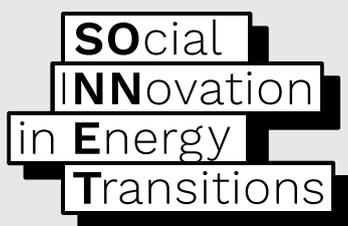


SONNET

Social Innovation in Europe

How social innovations can meet EU goals, and how EU policies
can support social innovations





The **S**ocial **I**nnovation in **E**nergy Transitions (**SONNET**) project SONNET brings diverse groups together to make sense of how social innovation can bring about a more sustainable energy system in Europe. Through a diversity of methods, it explores how social innovation has contributed to making our energy sources, use, and production cleaner, as well as how social change help reduce our carbon footprint in the future. For more information, visit sonnet-energy.eu.

Terms of use

 This publication has been produced as part of the SONNET project and is licensed under a Creative Common Attribution 4.0. International (CC BY-ND 4.0).

April 2022

About this Energy Read

Throughout the project, SONNET is producing a series of so-called 'Energy Reads' that summarise the key points from its diverse catalogue of research into concise, accessible, evidence-based publications. This Energy Read outlines the bridge between the local and European levels, showing how local social innovation initiatives help reach EU goals, and how the EU can better support and harness the full potential of social innovation to transform energy systems.

Authors

Adrienne Kotler (ICLEI Europe)

Contributors

Niklas Mischkowski (ICLEI Europe), Karoline Rogge (Fraunhofer ISI), Regina Betz and Christian Winzer (ZHAW)

Layout

Katharina Philips

All images in this publication are the property of the organisation or individuals credited.

The sole responsibility for the content of this publication lies with the authors. It does not necessarily reflect the opinion of the European Union.

The European Commission is not responsible for any use that may be made of the information contained therein.



The project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No 837498.

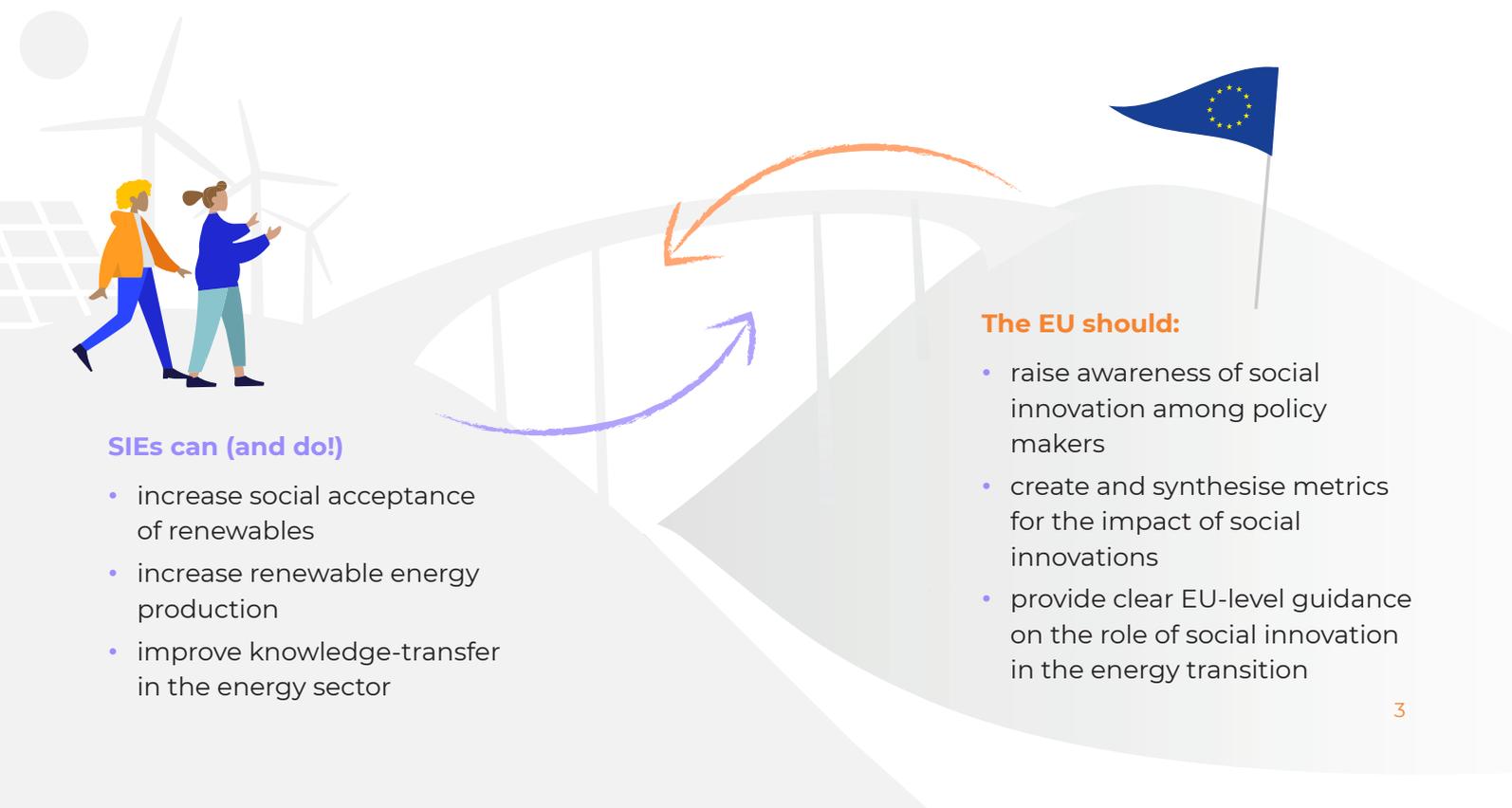
Introduction

Bridging local and European levels

Social innovation in energy transitions is often positioned as a local undertaking. Social innovations in energy (SIEs) call to mind local “City Lab” experiments, or community-driven energy cooperatives. And there is some truth to this notion, as SIEs tend to decentralise energy systems and are often community-driven. However, the SONNET project is – and many other projects like it are – supported by European funding. **So where does the EU fit in, and how do higher governing levels (national, European) come into play?**

Whether intentionally or not, SIEs can help achieve European targets. The energy transition is, after all, at the heart of countless European policies, proposals and strategies, while transitioning to sustainable energy systems is also a key goal for SIEs. SONNET research has worked to figure out the degree to which SIE and EU aims align, whether these EU goals are important to SIE initiatives, and the degree to which different SIE types contribute to meeting different goals. In other words, how SIEs help to meet European-level aims.

Local initiatives are also directly influenced by national and European policies in a multitude of ways, and SIE-initiatives are no exception. With this in mind, SONNET research has set out to understand what is needed at a variety of governance levels, in order to help harness the full potential of social innovation to transform our energy systems. In other words, how higher governing levels can support SIEs and their transformative potential.



SIEs can (and do!)

- increase social acceptance of renewables
- increase renewable energy production
- improve knowledge-transfer in the energy sector

The EU should:

- raise awareness of social innovation among policy makers
- create and synthesise metrics for the impact of social innovations
- provide clear EU-level guidance on the role of social innovation in the energy transition

1. How social innovations in Energy help reach EU aims

Sustainability goals at the European level, specifically the goals of the Energy Union, often match the visions and missions of local SIE-initiatives. As a result, by working towards their own aims, SIE-initiatives may also help Europe to achieve its energy goals. It is thus important to understand to what extent SIE and EU goals are aligned, and how important EU aims are to local SIE-initiatives, to better understand how SIEs support the achievement of policy goals at the European level – whether consciously or not.

Through surveys, interviews, and an expert workshop, we took on the task of better understanding how local SIE initiatives can (and do) help reach EU aims.

Setting the stage

First, [SONNET mapped EU energy aims alongside SIEs' aims](#) to identify what goals are EU-specific, SIE-specific, and which are shared-aims.

SONNET surveys showed that the three most important aims for SIE-initiatives were:

1. increasing renewables production (shared);
2. decreasing greenhouse gas emissions (shared); and
3. increasing social acceptance of renewables (SIE).

Overall though, SIE-specific aims were generally more important than EU-specific, or even most shared goals.

Now that we better understood their aims, it was time to see how they meet these goals.



Table 1: Shortlist of 20 aims based on literature review and consolidation workshop.

Aim	Found in EU energy policies, SIE missions, or shared by both		
reduce consumer energy bills	Shared		
reduce energy consumption	Shared		
increase energy efficiency	Shared		
reduce greenhouse gas emissions	Shared		
increase the production from renewable energy sources	Shared		
reduce impact on the environment		SIE	
increase independence of energy supplies		SIE	
improve knowledge-transfer in the energy sector		SIE	
strengthen local community		SIE	
increase local economic development		SIE	
improve social acceptance of renewable energy production		SIE	
impact energy policy processes		SIE	
improve quality of life		SIE	
advocate for regional renewable energy projects		SIE	
improve economic feasibility of renewable energy projects		SIE	
provide support to other energy-related initiatives or projects		SIE	
improve security of energy supply			EU
develop new renewable energy technologies			EU
increase trade of energy with neighbouring regions			EU

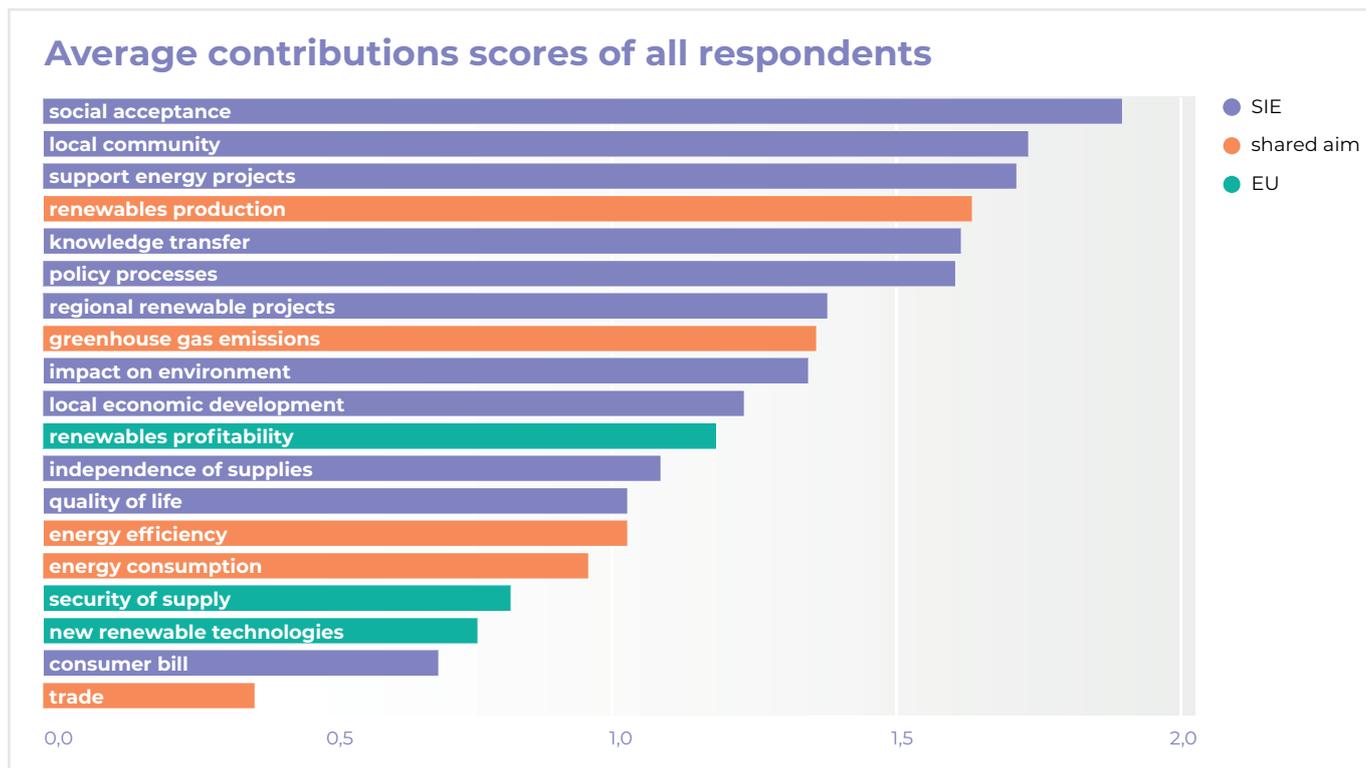
Getting to the point: do SIEs contribute to reaching EU goals?

We developed and put a SONNET evaluation scheme (made up primarily of three surveys) to work. The conclusions, described below, are also based on interviews and an expert workshop.

Survey 1: importance of, and contributions toward, different aims

The survey found that SIE initiatives most successfully contribute to SIE aims (as opposed to EU- or shared-aims). In particular, they perceive their work as best meeting the goals of ‘improving social acceptance of renewables’, and ‘strengthening local community’. And, perhaps unsurprisingly, they seem to contribute most to the aims that are most important to them.

Figure 1: On average, how much respondents perceived SIEs to contribute to the different aims.



Survey 2: Concrete data regarding contribution to meet aims (e.g. kWh of renewables production, kg of avoided CO₂ emissions, etc.)

Ultimately, most SIE-initiatives do not collect data regarding their contribution towards aims, and what data they do collect is hard to compare across SIEs. In the next chapter, we identify “improving and standardising metrics of SIE impact” as a priority area where the EU can be impactful.

Survey 3: how SIE initiatives changed ways of “thinking”, “doing”, and “organising”

Our [typology of SIE types](#) divides SIEs based on whether they feature cooperation, exchange, competition, or conflict; and if energy activities can be best described as related to ways of doing, thinking, or organising. On average, SIEs' contribution towards shared aims was significantly higher for initiatives engaged in competition (e.g. energy gamification and nudges), and significantly lower for those working with conflict (e.g. campaigns against specific energy pathways).

Overall though, our examination of the extent to which SIE-initiatives meet different energy transition goals (including these three surveys) shows that the most important factor may well be what SIEs consider important. **The aims that SIEs consider more important are also those that they seem to contribute to the most.**

What this means

These results have a number of interpretations and potential applicability to a number of fields and projects, which are outlined in full in SONNET's [research publications](#).

In particular, they validate the huge potential of SIEs to help reach European targets. For example, the first survey (referred to above) shows that SIEs are particularly good at improving local acceptance of renewables. Non-acceptance is a key barrier to renewable energy investments, and, by extension, also to reaching the Energy Union's target renewable energy share. SIEs are therefore crucial to help reach the “high share of renewables” goals of the Energy Union.

Furthermore, within the scope of bridging the EU and local levels, our examinations of SIE and EU goals lead to two calls in particular.

SIEs are more effective at meeting the goals that are important to them. This is a **clear call for better local-EU cooperation**. If local (SIE) and EU energy goals can be aligned as is the case with renewable energy production, then SIE initiatives on-the-ground may be better placed to meaningfully contribute to achieving these goals. However, SIE initiatives also need **better metrics to measure their impact**, in order to gauge their contributions toward meeting EU goals. Both of these calls have, incidentally, been validated by other SONNET work, outlined next.

2. How the EU can support local SIEs

How SIEs are impacted by policies

Whether directly (intentionally) or not, EU-level policies have vast impacts on the extent to which SIEs can develop, thrive, and advance energy transitions. SONNET's Case Studies, for example, point to the ways that constantly-changing feed-in tariffs, complex bureaucratic and legal systems, and lack of clear guidelines at the EU-level can hinder socially innovative activities in fields like local electricity exchange, or cooperative energy production and consumption, to name only a few.

In sum: policy strategies and instruments at different levels, and in different fields, can all be relevant to social innovation in energy if they enable or impede – intentionally or unintentionally – the development of social innovations in energy.

While the EU does have some policies that directly touch on social innovation, SIEs are also shaped by policy strategies and instruments developed with energy, climate, and technological innovation in mind.

Zooming in on specific SIE-fields can help illustrate what we mean when we say that policies – whether intentionally or not, whether these are national or EU-level policies, and regardless of their target field – impact SIE development.

Take, for example, **renewable energy cooperatives**. There are a number of national-level German policies that: (1) all acted as enablers that helped this SIE-field develop, and (2) were each driven by European policy decisions. These include, for example, the implementation of the German Renewable Energy Sources Act (EEG), the amendments of the German Cooperative Law, and the collection of policies that liberalised the German electricity market. The amendment to the German Cooperative Law, for example, was influenced by the European “Council Regulation (EC) No 1435/2003 of 22 July 2003 on the Statute for a European Cooperative Society”.

Later, the introduction of EU directive 2011/61/EU on “Alternative Investment Fund Managers” led to the implementation of the German Capital Investment Act. It took until 2015 before there was clarity on whether energy cooperatives were included under this act; this uncertainty was amplified when EEG reform was postponed. This uncertainty impeded the development of renewable energy cooperatives, who could not accurately predict what their financing would look like into the near future. Insecurity was also amplified by discussions of potential retrospective changes to feed-in tariffs. In other words: EU directives drove national policies, which directly enabled and impeded SIE development.

Polish “energy clusters” have encouraged **participatory incubation and experimentation** for the energy transition. This energy cluster model was introduced in the Polish Renewable Energy Source Act in 2016, in order to bring Polish law closer in line with EU policies, such as European climate and energy targets for 2020, and its 2009 Renewable Energy Directive. In this case, EU policies led to national-level approaches, which directly enabled the development of an SIE field.

Rather than necessarily enabling or impeding SIEs, policies can also elicit a socially innovative response. Consider, for example, the field of **framings against fossil fuel energy pathways**. When EU or national policies do not help achieve the required transformation of our energy systems, or even actively support unsustainable energy sources and players, bottom-up resistance forms, which ultimately can help to improve climate policies.

How can policies be designed to harness SIEs’ full potential

SONNET research has shown that the impact of policies on social innovation is much more related to the policy’s actual design, rather than to the type of policy instrument (e.g. regulations, financial instruments, labelling, etc.).

This means that the design of future policies will determine the extent to which they will successfully harness the full potential of social innovation to help us accelerate sustainable energy transitions. What do we need to do to ensure that future policies are designed to harness SIEs’ transformative potential?

Through a policy dialogue with local and European leaders, and a validation workshop for SONNET cities, we have distilled four priority areas, and three key action points per priority area, which, if implemented, can help make this happen.

Priority area 1:

Energy and climate policy maker awareness of, and willingness to engage with, social innovation in energy

Policy makers are often impacting SIE without even realising it, due to a simple lack of awareness of the ways that social innovation is relevant to their field. This limits their ability to thoughtfully design policies with social innovation in mind. SONNET recommends addressing this concern via the following action points:

- **Raise awareness of social innovation** among policy makers across fields beyond the “research and innovation” domain, with a focus on energy and climate policy makers. Research funding calls should be designed to encourage bridge-building between social innovation experts, and energy and climate decision-makers.
- **Connect social innovation experts** with the “pen holders”. Social innovation researchers, policy experts, and advocacy groups have insights to share with the European Commission and national governments, but often struggle to reach those “pen holders” who are the ones actually drafting policies. Exchange meetings that connect such experts with powerful decision makers can ensure that policies don’t impact SIE accidentally, but rather support SIE thoughtfully.
- **Ensure that energy, climate, and innovation policy-makers work together.** Energy and climate policy makers seem to perceive their colleagues in the field of research and innovation as holding primary responsibility for social innovation. However, the combination of energy, climate and innovation policies influences the development of SIE, with energy and climate policies being particularly important for their upscaling and diffusion. Mechanisms should be put in place at the EU and national levels to ensure that policy makers in these fields work together, with an eye to how their policies impact each others’ domains.

This is also important at the local- and national-levels. Local leaders often lead innovative activities without realising (or labelling) them as SIEs. Supportive and thought-out national policies would be key SIE enablers.

Priority area 2:

Defining and conceptualising social innovation in energy transitions

It is not only true that policy-makers may be unaware of social innovation and its relevance to their field, but also that they may not understand SIE. This may contribute to the trend of social innovation being praised in general, while its upscaling and wider diffusion tends to be neglected, particularly in energy and climate policy making. SONNET recommends addressing this concern via the following action points:

- **Sharpen the definition of SIE used by policy makers.** The variety of different SIE definitions are fruitful in academic circles, but lead to confusion for policy makers. A clear, uniform, and applicable definition should be co-created by researchers, policy makers and practitioners. This definition would then have to be held-up for policy makers as their touchstone.
- **Compliment this broad definition with specific definitions of key/common SIE types.** While a broad definition could help mainstream the concept in political discussions, concrete and specific examples would further discussions on what constitutes SIE. Together, these definitions could promote a better understanding of the concept, increase its popularity, and strengthen its consideration in energy and climate policy making.
- **Devise a long-term policy strategy for social innovation in energy transitions,** which concretely outlines its foreseen role in energy transitions. This will help clarify their expected role, impacts, and potential.

At the local level, SONNET cities rather advocated for an embedded approach, whereby social innovation must be taken into account in other strategy documents, rather than developing a unique SIE strategy.

Priority area 3:

Benefits, impacts of, and metrics for social innovation in energy

Data on the impacts of social innovation and energy must be systematically collected and analysed, so that such figures can be fed into policy-making processes. The following action points may help to achieve this priority:

- **Take stock of and synthesise existing evaluation processes** that are being used to determine the impact of SIE. A collaborative process led by researchers should collect available evaluation methods, and propose standardised impact assessment methodology, which can be adapted to accommodate the diversity of SIEs.
- **Ensure that social innovation is part of future policy impact assessment.** This process can be quickened by making the inclusion of social innovation metrics a condition of future tenders and research calls.
- **Build willingness to apply evidence unearthed by evaluation processes.** Improving monitoring, assessment and evaluation will not be impactful unless there is political and administrative will to apply this evidence when designing policies.

Cities argued that lack of political will, resulting in lack of staff and slim budgets, has a greater impact on SIE promotion than metrics do. They questioned whether improved metrics would change this situation at a local level.

Priority area 4:

Multi-level governance and the role of the local level for supporting social innovation in energy

Each governance level – from local to regional, national, and European – can have profound and unique impacts on SIEs. The local and regional levels, for their parts, often have the most direct experience with supporting SIEs, and the clearest knowledge of their needs. Better mechanisms must, therefore, be put in place to ensure that these levels work in sync with one another. To this end, SONNET proposes:

- **Provide clear EU-level guidance on the role of social innovation in energy transitions.** Agreement at the EU-level on the importance of considering social innovation when designing policies would provide decision-makers with guidance both when crafting EU-level directives, and when transposing them at the national level.
- **Ensure consistency between EU and national policies relevant to SIE,** with transposition and compliance checks. This would send clearer signals to SIE initiatives, providing clarity that can help such initiatives to operate and flourish.
- **Include cities in EU energy and climate policy making.** EU policy-makers should expand the roles of local and regional governments in EU-level energy and climate policy making, in order to harness their unique and in-depth knowledge of SIEs. This should be done in coordination with national bodies to safeguard policy consistency.

Cities would greatly appreciate EU guidance, as this would bolster national-level support for their local SIE activities

Why support local SIE-initiatives anyway?

In addition to the research described above, SONNET also conducted a [citizen survey](#) of 6,000 participants from France, Germany and Poland to assess the future potential of SIEs in Europe. Survey questions investigated, among others, the factors that drive citizens to invest in renewable energy projects. Our findings were staggering: around 90% of participants would choose to invest in a decentralised renewable electricity generation project. This suggests high interest in such SIEs, and huge untapped potential.

The climate crisis is urgent. We need to accelerate the transition to climate-neutral energy systems if we are to have any hope of forging a secure and sustainable future. SONNET's work provides evidence that citizens are keen to join SIE-initiatives, and that these projects can contribute to sustainable energy transitions. This leads to a clear conclusion: the EU, national governments, and other bodies should support social innovations in energy, in order to help usher in a more sustainable energy future.



SONNET Energy Read #5

The “Social Innovation Meets Energy” series – in short, the SONNET Energy Reads – aims at communicating the project’s research results and distilling key insights as practical recommendations. Through these reads, we aim to reach out to researchers and social innovation practitioners alike to support critical reflection and capacity building. To follow our work, please sign up for email updates on our website and check out our twitter account:

 sonnet-energy.eu

 [@SONNET_energy](https://twitter.com/SONNET_energy)

Partners

The SONNET project brings diverse groups together to make sense of how social innovation can bring about a more sustainable energy system in Europe. How has social innovation contributed to making our energy sources cleaner? How can social change help reduce our carbon footprint in the future? SONNET cities and academic partners are working together to get to the bottom of these questions and more.



The project has received funding from the European Union’s Horizon 2020 research and innovation programme under grant agreement No 837498.