



The Urban Lab of Europe!

JOURNAL

PROJECT

EPIU - Energy Poverty Intelligence Unit

📍 Getafe, Spain

TOPIC

Urban poverty

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## Journal 1: Energy Poverty Intelligence Unit (EPIU)

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This is the first journal of the Energy Poverty Intelligence Unit (EPIU) project since its start on September 2019. EPIU led by Municipality of Getafe is an ambitious Urban Innovation Action aiming at identifying and combat energy poverty through an intelligent tool for advanced analysis.

Getafe's main challenge is to identify and fight hidden energy poverty (HEP) by developing the Energy Poverty Intelligence Unit with a pilot project in its two most vulnerable areas: Las Margaritas and La Alhóndiga. Innovation lies in the change in energy poverty attention beyond monetary poverty: from reaction to prevention using data. EPIU is based on a data analytics system that collects information on energy consumption, income and other factors determining energy poverty at three scales: home, building, and neighbourhood. EPIU improves the collaboration between working areas of the city council and enhance civil servants' skills. Finally, homes, buildings and neighborhoods will become more energy efficient, contributing to a more responsible use of energy. The project benefits and feeds from existing local, regional, national and European initiatives and policies which aim at identifying and tackle energy poverty too.

The project is put forward on a wide consortium with expertise from strategic areas such as academia, charities, energy companies, social organizations, public companies, consultancy services and the building sector. This strong partnership with wide experience on energy poverty gives the municipality of Getafe the reliance of a good delivery of the project.

Yet, the Covid-19 crisis that can be labelled as a "total social fact", has affected all spheres of life and has altered the project too, not only in terms of milestones, but also in terms of objectives. Getafe, as well as the rest of European municipalities paralyzed their activities from March 2020 to October 2020. Furthermore, Getafe suffered too on the second wave of the pandemic and the city was under confinement again in autumn 2020. By the time of writing this report, the municipality is under restrictions and has not recovered its normality which has impacted all of the seven challenges analysed and affected their intensity.

Citizens, Getafe's public administration and EPIU partnership dynamics have changed due to Covid-19 which has resulted on a project general delay. The Data Analytics System is not yet completed due to lack to access data and the difficulty to reach citizens needed to deploy surveys and home energy monitoring. Besides, the design of the energy poverty service is not as advanced as initially foreseen.

Notwithstanding the above, EPIU's work during this implementation period has shown a solid organizational structure and a capacity to redesign procedures without affecting the essence of the project. Initially, EPIU was designed to be implemented sequentially and at this stage, EPIU is being separated into sprints to ensure the correct project implementation and minimize risks derived from the pandemic situation.

In addition to this executive summary this Journal provides an analysis of how the project fits in the policy context at EU, national and local level and an overview of the implementation challenges faced by the project in the first months of the project and a brief conclusive perspectives for the coming months.

## Challenges intensity overview and lessons learnt within this period

## Challenge

## Observation

### 1. Leadership

Challenge level



- A good and strong consortium is essential to buffer the impact of inesperate risks such as Covid-19 crisis
- UIA projects build their legitimacy over time and need to be aware of it during all implementation periods

### 2. Public procurement

Challenge level



- The success of public procurement depends on an effective technical procedure but also on the guarantee of participation. In this case, the procurement process is not complex but the risk may appear on the demand side.
- Delays in the implementation may affect the procurement due to time constraints

### 3. Organizational arrangements within the urban authority (cross-department group)

Challenge level



Energy poverty is a transversal social priority that affects different departments such as social services, housing, consumer protection, health or emergency departments. Combining and coordinating these different areas are essential to effectively implement EPIU's integrated approach.

### 4. Participative approach for co-implementation

Challenge level



A complex challenge can be exacerbated through an unforeseen risk, in this case a global pandemic. To react rapidly and to adapt to the new situation is essential not to loose the pulse of the project.

### 5. Monitoring and evaluation

Challenge level



First stages of a project let changes and accepts redesigned monitoring and evaluation procedures to adapt to reality without changing the essence of a project.

### 6. Communication with target beneficiaries and users

Challenge level



Reaching beneficiaries and users is always a challenge in projects such as EPIU. Energy poverty is a difuse and atomized phenomena as it occurs in the intimacy of their households and special care is needed in order to reach people suffering a situation of vulnerability

7. Upscaling  
Challenge level



EPIU's adaptation to the unforeseen emergency situation may be of interest in the upscaling process. However, it is soon to evaluate to what extent it will contribute to the identification and management of energy poverty in urban areas.

## 2. How the project fits in the policy context at the EU, national and regional level

EPIU's objectives are in line with EU, national and regional latest political priorities

### **EPIU focuses on one of the EU challenges: energy poverty**

Energy poverty is a situation in which households are unable to access essential energy services. With nearly 34 million Europeans unable to afford to keep their homes adequately warm in 2018<sup>[1]</sup>, energy poverty is a major challenge for the EU.

The European Pillar of Social Rights includes energy among the essential services which everyone is entitled to access. Support for access to such services must be available for those in need<sup>[2]</sup>. Furthermore, the recast of the Electricity Directive, the revised version of the Energy Performance of Buildings Directive (EU) 2018/844 or the Energy Efficiency Directive requires Member States to take appropriate measures to address energy poverty. Furthermore, the Next Generation EU confirms the Renovation Wave's role as one main facilitator of the green recovery.

### **EPIU, 100% aligned with the National Strategy against Energy poverty in Spain**

There is no standard definition of energy poverty, and it is therefore left to Member States to develop their own criteria according to their national context. In their NECP, Member States have to assess the number of households in energy poverty.

In Spain, the National Strategy against Energy Poverty 2019 – 2024 seeks to address a situation that affects between 3.5 and 8.1 million citizens, reducing at least 25% current indicators but seeking to reach 50%. Although the strategy entered into force after EPIU was approved, the project is 100% aligned with its four axis:

- Improving knowledge about energy poverty
- Redesign of subsidy mechanisms such as the social bond for electricity and the social thermal bond.
- Creating a structural change for the reduction of energy poverty- energy efficiency and rehabilitation
- Implementing measures to protect consumers and social awareness

### **COVID-19 has highlighted the importance of projects as EPIU**

The Covid crisis, labelled as a “total social fact”, has highlighted the urgency of addressing energy poverty if we are to create a social Europe that guarantees the basic needs of all its inhabitants. Projects as EPIU will contribute to overcome the situation in an effective manner.

### **Regional and local initiatives complementing EPIU and vice versa**

Regional strategies of Comunidad de Madrid on different areas such as the Strategy of Social Inclusion 2016-2021 or the employment policy design a region with full employment and no poverty and complements EPIU objectives of identifying and fighting energy poverty.

Besides, EPIU will support Getafe's social pillar, contributing to identify situations of hidden vulnerability and offering support to tackle energy poverty.

[1] 2018. Eurostat, SILC

[2] [https://ec.europa.eu/commission/priorities/deeper-and-fairer-economic-and-monetary-union/european-pillar-social-rights/european-pillar-social-rights-20-principles\\_en](https://ec.europa.eu/commission/priorities/deeper-and-fairer-economic-and-monetary-union/european-pillar-social-rights/european-pillar-social-rights-20-principles_en)

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### 3. Short update

EPIU started on September 2019 with a logical structure of a project with several potential expected risks identified and evaluated. However, the effect of a global pandemic was not foreseen and on March 2020 Covid-19 impacted the whole planet. The coronavirus crisis has affected all spheres of life and has altered EPIU project too, not only in terms of milestones but also in terms of objectives.

Getafe, as well as the rest of municipalities paralyzed their activities from March 2020. By the time of writing this report, Getafe is under restrictions and has not recovered its normality.

A part from the specific situation of the municipality, EPIU's partners had to reorganize their activities and logistics due to the lockdown:

- Covid-19 has had a huge impact on the organization of local administration as they were not used to virtual environments or home office. Related to EPIU, this situation affected municipality of Getafe's team but also the public housing company (EMSV) and the relation with all local departments that needed to be linked to EPIU.
- Impact on the consortium as partners had to reorganize their logistics. For example, university professors had to transform their lectures into virtual with a huge extra effort.

EPIU was designed without considering such as risk which has had an evident impact at different levels:

- From a project management perspective, the logic of the project has switched from *waterfall* project methodology to an *agile* one. Initially EPIU was designed to be implemented sequentially and at this stage, EPIU is being separated into sprints to ensure the correct project implementation and minimize risks derived from the pandemic situation. The Data Analytics System is not yet completed due to lack to access data and the difficulty to reach citizens needed to deploy surveys and home energy monitoring. Besides, the design of the energy poverty service is not as advanced as initially foreseen and the project runs on a general delay of around half a year.
- Reaching beneficiaries and users is always a challenge in projects such as EPIU and the impossibility to access them face to face during this period has made specific tasks unfeasible even with new approaching strategies.

Despite all the complexities, EPIU team has seen the unexpected situation as an opportunity too and during this implementation period has tested new solutions in the way of designing the service, getting data or reaching potential beneficiaries. It is soon to determine whether this resilience brings to an improved solution to fight energy poverty.



## 4. Addressing 7 challenges

### 4.1 Leadership

A positive and committed leadership is a pre-requisite for municipal led innovation.

#### **A strong consortium contributes to an effective leadership**

EPIU's consortium is one of the strongest assets of the project. Coordinated by the Municipality of Getafe but with a co-leadership with the public housing company (EMSV) and the technical support of a consultancy with expertise on public policy (Khora Urban thinkers), the good commandment of the project is ensured. The participation of lead players on different areas with specific expertise guarantees the quality of implementation. UC3M, UPM and ACA are referent organizations in the field of data analysis and energy poverty in Spain. Besides, the participation of one of the main energy suppliers (Naturgy) secures the acquisition of real energy data. The involvement of practitioners such as ACA and one of the biggest social organizations identifying people suffering a situation of vulnerability (Red Cross), guarantees an effective implementation reaching those in a situation of vulnerability. Last but not least, the inclusion of Construction Labour Foundation with expertise and proved experience on Communication secures the EPIU is known at EU, national, regional and local level.

#### **Local government implication and leadership**

During this first implementation period (September 2019-December 2020), EPIU has counted on a positive and committed leadership from the local government and the Mayor and councilors have been involved in the project at different levels. For example, the local energy poverty diagnosis report was presented to the Mayor and councillors last autumn. Getafe's local government pushes for city and transversal projects and EPIU is well supported. However, the challenge for the next periods is to keep this political interest alive and at the same level of implication.

#### **A legitimated leadership, a permanent challenge**

Although top down leadership on EPIU is evident, the right and acceptance of a leadership needs to be validated at all levels and all statements of the city need to legitimate the project. Due to the pandemic, communication

with local departments and citizens has become complex and bottom-up leadership has not been validated yet. This is a shortcoming that needs special attention for the coming months

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## 4.2 Public procurement

EPIU will tender contracts and procure services during the implementation phase but the type of services and products to be procured do not have notable complexity. Furthermore, and due to the project general delay, procurement processes have not started yet, so the challenge is not significant in the period.

However, even it does not seem a complex challenge for EPIU project in terms of tender technical aspects, there is a risk on the demand side as Home Owners' Associations and vulnerable consumers need to consider it interesting and request the service. The success of public procurement depends on an effective technical procedure but also on the guarantee of participation.

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## 4.3 Organizational arrangements within the urban authority (cross-department group)

EPIU project, as all other UIA projects, are complex because they test unproven solutions at a real urban scale but also because they try to do so by intervening on the interconnected dimensions of the challenges being addressed. Energy poverty is a transversal social priority that affects different departments such as social services, housing, consumer protection, health or emergency departments. Combining and coordinating these different areas are essential to effectively implement EIPU's integrated approach.

This is one of the most relevant challenges that EPIU will face and during this reporting period some complexities have arisen.

### **EPIU must work on their legitimacy**

EPIU needs to build their legitimacy over time. Until departments and areas of the municipality don't accept and make EPIU their own project too, EPIU won't be legitimated in the city and the implementation won't be a success. The reality is that Getafe's units and departments work quite isolated and there is not a regular transversal culture. This explains why, for EPIU, this is one of the pillar challenges. A lot of contacts have been made with departments during this period and only at the end of the period it started to bear fruit with a fluent contact. For example, the provision of data related to energy poverty, needed from specific departments of the municipality, was difficult at an initial stage. Although it seems solved at the time of writing this report, the challenge will remain intense in the coming months and the engagement of the different areas related to energy poverty in Getafe, will become a test on the next period. To make them participate in the design of the public energy poverty service will be essential to make them part of the project.

### **Covid-19 crisis has exacerbated the challenge**

The crisis has changed everything and the organization and logistics of a local authority such as Getafe have been hugely affected. A lot of meetings on different departments have been held during this period in order to present the project and explore ways of collaboration. A titanic effort has been made by the EPIU team to maintain the sessions on different formats with the different units in times of pandemic. Despite, new realities such as lockdowns, home office and the impossibility to physically meet, have exacerbated the challenge of motivating different areas to work together on EPIU. This explains why there is still not a general understanding and acceptance of the project within the municipality. However, it should be emphasized that last months showed a positive signal and a change of tendency has arisen, which may be evidenced in the next implementation period.

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## 4.4 Participative approach for co-implementation

The development of strong partnerships between public bodies, the private sector and civil society is a cornerstone of efficient urban development policies.

### **EPIU's delivery partners have a key role in the project's co-implementation**

On one side, NGOs such as ACA or the local antenna of Red Cross, as practitioners dealing with people suffering a situation of energy poverty, contribute to EPIU with their expertise on delivering support schemes for vulnerable people. On the other side, university teams such as UPM and UC3M have the expertise on data analysis and they

have focus on energy poverty on the last years which ensure the adequate and effective use of technology in this field. EPIU's general coordination supports on a consultancy with proven expertise on UIA projects and public policy and is using their gained knowledge from other projects to ensure the effective implementation too.

### **EPIUs has proved good relations with the local community**

In relation with the community, EMSV, as the public housing company, has a good relation with House Owner's association and the local antenna of Red Cross has the contact with local people suffering a situation of vulnerability.

During this period the existence of these networks and relationships have been proved and it is an evidence that Getafe's municipality tap into the collective intelligence of different stakeholders and benefit from the diffused knowledge and expertise at different levels (international, national, regional and local) to find a new way to identify and tackle energy poverty, including hidden energy poverty (HEP).

### **Covid-19 has reduced the potential of participative approach for co-implementation in Getafe**

During this period, EPIU has deployed a huge network of relationships to ensure a participative approach for co-implementation. However, the potential of participation is bigger than what has been visualized this period. The global crisis derived from Covid-19, has affected all spheres of life. Getafe is a rich municipality in terms of community networks and active neighbourhoods, but lockdowns and confinements have not helped, and new dynamics of participation haven't been establish yet which reduces interactions.

This situation has transformed the level of importance of this challenge in the period. During the design phase it was no foreseen as a key challenge and nowadays it is becoming a more important challenge to work on in the coming months.

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## 4.5 Monitoring and evaluation

Monitoring and evaluation tools are important because only with the evidence of the results, urban authorities will be able to decide whether the tested solution has been effective.

### **EPIU monitoring and evaluation tools adjusts to the new reality**

EPIU design conceived a system to monitor and evaluate to what extent the project was going to contribute to the identification of energy poverty, including Hidden Energy Poverty. Although it is soon to determine how EPIU is contributing to sustainable urban development, the predictive tool is an innovative approach to identify those in a situation of vulnerability that can contribute to improve local policies in the future.

Besides, EPIU team has reacted effectively to coronavirus crisis which ensures a learning loop also on management of a critical situation. This unforeseen element will be a key aspect too and is already generating a learning loop that would contribute to a sustainable urban development. However, more time is needed in order to structure monitoring and evaluation within the new situation.

The challenge of monitoring and evaluation will become a permanent and intense challenge in the coming period as there won't be enough room to new maneuvers.

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## 4.6 Communication with target beneficiaries and users

Within any UIA Project, urban authorities have clear responsibilities and interest in involving beneficiaries and users in the design and implementation process.

### **External unforeseen factors intensify the challenge**

This has been one of the most intense challenges during the implementation period. Although an exhaustive plan to reach the community was rigorously designed, the coronavirus crisis has majorly invalidated it. Using a terminology based on "healthy households" instead of energy poverty, is a good strategy to reach potential beneficiaries but the emergency situation has masked everything including the interest in participating in the project design. An immense effort was put to readdress the situation and new formulas to reach beneficiaries and users were designed and tested such as campaigns in local media or a reinforcement of social media instead of the foreseen street actions. However, they didn't have the expected results during this implementation period: local community is not reachable online and EPIU does not offer a tangible service to Getafe's citizens yet.

This challenge will be intensified in the next period as without the implication of the community PIU won't become a reality.



#### 4.7 Upscaling

This is not a relevant challenge within this period. EPIU's adaptation to the unforeseen emergency situation may be of interest in the upscaling process. However, it is soon to evaluate to what extent it will contribute to the identification and management of energy poverty in urban areas.

## 5. Conclusion

EPIU is an ambitious project which has been evidently constrained by the Covid-19 crisis during 2020 and the intensity of the challenges has been affected too. For example, those challenges already identified as relevant during this period such as cross-department working or communication with beneficiaries have been exacerbated due to the effects of the pandemic. Besides, other challenges such as the participative approach for co-implementation that were not considered so important on the design phase of the project have modified its relevance during this period.

The project faces a general delay due mainly to sanitary emergency. This may be evaluated in order to readapt deadlines and objectives.

The period has also revealed the good quality of the EPIU partnership and its capacity of resilience. Changes in the project methodologies or in communication strategies in order to adapt to the new reality have been made without altering the essence of the project.

Despite all the complexities, EPIU team has seen the unexpected situation as an opportunity too. Although it is soon to determine whether this resilience brings to an improved solution to fight energy poverty, it is evident that innovation, planned or supervening, will continue defining the general tone of the project.

Urban poverty

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