medium	High	High	Medium
Citizens Convention for Climate	La Convention Citoyenne pour le Climat	The Citizens Convention for Climate was a citizens' assembly that took place in 2019-2020 in France. It was initiated by the French President as a response to the 'Yellow Vests' protest movement against the increase in fuel taxes. The objective of the Citizens Convention for Climate was to allow citizens to learn about, debate, and prepare draft laws in order to propose regulatory and legislative proposals aiming to reduce France's carbon emissions by 40% from its 1990 levels in a spirit of social justice. The assembly was modelled after deliberative experiments known as 'mini publics' and was organised in seven official sessions, with three additional unofficial sessions. 150 citizens, meant to be representative of the French population, were randomly selected to take part. The citizens divided themselves into working groups on five issues: food, housing, employment, transport and consumption. The Citizens Convention for Climate made 149 proposals that the President had committed to submitting "without a filter" either for a referendum, for a vote in Parliament or for direct implementation. The degree of compliance with this commitment has been subject to criticism.	The Citizens Convention for Climate is a manifest example of ENCI that has a holistic focus on climate change, and a clear objective include citizen involvement in decision making on climate (and the energy system) and debate how climate change mitigation, across sectors, can integrate "a spirit of social justice".	France	Medium	not relevant	High	Medium

Citizens' Jury on Climate Actions	Ilmastotoimia arvioiva kansalaisraati	The Citizen's Jury on Climate Actions was an online citizen's jury that took place in April 2021, commissioned by the Climate Policy Roundtable and the Ministry of Environment. It was the first nation-wide deliberative mini-public on climate issues in Finland. 33 citizens participated in the deliberation with the aim to assess the fairness and impact of the measures proposed in the new Medium-Term Climate Change Policy Plan, with a specific focus on food, housing, and traffic.	Civic involvement in the form of a mini-public/citizen's jury to debate the fairness and impacts of national climate policy measures.	Finland	Medium	not relevant	High	Medium
DOOR – Society for Sustainable Development Design	Društvo za oblikovanje održivog razvoja	DOOR is a civil society organization of experts devoted to the promotion of sustainable energy development, founded in 2003. Today DOOR has more than 50 members, five members Steering Committee and seven employees. They have successfully implemented more than 100 projects with goals ranging from climate change mitigation, encouraging citizens' participation in sustainable energy policy-making, improving education about renewable energy sources and alleviating energy poverty. Within its projects DOOR has organized more than hundred workshops, round tables, trainings, conferences and other public events attended by several thousand participants, published a dozen manuals, organized a number of study trips and established continuous cooperation with numerous organizations from Croatia and abroad. DOOR's vision is of a society competent in the field of sustainable energy, in which the public takes part in delivering, monitoring and evaluating public policies and energy plays an important role in social and economic development and decreasing poverty.	We consider DOOR a leverage to energy citizenship. It facilitates the energy transition through empowering citizens to participate in sustainable energy policy-making and raising awareness of the existing opportunities for sustainable energy consumption and for reducing carbon footprint of consumers. Citizen engagement and adult and youth education on sustainability issues related mainly to energy are at the core of DOOR activities.	Croatia	High	High	Medium	High
Visual workshop in Sztum	Visual workshop in Sztum	A workshop organised for all stakeholders to better understand the concept of climate neutrality co-create a common vision for the town in a climate-neutral future. A workshop was to explained what climate neutrality means and the link between climate action and local development. The methodology used addressed to different senses, creative thinking, empathy and engagement. The outcome can serve as basis for further development of the municipal climate strategy and can increase the acceptance.	It is using a creative methodology and involves local citizens to cocreate carbon free future.	Poland	Medium	I don't know / not enough information	High	Medium
Climate Conversations 2021	Climate Conversations 2021	The Climate Conversations 2021 were a series of consultation events established by the Irish Government's Department of Environment, Climate and Communications as part of the National Dialogue on Climate Action. Through the Climate Conversations, the people of Ireland were invited to provide their views on how Ireland could be transformed and how individuals and communities could be supported to take their own positive climate actions. The consultations sought to inform the formulation of the Climate Acton Plan 2021, the government's annual plan that sets out how Ireland will meet its climate commitments and reach EU and international climate targets. The Conversations consisted of four interlinked engagement processes blending surveys, with focus groups and workshops targeting different audiences.	The case provides the context for a series of citizen engagements invited by the state in the area of climate change mitigation and energy transition. Notwithstanding the top-down establishment of the consultation process, various citizens and stakeholders actively participated in the process, whether by completing an online survey or attending a workshop.	Ireland	Medium	High	High	High
Financing of energy transformation from the EU budget for the years 2021 - 2027	Financovanie energetickej transformácie z rozpočtu EÚ na roky 2021 – 2027	In December 2018, Friends of the Earth-CEPA published recommendations for the programming of EU funds in the Slovak Republic from the point of view of regional energy support. The recommendations contain six priorities for the coming budget period, which respond to the current situation. The ambition of their proposal is not to cover the whole issue of energy, but to focus on creating favorable conditions for a purposeful increase in energy self-sufficiency of the regions of Slovakia.	Regions and local governments in Slovakia lack any consequence of a purposeful energy policy and have almost no personnel, financial, technical and knowledge capacities in this area. Thus one of the biggest challenges facing the programming of public finances, including EU funds in Slovakia in the period 2021 to 2027, is to provide systematic support for the development of decentralized, non-fossil and sustainable energy, which would direct regions to energy self-sufficiency. That is where the publication of Friends Of the Earth - CEPA is trying to help and provide expert advice.	Slovakia	not relevant	I don't know / not enough information	Low	High
Participation process for the further development of the Berlin Energy and Climate Protection Programme (BEK 2030)	Beteiligungs-prozess BEK 2030	In September 2021, the Senate Department for the Environment, Transport and Climate Protection launched the participation process for the further development of the Berlin Energy and Climate Protection Programme (BEK 2030) for the implementation period 2022 to 2026 with a hybrid kick-off event (presence and online) on the participation platform mein.Berlin.de. All Berlin citizens are invited until 3 October 2021 to actively participate in the process and thus help shape Berlin's development into a climate-neutral city. The comments and suggestions will be incorporated into the update of the BEK 2030. In addition to the kick-off forum, two further expert forums, two workshop series, a further online participation and an additional public event are planned until spring 2022. Furthermore, the further development of the BEK 2030 will be accompanied by a new citizens' council.	It is a case of ENCI since all the concerned actors are entitled to take part in the online participative process and to contribute to elaborate the BEK 2030 for the period 2022-2026.	Germany	Low	not relevant	I don't know / not enough information	I don't know / not enough information

Type 6: "Make their vote count"

Name of case in English	Name of case in original language	Brief overview	Why is this case a case of ENCI?	Country	Effective citizen power control /	Justice/equity	Env. Sustainability	Contesting the current energy system
Edgars Fresh-Latvian influencer	Edgars Fresh-Latvian influencer	Edgars Fresh is a well-known influencer in Latvia, especially for young people, in his social platform he actively communicates on issues related to the environment and climate change, in addition to social networks, he is a civic participant in public consultations to follow the processes and try to influence the processes	Edgar Fresh is an enthusiast and promoter of a climate-friendly lifestyle since school, and his thoughts on environmental sustainability he actively communicates in social media for wide audience, he is also involved in various actions related to climate change, acts as a moderator in climate crisis discussions, edits videos to promote the march, draws posters. His YouTube channel, Edgar Fresh, is a unique blend of environmental activism, an eco-friendly lifestyle, internet marketing and a little entertainment.	Latvia	not relevant because individual	not relevant because individual	High	Medium
Farhana Yamin	Farhana Yamin	Farhana Yamin is an internationally recognised environmental lawyer, climate change and development policy expert. She has advised leaders and ministers on climate negotiations for 30 years and has also been a lead author for the Intergovernmental Panel on Climate Change (IPCC) for three of its five assessment reports. In addition to founding Track 0, she is an Associate Fellow at Chatham House, a Director of Impatience, Senior Advisor to SYSTEMIQ, a FRSA and Visiting Professor at University of the Arts, London, and deputy chair of the Climate Vulnerable Forum expert advisory group. Farhana joined Extinction Rebellion in 2018 and has taken an active role in non-violent direct action, including gluing herself to Shell's London offices in 2019 to protest in favour of declaring a climate emergency.	The case involves an individual who has been active in ENCI both in her professional capacity as a lawyer and policy advisor but also as an activist that engaged in non-violent civil disobedience. This makes the case also conceptually interesting as it raises the question if and how "illegal" or disobedient acts may be included in a notion of (energy) citizenship.	United Kingdom	Medium	High	High	High
<u>Citizen Assembly</u>	<u>Borgertinget på klimaområdet</u>	The Danish Citizen Assembly on Climate aims to involve a representative sample of the Danish population in the development of Danish climate policy. The Citizens Assembly consists of 99 members, selected on the basis of simple criteria such as age, gender, geography, education and income, in order to best represent the Danish population. The task of the members is to debate and make recommendations on dilemmas related to climate challenges, so that citizens can have their voices heard in the development of climate policy.	The case represents the active citizen involvement in shaping the climate policy.	Denmark	High	Medium	High	High
<u>Energy Strategy 2050: Referendum on the Energy Act</u>	<u>Energiestrategie 2050: Abstimmung zum Energiegesetz</u>	On May 21, 2017, the Swiss Energy Strategy 2050 was approved in a nationwide referendum. The strategy comprises a package of measures designed to ensure the country's long-term supply of electricity against the backdrop of the planned nuclear phase-out and to reduce Switzerland's dependence on imported fossil fuels. It includes measures to increase energy efficiency, reduce CO2 emissions, promote renewable energies as well as a ban on permits for new nuclear power plants.	The case constitutes the setting for a prominent form of citizen engagement in the energy domain in Switzerland. Every new federal law in Switzerland is subject to a (binding) referendum if 50,000 signatures against the adoption are gathered. The case constitutes the setting for a prominent form of citizen engagement in the energy domain in Switzerland. Every new federal law in Switzerland is subject to a (binding) referendum if 50,000 signatures against the adoption are gathered. Apart from other forms of engagement (informing oneself about the proposed policy, participating in discussions, participating in voting committees), the core of citizen participation in this context consists of casting a vote for or against the proposed law. In the case of the Energy Strategy 2050, 42% of eligible voters (all adult Swiss nationals) cast a vote and approved the Energy Strategy legislative package with a 58% "yes" vote.	Switzerland	High	Medium	Medium	Medium

Alice Corovessi	Alice Corovessi	Alice is the founding member of INZEB - Institute of Zero Energy Buildings, the secretary of BoD Communication and marketing consultant on energy and sustainability issues and the vice-president of the first energy cooperative owned 100% by women. Alice is also participating and co-coordinating various EU funded projects.	This is a case of an inspiring and motivating individual Alice Corovessi, who I met on an online event. She is fitting in our enci typology and it would be great if we can explore her impact even further. She is also the co-president of the first women energy community cooperative in Greece and EU called: wencoop.	Greece	not relevant because individual	not relevant because individual	I don't know / not enough information	High
Communal referendum in city of Zurich on general credit for city-owned energy supplier ewz for the expansion of renewable energies	Kommunale Volksabstimmung in Stadt Zürich über Rahmenkredit für städtischen Energieversorger ewz zwecks Ausbau erneuerbarer Energien	On June 13, 2021, the eligible citizens of the city of Zurich voted on whether the city ought to grant the city-owned energy supplier ewz a general credit of 200 million Swiss francs for the expansion of renewable energies. Due to the size of the credit, a binding referendum on the proposal was mandatory. With a voter turnout of 57%, the proposal was accepted with 83%.	The direct involvement of citizens via direct-democratic processes on proposals is a widespread form of civic engagement in Switzerland, which can be understood as energy citizenship, insofar as the subject of the proposal concerns an energy issue. Apart from the participation in national and cantonal (member state) referendums this direct involvement of citizens also takes place in particular at the municipal level, where it has its historical roots.	Switzerland	High	Medium	Low	Low
Climate Election 2022	Klímválasztás 2022	NGOs consortium is promoting to commit and sign the 7-point green agenda by the candidates who are running for the parliamentary election this year.	It raises awareness on the program of the candidates and it also tries to shape it, as the candidates commit what they will implement once elected.	Hungary	not relevant	Low	High	High
Cantonal referendum on energy act of canton of Lucerne	Kantonales Referendum zum Energiegesetz des Kantons Luzern	The Cantonal Council of the Canton of Lucerne (parliament of a member state of the Swiss Confederation) passed a total revision of the Cantonal Energy Act. After collecting more than 3000 required signatures, a popular referendum on the law was demanded, so that all eligible citizens of the canton of Lucerne could vote on the adoption of the new energy law in 2018. In this referendum, the law was finally approved by a majority of votes and thus adopted.	The case illustrates a typical form of energy citizenship in Switzerland, as citizens can participate in plebiscites at all levels of government (from municipal to national) on issues of energy-relevant legislation through direct-democratic processes.	Switzerland	High	Low	not considered	Low

Type 7: "Do their share"

Name of case in English	Name of case in original language	Brief overview	Why is this case a case of ENCI?	Country	Effective citizen power control /	Justice/equity	Env. Sustainability	Contesting the current energy system
Green Energy for Starachowice	Green Energy for Starachowice	An innovative solution in Starachowice, a community energy project using waste heat from printing processes of the Walstead Central Europe printing house and transfer it to ensure thermal comfort in public buildings and individual households.	It is a small scale, local, innovation.	Poland	no effective voice	not considered	Medium	does not contest
<u>İsbike</u>	<u>İsbike</u>	In addition to recreational and sporting use, bicycles can be integrated into the city's transport network, and a sustainable smart bike-sharing system can function as an alternative transport model. Users can rent a bike from one İsbike station and leave it at another; this form could help to replace short trips 3-5 kilometres. İsbike system was developed by İspark, a company of municipality of Istanbul, with the broad aim of implementing projects that contribute to reducing urban traffic, with a focus on parking issues.	İsbike's slogan is "Healthy Living and Environmentally Friendly Transport", which is what they strive for in their work. By making cycling an everyday activity, they offer a sustainable transport alternative that contributes directly to less air pollution and a healthier urban environment by reducing traffic jams and the pressure on public transport.	Turkey	no effective voice	not considered	Medium	Low
Energiris	Energiris	Energiris is a cooperative which invests in renewable energy in Brussels. Funded by citizens, it operates mainly in the building sector.	Energiris aims at involving citizens in using their savings to finance the energy transition.	Belgium	Low	not considered	Low	Low
Blockchain Grid (LEAF projects 1 and 2)	Blockchain Grid (LEAF projects 1 and 2)	Blockchain Grid aims at turning the conventional approach of most congestion management approaches for distribution grids upside down. The project does not consider how to deal with excess utilization, but rather how to make most use of remaining free grid resources (time-varying power and voltage bands) to the merit of prosumers. This approach is enabled by the high level of trusted automation provided by Blockchain technology. In particular, the approach is to implement a distributed Blockchain-based application that enables prosumers themselves to share free grid resources for their surplus generation and load, whereas the distribution system operator acts as a facilitator. Since autumn 2017, the southern Styrian municipality of Heimschuh has been the scene of a showcase project for local energy communities. As part of the "LEAFS "2 research project, a central community storage facility for photovoltaic electricity was built here. Local residents can feed their self-generated solar power into this storage facility and then retrieve it when they need it.	This is a case of ENCI since the project aims at optimizing the renewable energy use by enabling the storage of the PV power and facilitating the share of the renewable energy at the community scale. Heimschuh thus becomes one of the first "Citizens Energy Communities" (CEC) in Europe, i.e. a local energy community, with the goal of such enabling such "energy islands" to consume locally generated energy locally and thus become largely independent of external power sources.	Austria	Low	not considered	not considered	Medium
Center for Combating Energy Poverty	Centar za borbu protiv energetske siromaštva	The Center for Combating Energy Poverty was established in 2022 in Zagreb to tackle the energy poverty by bringing the topics of energy efficiency and sustainability closer to users - especially the people from the energy-poor households in Zagreb, but also the households at risk of energy poverty. Center's experts provide free-of-charge consultations and workshops both in the premises of the Center and also in the local committees of other districts, if necessary. Individual consultations can also be held in households in agreement with the beneficiaries.	The main objective of the Center is to empower energy poor citizens/households and help them to alleviate or prevent energy poverty. In addition to providing advice on how to increase the energy efficiency of their homes, the Center informs the consumers how to obtain information on financing energy efficiency measures, how to understand their energy bills and what are the simple measures everyone can take to improve energy conditions in their household. In addition, energy packages for energy-poor households are distributed at the Center.	Croatia	Low	High	not considered	does not contest
Solarteam Jurablick	Solarteam Jurablick	Solarteam Jurablick is a project and product of Primeo Energie, an energy supplier with a supply area in northwestern Switzerland, which has been constituted as a cooperative for more than 100 years. The project was launched in the municipality of Starrkirch-Wil and involves residents being able to participate financially in a solar installation on a roof provided by the municipality. For each solar panel invested in, residents are credited with 160 kWh of local solar power annually for 25 years. Two weeks after the offer opened, all 108 modules had already been booked, so more municipal roofs are now to be made available.	The case involves energy citizenship in that residents of the village financially participate in a community solar installation. Unlike other "standard" community energy projects, the scheme is provided by an energy provider that is an integral part of the current energy system - and more interestingly, has a cooperative legal form (although it functions more like a for-profit company).	Switzerland	Medium	Medium	not considered	does not contest

<u>Pedia - Education</u>	<u>Pedia - Παιδεία</u>	An innovation project exclusively for schools in Cyprus. A total building upgrade project for quality education. A project for sustainability and the environment in the school environment. "The PEDIA project (Promoting Energy efficiency & Developing Innovative Approaches in schools) is the first project that comprehensively and comprehensively approaches the needs of school buildings in Cyprus to transform them into Near Zero Energy Buildings (NZEB), while seeking to address chronic and long-standing problems such as heating, air conditioning, lighting and ventilation. The PEDIA project, funded by the EU and coordinated by the Cyprus Energy Office in cooperation with the Environment and Sustainable Development Education Unit of the Ministry of Education, Culture, Sports and Youth, will undertake a wide range of actions aimed at improving the energy efficiency and comfort conditions of at least 25 public school buildings in Cyprus, thus contributing to the achievement of Cyprus' national and European energy and climate objectives.	This is a nice case which is a collaboration of many organisations/agencies in Cyprus that run an innovative project exclusively for Cyprus schools. A total building upgrade project for quality education. A project for sustainability and the environment in the school environment. The project offers also education materials for pupils on raising awareness on energy efficiency and wider energy generation and climate change/mitigation.	Cyprus	not relevant	not considered	not considered	does contest	not
Southern light	Zuiderlicht	Zuiderlicht is an initiative of houseboat residents in the Schinkel (near Amsterdam) in the Netherlands. Their goal is to generate as much clean energy as possible (through solar panels mainly), in and around Amsterdam. They want to involve as many people as possible in this. Anyone can participate, even if he or she does not have their own roof or a suitable roof. For a one-time fee of €1, people can become a member. Sometimes they can co-invest, sometimes they can buy the energy generated.	I have included this case as Zuiderlicht is a good example of an initiative started from local residents (in houseboats) for local residents. They started very small by exploring what is possible to do on their roofs of their homes and now they have expanded to more neighbourhoods around Amsterdam. A great example on how in practice energy democracy works.	Netherlands	Medium	not considered	not considered		Medium
'iBROAD - Individual Building Renovation Roadmaps"	'iBROAD - Foi de parcurs individuale pentru renovarea clădirilor'	The iBROAD approach is an evolution of Energy Performance Certificates (EPC) and energy audit systems, aiming to become a real driver for renovation. The project will identify the elements, develop an integrated concept, and produce modular tools, suitable for differing national conditions. It aims to take the individual building renovation roadmaps to the next level, by being a development of the EPC and energy audit systems.	Yes, because a way to improve the energy efficiency of buildings in different countries of the European Union is proposed (it is therefore relevant in the European context and not only locally). The starting point is the consideration that half of all European buildings were built before 1975, and that it is estimated that 80% of these buildings will still be in existence in 2050, so that a "major renovation" campaign must be undertaken to reach the so-called nearly zero-energy building levels. Romania's building stock is made up of about 85% residential buildings. Up to 80% of the CO2 emissions from the Romanian building stock could be reduced through a comprehensive renovation programme.	Romania	Low	not considered	High		Low
Energy with a consciousness	Energía con conciencia	Energía con conciencia is an educational project of Fundación Repsol to make young people aware of the importance of responsible use of energy and the value of existing resources. The project consists of a competition in which each edition several educational centers compete in which the students make proposals to make a more responsible use of energy resources in their educational centers.	I consider that in an ENCI case for focusing on the awareness of adolescents on issues related to the responsible use of energy	Spain	Medium	not considered	High	does contest	not
EnergizAIR The renewable energy weather forecast - Europe	Projecto EnergizAir	EnergizAIR adds positive indicators about the part of the energy needs that were covered thanks to renewable energy sources in the weather forecast. To set up an operational "renewable energy weather forecast" tool in France, Italy, Portugal, Slovenia and Belgium that will be widely broadcasted (4 million people reached at least) on a weekly basis at first. What do we put in the weather forecast? Production data and energy needs covering indicators about three technologies: PV, solar thermal and wind turbines.	Although EnergizAIR adds a cultural dimension to a subject that has mainly been treated as a technical and environmental issue and considers energy is part of the life of every citizen, I'm not sure that this is a clear ENCI case, as citizens seem to be more passive recipients than agents of transformation towards energy citizenship. Simply put, a project has been designed (already completed in 2012) in which they are informed about how much improvement has been made in the use of renewable energies but there is no indication that they are given information on how they can become more actively involved in the change.	Portugal	no effective voice	Medium	Medium		Low

National energy income income fund	Reddito Energetico	Reddito energetico is a renewable public support scheme implemented by Italian regions thanks to a nation-wide initiative that provides 200 million euros in financing. Funds are made available for regions to purchase or support the purchase of renewable installations for vulnerable households (defined according to an income threshold) through capital grants or guarantees. The families then start self-consuming the energy produced, while the surplus is sold to the grid. Income from electricity sales occur to the revolving fund operated by the region or the municipality, and will serve to finance additional PV installations. Implementation slightly differs in different regions. The case was first piloted in Porto Torres municipality before being replicated at the national level by the Italian government in 2020.	Reddito energetico is a public support scheme aimed at deploying solar energy to the benefit of energy poors, combining climate and social objectives.	Italy	no effective voice	High	Low	Low
Bubi bicycle sharing network in Budapest	MOL Bubi	MOL Bubi is a public transport service by BKK, which offers a quick and eco-friendly travel option in urban transport with 24/7 availability. MOL Bubi offer a fast, efficient and sustainable mobility alternative in Budapest. It has become an integral part of city transport in the past few years, and it can also be easily combined with other modes of public transport. There are 158 stations at citywide locations and 1,560 bikes awaiting users, who can access the public bike-sharing service with a mobile app.	It is important that cycling becomes a viable option for all generations for doing their daily activities, such as running errands or commuting to work or school. MOL Bubi making developments to encourage more and more people to opt for cycling and other sustainable modes of transport.	Hungary	Medium	not considered	Medium	Low
HOSe	HOSe (Hydro électricité d'Ourthe et Sambre)	HOSe develops and operates several hydroelectric power plants on two rivers in Wallonia. This enterprise was created by 10 renewable energy cooperatives and the company Hydro-B, in order to produce electricity for households.	This is a hybrid case of ENCI, which brings together energy cooperatives and a company to launch the first Walloon hydroelectric power plants (partially) financed by citizens (50%).	Belgium	Low	not considered	High	Low
Association of Environmental Associations "Green List of Serbia"	Ekoloških udruženja "Zelena lista Srbije"	The Association of Environmental Associations "Green List of Serbia" is a network of local environmental organizations that contribute to the preservation of natural resources and the quality of life of Serbian citizens through public advocacy, education, information and encouragement of citizens' activism. Its goal is to support, develop and connect local environmental organizations that would, as equal partners, together with other actors in the community, work to improve sustainable development in Serbia. The network was launched by the Balkan Fund for Local Initiatives (BCIF) at the end of 2007, and since 2015, the "Green List of Serbia" has been operating as a formal Association of Environmental Associations, based in Novi Sad. It was established for an indefinite period of time in order to achieve goals in the field of ecology, environmental protection, sustainable development, climate change, rural development, energy and work with children and youth.	The "Green List" network collects citizen and NGO organisations, as well as eco clubs and ecological movements that represent citizens from various parts of Serbia. The network, through its activities that involve citizens and citizens' organisations aims to improve sustainable development and the quality of life for the Serbian population.	Serbia	Medium	not considered	High	does not contest
Fiels of Energy	Champs d'Energie	Champs d'Energie is a renewable energy cooperative created in February 2013 and based in Fernelmont. Its main activities include investing in the production of renewable energy and awareness and education activities in order to foster a rational and responsible use of energy.	Champs d'Energie is a manifest form of ENCI. First, it is an energy cooperative, whose main objective is to foster citizen participation in renewable energy projects' management. Second, it is driven by a willingness to popularize and making visible the stakes behind energy transition, by providing information and organizing trainings. In doing so, it tries to empower ordinary citizens to increase their involvement on these issues.	Belgium	Low	Low	Medium	Medium
Energy Cooperative	Energetické Družstvo	Energetické Družstvo is a cooperative of photovoltaic power plant owners (PV). The aim of the cooperative is to connect the owners of family houses with the PV power plants and thus create the largest photovoltaic power plant in the Czech Republic from micro sources.	As an energy cooperative, it is a manifest case of ENCI. Even though it does not sound very original, it seems that energy cooperatives are yet not developed in Czech Republic.	Czech Republic	Low	Medium	Medium	Low
APLUS Energy Investment Consulting Technology and Trade	APLUS Enerji Yatırım Danışmanlık Teknoloji ve Ticaret	APLUS is an independent consultancy and technology development company that provides services to all companies operating in the energy market, and they also frequently works with NGOs. Among other things, APLUS provides financial and technical feasibility studies for power plants, technical and market consultancy for Smart Grid projects and finally regulatory and strategic consultancy for international clients interested in the Turkish Energy market. They also helped preparing the coal phase out scenarios to Turkey.	APLUS provides expertise to help Turkey achieve its carbon neutral targets by 2030. They work in partnership with various economic actors and support NGOs.	Turkey	no effective voice	Low	High	Medium

Scandiano energy community	Comunita energetica e autoconsumo collettivo Scandiano	Scandiano energy community is a pilot energy community and collective self-consumption project that targets social housing. It was launched in 2022 in northern Italy (Emilia-Romagna region). It consists of a 60 kW PV system with a 115 kWh storage system, coupled with an electric vehicle fleet and consumption monitoring, implemented in a 48-apartment community. Twenty apartments are privately owned, the municipality owns the other 28. The project was facilitated by the entry into force of the new regulation on renewable energy communities in 2020.	Scandiano energy community is a pilot project that will help assess an energy community business model following the entry into force of energy community rules in 2020 in Italy. The project is one of the first of this kind in Italy.	Italy	Low	High	Low	Low
Unser Kraftwerk/ Our Power Station	Unser Kraftwerk	Unser Kraftwerk is one of the largest Austrian operators of solar power plants. People can buy solar panels starting at 500€ per panel via specific contracts and rent them to the company which produces solar energy with them which is then delivered to local electricity providers. The enterprise wants to address sustainably acting people who want to combine actively protecting the environment with a profitable investment of their savings.	It is a case of Energy Citizenship because citizens can purchase solar panels in order to further the energy transition and production of renewable energy, which is delivered to public electricity providers. In this way, energy is produced by citizens and delivered to citizens, which constitutes a transformation of the current energy system.	Austria	Low	Low	Medium	Medium
Ride.org	Prevoz.org	The Ride.org service is a popular alternative to public passenger transport. With relatively low costs - the passenger only needs to reimburse part of the travel costs to the transport provider - and a simple way of arranging the ride between drivers and commuters, it is particularly popular among students and daily commuters in Slovenia.	This is the first (and therefore oldest) shared mobility scheme in Slovenia. Due to its popularity and convenience, it has been growing over years and offers shared travel not only within Slovenia, but also between Slovenia and cities and towns in other countries. As such, it makes a considerable contribution to lowering the carbon footprint of Slovenian commuters.	Slovenia	no effective voice	High	Low	Medium
Foundation Hydrogen Energy Limburg	Stichting Waterstof Energy Limburg (WeL)	The Stichting WeL is created in 2019 by Ger Jonkergouw and Peter Kersten, two retired citizens who felt that hydrogen as an important energy carrier for the energy transition in the Netherlands is neglected by business, knowledge institutes and the local and regional government in Limburg. They had talks with hydrogen experts in the Netherlands and organized a (table-based) group discussion about “hydrogen in the South of the Netherlands” at a hydrogen stakeholders conference in Groningen. One of the initiators utilised the opportunity of citizens to talk about the importance of hydrogen to the Commission on Mobility and Sustainability of the regional government in Limburg. After this, they had a large number of direct talks with local stakeholders, including the regional government of Limburg, and organized a meeting in July 2020 at the premises of the regional government about the creation of the Hydrogen Coalition Limburg (WCL), as the successor of WeL. The official aim of WeL and the newly created WCL is to speed up the introduction of hydrogen in Limburg in a good way. For this they proposed a 4-pillar approach: 1) the creation of a coherent vision, mission, strategy and policy, 2) to foster an eco-system for hydrogen in Limburg, 3) to foster knowledge generation and dissemination about hydrogen via knowledge institutes, new courses and a hydrogen academy (to be created), and 4) to support pioneers and the creation of Living Labs for hydrogen. WeL acted as initiator for those activities, to be realized through WCL with the support of business, knowledge institutes and the regional government.	It is a case of ENCI because it constituted an initiative of two citizens in their capacity of concerned citizens who felt that hydrogen was neglected by the regional government and stakeholders in Limburg. They had no business interest in hydrogen and undertook full-time activities in the from of bringing together stakeholders and feeding them with information on a non-paid basis. They wanted society to be more involved in choices about the energy transition. In their vision, citizens have an important role to play in the energy transition, in speeding up the energy transition in Limburg and making the energy transition process more fair.	Netherlands	Medium	Low	Medium	Medium
‘Green House Plus’	‘casa verde plus’	”Casa Verde Plus” adds to the renewable energy solutions financed in the basic programme ”Casa Verde” investments in increased energy efficiency, thermal insulation, LED lighting, green roofs and ecological materials. Both”Casa Verde” and ”Casa Verde Plus” address residential and public buildings.	Yes, because it is It is an initiative promoted by the administration of the Romanian environmental fund for the implementation of works in both individuals and legal entities to improve energy efficiency and reduce greenhouse gas emissions through the reduction of energy consumption and the use of renewable sources in single-family dwellings, as well in as legal entities (administrative-territorial units, public institutions, non-governmental organizations. the administrative-territorial unit).	Romania	Low	Medium	High	Low

Dömörkapu Rengeteg Community Energy	Közösségi Energia Dömörkapu Rengetegben	Dömörkapu Rengeteg is a tourist buffet and forest community space not far from Szentendre (and Budapest), in the Pils forest. A team (mostly volunteers) has been working for two years on a step by step renewal of the place, and now they are planning to switch to renewable energy production, which they want to implement as an energy community with collective funding. The visitor and supporting community will receive vouchers in return for their investment, which they can exchange there later (at the programmes or at the planned cycling point). The project was inspired by FoE Hungary's call on the theme of sustainable resource management (Életigenlő társadalmat és gazdaságot!). As a community energy initiative now it is part of FoE Hungary's other programme focusing on this exact issue.	Team of Dömörkapu has always tried to organise itself on a community basis and to involve volunteers in its programmes. Accordingly, their current project is also community-based: it plans to develop renewable energy production as an energy cooperative, relying on its own community and supporters. This small-scale investment and funding through vouchers mechanism is still less established in Hungary, so it is a major contribution to the promotion of conscious energy citizenship.	Hungary	Medium	Low	Medium	Medium
Marches Energy Agency	Marches Energy Agency	Marches Energy Agency (MEA) is an independent charity supporting communities in the Midlands in the delivery of practical, effective, and creative ways of promoting and enabling energy reduction and renewable energy solutions. With the overriding objective to support householders to be warm and well at home, the charity advises homeowners on energy efficiency and insulation measures, supports local authorities in implementing measures and developing energy strategies, and offers a network and works with local installers.	The case represented a collective civic engagement in the form of a charity that supports other actors to become more active themselves. As this affects households in energy poverty, the case also provides the context for more latent forms of energy citizenship.	United Kingdom	Low	High	Medium	Low
Jesenice – the first solar power plant on a multi-apartment building	Skupnostna sončna elektrarna Jesenice	In 2018, the Slovenian Ministry of Infrastructure issued a new regulation on self-sufficiency in electricity from renewable energy sources, which enabled private consumers in multiresidential buildings to take part in the green transformation and start producing their own electricity. In February 2019, the first solar power plant on a multi-apartment building in Slovenia was built in the Jesenice town. 129 solar panels were installed on the roof of the building with 23 apartments. They produce 37,000 kilowatt hours of green electricity annually, which fully covers the needs of the residents.	Community solar power plant in Jesenice is the first solar power plant for the self-supply of multi-apartment buildings in Slovenia. As such it represents an interesting pilot case for further development and expansion of prosumerism in Slovenia. Community energy projects present an opportunity for increasing the electricity production from renewable energy sources, protect the environment, and decrease the carbon footprint.	Slovenia	not relevant	not considered	Medium	Low
Luče – the first local energy community in Slovenia	Luče - prva slovenska samooskrbna energetska skupnost	The village of Luče in the Savinjska Valley has become the first self-sufficient energy community in Slovenia. Petrol (the largest Slovenian energy company), together with its partners Elektro Celje (local electric utility company) and the Faculty of Electrical Engineering of the University of Ljubljana took care of the technical integration of the network as part of the Compile project. The system in Luče represents the first such energy community in Slovenia, which can fully cover the needs for electricity only based on production from renewable sources. Luče energy community was established as a pilot site within the EU-funded project COMPILE.	Luče is a remote village, which had permanent problems with a weak and unstable connection to the grid. Following the initiative of a local resident, Rok Suhodolnik, who is one of Slovenia's pioneers in the field of renewable energy, two energy companies and one university helped the local citizens to transform the energy landscape of the village and turn it into the first self-sufficient energy community in Slovenia. All its energy needs are now covered by the local-produced solar energy.	Slovenia	High	Medium	Low	Low
SmartGridsBW	SmartGridsBW	SmartGridsBW is a platform for the energy sector, industry, politics and science. Its purpose is to enhance intelligently networking energies - bringing people together with commitment, in order to work together on the energy future. Founded in 2013, the Smart Grids-Plattform Baden-Württemberg e.V. is a network of central stakeholders from the energy industry, research, politics, IT, industry and interested private individuals. The statutory purpose of the association is to promote smart energy grids in order to make the energy transition as efficient as possible. We are working on this together with our approximately 80 members - guided by our 9-member board and with the support of the Baden-Württemberg Ministry for the Environment, Climate and Energy Management. The long-term goal of the platform is to achieve largely CO2-free energy production in Baden-Württemberg, Germany and the rest of the world. production in Baden-Württemberg, Germany and beyond.	It is a case of ENCI since the network grounded by the association is open to all interested people, even individual private ones. It's purpose is to enhance the acceptance and participation in smart grids through intelligent districts e-mobility, intelligent grid towards CO2 free society at the regional scale. For that goal it is also supporting citizen energy cooperatives.	Germany	Medium	Medium	Low	Medium

Bike Evolution	Велоеволюция	Bike Evolution is a non-profit organisation, registered on 7 August 2007. The objective is to promote cycling as a valid alternative in modern urban mobility. To achieve this, Bike Evolution organises events (in association with partners and friends), participates in working groups and other bodies set up by the municipality, organises and hosts trainings and design workshops and many other activities to promote safe cycling. Bike Evolution represents its members in discussions with the municipality and other authorities related to urban mobility.	Bike Evolution emerged as an initiative of a small group of enthusiasts, who love to ride bicycles in the city and consider cycling to be the most convenient way to move around – even in a city such as Sofia, which is completely car-dominated. Over the years, the initiative has evolved (as its name suggests) into a fairly professional non-governmental organisation.	Bulgaria	Medium	not considered	High	Medium
EMEC, First energy cooperation of Maastricht	EMEC Eerste Maastrichste Energie Cooperatie	EMEC promotes energy saving and generation of sustainable energy in South Limburg and the Maastricht region in particular. The cooperation aims to produce sustainable energy locally. They believe that the benefits of green energy should not only fall to multinationals but also to citizens and small businesses in the local area. The cooperation also aims to contribute to the sustainability awareness within the region and thus accelerate the energy transition.	The First Maastricht Energy Cooperative (EMEC) is an initiative of Maastricht citizens who believe that more sustainable energy should be generated in the municipality. The cooperative is managed jointly by the members and its highest decision-making body is the General Meeting of Members. This is an interesting case of a local cooperative with many local projects helping local residents profit from renewable energy projects (mainly solar panel parks). People from the local area can take part even if they cannot put a solar panel in their roofs. The solar plant is located at a central location. There are therefore no requirements for having your own home: people living in a flat, rented house or listed building can also participate.	Netherlands	Medium	Medium	Low	Medium
The Language of the Climate (Climate Education at School. Practical Advices)	Klimata valoda (Klimata izglītība skolā: praktiski ieteikumi)	The project “The Language of the Climate” had elaborated school programmes of interdisciplinary practical work in lessons of geography and science considering climate change as well as inclusion of these materials in the professional education programmes for teachers. The book “Climate education at school. Practical advice” was developed. Campaign was organized for school children and included experiments (practical work) as measures of informal education with elaboration and publication of corresponding video materials on the internet, inviting young people to explore the nature processes independently. Promotion of moving towards low-carbon economy was one of the aims of the project. Reporting system of seasonal phenomena in the existing nature observation system (www.dabasdati.lv) and kick-starting the observations as an example of adaptation of the wildlife was done. The project had been implemented with the support of the EEA Financial mechanism 2009-2014, programme “National climate policy” by the NGO “Latvian 4H club” (Latvijas Mazpulki) in partnership with Norwegian Institute for Agricultural and Environmental Research “Bioforsk”, University of Latvia and Latvian Fund for Nature.	(1) The case (the project) had been led by the NGO “Latvian 4h Club” – meaning that NGO is strongly involved in the development of climate change awareness in youth audience, particularly, in schools, (2)The case demonstrate the wide partnership (4h organisations – Latvian Fund for Nature (national scale NGO) - university - schools partnership) led by NGO (3) The case promotes carbon-neutral economy (and energy system as the part of it), (4) The case promotes school youth to become (in future) active energy citizens	Latvia	Medium	Medium	Medium	Medium
Energy efficient Passive Building for Social Services of the Full House Community in Panara	Energy efficient Passive Building for Social Services of the Full House Community in Panara.	Full House Community is the Catholic religious community aiming to provide social and psychological rehabilitation to people with alcohol and drug addictions, funded by charity and community means. The project includes pilot wood passive house (first certified in Lithuania, energy consumption 14 kWh per m2 per year), heat pump with vertical soil collectors (16.2 kW), 8 solar heat collectors. The inhabitants of the community actively participated in the construction work themselves, there was strong support from the Church, which was among the founders of the community and strong support from Lithuania’s Passive House Association and its members enabling to show the cons of passive housing for wide community. As the separate project it is also implemented Herbal Dessication building (using solar heat collectors and thermal storage) to enable local businesses.	The church community as the type of citizens community. The church community had made the decision for energy efficiency improvement and increasing self-sufficiency in the social pupose building.	Lithuania	High	Medium	Low	Medium

Energy efficiency improvement in church building (Riga, the Evangelical Lutheran Church of Jesus)	Energoefektivitātes paaugstināšana baznīcas ēkā (Rīgas Jēzus evaņģēliski luteriskā draudze)	Energy efficient renovation of church building and building's engineering systems, implementation of energy efficient lighting, switch to local heating system utilizing biomass pellets.	The church community as the type of citizens local community. The church community had made the decision for energy efficiency improvement and increasing self-sufficiency. For this, the church community successfully used the national green investment scheme – emissions allowances auctioning instrument's - programme which have been focused to CO2 emission reduction in the architectural monuments of state significance.	Latvia	High	Medium	Medium	Low
Energy efficiency improvement of apartment buildings	Daudzdzīvokļu dzīvojamo māju energoefektivitātes paaugstināšana	Energy efficiency improvement of apartment buildings. Decision to do it is made by the association or community of apartment owners of particular apartment building. The complex financial instrument – the grant, loan by ALTUM and guarantee for loan issued by commercial institution is provided by the Latvia state-owned development finance institution ALTUM (ERDF co-financing). Residents get modern insulated houses, which significantly reduces energy consumption. Complemented by the state information programme “Let's live warmer” (“Dzīvo siltāk”).	The residents of apartment building have to co-operate for the improvement of energy efficiency of common building. The case shows that apartment owners are able to establish such co-operation for the common benefits. The legal forms for co-operation are association or community of apartment owners	Latvia	High	Medium	Medium	Low
Light at home Oaxaca	Luz en Casa Oaxaca	The Spanish ACCIONA Microenergia foundation brought and adapted its rural electrification program "Luz en Casa" to the Mexican situation to give a solution to the Oaxaca (Mexican state) communities of population less than 100, where the electricity public utility (Comision Federal de Electricidad-CFE) had no plans of electrification.	Luz en casa Oaxaca is a program to bring a basic photovoltaic electricity service to homes in small remote locations, breaking their energy poverty	Spain	I don't know / not enough information is available about this aspect.	High	not considered	Low
On-off Campaign	Campanha On-Off	ADENE (energy Agency) in collaboration with RTP (national TV) run an energy efficiency awareness raising campaign targeting families. A series of short movies was produced, explaining the concepts and giving tips to the public. Besides the clips small mini competitions and games are organised.	It is an awareness-raising campaign that is interesting in that it focuses on working to bring about a change in behaviour and consumption patterns through advice aimed at families that can be viewed online, combined with small games, which help to get citizens more involved. This is an interesting way of communicating the importance of responsible consumption to the population, allowing citizens themselves to manage when and how they want to receive this information.	Portugal	Medium	Medium	Medium	Medium
Thermal rehabilitation of block flats in Iasi, Romania	Reabilitare termica bloc in Iasi, România	The thermal rehabilitation of 4 blocks of flats, situated in the city center in Iasi, Romania. These were old buildings, from the '60-'70s, highly degraded and energy consuming, with pipes networks for utilities and some parts seriously affected by the weather during the time (rooftop and basement, some parts of walls, windows frames). The inhabitants of the apartments inside these blocks of flats complained all the time about the high cost caused by these malfunctions and about the ugly aspect of the buildings.	This is a topic of interest in that it raises an issue that affects many buildings constructed in the 1960s-70s during the communist era. The municipality of Iasi has been selected as a case study because it is one of the most prominent examples when searching on the Internet in relation to housing renovation, rather than speaking generally about renovation in Romania. In this way, more current sources have also been used.	Romania	Medium	Medium	Medium	Medium
Community wind turbine in Vép	Közösségi szélérőmű Vépen	In Vép Hungary's first community wind turbine project was initiated. A few enthusiastic people (some of them locals) came up with the idea of investing in a wind turbine in Vép, a village near the Austrian border. The investors aim was not to make profit for themselves but to create value for the village, enhance its economic potential and do good to the community of inhabitants. They handed over 20 % of the ownership to the local municipality and created a possibility for the locals to become co-owners. The original investors only wanted to keep 35 % of the ownership. Unfortunately, current legislation has prevented further development of the wind farm, but the current one turbine will certainly be in operation until 2030.	The project aims to contribute greatly to increasing the sustainability of the local economy and community without damaging the environment. It also aims to raise awareness by disseminating the model created in the project. In addition, this form is still unique in Hungary, and if the current legislation had not been against wind farms, 15 more turbines would have been built	Hungary	Low	Medium	Medium	High

Jeppo Biogas	Jepuan Biokassu Oy	Jeppo Biogas is a company focused on nutrient recycling and renewable energy, producing energy for heat and vehicle fuel purposes. As a by-product of the production, the company produces fertiliser that can be used for organic farming. The main owner of Jeppo Biogas is a small independent energy company owned by 440 local citizens. Jeppo Biogas contributes to local circularity by using local agricultural and food-industry by-products for its biogas production and provides energy to local companies.	The company, majority owned by local citizens, acts as a collective ENCI to contribute to changing the energy system by local, circular, energy production.	Finland	Medium	Medium	Medium	Medium
Team X4S - Extension for sustainability	Team X4S - Extension for Sustainability	Since fall 2019, Team X4S - Extension for Sustainability - of Biberach University of Applied Sciences, is participating in the international competition Solar Decathlon Europe 21 (in 2022). The final of the competition will take place in Wuppertal in June 2022. To create more living space within the city without sealing more land, they are extending the existing building of Café Ada in Wuppertal by adding four additional floors. They will then construct one representative residential unit of their design for the final of the competition. The project's innovations are aimed at drastically reducing carbon dioxide emissions from buildings in urban neighbour- hoods while maintaining or improving the socio-cultural environment. For the extension of Café Ada, their sustainability concept is based on sufficiency, efficiency, consistency and resilience. These ideas are pursued in three sub-areas: Architecture, Energy and Construction.	This is a case of ENCI in that this Students Team is participating to the solar decathlon Europe 2021/2022 and intends to develop innovative buildings that have a holistic focus towards energy transition.	Germany	Medium	High	Medium	Low
renewable community energy projects (Co2mmunity): pilotproject in Latvia in row-houses building	atjaunojamās enerģijas kopienu projekti (Co2mmunity) : pilotprojekts Latvijā rindu mājā.	EU (Interreg Baltic Sea region programme) co-financed projects Co2mmunity & Energize Co2mmunity supported the development and real-life implementation of renewable community energy pilot projects in the Baltic Sea region. The presented case of community energy is one of two pilots implemented in Latvia. These both pilots are implemented in a scale of apartment building. The presented pilot project is implemented in row-houses (6 sections) building. The decision to implement the solar PV technologies had been made by the community of apartment (sections) owners. "Co2mmunity: co-producing and co-financing renewable community energy projects" and its follow-up extension project "Energize Co2mmunity: real-life implementation of renewable community energy projects" had been implemented in 2018-2021. Rīgas planning region - projecta partner in Latvija and Mārupes self-government – associated partner.	(1) The pilot project on energy communities in Latvia. (2) This is the case, in which civic (households) cooperation is in line to promote sustainable and democratic energy system. The apartment owners were able to adopt the common decision to implement the project on roof-top solar PV technologies, (3) This is the first in Latvia row-houses apartment building (as I know) in which joint roof-top solar PV technologies are implemented. (4) the case demonstrates the pre-conditions for energy communities development and provides a road-map for it. (5) successful wide partnership of stakeholders – regional planning authority, local self-government, involvement of professional NGOs (e.g. solar association) as experts, as well as other stakeholders, (6) the pilot project had been implemented in a wide context of renewable energy and climate awareness activities which were/are done in the municipality area.	Latvia	Medium	Medium	Medium	Medium
Turkey-EU Civil Society Dialogue Programme	Turkey-EU Civil Society Dialogue Programme	The Civil Society Dialogue Programme was implemented by the Turkish Ministry in 2008 with the aim of improving relations between Turkey and Europe, and since then hundreds of projects were carried out in various areas through it. Among others, cooperation was developed on environmental issues closely related to the business world, such as calculating carbon footprint in production. Through these projects, grant beneficiary civil society organizations raised social awareness in various areas ranging, such as the use of renewable energy.	The initiative has indeed implemented a number of projects, some of which are specifically linked to the energy sector. The different projects have also tried to promote Turkey's development through expert workshops, policy preparation and awareness-raising, in cooperation with individual European countries or the EU. In addition, some of the projects explicitly aimed at improving carbon footprint calculation and identifying of low carbon pathways.	Turkey	Low	Medium	High	Medium

We Energy (WE)	Wir Energie (WE)	Wir Energie sees its task as making decentralised energy infrastructures accessible to as many people as possible and actively promoting the energy generation of the future. Their goal is to become independent of fossil energy production and to help establish renewable energies as the standard. For a clean and intact environment and regional energy production and supply. Our participation model is sustainable and economically sensible investment. With their citizens' power plant, Wir Energie (WE) creates a community project that ensures independence from rising energy prices and promotes awareness for alternative energy production. Together with the citizens, regional energy projects are realised with 100% green electricity.	It is a case of ENCI since WE aims at fostering citizens' involvement in citizens energy projects through participation to RES installations.	Austria	High	Low	Medium	Medium
Green SAM: Riga city encourages, within the inclusive participatory process, Silver Agers to use green urban mobility.	Zaļā mobilitāte senioriem (Green SAM)	Within the GreenSAM (Green Silver Age Mobility, EU Interreg Baltic Sea Region programme) project, Riga city applied a Mobility Lab approach as an interdisciplinary collaboration platform to test and co-design in the participatory process the innovative solutions to ensure that seniors are not "left behind" with technical progress. The pilot aims to improve offer for green mobility services and solutions to the seniors age user group as well as to raise seniors' awareness and ability to use contemporary green urban mobility. Three Mob Labs were held with the following focus: (1) initial solutions how to adapt urban space to the seniors' need, (2) adapting mobility infrastructure and surrounding urban public space (mobility hot spots) to the specific needs of seniors' target group, (3) Silver Age mobility challenges during and after COVID-19 emergency. In addition to Mob Labs, another activities were focused to digital skills training for seniors (as the survey indicated that almost two thirds of seniors own smartphones) and study on seniors friendly blockchain technologies to support seniors friendly public transport. Other Silver Agers focused pilot projects within the GreenSAM project were implemented in Tartu (Estonia), Gdansk (Poland), Aarhus (Denmark), Turku (Finland), Hamburg (Germany).	Senior Age citizens want to use the services of urbangreen mobility. Within the presented case the 60+ agers were invited to express their proposals how to provide urban mobility more accessible for seniors target group. This is ENCI. The particular tools to be applicable by seniors have been developed within the Green SAM.	Latvia	Medium	Medium	Medium	Medium
Green SAM: Tartu city encourages, within the inclusive participatory process, Silver Agers to use the public bike sharing system	Green SAM: Tartu city encourages, within the inclusive participatory process, Silver Agers to use the public bike sharing system	When Estonia's first public bike sharing system was launched in Tartu in 2019, it became an overnight success. However, despite its use being free for seniors, less than 1% of all bike share users were seniors. It became apparent that there were elements of the service that did not meet the needs of the elderly. Within the GreenSAM (Green Silver Age Mobility, EU Interreg Baltic Sea Region programme) project the following activities have encourage seniors: offered senior-friendly instructions and tutorials on how to register for and use the bike sharing system (study videos and paper instruction manuals were created); public events (lecture, practical training) were held at senior day centers; the current bike dock information stands were re-designed considering the needs of the elderly (simpler language, larger font, less text); feedback from seniors both before and after the intervention was gathered during walking groups and meetings. It resulted in two-fold increase in 60+ bike share users. City Transport has also increased its knowledge about and capacity to organize effective and inclusive planning and evaluation processes. Content-similar GreenSAM project, considering bike sharing system, had been implemented in Gdansk (Poland) as well. Other Silver Agers focused pilot projects (however having different content) within the GreenSAM project were implemented in Riga (Latvia), Aarhus (Denmark), Turku (Finland), Hamburg (Germany).	Senior Age citizens want to use the green mobility tool – public bike sharing system. It is proved by the increase of 60+ age users. This is ENCI. To provide help, the particular support activities had been implemented.	Estonia	Medium	Medium	Medium	Medium
More biking in small and medium sized towns of Central and Eastern Europe by 2020 (Mobile2020)	More biking in small and medium sized towns of Central and Eastern Europe by 2020 (Mobile2020)	Mobile2020 had promoted the bicycles as a common mode of transportation Mobile2020: (1) initiated national working groups of cycling professionals to keep up the discussion on a high level and to think about long term objectives, (2) broadly and systematically informed towns and cities about what they can do to increase the share of cycling in the future, (3) empowered municipal planners and decision-makers to make the right investments, improve their planning procedures and to trigger a change in their citizens' mobility behaviour, (4) carried out a number of workshops, seminars and study visits to spread the good experiences, knowledge and ideas that will improve the conditions for cycling in Central and Eastern Europe in the future, (5) organized a number of public events and competitions where municipalities in the region could demonstrate their achievements in favour of cycling and where every cycling enthusiast could join in. Thus Mobile 2020 stimulated the re-thinking of planning processes and transferred good suitable experiences from different European countries to the target regions of the Mobile 2020 project.	Three aspects of ENCI included in the project. (1) use of bi-cycles by individuals, and also (2) providing of good cycling overall enabling framework cannot be done as the mandatory duty, it requires the wish (meaning ENCI) of the relevant specialists of public authorities, (3) establishment of national working groups.	Lithuania	Medium	Medium	Medium	Medium

Municipality Fuchstal	Gemeinde Fuchstal	Fuchstal is a municipality in Bavaria, which plans to test the 'power-to-heat' approach which converts excess electricity into heat which is then stored in large storage facilities until it is needed. The community also plans to build flexibility into its biogas plant so that it can adapt to fluctuating demand. The community also has photovoltaic systems, hydroelectric power stations, a wind farm and an innovative district heating network.	It is a case of energy citizenship because the municipal initiative aims at engaging citizens, the energy transition is furthered on a municipal level and there is a local working group on energy made up of Fuchstal citizens who are shaping these projects.	Germany	Medium	Medium	Medium	Medium
aWATTar	aWATTar	The goal of aWATTar is to enable Electricity supply from 100% renewable energies, which the company wants to achieve together with its customers. Together with them, they want to make a significant contribution to the energy transition. They don't want to wait for public subsidies, but give their customers the power to do something themselves. Only themselves can they open the borders for sun and wind. Because one thing the consumers have in their hands is demand. The concept is simple: if we shift our consumption to sunny or windy hours, we increase the demand for solar and wind energy. And with aWATTar smart tariffs, customers can save even more money in the process, because at times of high supply the price is cheaper. So the more people use the power of the sun and wind by "moving" their consumption to the favourable hours, the more aWATTar can influence the electricity market. That is the green power movement, and that is Energy in sync with nature.	The case is a case of ENCI since it is empowering the citizens as customer to introduce a transformation of the functioning of the energy system by adapting their electricity consumption to renewable energy production.	Austria	High	Low	Medium	Medium
RES community Budanje	Skupnostna sončna elektrarna Budanje	Solar PV has been installed on the roof of a local elementary school in Budanje village. This was the first example in Slovenia of a PV installation on the roof of a public building used to supply electricity for the local residents (seven households). Budanje is Slovenia's first self-sufficient RES community.	While Slovenia currently has already several self-sufficient energy communities producing electricity from renewable sources, Budanje was the first such case and as such represents an interesting example of how small local energy communities emerge and develop.	Slovenia	not relevant	not considered	Medium	Medium
Travel together - Carpooling in Iceland	Samferda - Island	A simple and free carpooling website/initiative. Members of the site can publish information about a trip they are taking and how many passengers they can take along with them. The website makes it possible for people to split the cost of transportation and fuel.	The case makes it possible to form small temporary communities to save energy.	Iceland	High	Medium	Low	Medium
Trekroner - Youth and refugee housing in Roskilde	Trekroner - Ungdoms- og flygtningeboliger i Roskilde	Roskilde Municipality experiences like many a shortage of permanent housing for refugees and has therefore decided to build new. The municipality wants, that the new refugees are placed in a framework, that not only gives them a roof over their heads, but also integration. The housing will be the foundation for the successful integration of refugees. Together, the three parties are working to developing a concept of around 60 attractive zero-energy housing that are self-sufficient on some level, as no district heating is needed.	Municipality works together with for profit companies to create sustainable and affordable housing that are off the grid on some level (no district heating needed) for the refugees and (low-income students) that serves also as an integration tool for the refugees.	Denmark	no effective voice		Medium	Medium
New mobility Experience in Schöneberg Nord Neighbourhood	Kiez erFahren in Schöneberg Nord	The project "New mobility (in the neighbourhood) erFahren" (unaccountable puns that mix the idea of experience and drive) "Experience new mobility (in the neighbourhood)" - with multimodality to climate-neutral and liveable urban neighbourhoods) took place from September 2019 to August 2021 in the Schöneberg Nord district region. As a pilot project of the Tempelhof-Schöneberg district office, the dedicated team worked for two years on the local transport turnaround in Schöneberg North. In various event formats, they promoted neighbourly dialogue regarding the traffic and mobility turnaround and thus triggered a rethink regarding the ownership and use of private cars. A centrepiece of the project was the car-free summer street Barbarossa. They also carried out the Umparkkampagne twice. Residents could try life without their own private car for four weeks and in return they received vouchers from numerous mobility service providers. This led to more space on the streets and a higher quality of life in the neighbourhood.	It is a case of ENCI since it is mobilising the residents citizen in experiencing new and climate-friendly mobility measures, with a strong focus on discussion and debate and several experimentations towards a low carbon mobility at the scale of the neighbourhood.	Germany	Medium	Medium	Medium	Medium

<p>TOER Tzum Organisation for Energy in the Region</p>	<p>TOER Tzum Organisatie voor Energie in de Regio</p>	<p>Energy cooperative TOER is an initiative of the MAST foundation in Tzum, where MAST stands for 'Environment and Activities Stipe Tsjom'. Members of the energy cooperative TOER are citizens and companies who wish to make their electricity consumption more sustainable by means of local energy projects, to make a contribution to the community and to save costs. The MAST foundation has been operating a village windmill since 1994, and the proceeds are used to support village associations and projects. In this way, it contributes to the environment and village life: the mienskip: the community. The operating profits from their wind turbine are spent on village projects and village associations. The objectives as laid down in the foundation's deed are: 1) to stimulate the use of renewable energy sources, in particular wind energy; 2) to acquire, establish, maintain, manage and operate wind turbines or other installations for the generation of sustainable energy; 3) promoting energy saving and a clean, liveable environment; 4) stimulating village life in Tzum, in particular socio-cultural activities.</p>	<p>This is a good initiative of a windmill first owned by the local community foundation (MAST) with all profits to support the village Tzum. However, this windmill is now sold and a new one will replace it at exactly the same spot. Before any work starts the new foundation TOER need to have the support/membership of at least 500 members in certain postcodes. This is a nice example to map in our ENCI because of its unique history and local engagement. The new windmill is called buurtmolen, neighbourhood mill.</p>	<p>Netherlands</p>	<p>Medium</p>	<p>not considered</p>	<p>I don't know / not enough information</p>	<p>Medium</p>
<p>Szekszárd Climate Circle</p>	<p>Szekszárdi Klímakör</p>	<p>The municipality of City of Szekszard runs a Climate Circle that supports the development and the implementation of the cities' climate strategy. The main coordinator, after a year of failer is a green NGO, who coordinates the program, manages the climate fund, and communicate to the citizens. The Climate Circle has a repetitive annual programs, and five working groups, and a unique climate fund. The working groups develop action plans for the areas (energy, waste, water, education, transport) of the climate strategy and create the priorities for the annual climate fund. The climate find is for the citizens to receive small amount of money to make real climate actions.</p>	<p>It is one of the municipal climate strategy best practices in Hungary, with citizens involvement and financial incentives.</p>	<p>Hungary</p>	<p>Medium</p>	<p>Medium</p>	<p>High</p>	<p>Medium</p>
<p>renewable community energy projects (Co2mmunity): pilotproject in Latvia in multi-apartment building</p>	<p>atjaunojamās enerģijas kopien projekti (Co2mmunity) : pilotprojekts Latvijā daudzdzīvokļu dzīvojamā ēkā</p>	<p>EU (Interreg VB Baltic region programme) co-financed projects Co2mmunity & Energize Co2mmunity had supported the development and real-life implementation of renewable community energy pilot projects in the Baltic Sea region. The presented case of community energy is one of two pilots implemented in Latvia. These both pilots have been implemented in a scale of apartment building. The presented pilot project has been implemented in multi-apartment (18 apartment) building and for the first time in Latvia for apartment buildings has installed both joint roof-top solar heat panels (for pre-heating of hot water for the needs of all residents of the house) and solar PV panels (produced power is used for the common premises), The decision to implement the solar technologies has been made by the association of apartment owners. "Co2mmunity: co-producing and co-financing renewable community energy projects" and its follow-up extension project "Energize Co2mmunity: real-life implementation of renewable community energy projects" had been implemented in 2018-2021. Rigas planning region - projecta partner in Latvija and Mārupes self-government – associated partner</p>	<p>(1) The pilot project on energy communities in Latvia. (2) The apartment owners for the management of the building has established (already in 2011) the advanced organisational and legal form – association of apartment owners which has the legal form of association (subject to Latvia's Associations and Foundations Law) and is registered as the NGO in the national NGO register, (3) This is the case, in which civic (households) cooperation is in line to promote sustainable and democratic energy system. The apartment owners within noted legal form were able (in 2020) to adopt the decision to implement the project on roof-top solar technologies, (4) the first in Latvia multi-apartment building (as I known) in which joint roof-top solar PV technologies are implemented. Also front-runner regarding the implementation of roof-top solar heat technologies (only few examples on solar heat panels up to know in Latvia in multi-apartment buildings)., (5) the case demonstrates the pre-conditions for energy communities development and provides a road-map for it. (6) successful wide partnership of stakeholders – regional planning authority, local self-government, involvement of professional NGOs (e.g. solar association) as experts, as well as other stakeholders as the one of pre-conditions, (7) the pilot project had been implemented in a wide context of renewable energy and climate awareness activities which were done in the municipality area</p>	<p>Latvia</p>	<p>High</p>	<p>Medium</p>	<p>Medium</p>	<p>Medium</p>

Installation of solar heat panels in multi-apartment buildings, complementary with energy efficiency improvement of the building	Saules siltuma panelu uzstādīšana daudzdzīvokļu mājās kā papildus pasākums kopā ar ēkas energoefektivitātes paaugstināšanu	Energy efficiency improvement of apartment building can be complemented by installation of local RES technologies. Decision to do it has to be made by the association or community of apartment owners of particular apartment building. The complex financial instrument (the grant, loan by ALTUM and guarantee for loan issued by commercial institution) is provided by the Latvia state-owned development finance institution ALTUM (ERDF co-financing). However only few apartment buildings until now have used this additional option to install zero-emission solar heat panels. One of such case is presented.	The case shows (1) Prosumerism in district heating network. (2) that apartment owners are able to establish the co-operation for the common energy benefits due to energy savings, and (3) few communities of apartment owners have been able to go further than a “classical traditional” energy efficiency improvement of building.	Latvia	High	Medium	Medium	Medium
Community biomass heating plant in Pornóapáti	Közösségi fűtőmű Pornóapátiban	A new community biosolar heating plant was built in Pornóapáti in 2005, the first of smaller Hungarian municipalities to do so. The investment was inspired by the village heating plants that have been operating in Austria for several years to the satisfaction of citizens. The development was motivated by the environmental benefits of renewable energy sources and the possibility of energy self-sufficiency. The support and cooperation of the locals was also an important factor in the realisation of the project.	The development serves as a good practice for small settlements in similar situations to develop environmentally friendly solutions that can make use of renewable energy sources. The project was very well communicated to the villagers, - they were informed about every step of the process, from planning to operation, - thus achieving the necessary commitment.	Hungary	Medium	Medium	High	Medium
Yeni İnsan Publisher	Yeni İnsan Yayınevi	Yeni İnsan Publishing started its work in 2007 with the aim to act as a mirror to examine the philosophical, political and cultural reasons of ecological disasters which have become destructive for the whole world, and to reveal their historical roots and ties with education. They think humanity has to question its relationship with nature, because it can form a new togetherness or keep fighting the war it can never win. At this crossroads; they are striving to add a new colour to the publishing life in Turkey with their different books and a new-style partnership with their readers.	The Yeni İnsan publishing team is taking an unconventional approach to raising awareness and encouraging sustainable living. Through their work, they contribute to raising awareness of ecological challenges and thus to more conscious citizenship. Their journals feature articles from a wide range of disciplines, where they welcome papers from freelance authors.	Turkey	Medium	Medium	High	Medium
Qvinnovindar (Women’s Wind Energy Cooperative)	Qvinnovindar	Qvinnovindar is the the first economic cooperative for women that own and invest in renewable energy in Sweden. Since its inception in 2007, two subsidiary cooperatives with the same structure have been started, Q2 and Qvinnovindar Sweden. Today, 80 women are engaged across the three projects and together they produce 3 million kWh every year through the shares they own in on-shore wind turbines and sell it to the grid.	As a cooperative, Qvinnovindar acts as a collective energy citizen by contributing to change of the energy system. It should be included based on its focus on women’s entrepreneurship and ownership of renewable energy.	Sweden	not relevant	Medium	Low	Medium
The Portuguese Renewable Energy Association (APREN)	A Associação Portuguesa de Energias Renováveis (APREN)	The Portuguese Renewable Energy Association (APREN) is a non-profit association, founded in October 1988, with the mission of coordination, representation and defense of the common interests of its Members	APREN accounts for more than 90% of the total installed capacity of renewable electricity production sources in Portugal	Portugal	Medium	Medium	High	Medium
PowerPoor in Hungary: Energy Communities mentors	PowerPoor: Energiaszegénységi Támogatók	The main aim of PowerPoor is to support programmes/schemes for energy poor citizens and encourage the use of alternative financing schemes (e.g. establishing energy communities / cooperatives, crowd funding). PowerPoor facilitates experience and knowledge sharing, as well as the implementation of small-scale energy efficiency interventions and the installation of renewable energy sources, increasing the active participation of citizens.	Reducing energy poverty can be really effective if those affected and other participants take a central role in the effort. The hoped result is that energy poor citizens - gradually emerging from the state of energy poverty - first become conscious consumers and then active producer-consumers.	Hungary	High	High	Low	Medium
Implementation of biomass heating system in Alvitás community building	Implementation of biomass heating system in Alvitás community building	The country side community of Alvitás was lent the former building of Alvitás library for community needs. The building was not used for some time, cold, with outdated boiler and thus had very limited use. Biomass boiler was adapted for the use of straw fuel due to the fact that rural community could afford to use straw, which was usually left (also burnt) in the fields. The aims of the project were reducing heating costs, reducing environment pollution and using the residues of straw. The project was performed together with buildings renovation project, where the old windows were replaced and some repairs done. System installation year -2005, expected system of service lifetime – 15 years.	Community energy case. Included in the Co2mmunity project data base.	Lithuania	High	Medium	Medium	Medium

Green off-grid heat energy in multi-apartment building in Varena (Lithuania)	Green off-grid heat energy in multi-apartment building in Varena (Lithuania)	The renovation of a multi-apartment building in Varena to 100% renewable heat energy and hot water supply was completed in 2013. While the district heating system in Varena is already fired by biomass to a degree of 97%, the aim of the project was to prove a 100% off-grid solution is possible as well. To cover the heating needs of the 40 apartments in the building from green sources, seven wells were drilled to a depth of 100m and connected to a heat pump, while hot water is provided by solar collectors on the roof (http://co2mmunity.eu/green-heat-energy-in-lithuania).	This is the collective ENCI decision to install off-grid solutions made by the community of apartment owners	Lithuania	High	Medium	Medium	Medium
Housing Association "Vilde 70"	Vilde 70	The Housing Association Vilde 70 (Tallinn, Estonia) carried out an energy efficiency renovation including a solar PV installation. 15 kW PV system was installed on the roof. The solar PV is designed to supply electricity for the communal (common) spaces and sell the surplus electricity to the grid.	Energy efficiency improvement of apartment building had been complemented by installation of local RES technologies. Decision to do it had been made by the community of apartment owners of particular apartment building.	Estonia	High	Medium	Medium	Medium
Housing Association "Kalda 64"	Kalda 64	The Housing Association carried out the complex energy efficiency renovation including both the building's energy efficiency, heating and electricity systems. The solar PV panels (40 kW) was installed on the roof. The apartment association Kalda 64 (56 apartments) was established as the registered NGO in 1998, thus, no special organisation was established for joint electricity production (as the NGO was already existing). One of the specialities of the project is the fact that both, the architecture and the roof of the building, are more complex than in average residential buildings. Therefore, several inverters and optimizers have to be installed and thus the cost is higher than for conventional projects. At the same time, the apartment owners as the members of the housing association are convinced of the necessity and the benefits of the whole renovation process, including PV installations.	Energy efficiency improvement of apartment building had been complemented by installation of local RES technologies. Decision to do it had been made by the community of apartment owners of particular apartment building.	Estonia	High	Medium	Medium	Medium
RenoZEB Estonian demonstration building: multi-apartment building renovation in Võru, Estonia	RenoZEB Estonian demonstration building: multi-apartment building renovation in Võru, Estonia	The Housing Association "Rannaliiva" had performed the project for existing (built in late 1980s, 16 dwellings) multi-apartment building renovation. The renovation had been done within the frame of the RenoZB (Accelerating Nearly Zero Energy Renovation for Buildings and Neighbourhood) project of the EU Horizon 2020 programme. In overall, the RenoZB project aimed to unlock the nZEB renovation market by increasing property value through a new systemic approach to retrofitting. This included innovative components, and processes and decision making methodologies to guide all value-chain actors in the nZEB building renovation action. RenoZEB provided cost-effective 'plug and play' solutions for a large-scale deep nZEB rehabilitation schemes, ensuring the integrate-ability of all its components, methodologies, training, guidelines, and real and virtual demonstration cases. New collaborative multi-value, multi-stakeholder methodologies and decision making process for selecting the best energy efficient renovation strategy was developed within the project. Another real demonstration cases are sited in Durango and Bilbao (Spain) and virtual demonstration cases are developed in Ravda (Bulgaria), Athens (Greece) and Stezzano (Italy).	Decision to do the renovation and to be the demonstration site (to test new approaches and technologies) had been made by the community (registered association) of apartment owners of particular apartment building. This is ENCI.	Estonia	High	Medium	Medium	Medium
Energy Plantations in Gražiškės eldership	Energy Plantations in Gražiškės eldership	Phasing out fossil fuel increases the demand for biomass resources.. Gražiškės community in surrounding eldership owned lands not appropriate for farming needs, with hilly area, where farming is not favourable due to lots of rains of drought, and small farms are dominating. Thus the community and several small farmers came to decision to initiate energy plantation (around 30 ha).	Cooperation of range of local actors for increase of availability of biomass resources for energy production.	Lithuania	not relevant because individual	Medium	Low	Medium
Möckernkiez cooperative	Möckernkiez Genossenschaft	The initiative was founded by citizens of Berlin, they built the Möckernkiez as a modern city district that functions as a modell project. It is ecological, sustainable, accessible, social and is supposed to connect generations and build community. The buildings were finished in 2018. It is the biggest passive house city district that was built by a cooperative in Germany. It guarantees energy supply on site via renewable electricity, heating and e-mobility.	The Möckernkiez consists of passive houses and delivers its tenants electricity, heating and e-mobility from renewable energy and for low prices. It combines energy efficient living with multiple renewable energy technologies. Furthermore, the city district or 'Kiez' is accessible and car-free, pedestrians and cyclists are prioritised.	Germany	Medium	Medium	High	Medium

Empowering Energy Poor Citizens through Joint Energy Initiatives (POWERPOOR)	Enerģētiskās nabadzības mazināšana, izmantojot enerģētikas kooperatīvu iniciatīvas	PowerPoor is EU Horizon2020 programme's funded project which aims to develop support programmes/schemes for energy poor citizens and encourage the use of alternative financing schemes, e/g., establishing energy communities/cooperatives, crew funding, It will encourage the exchange of experience and knowledge, the realisation of small scale energy efficiency interventions and installation of RES technologies. Pilot support projects are planned in eight EU countries under the direction of trained/certified energy supporters and mentors	(1) To be energy Supporter or Mentor is clear active individual position and motivated choice which corresponds to individual energy citizenship, (2) Use of collective forms of energy citizenships, such as energy communities, energy cooperatives	Latvia	Medium	High	Medium	Medium
Røverkollen housing cooperative	Røverkollen borettslag	Røverkollen housing cooperative in Oslo community energy system which is a pilot living lab in the H2020 Green Charge project. The project combines renewable energy-based electricity production, storage and smart EV charging in order to address multiple local needs and societal goals. These goals are the increased production of renewable electricity, facilitating the uptake of electric vehicles and reduced emissions from transport, cost-efficient home charging facilities for residents in apartment buildings with limitations in the local grid, smart electric vehicle charging systems which can help avoid peak demand and costly grid infrastructure investments.	The case of Røverkollen housing cooperative is partly a 'direct energy production' case and partly a 'mobility' case. The project enables citizens to develop a more sustainable energy system for the challenge of charging more and more electric vehicles in urban areas.	Norway	High	Medium	Medium	Medium
'Evaluation of Energy Behavioural Change Programmes (BEHAVE)	'Evaluation of Energy Behavioural Change Programmes (BEHAVE)	BEHAVE aimed to enhance the performance of energy-related behaviour change programmes by adopting a rigorously scientific approach to evaluating a wide range of recent examples, and by developing an effective model for design, implementation, and evaluation of this type of programmes for use by policy makers, programme designers/managers, and consumer organisations.	It is an interesting case since it presents a lot of similarities with our own project, although this one finished in 2009. They made a review of behavioral theories and their applicability in the development and evaluation of energy-related behavioral change programs, progressed to a case study analysis and finished with a publication of guidelines for program developers and policy makers, so at least, it is interesting as an example for us.	Spain	Medium	I don't know / not enough information	High	Low
Gödöllő Climate Club	Gödöllői klíma-klub	The Gödöllő Climate Club is a small, voluntary, grassroots group initiated in 2009 by GreenDependent Association in the town of Gödöllő in Central Hungary, with the primary goal of reducing the carbon footprint of its members and to create a supportive group for change. The club was initiated as a pilot project within a European Union FP7 research project called Changing Behaviour which investigated how to induce long-term behaviour change related to energy use. The pilot project proved to be successful as the club has been meeting ever since, attracting an increasing number of people.	The Gödöllő Climate Club helps people make the connection between climate change (a global issue) and their own lives. It also empowers them for action, helping to overcome the helplessness that a global issue may cause in people. In addition, it creates a supportive community for both individual and collective action, and also for learning together, sharing experiences, questions, worries, etc.	Hungary	Medium	High	High	Medium
EnergyNeighbourhoods	EnergiaKözösségek	Energy Neighbourhoods" is a residential energy saving programme for small groups of 5-10 households (families, friends, colleagues, etc.), who compete for saving the largest amount of energy only through changing their behaviour and everyday consumption patterns. Each group is supported by a volunteer adult coordinator, so-called „Energy Master”, who supports the activities of the groups, organise meetings and motivate their members. The small groups, or EnergyNeighbourhoods are also supported by GreenDependent Institute who provides them with professional advice, brochures, saving tips and trainings held for the coordinators to achieve more efficient consumption reduction.	It helps anyone to become active, and it allows various levels of energy citizenship, even the development of energy citizenship as people can get involved for several years, at different levels of energy citizenship and activity.	Hungary	Medium	High	High	Medium

SUNRISE (Zugló, Törökőr)	SUNRISE (Zugló, Törökőr)	The main task of the SUNRISE (Sustainable Urban Neighbourhoods Research and Implementation Support in Europe) project in Zugló's Törökőr neighbourhood was to widen and deepen the existing process of participatory planning and establish a sustainable cooperation of the local stakeholders for co-assessing and co-planning mobility-related issues. Co-implementing innovative solutions also belonged to the main task, using synergies of other developments involving citizens in the neighbourhood. Regeneration of public spaces in the district was Zugló's main goal. Also, Törökőr as a pilot neighbourhood for this process could present innovative methods, tools for other neighbourhoods.	The SUNRISE project focused on the development of sustainable mobility. Involvement of the public was implemented at several levels. Among other things (e.g. mapping problems with locals, vote on project ideas), a citizens' advisory board (Advisory Board of Törökőr) was set up to monitor and comment on the project throughout its development, which really can help to raise citizens' awareness and consciousness.	Hungary	High	Medium	Medium	High
Tregor Energ'ethic	Tregor Energ'ethiques	Tregor Energ'ethiques is a local NGO based in Tregor, Brittany, which started in 2019 from a solar project on the roof of a sport's facility in one of the municipalities, and the willingness to expand the initiative to other nearby municipalities. It was initiated by two renewable energy cooperatives (Enercoop members) as a local initiative for renewable energy development. Following a public screening of a documentary on local initiatives for climate change mitigation (Après Demain, from Cyril Dion and Laure Noualhat), 15 volunteers gathered to contribute to launch a new association dedicated to new local PV projects development.	Tregor Energ'ethiques is a good example of local small-scale initiative for PV projects development led by citizens.	France	High	Medium	Medium	High
Energy Transition of City of Burgas: Going Smart and Sustainable	Energy Transition of City of Burgas: Going Smart and Sustainable	Fifteen years ago, the Bulgarian town of Burgas was highly energy inefficient, leading to very high energy costs for local authorities and citizens, as well as poor living conditions and environmental inequality. Today, it is a different story. Burgas is a smart, energy efficient city, implementing the most up-to-date energy approaches and measures, which demonstrates the power of local authorities to drive sustainable change. Energy efficiency has become one of the priorities of the Municipality after 2007. As a result, nowadays the entire population of Burgas Municipality (232,000 people) have directly or indirectly benefitted from this decision. All public buildings have been retrofitted, providing better living conditions for inhabitants. Children, young people and teachers have benefitted from the retrofitting of 98% of kindergartens and schools, and local businesses have benefitted from investments in energy efficiency and renewable energy sources. Burgas municipality is now leading the country when it comes to energy efficient living, with more than 200 residential buildings retrofitted under the National EE Programme and the number of hybrid and e-vehicles in the city is constantly rising. As a result of these actions, Burgas won the energy category of the 2020 edition of the Transformative cities award. The Transformative cities initiative inspires people to take action to transform their cities in areas of water, energy, food and housing.	In the last decade, investments in energy efficiency, renewable energy sources, electric vehicles, efficient street lighting, and smart management systems – implemented with the support of EU funds, and state and private resources – have turned the city of Burgas into a smart and sustainable place to live. An important part of this transformation is due to the efforts of the Municipality to inform citizens about retrofitting of buildings, funded by various programmes, in order to motivate them to participate in such initiatives. The successful collaboration of the Municipality and the citizens in Burgas resulted in making Burgas the city with the highest number of refurbished buildings in Bulgaria.	Bulgaria	not relevant	High	High	does not contest
ECO-effective Niemce Commune, stage IV	ECO-effective Niemce Commune, stage IV	The case consist of installing 611 sets of photovoltaic panels and 72 ecological central heating boilers powered by biomass. An informational and educational campaign was conducted simultaneously with the construction works, to raise awareness about the technologies of producing clean energy.	The case is part of a longer process in a village, citizens are involved in the financing of the project. As an afterlife of the project the village is trying to set up an energy cluster.	Poland	Medium	I don't know / not enough information	Medium	Medium
TreeDependent	TreeDependent	The TreeDependent programme is about providing support for reducing carbon emissions, as well as calculating and compensating for them through the services offered within the 'TreeDependent – responsible events, responsible travel' programme. However, it is not a typical compensation programme as only native fruit trees are planted as fully voluntary compensation, and they are planted in school or non-profit gardens thereby connecting action related to different sustainable development objectives. This is a programme of GreenDependent in Hungary.	The TreeDependent programme helps others to be more active energy citizens, and offers a variety of tools/services for this. Calculating the carbon footprint of events, travel or lifestyles and compensating for them through planting native fruit trees in school or non-profit gardens is the main focus of TreeDependent. However, through planting different organisations, as well social and environmental objectives are also connected.	Hungary	Medium	High	High	Medium

Walking Bus and Biketrain	Pešbus in Bicivlak	The Walking Bus takes pupils to school on foot in organised groups, following a fixed timetable and a well-devised route. The Biketrain is a similar concept, but with a bicycle route to school. The implementation is adapted to the needs and circumstances of the participating primary schools. Between 2016, when the initiative started, and 2021, Walking Bus and Biketrain were organised in over 130 Slovenian schools.	The initiative is important because by developing healthy habits such as walking and biking at an early age, children are taught how to lead a healthy and environmentally friendly lifestyle. Walking/biking children to school reduces the number of journeys made by car and consequently the amount of harmful emissions into the environment. The initiative therefore affects both the current energy citizens and help to bring up the future generations.	Slovenia	not relevant	High	Medium	Low
Sustainable Energy Society: Energy Groups in pilot schools in Vidzemes region	Ilgtspējīgas enerģijas sabiedrība: Enerģijas pulciņi pilot skolās Vidzemē	Energy Groups - schoolchildren accompanied by the teachers- learned good practice in the use of energy/energy resources. They explored the importance and benefits of an energy-efficient lifestyle through practical examples and activities, studying of everyday relationships related to energy use and performing particular focused experiments. The participants of the activity were schoolchildren, teachers and their family members. To provide the practical learning process, schools were equipped with particular energy efficiency equipment, which allowed school staff and children to draw conclusions about the consumption of energy for lighting, heating as well as other purposes. In addition, exploratory tours have been organized as well as video competition for schoolchildren and their families. Teachers took part in training on energy efficiency. A modern and professional material with worksheets on energy for schoolchildren was created to guide the work of the Energy Groups. The qualified experts from energy efficiency and innovation centres participated in the activities both in pilot schools and joint workshops. Finally, the Energy Groups met in the Estonia-Latvia “Energy Day” hold in Reuge school (Estonia). The activity had been organised in the frame of the EU Interreg Estonia-Latvia cross-border cooperation programme’s project “Sustainable Energy Society”	This is the voluntary activity for schools. By participating in it both the schools staff and schoolchildren demonstrate active position and lifestyle	Latvia	Medium	Medium	Medium	I don't know / not enough information
The Drechtsteden cooperative	The Drechtsteden cooperatie	Everybody takes part in this cooperative. Energieregio Drehtsteden is keen to work towards a sustainable future. In 2017, they were one of the first regions in the Netherlands to create a regional energy strategy (RES) in cooperation with thirty organisations. They are working with many other partners: each with their own interests, but also with the same goal. No matter how you look at it, the generation of sustainable energy affects us and our living environment. There is no denying that we are sometimes faced with difficult choices. The fact that they are a small energy region, where many people live close to each other, makes the large-scale generation of electricity in the region a challenge. At the same time, the region offers many opportunities for making homes gas-free.	I chose this case study as it is a good example of an organisation/cooperative of a region that works with many different stakeholders, so hybridity is high. Together with residents, entrepreneurs, nature organisations and other interested parties, they are drawing up rules: What is possible? What do they want to achieve that is feasible? And under what conditions? Residents and neighbours of the region were closely involved in the process towards the RES. Their goal was to create an RES that is supported and not to create support for predetermined steps or plans. Inhabitants have made an important contribution to the content of the Drehtsteden RES through the Think Along platform. They were asked in various ways (surveys, online meetings) to contribute their thoughts and ideas and to give their reaction to our initial research results. Also after the RES all stakeholders continue to work in a participative way.	Netherlands	Medium	Medium	High	High

Neilston Community Windfarm	Neilston Community Windfarm	The Neilston Community Windfarm was built in 2013 as a joint venture between Neilston Development Trust (NDT) and the specialist renewables developer Carbon Free Developments Ltd. NDT funded their 28.3% investment in the windfarm with loans from social investors including Big Issue Invest, Charities Aid Foundation, Green Equity Pilot, Social Investment Scotland and the West of Scotland Loan Fund. The original aim was to: provide an income stream for NDT by generating income from the sale of green electricity, reduce the town's carbon footprint fund projects identified in the 'Neilston 2030 Vision' consultation. In 2017 NDT sold their share in the windfarm to The Renewables Investment Group (TRIG), which produced a surplus of £2 million. This sale was part of an agreement that led to the creation of a new independent community fund to invest in the long-term development of the local area. The windfarm was, and remains, very successful. Before the sale this joint venture was already £400,000 in profit. It continues to contribute to Scotland's green energy supply by generating 2.5 times the annual electricity requirements for Neilston.	Neilston Community Windfarm has a unique business model structure (the first in the UK) to enter a joint venture between a local community and a commercial developer. This case study could be useful for the business models/intermediaries part of our research.	United Kingdom	not relevant	Medium	Medium	Medium
Passive Social Housing in Budapest	Szociális passzív házak Budapesten	One of the district governments of Budapest (District 13) completed an exemplary unique initiative. A multi-flat building with 100 flats were built by April 2014, and the flats are now rented out on a social basis, while they remain the property of the municipality. People moving into the flats received training on how to use the flats - as it is a certified passive house -, and also on energy saving. Following upon the success of the first social building the municipality built a second passive house in 2018 with 23 flats, and several others followed. The latest official handover of a passive social house with 35 flats was in January 2022. According to the district's municipal decision only social housing following the passive house standards can be constructed since 2014.	This collective case of ENCI is interesting on several levels. First the very advanced thinking municipality leadership is key in this case, realising the municipal responsibility in connection to energy efficiency and climate change, they show a very good example to other local authorities not only in Hungary but an EU level, they provide low overhead cost flats for families in (also energy) poverty, and they also provide a training session for them on low energy living, whilst providing a living learning environment for the inhabitants for the period of a few years.	Hungary	I don't know / not enough information is available about this aspect.	Medium	I don't know / not enough information	Low
Mull and Iona Community Trust	Mull and Iona Community Trust	In 2010, local residents made the decision to develop renewable energy generation on the Isle of Mull in Scotland with a view to addressing both local energy security and the climate crisis. Owing to the island's rich wildlife, it was decided that the community would eschew wind in favour of hydroelectric generation. £1.5 million was raised via loans and a community share offer to cover the capital costs for one of the earliest community-owned renewable energy generation sites - Garmony Hydro. Completed in 2015, the scheme generates 1,100 megawatt hours per year- enough to power approximately 285 homes. The Garmony Hydro Scheme and subsequent Waterfall Fund have had a hugely positive impact for Mull & Iona Community Trust - in terms of enhanced local recognition and reputation - but even more so for the local community: households have benefited from clean energy and improved, affordable heating as well as hardship funds, and the community has benefitted from sustained investment and business creation.	Garmony Hydro was one of the earliest examples of a community share offer for renewable energy generation. Owing to the Scheme's one member-one-vote rules, democratic control of the Scheme rests with the community itself. The Garmony Hydro Scheme and Waterfall Fund have had a hugely positive impact for Mull & Iona Community Trust. Households have benefited from clean energy and improved, affordable heating as well as hardship funds, and the community has benefitted from sustained investment and business creation. This is a good case example of ENCI as the Trust and the RE Schemes are based on democratic values of equal representation taking into account the needs of local residents. Furthermore the Trust strives to work in partnership with other community groups, local government, national government and non governmental organisations to maximise the benefits for all residents.	United Kingdom	Medium	High	High	High

Association Cyclists' Union	Udruga Sindikat Biciklista	The Cyclists' Union is a volunteer association that advocates for improving the conditions for the use of bicycles as an efficient, sustainable and healthy means of transport. It work to transform cities into clean, safe, comfortable and green, tailor-made cities, promoting cycling as a desirable form of transport. Through workshops, education and many projects, the Cyclists' Union creates safer conditions for cycling and increase the quality of life in urban areas. The association also acts as a platform that brings together experts in the field of transport, urbanism, energy efficiency, pedagogy, social sciences, education and rehabilitation sciences, ecology and as such is recognized as one of the leading civil society organizations in the region in the field of cycling. The Cyclists' Union provides, encourages and promotes dialogue between citizens, authorities and other key stakeholders with the aim of thinking, long-term planning and implementation of sustainable mobility, with special emphasis on cycling. The association informs and educates citizens about the importance of sustainable transport, advises decision makers and participates in spatial and traffic planning.	The Cyclists' Union engages citizens around the idea that cycling should become the common means of transport in cities in order to lead a sustainable life and to mitigate the climate change impact. It is considered an energy citizenship case because it advocates for engaging citizens in sustainable mobility activities in order to reduce fossil fuel demand and energy dependence, and as a solution for several aspects of community living: climate change, quality of life, traffic congestion, etc.	Croatia	High	I don't know / not enough information	Medium	Medium
The Balkans United for Clean Air campaign	Ujedinjeni Balkan za čist vazduh / Ujedinjeni Balkan za čist zrak / Обединет Балкан за чист воздух / Ballkani i Bashkuar për Ajër të Pastër	The Balkans United for Clean Air campaign aimed to inform Western Balkan citizens on the causes and consequences of air pollution, and the possible solutions which would improve air quality. The campaign focused on six important topics related to the air pollution in the Western Balkans. It created a network of 435 organizations, individuals and experts, reaching 650,000 citizens and having more than 500 publications in the media.	Although it is mainly an information campaign, the initiative is important because it represent a rather rare example of trans-border ecological initiative in the Balkans, and because it managed to engage quite an impressive number of citizens.	Serbia	Low	I don't know / not enough information	High	High
Neighbourhood energy works	Wijkenergiewerkt	WijkEnergie Werkt is a social enterprise with Rotterdam roots.They are working hard to create a sustainable future in their neighbourhood. In homes and other buildings they do various energy jobs. To keep the heat inside, to use less electricity and for healthier air in the house. Good for you, good for your house, good for the neighbourhood!	I chose this initiative because it fits into the ENCI types as an energy initiative by citizens and for citizens. It is also a social enterprise where local residents can become installers of solar panels by doing small insulation jobs for their neighbours. Residents can also be trained as energy coaches so that they can take charge of the energy transition themselves.	Netherlands	High	High	Low	I don't know / not enough information
Citizen wind cooperation Achterhoek	Burgerwindcooperatie Achterhoekse wind energie	The aim of cooperation is to stimulate and promote wind energy in Berkelland. Berkelland residents can become members and help decide on the cooperative's course. Members can also become co-owners of a wind turbine and benefit financially from new wind turbines in the region through their civilian wind cooperative. The citizens' wind cooperation Achterhoek wants as many residents in Berkelland to benefit from their own wind turbines. The municipality of Berkelland wants to be energy-neutral in 2030 and, in addition to solar energy, this also requires wind energy. This is exactly what the cooperative is aiming for. The impact of climate change is not something they can ignore. The cause of the extreme drought in the Achterhoek region can be linked to climate change. By building and operating wind turbines together, they can better ensure that the benefits of local green energy generation accrue to their own residents.	This is a good case of ENCI as citizens can participate and co-decide on the cooperatives goals. Citizens can also become co-owners of a windmill and directly benefit financially. The membership is open for all those who are interested and the aim is to have 100% local ownership of the wind turbines in the region.	Netherlands	High	Medium	I don't know / not enough information	Medium

WeertEnergy	WeertEnergie	WeertEnergie is green energy, locally generated and affordable. Because we believe that investing in sustainable energy now is important for the future of our children. Because we believe that we can manage the transition to green energy in Weert ourselves. Because together we can ensure that green energy is accessible to all citizens of Weert. WeertEnergie works together with its members, the municipality of Weert and other regional cooperatives to shape the energy goals Weert wants to achieve. Together, we have more knowledge and expertise. For the realisation of our projects, we work with local, specialised companies.	This is a great case study to study business models on WP4. The cooperative is unique in the Netherlands to combine a cooperative neighbourhood battery with large-scale local generation with large-scale local generation of sustainable energy. The battery will be used in such a way that the locally generated solar energy is supplied to the power grid at the right time, which makes the solar park to the electricity grid at the right time, thus increasing the yield of the solar farm. By combining the business models of self-supply, energy trade and balance maintenance, a profitable concept is realised.	Netherlands	High	Medium	I don't know / not enough information	High
Fintry Development Trust	Fintry Development Trust	Fintry Development Trust is based in the village of Fintry, Stirlingshire in Scotland. It is focussed on reducing energy use and carbon emissions in the Fintry area. It was founded in 2007 and has therefore been in existence for over 10 years. FDT has almost 250 members now and membership is open to all who live in the local area and support its aims. Fintry Development Trust has grown out of the original aspirations of Fintry Renewable Energy Enterprise (FREE). FREE was set-up in 2003 with the aim of making Fintry a carbon-neutral sustainable community. With this in mind, FREE looked to engage with a local windfarm that was being planned nearby. "Our ideal proposal was that the revenue from a community-owned wind turbine at the nearby windfarm would enable us to fund our own energy-reduction measures within the village. "This proposal would directly involve most members of the community and increase awareness of energy utilization. We believe that to achieve both local and global benefits of reductions in fossil fuel use and thus lower CO2 emissions, local strategies to reduce energy use through the provision of more efficient heating and insulation are essential. We would look to link these improvements in efficiency to use of energy from renewable sources, either through green energy supply or the use of sustainable fuels such as wood chip etc. A document produced at time stated: "Our ideal proposal was that the revenue from a community-owned wind turbine at the nearby windfarm would enable us to fund our own energy-reduction measures within the village."Ultimately, we believe that this proposal may pave the way for major changes in the use of energy by the public. Such a model would not be confined to communities close by renewable energy developments, but a direct linkage with a local source of energy generation is necessary for emotional resonance and identification with the project."	This is a unique case study of a rural remote community the first in the UK to be in a joint-venture of a developer to own its own community wind turbine (1 out of 15). All revenues are used for other Renewable energy projects in the community. Participation of local residents is open to all and within a small community (500 houses) almost everyone in the village is engaged. Fintry's ambitions is to become the first village in Scotland to be carbon neutral and reduce its emissions.	United Kingdom	High	High	High	High
Latvia's Solar Energy Association	Saules Enerģijas Asociācija	The association unites companies working in the field of solar energy in Latvia, environmentally-friendly organisations, foreign producers as well as natural persons – like-minded ones. The aims of the association are to promote the use of RES in Latvia, to promote and lobby for the maximum use of solar energy in Latvia, to inform the public about possibilities of solar energy production in Latvia, etc. For this the association participates in the development of policies and legal acts, promotes the implementation of EU directives and other legal acts. The associations actively provides advising of public related to different aspects of solar technologies.	Participation in policies development and active advising of public is clear ENCI position. For instance, the members – experts of the association had advised the first building-scale energy communities (pilot projects in Mārupe municipality) in Latvia.	Latvia	not relevant	I don't know / not enough information	Medium	Medium
Footprints Guimaraes	Pegadas Guimaraes	PEGADAS is a transversal program, dedicated to environmental education, constituting a fundamental factor for the increase of community practices based on ecologically sustainable principles, with the aim of initiating a paradigm shift in the behavior and way of being of people.	As an environmental education and awareness programme, it is an interesting case for sustainable development and the promotion of environmental, ecological, and inclusive policies (need to reduce consumption, reduce gas emissions, reduce noise, reduce waste production) based on children' education.	Portugal	High	High	High	High

Prato Electricity Company Cooperative	Azienda Energetica Prato Soc. Coop	In the small town Prato allo Stelvio, the cooperative “Azienda Elettrica Prato” was founded as early as 1926 to manage a newly built hydroelectric plant. Today the cooperative owns or co-owns renewable energy power plants and produces heat and electricity from hydro-power, bio-gas, and solar power. The cooperative has around 1,400 members in a town with a population of around 3,600 people, making approximately 80% of local families and companies are members of the cooperative. The cooperative supports local sustainable development, both in economic, social, and ecological terms, by creating jobs, profits for the community and using locally produced renewable energy.	The cooperative acts as a collective energy citizen by contributing to local energy sufficiency through renewable sources.	Italy	not relevant	Medium	Medium	I don't know / not enough information
Green local energy - the way for Slovakia	Zelená lokálna energia - cesta pre Slovensko	The Slovak Republic has committed itself to meeting the climate goals that are necessary to avert a crisis in the global ecosystem, but without a sustainable energy policy at regional and local level, these goals will only remain on paper. If a modern regional and local energy policy is to emerge in Slovakia, sufficient professional, technical and financial capacities must be available in the regions. These are missing today, with a few exceptions. The result of the project of FES Slovakia and its partners (including Friends of the Earth-CEPA) is a proposal of measures at the national, regional and local level, which would lead to the establishment of systematic and sustainable regional and local energy in Slovakia. The key output of the project is the publication "Green local energy - the way for Slovakia: Sustainable and self-sufficient regional and local energy will not arise spontaneously".	The aim of the project was to support the development of personnel and institutional capacities of a sustainable regional energy policy aimed at energy self-sufficiency and based on the sustainable use of local natural resources in selected districts of the Slovak Republic. The activities included discussion events and excursions for transfer of knowledge of good practice from Slovakia, as well as from abroad (Germany, Austria, the Czech Republic), and formulation of guidelines in the form of practices and recommendations for changes at the level of municipal, regional and national energy policy. The project tried to help to create a systematic, long-term, evidence-based regional and local energy policy, based on the use of local renewables and respecting natural limits.	Slovakia	High	I don't know / not enough information	Medium	High
EEG Göllersdorf	EEG Göllersdorf	The EEG Göllersdorf was started by friends and neighbours as one of the first EEGs ever and for that reason alone is one of the pioneering pilot projects. An association was chosen as the organisational form, as this is considered the simplest and most cost-effective legal form for private individuals. Each energy community requires at least two members (1 purchase/ 1 feed-in, e.g. PV) and is therefore also suitable for a family association. However, the advantages for all can of course be significantly increased with more members, and "limits" are currently only set on the close relationship of the participants (all use the same UW). Even if the technical implementation as envisaged in the law will not be possible until October 2022, the establishment and operation of an EEG with multiple deliveries (e.g. PV) is already possible. The EEG Göllersdorf wants to use electricity more sustainably, save some money and at the same time reduce the Co2 footprint without much effort. All citizens in and around Göllersdorf can become part of this community and benefit from the advantages of grid cost savings.	It is a case of energy citizenship because people from the villages of Göllersdorf used the implementation of a new law to form a energy community where all participants use the electricity produced by one photovoltaic system.	Austria	High	Medium	I don't know / not enough information	High
NGO Green Liberty	Biedrība Zaļā brīvība	Green Liberty is a non-profit NGO founded in 1993. Its mission is to contribute to the development of a society in which people live in harmony with each other and the environment. Green Liberty aims to raise awareness of the social and environmental consequences of current trends in consumption, trade, and globalization, in particular fair trade, climate, energy, and waste, by empowering people to make responsible daily life decisions and to oppose abuses of power. One of its fields of activity is Climate and energy. Green Liberty is actively involved in advocacy work with national decision-makers regarding climate policy and follows European and international policy developments, e.g. Green Liberty is represented in the EU Structural funds Monitoring Committees, Committee of National Energy and Climate Plan as well as Environmental consultancy Board. NGO is also actively promoting a climate-friendly lifestyle and working on climate education and research. Currently, Green Liberty is implementing projects on energy sufficiency, promotion of renewable energy, advocating for a strong climate law, and campaigning on climate and gender	This NGO is actively engaging in energy debate advocating for more renewables, decarbonization and democratization (decentralization) of the energy system, as well as stronger public engagement in climate and energy policy.	Latvia	High	High	High	High

Røverkollen housing cooperative pilot project	Røverkollen borettslag pilotprosjekt	Røverkollen housing cooperative in Oslo had a pilot project via the EU project GreenCharge, which is about creating an emission-free transport system based on public supplies and on local renewable energy production and where queues and parking problems are minimized. Røverkollen has 246 apartments, and almost all have private parking place in a garage. A main goal of the project was to create sustainable solutions - not only for the environment - but also in an economic perspective. GreenCharge is a three-year EU project under Horizon 2020. The project is coordinated by SINTEF research institute in Norway. The purpose was to create pilots which can contribute to technical development and can serve as models for others.	The case of Røverkollen housing cooperative is partly a 'direct energy production' case and partly a 'mobility' case within an Horizon 2020 pilot project. The project enables citizens to develop a more sustainable energy system for the challenge of charging more and more electric vehicles.	Norway	I don't know / not enough information	I don't know / not enough information	Medium	Medium
Sufficient for All	Dovolj za vse	Online Platform Sufficient for All provides information, ideas, tools and support for the implementation of sustainable community projects. It helps the local communities to realize their development opportunities, encourages the involvement of the population, and generally contributes to better economic and environmental indicators and the quality of life. The Platform was launched in 2016 and currently operates within the LIFE IP CARE4CLIMATE project (LIFE17 IPC / SI / 000007). By raising awareness, educating and training key stakeholders, the Platform promotes the implementation of measures that will help Slovenia achieve its goal of reducing greenhouse gas (GHG) emissions by 2030 and achieve a faster transition to a low-carbon society.	Platform Sufficient for All supports citizens to become active energy citizens by providing information about good community practices aimed at sustainability, conducting training and empowerment activities, and organising activities such as workshops and seminars.	Slovenia	High	I don't know / not enough information	High	Medium
GoiEner	GoiEner	GoiEner believes that electricity is now a need as basic as food, and wants consumers to reclaim their energy sovereignty and make them aware of its importance.	It is a clear example of a citizen initiative for energy sustainability and democracy	Spain	High	High	High	High
Som Energia	Som Energia	Som Energia is a non-profit green energy consumer cooperative. The main activities are the marketing and production of energy from renewable sources. They are committed to driving a change in the current energy model to achieve a 100% renewable model.	It is a clear example of a citizen initiative for energy sustainability and democracy	Spain	High	High	High	High
Eco-Life	Eco-Life	The ECO-Life project (ECO-Life - Sustainable Zero Carbon ECO-Town Developments Improving Quality of Life across EU) comprises demonstration of ECO-Buildings and large-scale integration of renewable energy sources into energy supplies. Transforming urban areas into CO2 neutral communities. The central theme of the project is the combination of energy efficiency in dwellings combined with maximum use of renewable energy sources and not least the introduction of innovative approaches for the involvement and engagement of the citizens to ensure long-term sustainable development.	Throughout the course of the project it applied the "Whole Town Approach" - involvement of citizens' right from the start to influence the design of the city, including implementation and use of different RUE and RES solutions.	Denmark	High	I don't know / not enough information	Medium	High
Park4SUMP – Parking Management as game changer for urban mobility	Park4SUMP - Gestão de parques de estacionamento como agente de mudança para a mobilidade urbana	PARK4SUMP is a project that focuses on defining the best parking management models, taking advantage of the different contexts and realities of European cities to ensure a holistic approach to different areas of mobility in order to support and encourage more sustainable lifestyles that are less dependent on traditional motor vehicles.	This case addresses one of the priorities of the ENCI idea: sustainable urban mobility planning by proposing better parking management models, taking advantage of the different contexts and realities of European cities, thus supporting and promoting more sustainable lifestyles that are less dependent on traditional motor vehicles.	Portugal	High	not relevant	High	High
Light bringers	Fényhozók	For hundreds of thousands poor households accessing to electricity is a big problem and they are often cut off from the grid as they are unable to pay their bills and fines. Roma students, in the mentorship of an organisation developed a cheap access to electricity with solar-charged panel, that is easy to install and covers lighting for 5-6 hours and charging one mobile phone. With crowdfunding they installed for 40 families in one village and few others took over the innovation.	Low-budget solution and really solves everyday problem of people living in energy poverty. Besides the energetic aspects it also serves as community building and empowerment of Roma people in Hungary as they get more independent and are involved in the instalment.	Hungary	I don't know / not enough information is available about this aspect.	not relevant	Medium	High

Partnership for New Energy Leadership 2050	Partnership for New Energy Leadership 2050	The PANEL 2050 project aims to create durable and replicable sustainable energy networks at local (municipality/community) level, where relevant local stakeholders collaborate for the creation of a local energy visions, strategies, road mapping and action plans for the transition towards low carbon communities in 2050. The project consists of stakeholder mapping, capacity building and vision setting for a certain region in each country, the project is active.	The project aims to involve and activate all stakeholders relevant in energy transition and support bottom-up planning and networking in small regions.	Hungary	Medium	not relevant	High	I don't know / not enough information
Electra Energy	Electra Energy	ELECTRA energy is a certified social cooperative founded in 2016 and is based in Athens, Greece. Their scope is to support the transition to a decentralised, efficient, and sustainable energy system with citizens and local communities at its core. The cooperative works with, citizens and local communities, municipalities, academic institutions, national and international governmental and non-governmental organizations.	This is a nice example of an enabling intermediary in Greece. Because in the energy community, energy citizenship are still concepts and notions relatively new, this intermediary is one of the first to support the transition to more sustainable energy systems. They support also many community groups and individuals in their energy journey.	Greece	I don't know / not enough information is available about this aspect.	I don't know / not enough information	Medium	High
EcoGozo	EcoGozo	The ecoGozo Regional Development Directorate was established by the Ministry for Gozo in 2009 as the local sustainable development strategy for the island of Gozo. The ecoGozo concept has developed into a set of tangible actions spanned around the pillars of sustainable development – economy, environment, society and culture and identity. EcoGozo's Mission Statement sets out the aims and objectives behind this initiative, namely: "To be the benchmark example of local government achieving an increasingly sustainable society through committed grassroots involvement by the Gozitan community. Our goal is to protect the Gozitan lifestyle, its environment, resources, culture and identity and to ensure that all these play a significant part in presenting a warm and vibrant community that attracts more visitors and investors to the island." In line with these goals, ecoGozo has been collaborating with other directorates within the Ministry and many other stakeholders, to spearhead major environmental projects and initiatives in water conservation, renewable energy, biodiversity and agriculture.	This case is an holistic case of ENCI since it intend to mobilize the community toward a global sustainable approach of the Gozo Island. Next to renewable energy production, the project aims at promoting grassroots involvement.	Malta	Medium	not relevant	High	I don't know / not enough information
"Osada Twórców" ("The Creators' Settlement")	Osada Twórców - placówka badawcza Cohabitat	A self-sufficient village under construction, a place where by many volunteers a nature-friendly lifestyle is developed, alternative technologies are tried out, like permaculture, natural building construction and energy production and brings it to the everyday life in the countryside.	It is one of the most important case in Poland, when talking about local, decentralized energy production, and autonomy.	Poland	High	I don't know / not enough information	High	High
Kisielice - 100% renewable energy town	Kisielice - Gmina samowystarczalna energetycznie	Kisielice Poland's first self-sufficient community, an agriculture based town, now generates more electricity than it needs. Wind turbines, biomass plant and photovoltaic panels produced 100% of the energy demand already in 2014. A visionary leadership, involvement of investors and participatory processes made it happen for the town, to come out from the difficult economic situation in the early 90's.	The case managed to make a full energy transition on a CEE region, using participatory processes as well.	Poland	High	I don't know / not enough information	High	High
ComAct: Community tailored actions for energy poverty mitigation in Hungary	Energiaszegénység enyhítése közösségekre szabott intézkedésekkel	ComAct pilot project in Hungary aims to encourage the renovation of 2-3 multi-family apartment buildings in District 3 which may directly benefit 100-200 residents and may serve as a model for various housing communities. The Metropolitan Research Institute, the pilot coordinator for Hungary, supports energy-efficient improvements which are affordable and manageable for energy-poor communities and creates the necessary assistance conditions for lifting them out of energy poverty. Thus, social, financial and technical issues are taken into consideration at the same time for a just energy transition.	This case enables citizens to develop a more democratic and sustainable energy system with particular attention to energy poverty. By managing community dynamics and building communities, the project aims to include houses that have so far been left out of large-scale renovation programs.	Hungary	I don't know / not enough information	High	Medium	I don't know / not enough information
Warm in the neighbourhood	Warm in de wijk	The pioneering Warmindewijk project aims to connect a first group of at least 500 residents to a sustainable heat network within a few years. We, the residents of the Vruchtenbuurt, have taken the lead in developing a sustainable heat supply for our neighbourhood. The ultimate goal of the project is to develop this for the entire Vruchtenbuurt, with the support and commitment of the residents. After all, the decision to move away from natural gas has been taken at national and municipal level. It is going to happen. The only question is how and when. The time to shape it as residents is now! This is quite a big change. That is why, after consultation with residents from the neighbourhood and our partners, we decided to first carry out a pioneering project. With financial support from the European ELENA programme, we are investigating whether we can find at least 500 pioneers in a first section of the Vruchtenbuurt.	This is a great initiative by citizens who have seen the potential and they want to achieve a sustainable heat supply in the Vruchtenbuurt, in the Netherlands. Their aim is to have a discussion about sustainability and to make decisions simple, clear and democratic. The important thing is to come up with solutions that the neighbourhood residents support. This case is ideal for the ENCI typology adding to the diversity of cases.	Netherlands	High	High	I don't know / not enough information	High

Zero Emission Neighbourhoods (ZEN) in Smart Cities	Zero Emission Neighbourhoods (ZEN) in Smart Cities	The Research Centre on Zero Emission Neighbourhoods in Smart Cities (FME ZEN) is a research centre on environment-friendly energy established by the Research Council of Norway. NTNU is the host and cooperates with SINTEF and user partners on carrying out the research, development and innovation activities. FME ZEN is involved in 9 pilot projects that are in different stages of development, with different sizes, functions, and contexts, making them important innovation and test arenas. ZEN attempts to enable the transition to a low carbon society by developing sustainable neighbourhoods with zero greenhouse gas emission. In addition, the aim is to ensure optimal energy use and to create good places for people to live and work in. Through the pilot projects ZEN focuses on innovation, GHG emission, energy, spatial qualities, power, mobility and economy. Serving as innovation hubs, this is where new solutions are tested for developing zero emission neighbourhoods.	ZEN pilot sites seems not only as a testing ground for different technological solutions, but also as promoting energy transition on a larger/community scale, even if the focus is on technology. The hybridity of the actors involved are also high. The case also highlights challenges and opportunities, especially in connection with the Planning and Building Act and the Energy Act.	Norway	I don't know / not enough information	I don't know / not enough information	High	Medium
Agricultural Cooperative Agrinio Farmers Union	Αγροτικός συνεταιρισμός ένωση Αγρινίου	Having been present its action area for almost a century, the Union of Agrinio has already become the most important, if not the sole, pillar of the local rural economy. It is in fact the great ally of the farmers, a characteristic contributed by the farmers themselves, since they address every of their needs to the Union of Agrinio. Τηληρ philosophy is described in the trademark of the Cooperative: Two people joining hands, uniting their forces, in a coalition that will undoubtedly benefit them both. They are surrounded and protected by the cycle of the Union, represented by the two reverse "E" ("Enossi" is "Union" in Greek), a cycle that is crowned by a plant that grows and gives fruit, symbolizing the production. The Union responding to modern requirements and consistent with their belief that farmers have a key position and role in the development of Renewable Energy Sources, they are investing in emerging technologies in the field.	I have included this farmer union, first because it is rare (in Greece at least) to find a farmer's cooperative that is active in renewable energy and second because of its open and democratic structure of the union, the way decision making is taking place and the whole philosophy of the union fits within our ENCI typology.	Greece	I don't know / not enough information	I don't know / not enough information	Low	I don't know / not enough information
Shared electric scooters Lime	Споделени електрически скутери Lime	Lime is an international company offering the shared use of light e-vehicles such as mopeds, scooters, and bikes in various cities around the world, including Sofia, Bulgaria. The service provides access to smart, affordable mobility and was introduced in Sofia as a measure to alleviate the traffic and mitigate air pollution in the city. The Lime electric scooters are available in Sofia's city centre along with some of its biggest neighbourhoods. The scooters do not have parking stations, they work through a mobile application and are at citizens' disposal at any time to move from one place to another for a small fee. Also, Lime contributes directly to making Sofia a greener and cleaner city, which coincides with the goal for sustainable urban development.	We consider Lime electric scooters a relevant ENCI case since it is a smart solution that gives citizens the opportunity to contribute to the reduction of carbon footprint and air pollution in the cities and to embrace a more sustainable lifestyle.	Bulgaria	I don't know / not enough information	High	High	I don't know / not enough information
Energy cooperative WPN	Energiecooperatie WPN	The Energy cooperative WPN is a sustainable energy cooperative by and for citizens. A first important milestone was reached with the realisation of Windpark Nijmegen-Betuwe in 2016. 1,013 members of Energy Cooperative WPN have invested in wind shares and have thus become joint owners of the wind farm. The wind farm is only the beginning. The cooperative wants to realise many more wonderful, sustainable energy projects for and by citizens in Nijmegen and the surrounding area. Starting with Zonnepark de Grift!	A nice case study that fits in our ENCI. The Energy cooperative WPN is going to set up more sustainable energy projects at city and regional level. The cooperative also wants to encourage projects at district and neighbourhood level by supporting active citizens in the city with their local energy initiatives. The cooperative will also continue its educational activities. To further shape its course, working groups have been set up in which the members work together to develop a strategy for the future. A great example thus.	Netherlands	High	I don't know / not enough information	I don't know / not enough information	High
Neighbourhood C Power	Wijk C Stroom	Utrecht residents want sustainable energy for everyone. Residents of Wijk C see that the energy transition is currently not accessible to all residents in their neighbourhood - and they believe that this must change. After a door-to-door flyer campaign by one resident, a group of residents has been together for a year. They put their heads together to think about how sustainable energy can truly be for all the residents of Wijk C. By entering into a dialogue with residents and stakeholders, they want to be the connecting link in the search for solutions for the neighbourhood. Wijk C Stroom. That's what the residents call their core team that has been meeting since the end of 2019. Step by step, the residents are working on a new collaboration between residents and parties involved, such as the residents' initiatives, the Volksbuurt Museum, housing corporations and the municipality.	I selected this case as the local residents who are part of the initiative are working on a new collaboration between residents and parties involved, such as the residents' initiatives, the Volksbuurt Museum, housing corporations and the municipality. They follow a multi-actor approach and a hybridity which makes it a good case for our ENCI.	Netherlands	I don't know / not enough information	I don't know / not enough information	I don't know / not enough information	I don't know / not enough information

Type 8: “Go ahead”

Name of case in English	Name of case in original language	Brief overview	Why is this case a case of ENCI?	Country	Effective Citizen power/control	Justice/equity	Env. Sustainability	Contesting the current energy system
Green Laws	Зелени закони	The “Green Laws” initiative aims to track and stimulate the implementation of environmental laws in Bulgaria, including domains such as energy, spatial planning, rural development, climate, and biodiversity. This is achieved through organizational meetings, publications, civic engagement, and debates. The project maintains an online platform, through which decision-makers can gain insight to expert opinions and the public’s suggestions concerning environmental sustainability.	The project synthesises professional expertise with the public opinion. Its clear-cut method of encouraging civic involvement and providing a channel of representation for environmentally aware citizens may allow progress in the field of environmental sustainability and development.	Bulgaria	High	High	High	High
Coopernico	Coopernico	Coopernico is a renewables cooperative, which gives support to solidarity, educational and environmental protection projects.	Coopernico is a renewables cooperative, which gives support to solidarity, educational and environmental protection projects.	Portugal	High	High	High	High
‘SAVES2 : Students Achieving Valuable Energy Savings 2’	‘SAVES2 : Studenții care realizează economii valoroase de energie 2’	SAVES2 targets students living in university accommodation (dormitories) and in private-rented housing. It helps them to change their energy behaviour and reduce their exposure to energy poverty.	Yes, as the aim is to channel sustainable energy behaviours among more than 219,000 university students in 7 countries, thereby contributing to reducing their exposure to fuel poverty. The aim is to enable students to acquire the competence to make informed decisions when selecting a more energy efficient rental property, both in terms of renting non-university accommodation and in the private sector. In addition, this project is the second part of a previous successful proposal, to which the University of Bucharest (Romania) is now added.	Romania	High	High	High	High
Agency for Energy Efficiency and Environmental Protection (AEEPM)	Agenția pentru Eficiență Energetică și Protecția Mediului Bucuresti	The Agency for Energy Efficiency and Environmental Protection (AEEPM) is an independent legal entity (an NGO at the service of local communities), founded in 2007, at the initiative of the Local Council of Sector 1 of Bucharest, co-financed by the European Commission through the Intelligent Energy Europe Programe. It is a separate legal entity with its own statutes and is established as an NGO.	Yes, because it is a broadly relevant NGO operating in the public interest to assess local energy and environmental problems in local communities. The Agency assists local authorities in formulating strategies in these areas and supports local communities in providing information to the public and business community, raising awareness of their current problems in this area, as well as advising on the implementation and management of projects related to energy and environmental protection.	Romania	High	High	High	High
Cyclonomia	Cyclonomia	Cyclonomia is a collective community workshop where participants can help each other to repair their bikes, build new bikes, learn to ride a tall bike or a cargo bike. Their main goal is to promote and spread urban cycling, tool useage and cargo bikes. Cyclonomia opened its doors in Budapest on June 15, 2013. Since then they have been invited to a number of cycling awareness-raising events, as well as several university and other workshops.	Cyclonomia is working to promote a sustainable mode of transport. By teaching participants how to use tools and how to repair their bike, they increase their independence and make everyday, regular cycling much easier.	Hungary	High	High	High	High

<u>Cargonomia</u>	<u>Cargonomia</u>	<p>Cargonomia is the formalisation of pre-existing cooperation between three socially and environmentally conscious small enterprises operating in or near Budapest. Partners within the project include Cyclonomia Do it Yourself Bicycle Social Cooperative, Zsamboki Biokert, an organic vegetable farm and sustainable agriculture community education center which distributes weekly vegetable boxes to food communities in Budapest, and Kantaa, a self organized bike messenger and delivery company. Cargonomia and its partner's activities aim to display how environmentally friendly and equity based partnerships can create sustainable and meaningful community empowerment opportunities which offer concrete alternatives to standard profit-driven social and economic systems.</p>	<p>Cargonomia is the crossover point between the activities of the partners involved in the project (sustainable food production, promotion of low carbon transport solutions, bicycle competency advocacy). Based on the principles of sustainability and fair trade, a primary goal is to increase access to locally produced products by promoting direct trade from local producers to consumer communities. In addition to the direct marketing of local food products, Cargonomia is also a logistics center for sustainable urban transport solutions where community members can borrow, rent and buy our locally manufactured cargobikes. And they are also an open space for community activities which focus on sustainable transitions, conviviality and Degrowth.</p>	Hungary	High	High	High	High
<u>Enercoop</u>	<u>Enercoop</u>	<p>Enercoop is a renewable energy supplier ("100% renewables, 0% nuclear") operated as a cooperative for local and citizen-based action. It is governed according to democratic principles, acts against energy poverty via a solidarity fund "Energie Solidaire" (also included in the PROSPECTS database), and commits to deliver lower energy bills to its customers.</p>	<p>Enercoop works as a cooperative with a democratic and transparent governance, and fosters citizen-led development of sustainable energy.</p>	France	High	High	High	High
Mobicoop	Mobicoop	<p>Mobicoop is a cooperative that focuses on shared mobility by offering a free (no-fee) car pooling service. The online platform is owned by individual shareholders (cooperative members) and is governed under the "1 shareholder = 1 vote" principle. Everyone can use the platform, there is no obligation to be a shareholder to be a user. The online platform is operated with an open source software to warrant digital sovereignty and user's data protection.</p>	<p>Mobicoop is a citizen's operated shared mobility on-line platform that fosters bottom-up collective restructuring of mobility practices towards more sustainability, solidarity, and collective ownership.</p>	France	High	High	High	High
Railcoop	Railcoop	<p>Railcoop is the first rail cooperative in France, established following the liberalization of the rail market. Railcoop wants to strengthen access to rail mobility to contribute to the energy transition. It aims at complementing the public service of the national train company SNCF with new lines, especially in rural areas and small cities. Freight service was launched in November 2021 and peoples' transportation service will be launched in December 2022. It aims to operate without public subsidies.</p>	<p>Railcoop works as a cooperative with a democratic and transparent governance (1 vote per cooperative member, decisions easily accessible online), and will foster citizen-led development of sustainable rail mobility services, especially in rural regions that have suffered train station closure policies in the past years and decades. It does not expressly have a strong focus on gender and minorities, but indirectly increased access to rail in rural areas will benefit vulnerable people like women, elderly, children, so potential strong social impact.</p>	France	High	High	High	High
Sustainability and community in a Baranya village	Fenntarthatóság és közösség egy baranyai településen	<p>The village of Alsómocsolád in the South-West of Hungary is a small, but exemplary settlement. With its 323 inhabitants, the community is working together towards a self-sustaining, environmentally conscious and solidarity-based economy. Their latest goal is to ensure the energy independence of the settlement in partnership with the Community Energy Service Provider (a joint project of the National Society of Conservationists and the Solidarity Economy Center).</p>	<p>An outstanding and inspiring example of a motivated and strong-minded community, who are not waiting for politics or the economy to take climate change and energy transition seriously, "they are the captain of their sea" and plan to take the necessary steps towards green energy and energy independence themselves.</p>	Hungary	High	High	High	High

<p><u>Energy Cooperative</u> <u>Elektropionir</u></p>	<p><u>Energetska zadruga</u> <u>Elektropionir</u></p>	<p>Elektropionir is a Serbian energy community established in December 2019 by a group of enthusiasts involved in renewable energy production and innovative ways of civic organisation. They aim to empower citizens to actively participate in the energy transition in Serbia and demonstrate that it is possible to produce electricity in an environmentally and economically sustainable way under the cooperative principles. Their first project is to establish a decentralised network of rooftop solar power plants and solar parks collectively owned by citizens, connecting people who want to invest in solar energy. Together, all solar panels will constitute a large “virtual power plant” that will supply energy to the cooperative members, who will become co-owners of the solar PV installations. Elektropionir's objective is to install a production capacity of 25-30kWp by the end of the year.</p>	<p>The initiative presents an energy cooperative in Serbia and as mentioned above it aims to empower citizens to actively participate in the energy transition in Serbia and demonstrate that it is possible to produce electricity in an environmentally and economically sustainable way under the cooperative principles. All these make us consider it a relevant example of energy citizenship.</p>	<p>Serbia</p>	<p>High</p>	<p>High</p>	<p>High</p>	<p>High</p>
<p>Nagypáli, the renewable energy village</p>	<p>Nagypáli megújuló energiás települése</p>	<p>The Green Road Village Development Program started in 1997 in Nagypáli, the main goal of which was to develop the village into a European-standard, self-sustaining settlement, preserving the traditions of the villages of the Göcsej region in Western Hungary. The directions of the development were determined from the start: the use of renewable energy sources, development of tourism, building a community, environmental protection and environmental awareness, and the production of local products. In two decades, a sustainable, livable and well-functioning settlement has been established with all kinds of renewable energy use: biosolar heating plant, solar collectors and solar panel farms (and a very minimal municipal overhead costs), e-mobility (bikes and cars) powered by solar panels, energy plantations etc. The latest plans include building a biogas plant and turn the old water tower into a lookout tower with a wind turbine that will also generate electricity. In 2007 they opened the Renewable Energy Innovation Ecocentre, which serves as a promotion center, where they organise temporary exhibitions, conferences, lectures and workshops, the main topics of which are the use and implementation of biomass, biogas, solar and wind energy, and energy plantations.</p>	<p>The village is an outstanding example in Hungary of how far determination and a strong community can get you in the use of renewable energy on a settlement level, and it also proves that you don't have to wait for the decision makers to bring these changes to you - you can do it for yourself and become self-sufficient!</p>	<p>Hungary</p>	<p>High</p>	<p>High</p>	<p>High</p>	<p>High</p>
<p>Heidelberg Energy Cooperative</p>	<p>Heidelberger Energiegenossenschaft</p>	<p>The Heidelberg Energy Cooperative - HEG for short - has the goal of effectively countering the climate crisis and offering the young generation a perspective on a future worth living. That is why they are doing their part to build an independent and sustainable energy supply - and everyone can join in. As a cooperative, we are oriented towards the common good and sustainable management and act in such a way that there is a long-term benefit for all. Their project has been for long focusefd on solar power, but it includes now e-mobility and key issues such as tenant prosuming.</p>	<p>This is a case of ENCI since the cooperative aims at involving more in more citizens in the energy transition, by offering various opportunities to become active.</p>	<p>Germany</p>	<p>High</p>	<p>High</p>	<p>High</p>	<p>High</p>
<p><u>Energyland2050 Association</u></p>	<p><u>Energieland2050 e. V.</u></p>	<p>Energieland2050 e.V. was founded in April 2017 and is based in the Office for Climate Protection and Sustainability of the district of Steinfurt. As an association of 133 representatives from politics, business, science, civil society and the 24 towns and municipalities belonging to the district, it supports the district of Steinfurt in achieving its major goal. Steinfurt with its major goal: To become energy-independent by 2050 - or sooner. It promotes civic engagement, regional value creation and public discourse on social responsibility and sustainable about social responsibility and sustainable and climate-friendly climate-friendly life.</p>	<p>This case is a case of ENCI since it setups a global framing to enable the district to become climate neutral and energy independant in 2050. The case involves a lot the citizens through a series of programs aimed at empowering them to achieve the local energy transition.</p>	<p>Germany</p>	<p>High</p>	<p>High</p>	<p>High</p>	<p>High</p>
<p>OBOS (Norwegian housing co-op association)</p>	<p>OBOS</p>	<p>OBOS began operating in 1929 in Oslo to offer housing development at a time when it was difficult to get bank financing for the average worker. Since that time, OBOS has grown to be the largest co-operative building association in the Nordic region. There are over 500,000 co-op members today who have growing interest in more environmental solutions, such as lowering carbon emissions, local production of energy, or more energy efficiency. As part of their 'green responsibility', OBOS is pursuing green initiatives and offering sustainable energy solutions for their customers in order to face the upcoming climate change challenges. OBOS aimed to be carbon neutral within 2021 regarding their office buildings and it aims through the year 2026 to donate up to ten percent of all post-tax earnings to community development in such areas as research & development and measures focusing on the climate, environment and development.</p>	<p>OBOS a housing cooperative (owned by the members) enables energy citizenship by several ways. From installing solar panels on shopping centres, hospital, office buildings, private houses to providing green loans for buying certified energy efficient homes and setting up for example a 'Neighbour Help' application for social sustainability as well.</p>	<p>Norway</p>	<p>High</p>	<p>High</p>	<p>High</p>	<p>High</p>

Sustainable living	Bærekraftige liv	Sustainable Living is a network of action groups across Norway that work to lower the ecological footprint and increase the quality of life. Through dozens of local associations and groups, run hundreds of small and large projects. The work is defined based on local context and local needs for transition, activation and networking. The Sustainable Life Network across Norway consists of ordinary people, who are passionate about what they love most. They create activities in local communities all over Norway, with volunteer work, real commitment and all the expertise that lives in the neighborhoods. Because everyone knows their own neighborhood best. Sustainable Living gathers knowledge and experiences from the entire network of local involvement, and takes it to ministries, municipalities and to the world.	Sustainable living has a holistic strategy and rely on grassroots organisation. Furthermore it emphasises not only ecological, but social sustainability as well. Included into the list of cases because an expert said that they are planning to strat up community energy which is very much a frontrunner category in Norway. But unfortunately I could not find information on the community energy part.	Norway	High	High	High	High
Energy Academy Samsø	Energiakademiet Samsø	The Energy Academy opened in 2007 and is built by local craftsmen. The house is a demonstration and meeting place for local citizens, guests and visitors with an interest in sustainable energy, community power and sustainable development. The Academy is also an organization working on many different projects related to the continuous development of Samsøe and on Samsøe becoming a fossil free island by 2030. The Academy has an ongoing exhibition and arranges workshops, conferences and courses. Each year 5000 scientists, companies, politicians, journalists, school children and energy tourists from all over the world visit Samsøe to see the sustainable energy island and learn from the local experiences.	Energiakademiet helps to take local action to reach the climate goal of the island with the involment of local citizens, companies and also drives broader action trough inspiring and educating visitors.	Denmark	High	High	High	High
Transition Sagene	Omstilling Sagene	Omstilling Sagene is part of the worldwide Transition Town movement, which works to strengthen local communities around the world. The goal is to make local communities less dependent on non-renewable resources and better equipped for climate change and other environmental and societal challenges. At the same time, they want to create stronger communities between people and more vibrant and pleasant places to live. At Sagene, a dsitric in Oslo, practical skills are shared in the local community. It creates a safe and inclusive social environment where everyone can participate. Most of its activity is based on voluntary effort, and it arranges free or low-cost courses in practical skills, such as bicycle repair, useful weeds, sourdough baking, pickling, sewing and composting or a creative protest against free parking spaces.	Omstilling Sagene is an initiative with a holistic strategy in the capital of Norway, which seems to be enabling citizens's development towards a more sustainable and democratic energy system. Although, there is no direct focus on energy, their diverse activities involve citizens at the broader community level.	Norway	High	High	High	High
Sifnos Island Cooperative (SIC)	Συνεταιριστική Εταιρία Σίφνου	SIC is a group of people who inhabit, descend from or just love Sifnos. They have created an innovative social entrepreneurial activity of citizens which welcomes all who wish to promote the economic and social enhancement of the island and its inhabitants. They envision through a common effort, to take action on socially responsible development and promotion of the island as well as the long-term prosperity of the local community.	Sifnos island want to be the first island in the Mediterranean that is energy autonomous by utilizing its inexhaustible RES, thus, shielding the society and economy of the island. With the Sifnos inhabitants being, besides consumers also producers, profiting both ways from the investment.	Greece	High	High	High	High
Estonian climate assembly.	Kliimakogu	From 20 November to 5 December 2021, the first randomly selected citizens' assembly on climate change took place in Estonia. The Climate Assembly was aimed at young people between the ages of 16 and 29 in Ida-Viru County. 40 young people who submitted their applications were selected to take part in the assembly. The Youth Climate Assembly evaluated the district's plans for climate action and suggested improvements to make the transition to a climate-neutral future fair from the perspective of young people. On 10 December 2021, the proposals formulated by the Climate Assembly for making the country more climate-friendly were handed over to the Minister of State Administration Jaak Aab.	This initiative is aimed at stimulating youth engagement in climate policymaking which encouraged youth climate awareness, empowered community participation, helped to incorporate different views into decisions and stimulated cooperation among different NGOs.	Estonia	High	Medium	High	High
INZEB	INZEB	Since 2014, INZEB as a non-profit independent organisation with a continued focus on a sustainable and energy-balanced future, is working in areas including energy efficiency buildings, energy efficiency finance, energy poverty and energy communities with an interdisciplinary team of experts generating and disseminating scientific insights, research results and innovative programmes. INZEB's endeavour is based on the encouragement and support of the constantly evolving energy sector through research, documentation, consultation and implementation of plans and capacity building programmes of national, European and international projects.	What I like about this case study is its nature of being an intermediary organisation on Energy Democracy in Greece which is quite rare. I think it would add valuable insights into our typology	Greece	High	High	Medium	High

Energy Community of Karditsa - ESEK	Ενεργειακή κοινότητα Καρδίτσας	The purpose of the Energy Community of Karditsa (ESEK, belonging to the development agency called AN.KA) is the utilisation of Renewable Energy Sources, starting from biomass. The development concept of AN.KA focuses on "capacity building" and the "empowerment" of the local population, especially the disadvantaged groups as well as the avoidance of social exclusion. The programs and projects are designed and implemented to serve a coherent and integrated vision for local development. Each one meets specific needs, satisfies an individual goal of this vision, which is constantly updated and enriched through social consultation. The purpose of the company is to contribute to the utilization, development, management, maintenance and protection of natural resources in the introduction of innovation and entrepreneurship in the production system, in the introduction and expansion of the use of renewable energy sources, in the support and development of new collective structures, in social development and generally in the development of the Prefecture of Karditsa.	This is a good example of an innovative energy community who are willing to experiment with new ways of energy production and at the same time help local communities. I have also included this case because they are very ambitious and creative in producing energy. For example, A potential energy coming from the municipal green residuals after city tree trimmings and the production of solid biofuels in the form of pellets. There is also a new and interesting collaboration started between the Energy Community of Karditsa (ESEK) and Kafsimo, with residual coffee used to be converted into solid biofuel! ESEK intends to create a collection network for coffee houses' waste coffee, combined with wood to make then "coffee pellets".	Greece	High	High	Medium	High
'TRIBE : TRaining Behaviours towards Energy efficiency: Play it!	'TRIBE : TRaining Behaviours towards Energy efficiency: Play it!	TRIBE project develop a new energy efficiency videogame, running with real data from public buildings. It provide a "controlled training regime on energy efficiency, administered in a very motivational way". The game include the different relevant aspects for improving the energy efficiency in buildings.	It is an interesting case on how to introduce the energy transition through a initiative that can be more attractive to the public, and that is based also on evidences on the real situation of buildings, and it is also focused on changing individual and collective behaviours towards energy efficiency.	Spain	High	Medium	High	High
ANERGO	ANERGO	A free online tool for managing household consumption of energy and other utilities in Romanian Alba county. Each customer of electricity, gas, or water can request access to their files of collected energy data and monitor their personal/household consumption monthly, including the costs. Fuel consumption of vehicles can also be monitored. ANERGO provides tips and ideas for more efficient energy and fuel consumption based on information entered by the consumers.	Yes, because it is an initiative promoted at improve energy efficiency and reduce greenhouse gas emissions by providing services for the Local Authorities from Alba County with the possibility to expand its services in the surrounding counties in the future.	Romania	Medium	High	High	High
Marathon 2020 - start the long run	Maraton 2020 - începe cursul lung	Based on its Sustainable Energy Action Plan called "Marathon 2020", Bucharest District 1 implements energy efficiency measures to increase energy efficiency and use of renewable energy, while decreasing CO2 emissions. Measures include thermal retrofitting of multi-apartment blocks.	Through this proposal, Bucharest's District 1 is implementing a series of measures for the benefit of the community, thereby promoting energy savings of more than 30% in costs for tenants. Marathon 2020 can be seen as a grassroots initiative aimed at raising public awareness of the importance of the energy transition in Bucharest through a series of activities involving the participation of citizens (a race for parents and children, drawing activities for children, music concerts for adults...). It is an interesting measure that is supported by an action plan developed in Bucharest, under the umbrella of a well-established NGO in the country.	Romania	High	High	High	Medium

Energy efficient Wekerle	Energjahatékony Wekerle	Energy Efficient Wekerle is a bottom-up initiative which is trying to improve energy efficiency in a 100-year-old neighbourhood of Budapest. There are several different programmes under the initiative, such as the 'Wekerle Energy Brigade', which offers a one-off training session to learn DIY insulation techniques and then the opportunity to rent the necessary equipment. Another service is the rental of a thermal imaging camera, which are demonstrated at community events to show when and how to use them. They regularly organise events in a local café opened by a member of the community. The initiative is linked to Transition Wekerle by now.	The initiative is made up of local people who seek solutions to specific local problems (e.g.: nsulation of old, historic buildings) through community involvement, education and awareness-raising. The team is made up of dedicated and skilled professionals who can make a major contribution to spreading energy citizenship.	Hungary	High	Medium	High	High
Troy renewable energy co-operative	Troya Yenilenebilir Enerji Kooperatifi	In Turkey, there was no legal basis for renewable energy cooperatives, so this form haven't been existed in practice. The founders first looked at international examples and then lobbied for legislation to give the cooperative form a legal basis. Once this was done successfully, they gave substance to the concept of an energy cooperative through the good practices they had learned. Finally, the Troy energy cooperative based on solar power was established on a voluntary basis as a model project.	The founders of the energy cooperative, after years of work to identify international examples, succeeded in getting the legislation changed, then established the first cooperative and also wrote a handbook on their international experience, to help others to do the same.	Turkey	High	High	Medium	High
Retenergie energy cooperative	Retenergie Società Cooperativa	The Retenergie cooperative was founded in 2008 in Fossano, northern-western Italy, by a group of people engaged in the field of self-production of renewable energy. The foundation of the cooperative was a continuation of the “adopt a kilowatt” by Solare Collettivo, that aimed to include the end-users of energy into the production. The idea behind the cooperative was to produce renewable energy with low environmental impact through the from of popular shareholding, with strong social ideals and fairness in distribution. The cooperative form was chosen because the initiators believed that the objectives must be consistent with the means used to achieve them, i.e. participation, sufficiency, and solidarity.	The cooperative both acts as a collective energy citizen by contributing to change of the energy systems towards renewable, small-scale, locally produced energy, in cooperative ownership. It also serves to enable/support individuals to practice more active ENCI by joining the cooperative or buying their electricity.	Italy	High	Medium	High	High
Ènostra	Ènostra, l’energia buona	Ènostra was born within the European REScoop 20-20-20 project to promote the acceptability of renewable energy. It is a cooperative, non-profit, energy supplier that sells 100% renewable electricity from photovoltaic, wind, and hydroelectric plants. They only buy energy from sustainably produced energy, preferring production companies linked to local communities, and invest in renewable energy production through collective capital. Furthermore, they offer their members energy efficiency services and solutions for energy saving and storage. Ènostra also endorses an “energy transition from below” approach, based on democratic values, and creates opportunities for participation of the producers, consumers, partners, similar organisations, and local social networks.	The case both acts as a collective energy citizen by contributing to change of the energy system (through its 100% renewable, sustainably produced energy, with democratic values at its core), and enables citizens to practice more active ENCI as members and consumers.	Italy	High	Medium	High	High
The network of renewable and solidary energy communities	Comunita’ energetiche rinnovabili e solidali	The Network of Renewable and Solidary Energy Communities (CERS) aims to build a bottom-up alliance to fight energy poverty through renewable energy. The network want to make communities protagonists in the just ecological transition and the relaunch of the Italian energy system by finding local solutions to environmental and social-economic challenges. The network promotes an alternative economic model to help communities reduce inequalities and create inclusive and sustainable participatory processes. The initiative was launched by the NGO Legambiente, the Energy and Solidarity Community of East Naples and the Municipality of Ferla in December 2021, inspired by successful examples. Public participation, social innovation, as well as social, environmental and climate justice are key words, and the collaboration between the NGO-sector, public administrations and businesses are seen as crucial.	The case both acts as a collective energy citizen by contributing to change of the energy system through its manifesto and advocacy work, and enables/supports citizens (local authorities, NGOs and businesses) to practice more active ENCI by participating in, supporting and/or creating renewable and solidary energy communities.	Italy	High	High	Medium	High

Shared Energy	Energie Partagée	Energie Partagée (Shared Energy) is a movement that aims at supporting and financing citizen renewable energy projects. It is composed of an association that promotes citizen energy, an energy cooperative that collects citizen investments and co-develops citizen projects, and an investment facility to directly contribute to citizen energy projects as shareholders. Energie Partagée was established in 2010 by energy cooperatives and other like-minded organizations to identify and support citizen renewable energy projects based on a common charter that defines the values and characteristics of citizen projects (via their operating company), further used to attribute a label “Energie Partagée” following an evaluation process. Strong ownership of local actors, contribution to local development, shared governance, citizen ethical finance, and ecology are the five key aspects that are assessed during the evaluation process. The label aims at increasing visibility of citizen projects and facilitate their replication.	The case supports the uptake of citizen energy projects through labelling, fostering a common understanding and quality of citizen energy projects, citizen finance and project development support.	France	High	Medium	High	High
Slovak Climate Initiative	Slovenská klimatická iniciatíva	The Slovak Climate Initiative is an association that brings together NGOs, academia and the business sector in order to make political leaders in Slovakia systematically work on sustainable energy, to embrace energy efficiency (EE), renewable energy (RES), fossil fuel phase out and energy poverty as their priorities. Their goal is to bring concrete and professional solutions to achieve a sustainable economy with regard to effective sustainability measures in the field of energy. The principles that will contribute to climate change mitigation should be applied in any new or existing public policy. The founding members of SKI are Buildings for the Future, the Slovak Association of Photovoltaic Industry and RES, Friends of the Earth - CEPA and the Forecasting Institute of the Slovak Academy of Sciences. They are working to initiate the transition to a low-emission, low-carbon, decentralized, citizen and community-controlled economy with the main objective of maintaining a healthy environment for future generations.	The mission of the initiative - and its member organisations and individuals - is to be the driving force of public debate in order to influence the attitudes of Slovak political leaders to the energy transition of Slovakia. Their activities - campaigns, discussions, surveys, public polls, recommendations, analyses - move Slovakia closer to its climate and energy goals.	Slovakia	High	High	Medium	High
The Estonian Union of Co-operative Housing Associations (EKYL)	The Estonian Union of Co-operative Housing Associations (EKYL)	The Estonian Union of Co-operative Housing Associations (EKYL) is an independent non-profit working across Estonia to support apartment associations and to represent their interests on local, national and international level. The Union has more than 1400 members (apartment associations) today. The mission is: (1) to support the development of apartment associations in Estonia, through the implementation of knowledge-based activities as training, consulting, advisory services, research, national and international cooperation projects; (2) to engage apartment associations to energy efficient renovations, energy poverty alleviation programs and sustainable development commitments; (3) to disseminate best practice case studies and promote the use of EU funds to achieving European and Estonian climate ambition. EKYL actively participates in the international projects. One of the latest activities is the opening of a Local Energy Poverty Alleviation Office in Tallinn under the scope of the EU H2020 programme’s POWERPOOR project, in February 2022. Today, 96% of apartments have been privatised in Estonia. Apartment association is the most spread and generally recognized way of management of residential buildings and cooperation. It is self-financing not-for-profit organisation managing one multi-apartment building. About 70 % of Estonian population lives in apartment associations. There are 23 000 apartment associations today.	The EKYL engages apartment associations to energy efficient renovations, energy poverty alleviation programs and sustainable development commitments. Not only direct energy savings, but also promotion of behaviour change of the residents. This is the ENCI provided by the network organization.	Estonia	High	High	Medium	High
Berlin Citizen Energy	BürgerEnergie Berlin (BEB)	BEB - BürgerEnergie Berlin eG - is a cooperative that brings together citizens to work together for a sustainable, climate-friendly and citizen-owned energy system in Berlin. It is a free, cross-party association of citizens.	BEB is focused on citizen’s empowerment regarding the energy system at the city scale. It aims at developing involvement in citizen energy in Berlin, and also at empowering citizens in the energy transition for instance by fostering the citizen commitment in the management of the public-owned electricity network.	Germany	High	High	Medium	High

SoLocal Energy	SoLocal Energy	Solocal Energy is part of an offensive and progressive energy transition. On the basis of corporate values oriented towards the common good, they intend to simultaneously get people from all population groups on board. For this purpose, they have founded the non-profit association SoLocal Energy e.V.. This serves as an umbrella for their various activities, from the balcony power plants to the neighbourhood circles to the self-build community, supplemented by various workshop and lecture formats.	This is a case of ENCI since the motto of the association is "Shaping the climate change from the bottom in a visionary way!". To do so, SoLocal Energy wants to contribute to the global climate change from below and to the empowerment of the community. Their vision is sustainable energy supply in the hands of citizens in order to achieve climate-just energy democracy. Their values are solidarity, justice, sustainability and personal responsibility.	Germany	High	High	Medium	High
Energie Netz Hamburg Cooperative	EnergieNetz Hamburg e.G.	The initiative to buy back the energy grids was the birth of EnergieNetz Hamburg. Together with other organisations, they pushed for the referendum in September 2013 - and won with the votes of over 400,000 Hamburg residents. Today, the electricity, gas and district heating networks once again belong 100 % to the Free and Hanseatic City of Hamburg. An important part of the regional energy infrastructure is now subject to the common good and democratic control. With the support of their members, they are fighting for the restructuring of the grids and energy generation in Hamburg. Their goal is a climate-friendly, decentralised and social energy supply for all. The energy cooperative claims for the urban heat transition, photovoltaics and tenant electricity for all. As a citizen's energy cooperative, they have realised many projects since 2015 to advance the energy transition in Hamburg in a concrete and practical way. These include heat supply systems for entire neighbourhoods as well as many rooftop photovoltaic projects in all conceivable operating models, e.g. also for the supply of tenant electricity or direct electricity in and around Hamburg.	This is a case of ENCI since the purpose of the cooperative is to promote citizen participation in the local energy system, notably through the remunicipalisation of the energy grids and the district heating supply.	Germany	High	High	Medium	High
Windfang Women's Energy Community	Windfang eG FrauenEnergieGemeinschaft	Windfang is the first women's energy community in the Federal Republic of Germany. It is a group of women who have joined forces to actively promote the energy transition. They want to actively support regenerative energies such as wind, water and sun, but also the economical use of energy such as combined heat and power plants through their own activities. And for that they need women's support. The more women support these ideas financially and ideally and actively help to give the energy turnaround a leg up, the better they can turn our goals into reality.	This is a case of ENCI since it is a women energy cooperative, which focus is to enable women to engage and take actively part in the energy transition.	Germany	High	High	Medium	High
100 Percent Renewable Energy Foundation	100 prozent Erneuerbare Energie Stiftung	The 100% RE Foundation aims at supporting the development of energy citizenship in Germany. The way the Foundation describes itself is pretty clear: "Shaping the energy transition according to the citizens' needs is essential for our work at the 100 percent erneuerbar stiftung. What we know: The citizens in Germany want the energy transition. What we don't know: What role can, want and should they play? Will they shape the energy transition? Will they remain supply cases without major changes because „The power comes from the socket.“? Do they have to accept everything that the legislator and companies are planning? We must assume that all of these three options describe very much possible and probable roles. Though it's anything but arbitrary who - especially how many people - play which role. It's crucial for the success of the energy transition that the people act a part they feel comfortable in. Anyone who doesn't want to shape the transition can remain in the classic role of a consumer. But what about those that are affected but are forced into this role? And what about the people that don't want to be a supply case but a designer for the energy transition but can't just do that? In short: Our central question is „What do the people gain from the energy transition?“ The 100 prozent erneuerbar stiftung works out answers in their projects and cooperations."	This is a case of ENCI for the very simple reason that the Foundation aims at enhancing ENCI in Germany.	Germany	High	High	Medium	High

Schönau Power Utility (EWS)	Elektrizitätswerke Schönau (EWS)	Schönau Power Utility (EWS) has its roots in the anti-nuclear movement and became in the 1990's a pioneer as they succeeded in 1996 in raising the funds for their electricity grid. As a citizen-owned company, EWS is still committed to phasing out nuclear power, protecting the climate and decentralising and democratising the energy industry. The fight for a sustainable energy future shapes its entrepreneurial and social actions. EWS is engaged towards a sustainable energy supply, energy justice and climate protection, against nuclear power and coal-fired power. EWS is cooperatively structured and its companies combine economy with civic engagement.	This is undoubtedly a case of ENCI since EWS is highly active in climate protection and a just energy transition. It's cooperatively structured and aims at deeply contributing to the decentralisation and democratisation of the energy system.	Germany	High	High	Medium	High
LILAC Low Impact Living Affordable Community	LILAC Low Impact Living Affordable Community	Lilac is a self-managed co-housing community in Leeds, relying on the concept of sustainable and communal living. Members of the community - organized as a cooperative - live in their own homes but share the financial responsibility as well as the development and management of the community. With respect to energy, Lilac aims to make the houses carbon-free by means of solar roofs and special insulation.	The case is a good example of a holistic approach to living that includes aspects of energy. Participants are engaged as citizens in co-shaping their own social environment. The case also addresses an aspect of the distributive justice of burdens, although it's not obvious that this translates to aspects of energy poverty.	United Kingdom	High	High	High	Medium
OurPower Cooperative	OurPower Cooperative	Created at the end of 2018, OurPower Cooperative intends to radically rethink the energy market. by creating a whole new dynamic for the energy transition: regional, personal, cooperative. Their vision is a world in which people use energy responsibly and obtain 100% of their electricity directly from regional renewable energy sources. With this goal in mind, they operate (and are constantly developing) the online marketplace ourpower.coop, which builds relationships around the topic of electricity between electricity sellers and buyers, investors and plant constructors.	This case is a case of ENCI since it intends to create an alternative and regional energy market that is empowering for all the stakeholders, on the basis of a cooperative model. Though it is focused on the energy market (and especially that of electricity), it also has a holistic perspective, that of common good.	Austria	High	High	Medium	High
EBO Consult Ltd. and Energy Communities	EBO Consult A/S og Energifællesskaber	EBO Consult A/S is a consultation company that helps to start up and maintain energy communities, with strong focus on energy justice, democracy and sustainability.	This is a company that utilizes their expertise and history in the field of district heating to realize and support the birth and operation of energy communities.	Denmark	High	High	Medium	High
Community Virtual Power Plant Loenen (cVPP)	Community Virtual Power Plant Loenen (cVPP)	The story of the Dutch cVPP starts in 2013 in Loenen, a small rural village in the Province of Gelderland. In 2013, the village of Loenen won a sustainability competition, organized by the municipality of Appeldoorn, requiring solutions to make villages energy neutral. Winning this competition by introducing a revolving fund, was the start to implementing this solution in their own village. Already more than 300 projects with an investment value of close to 2 million euro's have been installed in the Loenen buildings (insulation, PV (166), Heat pumps, etc) thanks to this fund and more are to come. The ambition of the village is to use all rooftop capacity in Loenen for PV, and become selfsupporting. Yet, this strategy requires smart energy management and so the rural cVPP got initiated. Currently Loenen generates 50% of household demand with local PV.	The implementation of the cVPP is a bottom-up process, led by shared values and interests. These values were identified in Loenen through workshops and individual surveys. Technically, the cVPP consists of close to 100 residential PV, 0,9 MWp industrial PV, several steerable heat pumps and an EV-charging point, all connected through a tailor-made Energy Management System (EMS). During the upscaling phase of the project, more residential and industrial PV, storage facilities and flexible assets will be added. I have also added this case study as a good case example for innovation and business model to be further explored in our WP4.	Netherlands	High	High	Medium	High
Energy Community in the Kazán Közösségi Ház (Kazán Community House)	Közösségi Energia a Kazán Közösségi Házban	The Community Energy Service, established in 2021, will deliver community energy investments in 7 locations. The first pilot site is Kazán Community House, home of Gyólya Presszó, Solidarity Economic Center (founders of Community Energy Service) and other NGOs and communities. The plan is to install around 200 square metres of solar panels on the roof of the building, which will provide the community centre with a full supply of renewable energy. The project will be partly funded by a national grant, partly by a loan and partly by a crowdfunding campaign.	The community solar investment in the Kazán Community Centre supports the community of local organisations, but also engages and educates a wider community through the crowdfunding campaign, helping to advance energy citizenship. This community investment could be a real example of good practice in Hungary as one of the first such initiatives	Hungary	High	Medium	Medium	High

<p>THE ASOCIATION "VALLE DE SENSACIONES"</p>	<p>ASOCIACIÓN VALLE DE LAS SENSACIONES</p>	<p>A prototype of an Ecovillage Laboratory, whose focus is an experiential integration of humans into nature: from "Living creativity in sensual contact with nature" towards "Providing inspiration and knowledge for setting up creative communal and sustainable projects" and now to "Eco village laboratory for the communal development and mediation of sustainable living concepts". Founded by a couple being fed up with mainstream unsustainable practices.</p>	<p>Yes, it is, due to their focus on the experiential integration of humans into nature, creating and designing different forms of sustainable practices by using elements of nature (water, climate, land...) for self-sufficiency and sustainable living.</p>	<p>Spain</p>	<p>High</p>	<p>Medium</p>	<p>Medium</p>	<p>High</p>
<p>Tartu city lighthouse retrofitting package of the SmartEnCity project</p>	<p>Tartu city lighthouse retrofitting package of the SmartEnCity project</p>	<p>The main idea of Tartu's lighthouse project was to turn khrushchyovkas (a type of panel buildings that were constructed during the reign of Nikita Khrushchev starting from the 1950s) into smartovkas (i.e. high-quality living environments that inspire the community to make environmentally aware decisions and to change their patterns of consumption behavior) with a drastic reduction in the energy use of the buildings. Tartu piloted a series of retrofitting solutions in 18 khrushchyovkas in the city center. The retrofitting included renovation of all technical systems of the house and, at the end, every building received an original artwork. Citizens engagement: for boosting participation and interest in the project, several measures have been taken into use, including regular information meetings, technical consultations, study trips to similar construction sites and forum discussions; once the retrofitting activities have been completed, these awareness-raising actions will be replaced by a social innovation model that focuses on how to motivate residents to use the installed smart devices and to save energy. Other areas of Tartu city lighthouse project are implementation of smart city lighting and new district cooling station. SmartEnCity's (Towards Smart Zero CO2 Cities Accross Europe) is the project of EU Horizon 2020 programme. Another lighthouse cities within the project are Vitoria-Gasteiz in Spain and Sonderborg in Denmark. SmartEnCity's main objective is to develop a highly adaptable and replicable systemic approach towards urban transformation into sustainable, smart and resource-efficient urban environments in Europe. The underlying concept is the Smart Zero Carbon City, where city carbon footprint and energy demand are kept to a minimum through the use of demand control technologies that save energy and promote raised awareness, energy supply is entirely renewable and clean; and local energy resources are intelligently managed by aware citizens, as well as coordinated public and private stakeholders.</p>	<p>As it is written by the lighthouse project implementers, "one of the main aims of the retrofitting activities is to encourage behavioral changes in the way residents consume energy and adapt to new technologies. After all, there are not a lot of changes that can be implemented without cooperation and willingness of the users".</p>	<p>Estonia</p>	<p>High</p>	<p>Medium</p>	<p>Medium</p>	<p>High</p>
<p>Research communities and members of collective action initiatives work together in the COMETS project for citizens' participation on low carbon energy transition</p>	<p>Research communities and members of collective action initiatives work together in the COMETS project for citizens' participation on low carbon energy transition</p>	<p>The EU Horizon2020 programme funded COMETS (Community Models for the Energy Transition through Social Innovation) project investigate collective action initiatives (CAI) evolution and contribution in the energy transition efforts at EU and national level in six countries. There are large knowledge gaps around the governance of the low carbon energy system transition in a smooth and participative way. Social innovation is a prime way to tap into that potential. The main expected impacts of the project are two-fold. Firstly, COMETS advance the scientific knowledge on the motives, desires, objectives and barriers of such CAI initiatives and their historical and future role in the energy transition. Building on the information gathered and tested for its robustness, COMETS co-develop and test supportive tools together with CAI members, decision makers and the scientific community. In each of project partner country joint national team is established These stakeholders will then be able to exploit the main outputs of COMETS in order to mobilize people and to guarantee acceptance for and participation in the energy transition process.</p>	<p>Research communities and members of collective action initiatives work together for the development of CAI supportive tools and mechanisms</p>	<p>Estonia</p>	<p>Medium</p>	<p>High</p>	<p>Medium</p>	<p>High</p>

Tartu city Smart Bike Share widely used by citizens and visitors	Tartu rattaringlus	One of the most important objectives of Tartu city is to develop environmentally friendly mobility. Smart Bikes are an important part of the Smart City way of thinking. On 8th June 2019, Tartu city unveiled its bike share system, comprised of 750 bikes in 69 bike share stations across the city. A total of 500 bikes are electric and the remaining 250 are regular bikes. It had been acquired next generation electric assist bikes, which can communicate with the bike share system in real-time. With Bike Share, it is reduced the number of cars, encouraged users to get some physical activity and maintained the “15 minutes to anywhere” phenomena in Tartu. The network has proved very popular and already in 2020 had roughly 36 thousand registered users. In May 2021 the Sharing system had already more than 1200 bikes (more than half of which equipped with electrical assistance) distributed over 86 stations located thorough the city. From the beginning up to now, the total travelled distance is 6.6 million km (number of total rides 2.5 million). The Bike Share is operated by the Tartu City Transport.	Using a Smart Bike is a lifestyle (ENCI) choice valued by citizens and visitors.	Estonia	Medium	Medium	High	High
Findhorn Ecovillage	Findhorn Ecovillage	Findhorn Ecovillage is an ecovillage in Moray, Scotland, with the aim of exemplifying sustainable development in environmental, social and economic terms. It started back in the early 1980s and now includes a variety of organizations and activities, including a comprehensive building code that all new buildings are required to meet, an ecologically engineered waste water treatment system, organic food production, a wind park, and a local currency called the Eko.	The case is an example of a community-based ecovillage that takes a holistic approach to achieve a variety of measures and activities in favor of reducing the carbon footprint (and sustainable development in general).	United Kingdom	High	Medium	High	Medium
Energy Common Leidschendam-Voorburg	Energy Common Leidschendam-Voorburg	In Leidschendam-Voorburg, they are working on energy as a common good. The residents' initiative Energy Common in Leidschendam-Voorburg aims to generate, store and share as much energy as possible locally. Common' therefore stands for 'common', and this residents' initiative is based on energy as a common good, for which you bear joint responsibility. The dream is to have an energy source that they own or that they can manage and use together.	This is a good case study example of a cooperative initiated from citizens for citizens and it collaborates very closely with the municipality. The initiative believes that instead of the traditional two players - government and market - there are now three players who determine what will happen locally: active residents, a facilitating government and socially responsible entrepreneurs. The residents of Energy Common want to deepen this playing field. On 20 May 2020, they signed a declaration of intent between the municipality and the residents' initiative to jointly discover and shape the energy transition in the municipality. It is a great example of a close cooperation between residents/municipality	Netherlands	High	High	Medium	Medium
Neighbour heating Christiania	Nabovarme Christiania	Project “Nabovarme” (meaning “neighbour heating”) has transformed private heating necessity into a social experiment build on OpenSource software/hardware and social empowerment by transforming heat consumers into Nabovarme Users and letting them take ownership to infrastructure and consumption. Nabovarme has created a transition towards common heating systems based on burning wood pellets.	The project transformed passive heat consumers into active Nabovarme Users - making everyone take ownership of the infrastructure and a goal of optimizing usage for economic and climate reasons.	Denmark	High	Medium	Medium	High

Community Energy Programme of FoE Hungary	MTVSZ Közösségi Energia programja	The mission of Friends of the Earth Hungary (FoE), comprising of over 100 Hungarian member groups, is the comprehensive protection of nature, as well as the promotion of sustainable development. Community Energy Programme of FoE focused on creating a more favourable legislative environment for community Renewable Energy Sources (RES) projects and building up a cross-national and national community power coalition. Besides, public campaigns were organised in 5 Hungarian regions to facilitate the birth of more community energy initiatives and projects. This programme has given rise to the Community Energy Service Company, which supports the creation of energy co-operatives and the implementation of pilot projects.	Investments in Renewable Energy Sources (RES) in Hungary are challenged by multiple factors, such as quickly drying out national financing schemes, complicated bureaucracy of the permitting processes, very limited national RES appliances production, services and expertise. The project aims to promote energy citizenship and energy transition, both by monitoring policy makers and giving an opinion on legislation (legal advocacy) and by organising forums and educating residents (raising awareness). Also, initiatives, like energy cooperatives are supported through experts.	Hungary	High	Medium	Medium	High
Community Energy Service Company	Közösségi Energia Szolgáltató (KESZ)	Friends of Earth Hungary (FoE), Solidarity Economy Center and Gólya community house and bar joined their forces and created the Community Energy Service Company in 2021. The objective is to develop a decentralized renewable energy generation model owned by local communities or solidarity economy enterprises. Under the programme, community energy projects will be implemented in 7 locations. The first location will be the Kazán Community House, home of Gólya Presszó. This project is a continuation of FoE's community energy programme that has been running since 2013.	Without the involvement of citizens, without structural changes in energy production and distribution, a transition in the energy sector will not be possible, and therefore democratising access to energy is essential in the fight against climate change. One of the best ways to achieve this is the establishment of energy communities, which are already operating successfully in several EU countries and which are legally possible in Hungary from 2021. Since Community Energy Service Company is working on this as part of its first programme in which it will play a major role in promoting energy citizenship.	Hungary	High	Medium	Medium	High
Biobriquettes for the energy poor	Biobrikett az energiaszegénységben élőknek	Biomass briquettes programme was established in a disadvantaged region of Hungary where unemployment rate is higher than the national average and many people live below the poverty line. The target area is Told, a Roma village, and as a socially marginalised group in Hungary, they have even less access to combustible materials for heating. The project was developed within the framework of the Real Pearl Foundation and Art School with the aim of producing biomass briquette, a cheap, environmentally-friendly fuel by hand pressing. The project contributes to create new jobs and community, reduce heating costs of families involved, and save local forests from cutting down illegally.	It is a unique feature of the programme that NGOs included in the programme, originally dealing with social problems, had tried to find a solution that combines the improvement of the quality of life for the poor with an environmental sustainability approach. The biobriquettes program is one of the simple, cheap technologies that could be available to the poorest, contributing to more environmentally-friendly, energy efficient and less expensive living conditions. The main social advantage of these technologies lies in their simplicity; by using them the community becomes more self-sufficient, independent and confident. Local residents can easily participate and learn the necessary skills and competences.	Hungary	High	High	Medium	Medium
Seferihisar Renewable Energy Cooperative	Seferihisar Yenilenebilir Enerji Kooperatifi (SEYEKO)	Seferihisar has great potential for renewable energy sources (solar, wind, geothermal...). A renewable energy cooperative has been set up to allow citizens to participate in energy production. SEYEKO, the Seferihisar Renewable Energy Cooperative, was created at the end of 2016. The initiative was founded by 10 partners, including the local government. SEYEKO's vision is to enable energy cooperatives to play an important role in the energy sector.	SEYEKO's aim is to give people a greater say in energy matters, to raise awareness among local people and to put a stop to monopolization by reducing energy prices. The overall aim is to increase energy self-sufficiency.	Turkey	High	Medium	Medium	High

Green Energy Community		Green Energy Community (GECO) is a community management project that aims to reduce the distance between energy production and consumption, involving local inhabitants, businesses, and industry to increase the generation and self-consumption of renewable energy in the Pilastro-Roveri area (Bologna, Italy) and alleviate energy poverty. In the wake of the recent legislative changes approved as part of the Clean Energy Package (CEP) at European level, GECO aims to stimulate the development of the national regulatory framework, providing support to national stakeholders (ARERA, GSE, RSE, Terna) for the creation of new energy sector regulation in Italy. GECO believes that there will be no energy transition without a cultural transition based on the principles of equity, solidarity, inclusion, collective contribution, and active participation in the management of common resources. The project is being implemented through trainings with industry experts, education efforts, and community engagement.	The case acts as a collective energy citizen by contributing to change of the energy system through its activities in the Pilastro-Roveri area and through its wider advocacy and outreach activities designated to influence the national regulatory framework for energy. Additionally, it enables/supports citizens (citizens, businesses, industries etc.) to practice more active ENCI by taking part in the collective process and by consuming and presuming renewable energy.	Italy	High	Medium	Medium	High
NATURSTROM AG	NATURSTROM AG	Naturstrom AG aims to provide a 'clean, safe and economical' energy supply on the basis of renewable energy. It claims sustainability as the core of its business activity and more than 250.000 households, companies and associations are using their energy products, which are focused on the areas electricity, heating and mobility and include energy delivery, energy production, energy infrastructure and decentralised energy supply.	It is a case of Energy Citizenship because citizens can opt for the renewable energy supplied bei Naturstrom AG in their homes or at their workplaces or other organizations they are active in. Naturstrom also supports and connects local energy projects, were citizens can play a more active role in the energy production.	Germany	Medium	Medium	High	High
Student Project - Independent Energy Collective	Български ученици създадоха проект за независим енергиен кооператив	The case is a student project, created by a team of 5 that won a competition among 40 students in the Professional Highschool in Bobov Dol, Bulgaria. The project gives instructions how an independent energy collective of 50 households could operate, including a guide for energy production and for selling surplus energy on the market. The project addresses both energy independence from the system and environmental sustainability as a result of cleaner energy production.	The case combines independent energy production and environmental sustainability with youth civic engagement by putting high-school students at the centre of the process. In this way it engages the school community and potential households in Bobov Dol that might use the guideline themselves. It also puts ENVI issues on the map of topic relevant for young people in Bulgaria.	Bulgaria	High	Medium	Medium	High
SONCE energija and SunContract Energy self-sufficient communities (Zavrate and Radeče)	SONCE energija and SunContract Energy self-sufficient communities (Zavrate and Radeče)	In August 2021 the SONCE energija presented the first 100 % energy self-sufficient village in Slovenia - Zavrate. This was the first step towards self-sufficient and climate-neutral communities in the country, as well as energy independence. Furthermore, in October 2021 they also launched the first self-sufficient city center in Radeče. The integration into community self-sufficiency in Zavrate was carried out with the help of the SunContract platform, which enables end users to directly use the community renewable source and connect with electricity producers, which ensures greater access to energy for individuals. It also enables greater transparency in the electricity market and a reduction in the electricity bill by 10-15 % of all those involved in the community or up to a 50% reduction in the electricity bill for consumers who offer their roofs to communities. The first self-sufficient city center in Radeče enables the citizens of the city center to become self-sufficient, even if they live in blocks of flats or do not have the option of installing solar power plants on their roof. In October 2021, a 112 kilowatts PV system was installed on the roof of Radeče's community health center. It will enable Radeče residents to use the renewable source of energy even without own investment thus cutting their electricity bills. The renewable energy self-sufficient community in Radeče brings a new business model of green energy use for producers and consumers, allowing end-users to directly use energy and distribute the community's renewable source of energy. It also enables citizens to be resistant to the increase in the price of electricity on the market as they can invest the necessary part of a solar power plant in it or combine it with a rent.	The two cases are examples of how citizens themselves can contribute to producing energy for their own needs that would also cut their electricity bills.	Slovenia	Medium	High	Medium	High

Plymouth Energy Community (PEC)	Plymouth Energy Community (PEC)	Plymouth Energy Community (PEC) is an independent charity founded in 2013 that aims at creating a fair, affordable, and zero carbon energy system. It covers a wide range of energy-related activities, including providing support and energy advice in the home, in the office and at events, insulation grant programs and training programs, as well as the realization of locally-owned renewable energy installations. Through its subsidiary PEC Renewables, PEC has already realized 33 community-owned solar installations, accounting for 20% of Plymouth's renewable power infrastructure. The latest planned project is a large solar farm, being developed in partnership with Plymouth City Council, which is expected to supply nearly 4,000 homes with 13 MW. Another sister company, PEC Homes, is dedicated to building community owned, net zero affordable housing developments in Plymouth.	The case represents an energy community working across a range of energy-related issues to achieve a fair, affordable and zero carbon energy transition in the city of Plymouth. The case is also interesting in that the Plymouth City Council was closely involved in the founding and further development of the organization, even though it is independent. Nevertheless, it shows that the distinction between civil society activities and (local) government in the context of ENCI is not always clear-cut.	United Kingdom	High	High	Medium	Medium
Our Energy Cooperative	Spółdzielnia Nasza Energia	Our Energy Cooperative is a private and local government initiative, which was created in response to high electricity prices offered by system companies. It was established in 2014 by Bio Power Ltd. in Zamość, Elektromontaż Ltd. and four municipalities from the Zamość region: Sitno, Skierbieszów, Komarów-Osada and Łabunie. It intends to build a dozen or so small biogas plants that will ensure energy self-sufficiency for these communities by supplying electricity and, if possible, thermal energy for public utility buildings and households. The cooperative ensures that the launch of the investment will contribute to the creation of hundreds of jobs, will enable access to high-performance natural fertilizer in the form of treated post-fermentation mass, and will also mean a reduction of pollution from local boiler houses and a significant improvement in the safety of power supply in eastern Poland, which is most at risk of the so-called black-out. The launch of the investment also means the social and economic advancement of municipalities and residents.	The case is the first energy cooperative in Poland, and as such is a pioneer project, struggling with challenges, e.g. providing finance for the original plan. As the local governments of the cooperative decided not to offer financial support for building the plants, Bio Power decided to use its commercial activity (like giving advice to private investors for their own biogas plants in the region) to raise funds for the original plan of the initiative.	Poland	High	Medium	Medium	High
Brixton Energy	Brixton Energy	Brixton Energy is a not-for-profit co-operative based in south London. It creates cooperatively-owned renewable energy projects whose financial revenues stay within the local community. Since 2012, three projects have been implemented with the support of Repowering South London, a not-for-profit organisation that specialises in facilitating the co-production of community-owned renewable energy projects. Apart from interest on the investments, 20% of the profits go to the Community Energy Efficiency Fund to support local energy saving initiatives in the region.	It is a case of collective engagement of a local community for renewable energy. It's special as it operates in an inner-city area and addressed energy poverty issues.	United Kingdom	High	High	Medium	Medium
Citizen Energy Cooperative Wolfhagen (BEG)	BürgerEnergieGenossenschaft Wolfhagen eG (BEG)	Local renewable energy utility with public-community co-ownership (Germany) The citizen cooperative Wolfhagen (eG) holds 25% shares in Stadtwerke Wolfhagen GmbH. In addition to participating in the municipal utilities, own projects are also implemented. Part of the proceeds goes to the members as dividends - the other part goes to the cooperative's energy saving fund. From this, the Energy Advisory Board develops targeted funding offers to increase the members' energy efficiency. All members of the cooperative can thus reduce their energy requirements, save money in the long term and protect the environment.	It is a case of ENCI since the citizens united in the cooperative promote the local energy transition. With the nationwide unique citizen participation in their municipal utility, the Wolfhagen Energie-Genossenschaft stands for the democratization of the energy supply and ensures participation in the regional added value.	Germany	High	Medium	Medium	High
Cloughjordan Ecovillage	Cloughjordan Ecovillage	The Cloughjordan Ecovillage is an eco-village community on a 67-acre site in the Irish Midlands committed to ecological, social and economic sustainability as well as communal, carbon-neutral and self-sufficient living. The first residents moved into what are now 55 low-carbon homes in 2009, built using natural construction techniques and applying high energy efficiency standards, and supplied by a district heating system that burns wood waste from a nearby sawmill and provides low-carbon heating and hot water. Furthermore, the village has a working farm, an array of polytunnels and a bakery providing the community with food year round.	The case shows ENCI, in that the community aligns various aspects according to sustainable standards. This includes the energy sector, where they focus on sustainable self-sufficiency, especially in the area of heating, with their own heating network and wood-fired system in combination with low-carbon houses. Yet the community's approach goes far beyond the energy sector.	Ireland	High	Medium	High	Medium

Aran Islands Energy Co-operative	Comharchumann Fuinnimh Oileáin Árann Teoranta	The Aran Islands Energy Co-operative is a community owned energy cooperative on the Aran Islands at the mouth of Galway Bay. Through the cooperative, the residents of the three islands aim to become self-sufficient in clean, locally owned energy and to build a local economy of the islands on the benefits that accrue from this. The main activities relate to energy efficiency and retrofitting of houses, renewable energy generation, electrification of mobility, and participation in research projects.	The case is an exceptional example of an energy-holistic energy community with strong civic engagement. The cooperative's raison d'être does not only concern climate issues, but the very survival of an independent island community and is linked to far-reaching transformative ambitions and actions.	Ireland	High	Medium	Medium	High
Bospolder-Tussendijken (BoTu)	Bospolder-Tussendijken (BoTu)	Rotterdam residents and many other organisations signed a broad cooperation agreement. Residents, initiatives and entrepreneurs, the municipality, the housing corporation and the energy company; they are all working together in Bospolder-Tussendijken (BoTu). Residents wanted to enter into an equal partnership in which energy transition contributes to the development of their neighbourhood in a broad sense. A group of residents and parties from the neighbourhood put their heads together to find answers to questions such as: What values do we share, what do we find important? How can we work together intelligently? And which projects can we get to work on now? They have now moved from being a housing corporation to an energy company.	I chose this case because its an initiative from citizens that what they declare is 'build on trust'. In BoTu, they will learn together. They want to bear the responsibility together. In order to follow up on the agreements and build on this trust in the coming years, it has been agreed that those involved will meet at least three times a year. No meetings, but fun and inspiring moments to strengthen each other and keep them on their toes. Residents are learning about local cooperation in the energy transition and they are doing this with the programme SchakelWijken (switchable neighbourhoods).	Netherlands	High	High	Medium	Medium
Promotion of inclusive health and wellbeing communities in Āgenskalns Neighbourhood in Riga (IN-HABIT project)	Veselīgu un iekļaujošu kopienu veicināšana Āgenskalna apkaimē (IN-HABIT projekts)	In the frame of the IN-HABIT project (2020-2025, Inclusive Health and Well-Being In Small and Medium Size Cities, EU Horizon 2020 programme) – Riga, Cordoba (Spain), Lucca (Italy) and Nitra (Slovakia) – take the leadership to test visionary and integrated solutions to foster inclusive health and wellbeing (IHW) with a focus on gender and diversity. IN-HABIT visionary approach consists on the innovative mobilization of existing undervalued resources (culture, food, human-animal bonds and environment) to increase IHW. The integrated approach is based on the combination of technological, digital, nature based, cultural, and social innovations in selected urban public spaces. These solutions are co-designed, co-deployed and co-managed with and by local stakeholders. The objective in Riga is to promote healthy and inclusive communities in Agenskalns neighbourhood by developing Agenskalns market and its surroundings into an open and creative sustainable food hub as the basis for both urban (in general) and local neighbourhood IHW. The potential of this Agenskalns local area as a space of promoting healthy and sustainable food habits, social and cultural integration, and cohesion is utilized, thus making the neighbourhood a desirable and safe place to live and visit. For it, both (i) improvements of physical public infrastructures in and around the territory of Agenskalns market, including new green zones and new, easily accessible infrastructure to encourage the use of bicycles and healthy mobility practices, and (ii) the promotion of food-related educational and consumption practices are on-going, co-designed with local stakeholders.	ENCI in this case relates to the following aspects: (1) civic involvement – project activities are co-designed together with local community, (2) developing in green mobility (cycling, walking) in the local area, (3) the citizens will make knowledge-based choice for sustainable food which necessary decrease the life-cycle (from field to table) energy consumption and reduce carbon footprint	Latvia	Medium	Medium	High	Medium
PV panels on a community centre building in Lilleoru ecovillage	PV panels on a community centre building in Lilleoru ecovillage	Lilleoru is a self-sufficient community. Lilleoru ecovillage installs solar PV panels for central building. The PV panels installation on the roof of a community learning centre building (15 kWp) done in two phases. Additional 7 kW to be built on the roof of the extension are under discussion/planning. Ownership model is the NGO, consisting of members of the community.	The twofold ENCI can be considered. (1) eco-village community as the holistic approach, and (2) the installation of jointly-owned local RES technologies	Estonia	High	Medium	Medium	Medium
Church parish community energy project: solar PV panels in the Parish of the St.Trinity in Miroslavas (Lithuania)	Church parish community energy project: solar PV panels in the Parish of the St.Trinity in Miroslavas (Lithuania)	The church parish community has invested into 15kWp of solar PV panels modules to power the buildings of the church and around. The parish is now planning to install extra power to be able to host community centre, care home and events powered on renewable energy. The case is included in the list of RENCOP's (Renewable ENergy Cooperative Partnership) examples in Lithuania.	The church community as the type of citizens local community. The church community had made the decision for solar PV installation. For this, the church community successfully used the national green investment scheme which is focused to CO2 emission reduction.	Lithuania	High	Medium	Medium	Medium

Lithuania's RENCOP partnership and community energy project in Pagramantis	Lithuania's RENCOP partnership and community energy project in Pagramantis	Through the Co2mmunity project (the EU Interreg Baltic Sea Region programme), an expert-driven RENCOP (Renewable ENergy Cooperative Partnership) has been established in Lithuania with members including Kaunas regional energy agency, two universities, representatives from municipalities, and national associations (renewable energy, solar energy), and three private companies engaged in renewable energy technology. The RENCOP has focused on raising awareness of community energy projects and clarifying social, financial, and ecological benefits. In the Pagramantis, in 2017, the idea was put forward to establish a community house to support independent living of single, elderly people. In early 2018, within the framework of Co2mmunity project, the citizens of Pagramantis, together with the RENCOP partnership, were inspired to generate their own renewable energy project through installation of solar PV panels on the local community building. The initial simple idea of nursing home turned into a few years into a multi-functional centre (Pagramančio bendruomenės centras "Gramančia"), with renewable energy production, 30 kWp solar PV capacity secured in 2021.	This is a case of local community energy project cooperating with the wide partnerships of experts	Lithuania	High	Medium	Medium	Medium
Solis – Solar Potential in Lisbon	SOLIS – Potencial Solar em Lisboa	SOLIS "Lisbon Solar City" is a strategy that proposes the creation of a solar map to create a new energy citizenship, providing citizens, local authorities, investors and companies with three different mapping products with a series of data and attractive graphics, at three different scales: citywide, neighbourhood and building.	SOLIS "Lisbon Solar City" is a strategy of wide interest for its approach to solar photovoltaic energy consumption based on citizens' knowledge. In addition, different local actors from the public and private sectors are involved, making it an initiative with great potential.	Portugal	High	not considered	High	High
TOPTEN ACT: Enabling consumer action towards top energy-efficient products	TOPTEN ACT: Permiteea acțiunii consumatorilor către produse de top eficiente din punct de vedere energetic	TOPTEN ACT develops a comprehensive market transformation strategy targeting consumers, manufacturers, consumer associations and other key actors to promote energy-efficient products, so that they become the natural choice for consumers.	Yes, as the aim is to accelerate the transformation of the market towards more energy-efficient technologies, and because it developed an interesting online consultation tool that presents the products with the lowest environmental impact on the market for different categories - household appliances, lighting, air conditioning, electronics, and office automation, etc. that is useful for choosing products based on criteria of energy efficiency, quality, their impact on health and the environment, as well as saving money.	Romania	High	not considered	High	High
Energia Positiva - Positive Energy, an innovative energy cooperative	Energia Positiva	Energia Positiva, a cooperative start-up, was founded in 2015 in Nichelino, Turin, Piedmont, committed to innovation and evolution of energy sharing. The cooperative aims to offer the greatest number of people an alternative way of participating in the energy system, as producers and consumers of renewable energy. Through an IT-platform, shareholders can purchase shares of the plants (photovoltaic, wind and hydroelectric) the cooperative owns across Italy and create their own "virtual plant", of which the economic returns will reduce the cost of the shareholder's own energy bill, managed by the cooperative itself.	The case both acts as a collective energy citizen by contributing to change of the energy system through its innovative business model, and enables/supports citizens (shareholders) to practice more active ENCI in consuming and presuming renewable energy.	Italy	High	Medium	Medium	Medium
The Schools' Energy Cooperative	The Schools' Energy Cooperative	The School's Energy Co-operative is a community-based social enterprise that supports schools in reducing carbon emissions and teaching children about climate change and renewable energy. It installs community-funded solar panels on schools free of charge and returns all profits to its member schools. The installations are funded through a crowdfunding model with a share offer to the local community, with shareholders receiving a fair return. The cooperative has more than 750 members and, as of 2022, has implemented installation on 80 schools across the UK, with a combined capacity of 3.6MW. Apart from the immediate reduction of carbon emissions, the children should also see how renewable energies work.	The case describes a very effective energy community that not only directly reduces carbon emissions with its activity at schools (realisation of solar installations), but also achieves a more indirect, but potentially more far-reaching impact through its influence on the pupils.	United Kingdom	High	Medium	Medium	Medium

Women's housing and building cooperative in Messestadt München-Riem	FrauenWohnen in der Messestadt München-Riem	Women's housing and building cooperative in Munich. The residential complex, which was completed in January 2007, is located near the bathing lake in the Riemer Park at Ingeborg-Bachmann-Straße 26/28. 49 apartments from 36 to 78 sqm (subsidized and privately financed), common rooms and a commercial unit for freelance professions form the structural framework for a lively residential project that stands out with its architecture. The ultra-low-energy house (kW 40) with passive house standard has, in addition to controlled living space ventilation, the option of using radiators to adjust the room temperature to individual needs. The following facilities are available to everyone: common room with terrace leading to a large communal courtyard, guest apartment, Laundry room and kitchen garden for residents. A lively neighborhood with a lot of civic engagement has developed here in recent years.	It is a case of ENCI in that this women's housing cooperative provides ultra-low energy house with passive house standards, including solar panels on the roof and thermal solar equipments. the housing cooperative has not only a gender focus but also a high ecological commitment.	Germany	High	High	High	does not contest
REScoopVPP	REScoopVPP	The main objective of the REScoopVPP project is to integrate and improve different initiatives throughout Europe in order to create the most advanced community-driven smart building ecosystem to support energy communities. The REScoopVPP project aims to bring different initiatives throughout Europe together to form the largest and most advanced community-driven open smart building eco-system for REScoops and citizen energy communities. The main goal of the ecosystem is to enable end-users to lower overall energy consumption and to use primarily renewable energy whenever available. The ecosystem consists of a Community-driven Flexibility Box (COFY-box) that enables the project to make existing buildings smarter, as well as a set of community tools targeted at renewable energy cooperatives (REScoops) and citizen energy communities (CEC) to organise themselves as aggregators and retailers of renewable energy.	This is a great case study that combines elements of intermediation with ICT, ideal for ENCI. REScoopVPP will adopt a user-centred approach in order to design a product that answers the need and expectations of its future users. REScoopVPP aims at enabling comfortable lifestyles while consuming only renewable energy and minimizing the CO2 impact of end-users. While this appears too complex for individuals, the organization in energy communities enables to address this challenge collectively in an effective manner.	Netherlands	High	High	I don't know / not enough information	High
Tilos Island Greece Project	Τήλος νήσος	The island of Tilos, in the Dodecanese archipelago of Greece, is fully self-sufficient for its energy needs thanks to a strong investment in renewables. Being the first of all Mediterranean islands to power itself through green energy, namely wind and solar power, in June 2017. Tilos won two awards for its innovative concept at the prestigious European Union Sustainable Energy Week. TILOS project competed in both Energy Islands and Citizens Awards categories. The public's participation was extraordinary and Tilos project earned half of the total votes. The awards were granted by the EU Commissioner for Climate Action and Energy. For the island in general, dependence on fossil fuels involves high transportation costs. The smart, island microgrid system, based on renewable energy and batteries implemented in Tilos could become an example for other islands that are not connected to the main grid, providing a viable alternative from polluting and expensive oil-based solutions.	This is a unique case study of an island that is autonomous in its energy production. The first in the Mediterranean. What is also unique and included as an ENCI case study is the extraordinary participation of the public, local population in achieving its goals.	Greece	High	I don't know / not enough information	High	High
Foundation of Pilot Energy Cooperative in Tartu city	Foundation of Pilot Energy Cooperative in Tartu city	This is Estonia's first example of an energy community initiated by a municipality. Active preparations are underway in Tartu for the establishment of a solar PV park to be installed on the renovated Pääsupesa kindergarden. Close cooperation between the city and the kindergarden has led to efficient planning, with experts from the Tartu Region Energy Agency working on the cooperative's operational model. Several exciting events have been planned in Autumn 2021 and during this time the residents of Tartu have the opportunity to become members of the newly established energy cooperative. This is the pilot which have been created by Energize Co2mmunity (EU Interreg Baltic Sea region programme) project. The aim is to reach all ages, raise awareness and highlight the benefits of such energy cooperatives.	This is a case of energy cooperative, based on civic involvement	Estonia	Medium	Medium	Medium	Medium
Energy Bank Association	Asociación Banc d'Energia	The energy bank is a legally constituted association that promotes energy saving and efficiency for the benefit of those in a situation of energy vulnerability. This is done through pedagogy and transformative solidarity.	Yes, given its mission of contributing to solve two main problems toward energy transforming: (a) the problem of energy poverty (mainly, basic access to energy), improving the conditions of the homes of people or families in vulnerable situations; and (b) climate change, minimizing the waste of energy use. This is a pioneer initiative as there is not order projects analysed in Spain whose main focus is energy poverty and climate justice.	Spain	Low	Medium	High	Medium

Optima Solar Solothurn	Optima Solar Solothurn	Optima Solar Solothurn is an energy cooperative that develops and operates solar power plants on the roofs of businesses, public buildings and private homes in the Solothurn region. Its purpose is to encourage the population to jointly invest in solar power production to cover their own electricity needs with renewable energy and to achieve an appropriate return on investment.	Optima Solar Solothurn is a classic case of an energy cooperative in Switzerland, where dedicated individuals have come together and are engaged in the energy transition on a voluntary basis. Interestingly, among the founding members were also people who held roles in local politics in other capacities.	Switzerland	High	Medium	Low	Medium
Mònica Serlavós	Mònica Serlavós	Mònica Serlavós is a researcher at Zoein Institute in Geneva and Director at the Zoein Foundation. She is a co-founder of the Swiss Association for Citizen Energy (ASEC), for which she currently serves as co-president.	Mònica Serlavós is an intriguing case of energy citizenship both through her engagement and the object of her engagements in several ways. She is active in the cause of sustainable energy transition in roles as a researcher as well as founder and president of an association. The object of both roles is again related to citizen energy, namely in the research of community energy in Switzerland and in the fact that the association she founded advocates for citizen energy in Switzerland.	Switzerland	High	not relevant because individual	High	High
Youth Pro Wind-turbine	Jugend Pro Windrad	In 2017, young people from Oberegg and the surrounding area (Canton Appenzell-Innerrhoden) founded the new association "Jugend Pro Windrad" (Youth Pro Wind Turbine) with the aim of supporting efforts to produce electricity locally through wind turbines.	The case is interesting because young people without full citizenship rights (participation in elections and voting only after 18) are engaged as citizens by advocating for energy policy with regard to wind energy in the region.	Switzerland	High	Medium	Medium	Low
Lavidaverde	Lavidaverde	With the LaVidaVerde project, a diverse assembly group is realizing a jointly developed idea of future-oriented living in Berlin's Weitlingkiez, thought to be an answer to current ecological and social challenges in the form of a residential project. LaVidaVerde is an energy-plus house for a colorful group of committed young and old people who have consciously decided on a project that enables communal living as well as resource-saving life and political work in and for the neighborhood. The community is not limited to living together in the house, but is also visible in the realization of common goals.	It's a case of ENCI since it consists in participative housing project towards the building of a Plusenergie Haus, and beyond energy aspects it is also promoting a sustainable community housing at the "Kiez" scale	Germany	High	not relevant	High	High
SHURA Energy Transition Center	SHURA Enerji Dönüşümü Merkezi	SHURA Energy Transition Center contributes to decarbonisation of the energy sector via an innovative energy transition platform. It caters to the need for a sustainable and broadly recognised platform for discussions on policy, technological, and economic aspects of Turkey's energy sector. SHURA's mission is to support the debate on transition to a low-carbon Turkey's energy system through energy efficiency and renewable energy by fact-based analysis and best available data. Taking into account all relevant perspectives by a multitude of stakeholders, the center contributes to an enhanced understanding of the economic potential, technical feasibility and the relevant policy tools for this transition.	Enabling a sustainable dialogue across all sectors of the energy system, power, heating and cooling and transport to support the debate on energy transition is the cornerstone of SHURA's approach. Prioritizing the stakeholder engagement, SHURA offers an innovative energy transition platform for discussions on policy, technological, and economic aspects of the Turkish energy sector.	Turkey	Medium	not considered	High	High
Weiler Mobil	Weiler Mobil	Under the motto "We take our energy supply into our own hands", the WeilerWärme cooperative strives for an independent, sustainable and environmentally friendly overall concept in energy production and supply. It began with a heat network and intend to build its own power grid. Of course, the topic of mobility is also an important point. Especially against the background of the question of what to do with the surplus green electricity generated on site, the entry into the areas of electric mobility and car sharing was therefore obvious to the cooperative's board of directors. Without further ado, a third pillar of the cooperative was literally put on the road under the brand name "WeilerMobil". In the summer of 2014, the first electric cars and electric bicycles were purchased and rented to the cooperative members (and all other citizens, albeit at higher prices). In addition, the first four charging stations were installed in the village by the cooperative. Car sharing runs via a simple online booking portal of the cooperative and is very well accepted in the village. Many private households use the cooperative's vehicles as second cars, and many businesses and institutions - such as the local social centre - also regularly use the cooperative's fleet.	It is a case of ENCI since the cooperative aims at putting energy supply in the citizens hands and enable a mobility transition through the weiler Mobil project. We decided here to focus on the mobility aspect, though all activities developed by the cooperative are also providing a highly interesting holistic case.	Germany	High	High	I don't know / not enough information	High

Strong on electricity	Sterk op Stroom	We are ordinary neighbours with an extraordinary idea. That you give energy instead of costing it. So that you get a fair price for your electricity and our world becomes a more beautiful place. Together in a cooperative in your own Vruchtenbuurt. We do this to keep our planet liveable, CO2 emissions must be reduced and global warming halted. By generating more sustainable electricity in the Vruchtenbuurt neighbourhood and using it in a smart way, we are making a serious contribution to the climate goals and the necessary energy transition. An honest and green energy supply for the Vruchtenbuurt area, that is what the Sterk op Stroom cooperative is striving for.	This is a great case of a citizen's initiative for our ENCI typology. The cooperative generate their own energy and therefore pay virtually nothing for electricity. So they are not getting richer, at least...financially. Because this project enriches them enormously in their hometown The Hague. We are doing this for the neighbourhood and the environment.	Netherlands	High	High	I don't know / not enough information	High
MoreEnergy - Amsterdam Heat Grid	MeerEnergie - Warmtenet Amsterdam	MeerEnergie is a non-profit cooperative. MeerEnergie wants to realise an Amsterdam a heat network for all buildings within a part of the Watergraafsmeer district. This is relevant for owners, residents, tenants, companies and housing corporations. Whether you live in a house built in 1900, 1950 or 1980! Data centres in the Science Park release heat when cooling the servers. This heat is now simply blown into the air! In total, so much energy is available that we can provide at least 5,000 homes with heating and hot water. MeerEnergie is developing a heat network for the whole of Middenmeer.	A great initiative that started by 4 local residents in the local area that wanted to save energy from a data science park and then use this energy/heat to provide 5000 homes with heating. A bottom up example where people will no longer need to use gas for heating. The group is striving for a heat network that is cost-neutral for all residents. Members have voting rights in the cooperative, are the first to be connected and are invited to meetings. Great for our ENCI.	Netherlands	High	High	I don't know / not enough information	High
Cyprus Energy Agency	Cyprus Energy Agency	The Cyprus Energy Agency (CEA) is an independent, non-governmental, non-profit organization, founded in 2009. CEA was cofunded by the European Commission, through the Programme "Intelligent Energy for Europe" and by the Cyprus Union of Communities, for its establishment and first three years of operation. CEA has become an information point for the local society, providing education and vocational training. It participates in projects in partnership with local, European and international organizations, contributing to innovation, research and sustainable development. It enhances the role of local authorities in sustainable energy planning, providing technical support for developing and implementing actions to mitigate and adapt to climate change.	This is a nice case from Cyprus of an intermediary organisation that fits within our ENCI typology. It is an interesting organisation that has become an information point for the local society, providing education and vocational training on energy and climate adaptation issues.	Cyprus	High	High	I don't know / not enough information	High
Luceole	Lucéole	Lucéole is a cooperative which invests in renewable energy (wind farms, hydropower) projects. Its main objectives are to promote energy savings and renewable energy investments, to participate in developing local and circular economies and to enhance citizen participation in social economy.	One of its main objectives is to encourage citizen participation in local, democratic and educational energy projects. Although	Belgium	Medium	not considered	High	Medium
National Energy and Climate Board	Nacionālā Enerģētikas un Klimata Padome	The objective of the Board is to provide contribution in coordinated, integrated and sustainable national policy for energy and climate, including national energy and climate plan for 2030 and long-term climate neutrality strategy for 2050. The Board is based on multi-stakeholders approach. The chairman of the Board is prime minister. Board includes the representatives of the relevant ministries, energy transmission and distribution companies and energy-climate policy stakeholders. Such NGOs as the Zero emission mobility support society; Baltic Environmental Forum; the association "Green Liberty"; Latvian Wind Energy Association; Latvian Renewable Energy Federation participates in the Board. The national economics and its branches are presented by such associations as: Latvian Chamber of Commerce and Industry; Employers' Confederation of Latvia; Latvian Forest Industry Federation; Latvian Union of Timber Harvesting Enterprises; Latvian Agriculture Organisation Cooperation Council; NGO "Farmers Parliament" ("Zemnieku saeima"); Latvian Association of Agriculture Cooperatives; Finance Latvia Association; Latvian Fuel Traders Association; Latvian Authorised Automobile Dealers Association. Interests of municipalities are presented by the Latvian Association of Local Governments as well as by Latvian Association of Heating Utilities. Interests of employees are presented by the Free Trade Union Confederation of Latvia1. The interests of consumers is represented by the national Public Utilities Commission. Rīga Stradiņš University participates as well. The work of the secretariat of the Board is provided by the Ministry of Economics.	It is high level Advisory Council in which relevant non-governmental stakeholders express their points of view.	Latvia	Medium	not relevant	High	High

Reindonk Energy & Co: Energy from your own region	Reindonk Energie & Co: Energie van jouw regio	The mission of this initiative is to make the municipality of Horst aan de Maas sustainably energy-neutral. Together with, for and by inhabitants, companies, authorities and organisations from Horst aan de Maas, they aim to contribute to the energy transition. Reindonk Energy & Co focuses on local solutions that contribute to a global challenge. Because of its local character, they contribute to the generation of clean energy, a clean environment and more healthy air in our own living environment. Together they can make the difference! Because energy is a local product, energy is ours and energy is cooperative.	I chose this case as it focuses on producing, co-creating energy together with the local community and involvement of local stakeholders. It is an initiative together with, for and by inhabitants, companies, authorities and organisations, they are committed to sustainable energy supply and an energy-neutral municipality Horst aan de Maas. Together with local residents, they want to give shape to the energy transition, for example by becoming a member of their energy cooperative or by jointly participating in local energy projects.	Netherlands	High	Medium	I don't know / not enough information	High
Zsuzsanna Hojtsy-Keresztény - EnergyNeighbourhoods energy master, local change maker	Hojtsy-Keresztényi Zsuzsanna - EnergiaKözösségek klíma-koordinátor többször, helyi aktivista	Zsuzsanna is a regular participant in GreenDependent's Energy Neighbourhoods programme as an energy master. She also has experience with another Hungarian NGO's community-based, household greening programme, called ÖkoKör (~EcoCircle). Based on its methodology, a local eco-club was founded; she was one of the main organisers of the first meeting in 2019. Since then, the informal community has grown into a formal NGO. They want to create a community whose members are willing to address the current ecological crisis and are ready to learn about and apply possible solutions to achieve an ecologically sustainable way of life.	As a catalyst, Zsuzsanna is playing an important role in supporting the local community and leading it on a sustainable path. As an energy master, she has taken on the role of coordinator among her close circle of friends, helping them to save energy. As one of the founders of the local NGO, she organises lectures, community forums and other community activities to mobilise the local population for sustainability.	Hungary	High	not relevant because individual	High	Medium
Smarter together	Smarter together	SMARTER TOGETHER's overarching vision is to find the right balance between smart technologies and organizational/ governance dimensions in order to deliver smart and inclusive solutions and to improve citizen's quality of life. The "data management platform & smart services" domain is central to the project, connecting with all other areas: district heating and renewables, e-mobility, and holistic refurbishment.	Among the purposes pursued by the project is urban renewal seeking solutions based on energy performance more sustainable and democratic: (1) Living labs for citizen engagement, (2) District heating and RES for low energy districts, (3) Holistic refurbishment for low energy districts addressing public and private housing, (4) Smart Data management platform and smart services (5) E-mobility solutions for sustainable mobility.	Spain	Medium	High	High	I don't know / not enough information
Minoan Energy Community	Μινώα Ενεργειακή Κοινότητα	Minoan Energy is a cooperative made up of private individuals and local businesses, which, with the support of Region of Crete and many other Municipalities that are members of it, contests to be part of the energy transition from fossil fuels to Renewable Energy Sources (RES), promoting at the same time the sustainability and socially inclusive economy.	This energy community is open not only to individuals but also to enterprises, organisations, municipalities and offers Virtual metering to its members. It has about 200 members from its first solar panel park and 1 wind farm in the pipeline	Greece	High	I don't know / not enough information	Medium	High
BitolaOnBike	БитолаНаТочак	BitolaOnBike is a civic initiative that aims to raise public awareness in the town of Bitola about cycling as a sustainable and non-polluting form of urban transport.	North Macedonia is among those European countries, which are characterised by a high volume of motorised traffic and frequent traffic jams in the cities. In the capital Skopje, 90% of the population owns a car. Despite investments in the development of a network of bicycle lanes, the proportion of cyclists remains very low. Many citizens do not regard bicycles as a safe and reliable means of transport, and many car drivers do not pay enough attention to cyclists. For this reason, initiatives such as BitolaOnBike are exceptionally important for changing these prevailing mobility trends in the country.	North Macedonia	High	Medium	Medium	does not contest

Local Citizen Energy in Ariège	Énergies Citoyennes Locales en Ariège	ECLA'EnR brings together citizens, elected officials and actors from the territory of Ariège, a French department in a mountainous area, united within a cooperative, the SCIC ECLA'EnR in order to mobilize and act in favour of the transition energy and produce local and collective renewable energy. The cooperative society is also supported by an association, which aims to lead animation and awareness raising missions on the challenges of the ecological transition	ECLA'EnR aims to encourage private citizens to act collectively in favour of the energy transition through prosumerism. The governance of the cooperative society also intends to be inclusive by giving everyone an equal voice, regardless of their financial contribution.	France	High	not relevant	Medium	High
Isle of Eigg	Isle of Eigg	Isle of Eigg is an island located in the Scottish Inner Hebrides and not connected to the mainland electricity supply. After decades of using diesel generators to power individual homes, a community-owned, managed and maintained company, Eigg Electric, has been providing electricity to all island residents from renewable sources of water, sun, and wind since 2008. In doing so, Eigg became the first community worldwide to adopt an off-grid power system using wind, hydro, and solar energy.	The case involves community civic engagement aimed at self-managed renewable energy self-sufficiency, while also accepting constraints on everyday lifestyle (each household can receive a maximum of 5kW at any time).	United Kingdom	High	Medium	Medium	does not contest
Ringsend Irishtown Sustainable Energy Community	Ringsend Irishtown Sustainable Energy Community	Ringsend Irishtown Sustainable Energy Community (RISEC) is a not-for-profit, voluntary initiative established in 2018 to promote sustainable energy in an area of southeast of Dublin city and to facilitate homeowners and organisations in the transition to a sustainable energy future. As a key activity, the RISEC develops a list of potential energy efficiency projects and assists in the delivery of these projects by leveraging grants and providing targeted audits and advice. RISEC received funding from Sustainable Energy Authority of Ireland (SEAI) to develop and Energy Master Plan and to complete several complete several demonstration projects.	The case involves ENCI in that a voluntary community-based organization engages in promoting sustainable energy, especially in potential energy efficiency in their community.	Ireland	High	Low	Low	Medium
Coopergy - Citizen Energy Cooperative	Coopergy - Coopérative d'énergie citoyenne	Coopergy is a cooperative founded by citizens from three municipalities in the Swiss jura region with the aim of increasing the energy autonomy of local and regional communities, contributing to the reduction of energy consumption, and improving the public's understanding of energy issues. One of the key concepts is to consider renewable energy as a common good.	The case understands and describes itself as citizen energy. Individual citizens come together and want to advance the energy transition with measures on different levels through means of an energy cooperative. What is particularly exciting about the case is that it is not only about power generation through PV (as is the case with most energy cooperatives in Switzerland), but about a more holistic approach, including a perspective of understanding renewable energy as a common good.	Switzerland	High	Medium	not considered	Medium
Templederry Community Windfarm	Templederry Community Windfarm	Templederry Community Windfarm is the first 100% community-developed and owned windfarm in Ireland. The wind farm consists of 2 turbines (4.6 MW) in the foothills of Slieve Feilim. The project also gave rise to Community Power, Ireland's first community owned electricity supplier	It's a pioneer case of an energy community in windpower in Ireland. It emerged from work of a community group of local citizens concerned with environmental protection. Citizens had to face great obstacles as pioneers in this field and the regualtive conditions were not designed for such cases.	Ireland	High	Medium	I don't know / not enough information	High
Kythnos Smart Island	Κυθνος Εξυπνο νησι	Kythnos has a rich history in the adoption of sustainable energy applications, starting from the installation of the first wind park in Europe in 1982, followed by a series of RES and storage installations subsequently resulting in 2000 to a fully automated intelligent power system largely powered by the local wind and solar potential. In addition, one of the first microgrids was developed in 2001 in Gaidouromandra, a rural off-grid area on the south adding, providing invaluable knowledge to the scientific community and industry on the operation of such systems. After a decade of limited system upgrades, largely due to the instability caused by a long transition to the unbundling of the electricity market, 2015 sees the gradual rebirth of Kythnos as a sustainability living lab in the frame of the WiseGRID project and the eventual launch of the "Kythnos Smart Island" large scale project in 2019.	Kythnos is a unique Greek case study and a sustainability lab, a great example for all islands and remote areas to follow. The case is also the biggest research and development project ever to be implemented in the Greek islands, which aims to build a local economy that is diverse, circular and sustainable. The island has adopted may new technologies for clean energy, smart grids and energy efficiency, but also for the coupling of energy with water, waste and mobility management solutions. The case will complement our ENCI typology as an innovating island with the great involvement of local population as well in the projects.	Greece	High	Medium	I don't know / not enough information	High

Energy community WenCoop	Ενεργειακή Κοινότητα WEnCoop	WenCoop is the 1st "grassroots" Energy Community in Greece and Europe for the members of the Hellenic Women Entrepreneurs Association - S.E.G.E. The objectives of the Energy Community are to promote innovation in the energy sector, tackle energy poverty, promote energy sustainability, energy production, storage, self-consumption, distribution and supply, and improve energy end-use efficiency at local and regional level.	I have included this case study as it is the first energy community that is owned 100% by women. This is an interesting case for our ENCI especially when we are exploring the gender part of our EP. WEnCoop is proof that an idea can become a reality through cooperation, proper communication and mutual trust between the 60 members. By targeting the initiative of a project such as WEnCoop, they are moving towards achieving the development and promotion of women's entrepreneurship in the energy sector as well.	Greece	High	High	I don't know / not enough information	Medium
UrStrom (UrPower) Citizen energy Cooperative	UrStrom BürgerEnergieGenossenschaft	In order to actively shape the energy future, citizens from Mainz and Rheinhessen joined forces in 2010 to form the UrStrom BürgerEnergieGenossenschaft Mainz eG - under the motto "Citizens make energy!" They build and operate photovoltaic systems in their region, producing clean solar power. In the Bürgerwerke eG network, they offer private and commercial customers nationwide 100% green electricity and BürgerÖkoGas from Germany. In addition, they operate car sharing with electric cars at several stations in Mainz, Budenheim and at the TH Bingen. As a community with over 430 members, they inform the public about the opportunities of citizen energy and lobby politicians.	It is a case of ENCI since it is a citizen energy cooperative that focuses on the role of citizens in energy transition, extending their activity way beyond investing in renewable energy. For instance the already existing business-oriented model of car-sharing has been reappropriated here by citizens, and conceived as an extension of the citizen energy cooperative UrStrom, enlarging the commitment towards a more livable city.	Germany	High	I don't know / not enough information	Medium	High
Business Council for Sustainable Development in Hungary: carbon footprint compensation through planting native fruit trees	Magyarországi Üzleti Tanács a Fenntartható Fejlődésért (BCSDH): karbonlábnyom-kompensáció őshonos gyümölcsfák ültetésével	One focus of BCSDH's programme is climate change itself and how companies are dealing with it. In addition to its many activities in support of environmental sustainability, the organisation has been working with the GreenDependent Institute for many years to reduce and offset the carbon footprint of its events. To reduce this, BCSDH events offer only local and seasonal food and order exactly the amount of food needed, minimise food waste in consultation with the catering company, and if there is leftover food, it is distributed to those in need through the Budapest Bike Maffia. And the GreenDependent Institute regularly calculates the carbon footprint of their events, which they compensate by planting native fruit trees in Hungarian school gardens.	The BCSDH brings together and encourages a number of small and large companies to operate sustainably, thus reaching and addressing a sector whose contribution is inevitable in the fight against climate change. By reducing and calculating their carbon footprint, they have the ambition to set an example for their member organisations. Not only do they take their own goals seriously, but they also encourage others to become more conscious energy citizens.	Hungary	not relevant	Low	High	High
Sun-Powered Electricity in Sala and Heby	Solel i Sala och Heby	Sun-Powered Electricity in Sala and Heby is an economic association (cooperative) that was established in 2009 with the purpose is to own and run solar power plants for electricity production and sell the generated electricity on the market. The association owns seven solar panel installations, three on the ground and three on roofs. Since its inception, the association has produced in total 4 260 000 kWh (2020). In addition, the association builds solar powered water supply facilities in Kenya together with a Kenyan organisation, it contributes to the training of new solar power technicians, and has initiated a project that combines biodiversity and solar power, by planting meadow flowers around one of their ground-based solar power plants.	Sun-Powered Electricity in Sala and Heby contributes to changing the energy system through their solar power installations and the electricity it produces and sells on the market and by promoting solar energy in Sweden, for example by monitoring the development of solar power in Sweden and sharing it with their members, by sharing their experiences in solar power with others, and by contributing to the training of more solar power technicians.	Sweden	High	Medium	Medium	I don't know / not enough information
Energy Community Tipperary Cooperative ECTC	Energy Community Tipperary Cooperative ECTC	Energy Community Tipperary Cooperative ECTC is an organization bringing together 14 communities in the Tipperary region with the aim to reduce the amount of money leaving the local economies in the form of energy and fuel bills every year. ECTC facilitates energy efficiency works on older houses and community buildings by leveraging grants from the SEAI under the Better Energy Communities scheme.	The case is a great example of a collective form of civic engagement. It emerged as community initiative and is now in the business of activating and supporting further communities to become engaged - a cooperative of communities. Whereas many energy communities focus on renewables, ECTC's main concern is with	Ireland	High	Medium	not considered	Low

			retrofitting houses to improve efficiency.					
neighbourhood power	Buurkracht	In Buurkracht they believe in the power of neighbours. The power to make things nicer, better, greener, safer or cosier together in the neighbourhood. They help neighbours throughout The Netherlands to discover and increase their neighbourhood power. They do this by bringing people together and supporting them with tips, tricks and tools. Buurkracht is a social initiative. Their aim is to connect people in neighbourhoods and support them in improving their lives. Buurkracht is independent, has no commercial objectives and makes no profit. Buurkracht is an independent foundation. The activities and staff of the foundation are financed by municipalities, provinces and the grid manager Enexis.	This case is a very interesting one because there is no financial profit, its is purely social initiative bringing people together for various causes including energy. This is spread all around the Netherlands. Municipalities, provinces and social organisations working with buurkracht. Buurkracht has developed various programmes that tie in with current issues in which citizen participation plays an important role. The proven Neighbourhood Power method, in which neighbours work together in teams under their guidance, forms the basis for the projects to make neighbourhoods gas-free.	Netherlands	High	I don't know / not enough information	Medium	Medium
Sunraising	Sunraising	Sunraising is crowdfunding organization for solar plants in the city of Bern. The association offers city residents the option to participate in a neighborhood photovoltaic plant with a one-time investment and have the solar power output credited directly to their electric bill over a 20-year period. This aims to reduce the share of nuclear power in Bern's electricity mix and also to offer people without an own roof an opportunity to participate.	The case has several aspects of energy citizenship. First, Sunraising is constituted as an association and corresponds to the understanding of joint engagement in the sense of community energy. Then, however, the case also has the aspect that individuals can easily participate in a PV plant(one-time investment for share in plant), which corresponds to private engagement.	Switzerland	Medium	Medium	not considered	Medium
DAFNI - Network of Sustainable Greek Islands	DAFNI - Network of Sustainable Greek Islands	DAFNI – Network of Sustainable Greek Islands is a non-profit organization of island local and regional authorities. Founded in 2006, DAFNI aims to strengthen island local governance and help islands embark on a sustainable development paradigm, through the integrated management of natural resources and infrastructures, the uptake of sustainable tourism and the enhanced interdependence of the primary, secondary and tertiary sectors. DAFNI Network counts 56 members of which 52 island municipalities and the Regions of North Aegean, South Aegean, Ionian Islands and the Regional Union of Municipalities of the Ionian Islands. Thanks to its systematic and multifaceted action and the range of partnerships it has developed, DAFNI Network is recognized as a true ally of the islands, both on a national and European level. This is because it boasts excellent scientific and technical training, deep knowledge of the local needs and development dynamics of the islands, as well as dedication, over time, to the implementation of integrated solutions that address the identified needs of each island separately.	This is a great example of an intermediary organisation in Greece which fits nicely within our ENCI. Dafni aims to support, empower local government, raising awareness and actively involving citizens in the implementation of projects with a positive impact for local development in areas such as: green energy, environment, sustainable tourism, circular economy, sustainable mobility, education and employment.	Greece	Medium	I don't know / not enough information	Medium	High
Reinli Small-Scale Hydropower Plant	Reinli kraftverk	The Reinli small-scale hydropower plant is a community-initiated renewable energy project. In 2002, 35 local landowners established a general partnership to manage the waterfall rights of the Reina River and the hydropower plant became operational in 2008 with the help of Småkraft AS, a small-scale hydropower plant operator. The aim was to utilize the power in the local river and in addition to the renewable energy production, the income generated from the project to the local landowners, is invested in the local farms for current and future generations.	This case of partly community owned small-scale renewable electricity production helps to develop a more susustainable energy system which are not so common yet in Norway. The initiative can be considered as grassroots, initiated by the local citizens with focus on selling of th produced energy as well, which helps to maintain their rural livelihoods.	Norway	High	I don't know / not enough information	Medium	Medium

Atlas Energy Community	Atlas Energy Community	Atlas Energy Community was founded in 2020 and it is based in central Greece. Atlas is aiming to tackle energy poverty in mountainous areas of central Greece and to develop RES projects that will contribute to the development of the Agrifood sector. Atlas is currently designing and developing a portfolio of projects and services, including clean energy generation, storage, energy efficiency and capacity building.	This is an interesting case for ENCI as it aims to tackle energy poverty in mountainous areas of central Greece and also add value to services for farmers, cooperatives and agrifood businesses.	Greece	Medium	I don't know / not enough information	Medium	High
Neighbourhood heat	Buurtwarmte	This project in Groningen will be one of the firsts in the Netherlands to replace the 'traditional' natural gas grid by a district heating network. It is one of the most advanced community-led district heating projects in the entire country. Since the national and local government cannot force anyone to connect to the district heating network, the cooperative will have to foster the engagement and participation of the inhabitants. Preliminary financial calculations show that the project needs a participation rate of at least 70% of the community to be economically viable. The cooperative aims to organize local ownership of the collective heating system.	This is a very unique case study that aims to engage multiple stakeholders in joining the pilot study. The pilot is unique since it is one of the biggest projects that focuses on mostly private homes. The challenge with these houses is that multiple stakeholders have a say in whether they want to participate in the project or not. A certain level of participation is needed per district to make the project a success. Districts with a higher percentage of participation have a higher chance of success. All inhabitants are invited to contribute to the development of the project (technically, economically and socially) which makes it a good ENCI case study.	Netherlands	Medium	Medium	I don't know / not enough information	Medium
Energy Transition Cooperative of the Winterthur Region ERW	Energiewendegenossenschaft Region Winterthur ERW	The cooperative organizes the self-construction of solar systems. The basic idea is that members of the cooperative, with the help of other members, can build their own solar plants by themselves, but with the support of a plant designer. In return, these members then aid other members in the construction of their systems.	In this case, energy citizenship is expressed by people collectively committing themselves to the energy transition in a cooperative. What is particularly exciting about this case is that individual members not only participate financially in the cooperative, but also contribute their time reciprocally to help other members and that the energy transition becomes more tangible through direct participation in the construction of PV systems.	Switzerland	High	not considered	Low	Low
Eco HUB	Eko HUB	Eco HUBs are networks of civil society organizations and other stakeholders involved in environmental processes in a particular area. They are coordinated by civil society organizations experienced in the field of environmental protection, which were selected on the basis of a public call within the project "Think of Nature!". Eco HUBs work on environmental protection by connecting and supporting young people and schools, organizing events and initiatives, and providing support to companies that want to act socially responsible, especially when it comes to environmental protection. Eco HUBs also cooperate with other civil society organizations and media.	Currently (early 2022), there are nine Eco HUBs in Bosnia and Herzegovina. Their work is based on direct contacts with citizens, civil society organizations, media, local authorities, companies and schools, and includes a variety of environmental activities, making them an interesting and important player in the field of environmental activism.	Albania	Low	Low	High	does not contest
association "Protest"	Biedrība "protests"	Protest is a social democratic and green youth organization founded by progressive-minded young people at the end of 2018, but we have been an officially registered association since January 10, 2019. holds debates, events, campaigns and (as the name suggests) protests to demand action, raise awareness and educate on human rights, the climate crisis, social and economic inequalities and other important issues.	The protest is a well-known youth initiative in Latvia, whose activities include drawing attention to the climate crisis and related issues. The association organizes regular events and participates in discussions on environmental issues.	Latvia	Medium	I don't know / not enough information	Medium	Medium

De Ceuvel	De Ceuvel	<p>DE CEUVEL IS ONE OF THE MOST SUSTAINABLE AND UNIQUE URBAN DEVELOPMENTS IN EUROPE. De Ceuvel is an award-winning, sustainable planned workplace for creative and social enterprises on a former shipyard on the Johan van Hasselt kanaal off the river IJ in Amsterdam North. In 2012, the land was secured for a 10-year lease from the Municipality of Amsterdam after a group of architects won a tender to turn the site into a regenerative urban oasis. The former industrial plot is home to a thriving community of entrepreneurs and artists, where all involved have lent a hand to build Amsterdam's first circular office park. The plot hosts creative workspaces, a cultural venue, a sustainable café, spaces to rent, and a floating bed & breakfast. On the former shipyard we have realized one of the most unique urban experiments in Europe. Old houseboats have been placed on heavily polluted soil, the workspaces have been fitted with clean technologies and it has all been connected by a winding jetty. Around the houseboats phyto-remediating plants work to clean the soil. De Ceuvel is not only a "forbidden garden" which will leave behind cleaner soil, but also a playground for sustainable technologies. Through experimentation, we are as energy self-sufficient as possible and process our own waste in new, innovative ways.</p>	<p>I have included this case as a unique and different type of ENCI case. This is an extraordinary space in the north of Amsterdam where visitors can learn about bottom-up community development, architecture & spatial planning, phyto-remediation of polluted soils and closed-loop cleantech integration. there are many events taking place at De Ceuvel to showcase or explore innovative sustainable ideas. For example, in December 10th, 2021 there was a Call for all Earth-minded innovators, eco-hackers, blockchain environmentalists, and nature/web3 thinkers! For the SNI Winter 2022 Hackathon. The winners of this Hackathon will see their solutions showcased at a live event at De Ceuvel in the late spring of 2022. Sovereign Nature Initiative will be asking teams to: Develop ideas that enable representation of non-human life, establish governance models and empower ecosystems to act in their own interests and to produce and capture value in their own right. They invite participants to define "value" broadly and consider in addition to practical ecological value other qualities such as beauty and inter-connectedness.</p>	Netherlands	not relevant	I don't know / not enough information	High	High
Sunflowers	Sluňákov	<p>Sluňákov (or the Olomouc Centre for Ecological Activities) offers experience and knowledge oriented towards the development of respectful attitude of people to nature and themselves. The Olomouc Centre for Ecological Activities was founded and has developed thanks to support from the City of Olomouc dating back to 1992. The City of Olomouc is the owner of the low-energy building and the 15-hectare educational bio-centre. It has been providing environmental educational programmes for pupils of all kinds of schools, as well as informal education in the fields of history, psychology, pedagogy, global development and craft skills, and organising related events for the general public in the form of lectures, seminars, excursions and workshops. In addition to the above, Sluňákov, by means of a wide range of activities, has been trying to connect individuals and organisations active in various areas of the natural and social sciences, art, municipal and regional administration and business.</p>	<p>Since its inception, Sluňákov has developed a series of trainings and conferences around energy issues. In 2007, the Pomoraví House of Nature, a low-energy house, was built on a greenfield site for these activities to develop.</p>	Czech Republic	No effective voice	not considered	High	Low
Križevci solar roofs (Croatia's first crowdfunded solar power plant/ The first citizen-funded solar plant)	Križevački sunčani krovovi	<p>In 2018, in the city of Križevci in Croatia, the Green Energy Cooperative (Zelena Energetska Zadruga (ZEZ)) in cooperation with the Križevci city authorities started the first pilot project in Croatia for citizens crowd investing in renewable energies called Križevački sunčani krovovi. It provided citizens with an opportunity to invest in renewables, in particular in solar and aimed at the installation of a solar panel (PV) power plant on the rooftop of the municipality's Development Center and Technology Park's administrative building. Success amongst the local community was enormous and within 10 days the necessary €30,000 were collected through crowdfunding. The PV system, with a capacity of 30 kW, was installed on the rooftop of the business support centre, and ensured in the first instance the electricity needs of the users of the building. The municipality covers the cost of the electricity consumption, and pays back the citizens that have invested in the project through the monthly savings obtained. Any energy surplus produced from the PV plant is sold to the network. The estimated time for the return on investment is 10 years, after which the PV system ownership will be transferred to the municipality.</p>	<p>We consider Križevački sunčani krovovi a relevant case of ENCI since it presents the involvement of citizens in the transition to a more democratic energy system. It is a cooperative project that helped engage public institutions and citizens in a joint process of urban, green, and sustainable transformation.</p>	Croatia	High	I don't know / not enough information	I don't know / not enough information	High

Bedminster Energy Group BEG (new BS3 Energy Group)	Bedminster Energy Group BEG (new BS3 Energy Group)	Bedminster Energy Group BEG (new BS3 Energy Group) is a group of volunteers working to support the community of Bedminster and Southville to act on climate change and to cut their energy bills by improving the energy efficiency of their homes. Emerging in 2012 as a sub-group of a larger organisation in the area called Sustainable Southville, BEG organizes events and provides home energy assessments. Instead of relying on a single company for the assessments, individuals from the community were recruited, some without prior experience, with the aim of supporting the local economy and increasing local knowledge and awareness.	The case involves a group of volunteers working in their community for better energy efficiency in homes. The approach of conducting home energy assessments by people from the community itself shows a concern with the local community within energy citizenship activities	United Kingdom	Low	Medium	not considered	Low
Samos Energy Community	Samos Energy Community	Samos Energy Community is aiming to support the just transition of Samos island to a democratic, inclusive, and clean energy system, showcasing a new paradigm for the Aegean and the Eastern Mediterranean. Members of the energy community will be citizens, local SMEs, and Municipalities.	What I like about this case is that is purely, on its foundations initiated and managed by local residents, citizens of the island. All procedures are transparent and following steps are done with democratic ways. Following a de-growth model, this case fits into our ENCI.	Greece	High	High	I don't know / not enough information	I don't know / not enough information
Neighbourhood company NuDe Future	Buurtbedrijf NuDe Toekomst	The neighbourhood company NuDe Toekomst from Wageningen shows how to build on the neighbourhood. Together with the residents, they develop opportunities to work, learn and inspire in order to contribute to a nicer living environment in the neighbourhood. They do this, for example, with their handyman business, where residents do small jobs in other residents' homes in cooperation with the contractor carrying out major maintenance on the homes. In the future, they will sink their teeth into an even greater challenge: energy transition. According to them, this will only be successful if the transition links tasks and brings them closer to the residents.	This is a really nice case in the neighbourhood level. It is initiated by a group of local residents who are strongly committed to improving the quality of life and the economy in the De Nude district. What is unique is that a lot is about to happen in the Nude district in Wageningen, including renovation by the housing corporation, renewal of sewers and greenery, disconnection of natural gas. The Neighbourhood Company wants to bring these tasks closer to the residents by making connections with the motives of the residents. It examines which parts of the work can be filled in with residents. For example, many residents are reluctant to start cooking electrically. The neighbourhood company is now in consultation with the municipality and the housing association to see if cooking courses can be given in this respect.	Netherlands	High	I don't know / not enough information	Medium	does not contest
Climate Village Project Vejle	Klimalandsby - Vejle	It is a research project where they test how a village or a community can support Vejle's climate plan to reduce the CO2 emission. Based on the selected village/small town in the Vejle area and the local strengths, ideas and opportunities, the municipality and an external panel will support and secure the necessary knowledge, support and co-finance for the village to test and experiment with different behavioral and technological solutions that together create a model for the climate village of the future. At the start of the project, a baseline measurement will be carried out to assess the current CO2 emissions in the selected village, and a joint mapping exercise to qualify the local ideas and climate actions to be tested. Then, over the next two years, the village, in collaboration with the municipality and the external panel, will experiment and test different climate actions based on the local community, and finally follow up with evaluations and measurements of reduced CO2 and the lessons learned. The project will end with a "living exhibition" and a summary (possibly a white paper with lessons and cases), which can inspire other areas in Vejle Municipality and also more widely nationally. Klimalandsby will also act as a showcase for other communities and citizens, inspiring and learning how a community, village or small town in particular can put the climate plan into action.	It is a research project where they test and measure how the communities shape and contribute to the climate transformation plan of a municipality.	Denmark	High	I don't know / not enough information	High	I don't know / not enough information

Athens Niroo Community	Athens Niroo Community	Athens Niroo Community is a project initiated through the “Curing the Limbo” program by Co-Athens and supported by the Municipality of Athens. Athens Niroo Community aims to form an original and sustainable energy community through educational workshops and pilot activities for the utilization of renewable energy sources. Their goal is to create a close-knit community involving refugees and citizens of Athens who will actively contribute to clean energy production.	This is a new initiative in Greece providing workshops, educational seminars and capacity building activities to both local refugees and Greek citizens in order to help fight fuel poverty and get involved in renewable energy projects. The initiative has a strategic and business plan ready for an energy community, and if they manage to secure funding they will set the energy community into operation. Niroo community would like to use this opportunity to transfer the message of energy democracy to people all over Athens, who in turn will become agents of change.	Greece	Medium	High	I don't know / not enough information	I don't know / not enough information
Collective Energy	Collective Energy	Crowdfunding for the energy transition. Community-financed photovoltaic systems via presales crowdfunding for SME businesses. Citizen participation projects. Sale & lease back models for photovoltaics. The basic idea is quite simple. Through crowdfunding, any organisation's customers, employees, members or fans make it possible to build an optimally dimensioned solar system for the organisation. Collective energy offers alternative ways to expand renewable energies and the organisation give people the opportunity to participate directly in the energy transition. Collective Energy acts as a consulting organisation and supports you in the conception and implementation of solar energy projects, including feasibility analysis, financing, construction, refinancing and marketing as well as long-term project management.	It is a case of ENCI since it enables businesses to switch to photovoltaic electricity and benefit from citizens' commitment (as employees, customers,; members or fans. As a thank you for your support, the citizens receive discounts on products and services from the company they support. Therefore, the citizens' commitment to the energy transition is not only good for the environment, but also for them personally!	Austria	not relevant	not relevant	Medium	High
Corenovate	Corenove	Corenove is a cooperative founded in 2018 to provide audit and pieces of advice to individuals on their energy renovation work. Corenove aims at promoting energy savings and reducing citizens' energy bills.	It is a manifest case of ENCI because it is an initiative seeking for energy savings and low carbon footprint.	Belgium	No effective voice	not considered	Medium	Low
My energy city	Min energiby	Frederikshavn's community of Green ambassadors, who raise awareness in their communities of the green transition so that the local community takes an interest and becomes actively involved.	Energy ambassadors serve as a link between the citizens and the city, they raise awareness about the energy city and the transition and also collect the issues and important topics in their communities, and therefore represent the voice of the citizens.	Denmark	Medium		I don't know / not enough information	High
Mobility Centre Maribor	Center mobilnosti Maribor	Mobility Centre Maribor is a multipurpose space, designed to coordinate and actively promote sustainable mobility in Maribor, the second largest city in Slovenia. The Centre's functions include the coordination of sustainable mobility in the city and the "bike kitchen", or a bicycle repair shop. It also provides information and organises various events on the topic of sustainable mobility. The Centre is coordinated by cycling association Mariborska kolesarska mreža (Maribor Cycling Network).	This is the first mobility center in Slovenia, which actively tries to change the mobility behaviour of Maribor residents and visitors to the city. Citizens are not simply users of the services, but active participants in various initiatives organised by the Centre.	Slovenia	not relevant	Medium	Medium	does not contest
Passive House Latvia	Passive House Latvija	The association was founded in 2009 with the aim to unite and coordinate the efforts of various sectors (Latvian architects, engineers, developers, manufacturers of products and construction materials, higher education institutions, state and municipal institutions) to create and further develop a sustainable and low-energy urban and suburban environment in Latvia. ; and, using the right of legislative initiative, to influence the activities of Latvian state institutions in matters concerning the possibilities of reducing energy consumption in environmental projects, construction, operation of buildings and structures, energy and other related sectors	Passive buildings save energy resources, their construction uses the most environmentally friendly building materials possible, the buildings have the lowest energy consumption and have the least impact on the environment.	Latvia	I don't know / not enough information	I don't know / not enough information	Medium	Medium
Galway Energy Co-operative	Galway Energy Co-operative	The Galway Energy Co-operative is an organisation that aims to be an advocate for provide clean, renewable energy and services for Galway City and the surrounding area. As member of the SEAI's Sustainable Energy Communities Initiative, the co-operative has been coordinating an Energy Master Plan for the city and offers consultancy services.	The case involves collective energy citizenship in that the locally embedded cooperative is engaged in various activities related to the energy transition in Galway. This especially includes the coordination / development of a masterplan for the city.	Ireland	High	not considered	not considered	I don't know / not enough information

Collective Strength	Collectieve Kracht	CollectiveStrength is a knowledge platform that connects citizen collectives in the Netherlands and helps them to overcome obstacles together. Independent, free of charge and accessible to all citizens' collectives. CollectiveKracht strives to form a bridge between the daily practice of citizens collectives and the research questions of scientists. Not only by unlocking knowledge and insights from existing publications and making them applicable, but also by actively developing new evidence-based knowledge, demand-driven and practice-oriented. In doing so, they strive to connect various scientific disciplines. Scientists look at citizen collectives from different disciplines (law, social sciences, psychology, public administration, history, energy etc.) and different theoretical perspectives.	This is a great case study for an intermediary and knowledge transfer organisation especially for WP4 - intermediaries. Also great example of the ENCI typology as an organisation that brings citizen's initiatives together to overcome big challenges.	Netherlands	not relevant	High	I don't know / not enough information	does not contest
Couso´s project	Proyecto o Couso	An integrated and open community where everyone operates under the principle of "Leave what you can; take what you need." The self-sufficient ecovillage has many permanent residents and also hosts pilgrims making the Camino de Santiago.	I think it is an ENCI case as they pursue the goal of maintaining energy self-sufficiency, providing a refuge for ecological travelers and residents.	Spain	Low		Medium	I don't know / not enough information
Diego Fischer	Diego Fischer	Diego Fischer is committed to the energy transition and the expansion of solar power in Switzerland in a variety of capacities. As an engineer, he runs his own company that implements solar plants and provides energy consulting services. Furthermore, he is chairman an energy cooperative, on the board of various associations for solar energy in Switzerland, and was a member of the Grand Council of the Canton of Neuchatel for the Green Party.	Although an individual case, it reveals energy citizenship in multiple capacities, in one's own work activities, in involvement in civil society, but also as a politician / member of a regional parliament in the Swiss political militia system.	Switzerland	not relevant because individual	not relevant because individual	I don't know / not enough information	High
8th Life EcoVillage Project	8th Life EcoVillage Project	EcoVillage project in the Canary Islands started by NPO/NGO Asociación Gaia Tasiri to repopulate a rural farmstead and establish a community to do more effective work in facilitating the global and local transition, and also researching in action, organized around ecology and sustainability. They are a self-titled Transition Town (post-petroleum and off-grid communities).	I consider it to be an ENCI case since it promotes moving away from consumerism and adopting a lifestyle less dependent on resources and energy	Spain	Low		Low	I don't know / not enough information
Gaia Architecture	Gaia Arkitekter	Gaia Arkitekter consists of 4 independent, collaborating architectural offices that have specialist expertise in ecologically sound construction methods and planning. The projects include: housing, cottages, residential areas, kindergartens, schools, small industry, rehabilitation of apartment buildings, agricultural buildings and community centers. In addition, there is planning of garden and landscape facilities, schoolyards, residential areas and urban ecological projects. Gaia Arkitekter also offers process management for workshops that will ensure environmental content and user participation. Gaia Architects collaborates with Gaia Scotland and has a broad international network of contacts through Gaia International - which consists of leading architects in ecological planning and construction in Europe.	Interesting because this architect firm is working with prosuming and solar energy in their commitment to holistic transformation (urban farming, eco villages, sharing economy etc).	Norway	I don't know / not enough information	I don't know / not enough information	High	I don't know / not enough information
More Sharing	MeerDelen	Meerdelen is a cooperative in Watergraafsmeer (Amsterdam East) where people can buy green energy and share electric cars with their neighbours. They were asked by stadsdeel Oost to set up an eHub with electric cars and electric bicycles. They have now have cars in Bussum, which will eventually lead to a new local cooperative. As a cooperative, they work without a profit motive. Any profit they make is invested directly in new sustainability projects or making their neighbourhood greener.	This is the first mobility case study that I could found and it is a super example for our ENCI typology. It started as a neighbourhood activity and people/local residents are very enthusiastic about it. Many neighbours are interested in car-sharing and even more want more space on the street. The case wants to create more Space for greenery and space for children. And more: a WENS neighbourhood, in which Water, Energy, Nature and Social are in balance.	Netherlands	I don't know / not enough information	I don't know / not enough information	Medium	I don't know / not enough information
Amsterdam 02025	Amsterdam 02025	02025 is a network and platform for and by Amsterdam energy pioneers who look beyond our own front doors - a community of frontrunners in the energy transition who together make the city an energy leader. As residents and organisations, we find each other, learn from each other and strengthen each other by sharing knowledge, experience, initiatives and networks. Together we will succeed: clean, honest and safe energy by 2025.	This is a knowledge network and platform connecting people, residents, neighbourhoods with distributing knowledge, answering questions, giving advice on energy transition specifically focused in Amsterdam. Although many examples are transferable to other places. This is a very active network organising seminars, courses and very active in social media with the latest	Netherlands	not relevant	not relevant	I don't know / not enough information	does not contest

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Type 9: “Do the job”

Name of the case in English	Name of case in original language	Brief overview	Why is this case a case of ENCI?	Country	Effective citizen power control /	Equity Justice /	Env. sustainability	Contesting the energy system
Solar Pecka	Solarna Pecka	The initiative Solar Pecka was an online crowdfunding campaign to raise funds needed to install a system of solar panels and collectors on the roof of the Visitor Center Pecka, located in the village of the same name near Mrkonjić Grad in Bosnia-Herzegovina. The Center is located in an old school building which was given for use to a group of enthusiasts and nature lovers in 2014, and which was then reconstructed into a center for sustainable tourism in this rural community.	Solar Pecka is the first example of solar energy installation set up in the rural Bosnia-Herzegovina and one of the first crowdfunding campaigns in the country focused on RES. As such, it represents an interesting example of citizen participation in promotion and implementation of alternative solutions in electricity supply.	Albania	No effective voice	not considered	Medium	does contest not
SolarAction	SolarAction	SolarAction is a campaign of the citizens' initiative myblueplanet, which is committed to climate protection in Switzerland. The campaign aims to increase the total area of solar panels on public and private roofs in the canton of Zurich by 1.5 million square meters (or one additional square meter per inhabitant), by 2024. To this end, it supports households, businesses and municipalities by simplifying processes for the deployment of PV systems and assisting municipalities in formulating ambitious energy strategies.	The case is to be understood as energy citizenship in the sense that it supports households to become more active in the construction of PV systems. Moreover, the campaign that represents the case is itself led by a citizens' movement constituted as an NGO.	Switzerland	Low	not considered	not considered	Low
Sunity (collaborative platform)	Sunity (plateforme collaborative)	Sunity is a collaborative platform specialized in the management and development of photovoltaic installations. It is an initiative of Enovos Services Luxembourg S.A. Sunity acts as a facilitator, design office and coordinator of photovoltaic projects by offering citizens, businesses and municipalities the possibility to become players in the energy transition.	It is an ENCI case because it seeks to facilitate the development of photovoltaic projects and contribute to the energy transition.	Luxembourg	Low	not considered	Low	Low
Fossil Free Sweden	Fossilfritt Sverige	Fossil Free Sweden is working to increase the pace of the climate transition. The goal is to build a strong industrial sector and to create more jobs and export opportunities by going fossil free. Fossil Free Sweden was started at the initiative of the Swedish Government in 2015 ahead of the major UN climate conference in Paris and brings together actors in the form of companies, municipalities, regions and organisations that give their backing to the declaration that Sweden will be one of the first fossil free nations in the world.	A case that supports ENCI in the industrial sector.	Sweden	No effective voice	not considered	Medium	Medium
Coleco project	Projet Coleco	Coleco is a project led by a regional territorial development agency, in cooperation with some local authorities and a digital enterprise, to support the development of energy communities.	This is a project which tries to convince local authorities and citizens to take part in renewable energy production and consumption.	Belgium	Low	not considered	Medium	Low
Wind of Renewal	Άνεμος Ανανέωσης “Anemos Ananeosis”	Social Cooperative “Wind of Renewal” (“Anemos Ananeosis”) was created by socially active people in order to play a strategic, synthetic and scientific role in the promotion of the: Social – cooperative and responsible economy, Sustainable, effective, innovative social enterprises Green – circular economy Social and environmental innovation Employment in green, social and cultural sectors, Incorporation of democracy and human rights in financial and social life.	This case fits within the holistic type of our case studies and it fits within the wider role of this case study of an intermediary for promoting ENCI. It links, institutions, research centers and universities, municipalities, local communities and active citizens, social, environmental, cultural and professional organisations other social enterprises and their networks at local, regional, national, European and international level in order to promote ENCI in general.	Greece	High	not considered	High	does contest not
Centrum Veronica Hostětín	Hostetin Centre for Sustainable Rural Development	The Hostetin Centre for Sustainable Rural Development is located in Hostetin village, Zlin province, in the White Carpathian Mountains, southeast Czech Republic. The centre is managed by the NGO, the Ecological Institute Veronica (EIV), which is a branch of the Czech Association of Nature Conservation. It is intended as an educational centre, showing that environmental attitude, using local resources and traditions can economically stabilize the countryside and bring job opportunities, even in very distant areas. Unlike the traditional educational centres, the village and its surroundings serve as an ideal “laboratory” for practical ecological education. It follows up a number of pilot projects, realized in Hostětín and the region of Bílé Karpaty in the last two decades.	It is an holistic case of ENCI. Although energy is not necessarily the main focus, efficiency features were incorporated into the centre and have reduced the centre’s operating costs. Environmental sustainability has been promoted through the use of environmentally friendly materials, surpassing passive house energy efficiency standards, the use of renewable heating and cooling systems and raising environmental awareness.	Czech Republic	Low	Medium	High	does contest not

Hauts-de-France Pass Renovation	Hauts-de-France Pass Renovation	Hauts-de-France Pass Renovation is a public service for technical and financial assistance for renovation, created by the French region “Hauts-de-France” through the regional Public Service for Energy Efficiency. It is implemented in 12 territories or communities of the region. Hauts-de-France Pass Renovation is the first public operator to implement a third-financing mechanism for energy renovation for home owners (individual or collective property). It provides upfront financing to perform renovation works (43 000€ in average), that will be repaid by beneficiaries (in whole or partly) with their energy savings. The service provides an “all-in-one” solution, with technical assistance for homeowners, from the first energy audit to post-work energy audits, together with an innovative and attractive financing model. It contributes to creating a market for energy renovation in the region, and directly pays the contractors to perform the renovation works, acting as intermediary between home owners and companies. In turn, companies selected must be labeled as quality contractors (state label “RGE” Reconnu Garant de l'Environnement, “acknowledged warrant of the environment”).	The programme supports the uptake of energy renovation among home owners by addressing key barriers (complexity of works and lack of access to finance) with appropriate technical and financial assistance. It also supports the creation of a market for construction companies.	France	No effective voice	Medium	High	Low
Urbike	Urbike	Urbike is a cooperative which aims at enhancing the use of bicycle in urban settings for delivery and logistical purposes. It provides 4 complementary services: delivery, consulting and training (to enterprises and public authorities seeking to implement a logistical transition), and rentals.	It is a latent case of ENCI. Although its main focus is transport (of goods) in urban settings, its objectives are defined in terms of promoting an alternative economic model and transport system, enhancing air quality and well-being and more globally working for sustainable logistics.	Belgium	Medium	Low	High	Low
Dublin Cycling Campaign	Dublin Cycling Campaign	The Dublin Cycling Campaign is an independent, voluntary cycling advocacy group that has been working to improve the city for all cyclists since 1993. The group lobbies local and national government to bring about improved conditions for cyclists and greater recognition of the benefits of cycling, for instance by getting the 30km/h speed limit put in place in Dublin.	There are two main aspects of energy citizenship in this case. First, the organization works as a collective on volunteer, citizen-based nature. Second, the activities of the case aim to improve the conditions and motivate others to use their bike instead of car, which might be seen as an act of energy citizenship.	Ireland	No effective voice	Medium	Medium	High
Lohøgda Housing Cooperative	Lohøgda Borettslag	Lohøgda Housing Cooperative (with approximately 780 flats) in Oslo, successfully achieved energy saving measures (for example by insulation, by use of geothermal energy) and are planning to achieve energy self-sufficiency (for instance by solar energy and window and door replacement) as a community. Even though the primary motivation was economic, that is, saving on energy spendings, but the consideration of the climate and the environmental later got important as well.	Lohøgda Housing Cooperative seems to be one of the few energy communities in Norway. Even though the primary motivation is of economic in nature, but they serve as good example for other cooperatives as well. One part of the financial support came from Oslo Municipality, the climate subsidy.	Norway	High	not considered	Low	High
Winds of reason	VentdeRaison-WindmetRedelijkheid	This NGO is fighting the development of wind farms across Belgium. Its activities include lobbying, awareness activities and logistical support for legal remedies.	This is a case of ENCI because its main topic is wind energy, and helps to "defend" residents of onshore wind farms in Belgium. By providing studies or by intervening in public consultations, it seeks to contribute contribute to the democratic debate for a better understanding of the impact of onshore wind energy both in terms of its efficiency and its compatibility with the environment.	Belgium	Medium	Medium	Medium	Medium
People initiative group “For Zemgale region without wind turbines”	Iniciatīvas grupa “Par Zemgali bez vēja ģeneratoriem”	The first protest group of such scale in Latvia, joining large number of participants. This initiative group protests against construction of large scale wind park (around 50 turbines of ~ 4MW each, height of turbine around 240 metres including rotor) in the west part of Zemgale region. The protest group was able to provide good self-organization, to implement diverse protest activities at municipal and regional scale. The activities of the protest group was one of key factors why local self-governments decided not to support construction of wind park even after partially positive decision (reducing the number of turbines and correcting their siting, at the same time positive in principle) of EIA statement. Currently the issue of wind park construction has been brought by wind park developer to the court. The success of this protest group serves also as the example and inspirer for other (though smaller scale) protest groups against other new wind park projects, particularly in Kurzeme region	The first wind park protest group in Latvia, well self-organized and with diverse activities, Serving as the inspirer for new protest groups, The protests had turn attention to the role of local benefits for local people and local area in case of development of large scale RES project. The protests had turn attention that early (as much as possible) communication process with local people and local stakeholders and their early involvement in the wind park development is necessary pro-condition Hopefully, the case of this particular protest group will well contribute to re-consider the practices of wind parks development both by state authorities and project developers	Latvia	Medium	Medium	Medium	Medium

CZ BIOM (Czech Biomass Association)	CZ BIOM (České sdružení pro biomasu)	CZ BIOM is a non-governmental organisation which supports the development of phytoenergetics in the Czech Republic. CZ Biom gathers many companies and organizations engaged among in the areas of phytoenergey, biogas production, composting, biomass production and biomass combustion.	CZ Biom supports the development and promotes the use of biomass, biogas and biomethane as renewable sources of bioenergy in the Czech Republic. It is also interested in the circularity of material flows, so it also deals with bio-waste, composting and the return of nutrients from composts, digestates and ashes to the soil. It brings together a large number of specialists, entrepreneurs and other stakeholders in the field of biomass utilisation. Hence, it is a manifest case of ENCI.	Czech Republic	Medium	Low	High	Medium
Local COP21 in Rouen	COP21 locale de Rouen	The Rouen metropolis local COP21 took place in 2018 to translate the Paris Agreement's objectives to the local level. Supported by the NGO WWF and the French ecological agency (ADEME), the objective of the local COP21 was to foster local climate commitments from all stakeholders, such as, municipalities, citizens, companies, administrations, and NGOs. Rouen metropolis is a group of 71 municipalities (where the largest city is Rouen) that have close to 500 000 inhabitants, situated in the region of Normandie in the North of France. France enshrined the Paris agreement into law in 2016 and designated regions as leaders of the "territorial" (local) decarbonization strategy, and large urban areas ("métropoles") were put in charge of local coordination of the transition. The local COP21 included a "COP21 workshop" that was open 6 days a week in the city centre to inform citizens about the climate challenge, a COP21 label to give visibility to local events, a digital platform and a call for citizens' projects funded by participative financing.	Rouen local COP21 is an interesting example of stakeholder's mobilisation for climate action and commitments at the local level, and of the translation of the Paris agreement at the local level.	France	Medium	Medium	High	Low
From energy dependence to self-sufficiency: creating a sustainable energy policy in rural regions	Od energetickej závislosti k sebestačnosti: tvorba udržateľnej energetickej politiky vo vidieckych regiónoch	Local and regional governments in Slovakia has almost no capacity to coordinate and guide the energy sector. In practice, their actions in areas related to energy and transport are determined by national and European subsidy and support programs and not their own priorities. The purpose of the project was to create conditions for the turnover of public administration in the field of energy to purposeful development in the three least developed districts: Kežmarok, Rimavská Sobota and Rožňava. The project provided them with extensive methodological and professional support for the implementation of systematic energy planning, support the emergence of generally available regional energy information systems and contribute to creating the conditions for increasing energy literacy of local politicians, opinion leaders and the general population.	The project was helping local governments to implement systematic energy planning, supported the emergence of generally available regional energy information systems and contributed to creating the conditions for increasing energy literacy of local politicians, opinion leaders and the general population.	Slovakia	High	Medium	Low	Medium
Women in Energy (WONY)	Women in Energy (WONY)	Women in Energy, WONY is a non-profit association, founded in Budapest in 2017. Their aim is to increase the proportion of women leaders in the energy sector, not only in Hungary, but also in the CEE Countries. They would also like to support the growing professional community of women in energy field, enable women to reach top decision-making positions and bring women board mandates to a visible level.	WONY is a non-profit association aiming to promote gender diversity in the Central European energy sector. As the organisation puts it: "Energy revolution cannot happen without women." They think that women should be active participants and shapers of energy transition and clean energy projects from the very beginning, as they can bring more efficiency, more competitiveness and more human sensibility to the field of energy.	Hungary	Medium	High	Low	Medium
Common Energy	Energie Commune	Energie Commune is a non-profit organisation which accompanies citizens and communities in their appropriation of energy towards a 100% renewable, fair and solidarity-based system, following the principles of Energy Democracy. Energie Commune provides education and advice based on projects and field activities around four axes: Citizen, Community, Territory and School.	This case explicitly strives for energy democracy & accompanies schools, local governments, citizens and energy communities in reaching their objectives.	Belgium	Medium	High	High	Low

Building Pilot Coordination Capacities for Sustainable Energy in Marginalized Regions in Slovakia	Budovanie pilotných koordinačných kapacít pre udržateľnú energetiku	From October 1, 2019, Friends of the Earth-CEPA began to implement a project called Building Pilot Coordination Capacities for Sustainable Energy in Marginalized Regions in Slovakia. The project responds to the need for a new and consistent regional sustainable energy policy as a prerequisite for the effective transposition of EU and Member States' climate goals at local level. It focuses on the three least developed districts of Slovakia (Kežmarok, Rimavská Sobota and Rožňava) and one transforming coal region (Upper Nitra), which have shown interest in this new type of public policy and have begun to build their own capacities for it. The project will motivate the main actors in the target districts to build a new regional energy coordination infrastructure and support the growth of demand for it. Key activities include field trips and study tours for the transfer of best practices, knowledge and inspiration from other regions, expert missions and awareness-raising and networking activities.	The project is part of a broader mosaic of Friends of the Earth-CEPA initiatives, which are aimed at creating a new sustainable energy policy in the regions of Slovakia. Some other parts of this mosaic activity are also among the Slovak ENCI cases.	Slovakia	Medium	High	Medium	Medium
Sustainable Urban Mobility Plan for Gdansk 2030	Plan Zrównoważonej Mobilności Miejskiej dla Gdańska 2030	The Sustainable Urban Mobility Plan for Gdańsk was created as part of the CityMobilNet project from the URBACT III program, implemented in 2016-2018. The CityMobilNet project takes up the topic of urban transport, one of the biggest contemporary challenges facing European cities. This Sustainable Urban Mobility Plan establishes a strategic framework for the development of transport in Gdansk. The plan refers to the transport of people and goods, travel destinations (work, leisure time, shopping, etc.), all forms of travelling (on foot, by bike, by car, etc.) and includes all transport networks (road, rail, etc.). The main purpose of the work was to develop the Activities Plan that is part of the Gdańsk development strategy (including in the context of transport, mobility and striving to improve the quality of public spaces).	The strategic areas and purposes of the mobility plan include "ensuring improvement of energy efficiency, energy security and reduction of greenhouse gas emissions of the city and metropolis".	Poland	Medium	High	High	Low
Energy and Climate Changes	Energia e Alterações Climáticas	The Quercus Foundation its working, for several years, in the area of Energy and Climate change, as a part of their global interest for other issues related with environmental care. Its intervention is based on the environmental education of citizens and monitoring public policies. "The goal of the program is to evaluate real capacities of families to lower energy use with concrete activities (energy efficiency of buildings) and by changed habits (promotion of rational use of energy). 3 phases: 1) 30 families from Lisboa, Oeiras e Sintra, 2005 to 2006; 2) 225 family units from Portugal, 2007; 3) 1000 families from Portugal, 2009-2011."	Because the aim of this specific project is provide the civic education necessary to improve environmental sustainability through individual and collective (family centered) actions.	Portugal	High	Medium	High	Medium
ASEC - Swiss Association for Citizen Energy	ASEC – Association suisse pour l'énergie citoyenne	ASEC is a network of citizen energy initiatives which was created in 2019. ASEC's goal is to promote and support citizen energy while respecting the environment and people, and generating local economic benefits. To this end, it encourages citizen involvement in the energy transition through awareness and information ; improves the visibility of citizen energy initiatives; promotes and represents the common interests of the initiatives to the actors of the society; facilitates the sharing of experiences and know-how between initiatives; takes any other action in line with its goals.	ASEC is a manifest case of ENCI because it explicitly aims at sustaining and developing alternative modes of energy consumption and production.	Switzerland	High	Medium	Medium	High
The Academy of Active Mobility Experts	Académie des experts en mobilités actives (ADMA)	ADMA is a training academy dedicated to the diffusion of walking and biking policies in France. It was launched in 2021 and is financed by the French energy certificates scheme (CEE, Certificats d'Economie d'Energie). The scheme obliges power utilities to finance energy efficiency actions, coordinated by the French Ministry of the Ecological Transition. The ADMA is implemented by the French Federation of Bike Users (FUB) and ROZO, an energy performance consultancy. It consists of a knowledge hub, a training programme with associated certifications, and an academy for bike industry workers to answer to the need for newly trained bike repair workers. ADMA also works closely with the French public agency for the ecological transition ADEME, and CEREMA, another public agency dedicated to sustainable cities policy support.	ADMA is an enabling tool for local policy makers (especially within town halls) to be trained to design appropriate infrastructure to allow the development of active mobility (walking and biking), and train the future workforce needed to maintain growing bike fleets. This enables citizens at the individual and household level, and at the organisational level to become more active ENCI.	France	No effective voice	not relevant	High	High
Active Citizens for Independent Energy Municipalities	Активни граждани за независими енергийни общини	The Association of Bulgarian Cities and Regions has involved several municipalities in a project aiming to promote energy democracy and transition. The project focuses on increasing public awareness regarding energy-related issues, among them production, consumption, and democracy. Within thirty months, the project strives to have paved the way for the public's involvement in the energy market, and to ensure that the upcoming transition will be conducted smoothly and effectively.	This project aims to achieve civic involvement in the achievement of energy transition, and does so through the widespread education of the public and the creation of opportunities for people to participate in the energy market, thus gaining experience and familiarity with renewable sources, and rendering them more favourable toward the transition process.	Bulgaria	Medium	High	Medium	High

Edora	Edora	EDORA is the Belgian federation of companies developing products and services oriented towards the energy transition. It federates economic actors active in the renewable energy sector (such as wind, photovoltaic, hydroelectric, biomass, biogas...) but also in the field of sustainable energy management and smart networks. EDORA's members include energy producers, installers, equipment manufacturers, project developers, engineering offices, associations, and also providers of various innovative "energy services".	EDORA is a federation which aims at defending its members' interests at different levels (regional, national, European) while working for the "general interest". Through actions of lobbying, intervening in media and political debates, it also seeks to have an impact on debates related to energy issues.	Belgium	Medium	High	High	Medium
Zero Emission Mobility Support Society	Bezizmešu mobilitātes atbalsta biedrība (BIMAB)	The aim of the Association is to promote the development of sustainable, emission-free transport that expands mobility. To achieve it, the Association informs the public on the advantages and limitations of sustainable transport; promotes zero-emission mobility solutions; promotes the production of energy-efficient zero emission vehicles in Latvia; cooperates with the state, local governments and NGOs, companies and other institutions in Latvia and abroad to support the availability of new mobility opportunities for the residents of Latvia; as well as performs other activities. The Association attracts financial, material, intellectual and other resources to achieve the aim of the Association. The Association is highly active in both information and communication for public (e.g., annual electric car rally) and providing inputs for national policy planning documents. The association is the member of the national energy and climate board.	(1) Members of the Association are both private and legal persons which are interested in the issue and thus expressing their energy citizenship in the field of mobility. (2) Wide area of activities – electric vehicles and electric bicycles, compressed air vehicles, hydrogen fuel cells, (3) High political recognition – member of the national energy and climate council (The chair of the council is the prime minister),	Latvia	Medium	I don't know / not enough information	Medium	High
Organization for Social Innovation "ARNO"	Асоцијација за развој на нови опции (АРНО)	ARNO is an organization for social innovation, established in 2013 in North Macedonia by people who believe it is possible to build a future where resources are shared and the world is constantly being improved. A world in which all people act together with one purpose – to create a better future. To achieve this aim, ARNO develops and supports social innovation through design of new options and diverse social initiatives, developed by active citizens. The organization started by providing solutions to large global challenges with small, local actions in several main fields, including green economy and sustainable development. As a socially innovative organization, ARNO has been able to translate its mission and vision into projects and activities that highlight its commitment, readiness and ability to innovate in order to respond to social issues. The organization believes that civil society actions are a powerful way to create lasting change for the communities. Thus, focused work in four programme areas (social innovation, sustainable development, philanthropy and youth) and strategic goals, accompanied with the building of skills, resources and relationships, is the path towards building stronger impact according to ARNO.	ARNO is a civil society organisation, implementing initiatives in several fields, including green economy and sustainable development. Moreover, the organisation believes that civil society actions are a powerful way to address important social issues and to create lasting change for the communities. Also, ARNO has been managing successfully the "Green Ideas Competition" in North Macedonia for many years and as a result it has been acknowledged as a national resource for awareness and inspiration in the field of green entrepreneurship. "Green Ideas" is an annual competition that supports the development of small, local and sustainable business ideas in North Macedonia, Albania, Kosovo, Montenegro, Bosnia and Herzegovina, Serbia and Greece. Green ideas have been defined as ideas that are environmentally friendly, use resources from the local community and contribute to sustainable development (integration of local, economic, social and environmental needs and priorities of communities). Each year, three representatives from each country compete in a regional competition and four winners of the regional competition receive \$ 10,000 or \$ 5,000 each to implement the idea in their own country.	North Macedonia	I don't know / not enough information	not relevant	High	does contest not
Students Taught to Produce Solar Energy	Ученици се обучават в създаване на енергия от слънцето	Students from two professional high schools for energy in Pernik are offered the opportunity to actively participate in the energy transition process by learning to produce solar thermal energy. For this purpose, they are offered access to a laboratory equipped with innovative technology for the production of green energy. The production of thermal solar energy and the analysis of the process were treated as a regular part of their education.	This initiative is an attempt at involving students, expected to pursue professions in the energy industry, in the transition process. It presents them with the opportunity to learn about sustainable energy production before entering the industry, thereby ensuring that they can contribute to and pave the way for broader energy transition from the beginning of their careers.	Bulgaria	not relevant	Medium	High	Medium

Hurdal Ecovillage	Hurdalsjøen økolorandsby	The ecological village of Hurdalsjøen was established in 2002 and the first temporary houses were built in 2003. The group worked with experts in the fields of architecture, sanitation, agriculture, energy and with local authorities. This ecovillage is also a national training center, a nursery, a research and presentation center for renewable energies. Their aim is to create on-site businesses by encouraging local jobs, by developing activities such as a farm, a small grocery store, and a nursery. The citizens living here aim to minimize the ecological footprint of the village population (housing, food consumption, etc.) and they also aim to reach social inclusion and social democracy in the organization of activities in the village (cooperative decisions, democracy, consensus, inclusion).	It is a holistic case where decisions are democratic (one person one vote) and the involved citizens have deep concerns for the environment, the community and for sustainability. It is also interesting because in the second phase of the initiative a building company bought the land and made the houses, while before the houses were made by their own work and effort.	Norway	High	Medium	High	High
100% Sustainable Madrid	Madrid 100% Sostenible	A citizen-led movement supported by Alianza por el Clima (400 organizations). Among 11 other goals, Madrid should 1) Have municipal electric power contracts 100% renewable source guaranteed, 2) implement energy efficiency programs in schools, and 3) Establish fiscal measures to promote energy efficiency and renewable energy.	Madrid 100% Sostenible is a civic initiative promoted by the Alianza por el Clima platform, which brings together different neighborhood associations, the Madrid City Council and other entities	Spain	High	High	High	High
ENTRAIN: Enhancing renewable heat planning for improving the air quality of communities	ENTRAIN: Enhancing renewable heat planning for improving the air quality of communities	The ENTRAIN project aims to improve capacities of public authorities to develop and implement local strategies and action plans for enhancing the use of RES in small district heating networks. In one of the target regions the city Energy Cluster made such actions: created of a Regional Stakeholder Advisory Group, diagnosed the heating market, analysed the potential for further use of RES in district heating, developed an action plan to increase the use of RES in heating, prepared a pilot investment in district heating, proposed financial tools.	The city is on its way to zero emission, and for many years it has an energy cluster in the city and in the surrounding region. The level of citizens involvement and engagement is not very clear, but for sure there are many actors involved and having a strong impact in local energy production and distribution.	Poland	I don't know / not enough information	Low	High	I don't know / not enough information
Climate Star	Klímasztár	Since 2002, Climate Alliance has been recognising excellent projects carried out by Climate Alliance municipalities and their municipal networks from across Europe with the Climate Star award. The Climate Star honours the commitment and achievements of European towns, cities and regions in the fields of sustainable energy, mobility, consumption, urban and regional development and citizen involvement. In Hungary the Award is open since 2011.	The award enables and promotes active energy citizenship via its different focuses and by widespreading the good citizen involvement practices of municipalities.	Hungary	not relevant	not relevant	High	Medium
Anatoliki - The Regional Energy Agency of Central Macedonia	Ανατολική - The Regional Energy Agency of Central Macedonia	The Regional Energy Agency of Central Macedonia was established in 1997 by Development Agency "ANATOLIKI S.A.", through the EU's SAVE Programme. Its main objective is to promote Energy Efficiency, Renewable Energy Sources (RES) and alternative mobility modes. The actions of the Energy Centre include: Implementation of Energy programmes Consultancy to local and regional actors, enterprises and individuals Education and training through the organization of conferences, seminars and workshops Elaboration of Energy Policy Promotion of collaborations in National and European level REACM has a strong presence in the Greek and European space, having implemented a large number of projects in assessing and promoting best practices and planning and implementing energy production and energy saving programmes.	A great case of an intermediary organisation in Greece. It operates in many areas like: energy saving, recycling, solar and geothermal energy, biomass and transport management. This intermediary is collaborating with local authorities, chambers of commerce and cooperatives. They are very active in many EU programmes as well and they are organising many events in Greece and beyond.	Greece	I don't know / not enough information	I don't know / not enough information	High	I don't know / not enough information

Type 10: "Make their claims"

Name of case in English	Name of case in original language	Brief overview	Why is this case a case of ENCI?	Country	Effective citizen power control /	Justice Equity	Envtal sustainability	Contesting the energy system
<u>Fridays for Future - Latvia</u>	<u>Kustības Fridays For Future</u>	The Fridays For Future (FFF) movement aims to draw public, media and political attention to the climate crisis through climate strikes and marches. FFF insists that politicians listen to the scientists and develop policies that are in line with the Paris Agreement and urges for immediate action to mitigate emissions and adapt to changing climate. It also stresses global climate injustice and rights of the future generations. In the context of the European Union, it is important that the Green Deal announced in 2019 is not only a beautiful signboard, but also a serious and binding plan for the Member States to rapidly reduce greenhouse gases emissions and move towards climate neutrality.	Fridays For Future is an informal public movement aiming to draw public, media and political attention to the climate crisis through climate strikes and marches which are part of the direct action civic activities. Specifically aiming to engage children and youth thus addressing the question of future generations.	Latvia	High	High	High	High
Eco Guard	Eko straža	Eco-guard is an informal group of citizens with the goal of spreading the information, educating people and organising protests for the protection of the environment. Their overall goal is a dramatic change in the way the environment is protected in Serbia.	Eco-guard is an excellent example of grass-root activism. It represents an informal network of active energy citizens working to motivate and engage the wider public to take the ecology-related matters in their own hands.	Serbia	High	High	High	High
Coalition for the Protection of Rivers of Bosnia and Herzegovina	Koalicija za zaštitu rijeka Bosne i Hercegovine	The Coalition for the Protection of Rivers of Bosnia and Herzegovina was established in June 2016 by civil society organizations and individuals who love nature, monitor plans for the construction of hydropower plants and advocate the development of tourism, traditional and complementary activities that can provide more diverse jobs and achieve greater development of local communities. The role of the Coalition is to provide support for the local population to get involved in decision-making in a timely manner and to adopt a position on the construction of hydropower plants in Bosnia and Herzegovina.	The Coalition for the Protection of Rivers of Bosnia and Herzegovina is an example of a very successful civil society movement, which managed in a relatively short period of time to achieve a substantial change in the Bosnian energy system - abandonment of plans for construction of large hydropower plants, termination of ten concession contracts for small hydropower plants, and an amendment of the Law on Electricity in the Federation of BiH.	Albania	High	High	High	High
Extinction Rebellion Belgium	Extinction Rebellion Belgium	Extinction Rebellion is the belgian branch of Extinction Rebellion, a global network using non-violent direct action to force governments to act on the climate and ecological emergency.	Although Extinction Rebellion is a global network, a closer look at national/local "branches" show that their demands and framings are quite different. Regarding Extinction Rebellion Belgium specifically, one of their three main demands is "that the Government enacts a comprehensive, legally-binding National Emergency Plan which phases out the extraction and import of fossil fuels by 2025".	Belgium	High	High	High	High
<u>Break Free Switzerland</u>	<u>Break Free Suisse</u>	Since 2015, the activist collective Breakfree Switzerland has been organizing civil disobedience actions to protest fossil fuel energy use and production in order to fight climate change. Many of its actions have intended to expose Swiss banks' investments in fossil fuel development.	Break Free Switzerland empowers citizens to take actions against climate change and for climate justice, so it is a transformative form of ENCI.	Switzerland	High	High	High	High
Ecovillage of Hjortshøj	Andelssamfundet i Hjortshøj	Andelssamfundet i Hjortshøj is a citizen-driven cooperative close to Århus, which was established in 1987 and built in 1992. The aim was and is still to build a local community with an organic social cohesion, and thus which can test for new environmental initiatives and new forms of social communities inspired by the rest of society. Today, 300 people live in eight housing groups.	It is a citizen-driven project to create and test sustainable living environments, they have local democracy and lifestyles, they aim towards (energy) self sufficiency.	Denmark	High	High	High	High
The Climate Parliament	Klimatriksdagen	The climate parliament is a people's parliament that takes place every four years, in conjunction with the Swedish general parliament elections. Their main activity is to formulate, debate and vote on climate policy proposals that thereafter are handed over to the newly elected members of the national parliament. In addition, the climate parliament arranges seminars, debates and undertakes analyses and advocacy work.	The climate parliament is an democratic exercise that includes direct involvement with climate change and energy policy with a holistic perspective to contribute to a more sustainable society.	Sweden	High	High	High	High

The Paris Climate Academy	L'Academie Parisienne du Climat	In 2021, the Climate Academy opened in the centre of Paris in an old municipal building. It is a place built for and with young people in cooperation with actors in educational innovation, research, and environmentalism. Primarily dedicated to youth, ranging from 9 to 25 years, to inform, raise awareness, train, and mobilise around socio-environmental issues. Its mission is also to support those who wish to become active, to lead concrete projects and given them space for meetings and exchanges, in order to act.	A case where a specific space in the city has been transformed into a climate academy to enable youth in to take actions regarding the climate, the energy system and the environment.	France	High	High	High	High
Fridays for Future Hungary	Fridays for Future Magyarország	Group of Hungarian youth of Fridays for Future movement, a youth-led and -organised movement that began in August 2018, after 15-year-old Greta Thunberg and other young activists sat in front of the Swedish parliament every schoolday for three weeks, to protest against the lack of action on the climate crisis. The group demands the introduction of climate emergency, change on all level, in all sectors, and stay below the 1,5 degree.	Organised by young people, articulates their demand very clearly, and at the beginning it had a relatively high coverage, and includes a new form, the students's strike.	Hungary	High	High	High	High
Extinction Rebellion Hungary	Extinction Rebellion Magyarország	Extinction Rebellion Hungary is part of an international decentralised movement Extinction Rebellion founded in the UK. The Hungarian group is politically non-partisan using non-violent direct action and civil disobedience to persuade the Hungarian government to act justly on the Climate and Ecological Emergency.	Organised by young people, articulates their demand very clearly and it demands a deep and holistic structural change. Together with Fridays for Future Hungary at the beginning it had a relatively high media coverage, and includes a rather radical forms of protests and performances.	Hungary	High	High	High	High
Ende Gelände	Ende Gelände	Ende Gelände is a broad alliance of people from the anti-nuclear and anti-coal movements, the Rhineland and Lausitz climate camps and the Hambacher Forest anti-coal campaign. They consist of leftist grassroots climate action groups, large environmental organizations, left political groups and other campaigns, groups and networks. The movement is using civil disobedience as a signal for action "to put our climate before profit".	It is a case of energy citizenship because people from different activist groups and organisations take direct and often illegal action against particular ways of energy production, namely coal and gas for example with blockages.	Germany	High	High	High	High
Serbia's First Energy Cooperative	Serbia's First Energy Cooperative	The citizens of Šabac, with help from various organizations, have set up Serbia's first energy cooperative, which will involve the installation of photovoltaic power plants on the rooftops of residential buildings, along with other energy efficiency measures. The aim is to reduce both the cost of energy, and the emission of greenhouse gases in the city. Although the first goal was to install a photovoltaic power plant on the Public Utility Company's administrative building, the cooperative will be available to everyone in the city, regardless of their location.	The establishment of an energy cooperative is an important step in transitioning toward sustainable energy sources. The project involves citizens and public institutions in reforming the energy system and increasing acceptance of renewable sources.	Serbia	High	High	High	High
PLANT Citizens Association	Udruženje građana PLANT	PLANT is a non-profit, non-governmental association which focuses on a wide variety of issues: environmental protection, energy sustainability and transition, human rights, intercultural dialogue, promotion of democratic process, and development of civil society. It has conducted a large number of projects and activities in those fields, involving other organisations in Serbia and abroad. The association emphasises communication with young people, and attempts to involve them in its initiatives.	PLANT Association strives to involve citizens in energy transition, environmental protection and social progress by conducting a wide variety of campaigns and projects. Through its activity, it actively promotes the development of a sustainable energy system, and takes into account the environmental impact of the changes it attempts to implement.	Serbia	High	High	High	High
Campaign for the Decentralization of the Energy System	Граждани се обявяват за децентрализация на енергийната система	Bulgarian citizens made their demands known in a demonstration in favor of decentralizing and restructuring the energy system. They campaigned for the introduction of prosumerism and net metering, as well as virtual net metering, in the country's legal framework, and expressed their concerns regarding the excessive use of fossil fuel and the inadequate opportunities for a potential transition toward sustainable energy. They additionally presented their intent to utilize hydroelectric energy in coastal cities. The campaign was initiated thanks to the arrival of Greenpeace's "Rainbow Warrior," and was supported by representatives of small businesses, members of renewable energy associations, and volunteers at Greenpeace itself.	This call for institutional action serves as a display of civic involvement in the energy transition process. Citizens recognize the necessity of implementing changes in the country's legal framework in order to facilitate the installation and utilization of renewable energy sources, and are willing to make their demands known to both decision-makers and their fellow citizens.	Bulgaria	High	High	High	High

Friends of the Earth Croatia	Zelena akcija	Friends of the Earth Croatia (FoE) is an association of citizens for the protection of the environment and nature and the promotion of sustainable development in the Republic of Croatia that has been active since 1990. FoE Croatia is tackling the challenges and threats to the environment and human health at the local, national and global levels by mobilising the public to halt the destruction of ecosystems and climate change. FoE Croatia achieves its goals through non-violent direct actions, campaigns, informing and education, joint action of professional teams and volunteers and cooperation with other organisations with the participation of the public. FoE Croatia also shares information, experience and expertise in the field of environmental protection with other associations, individuals, communities, schools, etc. in Croatia and beyond.	Zelena akcija/FoE Croatia strives for an ecologically and socially sustainable society at the local and global level in which citizens, through participation and cooperation, preserve nature and the environment and achieve a high quality of life.	Croatia	High	High	High	High
We are the limits	Limity Jsme My	Limity Jsme My is a grassroots collective fighting coal mining and production in Czech Republic in the name of climate justice. It mainly organises climate camps and civil disobedience actions.	LJM is a platform gathering activists and non-activists to take a stance against coal. However, it brings a holistic perspective on coal issues, linking them to local and global issues. Because it is grassroots, it is much focused on movement-building and empowering individuals to have say regarding energy decisions and energy transition.	Czech Republic	High	High	High	High
Against gas	TegenGas	TegenGas is a grassroots citizens' initiative composed of people affected locally by new fossil gas power plants throughout Belgium, and people from environmental, anti-nuclear and other social movements. It works towards a Belgian phase-out of nuclear power by 2025, an end of fossil fuel infrastructure subsidies and against the construction of new fossil gas power plants. More generally, TegenGas calls for a just transition to a regenerative and low energy society.	TegenGas is a grassroots platform that seeks to empower local communities and activists to resist perceived harmful energy infrastructure projects and act in favour of a just transition. It addresses both local and global environmental problems, by linking them to issues such as energy poverty, environmental justice and equal access to better living conditions.	Belgium	High	High	High	High
<u>Women's Resistance against Hydroelectric Power Plants in Turkey</u>	<u>Women's Resistance against Hydroelectric Power Plants in Turkey</u>	Since the 1980s, Turkey has privatised many riverside areas and built hydropower plants, which, in addition to environmental problems, has made life unpredictable for local people. This process has particularly affected the Black Sea Region, where it has had a major impact on the opportunities for women in agriculture. This process has triggered movements in local communities against private, small-scale, river-based hydropower.	As a result of villagers' protests and legal struggles, several areas have been successfully declared protected. Women have played a particularly important role in the movement and have usually been left out of the consultation process, despite the fact that their lives and work are primarily affected by the investments. Recent studies by ecofeminist perspective refer to the interrelations between gender, environment/nature, natural assets, commons and environmental movements while also discuss the global role of women within the biodiversity protection.	Turkey	High	High	High	High
Living Kamp (LK)	Lebendiger Kamp (LK)	Wild river, wild forests: the central Kamptal is a unique natural paradise. And it should stay that way! The action group "Lebendiger Kamp" wants to preserve the beauty, wildness and biodiversity of the Kamptal. For the creatures in nature and for the people. However, the planned new construction of the Rosenberg camp power plant would partially destroy this paradise. And deforestation threatens the most valuable natural forests... 15 June 2018 marked the end of the comment period within the framework of the environmental impact assessment procedure for the new construction of the Rosenberg Kamp power plant planned by EVN. The citizens' initiative "Lebendiger Kamp - Nein zum Ausbau des Kraftwerks Rosenberg" (Living Kamp - No to the expansion of the Rosenberg power plant) collected well over 500 signatures in the affected communities in just two weeks. Of these, 420 signatures were received by the representatives of the citizens' initiative by Friday 15 June and - together with detailed additional explanations - were submitted to the Office of the Lower Austrian Provincial Government in due time. The citizens' initiative has thus clearly exceeded the hurdle of 200 signatures and has therefore applied for party status in the EIA procedure. The concerns of the citizens' initiative are supported by nominated persons such as Erni Mangold and Anne Bennet.	This is a case of ENCI since the people involved in LK are fighting against the project of a hydro power plant in Rosern which would destroy the Kamp river valley.	Austria	High	High	High	High

Saving Iceland	Saving Iceland	An international campaign against aluminium industry and large dams which contribute to increased emissions and climate change.	It is a network of citizens, academics and artists who want to stop the aluminium industry to use cheap geothermal energy in Iceland and ruin the land.	Iceland	High	High	High	High
Tamera	Tamera	The Healing Biotope I Tamera is a peace research project with the goal to create the model for a future society that is free from hatred, lies, violence and fear.	I consider it to be an ENCI case since it promotes moving away from consumerism and adopting a lifestyle less dependent on resources and energy.	Portugal	High	High	High	High
La borda. Housing cooperative in transfer of use	La Borda. Cooperativa d'habitatge en cessió d'ús	Housing cooperative of assignment of use, under a non-speculative model. The members belonging to the cooperative have the ability to decide on juridical, legal and economic aspects and on the housing infrastructure itself. One of its main objectives is to give priority to the environmental aspect, economically achievable through homes with a passive design or low energy consumption, with local, decentralized and self-managed generation of renewable energy. Less total energy and materials consumed by sharing major appliances and amenities.	La Borda can represent an example of an ENCI case that refers to the concept of a housing cooperative, where the objective is to change the way people live and share. In a house built with energy efficiency and trying to reduce the impact.	Spain	High	High	High	High
Fridays For Future Ireland	Fridays For Future Ireland	Fridays For Future Ireland is the Irish chapter of the global Fridays for Futures movement, started by school and university students who skip Friday classes to participate in demonstrations. They demand action from political leaders to prevent climate change and for the fossil fuel industry to transition to renewable energy.	The case shows active energy citizenship by school and university students in that they protest for more ambitious climate and energy policy and action. An interesting aspect is that many of the individuals involved do not (yet) enjoy full citizen rights as they are under the voting age, but are the one most affected by current climate change policy.	Ireland	High	High	High	High
Citizens' Initiative Energy Transition Gütersloh	Bürgerinitiative Energiewende Gütersloh	The citizens' initiative Energiewende Gütersloh is working towards a rapid nuclear phase-out. They stand for a local implementation of CO2 reduction, want to support the conversion of the energy supply to renewable sources and build a decentralised, democratic energy supply. To do so they have developed multifaceted ideas for action and aim at fostering active engagement of citizens to help shape the energy transition.	The case is a case of ENCI since it intends to foster citizens commitment to fight climate change especially through energy and mobility transition.	Germany	High	High	High	High
For an ecological awakening	Pour un réveil écologique	"For an ecological awakening" is a movement carrying the voice of students, and young professionals who call on society to take measures to meet ecological challenges. The collective aims to accelerate the transition to an economic model compatible with planetary boundaries and sustainable for humanity by focusing its action mainly on issues of training and employment. In addition to calling for a "wake up" of universities and employers, the collective offers sources for information and action on other levers to reduce its carbon footprint.	The case acts both as a collective energy citizen by advocacy work, and enables/supports citizens (in this case young adults, students and professionals) to become more active themselves both in their professional and everyday lives.	France	High	High	High	High
Hnuti DUHA – Friends of the Earth Czech Republic	Hnuti DUHA	Hnuti DUHA – Friends of the Earth Czech Republic was founded in 1989. Since that time the organisation has been campaigning for environmental solutions on a wide range of issues, with priorities in energy, forests, mining, waste and agriculture, as well as on general environmental policy issues. Advocacy work, undertaken by about 40 staff, volunteers and some 10 local groups effectively combines lobbying, grassroots mobilisation, research, local community empowerment and public information. Friends of the Earth Czech Republic exposes bad practice by corporations, advises communities and drafts new laws, informs consumers and researches alternatives.	There are currently two most important fields of Hnuti DUHA's work : energy policy and policy in the Sumava National Park. Hnuti DUHA has led different campaigns on energy and coal exit these past few years. It also participated in the "Coal Commission" designed to provide recommendations on a coal exit.	Czech Republic	High	Medium	High	High
'FRIENDS OF THE EARTH SPAIN: COMMUNITY ENERGY'	'AMIGOS DE LA TIERRA ESPAÑA: ENERGÍA COMUNITARIA'	An association without financial motives that seeks to create a local and global change towards a more sustainable society. Based in Madrid, partners in 70 counties (global perspective). Promotes community renewable energy generation projects (PV and wind), putting it in the hands of the citizen.	Yes, given the association's activism in terms of global and local energy sovereignty, in bringing renewables to the people, and in its fight for climate justice, as well as its involvement in the modification, paralysis and/or promotion of laws on climate change, climate and energy use.	Spain	Medium	High	High	High
Fossil Free Netherlands	Fossilvrij Nederland	Fossil Free Netherlands is a foundation established in 2016 to institutionalise the activities of 350.org in the Netherlands. It aims at building a civil society movement to accelerate the transition towards a just and renewable energy system specifically focusing on dismantling the fossil fuel industry.	This is a great case study for the ENCI to contribute to the diversity of the cases. This is an anti-fossil movement in the Netherlands that could provide a different angle to our typology.	Netherlands	High	High	Medium	High

No more power cuts platform	Plataforma no más cortes de luz	The #NoMásCortesDeLuz campaign was created to denounce power cuts to families without resources and the abusive tariffs of the electricity sector.	Yes, because it is a form of social mobilisation that is raising awareness of the scandalous injustice suffered by millions of people in Spain who have their electricity cut off because they cannot pay their abusive electricity bills	Spain	High	High	Medium	High
ZERO - sustainable earth systems association	ZERO - associação de sistemas de terra sustentáveis	ZERO was born from the common interest of about a hundred people for the realisation of sustainable development in Portugal. Their DNA demonstrates the ambition to intervene in Portuguese society through proactive participation in the defence of the values of sustainability, because they understand that only through the balance between the environment, society and the economy will it be possible to build a more cohesive world, socially and economically, in full respect of the natural limits of the planet.	It is an interesting case for sustainable development and the promotion of environmental, ecological, and inclusive policies (ZERO fossil fuels, ZERO pollution, ZERO waste of resources, ZERO destruction of ecosystems and biodiversity, ZERO social and economic inequality).	Portugal	High	Medium	High	High
Anti-nuclear protests in Hungary	Atomenergia ellenes tüntetések Magyarországon	Hungary's anti-nuclear protests and actions in recent years have been mainly linked to Greenpeace. The actions started in 2003 in relation to the extension of the reactors lifetime, and picked up in 2009 after the decision to expand the plant was taken. Greenpeace activists protested against nuclear power in various creative ways, such as turning a roundabout into a nuclear sign, symbolically walling up the national nuclear power office, but also they were organising a photo exhibition, holding a public demonstration and of course offering an alternative solution by encouraging renewables.	The Greenpeace activist action takes a variety of forms to illustrate the challenges and express their disapproval of nuclear power. First, they raise awareness, second, they mobilise public opinion and third, they offer an alternative.	Hungary	High	Medium	High	High
Samsø - Denmark's Renewable Energy Island	Samsø Danmarks Vedvarende Energi-Ø	In 1997 Samsø won a national competition and became Denmark's Renewable Energy Island. The challenge: To be 100% energy self-sufficient within 10 years. The island succeeded and by 2007 the island were self-sufficient due to a combination of windmills, biomass district heating plants and improvements on transportation and energy conservation. The island has therefore agreed on the common goal, that that coal, oil or gas used for energy and transportation gradually will be phased out towards 2030.	The municipality helped locals to become energy citizens.	Denmark	High	Medium	High	High
Friends of the earth spain: free the sun	Amigos de la tierra españa: liberar al sol	Provides an easy "10 step guide" to empower citizens to produce and consume their own energy in a collective form, as well as to reduce their consumption through energy savings and efficiency. Teaches consumers that they can transform the energy sector	Friends of the Earth is a non-profit environmental association with the mission of promoting local and global change towards a society that is respectful of the environment, fair and shared	Spain	Medium	High	High	High
citizens' initiative NoMoorGas	Bürgerinitiative NoMoorGas	NoMooreGas is a citizens' initiative founded in 2018 that is protesting against fracking in the region Unterweser in Lower Saxony. They are doing PR work, organising protests and bus tours to drilling sites and conveyor systems.	It is a case of energy citizenship because participants are actively engaging in protests against fracking as a form of energy production in their region.	Germany	High	Medium	High	High
Green Home	Green Home	Green Home is an NGO which conducts projects on energy transition, environmental protection and sustainable development. It strives to involve citizens in ecological movements by implementing social innovations for the promotion of energy transition, conducting educational programmes, leading campaigns, and forming partnerships with similar organizations abroad. It focuses both on the empowerment of local communities, and on the achievement of institutional changes.	Green Home has implemented a vast array of projects which empower citizens through educational activities, awareness campaigns, and the involvement of volunteers. It connects professional research, civic involvement and institutional change, thus paving the way for a sustainable energy system and a safer environment.	Montenegro	Medium	High	High	High
Krk Island Energy Cooperative	Energetska zadruga „Otok Krk"	The island of Krk in Croatia plans on becoming the first carbon-neutral and self-sufficient Mediterranean island by 2040. This is facilitated through a number of means, including changes to public spaces and the establishment of new energy companies. A large and significant aspect of this programme is the founding of the island's first energy cooperative, which aims to phase out fossil fuels and make renewable energy sources accessible to the entirety of the island. The cooperative offers assistance in choosing vehicles or equipment for energy production, selecting contractors, and invites citizens to participate in management and investment.	The programme includes the island's local authorities, citizens, and businesses alike in coordinating and accelerating the energy transition process. It is an ambitious plan to achieve a sustainable energy system, which encompasses various different aspects.	Croatia	High	Medium	High	High

Together Against Sizewell C	Together Against Sizewell C	Together against Sizewell C (TASC) is an group of people and organisations established to oppose the realization of Sizewell C, a proposed 3.2 GW nuclear power station in Suffolk, England. Opposition encompasses informational (public meetings, flyers, website, posters) as well as political and legal actions (petitioning the Council, lobbying politicians, seeking judicial review) with the goal of providing the public with access to "balanced and objective information" and requiring decision-makers to justify and account for their support. The group argues that nuclear is too expensive, poses a security risk and leaves a legacy of radioactive waste and that renewable energy provides a better solution to climate change.	The case describes a group of citizens and organizations engaged in an energy-related issue, namely opposing the construction of a nuclear power plant, which they understand to be unsustainable.	United Kingdom	Medium	High	High	High
New power with the neighbourhood (NKMDN)	Neue Kraft mit der Nachbarschaft (NKMDN)	Together with the Bündnis Bürgerenergie, the 100 Prozent erneuerbar stiftung has launched the campaign "New power with the neighbourhood" in summer 2019. The aim is to illustrate the advantages and benefits of a decentralised energy system in a communicative, scientifically sound and politically applicable way. "Neighbourhood" stands for the many positive aspects of civic participation: for a local energy system, for a sense of community that allows cooperatives and neighbourhood initiatives to make energy history, for closeness that arises when people act together and for manageability that brings products and processes whose development every user can experience. It also stands for self-efficacy, when every person can use innovative applications individually, and for independence, when the energy comes from next door. The diverse projects within the campaign range from information offers such as webinars and podcasts as well as events, to scientific modelling that describes sensible and feasible steps towards a regenerative and decentralised energy transition.	This is a case of ENCI since the NKMDN campaign aims at promoting citizens involvement in the energy transition at a local, neighbourhood scale through a large range of possible means.	Germany	High	High	Medium	High
National Association of Active Residents	Landelijk Samenwerkingsverband Actieve bewoners	The Landelijk Samenwerkingsverband Actieve bewoners is an association of and for active residents' groups. They are the national network of resident groups, independent community centres, neighbourhood cooperatives and BewonersBedrijven (neighbourhood enterprises). They share their knowledge and expertise with each other and with others. Together they advocate the position of active residents, also to (local) government.	I have chosen this case as LSA will be supporting ten community groups in their role in the district's heat transition. From this they aim to share the knowledge they will acquire openly and with everyone. This will create a community with experience and knowledge about the position and power of resident groups in the energy transition. I think that is a great initiative from citizens and fits with our ENCI typology.	Netherlands	High	High	Medium	High
CitizenEnergy Alliance	Bündnis BürgerEnergie e.V.	Association of energy cooperatives, to promote citizen participation in energy transition. Emphasis put on co-owning, voting-rights (democratic aspect) and values (participation, initiative, self-help, Self-responsibility and self-management) conveyed by cooperatives. Engaged in advancing the citizen participation in energy transition by looking for future options (energy share, hydrogen, coupling, etc.). Political engagement stands also for a core value of the network, claiming for a real "green power"energy, i.e. sustainable , ecological and citizen-supported energy supply.	Promotion of citizens engagement in energy transition " by stimulating, establishing and supporting an energy supply based on regenerative and decentralized structures, which corresponds to democratic, social and ecological values." In 2020 contributed to the joint publication of the report " "Frauen. Energie. Wende!" (Women, Energy, Change!)	Germany	High	High	Medium	High
ClimACTIONS	ClimACTES	The NGO ACTES was founded in Liège in 2019 by about thirty volunteer citizens. Its ambition is to develop an international network of Summer Universities dedicated to the fight against global warming and in favour of an ecological and just transition. The first edition of ClimACTES took place in 2021, and a second one is expected in 2022. During two weeks, this event brings together experts in different fields (energy, mobility, climate change, food systems etc.) to increase awareness on different topics. Specific slots are also dedicated to support sustainable project leaders, acting as an incubator for cooperatives or other forms of sustainable economic models supporting the transition.	ClimACTES is a manifest case of ENCI because it promotes awareness activities on energy issues with a holistic perspective, while acting as an incubator for sustainable projects.	Belgium	Medium	High	High	Medium
Middelgrundens Vindmøllelaug - Middelgrunden	Middelgrunden Windmill Cooperative	Middelgrunden offshore wind farm was initiated in 1996 by a group of wind turbine enthusiasts. In 1997 the Middelgrunden Offshore Wind Turbine Cooperative was founded and reached 8.600 shareholders within 2 years.	The windmill project was initiated by local wind turbine enthusiasts, there are 8600 private person who own shares. This project is an example for community wind energy. It is 50% owned by the 10,000 investors in the Middelgrunden Wind Turbine Cooperative, and 50% by the municipal utility company.	Denmark	High	Medium	Medium	High

KEM10 VOR WIEN	KEM10 VOR WIEN	The climate and energy model region KEM10 is an amalgamation of the member municipalities of the small region 10vorWien with the municipality of Sierndorf. The communities of Bisamberg, Enzersfeld, Großmugl Großrußbach, Hagenbrunn, Harmannsdorf, Korneuburg, Langenzersdorf, Leobendorf, Sierndorf, Spillern, Stetten and Stockerau therefore belong to KEM10. The aim is to achieve common goals on the topics of climate and energy. The Climate and Energy Model Region 10 vor Wien (KEM10) wants to address the current environmental policy issue of reducing greenhouse gases. A long-term process is to be initiated in the region in order to achieve the goals of the Austrian climate strategy and thus to implement the targets of the European Union.	It is a case of Energy Citizenship because citizens in a cluster of communities are connected in order to achieve common goals in regard to climate protection and energy. Sustainability is a main goal of the initiative, but citizens health, affordability of an emission free life and building community are centered as well.	Austria	Medium	Medium	High	High
Green Energy Cooperative	Zelena Energetska Zadruga	The Green Energy Cooperative (ZEZ) was established as part of the Development of Energy Cooperatives in Croatia Programme; however, it has existed independently since the project's completion. Now it aims to involve citizens in the energy transition process, to encourage entrepreneurship in the energy sector, to empower citizens through the use of RES, and to promote autonomous energy production. The Cooperative is also focused on the development of local communities and the protection of the environment. It provides citizens the opportunity to participate directly in all its aspects, including construction, production, decision-making and profit-sharing.	The Green Energy Cooperative has not only successfully campaigned for energy transition and involved citizens therein; it also serves as the "umbrella organization" of energy citizenship in Croatia, inspiring good energy practices throughout the country and abroad.	Croatia	Medium	High	Medium	High
CoopERLiC	CoopERLiC	CoopERLiC is a cooperative from Liège	One of the main objectives of the cooperative is to ensure that the people of Liège consume less energy and make better energy choices. It is driven by several values, including sustainability, proximity, integrity, democracy and solidarity. It seeks to allow citizens to "become actors in the energy transition".	Belgium	Medium	High	High	Medium
Save Druridge	Save Druridge	Save Druridge is a campaign group that has successfully defended "Druridge Bay" against the Banks Group's proposed Highthorn opencast coal mine. The group brought together environmentalists and local politicians, including the local Green Party, among others. The group not only provided information about the anticipated impacts of the project, but also drafted letters of objection, petitions, and formal opposition to the planning application, and organized a public inquiry.	The case represents civic engagement against a planned coal mining operation. It is particularly interesting that local politicians and parties have also been represented in the campaign group, which calls into question a potential conceptual separation of citizens and politicians.	United Kingdom	Medium	Medium	High	High
Avedøre Green City - solarpower-sheltered charging points	Avedøre Green City - solcelleoverdækkede ladestandere	Charging stations with solarpowered shelter which are the first in the area, were established based on the initiative of the citizens' group from the Avedøre Green City project.	The project is an initiative of a citizen group and the structure acts as an ambassador for green transition and green mobility in the city.	Denmark	High	Medium	Medium	High
Sustainabike	Sustainabike	Liisabike offers leasing of high-quality cargo bikes in and around Copenhagen. They want to provide families with an affordable and usable alternative to the car. As the business model is based on returning the bikes, Liisabike thus creates potentially 200 used bikes annually. Liisabike therefore faced a challenge they wanted to solve: how to resell or re-release the bikes after use? The solution was a new concept: Sustainabike. They now sell the used cargo bikes through an online platform of the same name. Service and maintenance are essential for the life of the leased bikes. Therefore, there is now a strong focus on maintenance of the leased cargo bikes, as well as an upcycling when they are returned. This increases the residual value, which reduces the carbon footprint.	It is a circular economy business concept in the field of mobility.	Denmark	Low	High	High	High
Association KLAR! Switzerland	Verein KLAR! Schweiz	KLAR! Switzerland is an association that opposes the construction of a nuclear waste disposal site in the Zurich Weinland region. The association was established in 2003 by merging two organizations that had been concerned with the issue since 1994. Its main activities are political actions and public information.	The association originated with the purpose to intervene in the political decision-making processes as concerned citizens. It also serves as an illustration of the anti-nuclear movement, which has been a central citizens' movement in Switzerland in connection with energy since the 1970s at the latest. The nuclear issue remains central to the Swiss energy discourse.	Switzerland	Medium	Medium	Medium	High

Youth for Climate (Belgium)	Youth for Climate (Belgium)	Youth for Climate is a climate youth organization that seeks to limit the consequences of the climate and biodiversity crisis by uniting as a movement and exert political pressure while raising awareness in society. It's the belgian branch of the Fridays For Future movement.	Although this is a climate-movement organization, one of its main issues has been energy issues since its beginning.	Belgium	Medium	Medium	High	Medium
Bistrita without a car	Bistrița fără mașină	A week-long campaign promoting sustainable means of transportation (walking, biking and use of public transport). From the 16th to the 22nd of September of 2012 ENGAGE posters have been widely displayed and used to promote local mobility initiatives. Workshops for primary school students were held at the Environmental Information and Education Centre administered by the municipality.	It is an initiative promoted in a coordinated way in different cities of the world, in recognition of the European Mobility Week, as a form of local commitment to energy efficiency, which also sought the commitment of citizens, through of creating banners with children, which makes it an initiative that has been an interesting way to raise issues related to the energy transition.	Romania	High	not considered	High	High
Innovations in EE and RES to better adapt to climate change and reduce poverty	Inovacije u EE i OIE za bolje prilagođavanje klimatskim promjenama i smanjenje siromaštva	The project aims to increase access to renewable energy sources in two cantons in Bosnia and Herzegovina, and to thus contribute to reducing greenhouse gas emissions and combating the effects of climate change. The objective of the case is to apply energy efficiency measures and renewable energy sources in ten public buildings. Moreover, it seeks to educate the public on energy efficiency and to alleviate energy poverty by conducting audits in households, and offering advice and energy-efficient equipment such as LED bulbs. It is hoped that these actions will reduce both households' energy bills, and the production of GHG emissions.	The project offers a prime example of civic involvement: volunteers were mobilized to offer audits and support to citizens facing energy poverty, and plans were made to improve the public's education on energy-related issues. Moreover, the installation of renewable energy equipment in public buildings - especially schools - can both yield concrete outcomes, and sensitise people to the importance of green energy.	Albania	Medium	High	Medium	Medium
Women. Energy. Turnaround/Change! (the term "Wende" also refers to the energy transition - which is unaccountable in english)	Frauen. Energie. Wende! (FEW)	Why we need a gender-equitable energy transition The possibilities for participation in the process of energy transition seem diverse and multiple in our democracy. However, for many marginalised groups in our society, there are questionable and arbitrary, yet systematic, limits and obstacles to meeting their needs as consumers and producers of renewable energy, as well as workers and (political) decision-makers in the energy sector. This publication is aimed at all actors in business, politics and civil society who have not previously associated the issues of gender and energy. The link between gender justice and a grandchild-friendly energy system becomes obvious. This publication contains a concentrated overview of structural resistances that women in Germany in particular have to overcome in order to bring about a new and just energy system. In 13 interviews with experts, personal light is also shed on these systematic barriers that prevent us from building a decentralised, democratic and just energy system.	This is a (highly specific) case of ENCI since this joint publication of WECF und BBEn aims at enhancing the role of women in the energy transition, and contributes to a more decentralised and just energy system that is more gender conscious.	Germany	High	High	not considered	High
Eco Guerilla	Eco Guerilla	Eco Guerilla was initially an information group of aware citizens who gathered to raise their voice and alarm about the very serious situation with the air pollution in the municipality of Tetovo, North Macedonia and surrounding municipalities. The main source of pollution they started protesting against was a local factory that was responsible for a high percentage of the air pollution in the city due to missing air filters. Eco Guerilla started its activities back in 2014 with a group of 5 activists of various professional profiles and now it has thousands people involved, all sharing a common goal: to stop the pollution and undertake real measures to decrease it via awareness raising and public education on who the polluters are and the way in which the institutions at local and central level should deal with the situation. Since its establishment Eco Guerilla has organized a series of activities such as mass protests and publicity campaigns to increase public's awareness on the seriousness of the air pollution and the consequences that arise from it. It is also advocating for preserving the drinking water in Tetovo and against the water supply interruptions in the city – the movement claims it a consequence of the construction of hydropower plants and the landslides it causes due to the seismic tremors.	We consider Eco Guerilla an example of energy citizenship since it shows how citizens unite together in a movement to advocate for mitigating air pollution and move to a more sustainable, fair and just management of natural resources.	North Macedonia	High	not considered	High	High

Insulate Britain	Insulate Britain	Insulate Britain is an environmental activist group who demands insulation across the United Kingdom in face of climate change and energy poverty. Specifically, they demand that the British government improve the insulation of all social housing in the UK by 2025 and retrofit all homes with improved insulation by 2030. To bring emphasis to the demands, the group has engaged in a series of protests involving traffic obstruction, including blockage of motorways in the UK and roads in London.	The case involves a group of individuals who actively engage in an energy-related cause by participating in civil disobedience protest actions. The case thus opens up an interesting and highly relevant question of how and under what circumstances civil disobedience, or the conduct of "illegal" actions, can or should be consistent with the notion of energy citizenship.	United Kingdom	Low	High	Medium	High
Network of Good Energy	Mreža dobre energije	Network of Good Energy is an informal network dedicated to the implementation and dissemination of good practices and solutions in the local energy sector. Its members are several Serbian municipalities, civil society organisations, one school and individual citizens. The objective of the Network of good energy is to reduce the energy costs and emissions, and to combat energy poverty in Serbia.	The Network of Good Energy is a community of advanced local governments, associations of citizens and businesses who believe that it is important what kind of energy we use, and how this energy is used. This is the first platform of its kind in the Western Balkan region.	Serbia	Medium	High	Medium	Medium
Green vision for Slovakia	Zelená vízia pre Slovensko	The main goal of the Green Vision for Slovakia initiative is to open a broader professional discussion about Slovakia's - climate-marked - future across the sectors. The initiative is a series of events, where the organisers give the floor not only to experts in the field of environment and climate change, but also economists, energy professionals, political scientists, sociologists, demographers, business representatives and the civil sector. They believe that they can only succeed in tackling the climate crisis and its aftermath if they seek understanding across sectors and political spectrum, if they start working more broadly and if they have clear and comprehensible realistic goals.	With the discussion, articles, studies, insights the case is trying to help people get a better understanding of what's awaiting society with climate change and what are the many efficient ways of preparing for it, including energy transition and low-carbon lifestyles.	Slovakia	High	not relevant	High	High
The new Call (campaign) to Actions "Be Energy United for Latvia's Energy Independence", addressed to Latvia's People	Aicinājums Latvijas iedzīvotājiem kļūt energovienotiem, vairojot Latvijas enerģētisko neatkarību	Riga Technical University, Riga city Council and Riga District Heating Utility jointly calls every Latvia's citizen to re-consider their behaviour habits and reduce energy consumption with the overarching aim to very significantly decrease Latvia dependence on imported energy resources which are fossil ones and to develop the alternatives to them. The call is based on both economical, geopolitical (among them Russia invasion in Ukraine) and climate change argumentation. Short-term actions can be based on re-considering energy consumption behaviour (including also smart technical devices for energy consumption management), it will be provided advices and science-based recommendations how to do it, citizens also are invited to share their experience in the social media. In its turn, long-term actions relate to significant energy efficiency increase particularly in buildings and industry sector, including energy efficiency investments in buildings and technologies, implementation of energy management systems, active use of renewable resources (solar and wind) not only in individual but also in district heating system. The call (campaign) has been announced in 11th March 2022.	The case provides quadruple ENCI: (1) the invitation for actions by itself, widely distributed in social media, (2) the invitation for the action is initiated by the university (among others initiators), (3) citizens individual or collective actions will deeply impact the basic energy system, and (4) citizens are actively sharing their own experience in social media.	Latvia	not relevant	High	High	High
End of nuclear power	Fin du Nucléaire	Fin du nucléaire is an association whose goal is to put an end to the use of atomic energy for civil and military purposes, in Belgium and in Europe, and as soon as possible. In order to do, the emphasis is placed on reorganizing and revitalizing the anti-nuclear movement in Wallonia and Brussels.	Fin du Nucléaire is a manifest form of ENCI. By organizing protests, education activities and legal recourses, it aims at fostering a reflection on the use of energy in Belgium and in the in the EU.	Belgium	High	not considered	Medium	High
Shale gas fee The Netherlands	Shaliegasvrij Nederland	Shaliegasvrij is a foundation established in 2012. It aimed at a moratorium on the exploitation of unconventional natural gas through fracking.	That is a nice case study for our ENCI typology that provides another angle and diversity to our project. This is the first case I found on anti-fracking which can be really useful	Netherlands	not relevant	Medium	High	High

The Green Chair mechanism	Механизам Зелена столица	The Green Chair mechanism presents a network of over 60 non-governmental organisations active in the field of environmental protection. It was established on 5 June 2013 as an initiative of seven civil society organisations. The main idea behind its establishment was to ensure permanent participation of civil society representatives at the sessions of the Environmental Protection Committee (Committee) of the National Assembly of the Republic of Serbia (National Assembly). The Green Chair mission is to improve communication with the legislative government and to impact the improvement of environmental legislation. This unique mechanism enables permanent and coordinated participation of civil society representatives in the work of the Committee and is one of the most important mechanisms of including citizens in the work of parliamentary committees in general. Representatives of the Green Chair mechanism participate in the debates during the Committee sessions, give comments and suggestions for improvement of the laws and by-laws presented to the Committee. The basic idea and intention of working through such mechanism is to provide MPs, members of the Committee, expert knowledge and insight from the civil sector as well as from local level.	The Green Chair mechanism was established in order to ensure permanent participation of civil society representatives at the sessions of the Environmental Protection Committee at the National assembly of Serbia. The mechanism is very often considered by the representatives of the international community and donors as the only functional mechanism of cooperation between civil society and the National Assembly.	Serbia	Medium	High	High	I don't know / not enough information
Federal Association of Citizens' Initiatives against SuedLink	Bundesverband der Bürgerinitiativen gegen SuedLink	The Federal Association of Citizens' Initiatives against SuedLink is the transnational association of citizens' initiatives that was founded primarily in protest against the planned direct current lines in Germany. The primary goal of the federal association is the nationwide networking of citizens' initiatives with one another in order to give the protest against SuedLink a strong voice. They advocate decentralized and citizen-friendly energy planning and energy policy as a viable alternative to the planned electricity highways and call on politicians to rethink.	It is a case of energy citizenship in that the association fights against the building of North-south power lines presented as a requirement for the energy transition by claiming for another form of energy transition that would be more local and decentralised, and consequently in the local peoples' hands.	Germany	High	not relevant	Medium	High
Izgrei.bg	Изгрей БГ	Izgrei.bg is the first energy community in Bulgaria, working on creating a solar energy production installation. The start-up is moreover the first private platform to work with all energy suppliers in the country. It initiates contact between businesses and energy suppliers to offer sustainable and cost-efficient solutions, thus providing them with an incentive to invest in energy transition.	This start-up focuses on the need to accelerate the process of energy transition in Bulgaria, and does so in a way that appears accessible and beneficial to businesses.	Bulgaria	Medium	Low	Medium	Medium
Scientists for Climate - Croatia	Znanstvenici za klimu Hrvatska	Croatian Scientists for Climate unites Croatian scientists from various fields, whose goal is to raise awareness about the climate change crisis and conduct activities to prevent further worsening of that process globally. They are united by their concern, stemming from the increasingly evident consequences of climate change and the lack of systematic debate on the topic in Croatia. Having in mind scientific findings on climate change, its cause, consequences, forecasts and prospects, they call for ambitious measures to create preconditions for a systematic and comprehensive approach to the climate crisis. Another important activity of this group is to support existing and emerging climate initiatives as well as to educate the general public on all aspects of the current climate crisis. In the beginning on 2020, they set in motion an initiative, entitled "Croatian Scientists for Climate – Appeal for Systematic Climate Action", supported by 555 Croatian scientists. The Appeal was handed over to the institutions of the legislative and executive branches in Croatia in January 2020. In their efforts to focus public attention on this topic, in March 2020 they met with President Zoran Milanović, who underscored the importance of science for the sustainable development of society and of a timely scientific response to changes that are occurring in the environment and the preparedness to face the challenges of the day and of the future.	Croatian Scientists for Climate is an ENCI case, because it represents a form of civic involvement of scientists from different scientific fields, united by their concern about climate change.	Croatia	High	not relevant	High	Medium
Better Environment Federation	Bond Beter Leefmilieu (BBL)	Bond Beter Leefmilieu (BBL) is a Belgian umbrella organization for Flemish environmental and nature associations, citizens, governments and companies, aimed at the transition to a sustainable society with a circular economy. Its activities include movement-building (130 members), lobbying (influencing environmental policy of governments and companies) and awareness (sensitizing the general public through campaigns and projects)	The main focus of BBL are renewable energy, plant-based nutrition, sustainable agriculture, emission-free mobility, circular economy and spatial planning. Although energy is considered as a transversal issue, some campaigns have had a energy focus, including clean power transport, nuclear energy or sustainable air transport.	Belgium	Low	not considered	High	Medium

EnerCoop Uelzechtdall	EnerCoop Uelzechtdall	EnerCoop Uelzechtdall is a cooperative of citizens who want to support the energy transition at the local level. It is a project led by Transitioun Uelzechtdall, a citizen-powered non-profit organization that initiates and supports social, ecological and economical projects to help communities of the Uelzecht River Valley transition towards a green, healthy and sustainable future;	Enercoop offers a socially and ecologically responsible alternative to contemporary energy consumption and production practices. One of its main objectives is to promote citizen participation in local, democratic and educational projects;	Luxembourg	High	not considered	Medium	Low
STOP-Smart Meter Network Austria	STOP-Smart Meter Netzwerk Österreich	Stop Smartmeters Austria is a network of different organisations, groups, associations, companies, people, etc. for the purpose of information and education about the problems/dangers of the new "intelligent electricity meters, the so-called smart meters. Freedom of choice and self-determination for our home is their ultimate goal. To this end, they want to join forces on this issue, pull together and seek constructive solutions. The cooperation of the various organisations and people in this network serves the above-mentioned purpose, regardless of ideologies, party affiliation and the like.	This is a case of ENCI since it's calling for more citizens involvement in refusing the smart meters installation in their home mostly for privacy and health reasons. Since their installation is compulsory, the case relies on a form of ENCI that has to do with civil disobedience according to the concerned people.	Austria	High	not considered	not considered	High
North Kerry wind turbine awareness group NKWTAG	North Kerry wind turbine awareness group NKWTAG	The North Kerry Wind Turbine Awareness Group is a group of local residents and one of the leading voices opposing wind farms in the Northern Kerry region. To this end, it organized petitions, holds information events, and makes appeals in the legal permitting process.	The case includes individuals from local civil society who are strongly and publicly engaged around an energy-related issue. However, the engagement does not necessarily concern an intended change, but rather a preservation of the status quo (prevention of wind farms), which could make the case a borderline case of ENCI according to our definition. Nevertheless, the case shows ambitions of democratic co-determination.	Ireland	Medium	Medium	Medium	does not contest
Chris Vrettos	Χρήστος Βρεττος	Chris is from Athens (Greece) and he is studying socioecological systems at the Stockholm Resilience Centre. He is involved in the resistance against fossil fuels in Greece and he is a member of Hyperion, the first solar energy community in Athens. He is a big fan of politics, social justice, intersectionality, confrontations...and the sun!	Chris is a highly motivated individual on issues like climate change, energy democracy and just transitions. He is an energy consultant, activist, the founder of the climate collective and the co-founder of the Hyperion the first solar energy community in Athens.	Greece	not relevant because individual	not relevant because individual	High	High
The Sámi Parliament's view on wind power in Sápmi	Sametingets syn på vindkraft i Sápmi	The Sámi is an indigenous population that historically lives in an area that covers parts of Sweden, Norway, Finland, and Russia. This area is called Sápmi. In Sweden the Sámi are recognised as a national minority and has its own parliament that concurrently functions as a government agency and an elected body whose mission is to promote vibrant Sámi culture and livelihoods. As a response to the national government's plans to develop wind power in Sápmi, the parliament adopted a position paper in 2009. The Sámi Parliament is critical towards large scale wind power development in Sápmi and stresses the need to reduce energy overall energy consumption, localize energy production to where it is in demand, and respect environmental values and Sámi rights, needs, and livelihoods (e.g. reindeer husbandry) in the development process. Furthermore, the Sámi Parliament advocates for a bigger role in the decision-making processes and in-depth impact assessments taking socioeconomic perspectives into consideration. The development of energy infrastructure in Sápmi territory has a historical legacy, during the 1900s when large scale hydro power was developed in Sweden the interests and views of the Sami were not taken into consideration.	I included it as an example of a minority group that practices ENCI by protesting against large scale wind power development.	Sweden	not relevant	not relevant	High	High

Silje Østerbø	Silje Østerbø	Silje Østerbø, is actively promoting climate action and energy transition through her work as adviser at the Climate Agency (in Bergen municipality), and as project manager at Norwegian Society for the Conservation of Nature (Hordaland County). Some of these projects are: Energismart, 'Proper wood burning', 'Take care of what you have', 'The plastic hunt'. The projects Silje is involved in promote both efficiency (e.g. Energismart, 'Proper wood burning'-'Riktig vedfyring') and sufficiency concerns (e.g. 'Take of what you have'-'Ta vare på det du har'). Through the example of Silje citizens are committed to deeply renew and restructure the energy system, toward a more sustainable one. The actions and proposals are part of the contestation of the dominant system, and result in critics and protests (e.g. climate protest) against policies and actions.	Might be interesting as an individual case, since Silje is involved in a diverse range of green projects and protests too, contests the dominant system, policies. - Energismart: a project which aims to make it easier to make energy-smart choices in homes. - 'Proper wood burning'-'Riktig vedfyring' - 'Take of what you have'-'Ta vare på det du har': a collection of tips and tricks on how can one ensure good maintenance and simple repairs by oneself, and an overview of repairers so that one can easily get help to fix one's things. - 'The plastic hunt': about the plastic rubbish issue.	Norway	not relevant because individual	not relevant because individual	High	High
Pauline Westendorp	Pauline Westendorp	Pauline is leading the energy transition in the Netherlands as an activist and the owner of the 02025. She represents the energy community movement in the Netherlands. To quote her: 'Today, we turn shared energy goals developed by politicians, big industry, academics and the disruptive ideas from communities into practical solutions.	I have included Pauline in the database because she is an excellent example of energy citizen. Her informal network is constantly listening to the needs of the active communities on their journey to a sustainable future! The Amsterdam Approach! Therefore: since 2019 they have formed an integrated middle-ground organisation in between Government, Market en Citizens and we call it common ground. With a shared goal, to lead the energy transition in 2025, they work together without bosses. Without political goal, financial profit goal or another idealism. Their goal is leading: Amsterdam frontrunner clean energy in 2025.	Netherlands	not relevant because individual	not relevant because individual	High	High
Green railway	Zelená železnice	Zelená železnice (Green Railway Association) was created in 2021 with the main objective to coordinate the development of emission-free transport so that investments in the development and production of vehicles, as well as in the construction of the related infrastructure, are efficient and affordable for carriers and customers. The association also wants to be a partner of the state and regional governments in creating the necessary legislative framework for this important change within the framework of the European Union's Green Deal. The founding members of the Green Railway Association are České dráhy, ČD Cargo, Škoda Transportation, Siemens Mobility ČR, CZ LOKO, ČEPRO and the University of Logistics in Přeřov.	It is a latent form of ENCI because the main goal is to reduce the carbon footprint of railways.	Czech Republic	No effective voice	not considered	High	does not contest
We stay on the ground / Flight free	Vi håller oss på jorden / Flygfritt	We stay on the ground is a non-profit, non-political organisation that works primarily through their website and social media. Their purpose is to spread awareness about the climate impact of aviation and to promote a reduction in air travel. The organisation started in 2018 and has since then run the campaign "Flight free" (in 2019, 2020, 2021 and 2022 respectively) to encourage citizens to make a pledge to stay on the ground for a whole year, talk about it, and thus inspire others to make the same decision.	We stay on the ground is a citizen initiative started by two neighbors that grew into a social movement with international reach. They want to change our travel norms, i.e. giving up on air travel, and through that contribute to the necessary decrease in carbon emissions to solve the climate crisis, and thus indirectly contribute to a more sustainable energy system.	Sweden	not relevant	not considered	High	I don't know / not enough information

<p>CNME Maastricht and region - Nature and Environment Education Foundation in Maastricht</p>	<p>CNME Maastricht en regio - Stichting Natuur en Milieu Educatie in Maastricht</p>	<p>For 25 years, CNME have been connecting people and nature to create a more green and sustainable world. That is why they work in co-creation with residents, schools, municipalities, businesses and other green organisations. They work on information, education, advice, landscaping and (ecological) nature management. With their knowledge and expertise about nature and sustainability, they help others to behave in a more (nature) aware manner, and to green their own living environment. They help to move from grey to green, in thought and action.</p>	<p>This is an interesting multi-actor case in voluntary energy coaches, who are offering energy advisory services through the Stichting Natuur en Milieu Educatie in Maastricht, a NGO. SNME has 70 volunteers and a number of paid professionals. The coaches are volunteers who obtained a training course which was paid by the local government. In EnergyProspects, the volunteer energy coaches are a possible case for research but the unit of analysis could also be broadened to the national network of voluntary energy coaches with attention to the funding organisations in the Netherlands (European Climate Foundation and the Nationale PostcodeLoterij. In TRANSIT, we studied networks of transformative social innovation and local manifestations. We also studied the interactions with the institutional context and how they are part of historical change. It would be nice to do something similar in the EnergyProspects</p>	<p>Netherlands</p>	<p>not relevant</p>	<p>not relevant</p>	<p>High</p>	<p>does not contest</p>
<p>The River Guardians</p>	<p>Älvräddarna</p>	<p>The River Guardians is a non-profit, non-partisan association consisting of independent river guardian groups who fight to stop all new hydropower development in Sweden, to remove unnecessary hydropower (e.g. those that produce very little electricity but destroy important watercourses), and for environmental adaptation of existing hydropower with fish ways etc. The river guardians inform politicians, authorities and the general public, take part in various consultations and seminars, participate in court hearings, check existing hydropower permits, report cases to the authorities and the police, if necessary, act as advisors to fisheries conservation associations, carry out investigations, check the truthfulness of electricity companies' marketing, etc.</p>	<p>80% of the Swedish hydropower is set in the northern parts of the country and hydropower amounts to 40% of total domestic electricity production. This case of civic involvement pertains to protest existing hydropower and the development of new hydropower for environmental reasons (in particular to promote biodiversity and ecosystem services), but also to protect and improve rural livelihoods (for example ecotourism) in the northern part of Sweden.</p>	<p>Sweden</p>	<p>not relevant</p>	<p>not considered</p>	<p>I don't know / not enough information</p>	<p>I don't know / not enough information</p>

Unassigned and problematic cases

Case name	Case description	Why is it a case of ENCI
UZLĀDĒTS. LV (Latvia)	Uzlādēts.lv is the only in Latvia that focuses only on zero-emission vehicles and climate change, providing current news about, but not only, electric cars, e-mobility, zero waste, eco-houses, green energy, and renewable energy resources. Uzlādēts.lv was created in 2018 to prevent the spread of misinformation and myths in the Latvian media environment on such topics as renewable energy resources, electric cars, energy storage, and zero waste thinking. The goal is to become a source of news that information can be relied on	Established by interested individuals, UZLADETS.LV has become the recognized information source. It provides the following self-evaluation 'Uzlādēts is more than a blog. We are ready to share our knowledge and help find a solution'. Uzlādēts.IV has established wide partnership links
Electric vehicles in households: state programme in 2022 & 2023 to promote their penetration (Latvia)	The electric vehicles have started their penetration in Latvia households. In 2021 electric vehicles took 4.35% of the total market of new vehicles. The country-wide fast charging stations network (141 station) is in place already. To promote electric vehicles in households, new state budget financed (revenues from the Emissions Allowances Auctioning Instrument) support programme for the years 2022 and 2023 has been adopted in December 2021. The case presents this programme from the point of individual household. The amount of grant is differentiated as follows: (1) for purchase of new BEV – 4500 EUR, (2) for purchase of exploited BEV and new PHEV – 2250 EUR. In addition, 1000 EUR is provided in case of scrapping of an existing vehicle and also the registered merchant – seller of EV should provide bonuses of 1000 (new BEV) or 500 EUR. The support is provided to the EV sellers as the intermediaries, the final beneficiaries are the physical persons	The choice for electric car is a motivated decision (energy citizenship) of the individual household. The financial support is only additional motivator, not the main one. The questions are evaluated from the point of individual households
Education programme (materials) and competition for schools “Efficient energy consumption in education institutions” (Latvia)	The Vidzeme planning region (regional planning authority), within the Interreg Baltic Sea Region 2014-2020 programme’s project “Financial Tools and Instruments for Energy Efficiency in Buildings” (EFFECT4buildings), had implemented the particular programme “Effective energy consumption in education institutions”. Within the competition framework, 21 school of 8 municipalities of Vidzeme region committed themselves to reduce school’s energy consumption by changing habits and introducing regular energy saving measures. Within the framework of the competition at least 10% energy savings should be reached compared to the selected base year. To promote the rational use of energy in schools and to encourage students to become knowledgeable and responsible energy users, the educational material was prepared, which includes 10 topics: Energy Consumption in Buildings, Heating, Electricity, Types of Energy Resources, Climate Change, Lighting, Ventilation, Water, Energy Planning, Waste. The education material aims to provide both the content and the methodological support to educators in motivating and preparing students. The outline of each topic consists of four parts – the cognitive part, the practical part, ideas for expanding the topic and tasks ideas. The tasks are intended for use in the basic school stage, but they can also be adapted for learners of other ages	This is the voluntary activity for schools. By participating in it both the schools’ staff and students demonstrate active position and lifestyle
The annual national contest “Most Energy Efficient Building in Latvia” (Latvia)	The annual contest is organized in 5 nominations – (1) renovated multi-apartment building, (2) new multi-apartment building, (3) single family building, (4) public building, (5) industrial building (2021 nominations). The aim of the contest is to promote the good practice in the field of energy efficiency and sustainability of buildings through the energy efficient construction, renovation and refurbishment of buildings, thus reduce GHG emissions, raise public awareness of the sustainability of buildings and create a high-quality architecturally expressive living space. The objects – buildings can be submitted to the contest by a natural or legal person (e.g., building owners, management companies, project developers, construction companies, municipalities, public organisations, etc.)	The submission to the contest indicates the active position of the building owners, including natural persons – the willingness to demonstrate and disseminate the good practices. Wide cooperation between state authorities, professional NGOs and companies to implement the contest.
Compete4SECAP project (C4S) (Cyprus)	The Compete4SECAP project (C4S) aimed at helping local authorities put their existing Sustainable Energy Action Plans (SEAPs) into action. The project promoted the adoption of standardized energy management systems in municipalities through the coordination of national competitions and peer-to-peer exchanges which steered the attention and involvement of local to national authorities in 8 European countries. The project also helped facilitate the upgrade of SEAPs into Sustainable Energy and Climate Action Plans (SECAPs), as per new planning approaches promoted by the Covenant of Mayors.	This is a nice example of a project that involves local governments/ municipalities and it is great for our ENCI diversity of cases as I have not seen many projects like that. The Compete 4SECAP project (C4S) aimed at helping local authorities put their existing Sustainable Energy Action Plans (SEAPs) into action and it involved 32 local authorities across Europe.
The NAERAS project (Greece)	Following in the footsteps of nature, using the Water (greek “Nero”) and Air (Greek: “Aeras”) cycle, a pioneering energy project, at national and European level, was created on the island of Ikaria and was named: Naeras. “Naeras” in Ikaria Island, is one of only two hybrid energy projects in Europe that combine wind and hydraulic power. The main objective of the project is to increase the penetration of Renewable Energy Sources into the Ikaria Electricity Network and to reduce the quantity of conventional fuel oil used to produce energy, thus reducing substantially the carbon footprint of this iconic Aegean island.	I have chosen this case of a remote Greek island as an interesting case to map for our ENCI types on an innovative technology combining wind and water. It is interesting to see if the successful operation of the project will create a new, much needed, paradigm of how to achieve energy autonomy of non-interconnected islands and island complexes, using only RES and thus pave the way for the energy transition to the new clean energy era, which is a prerequisite to tackle the climate crisis. Remarkable to say that the island is 50% independent from fossil fuels.

Climate Street, Helsinki and Vantaa (Finland)	To contribute to the Helsinki region's goals to reach climate neutrality by 2050, and inspired by similar projects in other European cities, the Climate Street project was implemented in three streets in Helsinki and the neighbouring city Vantaa from 2015-2017. The project worked with a cooperative approach to engage a wide range of stakeholders, such as residents, citizens, businesses, property owners, housing associations, NGOs, school children, and city officials, through piloting small-scale solutions that would contribute to climate neutrality and climate resilience in the chosen streets. The aim was to create a reference point for climate friendly development in an already existing urban environment to help scale-up these experiences. During the three years, 52 experiments were carried out, as one-off events or long-running activities, related to issues such as energy efficiency, renewable energy, sustainable transformation, reduction of waste, adaptation to climate impacts, sustainable food and consumption. Climate objectives were combined with developing business opportunities, improving the liveability of the target areas and wider sustainability ideas.	The initiative supported and enabled ENCI practices for individuals, businesses, organisations and the municipality through its approach to support and pilot ideas that contribute to climate neutrality.
RAPPEL network of stakeholders against poverty and energy poverty in housing (France)	RAPPEL is a network that aims at: connecting and supporting organisations that provide preventive and corrective solutions to fight energy poverty; capitalize and advertise on diverse experiences (deployment of local energy programmes, information or training campaigns...); better take into account energy poverty in policies through regular dialogue with institutions; and think about new action areas, existing actions replication, creation and dissemination of tools.	The programme supports mainstreaming of energy poverty alleviation through diffusion of best practices, dialogue and coordination among various actors from the housing, energy and social sectors.
Compete4SECAP (C4S) project (H2020) (Hungary)	The case is an international (H2020) project of GreenDependent Institute (GDI) in which GDI helped 4 Hungarian municipalities/local authorities in addressing mitigation and adaptation issues related mainly to climate change, but also other sustainability areas, such as energy poverty, energy democracy, active energy citizenship. Within the C4S project GDI together with the participating municipalities accomplished tasks related to three main activity areas: 1) Development of a SECAP - Sustainable Energy and Climate Action Plan (based on an already existing SEAP) with the active involvement of local stakeholders and citizens. 2) Development of an energy management system for several municipal buildings based on the ISO 50001 standard and initiated training events for the public employees working in those buildings. 3) Organisation of a 1-year-long energy saving competition for municipal employees and thus also bringing their attention to other sustainability, energy citizenship related issues.	A fruitful cooperation between an NGO and several municipalities. The project was very complex, focusing on energy and also climate change related issues through various activities. The project required the active commitment and participation of the municipal leadership, the 'average' municipal employees, the local NGOs and other stakeholders, and also set a good example that public employees do have a responsibility to be modal citizens.
Sustainability Projects of Budaörs (Municipality) (Hungary)	Extract from the Energy Policy of Budaörs (2018): The Local Authority of Budaörs would like to express its commitment towards climate protection and the sustainable development of the city by making responsible decisions in the field of energy efficiency too. Our Local Authority is dedicated to improve its energy efficiency and energy performance of its institutions. The Town has committed itself toward climate protection and sustainable energy management by joining the Covenant of Mayors in 2011 and preparing our Sustainable Energy Action Plan in 2012. In this Plan we pledged to reduce our CO2 emissions by at least 20% by 2020. As this commitment of ours is on good tracks and to keep up this positive process we would like to implement a complex energy management system (ISO 50001) at our local authority.	Budaörs was one of the first Hungarian towns/cities to join the Covenant of Mayors, to develop its SEAP and SECAP (Sustainable Energy and Climate Action Plan), to implement an energy management system (ISO 50001) in many of its public institutions to show a positive example to the companies and citizens of the town, its Local Authority has been organising numerous campaigns and programmes for the inhabitants of Budaörs as well as its public employees to enable them to become energy citizens.
Scientific and Technological Park for the Environment (Italy)	The Scientific and Technological Park for the Environment in Turin, Italy, is a private company owned in part by local authorities and utilities, with a vision to develop and promote environmental sustainability as an engine of competitiveness. To do this, the mission of the Environment Park is to be a point of reference for public and private actors engaged in innovation processes for environmental sustainability. The activities of the Environment park are twofold, and have allowed it to become a centre of competence for innovation for sustainability for national and international networks and a catalyst of projects over the past 20 years through: 1) the management of the technological park that is made up of companies, laboratories, a congress centre, common services and green areas; and 2) the development of innovation services for companies and public administration that are ready to invest in environmental innovation. The main areas of expertise are: energy and mobility; surface treatments; hydrogen; green chemistry and circular economy; and climate change mitigation.	The case enables/supports citizens, in this case local authorities and businesses, to practice more active ENCI, through providing space innovative solutions for environmental sustainability.
Solar Decathlon Europe 2019 (Hungary)	By today Solar Decathlon has become the world's most significant architectural innovation competition organized between universities. Initiated by the Department of Energy (DoE) of the US Government, the first Solar Decathlon competition was held in Washington in 2002. The basic goal of the initiative is to foster the cooperation of university researchers and developers with industrial partners and sponsors, building on the creativity and innovative abilities of young people, and design such innovative and energy efficient houses that may be showcase homes demonstrating sustainability, based on the use of renewable energy and the conscientious use of resources. The competitors not only make plans during the competition but they also construct the selected entries at the venue of the finals (this time in Szentendre in the summer of 2019). Thus, as a result of the competition, a publicly accessible exhibition area, called "Showcase House Park", will be created open to professionals and the general public.	In some ways, this case promotes energy citizenship between various audiences: university students, architects, the general public. Also, it creates cooperation towards energy citizenship related to energy efficient and sufficient building between various stakeholder groups.
E.ON Energy Globe Hungary Award (Hungary)	The aim of the Energy Globe Hungary award is to reward the most outstanding Hungarian sustainability initiatives and to contribute to the promotion of sustainable, smart solutions and environmental awareness. Those that prove that action can and should be taken today for a sustainable, liveable tomorrow. The overall winner of the award will go through to the international finals, which are considered the "Oscars" of	This is an important award for recognizing various kinds of energy citizenship (and environmental citizenship in a broader sense). It also helps promote and communicate positive examples, and in general raise

	the energy world. Entries are judged by recognised experts in the fields of energy, climate change and innovation. There are always various categories for entries, in 2020 (the last round of the award process) these entry categories were "enterprises", "municipalities", "future generations", "buildings", "initiatives by individuals" and "innovative idea".	awareness about them. Besides, the award event brings together various stakeholders. In addition, the award event is organised in an environmentally responsible way.
Enabling consumer action towards top energy-efficient products (TOPTEN ACT) (Lithuania)	TOPTEN ACT aimed at empowering consumers to act: to purchase top energy-efficient products that will save energy over their life-time. TOPTEN ACT developed a comprehensive market transformation strategy targeting consumers, manufacturers, retailers, large buyers, consumer associations and other key actors in 16 European countries, covering a combined population of 447 Mio inhabitants. It worked with these actors to help them embrace and promote energy-efficient products, so that they become the natural choice for consumers. Project partners manage 16 Topten websites presenting up-to-date, consumer-oriented information. These websites showcase top energy-efficient models in a number of product groups: domestic appliances, cooling and lighting equipment, consumer electronics, vehicles etc. They build on independent and reliable market surveys selecting the best available technologies (BATs) amongst hundreds of thousands of products. In its turn, consumers identify top products, compare costs and understand the benefits of energy performance both on their electricity bills and for the environment. Partners pushed this information to consumers also through extensive use of the media, communications and partnerships with key organisations acting as multipliers thus providing the trustable information. Partners performed work with retailers, leveraging on their unique market position, directly in contact with consumers about to act, to further increase purchases of energy-efficient product.	Desire to use by residents and other stakeholders the different tools and advices is clear expression of the ENCI. The tools by themselves cannot bring the energy saving, the desire for behaviour change is required
Plant a tree programme - Stay carbon neutral and stay with HI Iceland (Iceland)	Hostelling International's programme of tree planting to minimize the negative environmental impact of their operation	Hostel enables tourists to be more sustainable when travelling.
Covenant of Mayors Reykjavík (Iceland)	Municipality with carbon reduction goals until 2020. The measures contained in the Sustainable Energy Action Plan (SEAP) are considered to reduce emissions about 22.1% and it is figured that each resident will emit approximately 2.1 tonnes in 2020. In 2016 the city City Council approved that the City of Reykjavík becomes a party to the Unified Charter Municipal Covenant of Mayors for Climate and Energy with a plan to reduce greenhouse gas emissions by 40% by 2030.	By being signatory, the municipality and its staff is dedicated to create and carry out the action plan.
Green Steps Program (Iceland)	A programme developed for government agencies in Iceland with the overall aim of decreasing environmental impacts from daily operations in the public sector.	Environment Agency of Iceland helps the government agencies to reduce their environmental impacts. It is based on behavioural change in an organizational setting, and it probably results in changes in the household of the members of these organizations.
UZLĀDĒTS. LV	Uzlādēts.lv is the only in Latvia that focuses only on zero-emission vehicles and climate change, providing current news about, but not only, electric cars, e-mobility, zero waste, eco-houses, green energy, and renewable energy resources. Uzlādēts.lv was created in 2018 to prevent the spread of misinformation and myths in the Latvian media environment on such topics as renew-able energy resources, electric cars, energy storage, and zero waste thinking. The goal is to become a source of news that information can be relied on	Established by interested individuals, UZLADETS.LV has become the recognized information source. It provides the following self-evaluation "Uzlādēts.lv is more than a blog. We are ready to share our knowledge and help find a solution". Uzlādēts.lv has established a wide partnership links
Open innovation living labs for Positive Energy Neighbourhoods (oPEN Lab) (Estonia)	The on-going EU Horizon 2020 programme funded oPEN Lab project revitalises urban areas across Europe and lead the transition of Positive Energy Neighbourhoods (PEN). Through activities in three open innovation living labs in Genk (Belgium), Pamplona (Spain) and Tartu (Estonia), oPEN Lab identifies commercially viable solutions to achieve positive energy urban environments, in line with the EU's aim to be climate-neutral by 2050. The project promotes sustainable design tailored to neighbourhoods, seamless industrial renovation works, renewable energy generation combined with energy storage, urban service facilities, smart operation and life cycle thinking. The ultimate aim is to roll out a holistic and positive energy vision for neighbourhoods across Europe.	Multi-stakeholders approach. Within the project, strong innovation clusters will be established which are able to accelerate the spread of green building and renovation concepts to provide momentum to the "renovation wave" that will be politically underpinned. The project involves the locals of the neighbourhood. The project is about citizen engagement, listening to the inhabitants and building the trust.
The heat power plant in Kópavatn, Hrunamannahreppur (Iceland)	A local community has a small-scale geothermal power project. The municipality of Hrunamannahreppur and the local heat utility in Flúðir have reached an agreement with the company Varmaorka for a co-operation for the production of temperature geothermal electricity. The partners established a new company called Flúðaorka that operates the power plant. The well gives 120°C water. After utilization of excess heat, the water is mostly used for house heating in Flúðir and elsewhere at 85°C. The power plant creates electricity enough for 2400 homes.	Municipality unites with companies to help local community to become more self-sufficient.