

edgeFLEX

D7.2

Updated plan for dissemination and communication of results

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Abstract

This document is the updated dissemination and communication plan for edgeFLEX. It summarizes and structures all completed, running and upcoming dissemination and communication activities according to the development stage of the project. It gives a comprehensive overview of the strategy, the derived measures and their implementation.

Keyword list

Communication, dissemination, exploitation, project design, project logo, marketing, collaboration, community

Disclaimer

All information provided reflects the status of the edgeFLEX project at the time of writing and may be subject to change.

Executive Summary

The overall dissemination and communication strategy is set out as well as the derived measures and their implementation. The strategy determines how to convey messages to stakeholders in order to achieve the strategic goals of edgeFLEX. In a 3-step process, it aims to stimulate investment in renewables, to provide new options in flexibility trading exploitable within the current regulatory framework by a new definition of a VPP and to enable the creation of new local energy or flexibility markets with new fast dynamics services requiring extensions of the current regulatory framework to be adopted at national level.

For obtaining the objectives and approaching suitable interest groups, stakeholders have been identified and the main messages defined. The updated strategy takes into account that the dissemination and communication activities need a change of focus in parallel with the project progress. Therefore, different emphasis is put on these activities during the project lifetime.

All dissemination and communication activities are supported by high-quality communication tools and marketing material, as well as stakeholder-specific information and publications. The corporate identity created for the project ensures a high recognition value.

To spread edgeFLEX content, a multichannel approach was chosen by using synergy effects wherever possible. 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 stakeholders. edgeFLEX ensures open access to all peer-reviewed scientific publications relating to its results. Channels of networking and cooperation partners play an essential role to distribute and disseminate later edgeFLEX results.

Virtual or physical events of all kinds are indispensable to distribute information about the project, as well as getting feedback from stakeholders. At events, most of the communications tools and channels merge - presentations, website, social media, videos, co-organisation with partners and intermediaries, booths, media presence etc. In the first phase of the project, all live events were cancelled and, wherever possible, moved online. The second project year saw a return of face-to-face meetings with digital and – as a newer format – hybrid events playing an important role as well. This is foreseen to continue throughout the third and last project year.

The edgeFLEX consortium has a well-established collaboration network in Europe, with contacts to many key players of the target audience and partners involved in industry associations, standardisation bodies, European energy governance and research networks as well as in other H2020 projects or initiatives. Intermediaries and cooperation partners can facilitate the communication and dissemination activities on different levels and for different 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.

To increase the outreach via multipliers, foster knowledge exchange and help developing a market for flexibility, the edgeFLEX partners decided to team up with other H2020 projects and establish a joint *FlexCommunity*. It is open for all stakeholders who are interested in the topic of flexibilities in the energy system with a focus on key stakeholders.

In April 2021, an edgeFLEX course for future energy experts on the technical concepts developed in the project was organised.

Although originally not being a BRIDGE project, edgeFLEX was incorporated into the initiative at the beginning of 2022 to contribute with its results and the expertise of the consortium members.

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1. Introduction

This deliverable outlines the update of the dissemination and communication planning after the first two project years of the Horizon 2020 project edgeFLEX. It works under the funding scheme topic “Development of solutions based on renewable sources that provide flexibility to the energy system”. Under Horizon 2020 it is essential that society benefits from investment in these projects. Therefore, there is a clear accent to the beneficiaries’ obligations to disseminate the outcomes of the funded activities.

The underlying goals of the dissemination and communication activities are:

- to maximize 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 EU citizens benefit from the results.

The dissemination and communication plan for edgeFLEX outlines the strategy and measures to reach these goals. This deliverable captures the activities done in phase one and two of the project and defines the plan for the third and final phase. A separate plan for exploitation of the results was developed within WP6 and described in the deliverable *D6.6: Preparing exploitation*.

Communications activities cover the whole project from the beginning and target a multitude of audiences, including media and general public. The aim is to reach out to society as a whole as well as specific audiences demonstrating how EU funding contributes to tackling societal challenges. 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 policy makers.

Dissemination as well as communication aspects are merged in an overall 3-step strategy and related measures and tools. It is taken into account that communication and dissemination activities need to change their focus in parallel with the project progress. Therefore, different emphasis is put on the activities during the project runtime. The edgeFLEX framework development will follow three main phases. For the first project phase, the activities focussed on raising awareness of the project, getting in touch with selected key stakeholders and receive feedback. In phase two, the activities focus more on the trials and associated interim results. In phase three, they will concentrate on exploiting the main outcomes of the project.

1.1 Objectives of report

Deliverable D7.2 provides the updated dissemination and communication plan for the edgeFLEX project. It represents tasks of work package seven of the project’s description of action.

1.2 Outline of the report

This report outlines what has been achieved so far and the strategy and measures for the last project phase.

1.3 How to read this document

This deliverable can be read as a stand-alone document. Workshops with policy makers, experts in regulation and standardisation and practitioners as part of the dissemination are described in detail in the deliverable *D6.3: Engaging with policy makers, with organisations and experts in regulation and standardisation*. *D7.3: Report on courses for professional practitioners and*

Academia gives more details on the course organised by RWTH (see 3.8). A separate plan for exploiting the obtained results is described in the deliverable *D6.6: Preparing exploitation*.

2. Dissemination strategy

The dissemination strategy determines how messages are communicated to target groups to achieve the impact goals of edgeFLEX. The main target groups are identified and their needs are addressed to bring the right messages to each target group. edgeFLEX dissemination activities addresses the entire spectrum of the value network, reaching from research to standardisation bodies to the industry and energy communities. The edgeFLEX dissemination concept creates interactive communication channels between the target groups and the project. The intended bidirectional information flow and the active involvement of the relevant groups lead to an association with the results rather than simple awareness.

2.1 Dissemination objectives

Despite an increasing penetration of smart grid technologies, small power plants are still generally not playing an active role in the energy system. In order to create a resilient energy system based on renewable sources, it is vital that these plants are called on to play all the roles that traditional synchronous generators used to play. Therefore, edgeFLEX is further developing the concept of virtual power plants (VPPs) and at the same time, fostering a bottom-up approach to resilience focusing on local energy communities (LECs).

The objective of the edgeFLEX dissemination strategy is to combine the technical results of the project with recommendations on how these can be optimally deployed to provide:

- An environment and new financial tools making investment in RES more attractive, increasing penetration of variable RES in the energy system and creating jobs throughout Europe.
- A broader role for VPPs, enabling them to manage a wider range of variable output and dispatchable RES assets, including storage as well as small assets. This enables energy communities and owner of smaller VPPs to actively contribute to grid stability, providing them with new revenue streams.
- A new set of 5G-powered dynamic control services, enabling the opening of a new ancillary service market for fast and dynamic services in which VPPs, in the expanded role, sell the flexibility of the fast dynamics of an expanded range of RES generation and storage assets to the grid operators to stabilise the grid.

2.2 Strategic approach

The strategic approach to impact of edgeFLEX can be described as a 3-step process that corresponds also to the process through which we anticipate our results can reach our defined target groups (see chapter 2.3).

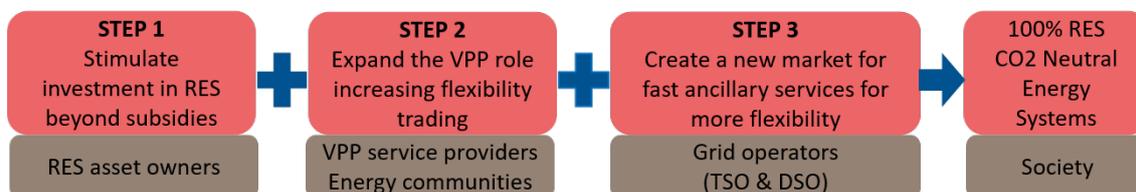


Figure 1 - 3-step process of taking results to the target groups

Step 1: Going beyond instruments such as Power Purchase Agreement (PPA) to stimulate investment in renewables.

edgeFLEX examines new financial tools that will encourage actors to invest in renewables. The need for these new instruments comes from the fact that national schemes of incentives are reaching their limit and it is time to create a solid and self-sustained market for renewables. While innovative solutions such as power purchase agreement (PPA) has been experimented in the past, their effectiveness proved to be limited. To fill this gap and create a solid market for new

installations of renewables, the concept of green power swaps has been investigated in edgeFLEX in the deliverable *D6.5 A new financing model for RES, to simplify investments in RES beyond subsidy schemes*. It has been shown qualitatively to be likely to increase investments in renewable energy projects by improving returns for investors and reducing risk. Such a step is vital to make sure that there are enough potential customers available to join the proposition of platform made by edgeFLEX.

Step 2: A new definition of a VPP provides new options in flexibility trading exploitable within the current regulatory framework.

Currently, VPP refers to an aggregation of power generation units, possibly combined with electro-chemical storage. In edgeFLEX, we expand this definition to incorporate any asset connected to the grid. At the level of an energy community, every household asset plays a role in the optimisation while at higher power levels, other sources of flexibility such as biogas power plants are included in the optimisation portfolio. The new definition of VPPs enables their operators to trade bigger volumes of renewable energy and flexibility on existing markets. While the full edgeFLEX approach requires potentially new regulation, the new concepts developed in the framework of the slow dynamics use case are feasible in current regulation. Thanks to the expanded definition, edgeFLEX will be able to offer an innovative solution to local energy communities which want to make the most of their flexibility.

Step 3: New fast dynamics services enable the creation of new local energy markets requiring extensions of the current regulatory framework to be adopted at national level.

With the introduction of a legal framework for energy communities, the European Commission proposes that the total cost of ownership of assets can be offset against power prices by power providers. The proposal in the form of two directives still needs to be adopted by many national regulators. With the adoption, new local energy balancing markets could be established on which capabilities offered by the edgeFLEX fast dynamics services would be traded. This result impacts grid operators in particular, offering them new flexibility to stabilise their grid and a new market to organise the trading of the new services. Thanks to the proposed Policy Based Grid Management (PBG) approach, edgeFLEX tries to connect requirements from energy communities of having a local market with requirements from grid operators to be able to directly manage assets in their grid.

2.3 Target groups and main messages

The following table shows the main messages for the different target groups.

Target groups	Objectives of our work	Needs of the target groups which will be addressed	Messages to the specific target groups	Events / channels
RES asset owners	<p>To create awareness to RES asset owners on a new financial model to secure investments in RES beyond subsidy schemes.</p> <p>We aim to create and exciting atmosphere around our work to create interest by RES asset owners (and citizens) in our results.</p>	<p>This group needs concepts to enable them to invest simply and cost-effective in RES and services to help optimise the return of investment they receive to make RES investments attractive as subsidies decrease.</p>	<p>Profit from the new VPP concept!</p> <p>edgeFLEX will support you with a new financing schema to make investments in RES financially sustainable.</p> <p>Green power swaps improve returns for investors and reduce risk.</p>	<p>All events, social media</p>

VPPs	<p>To create awareness by VPP owners of the opportunities offered by our results.</p> <p>We aim to create and exciting atmosphere around our work to create interest by energy professionals in our results.</p>	<p>This group want to have an expansion of the services they can offer and to play a broader role in the energy sector managing storage and any asset connected to the grid.</p>	<p>Use the opportunity to offer fast dynamics services to the grid!</p> <p>Broker these services linking them to the slow dynamics services of VPPs, optimising processes and services and improving financial outcomes!</p>	<p>Fairs & conferences, FlexCommunity, social media</p>
Energy community	<p>To develop a new relationship to the larger energy community to build awareness, support and acceptance for a new market for energy stability</p>	<p>This group wants to have a high quality of life with flexibility on how and when to use energy.</p>	<p>Participate in the energy transition!</p> <p>Play an active role – contribute to a new market for energy stability</p>	<p>All events, FlexCommunity</p>
Grid operators	<p>To create awareness by grid operators of the opportunities offered by our results</p> <p>We aim to create and exciting atmosphere around our work to create interest by energy professionals in our results.</p>	<p>This group needs new options for flexibility services to help them balance the grid locally.</p> <p>They need new techniques and flexibility options to enable them to increase the percentage of volatile RES in the energy mix.</p>	<p>Manage the stability of distribution networks locally in a completely new way!</p> <p>edgeFLEX will enable you to exploit the TOTEX approach proposed in the 2018/2019 Winter Package if it is adopted by your national regulator, reducing costs and raising your profits!</p>	<p>Trial site open days/innovation days, fairs & conferences, invited presentations, H2020 events, FlexCommunity, social media</p>
Energy sector policy makers	<p>To create awareness by decisionmakers at the European political level of the need to take measures to support the implementation of 5G-powered dynamically controlled VPP solutions by supporting the introduction of new financial instruments and markets.</p>	<p>Policy makers need to develop new policies to reduce the CO2 impact of energy generation, thus addressing the environmental impact of energy generation and use.</p>	<p>edgeFLEX will provide you with the technical, economic and societal recommendations for the implementation of edgeFLEX solutions in EU and National regulatory frameworks, as a major facilitator for increasing RES in future energy systems.</p>	<p>Workshops with policy makers, experts in regulation and standardisation and practitioners, FlexCommunity</p>

Market regulators	To create awareness by regulators to take the necessary measures to support the implementation of 5G-powered Dynamic VPPs solutions. by supporting the introduction of new financial instruments, services and markets.	The National regulators need to adapt the Winter Package proposals at national level. European and National regulators need to adapt the regulatory framework to support the proper implementation of 5G-powered Dynamic VPPs solutions and increase flexibility in energy systems.	The edgeFLEX results, enabling VPPs to offer fast dynamics services to the grid, are offered to you as regulatory recommendations!	Workshops with policy makers, experts in regulation and standardisation and practitioners, FlexCommunity
5G network sector	To build synergies between the competences of partners in the effective integration of relevant digital technologies in the energy sector, resulting in integrated value networks. To create awareness in the mobile sector of the market opportunity for mobile operators and service providers to address the use case of tailored 5G solutions for VPP Dynamic Control.	The 5G mobile operator network sector wants to generate growth in the use of 5G by targeting industrial user groups such as the Energy sector.	Generate value offering 5G support for ease to deploy solutions addressing the growing needs of the energy sector for low latency, high reliability ICT!	Special sessions in conferences, invited presentations, FlexCommunity
Academic energy community	To create awareness of the opportunities offered by our results which bring forward the state of the art in power systems as a solid basis for further research.	European academics want to ensure a leading position as inventors and idea generators for theories and techniques to enable advanced energy systems to operate safely in high RES, low inertia conditions.	edgeFLEX results demonstrate European capabilities at the global forefront of research!	Scientific publications, special sessions in conferences, H2020 events, invited presentations, events & courses for professional and academic audiences, FlexCommunity

3. Communication and dissemination measures & tools

The communication and dissemination activities in phase one focussed on raising awareness for the project and getting in touch with selected key stakeholders. The main communication channels – the project website and the LinkedIn channel – were set up. In phase two, the focus was on first results from the trials and the link between them. The activities in phase three will concentrate on supporting WP6 in maximising the impact of the project and the exploitation of edgeFLEX results beyond the project's runtime.

3.1 Visual identity

An overall design was developed to make sure all project activities will be recognized as part of edgeFLEX. It is and will be used for external as well as internal communication. Every type of marketing material, digital or print, as well as templates and publications (e.g. PowerPoint template and deliverables) are set up using the project's visual identity.

The font chosen consists of square block elements and two rotating ovals, symbolising stability within flexibility.



Figure 2 – edgeFLEX logo

3.2 Website

The project website is the communication hub for the project. It contains all central information on edgeFLEX. Its purpose is to inform interested stakeholders about the project, its progress, project related news and events. Different information levels take into account different stakeholder needs. The website also provides relevant details of all project partners involved in edgeFLEX.

It includes the rotating ovals from the logo as dynamic elements. The web design is responsive with all elements for search engine optimization.

The URL www.edgeflex-h2020.eu was chosen to include the project acronym and clearly refer to Horizon 2020.

To increase the project's online presence, in phase two *Inside edgeFLEX* was established, a new series on a monthly basis giving a more personal insight of the different project partners and their specific contributions to the results of the project. The article is published on the edgeFLEX website with a LinkedIn posting linking to it.



Figure 3 – edgeFLEX website

3.3 Social media

Dissemination of the edgeFLEX activities and results is also carried out using social media. For this purpose, a LinkedIn group was created under the name *edgeFLEX H2020* posting updates from the project and related news from other projects. The online professional network LinkedIn allows to reach a wide but also targeted audience in a professional context.

URL: www.linkedin.com/company/edgeFLEX-h2020/

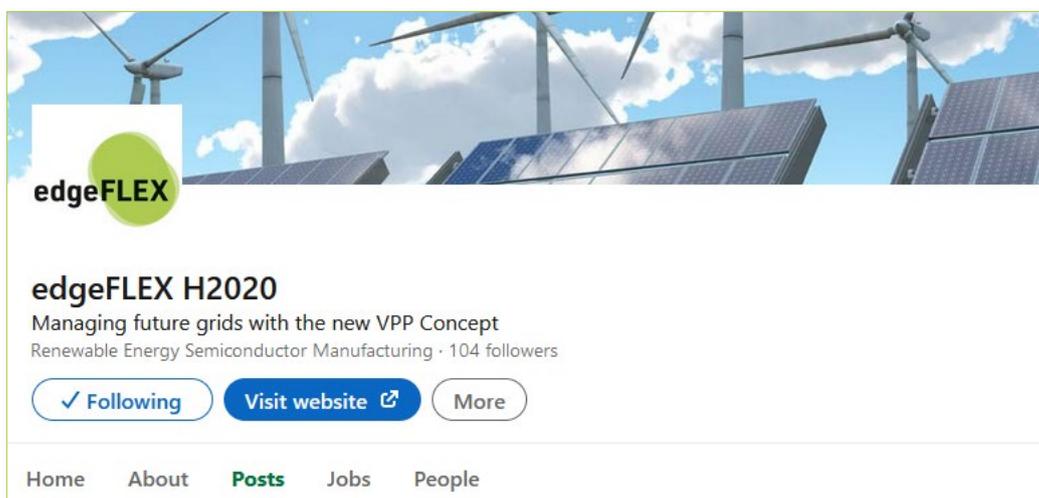


Figure 4 – edgeFLEX LinkedIn group

3.4 Print & digital materials

Based on the project design a set of templates for slides, deliverables and milestones as well as a set of basic slides have been produced at the beginning of the project. After live events became feasible again, an animated presentation of edgeFLEX, its scope and tools was created and a stand-up banner as well as a give-away card were produced. These marketing materials were used at the EU projects zone at Enlit 2021 in Milan and Smarter E 2022 in Munich.



Figure 5 – edgeFLEX stand-up banner & give-away card

3.5 Publications

Besides articles on the edgeFLEX website and posts on social media, key project results are published via high-quality scientific papers submitted to renowned conferences and to scientific journals by the research partners of the project. These publications inform about the objectives of the project as well as the results of the pilot demonstrations.

edgeFLEX ensures open access (free of charge online access for any user) to all peer-reviewed scientific publications relating to its results. They will be accessible via the progress area on the edgeFLEX website. All non-confidential deliverables will be available for download in the same section.

A total of 34 publications have been made until the end of the first and second phase based on the outcome of the work in edgeFLEX.

3.6 Videos

A set of videos has been orchestrated to present the technologies developed and tested in the edgeFLEX trials and the expected results. The videos are used for online communication, being available on the edgeFLEX website and as openers for digital events. With all face-to-face events being cancelled due to the COVID-19 pandemic during the first and part of the second phase of the project (see 3.7), dissemination and communication activities were considerably more difficult. To compensate for this, it was decided to produce more videos than originally planned to reinforce digital communication with stakeholders.



Figure 6 – edgeFLEX videos

3.7 Events

Events are essential to distribute information about edgeFLEX, a place to initiate cooperation and collaboration activities. 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 and get feedback on the concepts and solutions developed within the project. Due to the COVID-19 virus outbreak becoming a global pandemic nearly at the same time the project started, all live events in the first project phase had to be cancelled and dissemination via events to be organised virtually. In the second reporting period, face-to-face meetings became possible again, but virtual and hybrid events continued to play an important role and will most likely continue do so in period three of the project.

3.7.1 Exhibition stands and special sessions in conferences

3rd party events which meet the topics of edgeFLEX are very important and effective for dissemination and knowledge transfer to different stakeholders. At the time of the application, it was planned to participate in several conferences, workshops and fairs like EUSEW, E-world, Innogrid and European Utility Week (now Enlit) to demonstrate and promote the edgeFLEX solutions. These activities had to be cancelled in the first reporting period. In March 2021, a virtual booth was organised at the projects zone of the online IEEE Smart Grid for Smart Cities conference. In October 2021, edgeFLEX participates in the digital Networking Village at EU Sustainable Energy Week (EUSEW).

After the ease of the Covid restrictions, edgeFLEX was presented face-to-face in November 2021 at the EU projects zone at Enlit in Milan. In May 2022, the live participation at Smarter E in Munich was used to get an insight of the current market situation and recruit members and collaborations for the newly founded FlexCommunity (see section 3.9).

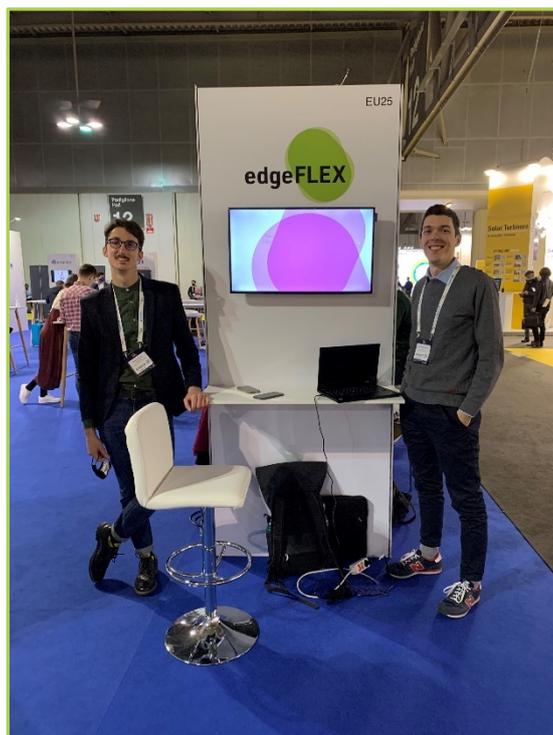


Figure 7 – edgeFLEX pod at Enlit 2021

In the upcoming months, edgeFLEX will join the digital Networking Village at EU Sustainable Energy Week (EUSEW) 2022 as well as Enlit 2022's EU projects zone in Frankfurt.

3.7.2 Trial site open days/innovation days

Trial site open days are organised targeting energy and ICT sector actors to better understand their needs and get insights on the project from practitioners.

A first workshop with focus on the Wunsiedel trial site took place online on 3 November 2020 with energy experts from Stadwerke Wunsiedel GmbH and Stadtwerk Hassfurt GmbH. To maximise the outreach and reinforce collaboration with other Horizon 2020 Smart Grid and Energy Storage Projects, it was organised as a joint event with the project FEVER, which is also working with the Wunsiedel trial site. The following topics were discussed:

- Developments in the „energy world“ and role of utility and distribution system operator (DSO)

- Role of utility and DSO in the future with regards to energy communities
- Current and upcoming challenges for DSOs and solutions from edgeFLEX

The experts from the municipal utilities were convinced that the energy system in Germany will continue to develop towards renewable energies and growing digitalisation and smartification. Citizens will increasingly want to be involved in decision-making processes and will have to be involved in the implementation. To keep the effort manageable for them, the product "Local energy community as a service" could be offered by municipal utilities to the citizens.

The participants highlighted that it is very important for the success of local energy communities (LECs) to involve the DSOs from the beginning in order to include the viewpoints of those responsible for grid management later. LECs might also provide services to DSOs e.g. by investing in a local storage and offering its flexibility for grid management.

In general, it is expected that there will be more and more distributed generation and storage assets as well as increasing demand from electric vehicles in the distribution system, increasing the need for grid stabilization measures. Therefore, several of the edgeFLEX services were discussed as being relevant for DSOs already now or in the near future.

In phase two, face-to-face Open Days were organised at the trial sites in Italy and Germany to gather feedback from stakeholder on the implemented technical solutions and, in the case of Wunsiedel, to get feedback from end-users.



Figure 8 – edgeFLEX Open Day in Italy

3.7.3 Workshops with policy makers, experts in regulation and standardisation and practitioners

Within WP6, discussions with standards development organisations relevant for 5G-powered dynamically controlled VPPs are organised via consortium members engaged in standardisation committees. The process and outcome for the first year is described in the edgeFLEX deliverable *D6.3: Engaging with policy makers, with organisations and experts in regulation and standardisation* and will be updated with the activities in year two and three in *D6.4: Engaging with policy makers, with organisations and experts in regulation and standardisation* at the end of the project.

3.7.4 Invited presentations

Invited talks in workshops and at international events serve to communicate the project to the different target groups aiming at further recognition and prestige of it. In phase one and two, consortium members presented edgeFLEX in 35 invited presentations. These communication and disseminate activities will be continued during the last project phase. The focus will shift to disseminating the results obtained from the trials.

3.8 Events & courses for professional and academic audiences

As part of the dissemination activities and public outreach of edgeFLEX results, the consortium has identified the importance of addressing professional and academic audience with a dedicated set of activities focused on students in higher education in the field of engineering. The goal was to organise a dedicated course centred on the technical concepts developed in the project, but also encompassing the most relevant aspects about regulations and market that would be of interest for future technical roles and professional profiles in the energy sector.

The consortium had previously contacted the ASSET project and started following its activities as well as getting insights in the outcomes of it. ASSET did investigate optimal approaches to structure learning offers for engineering students in the energy sector, taking into consideration in particular the new requirements in terms of knowledge and skillsets posed by the ongoing energy transition and the growing digitalisation of the energy sector. In this respect, the focus of edgeFLEX on flexibility exploitation for grid management fits perfectly the challenges arising in the energy sector. Additionally, the edgeFLEX architecture structure, with its capability to host and easily deploy grid monitoring and automation services represents a fitting approach for the need of digitalisation of the energy sector.

EdgeFLEX partners joined the ASSET project final event on April 15th 2021, to learn about the findings of the project, which included an understanding of the challenges and needs in the energy sector with respect to research and education. These insights proved to be very valuable in preparing and proposing a course based on edgeFLEX technical developments and helped in shaping the offer to be included in the edgeFLEX course and the optimal structure of such course.

The activities related to the edgeFLEX professional course organisation culminated with the execution of the course in April 2022. The course was composed by different modules, each of them focusing on specific results of the edgeFLEX concepts development.

The course, offered as online event, was attended by more than 70 participants, with a good participation and active interaction from the audience. At the end of the event the participants were requested to provide short feedback to the organisers and the outcome of such feedback showed a very good level of satisfaction from all those who joined the course and also all topics and modules were highly rated both in terms of content as well as for the quality of the organisation. For a detailed description of the course organisation as well as an in-depth analysis of the results and feedback, the reader can refer to Deliverable D7.3.

Additionally, edgeFLEX collaborated and will further coordinate with the EDDIE¹ project in order to maximise the impact and exploit the results of the edgeFLEX course, by providing insights useful for EDDIE activities, with the final goal to define and develop a more consistent and future-oriented approach in education in the energy sector

For doctoral students and researchers, summer schools are organised to introduce edgeFLEX concepts in academic lecturing and research. Master theses with a focus on the project's concepts and solutions are incentivised. UNIBO organised two summer schools in the first and second project years, where the project and its findings were presented. 2 students worked on master thesis related to edgeFLEX concepts.

¹ <https://www.eddie-erasmus.eu/>

The screenshot shows an Eventbrite event page for the 'edgeFLEX course on advanced power grids operations'. The event is scheduled for April 28-29, 2022, and is an online Zoom session. The page features the edgeFLEX logo, a 'Follow' button, and a 'Details' button. The event description states that the course is hosted by high-profile energy experts from across Europe. It details the topics to be covered, including advanced research concepts for new fast dynamics services for grid management, voltage and frequency control in low-inertia power systems, and the application of information and communication technologies to power grids, including 5G communication and edge cloud applications. The course is organized in two sessions: Day 1 (28.04.2022 09:00-13:00) and Day 2 (29.04.2022 13:00-17:00). The event is free, and there is an 'Access the event' button.

Figure 9 – The edgeFLEX online course on Eventbrite April 2022

3.9 FlexCommunity

The COVID-19 pandemic is reducing face-to-face dissemination and communication possibilities drastically, so new measures had to be envisioned. To broaden the outreach of the project, create support to the development of the edgeFLEX ICT tools, promote their adoption by a critical mass of stakeholders and foster the necessary changes in legislation, it was decided to establish a flexibility community with other projects that focus on flexibility in the energy system.

By joining forces, the number of relevant experts can be maximised thus reaching a critical mass of stakeholders and creating a bigger impact. This is reached by having partners from different project consortia on board, but also by being attractive to external stakeholders. The community is organised as a knowledge community on different levels (technical, business & market aspects, energy communities etc.), but also reaches out to potential adopters and users of the project's technology and solutions.

A collaboration with the H2020 sister projects FEVER and Platone and DECIDE resulted in a joint online event on Nov. 19 2020, hosted by BRDIGE and the SES taskforce on energy communities. edgeFLEX was co-organiser of the event. The aim was to strengthen the cooperation under the light of local flexibilities and its potential exploitation through energy communities. It eventually resulted in the *FlexCommunity*, which was officially kicked-off on 2 February 2022. The goal of the community is to unite all stakeholders from research, industry and regulatory organisations for knowledge exchange and networking at national, transnational and international level to facilitate flexibilities in the energy system.

A new logo was designed and a dedicated website was set up with different subsections for specific topics and groups: <https://flex-community.eu>. The FlexCommunity has almost 160 members at present.

The technical manager Gianluca Lipari from RWTH is one of the moderators of *FlexGroup 1: Technical management of flexibilities*, bringing in the expertise gained from the edgeFLEX project

and at the same time getting feedback from stakeholders. The group focuses on technical enablers for the integration of flexible generation, storage and consumption units into the distribution network. Discussions concentrate on energy and digital technologies, standards and interoperability issues.

The 1st FlexGroups meeting on 28 April 2022 served to better shape the FlexCommunity resulting in a Memorandum of understanding that was published on the website: <https://flex-community.eu/data/Downloads/MoU.pdf>.

The second FlexGroups meeting did take place on 21 September 2022 and spinned around the topic of energy communities as a source of flexibilities in the energy system. In order to ensure that the FlexCommunity has a long-term impact even after the end of the founding projects, it was decided to have individual persons as members rather than projects. The website, however, displays projects involved in flexibility topics.



3.10 BRIDGE involvement

The edgeFLEX project is funded through Horizon Call H2020-LC-SC3-2019-NZE-RES-CC (Topic: LC-SC3-RES-16-2019 - Development of solutions based on renewable sources that provide flexibility to the energy system) and is therefore not initially a BRIDGE project. However, as it thematically fits very well with BRIDGE projects and activities and the exchange with these projects was considered very valuable, our PO advocated to include edgeFLEX in the initiative. In February 2022, edgeFLEX was integrated into BRIDGE and has been involved in the working groups (WG) since then.

In the WG “Citizen and Customer Engagement”, project partner B.A.U.M. is leading the topic group “Stakeholder Characterization”. The objective of the group is to characterise all stakeholders in the energy system across the EU. A specific goal is to capture the characteristics of the individual persons behind the multiple roles and organisations, e.g., the different employees of a DSO, to create *personas* as prototypes for certain stakeholders. The availability of personas for stakeholders that play a role in the digitisation of the energy system will make engagement activities and implementation processes in future projects more successful as well as help future development of tools being more user-oriented.

For this purpose, a comprehensive, large-scale survey will be developed. As a first step, the experience of other research projects with the different roles will be gathered. First tangible results from this first part are expected by end of 2022. Afterwards, it is planned to conduct a survey in administration and policy related circles (e.g., CETP). Finally, industrial stakeholders will be surveyed through associations and other networks. Participation in the survey will be promoted via emails as well as compatible workshops and conferences. All of this is to ensure that stakeholders can be described from as many different perspectives as possible.

It is planned to transfer all results to an open-access EU-level platform to be available for other projects as well as stakeholders. For edgeFLEX, results and insights from the survey will be used for the work on the 360-degree assessment study as well as best practice descriptions.

4. Conclusion

The dissemination and communication plan gives the basis for the upcoming activities that support the strategic goals of edgeFLEX. It sets a clear orientation on what to do to achieve the communication objectives for the project. The focus for dissemination phase one was on the general goals of the project and the technical development and bringing the overarching message in line with the first results. The tools and channels to start spreading information to the identified relevant stakeholders were set up. The dissemination and communication activities in the phase two experienced a shift of focus towards the trials and associated results, deepened the customer integration and started preparations for the exploitation of results. In the third and last phase, the focus will continue being on the project's results with clear emphasis on supporting business modelling and exploitation of edgeFLEX results, maximising the impact beyond the project's runtime.

Against the backdrop of to the COVID-19 pandemic and the accompanying cancellation of face-to-face events, the dissemination and communication planning was adjusted with a shift towards online activities, more communication via videos and an emphasis on joining forces with other projects for a broader outreach with the establishment of a FlexCommunity. Consortium members presenting the project at events play an important role in transferring knowledge and disseminating (interim) results to relevant stakeholders and target groups. They will keep on doing so at face-to-face, online and hybrid events (organised by third parties as well as edgeFLEX itself). The academic partners will continue to publish edgeFLEX results.

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