SONNET – SOCIAL INNOVATION IN ENERGY TRANSITIONS

Co-creating a rich understanding of the diversity, processes, contributions, success and future potentials of social innovation in the energy sector

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Research report on ‘City level competitions for sustainable energy’ in France

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About SONNET: SONNET is a research project that aims to develop an understanding of diversity, processes, contributions and future potential of social innovation in the energy sector. It is co-funded by the European Commission and runs for three years, from 2019-2022. The SONNET consortium consists of 12 partners across Europe, including academics and city administrations. For more information, please visit our website: https://sonnet-energy.eu

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1 FOREWORD

SONNET (Social Innovation in Energy Transitions) brings diverse groups together to make sense of how social innovation can bring about a more sustainable energy sector in Europe. The project aims to co-create a rich understanding of the diversity, processes, contributions, successes and future potentials of social innovation in the energy sector (SIE). We define SIE as combination of ideas, objects and/or actions that change social relations and involve new ways of doing, thinking and/or organising energy. As part of this work, we make use of an embedded case study approach to build a better understanding of the development of diverse SIE-fields (e.g. participatory incubation and experimentation, framings against specific energy pathways, local electricity exchange) over time. Our research questions that frame the case study work are:

- How do SIEs and SIE-fields emerge, develop and institutionalise over time?
- How do SIE-field-actors and other field-actors interact with the ‘outside’ institutional environment and thereby co-shape the SIE-field over time?
- What are the enabling and impeding factors for SIE-field-actors and other field-actors to conduct institutional work and change the ‘outside’ institutional environment?

A SIE-field is an arena/space that includes a specific SIE as well as SIE-field-actors working on it and other field-actors enabling and/or impeding it. In this arena/space these actors take one another and their actions into account and have a shared (but not necessarily consensual) understanding of a SIE and of their relationship to other actors. They recognise (but not necessarily follow) shared norms, beliefs and rules. SIE-fields are often not homogenous but are composed of actors with diverse and contradictory aims and interests. An example: The UK cooperative energy field includes SIE-initiatives and SIE-field-actors (e.g. Brighton Energy Co-op, Cooperative UK, Community Energy England, UK Government, City of Brighton), who have a shared understanding of an SIE, which exists as ‘organising under cooperative principles to generate renewable energy’.

The structure of this report is as follows. Section 2 provides a summary of the SIE-field relevant for this report and lists some key insights. Section 3 outlines the boundaries of the SIE-field and shows how it has been studied in the country context. Section 4 shows a visual development of the SIE-field. Section 5 tells the historical development of the SIE-field over time, including analytical/interpretive reflections from the SONNET researchers and quotes from the actors involved in the field developments. Section 6 outlines key research findings, providing answers to the three research questions. Section 7 outlines recommendations for policymakers based on the findings. Finally, Section 9 outlines the methodological approach and includes a more detailed timeline of the SIE-field and its actors.
2 City level competition formats for renewable energy

City level competitions for sustainable energy are formats where participants strive to rank themselves, gain or win something that focus on particular local energy topics (e.g. energy savings) contributing to specific energy pathways. This specific type of SIE is therefore concentrating on novel ways of engaging in different (playful) energy competition formats. Its novelty lies in the formats of competition, which allow for new actors to engage in sustainable energy pathways. Furthermore, the formats might involve new indicators for measuring energy related behaviour. While this report concentrates on ‘city-level competitions for sustainable energy’ in France, the SIE will also be studied in further case studies in Germany and Switzerland.

In the SIE-field under study, we focus on energy competitions that happen at the city level. With the term ‘city-level competitions for sustainable energy’ we refer to diverse formats related to sustainable energy pathways, where participants strive to rank themselves, gain or win something. These formats can address competitions between city administration (e.g. referred to as ‘between-city competitions’, which take place between different cities) or target changes of individual behaviour (e.g. referred to as ‘within-city competitions’, which take place within the city between different stakeholder groups). What links these formats is their shared aim to promote and mainstream sustainable energy. Our broad understanding of competition includes next to games voluntary comparisons, rankings, benchmarking, etc. and does not necessarily mean defeating others. Participants can strive to gain an award and/ or energy label or win goods (money/prizes/lower costs) but also recognition, a feeling of empowerment, opportunities for marketing or for creating political capital, and fun.

Key insights

For the SONNET project, competition formats for renewable energy in France are particularly interesting for two reasons.

1. The competitive aspect is interesting because it introduces a playful element that, if used well, can encourage participants to surpass themselves and try to reach a performance that matches that of exemplary participants.
2. City-level competition are a way to show participants – citizens, cities or inter-communalities – the power they have to contribute to the energy transition at their own level and even in a country such as France where energy decisions are highly centralised.

In particular, this report illustrates that:

- French cities are increasingly conscious that they have a role to play in the energy transition. They are looking for tools that can help efficiently contribute to climate change and that are adapted to the urgency of the situation.
The European Energy Awards and its French translation into the Cit’ergie award appears to be a very powerful tool to support cities that want to develop energy and climate initiatives and prioritise activities that can best contribute to the energy transition.

While energy and climate issues are central issues, we observe a growing interest from actors – cities and citizens – to have access to tools that go beyond energy issues and address transversal topics that are also important to improve environmental and social performance.

Despite being well structured, and based on robust behavioural methods, competitions targeting citizens seem to have reached their limits and need to renew themselves if they want to become relevant again as tools to empower citizens to take actions.
Introduction to ‘city-level competitions for sustainable energy’ in France

This report investigates the development of the SIE-field ‘city level competitions for sustainable energy’ in France and its social innovation in the energy sector (SIE, see analytical box ‘SIE changing social relations’ below). The SIE-field stands for novel ways of engaging in different (playful) energy competition formats. Competition here is not limited to formats that are characterized by a strong sense of ‘competitiveness’ but might also include joyful ‘fun formats’, awards or labels. What links these formats is that participants strive to rank themselves, gain or win something. To qualify for this study, the formats focus on particular local energy topics (e.g. energy savings) contributing to specific energy pathways. These energy related topics however might be embedded in formats that aim for encouraging a broader engagement in sustainability related issues.

In the French context, ‘city level competitions for sustainable energy’ is a rather heterogeneous field. It includes a variety of activities carried out by different actors such as city administrations, NGOs or intermediaries like semi-public research institutes. In this report, and similar to studies conducted in Germany and Switzerland, we focus on activities on the city level in France. Since 2004, cities are recognised as key players in energy transition by the French State (Lambert-Habib, 2010). This is why we focus on competition formats in which city administrations are part of organising, participating in, leading and/or carrying out these competitions. The formats under study also include cooperative formats that involve different actor groups such as civil society actors. More specifically we look at three types of city-level competition.

First, this report analyses one between-city competition called Cit’ergie and its recent extension called Sustainable and Innovative City. Cit’ergie is the French version of the European Energy Award. It is managed and co-funded by ADEME, which organizes national events, co-funds supporting consultants and the NGO that adjusts the label’s requirements based on French specifications. As of 2021, 122 cities and inter-communalities have been awarded the label, representing 34% of the French population. Cities participate in Cit’ergie for various reasons ranging from benefiting from technical knowledge and a structured methodology in order to take action at the local level to being able to legitimise municipal actions to internal and external stakeholders in the city administration. The label Sustainable and Innovative City (SIC) is being developed since 2019 by CEREMA (a decentralized public agency aiming to support regions with sustainability initiatives) and Efficacity (a public-private research institute dedicated to urban ecological transition). It is meant to complement and expend the Cit’ergie label notably by including additional themes such as innovation, social cohesion, economic transition or resilience. This report also looks at one within-city competition called Déclics. This challenge, formally called Energy Positive Families, is organised between families to show participants what they can do at the individual level to reduce resource consumption through behavioural changes. Déclics is coordinated and animated by NGOs, with funding from national and local governments. The reasons for including this challenge in this report are twofold. First, this challenge targets citizens directly and second, success strongly depends on the goodwill of the cities where the challenges are organised. Families can participate in the challenge for a number of reasons, including environmental (to decrease their environmental footprint), economic (to decrease their bills) and/or simply social (to meet and interact with people).
In SONNET, we define a social innovation in energy (SIE) as a combination of ideas, objects and/or actions that change social relations and involve new ways of doing, thinking and/or organising energy. In this report, we focus on ‘city level competitions for sustainable energy’. A main characteristic of this SIE-type is that participants strive to rank themselves, gain or win something. This specific type of SIE focuses on novel ways of engaging in different (playful) energy competition formats. Its novelty lies in the format of the competitions, which allow for new actors to engage in sustainable energy pathways.

What is innovative about this type of SIE is that the competitive element encourages participants to change the way they “do” energy. Interviews revealed that when competitions take place between cities, there are many facets in this competitive element. Various interviewees explained that it is above all a competition with one self and one self over time. An interviewee explained: “it is really to accompany the local authorities to initiate a process of improvement regarding the sustainability of their city” (FR-WP3-CLC-SIE-5). One interviewee also explained that the competition led colleagues to ask questions such as: “have we performed better? Did we introduce new actions that help us gain points?” (FR-WP3-CLC-SIE-3). Other interviewees highlighted that obtaining the gold label – the highest certification – was experienced as a challenge for the city and as a way to distinguish themselves from other cities. “it is important in terms of the positioning of a community with respect to its peers and its environment, its neighbours, etc., to effectively say cocorico” (FR-WP3-CLC-SIE-2). Interviewees also explained that the competition changes relations between city administration departments by providing a common goal, and fostering interactions between departments. This is illustrated by the following quote: “a virtuous region, this is really what ties colleagues together in order to go forward and try to develop as many sustainable development actions as possible” (FR-WP3-CLC-SIE-3). This SIE also changes how cities “organise” sustainable energy pathways. In between-city competition, the competition proposes a very structured method to structure activities, define measurable objectives and evaluate public policies. Moreover, because the label only takes into account initiatives that were taken in the last 3 to 4 years, it forces cities to institutionalise how they take energy issues into account and to remain up to date with best practices. “with Cit’ergie we are in a constant renewal” (FR-WP3-CLC-SIE-3).

This SIE is also innovative because it changes how people “think” about energy. In between-city competitions, the competition makes it possible for participants to evaluate their performance which makes them think about energy transition. One interviewee explained: “what is interesting for me is that there were many elected officials who believed that they were really dynamic, really exemplary while there were far from responding to the challenges, the disruptions that energy transition requires”. (FR-WP3-CLC-SIE-2).

Regarding within-city competitions, they encourage participants to help each other and to have a convivial time together. As explained by an interviewee, the challenge is particularly innovative because “there is no facilitator who is an expert and who gives condescending information. Instead we create a community that can become autonomous”
A central actor in both between-city and within-city competitions is ADEME – the public agency for ecological transition. ADEME coordinates, promotes and financially supports the Cit’ergie initiative aforementioned. ADEME has been an important financer of the within-city competition, although the level of support it offers has been radically reduced in recent years. Local authorities – both cities and inter-communalties – also play an important role either as participants in the between-city competitions or as financial supporters of within-city competitions. As participants and as funders, cities also contribute to (de)legitimising the competitions. This report points out that Cit’ergie for instance has gained legitimacy over the years as more cities choose to participate. Regarding the SIC initiative, it is in a crucial phase where it needs to convince cities to co-construct and later participate in the award. Finally, regarding competitions between cities, we have observed that a few years back many cities funded such initiatives but that support has weakened over the years as some cities have decided not to allocate any more resources to them.

Between-city competitions also mobilise two organisations: CEREMA and EFFICACITY, who initiated and are co-constructing the SIC label. These organisations are different from the others in that they have stronger links with businesses. One of the missions of CEREMA is to support companies and local authorities with research and innovation towards a resource-efficient, low-carbon, environmentally-friendly and equitable economy. EFFICACITY is a public-private institute of research and development, acting for urban ecological transition together with 30 public and private organisations. Cerema and Efficacity are gathering around this project a large panel of actors at national level (Agence Nationale de la Cohésion des Territoires, Banque des Territoires, Ministry…) through a national steering committee. This committee is following the pilot phase in 2021 and will be involved in the decisions related to the future governance of this new label which will be proposed as an extension of Cit’ergie.

NGOs also play an important role in both between-city and within-city competitions. Regarding the former, the association AERE played an important role in translating the European Energy Award in the French context and adapting the criteria as national regulations evolved. This NGO continues to play an important role supporting ADEME in the deployment of the label. It also coordinates the consultants who accompany cities throughout the process. Regarding within-city competitions, the Positive Energy Families challenge was initially developed by an NGO, and local NGOs are responsible for the facilitation of the challenge. Together with local authorities they may also play an important role in recruiting participants. A few years back, three NGOs – CLER (a network for the energy transition); Hespul (an association specialised in solar energy and energy efficiency); Alisée (an association that aims at empowering citizens to appropriate energy management and the use of renewable energies) - joined and created Déclics, the new version of the challenge.

Finally, citizens obviously play an important role, especially in within-city competitions. They can play a role as team leaders or as participants in the challenge.
Regulative, normative and/or cultural cognitive institutions

Scott (2014:56-57) defines institutions as comprising of “regulative, normative and cultural-cognitive elements that, together with associated activities and resources, provide stability and meaning to social life... Institutions are multifaceted, durable social structures, made up of symbolic elements, social activities, and material resources”.

Regulative institutions refer to rules, laws, policies, standards that guide “action and perspectives by coercion or threat of legal sanction” (Hoffman 1999). Regulative institutions have shaped this SIE field in two ways. First, regulations can provide an impetus for cities to participate in between-city competitions. Regulations define what cities are expected to do. For instance, they have to define a Climate Air and Energy Territorial plan. However, interviews also revealed that while cities have to develop such plans, it does not mean that they have to take concrete actions. They mainly have to measure and follow what they consume and what that means in terms of CO2 emissions. In other words, regulations can be an impetus for cities to act but they do not force cities to take actions. Interviews also revealed that regulatory framework can constrain the scope of actions of cities. For instance, coastline protection legislation prevents coastal cities from building solar farms, which can reduce renewable energy generation options.

Normative institutions refer to norms and values and “what is considered appropriate behaviour and can be directed at all actors of a particular field (Scott 2001)”. After the Second World War and in order to electrify France and provide equal access to energy, the French energy sector has been organised centrally. Energy decision-making was made at the national level by technical elites stemming from like-minded engineering schools (Ecole des Mine, Ecole Polytechnique (known as X). Even though a few municipalities chose not to nationalise their energy system (see case study on local energy exchanges), most did and in doing so they also lost the power to influence decision-making. In fact, it became normal that local authorities do not decide upon energy issues. It is only since 2004 that cities started to be considered important actors in energy transition. This slowly started to change norms and values: some energy decisions could and should be taken locally. However, this process is clearly very slow and the interviews also reveal that many cities still have to become more competent when it comes to energy or climate-related decisions.

Cultural cognitive institutions refer to shared conceptions of reality, binding expectations, and common beliefs that frequently become routine ways of understanding the world. One element that may be interesting to come back to reflects broader societal changes, is that over the last few years, French citizens seem increasingly sensitive to environmental issues and to the need to tackle energy transition (barometer ADEME, 2020) and this is so despite the ongoing sanitary crises. This evolution is also reflected in the fact that the Green Party won municipal elections for the first time in a few large cities, including Lyon, Bordeaux, Grenoble, Tours, Poitiers (Les Echos, 2020). More globally, what the interviews tend to reflect is the fact that tackling environmental problems has become an important way for politicians to gain votes, regardless of political stripe. This will surely support continued initiatives in city-level sustainable energy competitions.
4 Timeline of City level competitions for sustainable energy in France

The timeline below presents the main development phases of the ‘city-level competitions for sustainable energy’ field in France.

- **2003**: Creation of European Energy Award (EEA)
- **2004**: Initiation of the project Rêve Jura Léman
- **2005**: Launch of French version of the EEA
- **2008**: First event organised for Cité'ergie cities in Besançon
- **2010**: TEPIC first mentioned by CLER
- **2013**: Dunkerque is the first French city to be awarded the Gold Cité'ergie label
- **2015**: Energy Transition Law for Green Growth
- **2017**: CLER takes over the coordination of Positive Energy Families which is now called Délices
- **2018**: Launching of the co-development of a new label called “Sustainable and Innovative City” by EFFICACITY and CEREMA
- **2020**: Covid 19 sanitary crisis
- **2020**: Ten cities participate in the co-development of the SIC label
5 Emergence and development of city-level competition format for renewable energy over time

Phase 1: Learning and translating European experimentations to develop within- and between-cities competition

A political impulse that empowers cities to take action
In 2004 France launched what is called a “Climate Plan” (Plan Climat in French). The objective of this Climate plan was to enable France to meet its greenhouse gas emissions reduction objectives as set in the Kyoto Protocol. This plan was important in that it recognized the central role of local public institutions in fighting climate change (Ministère de L’Ecologie et du Développement Durable, 2004). The Climate Plan invited cities and inter-communalities to develop their own local Climate Plans and gave ADEME the responsibility to develop the tools necessary to help local actors to elaborate these local Climate Plans. A few year later these Climate Plans were renamed Climate and Energy Territorial plans (abbreviated PCET in French) and later on Climate Air and Energy Territorial plan (abbreviated PCAET) (Lambert-Habib, 2010).

Various initiatives aiming at supporting cities to tackle climate change
While this report solely focuses on initiatives that have a competitive element, it is important to acknowledge that ADEME has supported the development of various tools or programs aimed at helping cities or inter-communalities to become actors of the energy transition. For instance, ADEME supported the development of a tool called Climat Pratic together with three NGOs (Réseau Action Climat, CLER and ETD). This tool strives to help cities formulate their PCAET.

Another initiative supported by ADEME is called TEPOS (for positive energy territory). Mentioned for the first time in 2010 during the national assembly of CLER, TEPOS aims to create a network of municipalities that strives to reduce their energy demand, foster energy sufficiency and consume 100% locally produced renewable energy (TEPOS, 2021).

A European project to learn from the European Energy Label
In 2005, the project Rêve Jura Léman was initiated with an objective to build on the Swiss experience with the European Energy Award (EEA) created in 2003 in order to assess the possibility of developing a similar award in France. This project was coordinated by Energy-Cities (the European association of cities in transition) and supported technically and financially by ADEME (Grand Besançon, 2005). This project which also received the financial support of European Funding program INTERREG, brought together eight Swiss and eight French municipalities located near the Swiss border. This project led three French municipalities and one inter-communality – Grenoble Alpes Métropole - to be awarded the EEA by the President of ADEME during a ceremony organised in December 2007 in Paris. This ceremony was an opportunity for ADEME to launch the French version of the EEA, which the ADEME started coordinating in January 2008. As explained in a press document, the creation of the French label was also an opportunity for ADEME to show its desire to involve local authorities in the implementation of ambitious and structured energy management and greenhouse gas (GHG) emissions control programs (Office fédéral de l’énergie, 2007).
Cit’ergie is the French adaptation of the European Energy Award (EEA), a European initiative which was developed and adopted with support from the European Commission. It is also used (under different names) in Austria, Germany, Luxemburg, Italy and Switzerland. In France, the adaptation of the program to the French context and the national coordination is done by ADEME. The EEA has a board, a president, a steering committee with representatives from each participating countries. These people are responsible for the validity and consistency of the reference system, and the operation of the label.

Cit’ergie proposes a methodology to assess the level of ambition of public policies concerning climate, air and energy. As explained by an interviewee, “it is a program that operates on an obligation of means rather than an obligation of results” (FR-WP3-CLC-SIE-4). The program has a reference framework of 60 measures grouped in 6 sub-categories (territorial planning; municipal assets; supply of energy, water and sanitation; mobility, internal organisation; and cooperation/communication. For each measure, a number of indicators are used to assess the performance of the municipality and define how many points the candidate municipality can obtain. In total, a municipality can obtain up to 500 points (Cit’ergie, 2021). Cit’ergie has three levels that depend on the score of the municipality. A score of at least 35% gives rise to the so-called CAP Cit’ergie label, a score above 50% the Cit’ergie label and a score above 75% the gold Cit’ergie label (Cit’ergie, 2021). The label is delivered every four years by a national commission for the Cit’ergie label during a national event or by the association EEA for the gold label. This award ceremony is an important moment where municipalities gain public recognition and have the opportunity to network and share good practices with others.

ADEME offers candidate municipalities the support of a specialised consultant and covers half of the costs. This consultant guides municipal staff towards the design of climate, air and energy-related initiatives. The program holds the potential to mobilise very diverse actors within a candidate municipality. As explained by a consultant: “we go see human resources, finances, buildings, spatial planning, economy, tourism, agriculture, wastewater treatment, transport, sport, youth, communication. We see everyone” (FR-WP3-CLC-SIE-2).

Recruitment of cities and inter-communalities is done both by regional instances of ADEME and by the consultants. When a city is interested, they can benefit from a pre-diagnosis during which a consultant spends a day explaining what Cit’ergie is and makes a preliminary assessment to show how well the city is performing. Presenting the result of this preliminary assessment can be a delicate task as the consultant has to show the sometimes poor performance while convincing municipal officials that Cit’ergie can provide concrete solutions. We will illustrate this with an example given by a consultant we interviewed concerning a pre-diagnostic that she had recently completed: “I finish my analysis and it is catastrophic. They do a lot of communication but very few actions. During our meeting I will have to tell them: in concrete terms, today, in view of the inventory that I was able to make, the meeting with the services, the analysis of the steps that you were able to take, in view of the reference framework, this is where you are. That is to say, not even...”
The launch of the challenge “Positive Energy Families” (called Famille à énergie positive in French)

In 2008, the association Prioriterre launched in the department of Haute-Savoie a challenge called Positive Energy Families. Inspired by the Klimaatwijken, a Belgium program developed in 2003 and further developed through the Energy Neighbourhood European project, this challenge strived to mobilise citizens to reduce their energy consumption. The first challenge took place between the 1st of November 2008 and the 30th of April 2009 in volunteer municipalities of the Haute-Savoir department. The objective for participants was that they should reduce their energy consumption by 8%,through behavioural changes only. The following year, the intercommunity of Grand Chambéry (in the department of Savoie) organised the challenge and enrolled 90 families (Le Dauphiné Libéré, 2010).

Phase 2: Competition formats develop and gain in legitimacy with varying degree of success.

ADEME committing to Cit’ergie.

Using the EEA and translating it for the French context required some commitment from ADEME. As explained by an interviewee, the Cit’ergie is not a product of ADEME and ADEME has to pay for a license to be able to use the label. Besides
the license, ADEME recruited and trained external consultants to support municipalities interested in obtaining the label, pays for the audits and covers half of the consulting costs.
In 2009, ADEME appointed the NGO AERE, which also participated in the project Rêve Jura Léman as the support office for Cit’ergie. The mission of AERE is to coordinate the network of consultants and the network of cities, organise the back-office and adapt the program in coordination with EEA when relevant (AERE, 2021).
ADEME also invested resources in order to recruit cities to the program. ADEME, for instance, funds pre-diagnosis activities. Between 2015 and 2016, 52 pre-diagnostics were performed by the AERE and its pool of consultants (AERE, 2021).

**Constantly adopting the reference framework of Cit’ergie**
The EEA, and therefore Cit’ergie, contains a reference framework that evolves continuously. Cities have to be audited every four years if they want to retain the label and need to stay up to date with the changes introduced in the program. For instance, in 2016, performance indicators regarding air quality were introduced, and related themes – district heating network and building renovation – were strengthened. In a document explaining how they adapt the reference framework, AERE describes adopting the following methodology (AERE, 2021):

- It studies how the Swiss (and original) version of the EEA introduces these new elements,
- It analyses national (upcoming) regulations,
- It analyses best practices from exemplar cities,
- It consults with experts within and outside of ADEME.

An interviewee explained that if one wants to change the label, one has to ask for authorisation and explain what motivates these proposed changes.

### Policies and policy making
This SIE-field is co-evolving with the policy context mainly at two levels. First, national policy-making influences the themes that SIE-initiatives take into account. For instance, the reference framework of Cit’ergie was adapted to follow evolutions in national policy framework and objectives. Second, interviewees also observed that cities participating in the SIE initiative (especially between-city competitions) re-allocate resources as they learn about their current performance and what they can do to improve it. Participating in the SIE initiative can also guide policy-making at the local level. Participating in Cit’ergie for instance is really meant to provide support for cities to design energy and climate policies, and the upcoming CIS has a similar ambition regarding sustainable cities.

**Cit’ergie: A program that slowly recruits cities**
In 2010, the first day of Cit’ergie cities and inter-communalities was organised in Besançon. It brought together 25 local authorities to share experiences and best practices, and launched a network of cities already awarded the Cit’ergie label (Besançon, see folder). Cities that are interested in the program but do not currently participate were also invited to join these events. Over time more and more cities joined the program. One interviewee explained that as more cities joined, a ripple effect was created that encouraged additional cities to join the program. Nevertheless, even though the trend was positive, the number of cities and inter-communalities involved remained small with only 160 involved by the end of 2018. Three reasons may be mentioned to explain this. First, an interviewee explained that technicians often see the value of the program, while elected official or general management do not. Second, the program lacked visibility and a clear marketing and communication strategy. Finally, the French energy system has long been designed centrally with only big national actors involved in energy decision-making. Municipalities have rather recently been given a role and competences to become actors in this system. This may also explain that it takes time for city actors to get empowered to start actions (AERE, 2021).

Power and power relations (power to + power over + power with)

To begin with, it is important to recall that this SIE emerged as a way to increase the power of actors that chose to participate in city-level competition. The analysis revealed that between-cities competitions are very much about giving cities the ‘power to’ do things. In some municipalities, it has for instance been a way to secure human resources to strengthen the energy transition department. As explained by an interviewee: “In a municipality, during an assessment, I had reported that in almost all areas, they were close to 45-50%, except for one area where they were at 18%. Clearly, it was an electroshock. Following this meeting, there was a series of meetings, resources were allocated, a person hired, etc., to engage actions in this field. And today they caught up” (FR-WP3-CLC-SIE-2). In others, participating in the Cit’ergie label allowed municipalities to realise the power they had to tackle certain subjects. For instance, a consultant explained: “the first time I met the person in charge of the housing policy and local housing program (LHP), I asked her: “In the LHP, what are your objectives in terms of energy renovation, etc?” She told me: “No, the LHP is not about renovation, it is only about construction.”. The following year, when I saw her again, she said, “So, indeed on energy renovation, we now have a plan for that.”” (FR-WP3-CLC-SIE-2). Finally, interviews showed that participating in between-cities competitions could also be a way to overcome internal resistance and create internal legitimacy for the actions undertaken.

Similarly, within-city competitions are designed to help participating citizens realise they have the power to take action, and that these actions do not require a lot of money to be implemented.

Moreover, the analysis reveals that this SIE is mostly about power-sharing. Both within-city and between-cities competitions are designed to stimulate participants to learn from and with each other. In the Positive Energy Families challenge, a key element is that people can be empowered to take action when they see others take action as well. Similarly, Cit’ergie brings various administrative department of a city into collective action. All
After being experimented with in Savoie and Haute-Savoie, the challenge was offered by many more municipalities throughout France. It is estimated that between 2008 and 2018 more than 40,000 households participated in the challenge in France, that people consumed on average 12% less energy during the challenge and that this allowed saving 1400 teqCO₂ (CLER, 2021). To be successful, this within-city challenge almost entirely depends on the goodwill of municipal governments. In particular, they need to help finance the local NGO that will facilitate the challenge. An interviewee explained: “we have to be Gold as well. It encourages them to perform better” (FR-WP3-CLC-SIE-2). Another interviewee made a similar observation: “I talked to a deputy mayor of Saint-Malo who said: we want to get involved in the program and we want to reach the level of Besançon” (FR-WP3-CLC-SIE-4).

Nevertheless, power relations can also prove constraining. For instance the SIC is in the very initial phase and to succeed, initiators have to find cities that are willing to test first, and later participate in the labelling process. By choosing not to participate (or worse, exiting the process midway) in the label, a city can raise questions about the legitimacy of the initiative. Following municipal elections and a change in municipal government, Lyon Metropole abruptly ended its participation in the SIC labelling process. As explained by an interviewee: “we had a big surprise when Lyon metropole ended its participation” (FR-WP3-CLC-SIE-7). Lyon Metropole decided to focus on the development of their own local framework instead of supporting the development of an (inter)national framework. This show how that it can be challenging to convince about the legitimacy of the label, even in cities such as Lyon Metropole that have a Green majority. Similarly, in the within-city competitions, the analysis clearly reveals that local authorities can make or break the organisation of a ‘positive energy families’ challenge, depending on how much they are willing to invest in the initiative.

**Positive Energy Families: A challenge that depends on the goodwill of cities**

After being experimented with in Savoie and Haute-Savoie, the challenge was offered by many more municipalities throughout France. It is estimated that between 2008 and 2018 more than 40,000 households participated in the challenge in France, that people consumed on average 12% less energy during the challenge and that this allowed saving 1400 teqCO₂ (CLER, 2021). To be successful, this within-city challenge almost entirely depends on the goodwill of municipal governments. In particular, they need to help finance the local NGO that will facilitate the challenge. An interviewee explained that organising a challenge costs a little more than 20,000 euros a year and this can represent an important investment, especially in small cities. Moreover, cities have an important role to play in communicating about the challenge, and helping recruit participants. However, interviews revealed important differences between cities. Some cities do that by creating adverts, while others find it more difficult to allocate resources and leave it up to the NGO that facilitate to recruit participants. An interviewee explained:“ Lyon Metropole, very dynamic, created commercials to talk about Positive Energy Families. The year they did that, they had record participation. We, in the Rhône, had difficulties. We are in a rural area and we had a lot of difficulties mobilising citizens” (FR-WP3-CLC-SIE-6).
The Challenge: Positive Energy Families – facing difficulties to develop a sustainable business model

Our analysis, however, indicates that the challenge ran out of steam. Various reasons may explain this. As aforementioned, the challenge requires that dedicated staff is available to run the meetings within and between the teams. Initially ADEME financed the organisations, often NGOs, which performed this function. As explained by an interviewee: “ADEME finances new projects until they find their own economic model” (FR-WP3-CLC-SIE-6). Over time ADEME decreases the subsidies allocated to organise the challenges. The interviews revealed that while some NGOs managed to find funding, often from municipalities, some did not. Trying to explain these difficulties, an interviewee argued that this happened because it is difficult to have citizens commit to participate in the challenge, and that municipalities thought it costs too much given the lukewarm results. This is illustrated by the following quote: “in view of the results, 100 people registered, 60 remained, meaning a drop-out rate of about 40 to 50%, the inter-communalities were not very happy and therefore they reduced the budgets” (FR-WP3-CLC-SIE-6). Finally, another reason may be that the challenge did not evolve sufficiently to propose something at the level of what is at stake. This is illustrated by a citation from a publication from a city that participated for a few years to the challenge: “Seductive methods of action, the call for tricks and playful communication, are gradually being overtaken by the seriousness of the issues at stake. The Positive Energy Family Challenge is a good example of this concern. An undeniable success in the Châtellerault area for years (up to 114 families in 2014), the formula was not renewed in time and eventually died out” (Communauté d’agglomération de Grand Châtellerault, 2018).

The Challenge: Positive Energy Families – few links with between-cities challenges

While conducting this research, we observed very few links between within-city and between-cities competitions. We did observe that cities that participate in the Cit’ergie award have often also hosted the family challenge, but there does not seem to be strong links between the two. Looking at the repository used to assess cities that participate in Cit’ergie, we did find organising a family challenge can help receive some points in the domain that concerns cooperation and communication. However, this seems rather marginal and supports overall impressions received from interviewees that that the links between both initiatives are weak.

‘Outside’ institutional environment shaping the development of the SIE-field

When talking about the SIE-field of city level competitions for sustainable energy, we refer to the space composed of SIE-initiatives (local manifestation of the competitions such as Cit’ergie), SIE-actors (individuals, organisations or collective that actively work on SIE such as ADEME or cities) and SIE-field actors (individuals, organisations or collective that are part of the field (e.g. European Energy Award association). In this space, actors take one another in consideration and have a shared understanding of what the SIE is (even though it may not be consensual) and of their relation to other actors. In the SIE-field, actors also follow similar formal and informal institutions. The SIE-field
Phase 3: Ongoing process of institutionalisation while broadening the scope of the competitions

Cit’ergie - A competition that lacks visibility
Interviews were consistent in observing that Cit’ergie is not really known today. This is illustrated by the following quotes: “Citizens do not know Cit’ergie” (FR-WP3-CLC-SIE-4). Or “it is a revaluation and an enhancement of the actions that we carry out within our structure. Because frankly, Cit’ergie citizens do not know about it”. (FR-WP3-CLC-SIE-3). Another interviewee explained that it may be difficult for the media to communicate about it because it is mostly known by specialists and not by the public. Interviewees pointed that in other countries, the performance on the label is made visible at the entrance of labelled municipalities. French people are accustomed to such signs, notably in the competition ‘Cities and villages in Bloom’ in which more than 4000 municipalities participate, and this may be an interesting practice to mimic for Cit’ergie.

A need to institutionalise Cit’ergie
The interviews revealed that ADEME is increasingly investing in Cit’ergie and has the ambition to triple the amount of municipalities that participate in the program in the coming years. As explained by an interviewee: “it is a strong signal to show that ADEME wants to develop this program” (FR-WP3-CLC-SIE-4). Four staff are now working on the program, each with a different focus: digital innovation, evolution of the reference framework, communication and marketing and animation. Behind this ambition towards Cit’ergie may lie the ambition to make Cit’ergie the main tool offered to help local authorities elaborate and evaluate climate policies. “ADEME clearly wants to make Cit’ergie its tool to support territorial approaches to energy and ecological transition in the broad sense of the term. So, to refocus the support offered around this label, since it is a label that is quite structuring” (FR-WP3-CLC-SIE-2). ADEME supports multiple other tools. Beyond Cit’ergie, we can mention Climat Pratic or TEPOS. Various publications point out that local authorities find it difficult to identify which tool is more appropriate for them and focusing on one tool or creating clear synergies between the tools may be a way to create more clarity and increase the visibility of the tools (Amorce, 2019).

However, interviews also revealed that Cit’ergie has not become institutionalised yet. As explained by an interviewee, “today, it is not very well known by the members of ADEME, by specialist engineers, etc. So, there is also a challenge to make the program recognized internally in order to be better known externally” (FR-WP3-CLC-SIE-4). Similarly, another interviewee explained: “our territorial climate energy plan has been reviewed by the State. In our climate plan, we have put
forward the Cit’ergie indicators of monitoring since in fact it is our tool for evaluating our climate plan. So they said that we relied too much on that, but Cit’ergie really allows us to monitor the actions of the climate plan. And so, it is not even recognized by the State” (FR-WP3-CLC-SIE-3).

As of spring 2021, 219 cities are participating in the program, seven of which have reached the highest level of certification.

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**Key changes over time**

Based on the descriptive historical provided, we can come back to two key changes that influenced the emergence and development of the SIE-field.

First, a recent decision of ADEME to rationalise how financial resources are granted had an important impact. It pushed initiatives such as Climat Partic and Cit’ergie to identify complementarities and look for synergies. It also made it necessary for other initiatives such as Positive Energy Families to reinvent themselves and redefine a business model which does not depend on national support as much.

Second, the will to broaden the themes of the competitions, move beyond energy and address other sustainability topics is also an important change we observed. This change can be seen in both within-city and between-cities competitions. This change can be an opportunity for within-city competition formats to reinvent themselves and become attractive and relevant again. It could also be a way for between-cities competitions to deepen their impact on the transition to a sustainable city.

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**The role of digital solutions to improve Cit’ergie**

Cities that participate in the EEA have access to a digital tool called eea-Management-Tool (EMT). This tool allows participants to have an overview of ongoing and past initiative as well as performance of all participating cities. The ADEME had the ambition to mobilise digital technologies to provide additional services and support to participating cities. The organisation invited external coaches and behavioural experts to participate in a working group meant to highlight where improvements could be done. One of the idea for instance would be to create a dashboard where cities can easily see how well they are doing on the various indicators and more easily access documentations presenting how municipalities that are similar (in term of size for instance) have improved their performance. Such digital tools should be developed in partnership with a national public incubator for digital public services.

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**A repository that would help reach carbon neutrality**

Interviews revealed that while it is certain that cities or inter-communalities that have been awarded the Cit’ergie label have improved their climate performance, it is not sufficient yet. As one interviewee explained: “Grenoble is the first to say it.”
They are not carbon neutral. Even if they are Gold, they need to do better but they do not really know how” (FR-WP3-CLC-SIE-4).

The Challenge: Positive Energy Families – a new beginning?

In 2017, CLER (a network for energy transition) took over the coordination of the challenge which also changed its name to Déclics. Déclics stands for ‘local citizen challenge for climate implication’ is broader than energy and looks at mobility, food and waste. As explained by an interviewee, it is not only about energy but more globally about eco-citizenship. In 2019, 2000 households in 84 cities participated in the challenge. To function however, the program depends on financial support from cities and the interview we conducted pointed to the fact that the financial sustainability of the program is still uncertain.

Institutional work conducted by SIE-field actors and other field-actors

Institutional work refers to activities of field actors that aim to create, maintain or transform institutions. In the context of the SIE-field ‘city level competitions for sustainable energy’ institutional work refers to activities that aim to support the development of new and more sustainable energy pathways. The main objective of SIE-field-actors is to transform institutions, especially local institutions. The objective is to provide tools to support local authorities transform their institutions in order to create more sustainable energy pathways locally. The playful competitive format really aims at making it attractive and appealing for cities or citizens to participate and improve themselves over time.

The focus of institutional work within the SIE-field under study lies on activities of relational work like networking and knowledge exchange. SIE-field actors contribute to creating institutions insofar as they allow the creation of new network between cities. This includes both cities that participate in the competitions and cities that do not do so yet but may consider joining the competition in the future. These networks are really important as they create a space for cities to learn from and inspire one another.

However, institutional work furthermore relates to maintaining institutions insofar as existing responsibilities and power relations are limiting changes in actor relations. For instance, SIE initiatives depend on financial support from local or national organisations and the competitive format has reproduced these power relations and even strengthened them as cities have gained the power to make or break SIE initiatives depending on their decisions to support them financially or not.
Introduction to the competition “Déclics”

“Déclics” is the successor of “Famille à énergie positive”, which ran from 2008 to 2018. It targets families interested in learning about climate change and what they can do about it, especially through behavioural change. Teams were created composing of five to ten families living in the same city or working in the same company. Their aim was to save as much energy, water and waste as possible and the teams tracked their progress via an online platform. On average, it participating households decreased their consumption by 12% and saved up to 200 euros a year (CLER, 2021). As explained in a flyer presenting the challenge, “ecology is not only punitive” and it is possible to reduce consumption by maintaining comfort and saving money (CLER, 2021).

The challenge took place over five months, usually in winter when the potential to reduce energy consumption was the highest. Cities recruited participants by communicating about the challenge. Participants were also recruited directly by the NGO that facilitated the challenge. When the teams were formed, a launching event was organised to celebrate those participating in the challenge. A first meeting was then organised with each team by the facilitator of the challenge to explain how the challenge worked and presented the tools available to participants. A team captain was chosen who received special training. This person acted as the team leader, technical referent and contact person for the facilitator. Interviews revealed that participants “were afraid to become captains. They had difficulty understanding what a captain is and felt it meant an important responsibility” (FR-WP3-CLC-SIE-6). In response to this, participants were allowed to work in pairs. Then every month participants met to discuss a theme (space heating, electricity, etc.), the problems they were facing and shared tips with one another. An intermediary event was organised where the teams met and saw how they were doing in comparison with others. The challenge ended with a closing event and the presentation of the podium. Here interviews showed that not all challenges were designed to have clear winners. For instance in Rhône, when the challenges were organised, facilitators made sure that every team would win something. “We had the three best with regard to global reduction, the best with regard to investment, the best on water, the best on wood, the best on team spirit, the best in artistic creations. It allowed making sure that every team would be rewarded because the challenge should motivate the participants, and not discourage them” (FR-WP3-CLC-SIE-6).

The challenge recognised that, while energy sufficiency is necessary to tackle climate change, it is not easy to convince individuals to change their behaviours (Vanderhaeghen, 2009). To be attractive for individuals and foster behavioural change, this challenge, inspired from a Belgium program called Klimaatwijken, was designed to mobilise three dimensions which can enable behavioural change (CLER, 2021). First, the challenge aimed at making energy issues comprehensible for participants. This is done by providing a guide with 100 eco-actions that participants can easily introduce at home and suggestions about small artefacts that people can buy to decrease energy (eg. LED light blub) or water consumption (eg. water saving showerhead). This was also done by trying to make energy consumption more visible. Various instruments were given to participants to measure energy consumption of appliances when they were on standby or to measure the temperature inside their fridge. Second, the challenge was designed to be playful and to create a collective mindset as this can help foster behavioural change. Third, because it was collective and people worked in teams, the challenge can help participants change as they observed change being achieved by others. This is
The need for a supplementary, more transversal label about the sustainable city?

In 2019, CEREMA and EFFICACITY launched the co-development of a new label called “Sustainable and Innovative City” (Ville durable et innovante in French). Two main reasons motivated this decision. First, the two organisations participated in the technical committee of the ISO 268 since 2011. The objective of this committee was to create an international standard regarding the sustainable development of cities and local communities (ISO, 2021). They observed that despite the plethora of labels and initiatives that existed there was still a need to develop a robust and standardised label that could support cities in developing their sustainable development plan. As explained by an interviewee: “there is a need for local authorities to have steering tools to support decision making in all public policies that address the subject of sustainable development” (FR-WP3-CLC-SIE-7). Second, CEREMA and EFFICACITY observed that there were various initiatives that have been launched worldwide to reward cities’ sustainable performances. This for instance includes the American label LEED for cities and communities or the Japanese CASBEE for Cities. However, as explained by an interviewee: “we think it’s a pity, in France and in Europe, to have to use an American or an Asian perspective which will, obviously, be quite different” (FR-WP3-CLC-SIE-7). Besides, having a European label could be a way to promote European know-how abroad (Efficacity, 2021). As explained by an interviewee: “there was this idea to develop a brand that could also allow companies to join this approach”. (FR-WP3-CLC-SIE-7). A similar initiative was taken in Germany by the Fraunhofer Institute with an initiative called Morgenstadt and its Mogenstadt City Index, and organisation on both sides of the Rhine have been working together in order to develop a joint reference framework. In July 2019, EFFICACITY and CEREMA launched a call inviting interested cities to participate in the co-development of the label. About ten cities responded including the inter-communality of Dunkerque, the territory on the west coast of La Réunion island, Sète Agglopôle Méditerranée or Lorient Agglomeration. From January 2021 and for a year, the cities will test and provide feedback on the themes and indicators that were proposed
Introduction to label ‘sustainable and innovative city’

The label “sustainable and innovative city” (SIC) (Ville durable et innovante - VDI in French), strives to provide cities with a reference framework that can support sustainability driven decision-making in cities. Initiated by CEREMA (a French public agency supporting local sustainable development actions) and Efficacity (a public-private research institute focused on urban ecological transition), the SIC label proposes a transversal approach to sustainable development in cities, complementary to Cit’ergie. As explained by an interviewee: “multiple local authorities told us that there is a need to move beyond the energy domain” (FR-WP3-CLC-SIE-7).

The label aims to complement Cit’ergie (and the European Energy Award) by including four themes: innovation, social cohesion and quality of life, and economic transition, and resilience. Along with addressing energy-related issues, the initiators of the label also strive to address aspects that are not well addressed by Cit’ergie. For instance, interviewees explained that the SIC label touches upon the resilience of energy, which is not looked at in Cit’ergie.

This label is currently co-developed with cities that voluntarily accepted to support the initiative. After developing a first version of the label, Cerema and Efficacity asked cities to provide feedback on the content of the label. When interviews were conducted, cities were still providing feedback on the label. The following step will be to test the label so that cities that participated really try to obtain the label to further fine tune it and help identify what they would need in term of support to best benefit from the label.

CEREMA and Efficacity would like to propose the development of a double award where the SIC award would complement the Cit’ergie award. “We want to encourage local authorities to have a double label to cover all the fields of the Sustainable City” (FR-WP3-CLC-SIE-7). Moreover, CEREMA and Efficacity are also in discussion with colleagues at the Fraunhofer institute who have been working on a reference framework with similar ambitions called Morgenstadt City Index. The idea would be to develop a European SIC award that would provide a European alternative to the American and Asian sustainable city labels. The objective is to launch the label in the coming year.

This label is imagined as a complement to the Cit’ergie label (see box) and as an opportunity to encompass more transversal topics that are relevant when aiming at developing a sustainable city. EFFICACITY and ADEME have engaged in discussion in order to see whether it would be possible to imagine a double award. Moreover, with the SIC label, the objective is also to mimic what works well with the Cit’ergie label in order to increase the chance of success for the label. For instance, interviewees highlighted the importance of having the support of an independent consultant and co-finance this resource. As explained by an interviewee: “Cit’ergie is interesting for local authorities because it is highly subsidised by ADEME” (FR-WP3-CLC-SIE-7).

Three challenges will have to be overcome before the label can become reality. First, the label will have to convince cities that they have an interest in participating. While interviewees explained that responses towards the label were quite
positive, they also explained that some cities, including Lyon Metropole, have decided not to pursue the adventure following the results of the municipal elections. Second, it will be necessary to reach a consensus about the future of this initiative as an organisation that can coordinate the organisation of the label. And related to that it will be necessary to define what the business model to support participating cities.

Contestations and relations between actors

Regarding between-cities competition, we have observed varying degrees of contestation. Contestation depends on the degree of maturity of the initiative, whether it is considered legitimate and whether the initiative managed to evolve to meet the expectations of SIE-actors.

The Cit’ergie initiative, for instance, is not really subject to contestation. Actors accept the label and its procedures as it is. One municipality we interviewed also explained that indicators have been developed by specialists and that municipalities that participate in the program do not sufficiently understand the criteria that are used and how the initiatives are assessed to be able to contest the method. One of the experts who we interviewed explained that even if the criteria may not be 100% reliable, when looking at the trends, we can clearly observe improved performance in municipalities that have received the label. “If we take ‘gentle mobility’ for instance, Grenoble and those who are gold are largely superior to those who are not even in the program or to the French national average” (FR-WP3-CLC-SIE-4).

The only subject that raises some concern is the scope of the label. A representative of one municipality explained that some initiatives that touch upon drinking or waste water are not included. “It can sometimes be a little frustrating. But one should not look at it that way. We try to find labels that are more focused on this type of action” (FR-WP3-CLC-SIE-3).

Concerning the SIC label however, we observe that initiators made some changes regarding how the topics included in the label are entitled and how the role of innovation is framed in order to be as inclusive as possible and avoid possible forms of contestations. In discussion with cities, the notion of economic development which raised questions about the role of economic growth was for instance replaced by the notion of economic transition. Similarly, initiators are very careful when talking about innovation As explained by an interviewee when trying to interpret why a city decided not to pursue the experimentation: “our label may have a designation of too much “intelligent innovation”. Some people really try to take a distance from this” (FR-WP3-CLC-SIE-7). For initiators, it is important to reassure cities that innovation
6 Summary, Synthesis and Conclusions

6.1 How do SIEs and SIE-fields emerge, develop and institutionalise over time?

In this report, we analysed the emergence and growth of one form of SIE, ‘City level competitions for sustainable energy’ in France. We have observed two types of competitions: between-cities competitions where participants are cities or inter-communalities and within-city competitions where participants are citizens. This field emerged in the mid 2000’s as cities gained legal responsibilities in the fight for climate change and as NGOs strived to empower citizens to contribute as well. This field also benefited from previous European experiences with both types of competitions.

In regards to between-cities competitions, and as mentioned in section 5.3.1.2, this SIE has evolved over time. For instance in the Cit’ergie label, more sub-themes came to be included (air quality, energy sufficiency). We have also observed that these competitions developed in space as more and more cities in France chose to participate in the competition. In the spring 2021, 219 cities are participating in the program, seven of which have reached the highest level of certification. We expect that this trend will continue in the years to come, especially because ADEME has committed important resources to secure subsidies for participating cities and to improve the visibility of the challenge. Our analysis also points to an increasing interest to further broaden the themes that are included in Cit’ergie. This is clearly the ambition of the SIC label which aims...
to address economical and social issues and look at how energy systems can be made more resilient. On the other hand, the SIC label also aims to create a transversal competition that could address non-energy-related sustainable development topics. This initiative is really in the emerging phase and whether it will develop or not is still uncertain. It will depend on SIE-field-actors’ capacity to raise interest among city officials and to find organisations willing to allocate the financial resources needed for the challenge to take place.

Regarding within-city competitions, we have observed a similar trend when it comes to the scope of the competitions: they are not only about energy anymore but also include other eco-citizenship aspects such as waste or food. However, when it comes to how the competition develops in space, the trend seems less clear. For some years, more and more cities hosted competitions and more and more citizens participated in them. It is estimated that between 2008 and 2018 more than 40,000 households participated in the challenge in France. However, this SIE initiative seems to be running a bit out of steam and it seems more difficult to secure the financial resources needed to organise and facilitate these competitions. Coming years will tell whether opening competitions to broader eco-citizenship themes will be sufficient to renew interest for this initiative.

6.2 How do SIE-field-actors and other field-actors interact with the ‘outside’ institutional environment and thereby co-shape the SIE-field over time?

First, we have observed an increasing involvement of cities as central actors in the energy transition. This has been supported by key policy events as well as more general interest for environmental and climate related issues, which pushed elected official to take action regarding what their political stance. This central role of cities and local government has been further brought to light by the ongoing sanitary crisis which showed the need to make local communities more resilient. These external changes also impacted the field in that they both showed the urgency to act in order to tackle climate change but also the scope of change that will be necessary.

This increase in awareness, both from cities and from citizens have different impacts on the SIE-initiatives we studied. Regarding between-cities competitions, these changes in the ‘outside institutional environment’ benefited the field. It resulted in more cities being willing to become actors themselves and to participate in the competitions as they increasingly realised the need to take radical actions and to look for tools such as Cit’ergie which can help them assess and improve their performance. This was surely also a driving force behind the development of new labels which are broader in scope.

For within-city competitions however, the impact was less favourable. Indeed, interviews and desk research indicate that some actors contest the relevance of such initiatives to provide adapted and resource efficient solutions to fight climate change. Because the very nature of the SIE-initiative is contested, it has become more difficult for NGOs organising these
challenges to find the financial resources they need in order to facilitate the challenges and to keep the initiatives going. This has also pushed for a restructuring of the initiatives and a broadening of its scope towards more eco-citizenship.

6.3 What are the enabling and impeding factors for SIE-field-actors and other field-actors to conduct institutional work and change the ‘outside’ institutional environment?

The main objective of SIE-field-actors is to transform institutions, especially local institutions. The objective is to provide tools to support local authorities in transforming their institutions into more sustainable energy pathways locally. It is also about helping citizens change their routine behaviours in order to become less resource intensive. The playful competitive format really aims at making it attractive and appealing for cities or citizens to participate and improve themselves over time.

Institutional work is done by various actors at various levels. For instance ADEME does institutional work at the national level in order to create a broad framework that can support energy and climate related decisions in cities. Institutional work is also done locally by independent consultants who assess the cities’ performances and provide guidance as well as by technicians in city administrations who propose activities that can be introduced to the city and who encourage the administration to pursue these activities. Finally, institutional work can also be done by individuals through leading others in competitions.

Various type of institutional work is done. We have observed work related to relational work like networking and knowledge exchange. SIE-field actors contribute to creating institutions insofar as they allow the creation of new networks between cities. This includes both cities that participate in the competitions and cities that do not yet participate but may consider joining the competition in the future. These networks are really important as they create a space for cities to learn from and inspire one another. We have also observed boundary work as actors try to renegotiate the scope of the initiatives or propose complementary initiatives with broader scopes. We have also observed strategy work that aims at providing robust methods that can help cities to design strategies (local energy and climate policies) to fight climate change or that can foster individual behavioural change.

Various factors have enabled institutional work. All the previous work done by other European countries notably Switzerland for between-cities competitions and Belgium for within-city competitions was an important enabler. Both provided a robust methodology on which to build on and that could be translated/adapted to the French context. This has proven to be an important resource to the French initiative. Notably, the pre-existing network of cities close to the Swiss border surely facilitated the setting-up of the project that led to the creation of Cit’ergie. Finally, national policies that encouraged cities to design local climate policies and motivated ADEME to develop tools to support them were also important enablers.
Institutional work has also been impeded. For instance existing responsibilities and power relations are limiting changes in actor relations. SIE initiatives depend on financial support from local or national organisations. Competitive formats have reproduced these power relations and even strengthened them as cities have gained the power to make or break SIE initiatives depending on their decisions to support them financially or not. The analysis conducted also suggests that what can impede institutional work is the fact that there are too many tools to choose from and it is difficult for cities to make informed decisions. Moreover, especially when it comes to broadening the scope of the competition, institutional work is impeded by the fact that some of the themes included in the label seem to be controversial for cities. The role of innovation and more importantly the type of innovations that is included in the label can be contested. Similarly, questions raised about the notion of economic development influenced the initiators to consider renaming this theme economic activities instead.

7 Recommendations for our city partners, national and EU policy makers and SIE practitioners

SONNET city partners

- Cities can participate in existing between-cities competitions. Competitions such as Cit’ergie can provide very valuable support to help cities take energy and climate decisions. Moreover such competitions can also contribute to increasing internal and external legitimacy for initiatives that are undertaken.

National and EU policy makers

- There seems to be a demand from local actors to have access to tools that can support decision making concerning sustainability and that go beyond the energy topics. We recommend national and EU policy makers to allocate resources to facilitate the development of such tools at the European level.
- An important limitation of the existing competitive format is that they do not allow the reaching of carbon neutrality. Nobody has a clear idea about what it takes to become carbon neutral. National and EU policy makers should finance research programs that could contribute to identifying what could be done to reach carbon neutrality.

SIE-field-actors

- A key challenge for between-cities competitions is to gain visibility and French SIE-field-actors could get inspired by what is going on in other European countries when it comes to making the competition visible to its citizens. It may for instance be interested to advertising the level of the label in the same way cities advertise how many flowers they have.
- The lack of visibility for the various competitions also partly results from the multiplicity of options that cities have when it comes to choosing a tool or program to help them design energy and climate policies and activities. We recommend that SIE-field-actors try to limit the options by focusing on initiatives that are legitimate and have the
highest potential to really help cities make a positive contribution to the energy transition.
8 List of references


Methodology

Eight interviews were conducted. The interviews were conducted online via visioconference software or by phone. We selected initiatives that covered various formats of competition both in their scope and in their aims. We also selected interviewees that would provide a complementary perspective on the initiatives. For instance, we interviewed a representative from a city that recently included energy and climate issues in its policies as well as a city that was more mature and had obtained the Gold label.

Interviews were complemented with desk research in order to gather additional data about key events and triangulate information collected during the interviews. Seven interviews were completely transcribed. Interview transcripts or notes were coded along with documents using the coding software Atlas.TI. We used deductive list of code defined by the research team. These codes were then refined into more precise items. Key events were listed and organized in a timeline.

Documents reviewed


List of interviewees
<table>
<thead>
<tr>
<th>Code interview</th>
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<th>Actor type</th>
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<td>City collective (Pays de l’Or) SIE-initiative</td>
<td>Head of planning, Urbanism &amp; Sustainable Development</td>
<td>26/10/2020</td>
<td>41mn</td>
<td>Julien Lafaille</td>
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<td>FR-WP3-CLC-SIE-4</td>
<td>Government agency staff SIE-management</td>
<td>Cit’ergie program manager</td>
<td>03/11/2020</td>
<td>41mn</td>
<td>Julien Lafaille</td>
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<td>FR-WP3-CLC-SIE-5</td>
<td>Government agency staff SIE-management</td>
<td>Project manager, territorial resilience</td>
<td>16/12/2020</td>
<td>50mn</td>
<td>Julien Lafaille</td>
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<td>FR-WP3-CLC-SIE-6</td>
<td>NGO staff SIE-initiative</td>
<td>Program coordinator</td>
<td>14/01/2021</td>
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<td>Julien Lafaille</td>
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<td>FR-WP3-CLC-SIE-7</td>
<td>Public/private agency staff SIE-development</td>
<td>R&amp;D project manager</td>
<td>22/01/2021</td>
<td>1h18mn</td>
<td>Julien Lafaille</td>
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<td>Program manager/coordinator</td>
<td>24/02/2021</td>
<td>59mn</td>
<td>Julien Lafaille</td>
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