Platone

PLATFORM FOR OPERATION
OF DISTRIBUTION NETWORKS

Platone

PLATform for Operation of distribution NEtworks

D8.9

Communication and Dissemination Plan (v3)

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:	31.08.2022
Actual delivery date:	30.08.2022
Main responsible:	Kristin Petersen, B.A.U.M. Consult GmbH
Work package:	WP8 – Dissemination and Exploitation
Security:	P = Public
Nature:	R
Version:	V1.0
Total number of pages:	63

Abstract

The deliverable D8.9 **"**Communication and Dissemination Plan (v3)**"** is the last of four editions of the communication and dissemination plan for Platone. This plan summarises and structures all running and upcoming communication and dissemination activities according to the development stage of the project. It gives a comprehensive overview of the communication and dissemination strategy, the derived measures and implementation and the collaboration and cooperation activities with focus on the project months 37 - 48. Furthermore, it outlines the controlling of the planned activities. Each updated edition integrates the lessons learned of the past and ongoing activities. It also takes into account all changes and improvements of the Platone project and of external circumstances, adapting the communication and dissemination strategy accordingly where appropriate. The communication and dissemination plan is updated annually.

Keyword list

Communication, Dissemination, Exploitation, Project design, Project logo, Marketing, Cooperation, Collaboration, Community

Executive Summary

"Innovation for the customers, innovation for the grid" is the vision of project Platone - Platform for Operation of distribution Networks. Within the H2020 programme "A single, smart European electricity grid", Platone addresses the topic "Flexibility and retail market options for the distribution grid". Modern power grids are moving away from centralised, infrastructure-heavy transmission system operators (TSOs) towards distribution system operators (DSOs) that are flexible and more capable of managing diverse renewable energy sources. DSOs require new ways of managing the increased number of producers, end users and more volatile power distribution systems of the future. Platone is using blockchain technology to build the Platone Open Framework to meet the needs of modern DSO power systems, including data management. The Platone Open Framework aims to create an open, flexible and secure system that enables distribution grid flexibility/congestion management mechanisms, through innovative energy market models involving all the possible actors at many levels (DSOs, TSOs, customers, aggregators). It is an open-source framework based on blockchain technology that enables a secure and shared data management system, allows standard and flexible integration of external solutions (e.g., legacy solutions), and is open to integration of external services through standardized open application program interfaces (APIs). It is built with existing regulations in mind and will allow small power producers to be easily certified so that they can sell excess energy back to the grid. The Platone Open Framework will also incorporate an open-market system to link with traditional TSOs. The Platone Open Framework will be tested in three European demos and within the Canadian Distributed Energy Management Initiative (DEMI).

Deliverable D8.9 provides the communication and dissemination plan for Platone, outlining how Platone communicates and disseminates its activities and results. In addition to the communication and dissemination plan, a detailed elaboration for the commercial exploitation was given with the deliverable "Exploitation and Marketing Plan for the involvement of partners and future customers".

The document is the fourth and last edition of the communication and dissemination plans for project. It summarises and structures - based on an overall strategy - all running and upcoming communication and dissemination activities according to the development stage of the project for every upcoming project year. The annual update integrates lessons learned from past and ongoing activities and takes into account all changes and improvements of the Platone project as well as of external circumstances.

Communication as well as dissemination aspects like cooperation and collaboration efforts are merged in an overall communication and dissemination strategy and related measures and tools. The strategy determines how to convey messages to stakeholders in order to achieve the strategic goals of Platone. For obtaining the communication objectives, suitable interest groups and stakeholders to be approached had been identified in the beginning of the project and have been updated where needed. Communication and dissemination objectives give guidance on what measures have to be implemented. The strategy takes into account that the communication and dissemination activities, especially in close to market projects, need a change of focus as the project progresses. Therefore, different emphasis is put on communication and dissemination activities and the addressed stakeholders during the project lifetime. A clear organization of the communication processes ensures an effective implementation of the measures.

All communication and dissemination activities are supported by high-quality marketing material, stakeholder-specific information and publications and communication tools like a project website and social media channels.

To spread Platone content, a multichannel approach is chosen by using synergy effects wherever possible. Channels of networking and cooperation partners play an essential role to distribute and disseminate later Platone results. All channels are regularly updated with non-sensitive and publicly available information on the progress and outcomes of the project and serve as a means for engagement with even more stakeholders. Platone ensures open access (free of charge online access for any user) to all peer-reviewed scientific publications relating to its results.

Virtual or physical events of all kinds are an indispensable channel to distribute information about Platone, a place to initiate and strengthen cooperation and collaboration activities and to establish contact with potential stakeholders, potential users and customers. At events, from focus meetings up to international conferences, most of the communications tools and channels merge - including presentations, moderation, co-organization with partners and intermediaries, booths, media presence

etc. Besides knowledge transfer and one-way distribution of information, different kinds of interactive events are a very effective way to attract, involve and link relevant stakeholders.

The community approach forms a central part of the strategy. Together with the EU-H2020 funded projects of FEVER [2] and edgeFLEX [3], Platone initiated the FlexCommunity [4]. The FlexCommunity is open for all stakeholders, who are interested in flexibility issues. The aim is to bring together stakeholders, to share knowledge and foster transnational learning and maximize impact aiming to develop a market for flexibility. Furthermore, it focusses on collaboratively finding approaches and solutions to cross-cutting topics affecting many of the flexibility actors, in order to achieve a maximum impact and create a cross-project, cross-border learning effect.

The Platone consortium has had an excellent starting point to connect to intermediaries and for cooperation due to its well-established collaboration network in Europe and beyond (e.g., Canada), with contacts to many key players of the depicted target audience and partners involved in industry associations, standardisation, European energy governance and research networks as well as an active role in other H2020 projects or initiatives. This network is continuously established and strengthened for Platone to connect stakeholders on different levels and purposes. Intermediaries and cooperation partners are facilitating the communication and dissemination activities on different levels and purposes by being multipliers within specific stakeholder groups, by having influence on regulation and standardisation activities, by providing their channels for distribution of content or event related collaboration etc. There is an expected overlap between the groups involved in collaboration and cooperation and is closely related to the community approach.

Finally, an annual controlling of effectivity and efficiency of the implemented measures and budget ensures an adjustment in strategy and measures where necessary. Therefore, specific, measurable, attainable, relevant and time-bound key performance indicators are outlined.

Authors and Reviewers

Main responsible		
Partner	**Name**	**E-mail**
B.A.U.M.		
	Kristin Petersen	k.petersen@baumgroup.de
	Janina Katona	j.katona@baumgroup.de
Author(s)/contributor(s)		
Partner	**Name**	
E.DSO		
	Selene Liverani	
RWTH		
	Prof. Antonello Monti	
Reviewer(s)		
Partner	**Name**	
E.DSO		
	Selene Liverani	
SIEMENS		
	Brunella Conte Carlo Adriano Arrigoni	
Approver(s)		
Partner	**Name**	
RWTH		
	Padraic McKeever	

Table of Contents

1 Introduction

The project “PLATform for Operation of distribution Networks – Platone” aims to develop an architecture for testing and implementing a data acquisition system based on a two-layer Blockchain approach: an “Access Layer” to connect customers to the Distribution System Operator (DSO) and a “Service Layer” to link customers and DSO to the Flexibility Market environment (Market Place, Aggregators, …). The two layers are linked by a Shared Customer Database, containing all the data certified by Blockchain and made available to all the relevant stakeholders of the two layers. This Platone Open Framework architecture allows a greater stakeholder involvement and enables 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 collecting and elaborating information useful for DSOs, transmission system operators (TSOs), Market, customers and aggregators. In particular, the DSOs will invest in a standard, open, non-discriminatory, blockchain-based, economic dispute settlement infrastructure, to give to both the customers and to the aggregator the possibility to more easily become flexibility market players. This solution will allow the DSO to acquire a new role as a market enabler for end users and a smarter observer of the distribution network. By defining this innovative two-layer architecture, Platone strongly contributes to aims to removing technical and economic 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 Platone platform will be tested in three European demos (Greece, Germany and Italy) and within the Distributed Energy Management Initiative (DEMI) in Canada. The Platone consortium aims to go for a commercial exploitation of the results after the project is finished. Within the Horizon 2020 (H2020) funding programme of the European Commission “A single, smart European electricity grid” Platone addresses the topic “Flexibility and retail market options for the distribution grid”.

Under H2020 it is essential that the society benefits from the investment in these projects. Therefore, there is a clear accent on the beneficiaries’ obligations to exploit and disseminate the outcomes of the funded activities [5],[6]. To meet the obligation to exploit and disseminate Platone’s outcomes, a transverse work package (WP) on dissemination and exploitation WP8 was designed. The main objective of this work package and its related tasks is to maximise the scientific, industrial and societal impact of Platone by organising its engagement with a broad range of stakeholders. As a transverse work package, it is closely related to all other work packages and all partners are contributing.

1.1 Associated Tasks

WP8 comprises six tasks and related deliverables and milestones to accomplish dissemination and exploitation of results:

- Task 8.1: Designing and implementing communications tools with its deliverables
  - D8.2 Website with interactive community platform (project month 3)
  - D8.3 High quality videos explaining the approaches in the 3 trials (project month 24)
  - MS1 Project website and interactive Platone community platform available (project month 3)
- Task 8.2: Fostering adoption of Platone results
- Task 8.3: Organizing Platone dissemination and uptake events with its milestones
  - MS6 Well accepted open days at all 3 trial sites presenting and discussing prototype solutions (project month 18)
  - M11 Successful midterm conference in Brussels (project month 24)
- Task 8.4: Preparing long-term adoption of Platone solutions
- Task 8.5: Contribution to European Joint RDI efforts with its deliverable
  - D8.6 Summary of Platone contribution to BRIDGE WGs (project month 48)
- Task 8.6: Exploitation of the results

- D8.5 / D8.10 Exploitation and Marketing Plan for the involvement of partners and future customers (v1 (project month 24)/v2 (project month 40))

The four editions of the deliverable “Communication and Dissemination Plan” D8.1, D8.7, D8.8 and D8.9 cover at least the Tasks 8.1, 8.2, 8.3 and 8.5.

The Tasks 8.4 and 8.6 are reported on in the two editions of the deliverable on “Exploitation and Marketing Plan for the involvement of partners and future customers”, which focus on the commercial exploitation, D8.5, submitted in August 2021 and D8.10, due in December 2022.

D8.4 “Intermediate report on the stakeholder engagement, exploitation, dissemination, communication and standardization activities”, submitted in August 2021, covers the whole work package.

The objectives of the reported activities regarding communication, dissemination and exploitation are to maximise the take-up of the elaborated knowledge, both for commercial purposes and for policy making, to boost research and innovation among participants within the programme as well as among other actors who could benefit from the research conducted, to make the expenditures on the research and development activities accountable and transparent and to show how the citizens of the European Union (EU) benefit from the results.

1.2 Objectives of the Work Reported in this deliverable

The objective of the work reported in this document is to maximise the scientific, industrial and societal impact of the Platone results. With information and knowledge transfer, the consortium is giving general and specific information on all Platone contents and activities. Opening up options for actions, convincing, gaining synergy with the determining stakeholders and supporting them are essential steps towards later exploitation. Developing Platone´s target group, the consortium has focussed on approaching potential users for the Platone Open Framework. To establish Platone´s stakeholder relationship, the partners are continuously proposing an active management of the project´s key stakeholders based on successful information and knowledge transfer. With the project´s exploitation activities, the consortium aims to effectively promote the use of project results through scientific, economic, political or societal exploitation, aiming to turn research, development and innovation (RDI) actions into concrete value and impact for society. With the standardisation activities, the consortium elaborates which standards are used in, or are best suited for, the Platone project demonstrations and best serve their goals for the functionality of each use case.

Platone sets itself the following impact objectives:

- To influence trends in the energy sector by publishing our research concepts in well-known international journals and demonstrating our trial results;
- Building the foundations of a service industry for Distribution System Operation, and influencing legislation and regulation at European level to ensure that there is support for innovative scenarios and services, defined as a result of Platone implementation activities;
- To build on an innovative exploitation approach, creating the conditions for a European consortium to provide cloud-based services to DSOs. Such an approach will put Europe in the forefront of innovation thanks to science-based legislation, and
- To have an impact on economic development through growth in small and medium-sized enterprises (SMEs) and job creation leading to global market share growth for European providers in the information and communications technology (ICT) and energy sectors. The Platone vision will unlock a new service-oriented market making the energy system of Europe the most advanced and open in the world.

With the reported activities, Platone is following the three main project phases.

The first phase of the project spanned over 20 months. A definition of the scenarios, use cases, the elicitation of user requirements and system requirements, dynamic assessment modelling, definition of system architecture and data models were elaborated. At the end of phase 1 the first integrated prototype was released. Evaluation was started via prototyping and testing referring to the three trials, to identify potential limitations and drawbacks by involving a group of selected users. Therefore, communication and dissemination activities in phase 1 focused on raising awareness for the project and getting in touch with selected key stakeholders, especially regarding user-centric and customer

integration. Standardisation activities focused on describing and identifying standards in the context of the use cases of the demonstrations.

Project phase 2 spans again over 20 month and is based on the feedback from phase 1. The framework is being evaluated at both usability and performance levels. Testing is being increased, including a user evaluation with a wide group of users. The communication and dissemination activities in phase 2 are focussing on the trials and associated interim results and first steps to prepare the commercial exploitation of the Platone results in the phase 3, which will span over the last eight project months.

Figure 1: Project phases of Platone and impact of the COVID-19 pandemic

Communication and dissemination activities occurring in phase 1 and still in phase 2 have been impacted by the Corona virus disease 2019 (COVID-19) pandemic e.g., due to travel restrictions, contact restrictions, cancelled or postponed events. Therefore, activities have been and are still being adapted and rearranged where needed e.g., by using virtual event formats and digital materials. With the adoptions within the project as well as in the organisational and social environment, it is anticipated that the impact of COVID-19 is decreasing within phase 2 in comparison to phase 1 of the project.

1.3 Outline of the Deliverable

The “Communication and Dissemination Plan” for Platone outlines the strategy and measures to communicate and disseminate the project´s activities and results. Following the introduction, chapter 2 describes how the communication and dissemination aspects are merged in an overall communication and dissemination strategy for the Platone project with its strategic approach, the communication and dissemination objectives and main stakeholders. Chapter 3 outlines the measures and tools to accomplish the objectives and the implementation of the measures. Chapter 4 is about controlling of the activities in form of key performance and further indicators. An annual controlling of effectivity and efficiency of the implemented measures ensures that an adjustment in strategy and measures can be made where necessary. The plan is updated annually to take all these aspects into account. The conclusion of the deliverable is provided in chapter 5. The annex covers a template for the stakeholder specific communication matrix and an overview of planned and earmarked events.

1.4 How to Read this Document

This deliverable provides a comprehensive overview on the communication and dissemination activities Platone is implementing and planning. D8.9 is last of four editions of the communication and dissemination plan. It follows the deliverables D8.1, 8.7 and D8.8 which were delivered in project month three (November 2019), project month 15 (November 2020) and project month 27 (November 2021).

D8.9 replaces D8.8 as it takes into account first steps of implementation and lessons learned and shifts the focus towards the now running end of phase 2 and phase 3 of the project. The current edition takes into account the state of the art regarding new collaboration and cooperation opportunities, framework conditions (e.g., national or international regulation, conventions, funding programmes or other incentives), activities within the bodies of the European Commission or the exceptional circumstances of the COVID-19 pandemic, which is still affecting the worldwide society.

2 Communication and Dissemination Strategy

The communication strategy determines how to convey messages to stakeholders in order to achieve the strategic goals of Platone. For reaching the communication objectives and approaching suitable interest groups, the different stakeholders have been identified and defined.

The strategic approach describes how to convey the right messages to the key stakeholders and determines specific, measurable, attainable, relevant and time-bound targets. Beyond that, the focus of the communication and dissemination activities is being adapted to the project progress. Communication is successful when it exactly meets its target group. Specific key messages for the key stakeholders are linked to suitable tools and channels of communication and per project phase. Also, appropriate style and tonality are applied for stakeholder-specific communication. A clear organization of the communication processes ensures an effective implementation of the measures.

2.1 General Strategic Objective

DSOs have a growing need for real-time insight into the operation of their networks while unlocking new flexibility markets in a fair and open way. The utility challenges that Platone addresses are:

- the need for DSOs to secure power supply in the context of ever-increasing penetration of renewable energy sources (RES);
- the need for DSOs to gain near real-time insight into the operation of the networks and to be able to optimise them in near real-time;
- the need to unlock local markets of flexibility to address local congestions and voltage stability issues;
- the need to effectively support TSO system-level operation through providing flexibility for ancillary services.

To meet these challenges Platone's strategic objective is to provide a two-layer platform for distribution network operation and market operation enabling a seamless integration of local prosumers in an open market structure.

Therefore, Platone is developing a cost effective two-layer platform where edge cloud technology, supported by blockchain mechanisms, provides an easy and secure access to customer level data for operation and flexibility markets. The Platone solution also integrates advanced monitoring and data-driven algorithms for increased observability down to the low voltage level using low-cost high-precision measurement devices. The Platone platform will be a scalable solution for the distribution operator provided as a turnkey service.

2.2 Stakeholders

Those stakeholders with the largest influence on reaching the Platone strategic objective are the main stakeholders of communication and dissemination activities. The main stakeholders comprise also target groups for the preparation of a commercial exploitation of Platone results.

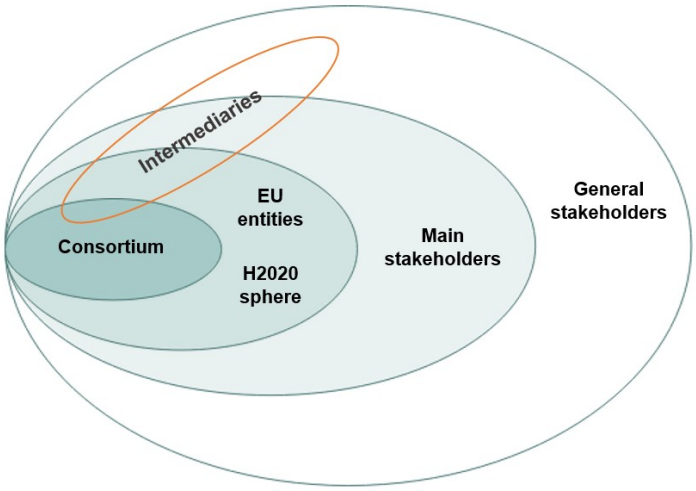

Figure 2: Platone Stakeholders

Especially for cooperation and joint dissemination activities, stakeholders in the context of H2020 are important. Amongst them are other H2020 projects on flexibility issues or smart citizen-centred energy systems, further institutions within the programme and the funding body, the European Commission (EC) as well as the BRIDGE H2020 initiative, the European Technology and Innovation Platform Smart Networks for Energy Transition (ETIP SNET) or the OPEN DEI Energy working groups.

There is a flowing transition between programme related, main stakeholder group intermediaries and interest groups. To that end, the consortium is using the projects, groups and channels in which partners are directly involved.

Additionally, general stakeholders like the “green public” and consumer organizations, which shape public opinion regarding ecological sustainability and safety of energy supply, can be crucial for future wide-spread implementation of the Platone framework. Further, general stakeholders include universities and research institutes, practitioners in the energy domain, industry experts and executives or venture capitalists.

The following main stakeholders are identified having a reasonable relevance for the Platone project:

- **The DSO community** delivers the key target for an uptake of the Platone project solutions. Three DSOs are directly involved in the project.
- **The TSO community** is closely linked with the DSO community. Improved coordination between transmission and distribution system operators becomes essential to integrate distributed energy resources and gain maximum system flexibility. Platone solutions can facilitate DSO support to TSOs at system level. Platone is assessing the interface with this type of stakeholders simulating the interactions in the demo and also thanks to the participation of some of its partners in two of the recent TSO-DSO interaction projects (e.g. CoordiNet [7], SmartNet [8]) offering full alignment with the most recent result as by product.
- **National energy associations** connect players within the energy field and can provide aggregated feedback on Platone solutions based on specific national conditions. They are central for the dissemination of the Platone results, especially in maximising the acceptance of Platone enabling software-modules and applications based on the field trial learnings and spreading Platone prototypes and recommendations.

- All types of **European and national bodies** who are in charge of defining roadmaps and frameworks for the development of the European energy system are essential to pave the way for a possible implementation of Platone solutions.
- **Regulators** on national and European level can have a relevant impact on the exploitation phase of the Platone solutions as they can enforce regulations which can affect the implementation of Platone solutions. Beyond that, they can provide incentives to DSO/TSO market-related bodies to offer flexibility products.
- **Academia and research centres** have insights on the most recent innovative solutions and transfer these into the Platone consortium and deliver valuable feedback. They help to disseminate Platone results and link them to ongoing research activities. In addition, they help to build bridges to other ongoing or upcoming relevant activities.
- **Standardisation bodies** can support the exploitation of Platone results and lessons learned since Platone aims at delivering universal solutions.
- Bodies of the **European Commission** help to connect with other EU projects responding to the same call as Platone and give guidance on current state of the art within the EU family of research projects.
- **Strategic partners** in preparation of a market rollout, such as:
    - Business oriented institutions on European level
    - Manufacturers and service suppliers
    - Service oriented innovation community of Small and Mid-sized Enterprises (SME's)
    - Start-ups
    - Investors
    - Intermediaries in energy industry organisations / Industry initiatives with energy focus

A detailed description of the main stakeholders and their specific opportunities and challenges is part of the comprehensive stakeholder specific communication matrix (this is not made public, but for the template see Annex A.1).

2.3 Strategic Approach

With its comprehensive communication and dissemination strategic approach, Platone fosters the growth and promotes integration of its solutions among not only DSO operators, but also towards all the other market operators involved, unlocking new opportunities for a wider and more efficient flexibility market.

To meet the strategic goals and the challenges and opportunities regarding the main stakeholders, a multi-track strategic approach with the following elements is chosen:

- Information and knowledge transfer to all stakeholder groups,
- Barrier reduction e.g., for regulators and standardisation bodies,
- Target group development and contact initiation, especially for customer engagement in the trials,
- Stakeholder relationship management including target group development and contact initiation especially customer integration e.g., within the trials, active involvement of stakeholders, e.g. for a Platone community, lateral project cooperation and as well as a basis for later preparation of exploitation.

Communication activities cover the whole project from the beginning and target multiple audiences, including media and the general public. Dissemination activities focus mainly on the results and target audiences that may use the results in their own work, including peer groups, industry, professional organizations or policymakers. Therefore, the communications activities were in the focus of the first phase of the project, while more focus is being put on the dissemination activities as more (interim) results are available in the second project phase.

The Platone consortium has an excellent base for impact generation activities and to foster the take-up and use of results having a well-established collaboration network in Europe. The consortium has contacts to many key players of the depicted target audience and partners involved in industry associations, standardization, European energy governance like e.g., the European Technology and Innovation Platform (ETIP) and research networks (e.g., European Energy Research Alliance (EERA), European Research Area Network (ERA-Net) Smart Grids Plus.

The Platone Open Framework development will follow three main phases, as shown in Figure 3.

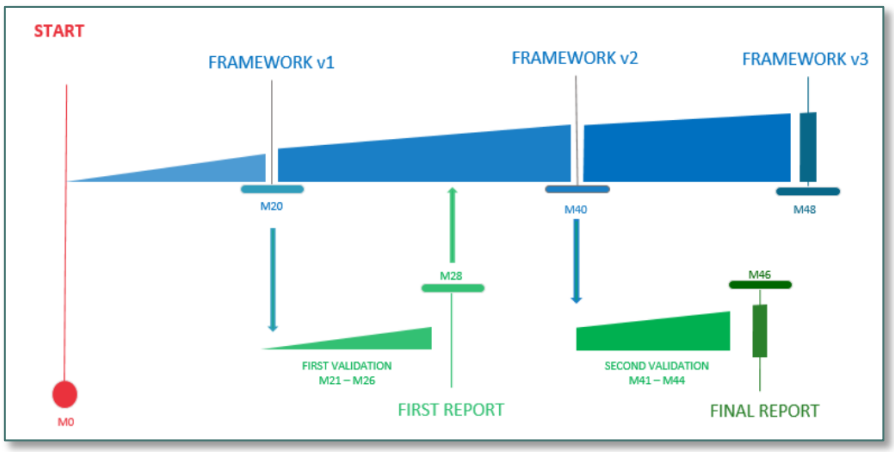

Figure 3: Development and Evaluation Phases

Phase 1 spanned over the first 20 months (M1-20) of the project. It included definition of the scenarios, use cases, the elicitation of user requirements and system requirements, dynamic assessment modelling, definition of system architecture and data models. At the end of Phase 1, the first integrated prototype was released. Evaluation started via prototyping and testing referring to the three trials, to identify potential limitations and drawbacks involving a group of selected users.

The communication and dissemination activities in Phase 1 focused on raising awareness of the project and getting in touch with selected key stakeholders, especially regarding user centric and customer integration. The main communication materials, tools and channels have been set up to (e.g., project website, general project information or mailing lists). Customers have been involved in the trials from the beginning. The Platone community is promoted and established and the Platone project has been represented at several stakeholder relevant events by selected consortium members. Activities occurring in Phase 1 have been heavily impacted by the COVID-19 pandemic. Due to the worldwide COVID-19 situation, communication and dissemination were adapted and rearranged where needed.

Phase 2 (August 2021 (M21) – December 2022 (M40)) is based on the feedback from Phase 1. The scenarios and both user and technical requirements are being refined and a new version of the platforms will be integrated in an intermediate version of the framework, functionally complete. The Platone Open Framework is being evaluated at both usability and performance levels. Testing is being increased, including a user evaluation with a wide group of users. All plans likewise depend still on the COVID-19 impact and duration of the pandemic.

The communication and dissemination activities in Phase 2 are focussing on the trials and associated interim results. Among other things, a set of high-quality videos explaining the approaches of the trials have been developed and released. Also, the FlexCommunity, initiated by the Platone project is established through a major kick-off event and since then constantly extended. The first steps to prepare the commercial exploitation of the Platone results, like organizing exploitation workshops, are about to start.

Phase 3 (January 2023 (M41) – August 2023 (M48)) is based on the evaluation results of Phase 2, leading to the refinement of component and system level technology consolidation, enhancing the final prototype. Usability, user behaviour evaluation and impact creation will be analysed and assessed. Furthermore, this phase will take into account the preliminary simulation results, using them as feedback for the final prototype release.

The activities in Phase 3 will focus on preparation of the commercial exploitation and market take up of the results, rollout and take-up of the Platone solution after the project. A business plan for exploitable results is being elaborated, due in December 2022.

The activities in Phase 3 will focus on dissemination activities supporting the commercial exploitation and market take-up of Platone solution after the project.

All basic and further communication as well as dissemination activities run throughout the whole project lifetime.

2.4 Communication and Dissemination Objectives

Communication and dissemination objectives give guidance on what measures have to be implemented. They are checked regularly on how effectively and efficiently input and outflow correlate. The controlling of communication activities is based on related key performance indicators, which are specific, measurable, attainable, relevant and time-bound and are outlined in detail in Chapter 4.

A detailed elaboration for the commercial exploitation has been given with the deliverable “Exploitation and Marketing Plan for the involvement of partners and future customers”, submitted in August 2021 (M24) and with the second edition due in December 2022 (M40).

2.4.1 Knowledge Transfer and Barrier Reduction

Information and knowledge transfer give general and specific information on all Platone contents and activities. The Platone Open Framework may encounter user, stakeholder or regulatory barriers. Not all players in the energy sector may see a general need for new flexibility products. The business of equipment producers may be disrupted. For other players Platone opens new opportunities. DSOs will gain an open-source DSO Technical Platform. To facilitate later exploitation, it is essential to open options for actions, convince, gain synergy with and support the determining stakeholders.

Communication and dissemination objectives:

- Provided understanding of the Platone Open Framework as a base for removing potential barriers making the advantages of the new solutions clear per specific stakeholder.
- Direct involvement of DSOs to allow Platone to find the best way to make the sector aware of the advantages offered by the new solutions.
- Impact on target groups who highly emphasise regional renewable energy (usually smaller utilities and regional DSOs and energy communities).
- Impact on target groups who potentially have an impact on Europe’s leadership in ICT solutions for flexibility.
- Impact on all types of European and national bodies in charge of defining roadmaps and frameworks for the development of the European energy system to allow for and foster deployment of that new technology.
- High visibility of the project in professional circles as well as with the general public.
- Understanding of the Platone Open Framework and exploitation implications, as a base for scalability and replicability.
- Demonstration of the Platone Open Framework in different contexts (three running demonstrations).
- New set of innovation driven research regarding monitoring and optimization services in the energy sector.
- Standardization processes on concepts and solutions for worldwide use of the Platone Open Framework.
- Impact on developers of the new Strategic Energy Technology Plan (SET-Plan) to consider the new opportunities.

2.4.2 Target Group Development

Target group development focuses on approaching potential users for the Platone framework. An early integration of future target groups to specify future needs and requirements is an essential part of the development of the Platone framework. As many DSOs as possible shall as soon as possible get in contact with these future proof solutions. A high overlap of involved stakeholders and later target groups is given.

Communication and dissemination objectives:

- Share information on Platone within business networks for decision makers at DSOs.
- Test and use of Platone functionality by a new generation of grid operators, students and Energy Sector professionals.

- Introduce Platone technology into the products of established and new suppliers of the energy industry to motivate them to build new products and services.
- Investors considering the new technology for seed investment.
- DSOs ready to create “local flexibility markets" addressing DSOs' needs for flexibility, attracting participation of aggregators and supporting TSOs’ and DSOs’ cooperation for a secure and efficient grid operation.
- New products and businesses of established and new suppliers of the energy industry.
- Successful integration of users and further potential user in the trials (the strategy for the integration of customers in the trials is not part of this deliverable but will be addressed by e.g., work package 1).
- Visibility of scaled up and replicated trials.
- Launch Platone community and support joint community on flexibility issues.

2.4.3 Stakeholder Relationship Management

The stakeholder relationship management proposes an active management of the key stakeholders and is based on successful information and knowledge transfer. Stakeholder relationship management integrates a sustainable approach, which aims at a take-up of the project results during the project or after its end.

- Establish Platone community.
- Support joint community on flexibility issues to ensure continuation after the project.
- Collaboration with intermediaries, such as energy related national associations and institutions, mainly in the countries involved in trials and European entities.
- Successful involvement of prosumers and smart customers in the trials.
- Successful lateral project networking.
- Interest of companies in using the Platone platform.
- Uptake of the Platone platform by service providers.
- Scaled-up and replicated demo experiments.

2.5 Stakeholder-specific Communication

Every main stakeholder needs a tailored communication approach regarding communication challenges and opportunities, objectives and special requirements. Success in this means that a communication measure converts into action of the targeted stakeholder like declaring interest to engage in trials, joining the community or participating in an event. Following the communication and dissemination strategy, the communication tools and channels are chosen (and adjusted) very carefully to get the wanted action by the target groups and to bring the right message to the right audience via the appropriate channel in a matching style and tonality.

Also, the place of action is relevant. Therefore, a wide communication mix is adopted in Platone.

A (non-public) stakeholder specific communication matrix supports stakeholder specific communication activities. For the main stakeholders the desired outcomes are outlined, specific key messages developed and linked to suitable tools and channels of communication per project.

Beyond the main target group, further stakeholders who have potential influence on Platone e.g., press, politics, potential users or critics, are addressed by appropriate tools and channels, related to the context.

3 Measures and Implementation

3.1 Organisation and Coordination of Activities

Every person in the consortium acts directly or indirectly as a communication and dissemination actor, e.g. at events, in dialogue with cooperation partners, etc. The hub for all activities is the dissemination team, coordinated by consortium member B.A.U.M. in close collaboration with the task leaders RWTH Aachen University and E.DSO. The communication and dissemination team is responsible for coordination, implementation and evaluation of the measures. In order to safeguard an interdisciplinary exchange within the consortium in belonging of these targets, representatives of all partners meet on regular basis in WP8 virtual meetings.

Beyond that, the dissemination team collects, validates and forwards cooperation, media or community enquiries, collects and/ or coordinates event participations and reviews.

All consortium members share their activities like event participation, contact inquiries, publications and press reviews but also special needs with the dissemination team for a successful joint communication and dissemination.

A general contact with e-mail and phone number for external inquiries of all kinds is managed by the dissemination team.

For further project management structure and procedures see D9.5 Project Management Plan, V3.

3.2 Project Identity

3.2.1 Logo and Project Design

The project design guarantees that everything realised within Platone is recognised as part of it. The logo is included on every type of marketing material (e.g. project folders, presentations) and is used for every type of template and publication (e.g. deliverables). The logo is used for external as well as internal communication and it may in no case be adjusted or changed. The colour scheme and fonts are centrally considered in every type of digital or print material and online tools like the project website.

Figure 4: Platone project design logo and colour scheme

Figure 5: Platone project design visual element

Figure 6: Platone project design transferred to presentation

3.2.2 Slogan and Keywords

The project keywords and a set of slogans were prepared by a co-creation process within the consortium.

For general project information currently, the following key slogan is used:

Smart integration for market innovation –
Innovation for the customers, innovation for the grid

Keywords are essential for the communication of content and in the context of stakeholder specific communication. They are also used to find the right “hashtags” in the context of social media activities (see Chapter 3.4.3).

3.2.3 Visualisation

Visualisations of Platone issues help to transport messages, e.g. through visualisation of the interaction of market actors via Platone or close to everyday live use cases of the Platone technology.

Visuals are used on the website, for presentations and posters at events etc. Depending on the focus of the project phase (see Chapter 2.3), the graphic material is expanded and further developed. The Platone project identity (see Chapter 3.2) delivers the foundation for all visual and graphic material.

3.3 Communication Material and Tools

All activities are supported by high-quality marketing material, publications, stakeholder specific information material and communication tools like a project website and social media channels.

3.3.1 Website

The project website serves as central information platform for Platone. The purpose is to inform interested stakeholders about the project and it includes all main information on the project, its progress, project related news and events. Different information levels take into account different stakeholder needs.

Off page and on page search engine optimisation (SEO) ensures high visibility for online content.

The Uniform Resource Locator (URL) for Platone is:

www.Platone-h2020.eu

An annual revision of the website ensures its topicality and focus. In addition, partial extensions are implemented as ready or as needed (e.g. Advisory and Dissemination Board (ADB) section added 2020, Use Cases of the Demonstrations planned for 2022).

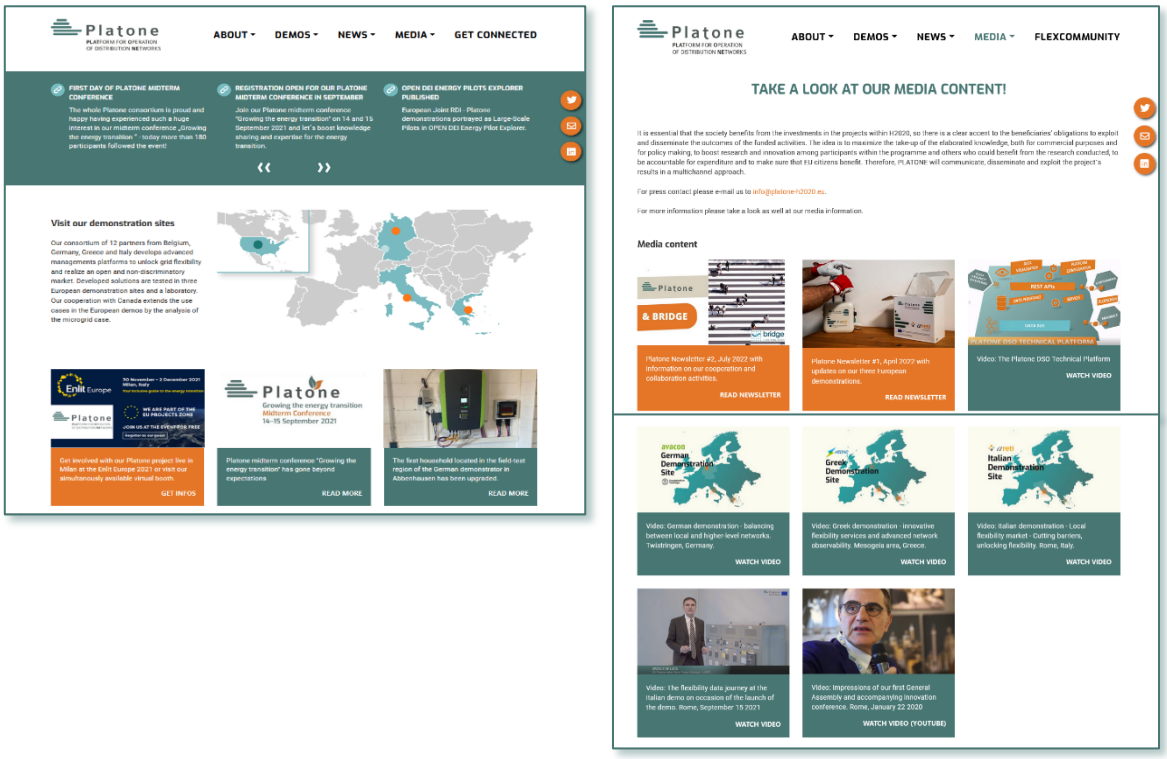

Figure 7 Platone project website

3.3.2 LinkedIn

The online professional network LinkedIn allows to reach a wide but also targeted audience in a professional context. Therefore, a Platone LinkedIn group was created to share content and actively connect with already established groups and professionals on Platone specific topics. The activities on the LinkedIn group as part of the social media activities are described more detailed in Chapter 3.4.3.

The Platone communication and dissemination team continuously posts and shares project activities, e.g. events, project milestones as well as tweets of partners, associated cooperation initiatives, e.g. BRIDGE activities of relevance for the Platone community.

The LinkedIn group was opened on 1st October 2019.

Name: Platone - PLATform for Operation of distribution NEtworks (H2020 funded project)

URL: **https://www.linkedin.com/groups/13766819**

Official members: > 100 (August 2022)

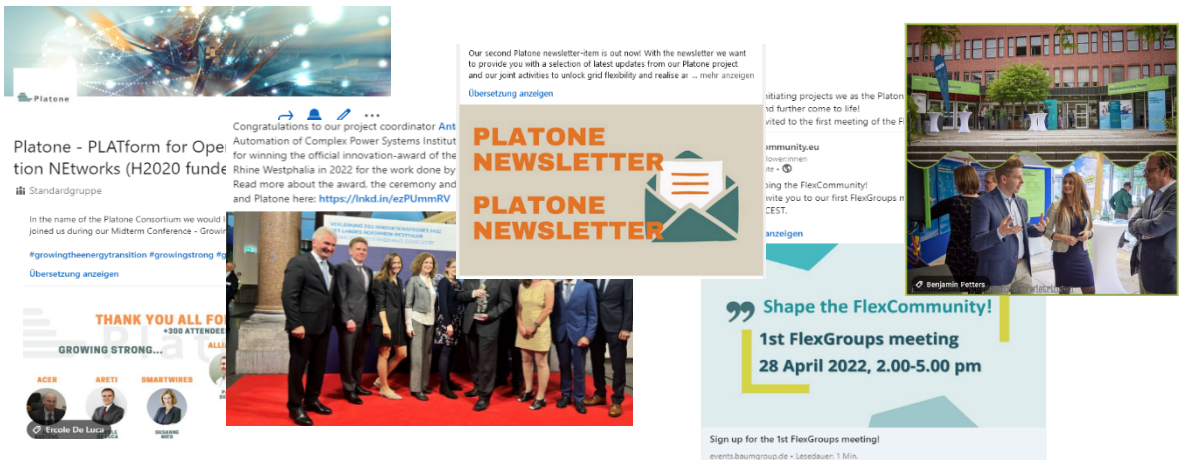

Figure 8: Platone LinkedIn group

With the launch of the FlexCommunity a LinkedIn FlexCommunity profile was launched. Platone activities related to the FlexCommunity are continuously shared on this channel.

The LinkedIn page was opened on 22 February 2022.

Name: flexcommunity-eu

URL: https://www.linkedin.com/groups/13766819

Followers: > 160 (August 2022)

3.3.3 Twitter

The social media platform Twitter allows for a broad audience of potential stakeholders of the Platone project like, for example, international and national media and press or representatives of the research-environment. Twitter is a good supplement to LinkedIn since LinkedIn focuses more heavily on a professional context whereas Twitter allows for a more grounded communication.

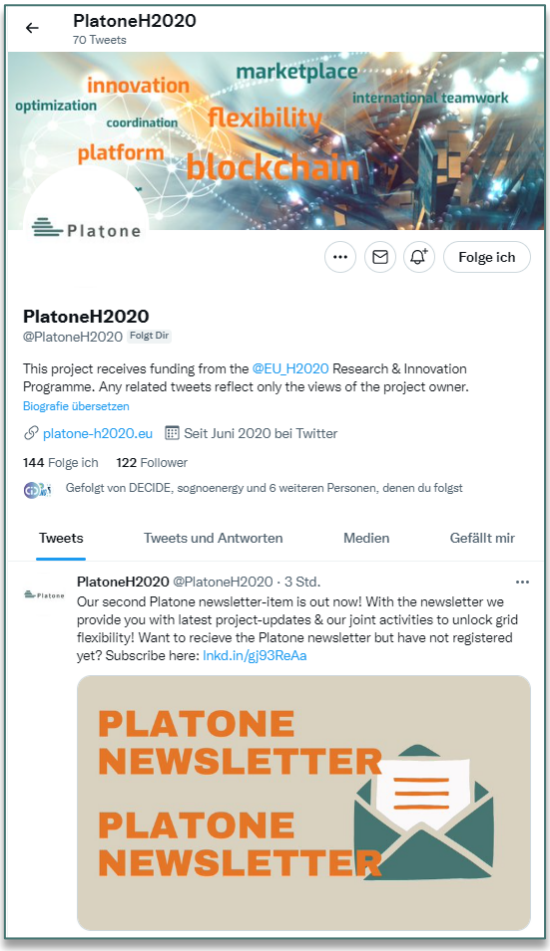

Figure 9 Platone Twitter

The Platone communication and dissemination team continuously shares project activities, e.g. events, project milestones as well as tweets of partners, associated cooperation initiatives, e.g. BRIDGE activities of relevance for the Platone community.

The Twitter profile of Platone was opened in June 2020.

Name: PlatoneH2020 (@PlatoneH2020)

URL: https://twitter.com/PlatoneH2020

Official followers: 122 (July 2022)

3.3.4 Print and Digital Materials

Based on the project design, several templates and materials have been created and are yet under active usage, e.g. templates for slides, deliverables and milestones, set of basic slides, templates for social media posts, a roll-up, general project information (digital version) and giveaways.

Figure 10: Giveaway "seed card"

Figure 11 Platone roll-up

3.3.5 Video

In order to present the project, high quality videos have been produced and released in August 2021, describing the general project context, the technologies developed and tested in the Platone trials, the

expected results. The videos show the similarities as well as the uniqueness of the three trial approaches.

The videos are available on the Platone web site and social media and are being used in several contexts, e.g. at booths in fairs, as openers for events or adequate digital formats.

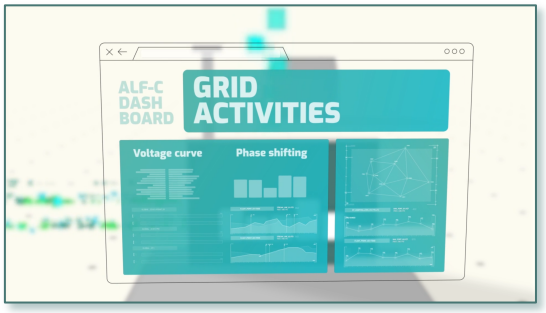

Figure 12: Video of the German demonstration

For the launch of the Italian demonstration during the Platone midterm conference in September 2021, a video “The flexibility data journey” at the Italian demonstration was produced by the Italian partners. It is being used in further contexts wherever insights into the Italian demo are supporting dissemination activities – especially as a virtual alternative in times of the COVID-19 pandemic.

Figure 13: Video to the launch of the Italian demonstration

3.3.6 Publications

Key project and scientific publications are being published during the project to communicate and disseminate project results.

Examples for publications:

- Tailor-made articles or interviews with focus on success stories for target group relevant media.
- High-quality scientific papers with the focus on research findings to be published at renowned conferences and in scientific, peer-reviewed journals.
- Deliverables and reports with focus on project results.

Platone ensures open access (free of charge online access for any user) to all peer-reviewed scientific publications related to its results. The publications are available at the Platone website and via OpenAIRE (Open Access Infrastructure for Research in Europe), a pan-European research information system.

The publications are being distributed through appropriate channels, which comply with the publication terms of each consortium partner, the download area on the website, via OpenAIRE (Open Access Infrastructure for Research in Europe), a pan-European research information system, announcements via mailings and, if possible, specialist magazines or media, depending on subject and target group.

For 2022/2023 project year, further scientific publications are planned i.a. on the Italian demo with blockchain technology, and demo result papers.

For 2022/2023, effort will also be made to increase the visibility of Platone in special interest media from relevance for the target groups of Platone in form of articles or interviews.

3.3.7 Policy Briefs

Consortium partners introduce Platone solutions to associations and framework setting institutions on national, European and worldwide level, mainly in phases 2 and 3 of the project. For that purpose, a link between the task of WP8 “Fostering adoption of Platone results” (Task 8.2) and the subtask “Comparison of demo activities with the state of play in the regulatory framework at national and EU level” (Subtask 1.2.2) of WP1 is established and used as a base for the policy briefs.

E.DSO continuously monitors policy developments on the European stage and informs consortium partners on topics relevant to Platone project. A state of the situation was described in deliverable 1.3 “Overview of regulatory aspects that impact the solutions tested in the demos in European countries” within the WP1 “DSO Operation Strategies and Harmonization”, submitted in August 2021 (M24). The continuation of this work under Task 1.2 “Demo harmonisation, coordination and regulatory fitness” will allow key legislative updates and developments at EU level to be reported to the project’s partners during the second half of Platone operation.

3.3.8 Media Kit

A Platone media kit provides relevant information for general media inquiries. It includes:

- Contact (general, trial sites);
- Press release(s);
- Boiler plate;
- Message blocks;
- Images to portrait Platone approach and related content like demo sites;
- Relevant links (e.g., project videos (see Chapter 3.3.5)).

The media kit is continually updated following the project progress.

For all further media inquiries, the dissemination team provides the appropriate information and contacts within the consortium, e.g., for interviews etc.

The media is addressed by the dissemination team as well as by the Platone consortium partners, especially in relation to results of the demos by addressing local media.

3.3.9 Toolbox for Consortium Members

The toolbox for consortium members supports current communication activities. The set comprises among others:

- Project design guide including logo
- General presentation with a project overview
- Template for presentations
- A graphical resume of the project
- Templates and setting copy for general project material like roll-up
- Checklist for event management
- Media kit with tutorial and template press release, boiler plate etc.
- Template for reports on visited events
- Standard project description
- Leaflet/brochures summarising the main features of Platone.

3.4 Distribution

To spread Platone content, a multichannel approach is chosen by using synergy effects wherever possible. Networking and cooperation play an essential role to distribute and disseminate later Platone results (see Chapters 3.6 and 3.7). Information on Platone gains a broader scope of public interest by promoting it through a number of web-based channels, channels of intermediaries like newsletter, backlinks, events, cooperation and bi- or multilateral dialogues. These channels are regularly updated

with non-sensitive and publicly available information on the progress and outcomes of the project and serve as a means for engaging with even more stakeholders.

3.4.1 Editorial Plan

An editorial plan helps to keep up a continuous spread of information on all relevant events, milestones and other highlights by coordinating the generation and distribution of content. Milestones and events are accompanied by communication measures like mailings, press releases, social media postings, news items at the project website, interviews etc. Therefore, the editorial plan comprises, i.e. project milestones or planned events to prepare the envisaged content per appropriate channel.

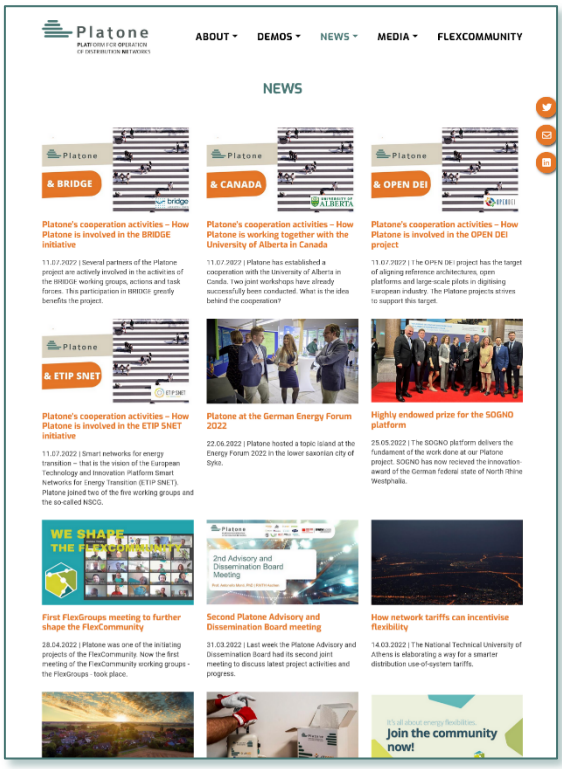

Figure 14 News items at Platone website

3.4.2 Newsletter and Mailings

To distribute stakeholder-relevant content and to manage the stakeholder relationship, it is essential to establish a significant number of contacts of the main stakeholders and target groups. Platone contacts are composed of several data sets, including mailing lists of the consortium partners, contacts in the context of the series of co-creation events on user and stakeholder interaction, subscribers via Platone website, members of the LinkedIn group, participants of own events (like the midterm conference with above 300 participants, ADB members, cooperation projects and the FlexCommunity). Therefore, several communication and dissemination activities are being used to invite stakeholders to subscribe to the mailing list to constantly increase the number of contacts.

A subscription form is active at the project website. The Platone Newsletter is distributed four times a year, on a quarterly basis. It is sent to the mailing list derived from the website and is announced on the LinkedIn group. The newsletter contains a selection of latest updates from the project and the joint activities to unlock grid flexibility and realise an open and non-discriminatory market.

Contextual mailings announce physical or virtual events and news about publications or milestones. Platone cooperates with partners to multiply the reach of distributed information, for instance with BRIDGE H2020 and other (see Chapter 3.7).

3.4.3 Online and Social Media Activities

Beyond being active on the project´s own website and social media networks, the communication and dissemination team checks other groups and personal project or issue channels and uses them where appropriate, e.g., LinkedIn groups of BRIDGE (@BRIDGE_H2020), H2020 and flexibility projects, consortium members etc. Each member of the consortium is invited to share Platone related issues within their networks in which the target groups are represented.

Social media networks deliver effective and, in comparison to other communication channels, easy to maintain means to engage with Platone stakeholders and target groups.

3.4.3.1 LinkedIn

Besides being active in the Platone LinkedIn group and in the FlexCommunity LinkedIn page, all Platone consortium members and other actors who are active on LinkedIn are invited to share Platone content to their contacts or in other LinkedIn groups where target groups are represented. The dissemination and communication team is fully incorporating LinkedIn posts in the editorial plan (see Chapter 3.4.1) and supports partners with notifications on posts or providing input for posts. This includes the investigation and recommendation on appropriate project topic-related hashtags or occasion-related hashtags (e g. for special events) and handles (e.g., cooperation partner, speaker etc.) as well as visual material.

3.4.3.2 Twitter

Besides activities concerning LinkedIn, all Platone consortium members and other actors who are active on Twitter are invited to share Platone content to their contacts. The dissemination and communication team is fully incorporating Twitter posts in the editorial plan (see Chapter 3.4.1) and supports partners with notifications on posts or providing input for posts. This includes the investigation and recommendation on appropriate project topic-related hashtags or occasion-related hashtags (e g. for special events) and handles (e.g., cooperation partner, speaker etc.) as well as visual material.

3.4.4 Media

The consortium wants to ensure good visibility of Platone in the media, especially related to the demonstrations at local media level, but also in specialised media. The media are addressed by the dissemination team at transnational level as well as by the Platone partners, especially in relation to the demonstrations and by addressing local media. Press releases inform about key steps and results especially of the demonstrations. Media activities are focussing on project findings that can tell a “story”.

At local level, the demonstrations attract media attention very well by organising events related to demonstrations, including press conferences and press releases (e.g. German demo of Platone in local German press “Weser Kurier” [9], describing the active involvement of households in the German demo but also explaining the Platone approach or the launch of the Italian demonstration with several reports in local media).

To attract technical and research related media at national or transnational level addressing the Platone stakeholders the following input can be provided: results of the project; invitations to events including press conferences, photos and graphics; articles written by Platone experts, interview partners; and organized visits for journalists.

Most obviously, extended events at demo sites involving external media partners are difficult to realise during the COVID-19 pandemic. Nonetheless, media can be directly contacted by each partner, by using existing media contacts of Platone partners and approaching other journalists and magazines working on Platone related issues.

For media requests, a transnational contact as well as national contacts of partners and trials is provided.

Press reviews are listed and reported as clipping reports for internal interest (not publishable due to copyrights).

3.4.5 BRIDGE

BRIDGE is a European Commission initiative which unites Horizon 2020 Smart Grid and Energy Storage Projects. Participation in BRIDGE increases the profile of projects and provides dissemination opportunities. Platone is represented in all four BRIDGE H2020 Working Groups (see Chapter 3.7.2). Platone is introduced like all involved projects at https://www.h2020-bridge.eu/participant-projects.

A BRIDGE newsletter is issued every 3 months (rather than every 6 months as was done until midst of 2021) about project news selected by an editorial team. Platone is continuously submitting news items to this newsletter. Project news, event announcements etc. are shared on BRIDGE Social Media channel Twitter @BRIDGE_H2020 and the LinkedIn Group “BRIDGE (Horizon 2020, LCE 6-10)”.

The BRIDGE initiative regularly offers occasions contributing to events or joint session at events, e.g., the EU project zone at Enlit Europe 2021. Platone actively contributes to and joins such activities.

3.4.6 Channels of Intermediaries

Thanks to the well-connected Platone consortium, Platone has a good starting position to place its content at channels of intermediaries and cooperation partners (e.g., EERA, ERA-Net Smart Grids Plus) as well as an active role in other H2020 projects or initiatives (e.g., BRIDGE, ETIP SNET, OPEN DEI,). This network is continuously established for Platone to use it on different levels and purposes (see Chapter 3.7.5). Intermediaries and cooperation partners can facilitate the communication and dissemination activities on different levels and purposes by being multipliers within specific stakeholder groups, by having influence on specific activities, by providing their channels for distribution of content or event related collaboration etc. Also, projects and groups where partners are already directly involved in are analysed and used for cooperation and distribution activities.

With the DSO Technical Platform being accepted as the SOGNO project within the Linux Foundation Energy (LFE) and with the cooperation with Canada, Platone results have a great chance being visible in an international context.

3.5 Events and Educational Opportunities

Due to the COVID-19 pandemic, nearly all “real-life” events with multiple participants as well as educational opportunities like summer schools were totally cancelled, postponed or reorganised virtually. In the last project year, a shift to at least hybrid events (combination of virtual and physical event) can be expected. Still, some event formats from focus meetings up to fair trades are conducted fully virtually.

Events of all kinds – whether they take place on- or offline, are an indispensable channel to distribute information about Platone, a place to initiate cooperation and collaboration activities and to make contact with potential stakeholders, potential users and customers. At events, most of the communications tools and channels merge - including presentations, ePoster sessions, moderation, co-organization with partners and intermediaries, booths, media presence etc.

Besides knowledge transfer and one-way distribution of information, different kinds of interactive events are a very effective way to attract, involve and link relevant stakeholders. Therefore, the consortium is organising interactive virtual or, if circumstances permit, physical meetings for both small and large numbers of participants to reach the relevant stakeholder groups and target audiences.

Platone topics are implemented in curriculum and postgraduate training (e.g., summer school RWTH, training at the Nyenrode Business School in the Netherlands, Ph.D. thesis in Canada).

A planning tool for internal and external events and activities serves as an overview of relevant events with priorities and is continuously updated with support of all partners to coordinate attendance and to avoid conflicts of dates. Major events will be announced per website, mailings etc.

Special interest in this context is given to the development of the COVID-19 pandemic and its impact on the planning of events and educational opportunities.

3.5.1 Platone Events

3.5.1.1 Co-creation Events on User Interaction

A series of co-creation events for a user and target group-oriented design process has been developed to lay the ground for the development and assessment of Platone solution models. Stakeholder engagement strategies for the project are developed in Task 1.5 of WP1, Task 3.4 of WP3 and Task 4.5 of WP4. In these tasks the partners have defined approaches on harmonisation with customers', stakeholders' and partners' needs and expectations, which lays the ground for the entire development and assessment of Platone solution models with the series of co-creation events on user interaction. They also have developed methodologies that assist in engaging the end-customers to voluntarily participate in the proposed demonstration solutions.

The series of co-creation events encompasses:

- An internal workshop on capacity building with all project partners, held in November 2019, to introduce User-Centric Design and prepare specific innovation activities to learn the basics of Design Thinking methods and mindset, brainstorming methods and to get insights into user comprehension, rapid prototyping, testing of ideas; sustainable innovation with economic, environmental and social impact.
- One innovation kick-off workshop per trial in preparation of the Platone field trials to identify user needs and expectations (participants: solution developers, potential participants of the trials and other typical users, representatives of consumer organizations).
- A series of innovation workshops for continuous user interaction with prototypes and advanced methods with representatives of consumer associations to identify their concerns, catch their expectations and develop them as partners for communication and dissemination.
- A last coordination workshop to complete the analysis of the lessons learned after the complete cycle of workshops at the end of the project.

Due to COVID-19 restrictions from spring 2020 on, virtual workshop formats have been developed to replace physical meetings. Besides that, one core experience (lesson learned) was that the initial roadmap for these workshops was too ambitious. The idea of early-stage user interactive workshops to test prototypes could not be realised, due to internal and framework conditions. Internally, trial site demos did not have prototypes or similar solutions/products ready for being tested at that early stage. Furthermore, feedback from the system relevant parties had to first be collected in order to define the framework and engagement options (active/passive) and their possible extent. Thus, the first engagement workshops (Italian and Greek demos) took place with system relevant stakeholders like trial-site integrated parties (DSO, aggregator, municipality operators, and commercial prostormers). Accordingly, later workshops took place with potential private and commercial end users, to discuss their options to participate in the specific demonstration and Platone.

In the end the series of co-creation events on user interaction has been successfully started, although with some delay, to put end customers as well as main stakeholders at the centre to investigate their needs and expectations with demonstration related workshops in Greece, Germany and Italy.

In 2022, the series will be completed by one outstanding workshop at the Greece demo in autumn 2022 and the organisation of a session dedicated to customer engagement during the last ES-1-2019 coordination workshop (see Chapter 3.5.1.4) by the end of 2022.

3.5.1.2 Open Days

The milestone MS6 on having open days in all three demos was achieved by the end of 2021.

3.5.1.3 Exploitation Workshops

At the end of the project all findings relevant for the commercial exploitation and market take up of the R&D results of the project will be consolidated in one business plan for each of the individual exploitable results. At least, two (internal) exploitation workshops will be organized during the course of the project to identify the options, to align partners view and to prepare the corresponding plans. The first workshop will take place in October 2022 together with the 3rd General Assembly, following by a second workshop planned in the first quarter of 2023, as part of the 4th General Assembly.

3.5.1.4 Workshop for Family of Projects

In the context of the coordination with similar/twin projects, including similar projects in Canada (see Chapters 3.7.3 and 3.7.4), workshops are organised to allow fruitful exchanges between the various projects answering to the same call as Platone. The workshops enable the partners of the Platone consortium to exchange experiences on topics of particular interest with similar projects. Proper early communication and exchange of views ensure that the Platone project builds on other projects and not just replicates them. Particular attention is paid to projects in which members of the consortium are involved.

In April 2021 Platone hosted the first workshop for all projects funded under the H2020 call on Flexibility and Retail Market Options for the Distribution Grid (ES-1-2019). In this interactive session, 75 representatives of all eight projects ebalance-plus, EUniversal, FEVER [2], FLEXIGRID.eu, FLEXIGRID.org, PARITY, Platone, and X-FLEX funded under this call, as well as of Canadian Platone partner from the Northern Alberta Institute of Technology (NAIT), joined. The workshop was a great success and will be followed up by a final coordination workshop in the final quarter of 2022. Following the advancements in the projects' activities, the goal of this second event will be to dive deeper into the discussion, focused on the exchange of best practices and key takeaways. The analysis of the lessons learnt from the cycle of workshops will contribute to the achievement of MS15 of Platone "Last coordination workshop executed", while its key outcomes will be reported in deliverable 1.6 "Report on twin projects coordination Workshops" to be published in April 2023 (M44). In addition to that, consortium partner E.DSO has started a Women in Science, Technology, Engineering and Mathematics (STEM) disciplines initiative in 2021 by collaborating with the ES-1-2019 projects. Consortium partner B.A.U.M. actively supported this initiative.

To strengthen the collaboration between Platone and its H2020 sister projects FEVER, edgeFLEX and DECIDE, a kick-off event for joint activities under the light of a flexibility community was co-organised by Platone in November 2020 (see Chapter 3.7.3). In February 2022 the FlexCommunity was kicked-off in a major event organised by the three initiating projects of the community Platone, FEVER and edgeFLEX. More than 200 people joined to exchange on flexibilities and the vision of the FlexCommunity.

3.5.1.5 Study Tours

Study tours will be organised for all types of interested stakeholder as soon as prototypes of solutions are implemented by the end of the project. The tours tentatively take place at the demos and will feature guided demonstration of the functionality of selected result. If necessary, e.g., due to the COVID-19 pandemic, virtual tours will be organised.

The individual concepts are currently elaborated.

- The study tour at the German demo is planned in the context of a regional event "Day of Regions", 2nd October 2022 as a live event.
- The study tour at the Italian demo will take place in the first quarter of 2023 as a live event.
- The tour at the Greek demo is planned together with the 4th General Assembly in the first quarter of 2023 as a live event.
- The study tour at the Canadian demo is planned in the second quarter of 2023 in a hybrid format.

3.5.1.6 Stakeholder Focus Events

To attract DSOs and promote the Platone Open Framework, two events for DSOs are planned to experience the laboratory setup of Platone components at RWTH Aachen University. RWTH laboratory focuses on the integration of the Platone Open Framework to produce a reference implementation which is deployed in the Platone demonstration sites across Europe and in Canada.

The first event will take place on 22nd September 2022, in the context of the workshop '*Is Open Source the next big Thing in Electricity Distribution?*' hosted by E.DSO in collaboration with RWTH as online event. A virtual tour to the RWTH laboratory is part of the programme and will let the participants actively get in touch with the Platone approach.

The second event is planned as a virtual event in cooperation with the LFE in the first quarter of 2023 to bring the approach to further stakeholders beyond Europe.

3.5.2 Summer Schools

As part of the dissemination activities towards the research communities, Platone topics are introduced in academic lecturing and research in the context of the RWTH Aachen University summer schools. Due to the COVID-19 pandemic the first of the two summer schools – already completely organized - with Platone topics should have taken place in summer 2022, but the travel restrictions caused that no students were about to come. The second summer school will take place in summer 2023. As the project ends in 2023 unfortunately only one of the two planned summer schools will be organized.

3.5.3 Professional Courses

To create awareness for the Platone approach and results a course for the energy sector professionals is under development. The idea is to update their knowledge by promoting the use of the concepts developed in the Platone project. The course is part of the RWTH Academy Programme for life-long learning.

First steps are taken between the German Association for Electrical, Electronic & Information Technologies (VDE), the Fraunhofer Society for the Advancement of Applied Research and RWTH to examine how to bring Platone topics to the education of engineers in Germany. VDE wants to develop a new initiative about digitalisation, platforms, especially data platforms for utilities. VDE, Fraunhofer and RWTH have been developing a coordinated offer. For this it is, among other things, expected to result in a set of Ph.D. theses with a focus on Platone concepts and solutions. The first offer will be a course on cyber security in 2022. Probably one or two further offers will follow before the end of the project.

To foster a new generation of modern power engineers, Platone topics are being included in the university curriculum of RWTH Aachen University, including a new laboratory class on Grid Automation based on the application of typical international standards such as IEC61850 and coordinated also with the architecture of Platone, as well a new module on Digitalization for the group course “Future Energy Network” has been implemented.

RWTH is also developing a completely new Master level course under the title “Digital Energy” that will use significant input from the experience of Platone. The course will be ready by the end of the project in year 2023.

Beyond that project coordinator Prof. Monti presents elements of digitalisation of energy in the Energy Delta Institute of Nyenrode Business School, Netherlands in later 2022 after having presented Platone findings also in 2020 and 2021.

3.5.4 Platone Conferences

The Platone consortium experienced a huge interest in our midterm conference “Growing the energy transition”. Above 300 participants joined our two-day fully virtual event on 14 and 15 September 2021.

A final conference at the end of the project will be the entry point into the exploitation phase. The conference will inform about project results and future exploitation activities of Platone solutions.

The conference will take place end of June 2023. To get a high visibility at an appropriate location the final event is planned to take place at Brussels as live event.

3.5.5 Third-party Events

The Platone project was presented at several workshops and events of relevance in the first 36 months of the project.

3rd-party events which meet the topics of Platone are still very important and effective for dissemination and knowledge transfer to different stakeholders. National and international events of relevance, peer-reviewed scientific conferences, focus meetings with specialised industry initiatives with energy focus, virtual or physical exhibition stands in industry innovation events etc. are continuously checked on

potential impact regarding the target groups, possible involvement (e.g., for sending a speaker or moderator, submitting papers, cooperation, exhibition etc.) and budget. Events of cooperation partners and intermediaries have a high priority to represent Platone.

For the upcoming project year 2022/2023 there are several further event opportunities and consortium partners have already been invited to present Platone at stakeholder relevant workshops and events.

Beyond that, Platone is present with (virtual) booths at fairs as an important part of the preparations for the commercial exploitation activities e.g., with a presence at the EUSEW 2022 with a virtual booth as part of the FlexCommunity and at the booth of partner E.DSO as well as at Enlit Europe 2022 in the EU project zone.

3.6 The FlexCommunity

A central part of the stakeholder relationship management strategy was to set up a Platone community. In the light of consortium partners having an active role in other H2020 projects and initiatives and the successful kick-offs for collaboration and cooperation activities in phase 1 of the project, the idea of the community evolved: Why not bring work on flexibility solutions to a new level of exchange? Why not join forces in reducing barriers in regulatory and standardisation bodies, sustain discussion and community beyond project life times, act as a (European) family of projects and use project synergies? Why not collaborate instead of competing on engaging stakeholders and support each other to link to latest legal and regulatory frameworks (including Renewable and Citizen Energy Communities)? Several possible topics and starting points are being discussed like, e.g., a cooperative implementation of “Harmonized, Electricity Market Role Model” (HEMRM) (see Chapter 3.7.2), facilitating the trading of flexibilities on platforms in the energy sector, flexibility aggregation, market aspects, tools for DSOs (IT solutions) and organisational aspects (e.g., Local Energy Communities (LEC)).

The idea of this FlexCommunity [4] is to be open for all stakeholders, who are interested in flexibility creation, management and trading. The FlexCommunity mainly addresses flexibility research projects, representatives of research and industry, smart grids experts and smart grids institutions and initiatives, representatives of standardisation and regulatory bodies – all from national as well as international level. The aim is to share knowledge related to flexibility issues in order to foster transnational learning and maximise impact, aiming to develop a market for flexibility. Furthermore, it focusses on collaboratively finding approaches and solutions to cross-cutting topics affecting many of the flexibility actors in order to achieve a maximum impact and create a cross-project, cross-border learning effect.

Supportive community activities foster the synergies among the trials and projects, beyond the impact of the individual projects, supporting the transfer of results and existing knowledge between the stakeholders. The community is built on the active contribution of its members, moderated by selected experts within the community and coordinated by representatives of participating projects. Special community events, e.g., workshops, sessions at events, are offered to strengthen the community, convey its messages and attract new members. With a joint online hub for the community, additional value is provided such as a project and trial site data base, contact options etc.

The Horizon 2020 projects FEVER [2], edgeFLEX [3], DECIDE and Platone already confirmed to join in this effort in the beginning of 2020. A core team of these projects is promoting the FlexCommunity and bringing it up and running. A kick-off event in November 2020 hosted by BRIDGE and the SES taskforce on energy communities addressed the idea of a flexibility community. A pre-event to promote the FlexCommunity was organised in October 2021: Platone hosted an Energy Talk at the EUSEW 2021 Networking Village together with partner H2020 project FEVER arising the question of how energy democracy and system stability can go together. A constitutional meeting of one of the future subgroups “FlexOffer” is having their constitutional meeting in the beginning of December 2021 in the context of the Enlit Europe. In the further process the projects of FEVER, edgeFLEX and Platone established the FlexCommunity. The kick-off event in February 2022 was joined by more than 150 participants. Project consortia from other H2020 or national research projects were invited as well as representatives from the EC and other suitable institutions and organisations.

Figure 15: Logo of the FlexCommunity

The FlexCommunity is accessible via this link: https://flex-community.eu/

The FlexCommunity is organised in different *FlexGroups*. The group members meet regularly to discuss focus topics of their choice. There are currently four groups:

- FG1: Technical management of flexibilities
- FG2: Flexibility market and organisational design
- FG3: Solutions for utilities and energy communities
- FG4: FlexOffer User Group

As with any community, its value stands and falls with its members. Since the official kick-off in the beginning of February 2022, the FlexCommunity has grown to now more than 150 members, from academia to industry and policy. The founding projects edgeFLEX, FEVER and Platone are supported by other EU projects that are actively involved in the community like BD4OPEM, FLEXGRID, FlexiGrid or GIFT, to only mention a few. For example, Platone consortium partner E.DSO, ETIP SNET, OPEN DEI and DG Energy also showed their support by joining the official FlexCommunity events.

Together the FlexCommunity recently defined a memorandum of understanding to have a common view of the community's purpose, goals and mission. All members share the vision of an energy system which is based on 100 % renewable energies and decentral energy resources and believe that the large-scale use of flexibilities is one of the key enablers to make this happen. Communication is also upscaled by a LinkedIn account of the FlexCommunity with currently 151 followers.

Above that the Platone consortium is continuously increasing the relationship and active involvement of the project´s main stakeholders and later target group with the several described event formats and educational offers, involvement in the demonstrations as well as the collaboration and cooperation activities.

3.7 Collaboration and Cooperation

The Platone consortium has been an excellent starting point to connect to intermediaries and for cooperation due to its well-established collaboration network in Europe and beyond (e.g. cooperation with Canada), with contacts to many key players of the depicted target audience and partners involved in industry associations, standardisation, European energy governance (e.g. ETIP) and research networks (e.g. EERA, ERA-Net Smart Energy Systems) as well as having an active role in other H2020 projects (e.g. OneNet ("OneNet - One Electrical Network Infrastructure for Europe", started on October 1, 2020), FEVER, edgeFLEX) or initiatives (e.g. FlexCommunity, BRIDGE, OPEN DEI). This network is established for Platone to connect to the project´s stakeholders on different levels and for different purposes. Intermediaries and cooperation partners are facilitating the communication and dissemination activities on different levels and purposes by being multipliers within specific stakeholder groups, by having influence on regulation and standardisation activities, by providing their channels for distribution of content or event related collaboration etc. There is an expected overlap between the groups involved in a community on flexibility issues (see Chapter 3.6) as well as on collaboration and cooperation.

3.7.1 Advisory and Dissemination Board

Platone has established a promising advisory and dissemination board (ADB) of leading representatives of the critical energy infrastructure and ICT sectors, a total of 18 members.

The ADB kicked-off with a first meeting in November 2020. The second meeting took place in March 2022.

The ADB advises the project on strategic directions in the sector to assess the overall approach, use cases and field trials and their implications. ADB meetings also serve as an opportunity to identify changes in the framework and new challenges and opportunities. In addition, the ADB advises in the communication of results to stakeholders and helps in opening dissemination paths in preparation for exploitation. Members of the ADB support the communication of the project results and insights and thereby ensure European-wide acceptance and usability of the Platone project outcomes. ADB members are invited to selected Platone driven events (e.g., past events like family of projects joint online event in November 2020 or the Platone midterm conference, September 2021, launch event of the FlexCommunity February 2022 and future events like the final conference, study tours etc.). All recommendations of the ADB members are considered for the current and upcoming project phase.

3.7.2 Contribution to European Joint RDI efforts

Several members of the Platone consortium are actively involved in European joint RDI efforts.

Figure 16: European joint RDI efforts

Three joint RDI efforts are playing an important role for the Platone project in 2022/2023:

BRIDGE, the initiative of the European Commission, unites Horizon 2020 Smart Grid and Energy Storage Projects. Four working groups represent the main areas of interest: “Data Management”, “Business Models”, “Regulations” and “Customer Engagement”.

Several partners of the Platone project are actively involved in the activities of the BRIDGE working groups. This synergy ensures that the main findings of the project will be transferred in the documents that will be elaborated in the future activities of BRIDGE WGs. Platone contributes to the activities the BRIDGE working groups and to the updates of the existing BRIDGE documents and provides input for the next deliverables that will be drafted.

Around 10 consortium members are participants in BRIDGE working groups and associated actions and task forces. In addition, Prof. Monti, RWTH is the Co-chair of the task force on Research and Innovation priorities, Ercole de Luca, areti, led Action 7 “Harmonised Electricity Market Role Model – HEMRM” and Ludwig Karg, B.A.U.M. Consult, is the Co-Lead of the task force Energy Communities.

Started already in the first project year, the following activities have drawn special attention:

- Within the Data Management working group Platone proposed a new approach to the creation of a database of use cases. The goal of this BRIDGE task force is to create a European repository of all the use cases to facilitate the exchange of knowledge among projects. Platone developed as part of its work a fully open source toolchain that makes this repository possible. The approach has been proposed to the WG, which adopted the solution as standard. Platone is still supporting the advancement of the tool and the creation of new features. The Smart Grid Use Case Repository is available online [21].
- In May 2020 the BRIDGE Working Group on Regulation started new action on “Harmonized, Electricity Market Role Model (HEMRM)”. The goal was a common understanding of an

electricity market model according to the new provisions of the Clean Energy for All Europeans package between related EU projects, the BRIDGE initiative, the system operator's associations, citizen energy communities and the EU institutional bodies like the European Commission, the Agency for the Cooperation of Energy Regulators (ACER) and Council of European Energy Regulators (CEER). Platone was assigned the lead of this ambitious scheme. Under the leadership of areti and with the involvement of the whole Platone project management team (PMT), an updated version of the Harmonized Electricity Market Role Models (HEMRM) originally prepared by ENTSO-E was developed. After several months of work of the joint team between ENTSO-E - ebIX - EFET, EU Bridge Program and European DSO Associations, the final version of the "EU Bridge HEMRM Differential Analysis" [22] was sent to the European Commission in November 2021 for their final approval. The document reports in its first part the vison of EU Bridge projects about the needs of update of the HEMRM, and in its second part the results of the sharing of this view with ENTSO-E - ebIX - EFET representatives. The document has to be intended as a picture of the analysis and the discussions had about the possible impact of local / distributed flexibility services on the HEMRM, aiming to be useful for future developments and implementations.

- Within the Task Force on Data Architecture, Platone contributed the definition of the architectural picture that has been presented at the BRIDGE General Meeting 2021. Within the Task Force on Common Information Model (CIM) application Platone participated to the preparation and processing of the analysis of the use of the CIM standard within the H2020 projects. Prof. Monti co-chaired the task force that analysed the concrete results of the complete set of projects of H2020 represented in BRIDGE to identify gaps and opportunities to be considered for the upcoming Horizon Europe. The work has been summarized in a comprehensive report that has been already released to the European Commission.
- Representing i.a. Platone, Ludwig Karg from B.A.U.M. together with Leen Peters (ThinkE) chairs the taskforce on Energy Communities. The taskforce liaises with a twin taskforce of Joint Programming Platform ERA-Net Smart Energy Systems (JPP SES) and operates a knowledge platform on expera. Surveys have been done with BRIDGE and JPP SES projects to collect examples of Energy Communities, identify the support needs to develop such structures and better understand the regulatory conditions and tariff specifics in EU countries.
- Within the BRIDGE subgroup on customer engagement, partner B.A.U.M. and further Platone representatives have been paving the path for a process developing a coherent and coordinated definition of stakeholder types, their possible roles and parameters for engagement. B.A.U.M. leads the topic group 2 "Stakeholder characterization" which is closely connected with topic group 1 "Effective strategies for engagement" to secure development, adaption and alignment. The

Given the limited size of Platone, the participation to BRIDGE greatly benefits the project as it permits to discuss topics in a structured manner not always foreseen in the project's action plan when Platone started in 2019. The structure that BRIDGE offers in terms of regular meetings and precise requests for input, allows to keep a focussed discussion and permits an effective use of resources.

OPEN DEI is a Horizon 2020 Coordination and Support Action (CSA) to support pilot activities and knowledge transfer across different sectors - aligning Reference Architectures, Open Platforms and Large-Scale Pilots in Digitising European Industry. It aims at leveraging synergies, identifying gaps, sharing best practices, reinforcing regional/national relationships as well as putting in place the necessary joint measures to implement common dissemination, communication, training and exploitation action plans among the Innovation Actions (IA) selected projects and their Large-Scale Pilots (LSPs). OPEN DEI has created several working groups and task forces related to specific topics to serve the interest of the involved projects such as Platone. The Automation of Complex Power Systems Institute at RWTH Aachen University, directed by project coordinator Prof. Monti, is responsible for the Energy Domain in OPEN-DEI.

Platone supports OPEN-DEI's work to benefit from it actions and contribute to improve the synergies between project by providing information and participating in working groups. The active participation of Platone partners allows continuous exchange of the best practices with other projects focused on

digitalisation and put in place the necessary joint measures to implement common dissemination and communication.

The main tangible results of OPEN DEI are constituted by cross-domain (above energy healthcare, agri-food, manufacturing) Task Forces, which lasts around 6 months and publish related papers.

OPEN DEI collaborates with the Big Data Value Association (BDVA), an industry-driven international not–for-profit organisation with more than 230 members all over Europe and a well-balanced composition of large, small, and medium-sized industries as well as research and user organisations. Also, OPEN DEI collaborates with the Alliance for the Internet of Things Innovation (AIOTI) for preparing two reports on the applications of Data Spaces and interoperability. Both cooperations are likewise a great opportunity to provide contributions from Platone perspective. Platone consortium partner Engineering is highly involved here by leading the OPEN DEI Energy WG2 on Data and shared infrastructure.

E.DSO is participating in Energy WG1 on Use cases. In the Energy WG1 on Use cases Platone has contributed to the survey on Open-Source Software. The conducted survey is allowing analysis that will lead to a dedicated workshop; a report/white-paper is planned for 2022. Above that the Energy WG1 in 2022 plans to explore the Gaia-x use-cases description models, starting from the one on Electric-Vehicle applications.

BAUM is participating in Energy WG3 on Linking Eco-systems and ENG is participating in Energy WG4 on Technical Topics.

The duration of OPEN DEI project is coming to an end in summer 2022. The active participation of Platone partners in the project allowed for a continuous exchange of the best practices with other projects focused on digitalisation and put in place the necessary joint measures to implement common dissemination and communication

ETIP SNET, the European Technology and Innovation Platform Smart Networks for Energy Transition, unites a multitude of stakeholders and experts from the energy sector. It provides input to the SET Plan action 4 which addresses the technical challenges raised by the transformation of the energy system. There are five working groups and the National Stakeholder Coordination Group (NSCG).

Platone consortium partners are actively involved in the activities of the working groups 1 and 4. E.DSO is member of the governing board of ETIP SNET, providing a further valuable possibility to increase Platone impact and visibility.

Platone project coordinator Prof. Antonello Monti has been appointed as leader of the Task Force 1 for the WG4 for 2022 until the year of 2024. As part of his duties Prof. Monti also takes part to the meetings of the board of ETIP-SNET. Within WG4 RWTH provided input in relation to the use of SGAM approach for multi energy systems.

The National Stakeholder Coordination Group (NSCG) provides a sounding board and exchange platform for national R&I stakeholders in the area of energy systems and networks. Platone is represented by consortium partner BAUM in the NSCG activities.

3.7.3 Family of Projects

Above the consortiums contribution to established European joint RDI efforts (see Chapter 3.7.2) Platone fosters temporary or long-lasting exchange on special topics with other H2020 projects responding to the same call, especially paying attention to projects where partners overlap. In this way, the comparability of Platone with the other projects will be ensured, for the greatest added value for the call as a whole. The exchange of experience intends to ensure that Platone builds on rather than replicates previous H2020 projects. To ensure the collaboration two workshops are organized to allow fruitful knowledge sharing between the various projects answering to the same call (see Chapter 3.5.1.4).

A collaboration between Platone and H2020 sister projects FEVER, edgeFLEX, DECIDE kicked off with a joint online event on 19th November 2020, hosted by BRIDGE and the SES taskforce on energy communities. Platone was co-organiser of the event. The aim was to strengthen the collaboration under the light of local flexibilities and its potential exploitation through energy communities. The event

addresses the idea of a flexibility community and is therefore closely related to the FlexCommunity described in Chapter 3.6.

Special synergies have been identified with the projects EUniversal [14], which aims to implement the Universal Market Enabling Interface (UMEI) concept and develop solutions to ensure effective implementation of an interoperable flexibility ecosystem across Europe, and Platoon [15], which aims to digitalise the energy sector, enabling thus higher levels of operational excellence with the adoption of disrupting technologies. This cooperation materialises in technical workshop and in a cross-participation in the advisory boards. Massimo Bertoncini from partner ENG participates also in the BD4NRG [16], BRIGHT [17] and STORE&GO [18] projects, resulting in a multi-project contribution and collaboration with Platone. The focus of the activity is mainly on scaling up models from these projects.

Currently several new projects have been submitted to the EC having committed to use the same architecture as the Platone project. It is expected that there will be clear starting points for a strong collaboration in 2022/2023 with those projects being accepted by the EC. Funded under Horizon Europe the FLOW project already kicked-off in July 2022 while the BeFlex project will start in September 2022. In both projects several Platone consortium partners are involved.

3.7.4 International Cooperation

Platone has established a cooperation with the Distributed Energy Management Initiative (DEMI) in Canada, a partnership between Northern Alberta Institute of Technology (NAIT), ATCO, Siemens and the Future Energy Systems research programme at the University of Alberta. It was facilitated by the strategic alliance between RWTH and University of Alberta and by the fact that SIEMENS is partner in Platone as well as in DEMI.

The cooperation creates added value on both sides: The Canadians extend the set of Platone use case scenarios to microgrid flexibility. In general, the uptake from the Canadians of data developed in Platone remains of key importance. The University of Alberta has brought up the Platone approach in the project “Towards future interconnected electric system”, funded in Alliance Grant of the Natural Sciences and Engineering Research Council of Canada (NSERC), the major federal agency responsible for funding natural sciences and engineering research in Canada and NAIT. The testing area is a microgrid within the Centre for Grid Innovation (CGI), which was initiated by DEMI 2018 and is located at NAIT. In this “plug-and-play”, microgrid energy companies can develop, test and validate their technologies under realistic field conditions.

For this purpose, representatives of the Canadian research group were included in the Platone Advisory and Dissemination Board (ADB). Furthermore, Platone project coordinator RWTH University of Aachen and the University of Alberta defined a set of coordinated Ph.D. Theses on topics connected to the Platone project.

In November 2020, a first joint workshop between Platone and the University of Alberta was organised. Special focus was the role of the Platone architecture. The University of Alberta took an active role on this aspect from many perspectives:

- replica of the platform on the Canadian site
- networking with relevant stakeholders (particularly DSOs) for an adoption of the solution
- direct involvement in the Linux Foundation Energy working group that is supervising the development of the platform for the long term

In July 2022 a second joint workshop took place. Insights from the Platone WP7 on the topic of “Scalability, Replicability and Cost-Benefit-Analysis” were in the focus this time. Ilaria Losa from Platone consortium partner RSE and Panagiotis Pediaditis from consortium partner NTUA presented their work within the WP7. An insightful and interesting discussion followed. Together with Dr. Petr Musilek, the Canadian coordinator, Platone has now elaborated a questionnaire to share with all involved person to further pave the path for a replication of Platone data in the Canadian approach.

Closely before, Prof. Monti has been invited to make a presentation to the industrial partners of the University of Alberta, the Alberta Power Industry Consortium (APIC) in May 2022.

For other countries, Platone uses the opportunities to present the project at international events for example:

- ISGAN (International Smart Grids Action Network) [10], a strategic platform to support high-level government attention and action for the accelerated development and deployment of smarter, cleaner electricity grids around the world
- Mission Innovation [11], a global initiative working to accelerate clean energy innovation

Mainly consortium partners B.A.U.M. and RSE are heavily involved in such international organisations.

Consortium partner RWTH led the creation of a new project called SOGNO [12] within the Linux Foundation Energy (LFE), which is the key component of the DSO Technical Platform in Platone. In November 2020 the software of the Platone DSO Technical Platform has been accepted as a project in the Linux Foundation Energy, which brings Platone to a world-wide audience. This means that the Platone DSO Technical Platform will benefit from a software development community, particularly bridging to activities in the USA and Australia that are going in the same direction. This activity got an unprecedented visibility including an interview with Prof. Monti for the major international magazine Forbes [13]. Project coordinator Prof. Monti, RWTH, has been recently selected as chair of the Technical Activity Council of LFE as proof of the key role of SOGNO. Especially partner RWTH is contributing from Platone perspective. For 2022 a first commercial adoption of the architecture of the LFE SOGNO project which includes the extensions of Platone is expected. Further cooperation activities, e.g. workshops are planned. In May 2022 SOGNO has received the innovation-award of the German federal state of North Rhine Westphalia. The SOGNO platform delivers the fundament of the work done at our Platone project.

Figure 17: Logo of the LFE project SOGNO

3.7.5 Intermediaries

Intermediaries are facilitating the dissemination activities by being multipliers within specific stakeholder groups. They are involved in different ways, following the stakeholder relationship management strategy.

To attract suppliers of the energy industry to experience the new solutions and to consider adopting them, Platone mainly addresses this target group via associations and other intermediaries. Therefore, activities with the following organisations and initiatives are running or planned:

- Joint activities with European Institute of Innovation and Technology (EIT) to reach out to startups and innovative SMEs EIT as a unique EU initiative spurs innovation and entrepreneurship across Europe. Its Knowledge and Innovation Communities (KICs) bring together businesses, research centres and universities. Platone will invite mainly KIC InnoEnergy and KIC Digital for joint implementation of activities.
- Joint activities with business-oriented institutions on European level like T&D Europe and Digital Europe (representing 61 major technology companies and 37 national trade associations) and European Innovation Council and SMEs Executive Agency (EISMEA) (which has taken over in 2021 from EASME), for involving SMEs and start-ups etc.
- Collaboration with specialised industry initiatives with energy focus and initiatives using an open software platform that supports standardised building automation and energy management. Amongst them are the EE-Bus initiative (mainly linking to smart homes), Open Gateway Energy Management (OGEMA) as well as the industry consortium of the FEN research campus (amongst others involving promoters of DC energy grids), where Platone was presented in a general meeting.
- Collaboration with the Linux Foundation Energy (LFE) in the context of the LFE SOGNO project (see Chapter 3.7.4)
- In order to build the representative networks that are used in the SRA analysis, contacts with the Joint Research Centre (JRC), the European Commission's science and knowledge service, have been established. Based on the experiences coming from the “DSO Observatory” project

of the JRC [19] and other European works, partner RWTH has been established contacts with the JRC for having access to the EU JRC database of representative networks. Partner areti was involved in the compilation of the JRC report and in the mapping demo assets, based on the extraction of data regarding its grid through Geographic Information System (GIS). Regarding the analysis of the replicability potential of the results in the project in Canada it was discussed with the University of Alberta about the information that will be required to analyse the scalability and replicability potential in Canada.

4 Controlling of Communication Activities

4.1 Key Performance Indicators

All communication measures are checked regularly to see how effectively and efficiently input and outflow correlates. Therefore, key performance indicators (KPIs) are set up, which are specific, measurable, attainable, relevant and time-bound and are derived from the strategic approach related communication objectives described in Chapter 2.3.

These KPIs are analysed periodically on the one hand on the basis of indicators and on the other hand in relation to the budget plan in the forefront of the annual revisions of the communication and dissemination plan. The results will be taken into account to adjust and adapt the strategy approach, the correlated measures and allocated budget wherever necessary.

4.1.1 Creating Awareness of Platone Project and Results

Creating awareness of Platone project and results To create the necessary tools and interfaces to bring about opportunities for constructive communication and engagement between the project and a broad range of stakeholders.		
Objective	**Status**	**Summary of achievements**
1 launched project website based on a joint project design, with a constantly increasing and up-to-date high-quality content based on the progress of the project (link list, publications on results, trial description etc.)	Work in progress	The Platone website launched in November 2019. URL: **www.Platone-h2020.eu** Off page and on page SEO ensures high visibility for online content. An annual revision of the website ensures its topicality and focus. In addition, partial extensions are implemented as ready or as needed (e.g. ADB section, Use Cases demonstrations). Links to Platone social media channels are prominently provided. Further content is continuously provided according to the project progress.
1 launched community hub within the second project year	Work in progress	On the 19 November 2020 a kick-off event to merge the work on flexibility solutions to a new level of exchange in form of a cross-project flexibility community was co-organised by Platone. Project members of the EU H2020 projects of DECIDE, edgeFLEX and FEVER participated. Participants agreed on follow-up workshops to further discuss the different topics. A pre-event to promote the flexibility community hub, to let community grow and to involve already active participants, further stakeholders and potential members took place in form of a EUSEW Energy Talk in October 2021. The constitutional meeting of the user group on FlexOffer took place in the context of the Enlit Europe 2021 in Milan. The cross-project flexibility community platform “The FlexCommunity” was officially launched on

		2 February 2022 with more than 150 participants (virtual event). URL: https://flex-community.eu Twitter: @FlexCommunityEU LinkedIn: flexcommunity-eu
3 flyers, 1 for each of the three trials, that show an overview of the corresponding trial (digital, print on demand)	Work in progress	A first digital edition of a project brochure was published in 2020. It comprises a general project overview and a comprehensive overview on each demonstration (www.platone-h2020.eu/media/Media_content) An updated version of the project brochure for the demonstrations is being prepared to be published in autumn 2022.
High-quality videos	Completed	Video on each demo published in August 2021 (www.platone-h2020.eu/media/Media_content).
6 released and sent press releases of key project milestones to specialised and general media channels	Work in progress	6 press releases were released and sent (www.platone-h2020.eu/media/Media_content). Project information and milestones were published in general media channels. The impact is monitored with internal clipping reports. Several news items in local as well in leading media have been published, esp. related to the demonstrations.
1 online available press/media kit	Work in progress	A media kit with general project information is available online (www.platone-h2020.eu/media/Media_content). The media kit is updated according to the project progress.
1 LinkedIn group open with regular activity by the Platone consortium and 2 posts by Platone consortium members on LinkedIn per month	Work in progress	The LinkedIn group was opened on 1st October 2019. Name: Platone - PLATform for Operation of distribution NEtworks (H2020 funded project). URL: https://www.linkedin.com/groups/13766819 Members project month 36: >100 Content is continuously provided according to the project progress. With the launch of the FlexCommunity in February 2022 the as well launched FlexCommunity LinkedIn channel is open for Platone issues relevant for the community. Name profile: FlexCommunity.eu Follower project month 36: >160
1 Twitter channel open with regular activity by the Platone consortium and 2 posts by Platone	Work in progress	The Twitter profile of Platone was opened in June 2020. Name: PlatoneH2020 (@PlatoneH2020)

consortium members on Twitter per month		URL: https://twitter.com/PlatoneH2020 Followers project month 36: 122 Content is continuously provided according to the project progress.
10 successful talks in workshops and international events of reference	Work in progress	The Platone project and its activities have been successfully presented in > 10 workshops and international reference events. This will be further pursued. Selection of events: Workshop with DSO associations on the role of local flexibilities for stabilising the grid "Flexibilities for a stable energy system: don't talk - start harvesting!", in the context of the European Utility Week, 12.11.2019, Paris, France, Moderation of the workshop & presentation of Platone by B.A.U.M. 2nd Workshop on Flexibility Markets of the Future and TSO-DSO Cooperation,13.02.2020, Brussels, Belgium, presentation by RWTH. OPEN DEI 1st Energy Domain Workshop, 06.04.2020, presentation by ENG. Linux Foundation Energy - Architecture group, 06.04.2020, online, participation/presentation by RWTH. OPEN DEI Webinar: The role of the Reference Architectures in data-oriented Digital Platforms, 28.05.2020, online, presentation by RWTH. 20TH IEEE Mediterranean Electrotechnical Conference - IEEE MELECON 2020, 16.-18.06.2020, Palermo, Italy, presentation by ENG. FIWARE energy day, 22.06.2020, online, presentation by RWTH. EON Energy Innovation Days, 05-08.10.2020, online, presentation by Avacon. IEEE Canada Power and Energy Conference 2020, 09-10.11.2020, online, presentation by RWTH (Keynote). Exploiting the potential of local flexibilities: the role of Energy community: Joint online workshop H2020 projects FEVER, Platone, edgeFLEX and DECIDE, hosted by BRIDGE and SES taskforce on Energy community, 19.11.2020, online, presentation by RWTH and EDSO, moderation by B.A.U.M. "Digitalisierung der Energiewende: Potentiale und Geschäftsmodelle", Franco-German Office for the Energy Transition (Deutsch-französisches Büro für die Energiewende,DFBEW) in partnership with

		E-World trade fair, 11.02.2021, online, presentation by Avacon. 1st E.DSO Projects in the Spotlight event “DSOs at the centre of Data Exchange”, 10.03.2021, online, presentation by Areti. 2021 IEEE International Forum on Smart Grids for Smart Cities, 17.-23.03.2021, online, presentations by Avacon & E.DSO; virtual booth. ETIP SNET 11th Regional Workshop, 21.04.2021, online, presentation by RWTH. LF Energy Spring Summit 2021, 14.04.2021, online, Presentation by RWTH H2020 ES-1 call Inter-Projects Webinar, 26.04.2021, online, organisation by E.DSO and presentation/moderation by RWTH, E.DSO, BAUM and Avacon InnoGrid, 04. & 11.06.2021, online, presentation by HEDNO. Seminar “Blockchain & innovation for digital society” under the project FIT EUROPE, 10.06.2021, online, presentation by ENG. NEIS 2021 – Sustainable Energy Supply and Energy Storage Systems, 13. & 14.09.2021, online, keynote by RWTH. Webinar AEIT & UniTrento “Progetti pilota per l’approvvigionamento di servizi ancillari locali”, 08.10.2021, online, presentation by Areti. EUSEW 2021 Energy Talk, 27.10.2021, online, presentation by RWTH. IEEE International Conference on Communications, Control, and Computing Technologies for Smart Grids, 25–28.10.2021, hybrid in Aachen, Germany. Game Changer Roundtable “5G technology”, presentation by RWTH; Game Changer Roundtable “Open source for energy”, presentation by Areti & ENG. Ericsson Webinar “How can 4G and 5G support the transformation of energy systems”, 11.11. 2021, online, presentation by RWTH. Enlit, EU Projects Centre Stage, panel discussion “Interoperability and data exchange to support digitalisation”, 1.12.2021, Milan, presentation by ENG. FlexCommunity event “It’s all about flexibilities – the new knowledge community”, 2.2.2022, virtual, presentation/moderation by RWTH, BAUM, HEDNO, E.DSO. 2nd Annual Asset Management Summit for Electricity Providers – Building Efficient Asset Management Strategies while moving into a

		Comprehensive Digital Transformation, 21.-22.04.2022, Prague, presentation by E.DSO & ENG. E-REDES annual European Projects Event “Real progress along the road to Flexibility”, 10.05.2022, virtual, presentation by RWTH. BITLAW Summit II, 21-22.6.2022, Naples, contribution by Areti.
1 successful series of co-creation events on user interaction including:		
1 successful workshop on capacity building (internal) to introduce user-centric design and specific innovation activities to all trial site responsible partners	Completed	The capacity building workshop was held on 04-05.11.2019 in Berlin, Germany.
3 successful virtual or physical kick-off workshops, one per trial with potential customers (private, commercial) and other relevant stakeholder groups to engage a critical number of private customers in Platone Project and with feedback of > 5 participants of the workshop	Completed	**German demo**: The first workshop on customer engagement of the series of co-creation events on user interaction was held on 18 August 2020, Syke, Germany, presenting the German demo to regional fitters resp. installers. Another workshop was the kick-off workshop with Rolls-Royce Solutions Berlin GmbH, 08.07.2020, Helmstedt, Germany. The involvement of municipal representatives was organized, i.a. on 08.05.2020, 20.05.2020 and 30.09.2020 in Twistringen, Germany. **Italian demo**: On 2 March 2021, the first workshop on customer engagement of the series of co-creation events on user interaction was held virtually with > 10 residential customers and building managers representing additional end-users actually interested in taking part in the Italian Demo, from the Centocelle and Tor di Valle district areas. About 9 customers already signed their participation in the Platone project. **Greek demo**: The kick-off event for the Greek demo was part of the Platone Open Day on 24.11.2021. For the purposes of the Greek pilot there is no active participation of consumers, due to regulatory obstacles. So, during the event consumers were informed about the flexibility schemes that are part of the Greek demo and their feedback was gathered.

3 successful virtual or physical follow-up workshops, one per trial with potential customers (private, commercial) and other relevant stakeholder groups to engage a critical number of private customers in Platone Project and with feedback of > 5 participants of the workshop	Work in progress	**German demo**: A follow-up workshop on customer engagement of the series of co-creation events on user interaction was held on 21 October 2020, Twistringen, Germany with the Local Council of Twistringen. **Italian demo**: A workshop was held virtually on 2 February 2022 with stakeholders identified in the Capannelle area for the involvement of a new type of user. 10 participants, 5 of them potential users in the Capannelle area, provided valuable feedback and showed interest in participating in the trial.
3 successful virtual or physical innovation workshops, one per trial, with a user and target group-oriented design process e. g. prototyping solutions with design thinking approach	Completed	**German demo**: The innovation workshop on customer engagement of the series of co-creation events on user interaction was held 21 January 2020 attached to the General Assembly in Rome. **Italian demo**: The innovation workshop on customer engagement of the series of co-creation events on user interaction under the title “Optimized grid management and flexibility market: the prosumer’s role”, was divided in two parts and held on June 18th and 25th 2020. The first workshop was an informational workshop for stakeholder groups (except end customers), interested and relevant for Platone project. The second workshop had systemic character and discusses actual and future roles in the energy system with relevant stakeholder groups (except end customers) in an interactive format. These workshops took place with more than 30 participants in total. The third Workshop was designed for end customers only. In this workshop their role and active/passive options for participation was discussed. In total feedback from more than 5 participants was gathered. **Greek demo**: The innovation workshop on stakeholder engagement of the series of co-creation events on user interaction was held on February 18th 2021 with around 30 participants in total discussing details of the demo. Feedback from more than 30 participants was gathered.
1 final virtual or physical coordination workshop to complete the analysis of the lessons learned after the complete cycle of workshop (MS15)	Work in progress	The workshop is planned for end of 2022.
Well accepted open days at all 3 trial sites presenting and discussing prototype solutions (MS6)	Completed	**German demo**: 25 and 26 May 2021, Abbenhausen, Germany: Open Day with over 50 participants from households, local councils.

		Greek demo: 24 November 2021, online: Virtual Open Day with 38 participants. **Italian demo**: 20 December 2021, online: Virtual Open Day with 25 participants.
4 well-visited virtual or physical study tours to trials sites with more than 100 participants altogether	Work in progress	Study tours will be organized for all types of interested stakeholder in 2022 (Germany) and 2023 (Greece, Italy, Canada)
2 successful virtual or physical exploitation workshops for the commercial exploitation and market take up	Work in progress	The organisation and conceptualization of these workshops require mature and concrete project results. These results have been collected for the submitted deliverable D8.5 “Exploitation and marketing plan for the involvement of partners and future customers (v1)”, which are the basis for the organization of the workshops. The first workshop is planned in October 2022, following by a second workshop in Q1/2023.
1 successful midterm conference in Brussels or on virtual level	Completed	The midterm conference under the title “Growing the energy transition” was successfully held fully virtually on 14.9. - 15.9.2021 with over 300 participants all together.
1 successful final virtual or physical event at the end of the project	Work in progress	Conception and preparation has been started.
≥ 1 documented impact to the BRIDGE H2020 Working Groups	Work in progress	Several partners of the Platone project are actively involved in the activities of the BRIDGE working groups, actions and task forces with participating or/and chairing. In May 2020 the BRIDGE Working Group on Regulation started new action on “Harmonized, Electricity Market Role Model (HEMRM)”. Platone was assigned the lead of this ambitious scheme. A final version of the "EU Bridge HEMRM Differential Analysis" was submitted to the EC in Nov 2021. Platone provided the open-source software approach adopted in BRIDGE for the creation of the use case database to be later adopted as standard European solution. Additionally, further contributions were made within the Task Force on Data Architecture: Platone contributed the definition of the architectural picture that has been presented at the BRIDGE General Meeting 2021. Task Force on Common Information Model (CIM) application: Platone participated to the preparation and processing of the analysis of the use of the CIM standard within the H2020 projects.

		Prof. Monti co-chaired the task force on R&I priorities that prepared a full report on the status of H2020 and future perspectives for Horizon Europe. Representing i.a. Platone, Ludwig Karg from B.A.U.M. together with Leen Peters (ThinkE) chairs the taskforce on Energy Communities. The taskforce liaises with a twin taskforce of Joint Programming Platform ERA-Net Smart Energy Systems (JPP SES) and operates a knowledge platform on expera. Surveys have been done with BRIDGE and JPP SES projects to collect examples of Energy Communities, identify the support needs to develop such structures and better understand the regulatory conditions and tariff specifics in EU countries. Within the BRIDGE subgroup on customer engagement, partner B.A.U.M. and further Platone representatives have been paving the path for a process developing a coherent and coordinated definition of stakeholder types, their possible roles and parameters for engagement. B.A.U.M. leads the topic group “Stakeholder characterization”. Further impact is expected.
≥ 3 contributions to the BRIDGE H2020 Newsletter	Work in progress	BRIDGE Newsletter #8 – December 2019: Platone news, topic "start of the project" BRIDGE Newsletter #9 – June 2020: Platone news, topic "HEMRM" BRIDGE Newsletter 25 July 2022, “FlexCommunity: edgeFLEX, FEVER and Platone”. Three further contributions were submitted but not published (Q2/2021: SOGNO Platform architecture used by Platone accepted in Linux Foundation Energy / Successful first H2020 ES-1 interproject workshop; Q1/22: SOGNO project Linux Foundation). Further contributions will be made.
≥ 2 documented contributions to all BRIDGE H2020 events during the project where input of Platone is required	Work in progress	Platone was represented at the BRIDGE General Assembly 2020, 2021 and 2022. Platone had a project desk in the EU project zone at the Enlit Europe, 30.11. – 02.12.2021. On 01.12.2021 partner ENG participates in the EU project zone´s Live Hub “Interoperability and data exchange to support digitalisation” at the Enlit Europe. Further contributions are expected.

Significant increasing number of contacts with the main stakeholders and target groups in a data base until the end of Phase 2 of the project	Work in progress	Platone contacts are composed of several data sets, i.a. the following: - mailing lists of the consortium partners like E.DSO (> 700) and RWTH (>1000), - E.DSO members (39) - contacts in the context of the series of co-creation events on user interaction (> 100), - subscribers via Platone website (> 35), - members of the LinkedIn group (> 90), - participants of own events (up to 300), - ADB members (18), - Members of FlexCommunity (>110) - several cooperation projects and partners. Activities to constantly increase the number of contacts with the main stakeholders and target groups are implemented, e.g., in the context of trade fairs, events & meetings or the cross-project flexibility community. A subscription form is active at the project website as well as at the FlexCommunity website
Further impact on creating awareness for Platone project and results		With an article in the Forbes Magazine Feb 25, 2021: Want To Avoid Another Texas Debacle? Here Is How To Create A Clean, Resilient Electrical Grid." Interviewing Prof. Monti et.al. on the role of new automation architectures such as illustrated in Platone the project got international visibility. Contribution to CINEA brochure highlighting examples of innovative projects in the area Smart Grids and Storage by the EU, published end of November 2021. Quarterly Platone newsletter, 1st issue released 21/4/2022.

4.1.2 Dissemination activities towards the research communities

Dissemination activities towards the Research Communities To implement a bidirectional communication process to share knowledge and quickly identify and adopt new needs and opportunities for the Platone enabled solutions.		
Objective	**Status**	**Summary of achievements**
1 developed and organised virtual or physical professional course to enable energy sector professionals to update	Work in progress	Due to the COVID-19 pandemic a physical professional course is unlikely, a virtual course was planned for summer 2021 but it was cancelled because the virtual format would not fit

their knowledge with a course promoting the use of the concepts developed in the Platone project, as part of the RWTH Academy Programme for life-long learning.		with the educational target. It will be rescheduled for next year. The German Association for Electrical, Electronic & Information Technologies (VDE), the Fraunhofer Society for the Advancement of Applied Research and RWTH are jointly looking to how bring Platone topics to the education of engineers in Germany. VDE wants to develop a new initiative about digitalisation, platforms, especially data platforms for utilities. VDE, Fraunhofer and RWTH will develop a coordinated offer. A first offer will be made in 2022 with a course on Cyber Security, promoted via VDE prob. 1-2 more offers are expected until the end of the project.
4 published articles in highly ranked, prestigious, international peer-reviewed journals and magazines	Work in progress	P. Pediaditis, D. Papadaskalopoulos, A. Papavasiliou and N. Hatziargyriou, "Bilevel Optimization Model for the Design of Distribution Use-of-System Tariffs," in IEEE Access, vol. 9, pp. 132928-132939, 2021, DOI: 10.1109/ACCESS.2021.3114768. (https://ieeexplore.ieee.org/abstract/document/9546784). M. Pau, M. Mirz, J. Dinkelbach, P. McKeever, F. Ponci and A. Monti, "A Service Oriented Architecture for the Digitalization and Automation of Distribution Grids," in IEEE Access, vol. 10, pp. 37050-37063, 2022, DOI: 10.1109/ACCESS.2022.3164393. (https://ieeexplore.ieee.org/document/9748116). A set of Ph.D. theses with a focus on Platone concepts and solutions exists at University of Alberta and RWTH (3 students in each university already). The Canadian students are: Bahareh Lashkari - Classification and verification of energy smart contracts using AI Mikael Sabuhi - Federated learning as microservice Chloe Zhou - Anomaly detection in distribution systems using deep learning
10 contributions in international peer-reviewed scientific conferences	Work in progress	I. Losa, A. Monti, V. Croce, E. De Luca, D. Stratogiannis and B. Petters, "Innovative solutions to enable flexibility and retail markets in distribution grids: The Platone approach," CIRED 2020 Berlin Workshop (CIRED 2020), 2020, pp. 592-595, DOI:10.1049/oap-cired.2021.0124 (https://ieeexplore.ieee.org/document/9582961) I. Losa et al., "Platone: Towards a new open DSO platform for digital smart grid services and operation," CIRED 2021 - The 26th International Conference and Exhibition on Electricity

		Distribution, 2021, pp. 2974-2978, DOI:10.1049/icp.2021.1880. (https://ieeexplore.ieee.org/document/9692333) I. Losa, M. Ginocchi, E. De Luca, G. Fedele and O. Cicala, "Innovative solutions to unlock grid flexibility enabled by EV charging stations: the areti experience in the platone project," CIRED Porto Workshop 2022: E-mobility and power distribution systems, 2022, pp. 18-22, DOI:10.1049/icp.2022.0653. (https://ieeexplore.ieee.org/document/9841852) Further contributions will be prepared.
1 designed and implemented informative special session e. g. in the IEEE PES series of webinars	Completed	IEEE International Conference on Communications, Control, and Computing Technologies for Smart Grids, 25–28.10.2021, hybrid in Aachen, Germany. Game Changer Roundtable “Open Source for energy”, organized by RWTH, presentation by Areti and ENG, moderation by RWTH. Platone was presented at the following IEEE events: 2021 IEEE International Forum on Smart Grids for Smart Cities, 17.-23.03.2021, online, Presentations by Avacon & EDSO; virtual Platone booth. IEEE Canada Power and Energy Conference 2020, 09-10.11.2020, online, Presentation by RWTH (Keynote). 20th IEEE Mediterranean Electrotechnical Conference - IEEE MELECON 2020, 16.-18.06.2020, Palermo, Italy, Presentation by ENG.
2 summer schools at RWTH, where Platone topics are introduced	Work in progress	The next summer school will be organised in summer 2023. The summer school in 2022 was cancelled due to the COVID-19 pandemic travel restrictions.
1 course created and successful implemented in the university curriculum (Contribution in developing course content) to foster a new generation of modern power engineers	Work in progress	RWTH implemented a new laboratory class on Grid Automation based on the application of typical international standards such as IEC61850 and coordinated also with the architecture of Platone. RWTH developed a new module on Digitalization for the group course “Future Energy Network” RWTH is also developing a completely new Master level course on Digital Energy that will use significant input from the experience of Platone. The master course will probably start for the first time in 2023.

Further impact of relevance towards the research communities		Contributions to OPEN DEI activities and working groups. OPEN DEI Energy Pilots Explorer, contains an overview of the demonstration sites in the Platone, InterConnect and Interrace projects, published July 2021 (www.opendei.eu/case-studies/opendei-energy-booklet).

4.1.3 Attracting and Supporting Grid Operators

Attracting and supporting grid operators To implement a bidirectional communication process to share knowledge and quickly identify and adopt new needs and opportunities for the Platone enabled solutions.		
Objective	**Status**	**Summary of achievements**
2 successfully organised events with a total of 75 participants, that invite DSOs to the Lab at the RWTH (or virtual)	Work in progress	A virtual first event to introduce the Platone Open Framework midst of 2022, second event probably combined with final conference.
1 created and successful implemented informative course with a total of 30 participants to enable Energy Sector professionals to update their knowledge	Completed	At the Energy Delta Institute of Nyenrode Business School, Netherlands, Platone findings were also presented in 2020, and has been again presented in 2021 and is planned for autumn 2022.
5 documented updates on the progress of the project using the mailing list of E.DSO and to national associations in the energy industry	Work in progress	E.DSO members have regularly received written updates (>15) on the progress of the project activities and participation in dissemination events and initiatives through the monthly E.DSO newsletter. E.DSO will continue sharing updates on the achievements and results of the project through its mailing list reaching > 500 stakeholders.
15 ambassadors in an established "ambassador system" who share information of the project with their business networks	Work in progress	A Platone Advisory and Dissemination Board was successfully established. Total amount of members: 18. A first meeting took place in 2020, the second meeting in March 2022. Feedback processes have been implemented. ADB members joined Platone events like the Platone midterm conference. The ambassador system will be maintained and further expanded.
≥ 2 early preliminary feedbacks by the DSO community on preliminary project results by discussing early	Work in progress	4 DSO representatives (Bayernwerk, EDP D, Enel Latin America, and ESO) are members of the Platone ADB and provided valuable feedback

recommendations with a panel of experts and gather indications about topics that shall be further investigated in project activities via DSOs community driven by E.DSO and its 39 Members (connecting 70% of the DSO customers in Europe), in cooperation with the 3 other DSO associations at EU level CEDEC, Eurelectric and GEODE		in the first and second ADB meeting (November 21 and March 22). E.DSO quarterly Projects Committee meeting, 18.09.2020, online, Presentation by EDSO. 1st E.DSO Projects in the Spotlight event "DSOs at the center of Data Exchange", 10.03.2021, online, presentation by EDSO. Representatives of the DSO community were invited to the Platone midterm conference (September 2021) and its breakout sessions as speakers/panellists as well as participants (above 300 participants joined the midterm conference). On 22 September 2022 the workshop 'Is Open Source the next big Thing in Electricity Distribution" will be hosted by E.DSO in collaboration with RWTH Aachen University, targeting DSOs.
≥ 2 early preliminary feedbacks by the TSO community on preliminary project results by discussing early recommendations with a panel of experts and gather indications about topics that shall be further investigated in project activities via cooperation with ENTSO-E	Work in progress	3 TSO representatives (from: ENTSO-E, Tennet, IPTO) are members of the Platone ADB and provided valuable feedback in the first and second ADB meeting (November 21 and March 22). Representatives of the TSO community have been invited to the Platone midterm conference (September 2021) and it´s breakout sessions as speakers/panellists as well as participants (above 300 participants joined the midterm conference).
≥ 2 early preliminary feedbacks by Manufacturers, Academy and research centres (universities, EERA Joint Programme on Smart Grids) on preliminary project results by discussing early recommendations with a panel of experts and gather indications about topics that shall be further investigated in project activities via cooperation, e.g. organization of side events during the periodical meetings of associations like T&D Europe and EASE.	Work in progress	At the first Platone ADB meeting, feedback from representatives of EERA JP Smart Grids, EPRI, T&D Europe, AIT, Comillas, and CIGRE on Platone architecture was received. Trial site kick-off workshops with potential customers (private, commercial) and other relevant stakeholder groups likewise delivered first feedback. Further feedback will be sought as soon as there are preliminary results in the project that can be discussed. Being involved via the SOGNO project in LFE already resulted in getting more interest by industry as well as research community.
Further impact of relevance on attracting and supporting grid operators		Candidature for the 1st E.DSO Digital Power Award 2021 with the Platone DSO Technical Platform, September 2021.

4.1.4 Fostering business innovation

Fostering business innovation

To foster the adoption of Platone solutions, trigger further innovation processes and the development of a broad set of technical and business applications based on our results.

Objective	Status	Summary of achievements
3 documented joint activities with business-oriented institutions on European level, e. g. contributions to international business-oriented workshops such as those organized by Smart Grid Forum or with the European Institute of Innovation and Technology (EIT) to reach out to Start-ups and innovative SMEs	Work in progress	Joint webinar with Ericsson “How can 4G and 5G support the transformation of energy systems”, 11.11. 2021, online, presentation by RWTH. Malaysia Distinguished Lecture Series #105 - Professor Antonello Monti, Faculty of Engineering Universiti Teknologi (UTM Engineering, industrial solution partner), 11.01.2021, online, presenting i.a. the Platone architecture in the light of Open Source and dual use as key ingredient of an open platform. NextGen SCADA Global 2021, 24.-25-03.2021, online, presentation by RWTH. Further contributions will be made.
5 productive and documented focus meetings with specialized industry initiatives with energy focus	Work in progress	Focus meetings took place with different representatives of the energy industry, e.g. with Vattenfall, Vietnamese EVN, RTE France, Westnetz, E.ON, Bayernwerk, Schleswig-Holstein Netz, MITNETZ, EDIS, Westnetz, E.ON Halozat, E.ON Sweden, Stadtwerke Nienburg with in parts concrete results: • There have been serious discussions with the Vietnamese DSO Vietnam Electricity Group (EVN) on the Platone platform. • RTE France is considering to adopt the Platone platform for substation automation. • Westnetz was willing to do a project with RWTH, but the project proposal was not selected by the German government. • The SOGNO/Platone platform is accepted by E.ON at corporate level as part of its digitalisation programme. The Platone solution and intermediate results were presented in E.ON-related working groups consisting of 7 DSOs (Bayernwerk, Schleswig-Holstein Netz, MITNETZ, EDIS, Westnetz, E.ON Halozat, and E.ON Sweden) as well as one on site event with the DSO Stadtwerke Nienburg. Further contributions will be made, also in the context of the FlexCommunity.
5 published high-quality professional articles in industry-related special interest journals	Work in progress	Professional articles in industry-related journals will be enhanced due to an advanced state of the Platone project when rather concrete project results are available.

2 successful organised virtual or physical exhibition stands in industry innovation events	Work in progress	Virtual booth at the 2021 IEEE International Forum on Smart Grids for Smart Cities, 17.-23.03.2021. Virtual booth at the 2021 EU Sustainability Week (EUSEW), 25.-29-10.2021. Physical and virtual booth at Enlit Europe, 30.11.-3.12.2021 Milan, Italy. Planned: Virtual booth at the 2022 EU Sustainability Week (EUSEW) with FlexCommunity and physical presence at E.DSO booth, 26-30 September 2022. Physical and virtual booth at Enlit Europe, 29 Nov - 1 Dec, 2022, Frankfurt, Germany More exhibitions might be organized in 2023.
1 Business plan for each of the finally defined Platone results	Work in progress	Will be part of the exploitation workshops and activities.
10 DSOs expressing interest in using our Platone platform	Work in progress	The ADB delivers a common ground for the adoption of Platone solutions. 4 of the members are DSOs and attended the ADB-meetings, increasing the likelihood to express interest in using Platone platform at the end of the project. The DSO community has been successfully addressed to join Platone events and the FlexCommunity and were addressed by partner EDSO via their communication channels. Platone was represented at several 3rd party events of DSO interest. There have been serious discussions with the Vietnamese DSO Vietnam Electricity Group (EVN) on the Platone platform. RTE France is considering to adopt the Platone platform for substation automation. Westnetz was willing to do a project with RWTH, but the project proposal was not selected by the German government. The SOGNO/Platone platform is accepted by E.ON at corporate level as part of its digitalisation programme. The BeFLEX and FLOW projects, where RWTH cooperates with other DSOs, have been accepted by the EC. The SOGNO/Platone platform will be integrated with the Schneider platform in BeFLEX. The Platone solution and intermediate results were presented in E.ON-related working groups consisting of 7 DSOs (Bayernwerk, Schleswig-

		Holstein Netz, MITNETZ, EDIS, Westnetz, E.ON Halozat, and E.ON Sweden) as well as one on site event with the DSO Stadtwerke Nienburg.
10 companies interested in the services, expressed as coming to a Platone event	Work in progress	With the dissemination activities like events, focus meetings and stakeholder engagement several companies have been addressed. E.g., above 300 participants joined the Platone midterm conference on 14 +15.09.2021, visitors joined our virtual booths at 2021 IEEE. International Forum on Smart Grids for Smart Cities or EUSEW 2021 or our live booth at Enlit Europe 2021. The Platone approach was presented at multiple 3rd party events (e.g. Innogrid, Enlit Europe), in working groups (BRIDGE, ETIP SNET, OPEN DEI). Over 150 participants – among them several company representatives – joined the launch event of the FlexCommunity. Further interest is expected.
4 instances deployed of Platone results (uptake of Platone by service providers)	Work in progress	The ADB delivers a common ground for the adoption of Platone solutions. Representatives from TSO, industry but also regulation and governance attended the ADB-meetings, increasing the likelihood to express interest in using Platone platform at the end of the project. The current number of instances of the deployed platforms are RWTH Lab, Italian, German and Greek demo.

4.1.5 Introducing Platone Platform and Solutions in Standards

Introducing Platone platform and solutions in standards To ensure that project results feed into standardisation processes for global visibility.		
Objective	**Status**	**Summary of achievements**
≥ 2 early preliminary feedbacks by standardization bodies (IEC, CEN, CENELEC) on preliminary project results by discussing early recommendations with a panel of experts and gather indications about topics that shall be further investigated in project activities.	Work in progress	Activities to further gather feedbacks by standardization bodies will be enhanced as the first demo tests have been executed due to a more advanced state of the Platone project when rather concrete project results are available. Nevertheless, Platone has, after discussion with the EC, taken a different approach to standards, where we are developing a standard API and data structure within LFE. Although LFE is not a standards body, this type of bottom-up approach to standards is best suited for rapid adoption; formal standards are too slow for the rate of evolution in the sector.

		Similarly, the Platone contribution to HEMRM is not formally a standard but rather a harmonisation effort (i.e. the name harmonised electricity market role model). There have been feedback processes within the LFE and HEMRM activities.
≥ 3 successful and documented contributions to standardisation bodies, groups or committees e. g. of the IEC, CEN, CENELEC, IEEE, ETP Smart Grid Working Group on Utility Digitalization and the Conseil International des Grands Réseaux Electriques / International Council on Large Electric Systems CIGRE (via active roles of consortium partners)	Work in progress	The SOGNO platform has been accepted in the international Linux Foundation Energy (LFE). Within LFE, we are developing a standard API and data structure. Although LFE is not a standards body, this type of bottom-up approach to standards is best suited for rapid adoption; formal standards are too slow for the rate of evolution in the sector. The Platone contribution to the BRIDGE action on HEMRM is not formally a standard but rather a harmonisation effort (i.e. the name harmonised electricity market role model).

4.1.6 Contribution to Policies and Governance

Contribution to policies and governance To define and establish a comprehensive exploitation strategy (ES) on the management and promotion of the exploitation of project results during the project lifetime and beyond		
Objective	**Status**	**Summary of achievements**
≥ 2 inputs (e.g., presentation, publication) on Platone findings as soon as available to ETIP SNET (preferably at events and platforms of the ETIP SNET support structure: SPRING) and BRIDGE	Work in progress	<u>ETIP SNET</u> Presentation of Platone at the ETIP SNET 11th Regional Workshop (online), 21.04.2021 by RWTH Several members of the Platone consortium are active in ETIP SNET working groups and activities. E.DSO is member of the governing board of ETIP SNET. Prof. Monti has been appointed as leader of the Task Force 1 for the WG4. The mission is to provide feedback to the EC on the digitalization strategy and to accompany the further process. Members of Platone project are active in WG1 and WG4. Within WG1, RSE is mostly active for the preparation on the report on sector integration. RWTH provided input in relation to the use of SGAM approach for multi energy systems. <u>BRIDGE</u> Presentation of Platone at the BRIDGE GA 2021.

		Several members of the Platone consortium are active in BRIDGE working groups and activities (for current activities see Chapter 3.7.2).
≥ 2 inputs on Platone findings via an established connection enabling input to all types of industry and R&D associations in Europe and worldwide (via E.DSO)	Work in progress	At the ADB meetings industry and R&D associations like EERA JP Smart Grids, EPRI, T&D Europe, AIT, Comillas, ISGAN, and CIGRE were attending. The same were also invited to the Platone midterm conference.
≥ 2 inputs (e.g. presentation, publication) on Platone findings to programme managers and framework setters in almost every EU country through the ERA-Net Knowledge Community (via B.A.U.M. Consult)	Work in progress	The BRIDGE taskforce on Energy Communities liaises with a twin taskforce of Joint Programming Platform ERA-Net Smart Energy Systems (JPP SES). Surveys have been done with BRIDGE and JPP SES projects to collect examples of Energy Communities, identify the support needs to develop such structures and better understand the regulatory conditions and tariff specifics in EU countries. Further contributions are expected.
Successfully placed recommendations to national regulatory bodies via their European agency and association (ACER, CEER).	Work in progress	Platone leads the BRIDGE Working Group action “HEMRM”. Together with other EU projects, BRIDGE, system operator’s associations, citizen energy communities, EU institutional bodies like the European Commission, Agency for the Cooperation of Energy Regulators (ACER) and Council of European Energy Regulators (CEER) a joint draft for a common understanding of electricity market model in cooperation was submitted in October 2020. In April 2021 the current edition of the “EU BRIDGE HEMRM View” was published, intended as a differential analysis with the actual official HEMRM. The final version of the "EU Bridge HEMRM Differential Analysis" was sent to the European Commission in November 2021 for their final approval.
1 successful presentation of Platone findings and the demo results to the Eurelectric in order to inform the main European Utilities and DSOs about the development of robust flexibility mechanisms and the adoption of novelties such as blockchain technology, integrated CBA analysis and interoperability	Work in progress	

≥ 2 early feedbacks by regulators on preliminary project results by discussing early recommendations with a panel of experts and gather indications about topics that shall be further investigated in project activities via cooperation with • Working groups of the Council of European Energy Regulators (CEER) • Florence forum (Florence school of regulation) for webinars and participation to Florence Forum	Work in progress	Platone´s preliminary results were presented to representatives of national regulatory authorities; feedback was collected in multiple occasions e.g., in the context of the ABD meetings (e.g., ARERA, Italy) and the Platone midterm conference (attendees from ARERA, Italy and ERSE, Portugal).

5 Conclusion

This final edition of the communication and dissemination plan provides orientation for the final activities to reach the communication objectives for the last project year.

With its communication and dissemination activities, Platone is still creating well-visible impact. From the beginning, the consortium has laid a stable foundation for communication, dissemination and exploitation activities in the Platone project. A solid project communication infrastructure was implemented (Platone website, social media activities etc.) for the work in all project phases and continuously used and expanded where needed, e.g., with the project videos. Several collaboration and cooperation activities kicked-off and have been successfully pursued. Successful examples have been the lead of BRIDGE action on HEMRM, the creation of a BRIDGE Use Case repository, the lead of the BRIDGE topic group on stakeholder characterization within the working group on customer engagement or the contribution to the OPEN DEI project.

The topic of “Scalability, Replicability and Cost-Benefit-Analysis” was taken as theme for the second workshop in the context of Platone´s cooperation with Canada and has paved the path for a replication of Platone data in the Canadian approach.

Platone has pursued its good cooperation with the other projects funded in the same call and in particular with the projects EUniversal and Platoon. This cooperation materialises in technical workshops and in a cross-participation in the project´s advisory boards. With the two meetings of the Platone Advisory and Dissemination Board (ADB) the consortium got very valuable advice and recommendations to further be considered in the process of the project. A still high visibility in the international context is given with the SOGNO project within the Linux Foundation Energy. The FlexCommunity, initiated jointly with the H202 sister projects FEVER and edgeFLEX kicked-off and has until know already more than 150 members.

Platone was presented at several events in the past project years. This has strongly enhanced the project´s dissemination and stakeholder activities and is an important step for exploitation activities. One of the highlights was the Platone midterm conference on 14 and 15 September 2021 and the official start of the Italian demonstration as part of the programme with over 300 participants. In autumn 2021 Platone participated the EU Sustainable Energy Week (EUSEW) [20], where Platone contributed to the EUSEW Energy Talks under the title “Socrates or Plato – whom shall the future energy system follow?” and hosted a virtual booth at the EUSEW virtual Networking Village. With the Enlit Europe 2021 in Milan one of the first big events was held again partly physically after a long gap due to the COVID-19 pandemic. Platone was present with a project desk in the EU project zone and also joined a panel discussion at the ENLIT that was organised by BRIDGE.

The communication and dissemination activities for end of phase 2 and the phase 3 will strongly support the dissemination and exploitation of results. Therefore, we will actively pursue all collaboration and cooperation activities and foster transferring knowledge and disseminating results of Platone to relevant stakeholders and target groups. Ongoing work will be done to spread information to those stakeholders who have a high impact on the success of the project to reach the desired engagement. Ongoing work will be done to spread information to those stakeholders who have a high impact on the success of the project to reach the desired engagement. The main focus of communication activities will be to present the project´s key exploitable results. Stakeholder-relevant events will continue to play an important role for the consortium partners in the last project year. The key exploitable results will be in the centre of the Platone presentations.

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

[2] FEVER project. . [Online]. Available: https://fever-h2020.eu/ [Accessed 26 08 2022].

[3] edgeFLEX project. . [Online]. Available: https://www.edgeflex-h2020.eu/ [Accessed 26 08 2022].

[4] FlexCommunity. [Online]. Available: https://flex-community.eu/ [Accessed 26 08 2022].

[5] European Commission, “The EU Framework Programme for Research and Innovation Horizon 2020. Communicating EU research and innovation guidance for project participants, Version 1.0,” 2014. [Online]. Available: http://ec.europa.eu/research/participants/data/ref/h2020/other/gm/h2020-guide-comm_en.pdf [Accessed 26 08 2022].

[6] European Union, “European IPR Helpdesk. Fact Sheet: The Plan for the Exploitation and Dissemination of Results in Horizon 2020,” 2015. [Online]. Available: https://www.kowi.de/Portaldata/2/Resources/horizon2020/Factsheet-Plan-for-the-exploitation-and-dissemination-of-results.pdf. [Accessed 26 08 2022].

[7] CoordiNet project. [Online]. https://coordinet-project.eu [Accessed 26 08 2022]

[8] SmartNet project. [Online].https://ec.europa.eu/inea/en/horizon-2020/projects/h2020-energy/grids/smartnet [Accessed 30 08 2022]

[9] Die Energiewelt von morgen, Weser Kurier 01 11 2021 https://www.weser-kurier.de/landkreis-diepholz/gemeinde-twistringen/projekt-energieplattform-twistringen-die-welt-von-morgen-simulieren-doc7i5swmlzi5skawbcehb [Accessed 26 08 2022]

[10] International Smart Grids Action Network (ISGAN) [Online]. Available: https://www.iea-isgan.org/ [Accessed 26 08 2022]

[11] Mission Innovation (MI) [Online]. Available: http://mission-innovation.net/ [Accessed 26 08 2022]

[12] SOGNO project [Online]. Available: https://www.lfenergy.org/projects/sogno/ [Accessed 26 08 2022]

[13] Want To Avoid Another Texas Debacle? Here Is How To Create A Clean, Resilient Electrical Grid.”, Forbes Magazine Feb 25, 2021. [Online]. Available: https://www.forbes.com/sites/erikkobayashisolomon/2021/02/25/want-to-avoid-another-texas-debacle-here-is-how-to-create-a-clean-resilient-electrical-grid/?sh=a836086525ea [Accessed 26 08 2022]

[14] EUniversal project [Online]. Available: https://euniversal.eu [Accessed 26 08 2022]

[15] PLATOON project [Online]. Available: https://platoon-project.eu/ [Accessed 26 08 2022]

[16] BD4NRG project. [Online]. Available: https://www.bd4nrg.eu [Accessed 26 08 2022]

[17] BRIGHT project. [Online]. Available: https://www.brightproject.eu [Accessed 26 08 2022]

[18] STORE&GO project. [Online]. Available: https://www.storeandgo.info [Accessed 26 08 2022]

[19] Distribution System Operators Observatory of the JRC [Online]. Available: https://ses.jrc.ec.europa.eu/distribution-system-operators-observatory [Accessed 26 08 2022]

[20] EU Sustainable Energy Week - Sustainable Energy Days [Online]. Available: https://www.eusew.eu/look-2021-sustainable-energy-days [Accessed 26 08 2022]

[21] Smart Grid Use Case Repository [Online]. Available: https:/smart-grid-use-cases.github.io/ [Accessed 26 08 2022]

[22] "Harmonized Electricity Market Role Model" (HEMRM) - A Differential Analysis with Respect to the ENTSO-E – ebIX – EFET Model. BRIDGE Regulation Working Group, April 2021. [Online]. Available: https://ec.europa.eu/energy/sites/default/files/documents/bridge_wg_regulation_eu_bridge_hemrm_report_2020-2021.pdf [Accessed 26 08 2022]

8 List of Abbreviations

Abbreviation	Term
ADB	Advisory and Dissemination Board
ACER	Agency for the Cooperation of Energy Regulators
CBA	Cost-benefit analysis
CEDEC	European Federation of Local Energy Companies
CEER	Council of European Energy Regulators
CEN	European Committee for Standardization
CENELEC	European Committee for Electrotechnical Standardization
CIGRE	Conseil International des Grands Réseaux Electriques (International Council on Large Electric Systems)
COVID-19	Corona virus disease 2019
DEMI	Distributed Energy Management Initiative (Canada)
DSO	Distribution System Operator
EASE	European Association for Storage of Energy
EASME	Executive Agency for Small and Medium-sized Enterprises
EERA	European Energy Research Alliance
EISMEA	European Innovation Council and SMEs Executive Agency
EIT	European Institute of Innovation and Technology
ENTSO-E	European Network of Transmission System Operators - Electricity
EPRI	Electric Power Research Institute
ERA-Net	European Research Area Network
ETIP SNET	European Technology and Innovation Platform Smart Networks for Energy Transition
ETP	European Technology Platform
EU	European Union
GEODE	GEODE - the Voice of Local Energy Distributors across Europe
GIS	Geographic Information System
H2020	Horizon 2020 (Funding programme of the European Commission)
ICT	Information and communications technology
IEEE	Institute of Electrical and Electronics Engineers
IEC	International Electrotechnical Commission
JRC	Joint Research Centre
KICs	Knowledge and Innovation Communities
LEC	Local Energy Communities
OGEMA	Open Gateway Energy Management
RDI	Research, Development and Innovation

R&D	Research & Development
RES	Renewable Energy Sources
SEO	Search Engine Optimization
SET-Plan	Strategic Energy Technology Plan
SME	Small and Mid-sized Enterprise
STEM	Science, Technology, Engineering, Mathematics disciplines
T&D Europe	European association of the electricity transmission and distribution equipment and services industry
TSO	Transmission System Operator
URL	Uniform Resource Locator (web address)
WG	Working Group

Annex A

A.1 Stakeholder-specific Communication Matrix - Template

Key Stakeholder			
General Description			
Specific opportunities and challenges and desired outcome after the project			
	Desired outcome during and after the project: ■ ■		
Communication targets	Phase 1	Phase 2	Phase 3
	The stakeholders should … ■		
	Desired activities of the stakeholders ■	(same as year 1 plus:) ■	same as year 1+2 plus: ■
Key message & Sub messages	Phase 1	Phase 2	Phase 3
	Key message	Key message	Key message
Tools and Channels	Phase 1	Phase 2	Phase 3
	■	adding: ■	adding: ■