Platone

PLATFORM FOR OPERATION
OF DISTRIBUTION NETWORKS

Platone

PLATform for Operation of distribution NEtworks

D3.7 v1.0

Report of customer involvement

Italian Demo

The project PLATform for Operation of distribution NEtworks (Platone) receives funding from the European Union's Horizon 2020 research and innovation programme under Grant Agreement no 864300.

Project name	**Platone**
Contractual delivery date:	31.01.2021
Actual delivery date:	26.04.2021
Main responsible:	Acea Energia
Work package:	WP3 – Italian Demo
Security:	P = Public
Nature:	R
Version:	V1.0
Total number of pages:	46

Abstract

The solution proposed by the Platone project and, specifically by the Italian Demo, places the end-user (customer) at the centre of the local flexibility mechanisms. Within the Italian Demo, specific activities and strategies have been implemented for the purpose of customer-involvement, also including actions aimed at engaging key stakeholders who can support the customer-engagement process.

The "Report of customer involvement" describes the methodology applied, specific activities carried out and results achieved for customer involvement within the Italian Demo. Aim of these activities has been informing and making customers aware of their key role in providing flexibility to support the grid, therefore enhancing the stability and security of the electric system and boosting the decarbonization process.

The Report shows how customers respond to the project and to its approach. It explains in detail the strategy adopted for the customer engagement and all the actions taken to involve different groups of users (stakeholders, commercial and residential customers) in project activities. The selected strategy is based on Design Thinking methodology, according to a project coordinated approach, which led to the realisation of two user-engagement Virtual Workshops: the first one addressing selected local stakeholders and commercial prosumers, as preliminary to the latter, addressing residential customers. Activities were implemented following a systemic approach, aimed at exploiting the results obtained through the interaction activated with key stakeholders, for preparing and carrying out an effective customer-involvement strategy. Specific coordination, monitoring and evaluation strategies put in place are documented in this report.

Finally, the results achieved and described are instrumental in launching the trial phase and obtaining formal interest from customers in taking part in the Italian Demo, to really assess the potential for local flexibility of medium and low voltage users.

Keyword list

Customer-engagement; Workshop; Prosumers; Flexibility; Demand response.

Disclaimer

Executive Summary

The solution proposed by Platone project and, specifically by the Italian Demo, aims to test local flexibility mechanisms where the customer (end-user) has a central role. In the project concept, the customer gets an active role as a “partner” who can make her/his flexibility available to the market. By modulating her/his energy consumption, the customer can help the Distribution System Operator (DSO) to efficiently manage its distribution grid. This supports the DSO when facing criticalities that can affect the stability and security of the network, caused by the increasing penetration of non-programmable renewable energy sources and by the enhanced electrification. As a pivotal player of the future energy market, the customer needs to be made aware of this new role and its related benefits, in order to enable active participation and conscious involvement in helping the energy system to be more secure, stable and sustainable.

In preparation of the launch of the Italian trial operation by the third quarter of 2021, after the release of the complete System Architecture (by end of May 2021), its test and entry into operation, specific activities and strategies have been implemented within the Italian Demo for the purpose of customer-involvement, also including actions aimed at engaging key stakeholders who can support the customer-engagement process.

The aim of those activities was to reach a first group of users for involving them in project actions according to a participatory and multi-stakeholder approach. The “Design thinking” including the *user centric design* was selected as the project coordinated methodology at the basis of customer-involvement strategy at different Demo levels.

A co-creation preparatory path, realized by Acea Energia in synergy with B.A.U.M. and Areti, led to the identification of a blended strategy for customer-involvement, based on principles of both the participatory process and the interdisciplinary approach.

According to this view and considering the different clusters of users identified as to be reached, two concatenated user-engagement workshops were planned with different linked aims, respectively addressing: 1) local key-stakeholders and large commercial prosumers; 2) residential customers (prosumers and consumers). This two-step structure was identified as easier and more effective for setting the ground for starting discussion forums to collect field needs and define together an effective customer-involvement strategy, while obtaining first expressions of interest for taking part in the trial.

The first workshop was held in virtual modality as a two-session event (informative and interactive), on the 18th and 25th of June 2020. It was focused on “Optimized grid management approaches and the prosumer’s role”. The remote meeting was a great opportunity to introduce the project and its Italian Demo to a variegated audience composed of external representatives of research centres, technical and sector experts from companies operating in the energy production field, electrical storage providers, local administrators and organizations operating in the energy renewables sector (30+ attendees joined the event).

The virtual event ended with two thematic focus groups dedicated to “The transition towards greater energy awareness” and to the "Ways for remunerating flexibility”, during which all the participants shared their valuable feedback and experiences. The debate mainly focused on possible levers to stimulate customers to adopt more responsible energy behaviours and to be more aware of their energy consumption. This was considered as a fundamental building-block for discussing the flexibility issue. The opportunity that can be offered by flexibility as a mean of exchange for additional services, favouring circular and sharing economy-based logics, was one of the main highlights shared by attendees together with the need to minimize the impact on customers’ daily life through smart and home devices.

The insights gained during the first workshop guided the preparation of informative materials for the following event.

The first workshop was also the starting point for a series of bilateral focus meetings, leading to the achievement of important results in terms of synergies built-up for the participation in the trial. Specifically, a formal cooperation started with the Italian National Agency for New Technologies, Energy and Sustainable Economic Development – ENEA, for involving the Energy Community it coordinates, located in the “Centocelle” district area in Rome.

Following the workshop, another important participation in the trial was confirmed by Acea Produzione, which will take part in the Italian Demo pilot testing with the Cogeneration Plant located in the Tor Di Valle area. Technical implementation activities followed for allowing the cogeneration plant to exchange data with the Light Node apparatus developed by the Italian Demo.

An informative campaign was consequently launched addressing a first group of about 150 grid residential customers, including 3 building managers representing additional end-users, selected based on the analysis and segmentation of portions of the grid underlying the target areas of Centocelle and Tor di Valle. This first group was introduced to the project through an informative letter. A group of 25 customers responded to the invitation to ask for more information about the initiative and the 10 residential end-users of the Centocelle community were also reached with on-site visits, also useful for technical assessment related to the possibility to install storages and photovoltaic panels at householders' premises.

Interested customers were invited to join the new virtual Workshop with the title "Participating in the Platone project and supporting the network in becoming Greener" which was held on the 2nd of March 2021. The event was a great opportunity to present the project focusing on a customer-centric approach and assess residential customers' interests and reactions. Special interest by customers was highlighted regarding the possibility of obtaining savings in their bills or be provided with equipment such as storages or photovoltaic panels. Great interest was also addressed to the "Flessibili" mobile App that will be released at the end of 2021, as the gateway to the local flexibility market, allowing customers to monitor their energy consumption in real time and view their flexibility requests. Attendees were provided with the Italian Demo Participation Form for formalizing their interest in taking part in the trail execution and with an ad hoc Privacy Policy Informative Document. First formal participations signed by customers have already started to be received and the collection is still open. Further follow-up activities are currently under implementation to continue to get in contact with all the customers reached and enlarging the audience of residential customers to involve.

Authors and Reviewers

Main responsible		
Partner	**Name**	**E-mail**
Acea Energia		
	Gianluca Nori	gianluca.nori@aceaenergia.it
Author(s)/contributor(s)		
Partner	**Name**	
Acea Energia		
	Simone Minniti	simone.minniti@aceaenergia.it
Areti		
	Gabriele Fedele	gabriele.fedele@areti.it
B.A.U.M.		
	Manuel Haas Kilian Karg	
Reviewer(s)		
Partner	**Name**	
E.DSO		
	Kirsten Glennung Sophia Giovanett	
Avacon		
	Benjamin Petters	
Approver(s)		
Partner	**Name**	
RWTH		
	Padraic McKeever	

Table of Contents

1 Introduction

The “PLATform for Operation of distribution Networks – Platone” project aims to develop an architecture for testing and implementing a data acquisition system based on a two-layer approach (an access layer for customers and a distribution system operator (DSO) observability layer) that will allow greater stakeholder involvement and will enable an efficient and smart network management.

The tools used for this purpose will be based on platforms able to receive data from different sources, such as weather forecasting systems or distributed smart devices spread all over the urban area. These platforms, by talking to each other and exchanging data, will allow the collection and the elaboration of useful information for DSOs, transmission system operators (TSOs), Market, customers and aggregators.

In particular, the DSO will invest in a standard, open, non-discriminatory blockchain-based infrastructure, to give to both the customers and to the aggregators the possibility to more easily become flexibility market players. This solution will see the DSO evolve into a new form: a market enabler for end users and a smarter observer of the distribution network. By defining this innovative two-layer architecture, Platone removes technical barriers to the achievement of a carbon-free society by 2050 [1], creating the ecosystem for new market mechanisms for a rapid roll out among DSOs and for a large involvement of customers in the active management of grids and in the flexibility markets.

The increase in renewable energy sources, which are more difficult to control, combined with the increased electrification of consumption, requires the involvement of the end-user and the usage of distributed energy resources for optimal grid management. End-users, by becoming active actors in energy market can contribute to this purpose.

Specifically, the aim of Italian Demo is to realize a fully functional system that enables distributed resources connected in medium and low voltage to provide grid services in different flexibility market models which include all the stakeholders (TSO, DSO, aggregators and end-users). The main goals of this WP are:

- Use of Blockchain technology for an efficient, democratic and non-discriminatory market model for exploitation of local flexibility in the Rome area;
- Improve and promote the consumer access thanks to Blockchain infrastructure and to the presence of Aggregators;
- Use of local flexibility to solve criticalities which can affect the distribution grid in terms of stability and security;
- Increase the grid observability for improving the network management.

To address these aims, specific activities have been carried out and are under implementation: the involvement of both stakeholders - who can facilitate an effective interaction with customers (end-users) - and customers (commercial and domestic end-users) for making available their flexibility power within the Italian trial, and to enable them to become effective as partners.

1.1 Task 3.4

Task 3.4 is one of the project tasks composing WP3 – Italian Demo. Identified as “*Solutions to enable Aggregators to provide flexibility: Aggregator platform and customer involvement”*, Task 3.4 is coordinated by Areti in cooperation with Siemens, Engineering, Acea Energia and B.A.U.M. It includes different activities aimed at developing a local flexibility market in which end-users can be considered as market actors of the DSO, thanks also to the role of the Aggregator.

The sub-activities composing the Task 3.4 are reported below:

- *Aggregator Platform development and integration*, led by Siemens
- *Solutions to enable local flexibility market,* led by Areti
- *Customer engagement techniques* led by Acea Energia in cooperation with B.A.U.M.

Customer engagement techniques sub-task, in particular, has the objective to involve end users to make available their flexibility power within the trial, laying a stable ground for effective strategies and engaging partners (customers but also local stakeholder groups, etc.). Customer engagement techniques sub-task foresees the realization of a series of workshops with the participation of different groups of users (stakeholders and customers), to jointly develop customer-engagement models and solutions with a

higher chance of acceptance by their peers. The aim is not only stimulating their participation in the Italian trial during its operation, but also favouring the creation of a well-informed and aware customer base who can promote the highly innovative solution proposed by the project, which put the customer as grid user at the centre. This sub-task is led by Acea Energia in close synergy with Areti and with the active participation of B.A.U.M.

The present document outlines main actions, implementation methodologies and results linked to *Customer engagement* sub-task within Task 3.4, led by Acea Energia in close synergy with Areti and with the active participation of B.A.U.M., in a view of Demos harmonisation and coordinated approach at project level.

1.2 Objectives of the work reported in this deliverable

The D3.7 *Report of customer involvement* aims to identify and describe the strategic approach used in the Italian Demo to encourage the involvement of groups of local stakeholders and customers for their participation in the Italian trial and for promoting the solution proposed by the project among their peers. . The Deliverable will then report about the results achieved in the two User-engagement Workshops. Furthermore, it elaborates on the specific methodology selected for leading the activities and on the forthcoming actions and next steps for consolidating the Platone community and the participation of end-users/customers in project activities, for a proper testing phase of the Italian Demo System Architecture.

1.3 Outline of the deliverable

This introductory chapter explains the Platone reference context and the specific project task linked to the present deliverable, also providing indications about the objectives and characteristics of the document. Chapter 2 titled “Defining a strategic approach to user-engagement” will provide a systemic presentation of the preparatory activities implemented for the set-up and launch of the customer-engagement strategy. Chapter 3 is dedicated to the two User-Engagement Workshops realised by the Italian Demo, and their respective objectives, concepts, target audience and results achieved. Dissemination activities implemented for spreading specific results, materials prepared, and synergies empowered with other Demos on the matters are presented in the third chapter as well. Chapter 4 offers an overview regarding Follow-up activities and next steps planned for ensuring customers’ continuous participation (regarding the target reached) and for enlarging the community with further cluster of customers. Chapter 5 closes the document with conclusions. It is followed by the list of figures, the list of references and the list of Annexes to this document showing main outputs and materials used during the customer-engagement activities.

1.4 How to read this document

This document is auto consistent, and it can be read independently from other Platone’s deliverables.

Interesting links for deepening the understanding of the progress and evolution of the selected approach throughout the project from its start as of today, can be made with the following Platone deliverables:

- D3.1 *Internal operational plan and WP3 roadmap*, released by Areti on Month 3 (November 2019) as confidential detailed work plan and roadmap for kick starting WP3. Within D3.1, a first strategy for leading customer-involvement activities had been traced. As specified below, the strategy was then discussed and reshaped, to ensure full involvement of stakeholders and end-users;
- D8.4 *Intermediate report on the stakeholder engagement, exploitation, dissemination, communication and standardization activities*, led by B.A.U.M., to be released in Month 24 (August 2021), that will assess the measures taken to raise awareness of Platone project.

2 Defining a strategic approach to user-engagement

This chapter aims to describe all the preparatory steps which led to the definition of the methodology and related approach selected for the realisation of user-engagement workshops within the Italian Demo (sub-chapter 2.1). Moreover, it describes the preparatory action taken for ensuring compliance with privacy regulations related to customers' personal data and proper respect of antitrust regulation during customer-engagement activities (sub-chapter 2.2).

2.1 Preparatory steps to the user-engagement activities

1) Capacity Building Workshop

On the 4th and 5th of November 2019, B.A.U.M. as WP8 coordinator and leader of the Task 1.5 Harmonisation with customers and partners needs and expectations, B.A.U.M. organised in Berlin a Platone-internal workshop on capacity building with representatives of all project partners with special regard to Demo leaders.

The internal workshop marked the start of a series of co-creation events for a user and target group-oriented design process, with regard specific objectives of Task 1.5 and the activities behind the user involvement within both the Demo WPs and WP8.

During the event, project partners were introduced to user centric design to learn basics of Design Thinking, brainstorming methods as well as to get insights into user comprehension, rapid prototyping and testing of concepts. The aim was to prepare specific innovation activities to get innovation with sustainable economic, environmental and social impact, and set the ground for the development and assessment of Platone solution.

Specifically, project partners were introduced to the Design Thinking methodology, including the user centric design, which is primarily based on user's needs and expectations and their comprehension.

Indeed, the Design Thinking methodology is based on six different steps:

- Understand: challenge is analysed, useful information for the implementation of the activity are acquired;
- Observation: point of view and behaviour of the users is analysed and acquired;
- Point Of View: a POV is developed in order to connect the challenge with the behaviour of the user;
- Ideate: a solution to address discovered challenge is generated
- Prototyping: a tool for interaction, or prototype, is elaborated;
- Test: prototype is tested in order to reframe solution and improve it.

The focus of Design Thinking in the Platone project is the "Understanding of end-users", in the abovementioned *user centric design*, i.e. to identify their needs, expectations and anxieties.

The following image graphically summarizes the steps of this methodology:

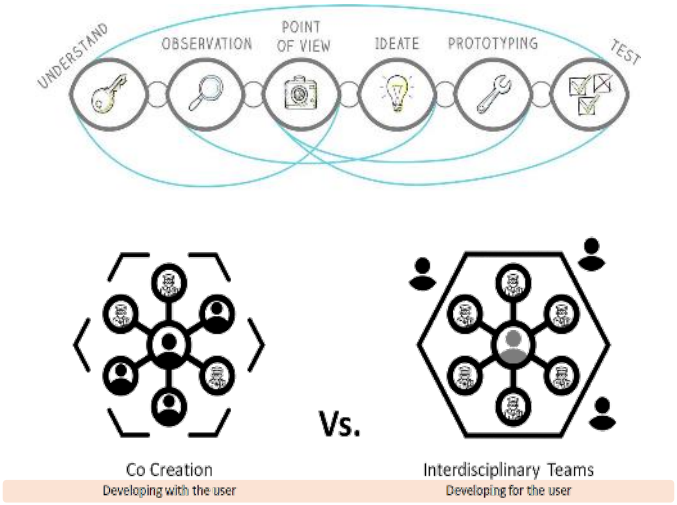


Figure 1 Strategic approach to user-engagement

During the capacity-building workshop, two different approaches were suggested:

1. the participatory **co-creation** approach, based on which users' representatives are involved in the organisation of workshops/engagement event by providing their needs and expectations;
2. the **interdisciplinary team** approach which relies on the mix of different competences for the organisation of workshops without the direct involvement of the end-user in this phase.

Different types of target users, including consumers, were identified based on Demo's point of view, as represented in Figure 2:

Figure 2 Type of users

The capacity-building workshops was realised with the direct participation of the three demos, who had the opportunity to share their ideas regarding the strategy and roadmap for customer-engagement to be developed in their respective demo, discuss proposed methodologies, receive feedback on workshop objectives and timeline, according to a co-creation approach and a common view at project level.

An initial strategy for customer-engagement implementation in the Italian Demo was presented, as also explained in the first WP3 deliverable D3.1 *Internal operational plan and WP3 roadmap*, envisaging the realisation of three distinct workshops addressed to three different target groups: Commercial Prosumers; Residential Prosumer; and Residential Consumers.

2) Coordinated path for the selection of the user-engagement approach

During the first General Assembly, held in Rome on January 21 and 22, 2020, a new internal co-creation event completely dedicated to the Italian Demo was organised by Acea Energia and B.A.U.M. The new co-creation moment led to a revision and update of the strategy initially designed for the Italian Demo (three workshops respectively addressed to Commercial Prosumers, Residential Prosumers and Residential Consumers). The outcome was instead opting for the application of principles of both the **participatory process** and the **interdisciplinary approach**, through the organisation of **two user-engagement Workshops**, with the following characteristics:

1. **First user-engagement workshop addressed to local key-stakeholders**
2. **Second user-engagement workshop addressed to customers (consumers and prosumers)**

This choice was made with the specific aim to raise the effectiveness of engagement activities targeted to consumers, by exploiting the results and insights previously collected during the first workshop addressed to local stakeholders as key-representatives of different categories of players. This approach allowed to gather stakeholders' points of view for building-up a winning strategy for involving consumers during the execution of the trial. Additionally, this two-step structure was identified as a good basis for starting discussion forums to collect field needs and define together an effective prosumers and consumers-involvement strategy.

Interactive activities, also using dedicated tools and participatory methodologies such as role-play and gamification, were preferred for involving stakeholders as facilitators in achieving direct contacts, leveraging on shared strategies, with the consumers.

Furthermore, regarding the "Customer" (prosumer and consumer) target group, the two workshops initially envisaged were merged, given the similarities between the two types of categories considered

(Residential Consumer and Residential Prosumer) in terms of information needs about the project and considering the opportunity promoted by Areti to enlarge the participation in the trial to consumers in addition to prosumers, which can be equipped with smart tools and assets (storage and photovoltaic).

3) Building-up parallel synergies for the trial

In addition to the planned two Workshops aimed at reaching customers located in the target area of the Capital for their involvement in the Italian Demo, through the consolidation of existing synergies, Areti identified 4 main target areas, as shown in Figure 3, in which to examine the potential of flexibility that can be offered to the grid. Three of these areas are related to industrial consumption representing commercial prosumers whose involvement since the first workshop was instrumental in obtaining indications for the involvement of residential end-users, being business prosumer more aware of possible approaches enabling flexibility options. The fourth area is residential, identified through a grid portion analysis; it was involved both through collaboration with ENEA and through on-site visits and letters explaining the project and encouraging participation. The ground was set for cooperation with important players for their participation in the trial as retail and business customers:

- The Co-Generation plant managed by Acea Produzione S.p.A., located in the Tor di Valle district, connected to a huge Water treatment Plant and services offices and apartments in district heating;
- An Energy Community located in the Centocelle district coordinated by ENEA – Italian National Agency for New Technologies, Energy and Sustainable Economic Development;
- A Smart Building owned by ENEA, located in the Casaccia area in the north of Rome;
- The Electric Vehicle Pool Site owned by Acea, located in the Ostiense district.

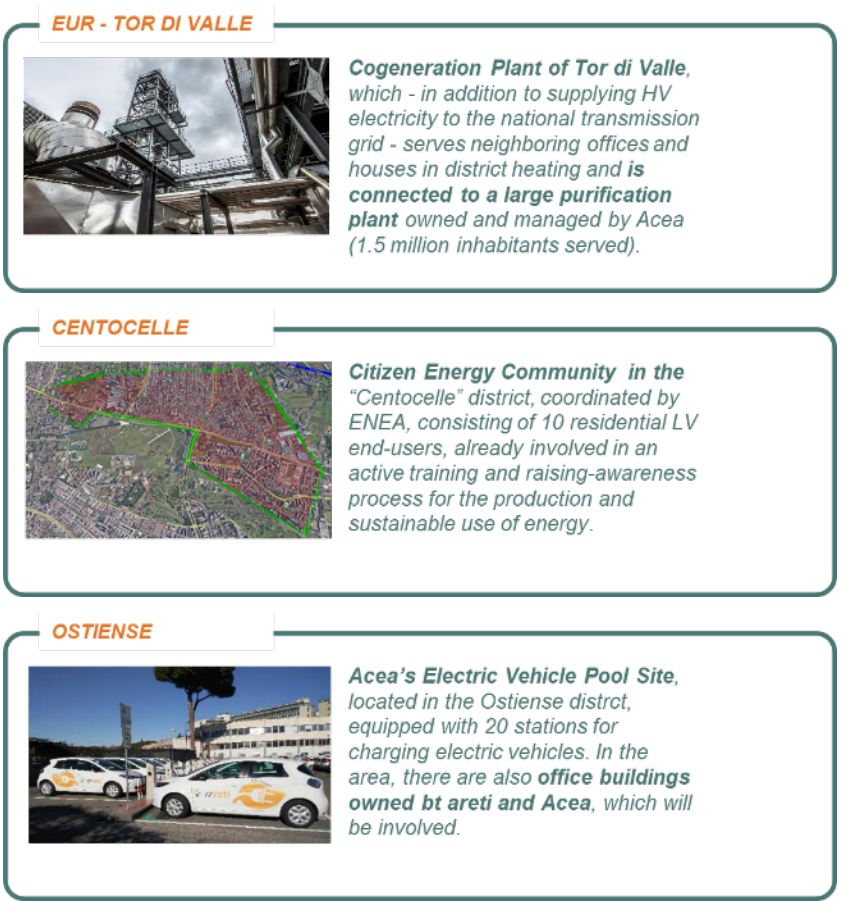


Figure 3 The four target areas identified by the Italian Demo for the trial implementation

2.2 Regulatory compliance

During the preparatory steps of the customer-engagement activities, Acea Energia and Areti deepened the understanding of legislative and regulatory framework concerning possible aspects and issues related to the involvement of customers. The need to trace a clear path regarding the communication of users' consumption data between project partners was highlighted, in order to ensure full compliance with privacy regulations (EU Regulation 2016/679 and Legislative Decree no. 196 of 30 June 2003, which was modified and integrated by Legislative Decree no. 101 of 10 August 2018) and antitrust provisions (Italian Law no. 287, 10 October 1990).

A possible risk to be prevented was identified regarding the trial phase, concerning the need of the Italian demo partners to communicate and exchange information related to customers' consumption data. This could be directly linked to personal data, with impacts on privacy-related aspects. It was very important to clarify these aspects before starting a customer-engagement path.

Customers' consumption data are already available to the DSO (Areti) based on the existing energy distribution contract (already in place) with users serviced by Areti's network. It was observed that, without a dedicated prevention strategy, the situation could lead to another potential risk of non-compliance with unbundling and antitrust provisions during the pilot testing execution. This risk concerned the possible exchange between the DSO (Areti) and the Aggregator (Acea Energia) of information that could have been considered as commercially sensitive, with an involuntary undue advantage in favour to Acea Energia, which is also an energy trader in the free market.

To prevent these potential risks and any misunderstanding of effective aims within the project, dedicated discussion tables involving the Legal & Compliance and Regulatory Functions of Acea Energia and Areti, together with the Privacy Responsible of Acea S.p.A. were activated.

This focus led to internally define methods and conduct rules for managing users' personal data exchange during the pilot implementation and during customer-engagement activities:

- It was established that a dedicated information document should be prepared in accordance with Articles 13 and 14 of the GDPR, presenting Platone's aims, the methodology and the purpose of the personal data processing, specifying that they will be managed anonymously during the implementation of the project. So that it is not possible for any of the partners or sub-contractors involved (excepting Areti, who already has such information by virtue of its concession as DSO) to identify the holder of consumption data referred to each point of delivery. This informative document has to be shared among target customers for specifically informing them before expressly giving their consent to the participation in the trial;
- the preparation of a template for collecting expressions of interest in participating in the trial and therefore the acquisition of consent to the processing of data for the abovementioned purpose is a required steps;
- The direct contact for engaging customers interested in participating in the Italian Demo trial (including the invitation to join workshops and information events) is formally performed by Areti, who will ensure the anonymization of the data in all contacts and project meetings with the customers themselves.

3 User-Engagement Workshops

This chapter aims to present the two user-engagement workshops held by the Italian Demo, with respective objectives and characteristics and main results achieved.

Due to the COVID-19 pandemic, both workshops were held in virtually through digital platforms.

3.1 First workshop: stakeholder-engagement

On 18th and 25th of June 2020, the Italian Demo partners held the first stakeholder-engagement virtual workshop with the title "**Optimized grid management and flexibility market: the prosumer's role**".

Figure 4 English version of the Cover of the 1st session of the 1st Virtual Workshop

More than 30 participants from 20 organizations joined the first Platone Stakeholder-Engagement Workshop, held in Italy as a **two-session virtual event**. The remote meeting was a great opportunity to present the project and its Italian Demo. The two virtual events were attended by a diverse audience of selected Italian stakeholders, coming from companies of the energy sector and research organizations. The audience was engaged through interactive discussions of topics such as the safety and flexibility issues that will affect the electricity grid in the coming years as well as of new market roles in the power sector, in particular the new role of the Aggregator.

The first Workshop was organized by Acea Energia in synergy with B.A.U.M. Through a series of weekly coordination meetings during the months prior to the event, the concept was defined together with the related approach, agenda, contents, and materials for interaction to be prepared. According to the internal rules identified for ensuring compliance with unbundling and antitrust rules (see section 2.2), Areti was step by step informed about the organisation of the event and was committed to formally invite target participants (see Annex C, the "Invitation to the Virtual workshop _Italian Demo")

A synergic process and continuous coordination allowed the effective realisation of the first workshop.

To ensure the effective participation of all the attendees involved despite the necessary distancing due to the COVID19 health crisis, the potential of the digital platforms and tools was exploited to the highest level. The partners made a strategic use of the **Miro Platform** (Figure 5) an online collaborative whiteboard tool that enables distributed teams to work effectively together like in a phase-to-phase session. The **Zoom platform** was used to lead the event virtually and ensure the possibility of grouping participants in different breakout virtual rooms for switching from plenary moment to thematic focus groups.

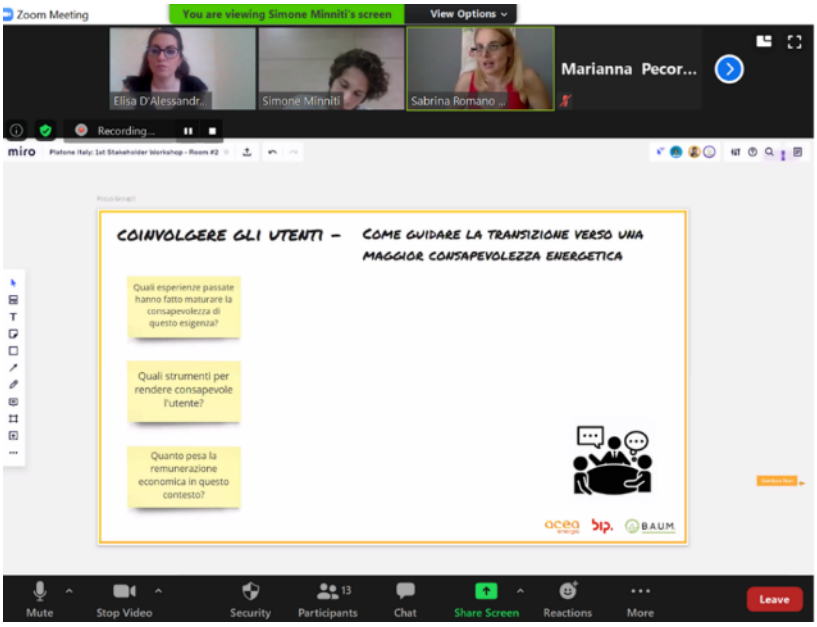


Figure 5 An extract from the Informative Session. The Miro Platform

The workshop was organised as a two-session event with distinct purposes for each day:

1. Day 1: **informative session**, introducing the Platone project, the objectives pursued and the expected results, addressing specific questions to the participants for selecting discussion topics for the following session and collecting requests for clarifications;
2. Day 2: **interactive session**, for directly involving attendees in thematic focus groups and in role-play activities through a gamification approach in order to stimulate an open discussion on the issues tackled by Platone project.

Considering the local and national nature of attendees, project partners agreed on the Italian as official language, to ensure attention, real participation and effective comprehension of the topics presented during the event.

3.1.1 Objectives of the Stakeholder-Engagement Workshop

The first workshop of the Italian Demo was designed as a preliminary event aimed at gathering main stakeholders' points of view and setting the ground for starting discussion forums to collect field needs and define together an effective prosumers and consumers-involvement strategy. A two-session approach was selected allowing attendees to clearly understand the project and the solution proposed, the concept of flexibility, the importance of different roles played by all the market players involved within the Platone system (DSO, TSO, Aggregator, customers etc.), as well as to request for clarifications and get prepared for the interactive session.

The stakeholder-engagement workshop was the first of a series of initiatives for effective information and active engagement of customers. The objective was to raise their awareness of Platone and Italian Demo's aims as well as their (future) role in the energy system.

The event focused on the Prosumer's role for an optimized management of the network. Specific questions were formulated to attendees for collecting their considerations and assessing how the flexibility concept is clear to different categories of players, including sector experts.

3.1.2 Target group

A variated group of local and national stakeholders was invited to the first workshop of the Italian Demo, representing several categories of users presented in Figure 2 – Type of Users:

- Commercial prosumers;
- Supplier of ICT;
- Utility Employee (Technical);
- Others such as policy makers, asset providers, research centres.

In addition to all the Italian Demo partners (Acea Energia, Areti and B.A.U.M. as co-organiser, Apio, Engineering, Siemens and RSE), the workshop was joined by external stakeholders from local institutions, research centres, sector companies, storage technology providers, organizations operating in the energy renewables sector, consultancy firms and energy managers and energy management experts from the Acea Group.

Table 1 Role and related stakeholders involved in 1st Virtual Workshop

Stakeholder	Role
ENEA	Research Center
Rome Municipality	Local Authority
Indra	Technologies Provider
Acea S.p.A.	Sector Company
Acea Ambiente	Sector Company
Acea Produzione	Sector Company
Smart City Efficiency	Organization operating in the energy renewables sector
Cooperativa èNostra	Organization operating in the energy renewables sector
Sonnen	Storage Technologies provider
Aton	Storage Technologies provider
Publiacqua	Sector Company
BIP	Consultancy
Acquedotto del Fiora	Sector Company

The mix of stakeholders ensured knowledge-sharing and collection of different points of view and experiences on the matter of customer-engagement and flexibility mechanisms. This was useful for creating precious synergies for the trial and for developing a coordinated engagement strategy addressed to customers to stimulate their participation in the following testing activities.

3.1.3 Day 1: Informative Session

The Informative Session of the Workshop was held on 18th of June 2020 and was attended by 30+ stakeholders from 20 different organisations. The session was handled by Acea Energia's speakers with the support of B.A.U.M. Consult and the external consulting company BIP, via Zoom platform.

This session was prepared with the objective of presenting to the relevant stakeholders the main aspects and goals of Platone, thus including side-topics, such as the distribution-level flexibility, the new role of aggregators, evolution needs in the regulation framework etc.

Attendees were introduced to the solution promoted by the project, as well as to the Italian pilot testing and its technological and innovative mechanisms for enabling local flexibility measures.

The agenda of the informative session is reported Figure 6:

Figure 6 English version of the Agenda of the 1st session of the 1st Virtual Workshop

The presentation given during the session was structured in 4 main parts:

1. Introduction to the Platone project (Figure 7): general information on EU funding and reference programme, challenges and approach of the project, as well as on the partnership and the whole community of stakeholders and existing synergies at a European level (e.g. participation in Bridge and ETIP SNET initiatives) with other innovative projects, supporting the project's implementation. The section also introduced the Italian Demo objectives and activities. Finally, the paradigm shift concerning the role of the customer/end-user was represented: from the point of view of the "consumer" in the energy value chain (provided with services) to the role of "active partner" (which also provides services), capable to contribute to the stability of the network by participating in a local flexibility market.

Figure 7 Extract from the 1st Virtual Workshop

2. The new role of flexibility in the electricity system (Figure 8): the flexibility concept was explained starting from the need to face counter-effects on the stability of the electrical system deriving from the increasing Renewable Energy Sources for energy generation, which are more difficult to be controlled, and the transition to the electric vector. Local flexibility, with the widespread use of Distributed Energy Resources (DERs), such as Co-generation plants, storage, electric vehicles etc. can be a precious solution and an opportunity at the same time for customers.

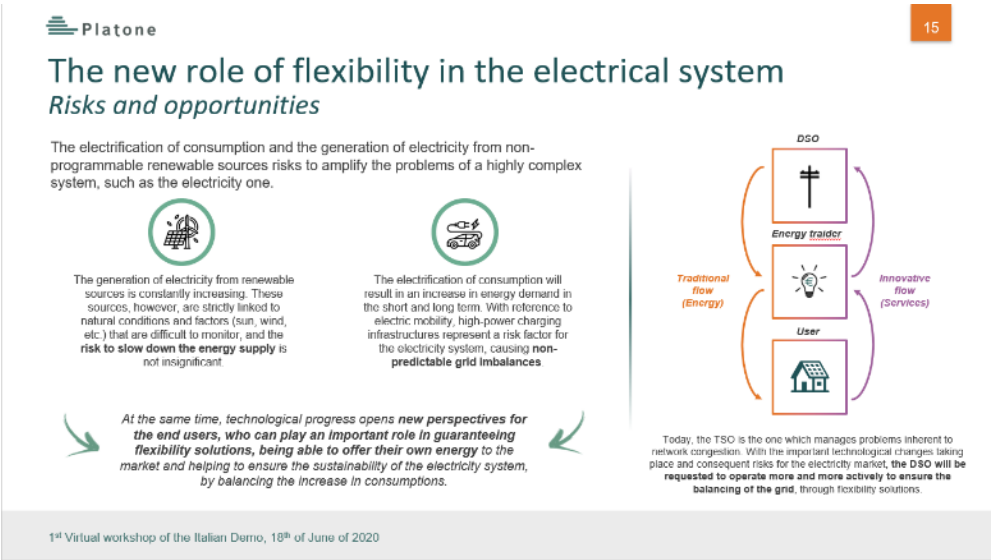


Figure 8 Extract from the 1st Virtual Workshop

In particular, in the Workshop the risks and opportunities of this new business model was shown, focusing the attention on how technological progress opens new perspectives for the end users, who can play an important role in guaranteeing flexibility solutions, being able to offer their own energy to the market.

3. The Platone's approach to local flexibility: the local flexibility provided by DERs is the means to ensure network stability. To harness this energy, the Platone's Italian Demo has the objective to test on the field tools and methodologies for favouring the flexible management of electrical loads. Therewith the stability of the network and the continuity of operation will be improved with a view to the increase in loads expected by 2030, due to the transition to the electric vector and to electric mobility. Considering within this context also the digitalization and technological transformation of the electricity sector, it is expected that the role of customers (end-users) will become increasingly active and pivotal.

4. The Italian trial: the next steps after the release of the Italian Demo System Architecture (planned to be released by end of May 2021) were presented, describing the timeline for kick-starting the execution of the trial with the real involvement of customers (prosumers and consumers) to be invited in a new dedicated Workshop.

3.1.4 Day 2: Interactive Session

The Interactive Session of the Workshop was held on 25th of June 2020 virtually, using the Zoom platform and Miro digital board.

Here below it is reported the agenda of the event:

Figure 9 English version of the Agenda of the 2nd Session of the 1st Virtual Workshop

The meeting was divided in two main sections:

1. Game of Platone: during the meeting, participants took the chance to experience the exchange flows between all the actors involved in the Platone model according to the dynamics proposed by the Italian Demo in a simplified manner. The mode chosen by the organisers was the role-play methodology with a simulation called Game of Platone. The gamification approach was selected to better explain the key-steps needed in order to realize the innovative solution proposed by Platone. The game was structured in different rounds, starting from the "status quo" and then introducing in each round a "key-element" needed for the realization of a fully functioning local flexibility market. The key-elements identified are the following:

    a. The aggregator, in order to gather together small-scale flexibility at the residential and industrial level;
    b. The local flexibility market itself, which allows the offer-request flexibility matching.

    Furthermore, an additional round of game was developed to show to the participants the complexity of the temporal dimension, meaning that flexibility requests and offers may be placed in different moments of the day, and that this temporal lag might bring to a negative outcome

from the market. This method allowed people to learn about the Platone solution in an interactive and participatory way.

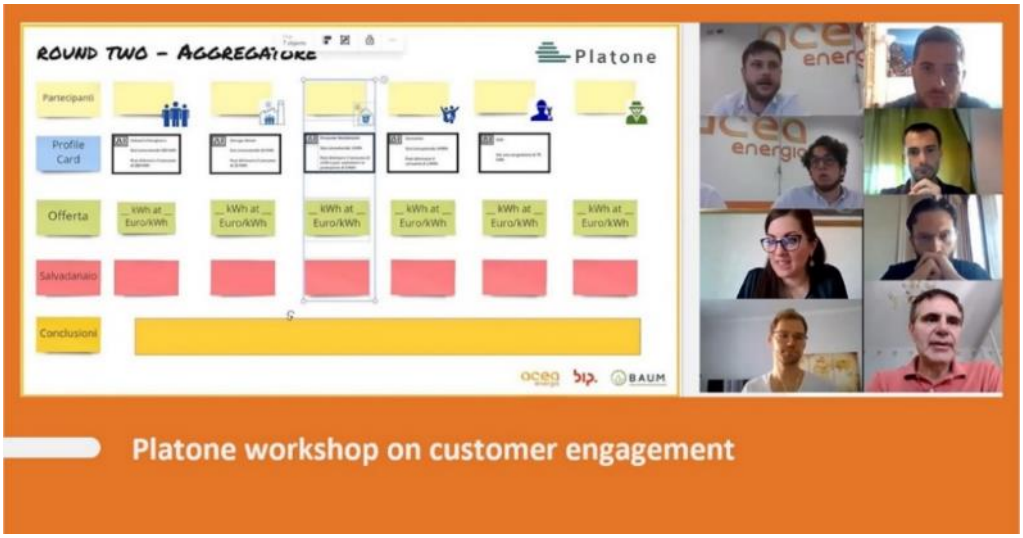


Figure 10 Extract from Game of Platone, the role play of the 2nd Interactive Session

2. Focus Groups: The virtual event ended with two thematic focus groups (Figure 11) dedicated respectively to “The transition towards greater energy awareness” and to the "Ways for remunerating flexibility”, during which all the participants shared their valuable feedback. The debate mainly focused on possible levers to stimulate end-users to adopt more responsible energy behaviours and to approach the flexibility issue.

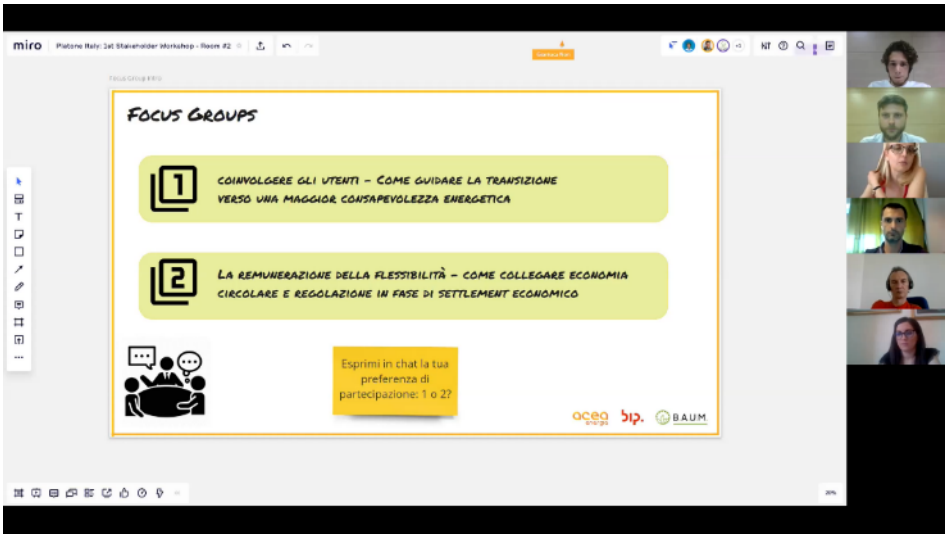


Figure 11 Extract from Focus Group session from the 1st Virtual Workshop

3.1.5 Results of the first workshop

The workshop involved 30 participants from 20 different organisations with diverse expertise. The two sessions, making use of participatory methods such as the role-play methodology and carrying out two focus-groups, made possible to achieve practical results useful for building-up an effective customer-engagement strategy and creating concrete synergies.

The list of all attendees has been archived by Acea Energia together with the recording of the Workshop, authorized by the participants during the meeting, for the purpose of extrapolating materials for dissemination activities.

Main insights and points of view shared by attendees are summarized below:

- Technology providers highlighted that two types of change are needed: the first regards the utilities: they need to re-position themselves as end-to-end service providers. The second involves the government with the aim of raising awareness through information campaign and incentives to favour end-users.

- In addition, the remuneration of energy flexibility was a key topic. Different participants expressed their ideas about how the aggregator can act as a technical facilitator to enable **energy flexibility in local communities, and thus elaborating on the concept of energy communities as a starting point of a more virtuous cycle from a socio-economic perspective**. Starting from peer-to-peer exchange of energy flexibility, a broader circular economy concept could be implemented involving the exchange of services and goods and reinforcing the concept of local communities, stepping out of the energy sphere.

- Several participants in the informative session stressed the existence of a gap between the knowledge of experts of the energy sector and the end-user. A basic user of the electric grid, simply consuming energy, is in most cases not aware of its consumption, of which appliances are more energy intensive. Therefore, a key-element is the **need for awareness-raising campaign to fill the knowledge gap**. If the user is directly involved as a market player, the knowledge of the energy topics is the first step to build an open non-discriminatory local flexibility market.

- It should be taken into account that to facilitate the customer involvement in the project activities it is necessary to minimise the impact on their daily life. **Smart home devices can facilitate the interaction between users and the network**, increase awareness of their consumption and thus make the user an actor in the energy market. On the other hand, participants from the workshop highlight the need for the project to design solutions that can lower the impact of the flexibility-service provision on the daily life of the end-user.

The Stakeholder-Engagement allowed acquiring useful indications and contacts for the following Virtual Workshop addressed to customers, strengthening and facilitating the path to reach residential customers.

Furthermore, the interactions that took place in the first virtual workshop established the ground for bilateral meetings and discussion groups, which led to achieve important results in terms of synergies activated.

The synergy with the Italian National Agency for New Technologies, Energy and Sustainable Economic Development – ENEA has been consolidated for helping reach customers from the Energy Community of Centocelle interested in taking part in the Italian trial, with several formal participations already received.

Following the workshop, another important participation in the trial was confirmed by Acea Produzione, which will take part in the Italian Demo pilot testing with the Cogeneration Plant located in the Tor Di Valle area. Technical implementation activities have been already completed for allowing the cogeneration plant to exchange data with the Light Node apparatus developed by the Italian Demo.

An analysis of the electricity grid and its portions interested by the project in the Tor di Valle and Centocelle areas were consequently carried out for selecting the first group of residential customers to be reached by the informative campaign launched at the end of 2020. About 150 residential users were reached by the informative letter sent by Areti (see Annex D).

Finally, within the project partnership, the experience of the first workshop of the Italian Demo and the co-creation approach built-up with B.A.U.M. were adopted as a good practice also for inspiring the organisation of the first workshop of the Greek Demo. To facilitate the replication of this practice, areti shared the results of its first Virtual Workshop and also ensured its participation in the 1st Stakeholder-Engagement of the Greek Demo.

3.1.6 Dissemination of Stakeholder-Engagement Workshop results

In order to disseminate the results achieved, social media tools and web communication were exploited using official project accounts (project web site, Twitter page, LinkedIn group etc.) while also representing the results of the first workshop on a visual level.

A factsheet (Figure 12) was elaborated, containing the main information of the Workshop, such as the participants, the keywords used and the objectives of the initiative, together with the main insights gathered through the event.

Figure 12 Factsheet of the 1st Workshop results

The factsheet was posted on the LinkedIn and Twitter pages of the Platone project, as shown in Figure 13. They included a hyperlink to the official Platone website, where a dedicated news and materials were published (https://www.platone-h2020.eu/News/2196/First-stakeholder-engagement-virtual-workshop-of-the-Italian-Demo).

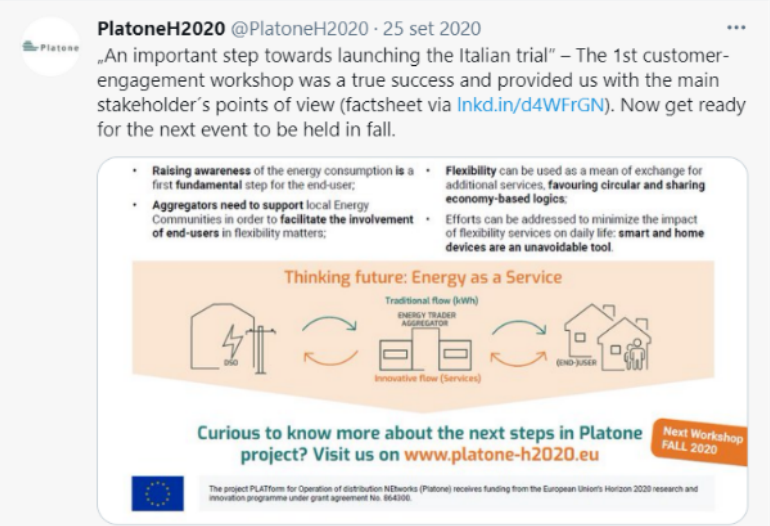


Figure 13 Twitter post on the 1st Workshop results

3.2 Second workshop: customer-engagement

On 2nd of March 2021, the Italian Demo partners held the second customer-engagement virtual Workshop with the title "**Virtual workshop of the Italian Demo: Participating in the Platone project and supporting the network in becoming Greener**".

The Workshop was organized and coordinated by Acea Energia, in synergy with Areti, engaging ENEA as speaker, and with the cooperation of B.A.U.M. Consult and the external consultancy BIP.

3.2.1 Preparatory activities

The second Virtual Workshop was organised based on the analysis of the portion of the grid underlying the target areas covered by the project. The secondary substations in the Centocelle district were identified and portions of the Tor di Valle grid was analysed.

An informative campaign was consequently launched addressing a first group of about 150 grid residential customers identified based on the analysis and segmentation of portions of the grid underlying the target areas of Centocelle and Tor di Valle. This first group was introduced to the project through an informative campaign with a dedicated letter (see Annex D), prepared by a mixed team of technicians and communication experts to convey technical information in a straightforward language comprehensible to customers.

A group of 25 customers responded to the campaign and to the direct invitation to ask for more information about the initiative through the dedicated email project account of the Italian Demo.

10 residential end-users from the Centocelle community were also reached with on-site visits by Areti's technical experts, also useful for technical assessment related to the possibility to install storages and photovoltaic panels at householders' premises, currently under evaluation.

3 building managers representing additional end-users in the target areas were also contacted and informed about the project.

Interested residential customers were formally invited by Areti to join the new virtual Workshop "Participating in the Platone project and supporting the network in becoming Greener".

To ensure the effective participation of all the users involved despite the necessary distancing due to the health crisis from Covid19, the potential of the digital platforms and tools was exploited to the highest level. The partnership made use of Google Meet, to ensure the possibility of displaying the project information document through screen sharing.

3.2.2 Objectives of the Customer-Engagement Workshop

The aim of the Customer-Engagement Workshop was to involve residential customers in the Platone project and in the Italian trial, representing its challenges, objectives and expected results.

By means of a user-friendly presentation, attendees were guided through the local flexibility processes that guarantee the DSO optimal network management. The new role of the end-user was particularly stressed, as a partner of the Distribution System Operator in solving grid congestion with benefits.

The final purpose of the event was also to invite interested customers to join the Italian trial starting from the second semester of 2021, explaining modalities, advantages and impacts on daily life. A special focus was dedicated to the installation of smart equipment such as the Light Node apparatus, the possibility to become prosumers and the use of a dedicated mobile App allowing to monitor their consumption and flexibility requests based on the system needs.

3.2.3 Target group

The workshop was addressed to those residential customers who had showed great interest in receiving more information following the informative campaign launched at the end of 2020 in the Centocelle area (where an Energy Community composed of 10 LV residential users already involved in an active training and awareness-raising process for the sustainable use of energy is located) and in the Tor di Valle area in the south of Rome.

3.2.4 The Customer-Engagement Workshop

The Customer-Engagement Workshop was held on 2nd of March 2021 in virtual modality under the coordination of Acea Energia and Areti, in synergy with B.A.U.M. Consult, the consulting company BIP and the Italian research centre ENEA.

Figure 14 English version of the Cover of the 2nd Virtual Workshop

Figure 15 English version of the Agenda of the 2nd Virtual Workshop

The agenda of the meeting was divided into 4 main sections:

1. **The European project Platone**: in this section, the partnership described the project Platone in by providing general information on challenges and approach, as well as on the partnership. The section also introduces the Italian Demo as one of the target areas of the project; objectives and expected results are indicated. Finally, **the paradigm shift in the role of the user is represented: from end-user in the energy value chain to a partner in the market, able to contribute to the stability of the network by providing its flexibility**;
2. The role of the user in the demo testing: this section outlines the role and opportunities for user involvement in the testing of the Italian Demo of Platone. The impact on the user's daily life and the forms of interaction are described. It also indicates **the equipment that can be provided to users to participate in the trial**, distinguishing the effects produced on the user's consumption. One point of interest is certainly the introduction of the **Flessibili App**. The app will be the gateway to a dialogue between the user and the network operators, Distributor and Aggregator, in order to exchange flexibility quotas for optimal grid management.

Figure 16 Extract from the section "The role of the user in the trial"

Specifically, two possible scenarios of installation were shown: the first one with an installation of a storage and the second one with an installation of a storage and a micro photovoltaic.

3. Smart Home Enea 2.0: **the involvement of ENEA has led to the widening of the audience of reachable users, by the identification of the users of the Citizen Energy Community** of Centocelle. The Smart Home Enea 2.0 project is the project that, in synergy with Platone, can contribute to the monitoring of consumption and energy supply in the local flexibility market.

4. Timeline of the activities and Terms of accession: the section represents **the timeline for the experimentation phase, illustrating the different activities enabling user involvement, from the on-site visits to the provision of equipment**. The documentation that the user has to sign in order to join the Platone project is indicated in this part of the presentation.

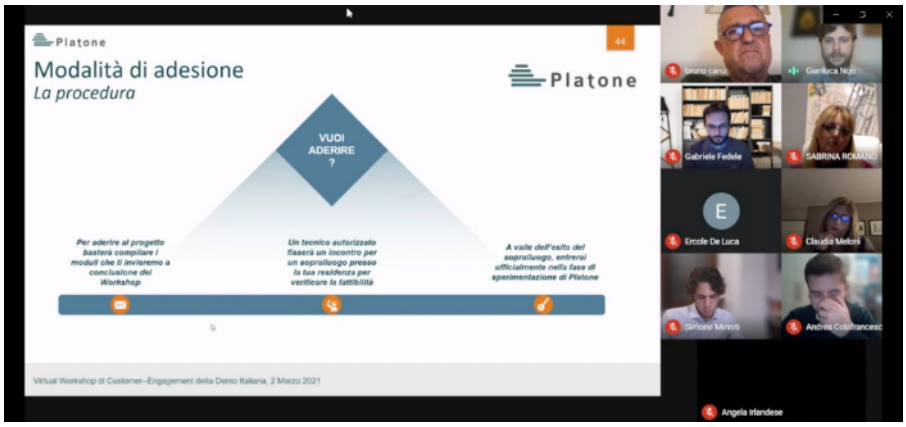


Figure 17 Extract from the section "Terms of Accession"

During the workshop, Participation form for the trial was presented and alongside with the forthcoming phases.

3.2.5 Results of the second workshop

The second workshop reached 10+ residential customers actually interested in taking part in the Italian Demo, from the Centocelle and Tor di Valle district areas.

10 residential customers from the Centocelle Energy Community were also reached through on-site visits, for assessing the possibility to equip them with storages and photovoltaic and 3 building managers representing additional end-users were also provided with project information and materials.

The users, having acquired more knowledge about the Platone project and their role in the local flexibility market, had the opportunity to directly make questions and considerations during the Q&A session at the end of the Workshop. Most of the information requests regarded the possibility for customers of obtaining savings on their bills even after the end of the trial, even by keeping the equipment provided through the Platone project. Questions formulated by attendees have been collected to be duly analysed and considered for driving the strategy.

During the event, the customers showed great interest in the “Flessibili” mobile App. The app will be released at the end of 2021 and is the tool through which customers involved in the trial will be able to monitor their energy consumption in real time and view their flexibility requests. The app will be the gateway to the local flexibility market, allowing the user to accept or reject scheduled flexibility requests from the Distributor.

An image of the presentation of the App extrapolated from the Workshop is reported below:

Figure 18 Extract from the section "The role of the user in the trial"

After the Workshop, all materials presented were sent to attendees by Areti, together with the Participation Form for Customers and the Privacy Policy Informative Document. The first formal participations signed by customers have already started to be received (as of today 9 participations have been signed) and the collection phase is still open. Further follow-up activities are currently under implementation, in order to continue establishing contact with all the customers reached and trace the path for enlarging the audience and the target customers to inform and involve them in the trial.

4 Follow-up and next steps

The strategy put in place by the Italian Demo for customer-engagement made possible to carry out all the activities planned with the achievement of important results. Nevertheless, for the realisation of engagement activities specifically addressed to residential customers a **step by step approach** was considered to be applied, opting for sending the informative letter only to a first group of 30 target customers, including 3 building managers representing additional end-users, for their participation in the virtual workshop and for on-site visits.

Next steps and follow-up activities have been planned to be addressed to the first group of interested customers:

- Conclusion of the collection of formal participations signed by the first group of target customers by April 2021;
- Additional on-site visits will be carried out at the interested end users' houses in order to assess the technical possibility to install storage and photovoltaic;
- The trial will start in the second semester of 2021 (June/August).

Areti will be the focal point for the implementation of the abovementioned activities.

On-going results will be shared with involved customers every six months until the end of the project, by dedicated newsletters sent through the project account of the Italian Demo and direct contacts with equipped with storages and photovoltaic plants.

According to this approach, the informative letter will be progressively sent in the following months to new groups of target customers, who will be provided with information materials and invited to join new events, with the aim to enlarge the number of possible participants in the trial and reach a wider audience to be made aware of project topics.

5 Conclusion

The work realized so far for the implementation of user and customer-engagement within the Italian Demo took the form of synergic activities coordinated by Acea Energia in cooperation with Areti and B.A.U.M., with the involvement of multiple external stakeholders with different competences, aimed at reaching a wider range of commercial users and residential customers.

The activities carried out contributed to a major awareness of the Platone project and its approach for enabling flexibility mechanisms among local key-stakeholders, including ENEA which coordinates the "Centocelle" Energy Community, energy sector experts and companies, organisations operating in the energy renewables field, representatives of the Rome municipality, commercial prosumers and a first group of residential customers, with concrete results in terms of synergies built-up and expression of interest collected for making the execution of the trial in real-life possible.

Specifically, the first virtual workshop led to the confirmation of the cooperation between Areti and ENEA for involving the Energy Community located in the "Centocelle" area coordinated by ENEA, and for the participation of the ENEA's smart building located in the "Casaccia" area, already equipped with the most advanced automation technologies for the production and sustainable use of energy. Smart buildings will be a provider of flexibility within the oncoming demonstration activities.

Another important result of the 1st virtual workshop is the collaboration with Acea Produzione, managing entity of the Tor di Valle Cogeneration Plant. With the technical implementation of the project activities, Tor di Valle Cogeneration Plant will be able to communicate with the Light Node.

The contact activated with storage providers was also particularly useful for assessing technical parties' interest with respect to the flexibility matters and to collect first technical information preliminary to the realisation of market analysis for evaluating the possibility to provide groups of consumers with storages within the trial.

In addition, the first Virtual Workshop involved the Municipality of Rome. This synergy was further strengthened by the possible commonalities between the Platone project and the Platoon project, of which the municipality of Rome is a partner. Both projects are also part of the Bridge Initiative. Possible levers for favouring customers' understanding of flexibility mechanisms were identified thanks to the direct participation in the customer-involvement process of multiple stakeholders and by directly collecting questions and points of view from the first group of customers reached. Specifically, it was observed that the benefit lever is particularly interesting for customers, especially considering the possibility to obtain direct savings in their electric bill or be equipped with RES equipment such as storages or photovoltaic plants in order to become prosumers. Public incentives are an important mean for helping this transition, together with additional services which can be enabled jointly with the flexibility mechanisms based on share-economy and circular logics. Flexibility mechanisms are not immediately easy to understand for the community at large and a necessary preliminary step requires to help customers to become more aware of their energy consumption and of their pivotal role in the future energy market. The role of the aggregator with energy communities or the possibility to leveraging on the support of local is needed. Smart modalities and tools for monitor energy consumption are particularly appreciated.

Based on the insights collected, the strategy for allowing customers to take part in the Italian trial with their flexibility has been designed, focusing on the release of the "Flessibili" mobile App by the end of 2021, allowing customers to monitor their consumption in real-time and their flexibility requests and preferences. The engagement of the Centocelle Citizen energy community already involved in information path towards sustainable energy behaviours and of building managers for helping to reach additional end-users are also key element of the strategy. The possibility to provide a group of consumers with storages and photovoltaic under free of loan agreements, where technically possible, and to enable the provision of benefits to participant customers is currently under evaluation for defining the best solution. Consumers who cannot have the possibility to be equipped with storage or photovoltaic for technical issue can take part in the trail by modulating their consumption and interacting with the Flessibili App.

This will help to drive follow-up activities a new engagement initiative together with the collection of formal participations in the trial, planned for the 3rd quarter of 2021 (June/August), after the release of

the complete System Architecture of the Italian Demo with all its functioning components. **Reached customers and building managers will continue to be involved not only as beneficiaries of the testing activities but also as "forerunner users"**, ambassadors of the project and facilitator of word of mouth activities. Recurrent updates will be ensured to customers involved and a new informative campaign will be launched staring from the end of 2021 for enlarging the base of participant customers. This represents the next steps in a strategy that aims to involve users and make them market actors at the centre of the future energy market.

6 List of Figures

7 List of References

[1] European Commission, “2050 long-term strategy”, [Online]. Available: https://ec.europa.eu/clima/policies/strategies/2050_en.

8 List of Abbreviations

Abbreviation	Term
Aggregator	An aggregator is a new type of energy service provider which can aggregate multiple distributed energy resources to provide flexibility services to DSO, TSO or to the electricity market.
Distributed Energy Resources	It refers to small-scale generating or consuming units that are generally located in the distribution grid.
Light Node	The Light Node is an edge device that is able to interact to several Energy Management Systems and Meters Technologies.
Prostormer	When the prosumer is provided with a storage system, he/she can accumulate the energy from the grid and reuse it in a second moment.
Prosumer	In the energy market, the prosumer is the consumer that owns or manages generation units therefore also producing electricity beyond consuming it.

9 List of Tables

Annex A Participation Form (Original Version in Italian and English Version)

Platone
PLATFORM FOR OPERATION
OF DISTRIBUTION NETWORKS

areti

Modulo di Adesione – Partecipazione al Progetto PLATONE

Premessa

Platone (Piattaforma per le operazioni delle reti di distribuzione) è un progetto di ricerca industriale finanziato dall'Unione Europea con l'obiettivo di coinvolgere i cittadini nella gestione della rete elettrica di distribuzione, al fine di agevolare il processo di transizione energetica in atto.

Le politiche Comunitarie e gli orientamenti nazionali, infatti, prevedono nei prossimi anni una forte crescita della diffusione dei veicoli elettrici e delle tecnologie atte a favorire l'elettrificazione dei consumi quali: pompe di calore e piani di cottura ad induzione. Inoltre, la produzione di energia da fonti rinnovabili raggiungerà quote molto significative, anche grazie ad un numero sempre più elevato di impianti fotovoltaici installati sui tetti delle case o nelle immediate vicinanze dei centri di consumo. La gestione di questo nuovo modello energetico richiederà ai gestori della rete di distribuzione elettrica di trovare nuove soluzioni, per poter garantire gli elevati livelli di qualità richiesti.

Con il progetto Platone si vogliono testare proprio queste nuove soluzioni. Maggiori informazioni sono disponibili al sito: https://www.gruppo.acea.it/media/eventi/2020/progetto-platone.

L'iniziativa coinvolge diverse aziende italiane ed europee tra cui **areti S.p.A.**, società del Gruppo Acea che gestisce la distribuzione elettrica nei Comuni di Roma e Formello e coordina la sperimentazione italiana.

I cittadini interessati possono aderire alla sperimentazione scegliendo tra le due configurazioni di seguito riportate:

- **Dotazione Base**: prevede l'utilizzo di un **dispositivo che abilita l'interazione con areti** ed effettua il monitoraggio in tempo reale dei consumi elettrici;
- **Dotazione Avanzata**: oltre alla Dotazione Base, prevede, ad esito delle opportune e preliminari verifiche eseguite da areti presso il cliente, l'installazione dei seguenti apparati:
  - **a)** un **sistema di accumulo (batteria)** per regolare gli scambi di energia con la rete elettrica;
  - **b)** un **impianto micro-fotovoltaico** per promuovere l'autoconsumo di energia da fonti rinnovabili e ridurre i costi in bolletta.

La strumentazione sarà fornita ed installata senza alcun costo per l'utente.

I Clienti che parteciperanno alla sperimentazione, compatibilmente con le proprie disponibilità e preferenze, dovranno dotarsi dell'**App "flessibili"** che consentirà loro di ricevere le richieste relative al Progetto stesso.

Progetto finanziato dal programma europeo Horizon 2020 per la Ricerca e l'Innovazione, Grant agreement No. 864300

Una volta installata la strumentazione, la partecipazione alla sperimentazione è molto semplice: a seguito di una richiesta inviata da Platone, vengono proposte al cittadino delle azioni (ad es. attivazione di elettrodomestici o ciclo di carica/scarica della batteria) per modificare i consumi elettrici. Ad ogni richiesta correttamente eseguita, all'utente sarà attribuito un premio. Il valore complessivo dei premi non potrà superare i 100 euro/anno.

Di seguito si riporta la sequenza delle fasi propedeutiche alla partecipazione per le due configurazioni:

DOTAZIONE BASE

DOTAZIONE AVANZATA

Progetto finanziato dal programma europeo Horizon 2020 per la Ricerca e l'Innovazione, Grant agreement No. 864300

Coinvolgimento nella sperimentazione

1) Sarebbe disponibile a partecipare alla sperimentazione?

   Sì
   No

2) La sua adesione alla sperimentazione avviene in qualità di:

   Singolo utente della rete elettrica
   Amministratore di condominio con ____ abitazioni (indicare il numero di abitazioni coinvolte; in questo caso al presente modulo dovrà essere allegato un documento di delega dell'assemblea)

3) A quale configurazione è interessato?

   Dotazione Base
   Dotazione Avanzata

4) Se interessato alla Dotazione Avanzata consente all'installazione dei seguenti componenti (indicare solo i componenti a cui si è potenzialmente interessati):

   Sistema di accumulo (Batteria)
   Micro-fotovoltaico

Adesione

La società areti sarà responsabile di raccogliere i consensi e sarà il punto di contatto con i cittadini che decideranno di partecipare alla sperimentazione.

Con la sottoscrizione del presente modulo il cittadino si impegna a consentire l'accesso presso l'unità abitativa da parte del personale autorizzato ad effettuare il sopralluogo suindicato, nonché a collaborare per le finalità del Progetto.

In caso di adesione alla sperimentazione, **il presente modulo dovrà essere sottoscritto ed inviato all'indirizzo mail:** Platone@areti.it. Resta inteso che il Cliente potrà in ogni momento decidere di interrompere la propria partecipazione al Progetto.

Il Progetto Platone tiene in alta considerazione la sua privacy e la tutela dei suoi diritti. In ogni momento potrà revocare la sua adesione alla sperimentazione. In allegato alla presente, per presa visione, Le forniamo l'informativa privacy dove troverà tutte le informazioni relative al trattamento dei suoi dati personali e all'esercizio dei diritti che la riguardano, tra cui quello di conoscere, aggiornare o cancellare i dati che ci ha fornito per gli scopi del Progetto.

Firma per adesione

Progetto finanziato dal programma europeo Horizon 2020 per la Ricerca e l'Innovazione, Grant agreement No. 864300

Platone
PLATFORM FOR OPERATION
OF DISTRIBUTION NETWORKS

areti

Participation form – Participation to Platone project

Whereas

Platone (Platform for operation of distribution networks) is an industrial research project funded by the European Union with the aim of involving citizens in the management of the electricity distribution network, to facilitate the energy transition process.

The community policies and national guidelines foresee in the coming years, an important growth in the diffusion of electric vehicles and technologies that encourage the electrification of consumption such as: heat pumps and induction hobs. In addition, the energy production from renewable sources will reach very significant shares, also thanks to the increasing number of photovoltaic systems installed on the roofs of houses or just next to the consumption center. The management of this new energy model will require the distribution system operators to find new solutions, to ensure the high levels of quality required.

Platone project wants to test these new solutions. More information is available at:

https://www.gruppo.acea.it/media/eventi/2020/progetto-platone

The initiative involves several Italian and European companies including **areti S.p.A.**, a company of the Acea Group that manages the electricity distribution in the municipalities of Rome and Formello and that coordinates the Italian trial.

Citizens who are interested in joining the trial can choose between the two configurations below:

- **Basic equipment**: it involves the use of **an electronic device that enables the interaction with areti** and performs real-time monitoring of the electricity consumption;
- **Advanced equipment**: in addition to the Basic Equipment, after the result of the preliminary checks carried out by areti at the customer flat, it provides the following alternative installation:
    a) a storage system used to regulate energy exchanges with the electricity grid;
    b) a micro photovoltaic installation to promote the self-consumption of energy from renewable sources and reduce costs in the bill.

The equipment will be provided and installed to the customers for free.

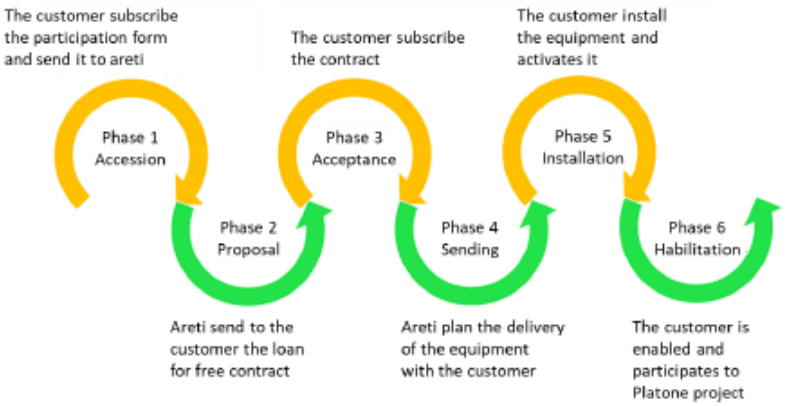
Customers who will participate in the trial, according to their availability and preferences, must download the mobile App "Flessibili" that will allow them to receive the requests related to the project.

This project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No. 864300

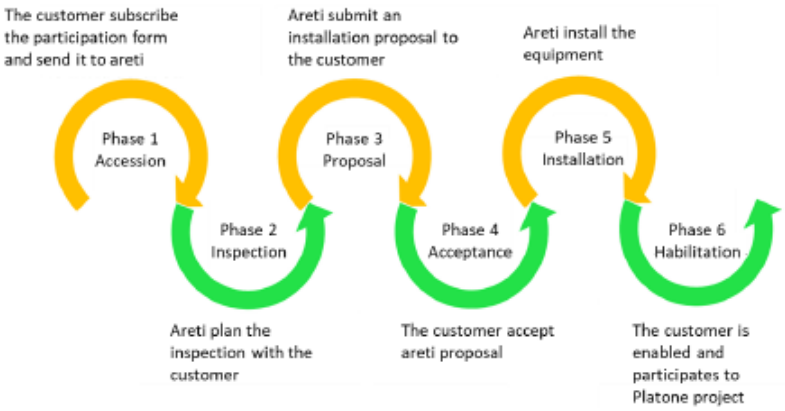
Once the equipment is installed, the participation in the trial will be very simple: after the request sent by Platone, the citizen will have to chose among several action proposed (e.g. activation of appliances or battery charge/discharge cycle) in order to modify the power consumption. At each request correctly executed, the customer will be awarded with a prize. The total value of the prizes will not exceed 100/euro/year.

Here is the sequence of the stages leading to participation for the two configurations:

BASIC EQUIPMENT



ADVANCED EQUIPMENT



This project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No. 864300

Involvement in the trial

1) Are you available to participate in the trial?

- ☐ Yes
- ☐ No

2) You are joining to the trial as:

- ☐ Single customer of the power grid
- ☐ Building manager with ____ flats (please indicate the number of flats involved; in this case a proxy document of the assembly must be attached)

3) Which configuration are you interested in?

- ☐ Basic equipment
- ☐ Advanced equipment

4) If you are interested in the advanced equipment you allow the installation of the following component (please indicate only the installation that you are interested in):

- ☐ Storage system
- ☐ Micro photovoltaic

Accession

Areti will be responsible for gathering consensus and will be the only point of contact with citizens that will participate in the trial.

With the subscription of the present form, the citizen undertakes to allow the access to his/her housing unit to the personnel authorized to carry out the inspection abovementioned, as well as to collaborate for the Project purposes.

In case of adhesion to the trial, **this form must be signed and sent to the email address: Platone@areti.it.** The customer may decide to discontinue his/her participation in the project at any time.

Platone project has high attention to the privacy and protection of your rights. You may revoke your adhesion to the trial at any time. In attachment to the document, for acknowledgment, the privacy policy is presented in which are detailed all the information related to the personal data processing and the exercise of your rights, including the possibility to know, update or delete the data that you have provided to us for Platone project purpose.

Signature

This project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No. 864300

Annex B Privacy Policy (Original Version in Italian)

areti

PRIVACY
Informativa sul trattamento dei dati personali

La vigente normativa in materia di trattamento[1] dei dati personali definita in conformità alle previsioni contenute nel Regolamento UE 2016/679 del 27 aprile 2016 relativo alla protezione delle persone fisiche con riguardo al trattamento dei dati personali, nonché alla libera circolazione di tali dati (Regolamento generale sulla protezione dei dati, di seguito "Regolamento UE") e nel D.lgs. 196/2013 e successive modifiche e integrazioni, contiene disposizioni dirette a garantire che il trattamento dei dati personali si svolga nel rispetto dei diritti e delle libertà fondamentali delle persone fisiche, con particolare riguardo al diritto alla protezione dei dati personali.

1. Contitolari del trattamento
Sono contitolari del trattamento dei dati personali:

- ARETI S.p.A con sede legale in Roma, P.le Ostiense, n. 2 - 00154 Roma.
- ENEA con sede in Roma, Lungotevere Thaon di Revel, 76 – 00196;

2. Responsabile della protezione dei dati
Per tutte le questioni relative al trattamento dei Suoi dati personali e all'esercizio dei Suoi diritti può rivolgersi ai Responsabili della protezione dei dati designati dai contitolari, inviando una comunicazione scritta ai seguenti indirizzi: ENEA (uver.dpo@enea.it), ARETI (privacy@aceaspa.it).

3. Finalità e base giuridica del trattamento
In adempimento agli obblighi previsti dalla normativa vigente, La informiamo che, nell'ambito del progetto di Ricerca di Sistema Elettrico, finanziato dal Ministero dello Sviluppo Economico, Obiettivo "1. Tecnologie, tema di ricerca "1.7 Tecnologie per la penetrazione del vettore elettrico negli usi finali", Work package "Local Energy Districts", i suoi dati personali, come di seguito dettagliati, saranno trattati da **ENEA** per finalità di ricerca scientifica[2] per la realizzazione degli obbiettivi di sviluppo di un modello integrato di distretto urbano energetico che coniuga aspetti tecnologici ed aspetti sociali, finalizzati al miglioramento dei servizi erogabili ai cittadini in quanto più efficienti dal punto di vista energetico e funzionale.
I medesimi dati personali saranno trattati anche da **Areti**, gestore della rete di distribuzione del servizio elettrico nel Comune di Roma, nell'ambito del progetto H2020 finanziato dalla Commissione Europea "Platone" per finalità di sperimentazione di soluzioni e tecnologie in grado di abilitare e certificare la flessibilità degli utenti connessi alla propria infrastruttura, al fine di assicurare maggiore stabilità al sistema elettrico.
In questo contesto Areti ed ENEA hanno, infatti, individuato una convergenza tecnologica nello sviluppo della tecnologia Blockchain per certificare le movimentazioni istantanee di energia, anche al fine di testare possibili scenari per il Mercato Locale dei Servizi di Dispacciamento. La soluzione individuata mira alla creazione di un sistema inclusivo, anche mediante la definizione di eventuali premi e penalità commisurati alla partecipazione dei clienti stessi a tale mercato. L'obiettivo, quindi, è facilitare la partecipazione attiva degli utenti finali al mercato dei servizi di rete anche grazie alle nuove funzionalità ed ai vantaggi che possono essere offerti dalla tecnologia Blockchain applicata sia in ambito di singola utenza che di aggregati di comunità.

In particolare i dati raccolti dall'ENEA e Areti per attività di sperimentazione comprendono:

a) dati anagrafici, dati di contatto e indirizzo di abitazione dei partecipanti alla sperimentazione, conferiti dagli stessi in sede di adesione volontaria;
b) dati relativi ai consumi elettrici degli elettrodomestici, alla presenza degli occupanti e ai parametri ambientali, raccolti tramite i sistemi di gestione energetica installati dall'ENEA presso le abitazioni dei partecipanti.

---

1 Trattamento: qualsiasi operazione o insieme di operazioni, compiute con, o senza, l'ausilio di processi automatizzati e applicate a dati personali, o a insiemi di dati personali, come la raccolta, la registrazione, l'organizzazione, la strutturazione, la conservazione, l'adattamento o la modifica, l'estrazione, la consultazione, l'uso, la comunicazione mediante trasmissione, diffusione o qualsiasi altra forma di messa a disposizione, il raffronto o l'interconnessione, la limitazione, la cancellazione o la distruzione.

2 Per trattamento per scopi scientifici si intende qualsiasi trattamento effettuato per le finalità di studio e di indagine sistematica finalizzata allo sviluppo delle conoscenze scientifiche in uno specifico settore. In senso lato sono incluse lo sviluppo tecnologico e dimostrazione, ricerca fondamentale, ricerca applicata e ricerca finanziata da privati.

c) dati relativi ai consumi elettrici monitorati dai contatori elettrici di seconda generazione installati da Areti, dati relativi alla eventuale produzione e immagazzinamento dell'energia elettrica tramite fotovoltaico e storage installato e i dati necessari alla corretta valutazione della soluzione da implementare.

I suoi dati saranno anonimizzati da areti prima della condivisione con i partner di progetto. Nello specifico, il riferimento identificativo del suo punto di connessione alla rete elettrica (POD) sarà sostituito da un codice numerico che solo areti è in grado di associare al cliente.

In relazione ai task di rispettiva pertinenza, i contitolari del trattamento (nel seguito anche i "contitolari") svolgono il trattamento dei Suoi dati personali allo scopo di consentirLe:

- Nell'ambito del progetto Platone, tramite portale o applicazione *smartphone* "Flessibili", il monitoraggio dei consumi rilevati dal contatore, il monitoraggio della generazione di energia elettrica prodotta da fonti rinnovabili installate, il controllo dell'energia e dello stato del sistema di accumulo, la certificazione delle movimentazioni di energia fatte per erogare flessibilità, il monitoraggio dei premi e delle penalità conseguite;
- Nell'ambito della sperimentazione Enea, tramite accesso ad apposita piattaforma DHOMUS (www.smarthome.enea.it), il monitoraggio dei dati acquisiti dalla sensoristica installata e la fruizione dei servizi messi a disposizione: certificazione della propria flessibilità elettrica tramite tecnologia blockchain, feedback customizzati sui propri consumi, confronti con utenti simili. Inoltre, gli utenti sperimentatori dei sistemi di smart home testati nel progetto, avranno la possibilità di interagire con questi strumenti per rispondere alle richieste di flessibilità proveniente dalla rete.

I suoi dai personali saranno inoltre trattati per espletare tutte le attività necessarie o utili per il costante miglioramento dei servizi erogati nel progetto (compresa, a titolo esemplificativo e non esaustivo, la somministrazione di questionari anonimi volti a verificare il livello di gradimento dei servizi resi).
Il trattamento dei dati è basato sull'esecuzione di un compito svolto nel pubblico interesse (obbiettivo di sostenibilità ambientale), su eventuali adempimenti ad obblighi di legge o sul consenso liberamente espresso dall'interessato.

4. Destinatari dei dati personali

I dati personali sono trattati dal personale autorizzato che abbia necessità di averne conoscenza nell'espletamento delle proprie attività e da soggetti esterni che potranno agire a seconda dei casi come autonomi Titolari, Contitolari o Responsabili del trattamento. I Suoi dati personali potranno essere, altresì, comunicati a organi di Pubblica Sicurezza e di Polizia Giudiziaria, Uffici Giudiziari e Autorità di Garanzia, nei modi e nei casi previsti dalla legge, ovvero ancora se la comunicazione si renderà necessaria per la tutela dell'ENEA o di Areti in sede giudiziaria, nel rispetto delle vigenti disposizioni in materia di protezione dei dati personali.

I Suoi dati personali potranno essere comunicati, dai contitolari, Enea nell'ambito del progetto di Ricerca di Sistema Elettrico, e da Areti Spa, a soggetti incaricati dell'esecuzione di attività connesse e strumentali ai trattamenti, quali società di servizi informatici (Apio S.p.A., nominato da ENEA quale Responsabile), alla comunità scientifica, ad Autorità, ad Università (per Enea, a titolo esemplificativo e non esaustivo: Politecnico di Torino, La Sapienza di Roma, Università Politecnica delle Marche, Università Tor Vergata), Acea SpA.
I Suoi dati non verranno diffusi.

5. Trasferimento dei dati in paesi terzi

I Titolari si riservano di trasferire i Suoi dati personali verso un Paese terzo sulla base delle decisioni di adeguatezza della Commissione Europea ovvero sulla base delle adeguate garanzie previste dalla vigente normativa.

6. Modalità del trattamento e periodo di conservazione dei dati

Il trattamento sarà effettuato con o senza l'ausilio di strumenti elettronici, secondo principi di correttezza, liceità, trasparenza, in modo da tutelare in ogni momento la riservatezza e i diritti dell'interessato nel rispetto di quanto previsto dalla vigente normativa.
In particolare i dati saranno conservati in database allocati in ambiente on premises, all'interno della intranet ENEA, non accessibile dall'esterno, nei 12 mesi successivi al termine del progetto per finalità di analisi dei risultati relativi alla sperimentazione e successivamente cancellati o anonimizzati.
I dati potranno essere conservati per una durata ulteriore ai sensi dell'art. 99 Codice Privacy e potranno essere condivisi con enti pubblici, privati e con la comunità scientifica in forma anonimizzata e aggregata o in forma statistica o come risultati di analisi. Tali risultati potranno essere utilizzati in modo anonimo per la divulgazione scientifica in varie forme e per le finalità del Progetto Platone nonché da ENEA per le finalità proprie e nell'ambito del Progetto di Ricerca di Sistema Elettrico. In particolare, i risultati della sperimentazione potranno essere successivamente divulgati in forma anonima, in occasione di congressi, riunioni scientifiche e pubblicazioni.

7. Diritti dell'interessato

Il Regolamento UE Le conferisce l'esercizio di specifici diritti, tra cui quelli di chiedere al Titolare del trattamento:

- la conferma che sia o meno in corso un trattamento di Suoi dati personali e, in tal caso, di ottenerne l'accesso (diritto di accesso);
- la rettifica dei dati personali inesatti, o l'integrazione dei dati personali incompleti (diritto di rettifica);
- la cancellazione dei dati stessi, se sussiste uno dei motivi previsti dal Regolamento (diritto all'oblio);
- la limitazione del trattamento quando ricorre una delle ipotesi previste dal Regolamento (diritto di limitazione);
- di ricevere in un formato strutturato, di uso comune e leggibile da dispositivo automatico i dati personali da Lei forniti al Titolare e di trasmettere tali dati a un altro Titolare del trattamento (diritto alla portabilità);
- di opporsi in qualsiasi momento al trattamento eseguito per il perseguimento di un legittimo interesse del titolare (diritto di opposizione);
- di revocare il consenso al trattamento dei suoi dati, in qualsiasi momento, senza pregiudicare la liceità del trattamento basata sul consenso prestato prima della revoca.

Per esercitare i diritti potrà inviare un messaggio alla casella di posta elettronica smarthome.project@enea.it o una comunicazione scritta, inviata ai contitolari del trattamento a mezzo RR o via PEC, agli indirizzi di seguito indicati:

- ENEA: con sede a Roma, Lungotevere Thaon di Revel, 76 – 00196; indirizzo PEC: enea@cert.enea.it
- ARETI Spa: con sede a Roma, P. le Ostiense n. 2 – 00154; indirizzo PEC: privacy@aceaspa.it

Fatto salvo ogni altro ricorso amministrativo o giurisdizionale, Lei ha il diritto di proporre reclamo a un'Autorità di controllo, qualora ritenga che il trattamento che La riguarda violi il Regolamento UE.

8. Origine del conferimento ed eventuali conseguenze del rifiuto

La partecipazione alla sperimentazione è facoltativa e tutti i dati personali raccolti sono strettamente funzionali alle finalità sopra descritte. La mancata raccolta determina l'impossibilità di usufruire dei connessi servizi.

9. Processi decisionali automatizzati

I suoi dati non saranno sottoposti a decisioni basate unicamente sul trattamento automatizzato, compresa la profilazione, che producano effetti giuridici che la riguardano o che incidano in modo analogo significativamente sulla sua persona.

Informativa aggiornata in data 22/02/2021

Annex C Invitation letter to 1st Virtual Workshop (Original Version in Italian)

Progetto Horizon 2020 "PlatOne"

Virtual Workshop Progetto europeo PlatOne

Buongiorno,
areti, in qualità di coordinatore del Pilota italiano del **Progetto Horizon 2020 "PlatOne"**, è lieta di invitarla al **1° virtual Workshop "*Gestione ottimizzata della rete e mercato della flessibilità: il ruolo del prosumer*"**, dedicato alla presentazione della soluzione tecnologica promossa nell'ambito della Demo italiana.

Quando?
Il Workshop, erogato in modalità virtuale tramite piattaforma Zoom, sarà strutturato in due sessioni:

1. 1^ Sessione informativa, il **18 Giugno 2020, ore 9.30-11.30 CET**
2. 2^ Sessione interattiva, il **25 Giugno 2020, ore 9.30-12.00 CET**

Obiettivi
Il Workshop ha l'obiettivo di presentare la soluzione innovativa promossa da PlatOne agli stakeholder dell'area di riferimento della sperimentazione oggetto della Demo italiana, favorendone la partecipazione attiva nella definizione di un mercato della flessibilità globale nell'area urbana di Roma.

L'**Agenda** dell'evento è consultabile nel file allegato.

Come partecipare?
Tramite web al seguente Zoom **link**.
ID-CONFERENCE: 394 903 7125
Password: platone

Oppure tramite telefono, seguendo le istruzioni riportate nelle "Indicazioni operative per accedere al Workshop" disponibili in allegato.

Tech check
Assicurarsi di poter accedere agilmente alla piattaforma Zoom prima del Workshop, partecipando ad un rapido check tecnico il 17 Giugno 2020 alle ore 17.00, accedendo al link sopra riportato.
Per assistenza tecnica, trova i nostri contatti nelle Linee guida operative in allegato, assieme a tutte le indicazioni pratiche per accedere al Virtual Workshop.

Augurandoci che la sua partecipazione possa essere confermata, la aspettiamo per la prima giornata di Workshop della Demo italiana del progetto PlatOne.

Cordiali saluti

areti

Annex D Customer-Engagement Letter (Original Version in Italian)

areti

Partecipa anche tu al progetto sperimentale Platone!

Gentile Utente,
Scriviamo per proporti di prendere parte ad un importante progetto che l'UE ha scelto di finanziare proprio per il suo carattere di unicità. Concetti come "decarbonizzazione", "mobilità elettrica" o "sviluppo energetico sostenibile" potrebbero apparire concetti remoti. In realtà, l'attuale progresso della tecnologia e le soluzioni ingegneristiche sviluppate dal nostro gruppo di lavoro permetteranno a tutti noi, te compreso, di avere un ruolo centrale nell'affrontare da vicino le sfide alle quali lo sviluppo tecnologico ci sottoporrà in futuro. E proprio attraverso la partecipazione a questo sfidante progetto.
Partecipa al progetto **Platone** e scopri di quali vantaggi protrai beneficiare e quanta differenza farà il tuo contributo!

Chi è areti?
areti è la società del gruppo Acea che si occupa della distribuzione e della misura dell'energia elettrica nei comuni di Roma e Formello.

Cos' è il progetto Platone?
Platone (Piattaforma per la gestione delle reti di distribuzione elettrica) è un progetto europeo che vuole testare soluzioni innovative per l'ottimizzazione dei consumi di energia elettrica e rendere più stabile e resiliente la rete, tramite un nuovo modello di mercato dell'energia. L'iniziativa è sostenuta da un consorzio internazionale composto da dodici partner pubblico-privati facenti capo a Italia, Belgio, Germania e Grecia. **areti coordina il progetto pilota italiano che vede in Roma e nei suoi cittadini il suo nucleo fondamentale.**

Perché è nato il progetto Platone?
Il progetto raccoglie l'ambiziosa sfida lanciata dall'Unione Europea di ***"rispondere alla crescente esigenza di mitigare, nel breve e lungo periodo, le congestioni della rete elettrica"*** dovute alla diffusione delle fonti rinnovabili e dei sistemi energivori, quali ad esempio gli impianti di climatizzazione e la mobilità elettrica.

Come funziona Platone?
Con il progetto Platone vogliamo sviluppare e testare una soluzione tecnologica in grado di gestire in modo più dinamico i consumi di energia e la rete elettrica. Come? **Coinvolgendo gli utenti come te.**
Modulando i consumi di energia in modo ***flessibile*** puoi aiutare la rete nei suoi momenti critici.

Che vantaggi ci sono nel partecipare al progetto Platone?
Il tuo modo di usare l'energia è un valore: partecipando al progetto Platone in modo attivo diverrai consapevole dei servizi che puoi offrire alla rete elettrica e di come questi possono esserti remunerati economicamente direttamente in bolletta.

Come si partecipa al progetto Platone?
Se sei interessato a partecipare al progetto Platone, saremo ben lieti di poter ricevere la tua richiesta all'indirizzo di posta elettronica Platone@areti.it indicandoci i tuoi riferimenti. Provvederemo a ricontattarti per fornirti maggiori informazioni sul progetto, sulla modalità di adesione e sui vantaggi dei quali potrai beneficiare.
Contribuisci, da protagonista di questo progetto di grande cambiamento, a rendere maggiormente sostenibili le reti elettriche.

A presto

L'Amministratore Delegato

Il Project Manager

Platone