Deliverable D7.1.1

Communication, dissemination and exploitation plan

V1.0

This project has received funding from the European Union's *Horizon 2020 research and innovation programme* under grant agreement n° 824414

D7.1.1 – Communication, dissemination and exploitation plan

Document Information

Programme	Horizon 2020 – Cooperation / Energy
Project acronym	CoordiNet
Grant agreement number	824414
Number of the Deliverable	**D7.1.1**
WP/Task related	[WP7/ T7.1.1]
Type (distribution level)	PU Public
Date of delivery	[03-03-2020]
Status and Version	Version 1
Number of pages	**74** pages
Document Responsible	José Pablo Chaves Ávila – Universidad Pontificia Comillas
Author(s)	José Pablo Chaves Ávila – Universidad Pontificia Comillas Leandro Lind – Universidad Pontificia Comillas Nicolas Morell – Universidad Pontificia Comillas
Reviewers	Maria Thomtén – Uppsala Manolis Voumvoulakis– HEDNO

Revision History

Version	Date	Author/Reviewer
0.1	12/12/2019	José Pablo Chaves Ávila
0.2	29/12/2019	Comments received from Gonca Gürses-Tran (RWTH), Manolis Voumvoulakis (HEDNO), Maria Thomtén (Uppsala), Kirsten Glennung (EDSO), Carlos Madina (Tecnalia)
0.3	01/01/2020	Comments received from Maria Thomtén (Uppsala)
0.4	24/02/2020	Inputs from all partners regarding exploitation plans
0.5	24/02/2020	Comments received from Marco Baron
0.6	27/02/2020	Comments from Maria Thomtén (Uppsala) and Manolis Voumvoulakis (HEDNO)

Executive summary

The Communication, Dissemination and Exploitation Master Plan outlines the strategy for the CoordiNet project's communication, dissemination and exploitation activities. This document also reports conducted communication and dissemination activities and the involvement of the CoordiNet partners during 2019 and plans for 2020.

As part of the Communication and Dissemination strategy key high-level messages have been identified. Identified target groups have been divided in key stakeholder groups which CoordiNet aims to reach and share project results with.

The Dissemination activities intend to expose the project results to a broad audience. Proposed activities include participation in Bridge Initiative meetings, international conferences, workshops and scientific publications intended to engage with relevant stakeholder groups such as European Commission, system operators, regulators, academia, H2020 projects, system operators and flexibility service providers. These interactions contribute to ensure the quality of the proposed solutions and the project results.

The project website, press releases, webinars and newsletters are means to reach a wide international audience, while publications in social media contributes to continuously engage stakeholders to be aware of the project results and react to them if possible.

Dedicated communication activities are key to achieve two-way communication. To this end, different actions have been promoted such as establishing a Stakeholder Forum, the Advisory Board meetings and an agreement on a common position paper with INTERRFACE project which aims to provide a consensus report on the TSO-DSO cooperation topic.

CoordiNet partners have been actively participating in the communication and dissemination activities during 2019. CoordiNet has been active in online communication including website, news and newsletter, a webinar, social media and 36 highly relevant physical events in which different partners have represented the project. Some of these key events include: H2020 Bridge meetings, relation with the International Smart Grid Action Network, meeting with national regulators, local, regional and national governments, the Council of European Energy Regulators, participation in the European Utility Week, presentations in international conferences organized by IEEE, CIGRÉ, CIRED, EEM, among others. In these events the project approach and the public results of the project so far have been presented.

Finally, this deliverable addresses the exploitation results and the strategies per partner in order to identify how the CoordiNet results can be exploitable after the end of the project. For this an exploitation management procedure is established. The general exploitation strategy starts during the first year of the project until the end. To perform this task, different deliverables are foreseen to continuously update the strategies.

Table of contents

List of tables

List of figures

Notations, abbreviations and acronyms

AB	Advisory Board
AEGE	Spanish Association for Large Energy Consumers
C&D	Communication and Dissemination
CA	Consortium Agreement
CEER	Council of European Energy Regulators
DER	Distributed energy resources
DSO	Distribution System Operator
EB	Executive Board
EEM	European Energy Market Conference
EC	European Commission
e-di	e-distribución Redes Digitales S.L
E.DSO	European Distribution System Operators for Smart Grids (non-for-profit association)
E-GIN	ENEL Global Infrastructure and Networks
ENTSO-E	European Network of Transmission System Operators for Electricity
E.ON	E.ON Energidistribution AB
ESCO	Energy Service Company
EU	European Union
EUW	European Utility Week
EUSEW	EU Sustainable Energy Week
EWEA	European Wind Energy Association
FSP	Flexibility service providers
GA	General Assembly
HEDNO	Hellenic Electricity Distribution Network Operator S.A.
ICCS	Institute of Communication and Computer Systems
IDAE	Institute for Energy Diversification and Savings
i-DE	i-DE Redes Eléctricas Inteligentes S.A
IEEE	Institute of Electrical and Electronics Engineers
IP	Intellectual Property
IPTO or ADMIE	Independent Power Transmission Operator
KPI	Key Performance Indicators
LTP	Linked Third Party
M	Month
REE	Red Eléctrica de España (Spanish TSO)
RES	Renewable Energy Sources
RTD	Research and Technology Development
RWTH	E.ON ERC at RWTH Aachen University
SH	Stakeholders
SvK	Svenska Kraftnät (Swedish TSO)
TSO	Transmission System Operator
WP	Work Package

Table 1: Acronyms' list

1. Introduction

1.1. The CoordiNet project

The CoordiNet project is a response to the call LC-SC3-ES-5-2018-2020, entitled "TSO – DSO – Consumer: Large-scale demonstrations of innovative grid services through demand response, storage and small-scale generation" of the Horizon 2020 programme. The project aims at demonstrating how Distribution System Operators (DSO) and Transmission System Operators (TSO) shall act in a coordinated manner to procure and activate grid services in the most reliable and efficient way through the implementation of three large-scale demonstrations. The CoordiNet project is centred on three key objectives:

1. To demonstrate to which extent coordination between TSO/DSO will lead to a cheaper, more reliable and more environmentally friendly electricity supply to the consumers through the implementation of three demonstrations at large scale, in cooperation with market participants.
2. To define and test a set of standardized products and the related key parameters for grid services, including the reservation and activation process for the use of the assets and finally the settlement process.
3. To specify and develop a TSO-DSO-Consumer cooperation platform starting with the necessary building blocks for the demonstration sites. These components will pave the way for the interoperable development of a pan-European market that will allow all market participants to provide energy services and opens up new revenue streams for consumers providing grid services.

In total, eight demo activities will be carried out in three different countries, namely Greece, Spain, and Sweden. In each demo activity, different products will be tested, in different time frames and relying on the provision of flexibility by different types of Distributed Energy Resources (DER). Figure 1 presents an approach to identify (standardized) products, grid services, and coordination schemes to incorporate them into the future CoordiNet platform for the realization of the planned demo activities.

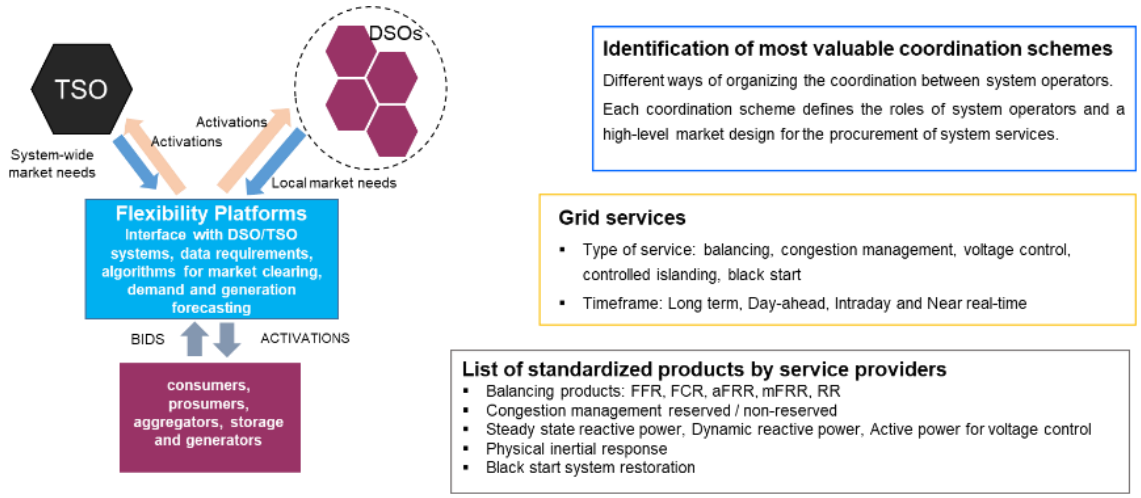

Figure 1 Overall CoordiNet approach

(FFR: Fast Frequency Response, FCR: Frequency Containment Reserves, aFRR: automatic Frequency Restoration Reserves, mFRR: manual Frequency Restoration Reserves, RR: Replacement Reserves)

1.2. CoordiNet consortium

The CoordiNet consortium is composed by 23 beneficiaries from 7 different European countries, and involving a total of 33 participants (beneficiaries and linked third parties only) from 10 Countries (Spain, Sweden, Greece, Bulgaria, Belgium, Italy, Germany, Czech Republic, The Netherlands, and Austria). Linked hird parties are involved as additional DSOs, market participants, or subcontractors to develop some components of the various platforms. Figure 2 shows the countries involved in CoordiNet project.

The consortium involves 2 energy suppliers (Vattenfall AB, Gotlands Energi AB), 3 ESCOs and independent aggregators (Uppsala municipality, Malaga city, ONE), 3 TSOs (REE, Svenska, IPTO) from 3 different EU Member States (Sweden, Spain and Greece), and 6 DSOs operating in the areas covered by the transmission system of the participating TSOs (e-distribución, e-DE, HEDNO, Vattenfall and E.ON). In addition, the consortium includes 1 DSO association (EDSO) involving 6 DSOs from 6 Countries as linked third parties (INNOGY, Netz Niederösterreich, Alliander, CEZ Distribuce, e-distribuzione, Fluvius) to coordinate the work with stakeholders (especially with ENTSO-E and other DSO organisations), 3 solution providers (OFFIS, ENGINEERING, EXPEKTRA), and 7 research centres and universities covering all technical market and regulatory aspects (TECNALIA, VITO, COMILLAS, ENERGIFORSK, RWTH Aachen, NTUA, N-SIDE). Finally, cascading funds will be used for the incorporation of further participants.

Three complete value chains of TSO-DSO-market participants constitute the backbone of the project in three demonstration macro-areas (Spain, Sweden, Greece) with eight demonstration pilots (two in Spain, four in Sweden and two in Greece) representing various boundary grid, climatic, load and generation conditions. Over the CoordiNet demonstration areas, the extent of demonstrations sets a high value asset for extrapolation features on a European wide-area.

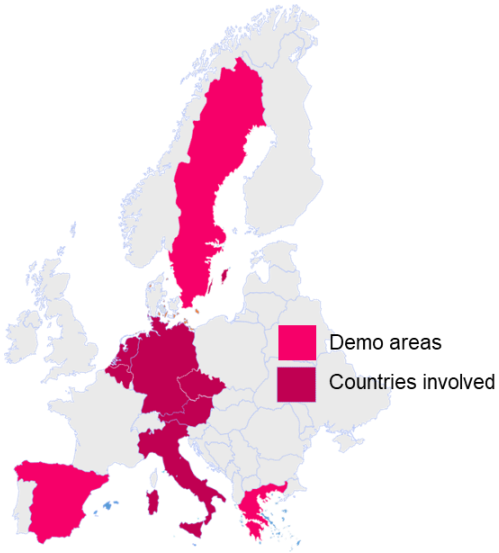

Figure 2 CoordiNet demo areas and countries involved

1.1. Scope of the document

This deliverable presents the general strategy of the CoordiNet project with respect to Communication and Dissemination (C&D) activities, the reporting of activities during 2019 and plans for 2020. This deliverable sets the framework for all C&D activities for CoordiNet project organized in CoordiNet WP7. In addition, this deliverable presents the principles for exploitation of CoordiNet results and the initial expectation from the partners on exploitable results.

The main objective of this document is to present the Communication and Dissemination Plan addressing the relevant actors to share technical, regulatory, market and public coverage of the CoordiNet project results. Further, the plan aims to enable smooth communication and knowledge sharing among the consortium project partners and with other innovation projects supported by the EC.

The C&D Plan seeks as to establish a strategy for disclosing the projects results and increase the awareness of the key stakeholders on the solutions proposed during the project. In order to achieve these objectives the document establishes the procedures, identifies the impact-effective activities and uses the most adequate means. The communication and dissemination activities described in this document will be developed during the whole project starting from M1 up to the end of the project and beyond. Thus, the C&D plan will be regularly updated (once a year) during the project.

According to the definition of the European Commission[1], *Dissemination* refers to the disclosure of the project results which should start from the beginning of the project to increase the awareness to broad and various stakeholder groups, including academia, industry, governments and regulators, market actors and even the general public. *Communication* refers, on the other hand, to strategic and targeted measures for promoting the project results and engage key stakeholders through two-way communication channels including networking activities.

This deliverable also defines the agreement by all partners on the exploitation strategy, which will be updated yearly. As a follow-up action, CoordiNet D7.4.1 at month 36 of the project will report the final principles of the exploitation plan. The final exploitation plan validated by all parties and presented at month 42 in D7.4.2.

The following sections of this document detail the channels and strategies for sharing the project results among the key identified stakeholders. These stakeholders have either a commercial interest (flexibility service providers, DSOs, TSOs), policy makers (governments or regulators) who aim at enabling a secure and efficient energy system, research institutes or even general public. In addition, the reporting and monitoring of 2019 activities is presented which will be updated in a yearly basis together with C&D plans.

Figure 3 presents the overarching timeline for Communication, Dissemination and Exploitation activities within the project and the responsible partner for such activities. WP7 is the work package for Dissemination, exploitation and coordination with relevant stakeholders and H2020 projects. According to the CoordiNet project proposal, all the communication and dissemination activities will last during the whole project.

[1] https://ec.europa.eu/info/funding-tenders/opportunities/portal/screen/support/faq/933

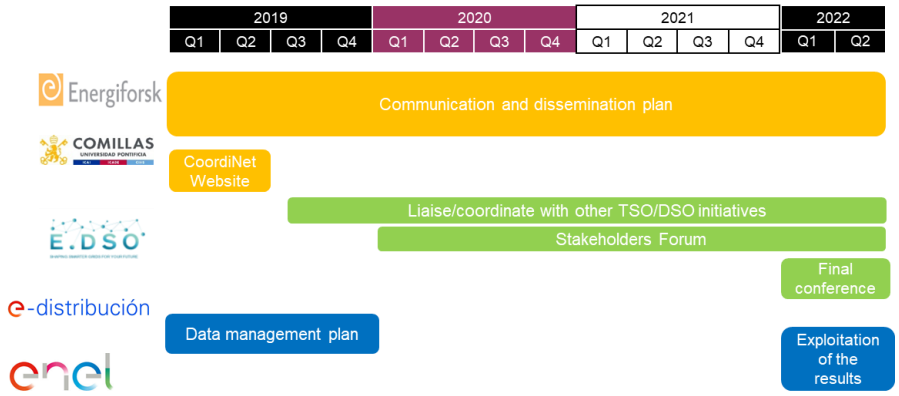

Figure 3 Overarching timeline for Communication, Dissemination and Exploitation tasks

2. Communication, Dissemination and exploitation strategies

CoordiNet focuses on providing technical, regulatory and market solutions for providing system services to TSOs and DSOs in a secured and efficient manner by using resources connected at different levels of the electricity grid. To achieve this goal, an effective involvement of key stakeholders is crucial to make the necessary changes in the current EU electricity systems. This requires strategies for both internal project partners and external audiences. The C&D plan thus sets key messages for target groups, establishes communication and dissemination channels and specific activities and establishes KPIs to measure the effectiveness and accomplishment of C&D objectives.

2.1. Key messages

As stated before and in every deliverable of the project, CoordiNet aims at contributing to three key objectives, which at the same time are the main messages to be communicated:

1. To demonstrate to which extent coordination between TSO/DSO will lead to a cheaper, more reliable and more environmentally friendly electricity supply to the consumers through the implementation of three demonstrations at large scale, in cooperation with market participants.
2. To define and test a set of standardized products and the related key parameters for grid services, including the reservation and activation process for the use of the assets and finally the settlement process.
3. To specify and develop a TSO-DSO-customers cooperation platform starting with the necessary building blocks for the demonstration sites. These components will pave the way for the interoperable development of a pan-European market that will allow all market participants to provide energy services and opens up new revenue streams for consumers providing grid services

By achieving those objectives, CoordiNet will contribute to in the development of the electricity systems:

1. Contribute to a smart, secure and more resilient energy system through demonstrating cost-efficient model(s) for electricity system services that (i) can be scaled up to include networks operated by other TSOs and DSOs, (ii) that will be replicable across the EU energy system, and (iii) provide the foundations for new network codes, particularly on demand-response.
2. Contribute to opening up significant new revenue streams for customers to provide grid services.
3. Increase the share of RES in the electricity system.

For each of the three demonstrator countries, specific objectives are pursued as stated below.

Greece

The main objectives of the Greek demo are:

1. Prepare consumers and RES to obtain a more active role in the management and operation of the power system on a national and regional level.
2. Create new products and services in order to reduce consumers' cost of energy and improve quality of supply.
3. Utilize existing operational and demonstration systems with new ones developed in the project.

The main actions that need to be developed in this demo are:

1. Common HV& MV Network Model for the validation of any action planned by the TSO and DSO in collaboration.
2. Forecasting Software for forecasting Demand and RES production.
3. Estimation for enhancing network observability and controllability within specified time frame.
4. Market platform for coordinating TSO, DSO and market actors.

5. Enable Aggregators to participate in the Market Platform.
6. Enable TSO/DSO to participate in the Market Platform.

Spain

The Spanish demo will proof the technical and economic viability of a system that enables Flexibility Service Providers (FSPs) regardless of their size and voltage level (in their connection point) to provide flexibility services to DSOs to solve congestions, voltage and islanding operation problems and TSO to solve congestions, voltage and balancing problems.

The project aims to demonstrate how DSOs and TSOs can act in a coordinated manner to provide a favourable framework to promote the participation of all agents (consumers and generators) in the system services markets:

1. Provide favourable cooperation conditions to all the actors while removing barriers.
2. Analyse and define the flexibility grid services for both TSO and DSO.
3. Propose new market mechanisms, which are more suitable for real time operations, under the premise to define requirements for a European standard platform.
4. Results of this demo will allow to integrate a higher share of renewables in the system.

Sweden

Some of the today's challenges in Sweden are:

1. Customers are moving faster than ever
   - Significant increase in requests for capacity as industry and transportation sector strive to become fossil-free
   - Rapid urbanisation.
   - Shorter planning horizon and high uncertainty.
   - Changes in production, reduced power generation in larger cities, higher wind production in the North.
2. And society can't keep up
   - TSO has constraints.
   - Regulatory demand for high security of power supply.
   - Increased lead-time for new and renewed power lines (10-15 years for national grid).
   - Regional grid constraints not solved by present market mechanisms.

CoordiNet is expected to bring the following benefits:

1. Enabled city and economic growth through a more flexible use of capacity over time.
2. Flexibility market established on which flexibility providers can offer capacity and DSOs can procure this additional capacity, when needed.
3. Flexibility products developed and incorporated into DSO operations and grid planning perspectives, as well as customers' routines.
4. Market Design and coordination between TSO and DSOs well established, supported by real time data, and forecasting for customer and grid behaviour.
5. Contribution to national and local goals for climate and renewables as well as economical utilization of assets.
6. Digital P2P-market in place to enable trading, planning and economical transactions.
7. A market place may provide a cost-efficient solution for local and ancillary services
8. DERs, like energy storage and wind as well as small-scale customers, through aggregation participate with their flexibility.

2.2. Communication, Dissemination and exploitation target groups

In order to achieve these high-level objectives, CoordiNet has identified key stakeholders (SH) shown in Figure 4 as target groups who are relevant to implement or be aware of the main project results.

SH1	•Local and national governments
SH2	•Regulators
SH3	•DSOs
SH4	•TSOs
SH5	•Flexibility Service Providers
SH6	•Accademic institutions
SH7	•European Commission and other H2020 projects
SH8	•Media and general public

Figure 4 Stakeholders considered in CoordiNet

Local and national governments have the means to include in their energy policies the participation of electricity customers and can encourage participation through financial and non-financial incentives. There are two local governments participating as project partners (Uppsala and Malaga), but the project aims to also reach national and additional local governments.

Regulators, on the other hand, are stakeholders that can enforce regulations on active system management providing incentives to system operators and market parties to procure and offer flexibility products. Therefore, regulators are key enablers of CoordiNet solutions.

DSOs and TSOs are the key players that may be affected by CoordiNet results as new coordination schemes will be considered and new procedures between them will be established. In addition to the project partners, several system operators are expected to be engaged in project development and obtain their feedback on CoordiNet proposed solutions.

Flexibility service providers (FSPs), connected at different voltage levels, are key partners to realize the project objectives. Some of FSPs are project partners but engaging more are key to ensure quality and usability of project propositions and results.

The CoordiNet project aims to provide novel technical solutions, and to make these solutions robust it is essential to contrast them with experts worldwide. Scientific publications and peer-reviewed process related to *academic institutions* are key to reach this stakeholder group.

The topics addressed in CoordiNet have been also investigated in *other H2020 projects*. Therefore, to improve the results and advance as much as possible, close collaboration with other projects and the European Commission itself is essential.

Finally, increased awareness on flexibility needs in the electricity system among the *general public* is key for customers to eventually become flexibility service providers, increase the flexibility of the system and consequently increase the reliability, reduce costs and increase the penetration of renewable sources as stated in CoordiNet objectives.

2.3. Communication, Dissemination and Exploitation channels

The CoordiNet project provides to the partners different means to communicate, disseminate and exploit results to the key stakeholders.

The main channels to deliver the C&D activities and achieve the objectives are:

- CoordiNet website available at: https://coordinet-project.eu/
- Organization of Stakeholder Forum and Advisory Board meetings (see 2.4.1 and 2.4.2).
- Involvement in Bridge Initiative (see 2.4.4).
- Organization and participation in conferences and workshops.
- Scientific publications and submission papers to international relevant forums.
- Social media: Twitter Account and LinkedIn Group account.
- Collaboration and coordination with other H2020 projects.
- Videos and Webinars.
- Newsletters.
- Press releases.
- Other project results promotion on events, etc.

The matching between the identified key stakeholders and the channels previously highlighted are presented in Table 2.

Channel/Stakeholder	SH1	SH2	SH3	SH4	SH5	SH6	SH7	SH8
Website	X	X	X	X	X	X	X	X
SH Forum	X	X	X	X	X	X	X	
Bridge Initiative			X	X	X	X	X	
Conference & workshops		X	X	X	X	X	X	
Scientific publications	X	X	X	X	X	X	X	
Social media	X	X	X	X	X	X	X	X
H2020 collaboration			X	X	X	X	X	
Videos & webinars	X	X	X	X	X	X	X	X
Newsletters	X	X	X	X	X	X	X	X
Press releases	X	X	X	X	X	X	X	X
Promotion events	X	X	X	X	X	X	X	X

Table 2 Matching of channels and stakeholders

2.4. C&D activities

Dissemination activities intend to reach specific stakeholder groups in order to guarantee a high quality of the results and solutions proposed in the project. Some of the activities identified are:

- The Bridge activities are of high interest for coordinating with other H2020 projects on related calls.
- Participation in international conferences and workshops. Presence in international conferences and workshops allows sharing and contrasting the projects results with international experts in the field. Some of the most relevant conferences to attend are the European Electricity Market, CIGRE, CIRED and the IEEE conference.
- Scientific publications and submission papers to international relevant forums. The peer-review process of scientific publications will enhance the quality of the proposed solutions from a technical point of view, therefore such submission is key to guarantee the technical quality of the results.

- Webinars are a mean to reach a wide international audience. The project participation in the ISGAN Academy[2] guarantees a broad audience such as international experts, industry and policy makers. Stakeholders from EU and other continents attend these webinars and have the possibility to interact with the project partners.
- The CoordiNet website will be available for public access and will contain updated information on the project partners, current activities, calendar of events as well as links to relevant websites of the EC, the partners' organisations, the AB members' networks (see section 2.4.2 for further details on the AB).
- The CoordiNet flyers containing the main elements of the project (project summary and objectives, impacts and benefits). It will be used to increase visibility of CoordiNet and to promote project objectives at fairs and conferences as well as in everyday business life of all partners.
- A minimum of two press releases will be issued in different online and printed magazines, journals and news in order to promote CoordiNet. The project will also produce four electronic newsletters providing information on the project and results according to the respective time frame and corresponding activities performed.
- 5-6 Publications: the partners will communicate the goal of CoordiNet and publish project results printed or online in several European and national journals and specialised magazines. Other articles and partners testimonials will be hosted on the CoordiNet and its partners' websites, and will be marketed to other websites.
- Social media sites, targeting both professional and public networks, will be used mainly to raise awareness on CoordiNet topics and announce the release of other communications like newsletters, articles, etc.
- Public workshops will be organized in each demonstration site in order to widely inform the general public and local practitioners on the demonstration sites results, and overall approach and results of the CoordiNet project.
- Summaries on key findings will be developed to be used during the Final Conference.
- The presence of the project on relevant events such as the European Utility Week will be a clear mean for sharing the project results with key industrial partners and other relevant stakeholders. A list of events will be monitored and encourage the participation of relevant partners.

The CoordiNet communication approach fully exploits convergence of media and makes use of state of the art social media tools, which allow the project to reach a broad audience. Communication activities complement the dissemination as they add a public value to the achievements of the project by "translating" the sometimes complex results into easy to understand media resources focusing more on the impacts and added value for the end-users and society.

The main communication activities to establish a two-way communication where feedback is expected to be provided during the project are listed as follows:

- An active yearly Stakeholder Forum (see deliverable 7.3.1-3) operated outbound from the project assumptions and findings to the stakeholders, and inbound for consultation type exercises. These meetings are intended to engage specialized stakeholders.
- Advisory Board meetings which are open to specialized stakeholders and provides the possibility to receive feedback on the project results.
- The liaison with other R&I initiatives already to be funded either through direct contacts (especially with the INTERRFACE project). This guarantees a common understanding between both projects and the contrast of proposed solutions.
- The active participation in the Working Groups of the Bridge initiative to share and learn from parallel experiences (the ambition is to participate in at least three working groups)

[2] www.iea-isgan.org/our-work/annex-8

These communication activities are detailed below.

2.4.1. Stakeholder Forum

The stakeholders in Figure 4 have been identified as parties that can be interested and affected by CoordiNet results. A Stakeholder Forum (SHF) has been formed to gather insights from a wide amount of stakeholders, contribute to the exploitation of results and set up a Final Conference to be held in Brussels where project results are presented.

The SHF will provide a platform to achieve a level of stakeholder interaction beyond what would be achieved through dissemination workshops and an Advisory Board alone. The Forum will be organised with a view to two objectives:

- Support dissemination towards targeted stakeholders (outbound)
- Consultation of stakeholders (inbound) on key results and recommendations.

The SHF will include users, renewable energy operators, aggregators, regulators, manufacturers and network operators to broaden the spectrum of inputs from the aspects that can be provided by the project and its demonstration projects alone. An international participation (e.g. ISGAN) is also foreseen. The members of the Forum will have the opportunity to review progress within the project and evaluate the proposed solutions on an ongoing basis throughout the project.

The functioning of the SHF will be less formal than the Advisory Board, as its members will participate on a voluntary basis. No appointment procedure will be necessary, but the Task Leader for the SHF will keep a Stakeholder list up to date. Physical meetings will be organised once a year, starting on the second year of the CoordiNet project. Webinars will also take place, at least once a year starting the second year.

In order to engage the main stakeholders an interactive approach with the Stakeholder Forum will be organized including:

- Stakeholder Forum meetings (x3)
- Stakeholder Forum webinars
- Elaboration and update of Stakeholder Forum Report (Deliverable 7.3.1-3)

2.4.2. Advisory board

An Advisory Board (AB) will be constituted for technical and scientific guidance of the project. It will be chaired by the scientific advisor of the project and supported by the project coordinator. The AB is composed of voluntary experts appointed during the first General Assembly-meeting within the project, based upon the proposition of the Executive Board (EB). The AB is consulted upon the demand of the EB (other meetings if necessary can be organized via web conferences). The AB is in charge of answering questions prepared by the EB upon request of any consortium member. The objective of the AB is to provide the project's partners with the necessary expertise to help solve the problems addressed by the project, so as to anticipate and overcome obstacles, hence to reduce project risks and the future result exploitation risks. The functioning rules of the AB (as well as the other governance bodies) will be detailed in the Consortium Agreement.

The Advisory Board encompasses representatives of the project stakeholders, such as members of different consumer associations, DSOs and/or DSO associations, TSOs and TSO associations, retailers and/or retailer associations, energy regulators and associations, etc. The formal members of the Advisory Board are shown

in Appendix I. In addition to formal members, key stakeholders will be invited to the AB meetings in order to get their feedback on the project results. However, only recommendations and feedback from the formal members of the AB have to be addressed.

2.4.3. Liaison with other R&I initiatives

A close cooperation and interaction is expected with INTERRFACE project which is the other LC-SC3-ES-5 project from the same call as CoordiNet. From this interaction, a shared report will provide a comprehensive message to relevant stakeholders with an aggregation of the results from the respective perspectives of each project. This will be particularly advantageous where there are complementary aspects as it will provide one solid reference for interested stakeholders. Any misalignment in the findings between the projects could also be highlighted and be object of common workshops for the elaboration of a common deliverable.

In addition, there are other ongoing projects within the EU addressing similar topics to what are covered by this project. To maximise the productivity of these initiatives and projects, a two-way communication channel would facilitate knowledge sharing and encourage collaboration between these activities. Bilateral collaboration with other H2020 projects such as Integrid, TDX-Assist, EUSysflex, and Interflex will be managed, and feedback from these projects will be considered for the development of CoordiNet.

The CoordiNet project will investigate issues that are discussed at EU level, within the TSO/DSO Platform established by the European Commission. The project will setup interactions with this Platform in order to spread its findings, results and recommendations. This will bridge project activities and policy development by bringing more inputs from field research to the discussions at EU level.

2.4.4. Active participation in Bridge Initiative Working Groups

The participation in Bridge meetings will be periodically. The aim of these coordination meetings (called also BRIDGE Initiative[3]) is to collect information from other EU projects regarding demonstration of Smart Grid and storage about: Regulatory Framework, Business models, Data Management and Customer Engagement.

Participation in three Bridge working groups is foreseen: Regulation, Customer Engagement, and Data Management. Participation in the Business Model working group will not a priori be targeted since relevant messages on customers and market design will be forwarded through the other working groups.

2.5. Visual profile

In all CoordiNet communication the official logo of the project shall be used as presented in Figure 5.

[3] www.h2020-bridge.eu

Figure 5 CoordiNet logo

Public deliverables and public presentations will use a common template provided to the partners and available in a common platform for internal use and hosted in MS Teams.

All communication shall clearly show the EU flag and the text "This project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No 824414".

2.6. Key Performance Indicators for Dissemination

The Communication and Dissemination Plan identifies Communication and Dissemination strategies and the best way to benefit the different stakeholders from the project results. To this end, it is required to identify quantitative indicators to measure the impact of the C&D activities. Thus, a short list of Key Performance Indicators (KPIs) can be used to evaluate the success of the dissemination activities. Project partner Comillas will regularly monitor and provide feedback on the key statistics regarding the success of communication and dissemination activities. The regular updates of the activities are reported in the C&D deliverable updates.

The identified Key Performance Indicators for the C&D Plan are the following:

- Papers published in international journals, conferences and books
- Participants in workshops and conferences
- Participation in the BRIDGE Initiative
- Presentations of the CoordiNet project
- Number of visits to CoordiNet Webpage
- Number of Tweets and followers in the project's Twitter accounts

3. Management of Communication, Dissemination and exploitation activities

The management of C&D activities is divided in three main categories: internal project communication, external communication and stakeholder engagement.

3.1. Internal project communication

Different means are used to coordinate the internal communication activities among the project partners:

- **MS Teams.** MS Teams is the platform for sharing documents and information among the CoordiNet partners. MS Teams is hosted and managed by Comillas.

In MS Teams the partners contact list is continuously updated as well as the main stakeholders contact list. The CoordiNet document and presentation templates are also available in MS Teams. A specific folder is created for WP7 Dissemination and Exploitation. This folder host information to manage the WP7 deliverables, papers, documents presentations and videos for external C&D purposes which can be accessible to all partners and can be reutilized. MS Teams has different functionalities to improve communication between partners such as planner, calendars, chats, online documents editing, videoconferences, among other functionalities that ease the communication between CoordiNet partners.

- **Internal project website.** The project internal website allows to include public and private deliverable as well as draft version of the documents.
- **Regular meetings for WP7 coordination.** The WP7 leader (Comillas) and task leaders of WP7 (E-GIN, E.DSO, Energiforsk and e-distribución) will regularly meet via conference calls to discuss the C&D strategies, make internal communication among project partners smooth and contents of WP7 deliverables.

3.2. Procedure for approval and reporting of C&D activities

Communication Committee includes both the project Coordinator (Marco Baron) and the WP7 leader (José Pablo Chaves Ávila).

Any significant C&D activity has to be shared with the Communication Committee at least two weeks before the event. The partner who leads the communication activity should include the following information:

- Description of the event
- Draft material
- Stakeholders involved

The CoordiNet Communication Committee will check the information and give approval, suggestions for improvement or rejection. It is the responsibility of the Communication Committee to inform partners involved for timely feedback. A final decision has to be communicated to the partner within 1 week after the initial communication was received.

In order to keep a balance among the different partners, the Communication Committee will request the participation of different partners to represent CoordiNet in the different C&D activities according to the involvement on the different topics.

The corresponding partner is in charge of updating the last version of C&D outcome in the corresponding MS Teams folder.

For each of the deliverable described in section 3.3, the Communication Committee will have ad hoc meetings with the responsible partners to agree on the contents of the deliverables.

3.3. Communication and Dissemination deliverables

The different C&D activities will be reported in public deliverables of CoordiNet WP7:

- **Communication and Dissemination Plan** (D7.1.1). Responsible partner: Comillas. Deadline: M12

This deliverable corresponds to the presented document and monitoring and reporting activities will be updated at M24 and M36.

- **Project website** available for public, intranet for project partners (D7.1.2). **Responsible partner**: Comillas. **Deadline:** M3.

The website is operational since M4 in April 2019 and the corresponding deliverable available at: https://coordinet-project.eu/publications/deliverables

- **A common position paper** with related projects in the same call (D7.2.-3). **Responsible partner**: E.DSO. **Deadline:** M12, M24 and M42.

This position paper is developed in stages, starting with an agreement and thereafter developing the content in collaboration with the INTERRFACE project.

- **Stakeholder Forum Report**. Three successive versions (annual update) on proceedings of the workshops and other activities carried out within the year (D7.3.1-3). Responsible partner: E.DSO. Deadline: M12-M42.
- **Exploitation plan** (D7.4.1-2). Responsible partner: E-GIN. Deadline: M36, M42.

Development of exploitation options and identification of uncertainties (risks and opportunities) will be carried out in collaboration with the Executive Board. 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.

This deliverable includes sharing knowledge gained through the development of the project, in compliance with related intellectual property rights agreed in the project Consortium Agreement.

The different parties involved in the project should specify how the knowledge obtained will be shared including the coordination solutions, platforms developed, cost levels to scale up and to replicate each one of the CoordiNet demonstrations, of regulatory recommendations (built in WP 6).

- **Data Management Plan** with annual updates (D7.5). Responsible partner: E-GIN. Deadline: M12.

The Data Management Plan is a structural activity which identifies the data that should be subject of dissemination and exploitation activities. It also analyses the main data uses and users and explores the possible restrictions related to IPR and privacy issues according with the Consortium Agreement. The information available for different stakeholders is managed and stored through a Content Management System taking advantage of available information management sources accounting for project data dissemination needs and thus offering different levels of accessibility depending on the degree of confidentiality of the information.

- **Connection with Bridge duties** (D7.6). Responsible partner: E-GIN. Deadline: M12.

As stated before, participation in three Bridge working groups is foreseen: Regulation, Customer Engagement, and Data Management. Participation in the Business Model working group will not be

targeted since a priori relevant messages on customers and market design will be forwarded through the other working groups.

- **Final Conference in Brussels** (D7.7.1-3). Responsible partner: E.DSO. Deadline: M41-42.

The final recommendations of the project (final deliverable of WP6) and of the demonstrations will be presented at a final conference in Brussels. Final outputs documents (leaflets, videos, popular summaries) will be developed for this occasion.

The Final Conference is prepared through a Communication kit (M41) and a press release (M42). There will be conference proceedings (M42) presenting the main outcomes.

3.4. Exploitation management

This deliverable defines the agreement by all partners on the exploitation strategy, which will be updated yearly. As a follow-up action, CoordiNet D7.4.1 at month 36 of the project will report the final principles on the project exploitation plan. The final exploitation plan validated by all parties will be presented at month 42 in D 7.4.2.

During the first General Assembly, which took place on January 15th 2020, the first discussion on the exploitation strategy, under the management of the coordinator and the moderation of WP7 leader, the partners agreed on reporting the exploitation results, including:

- The characterization of the exploitable results and identification of new results as the project progresses; and for each result, the validation of the business opportunities (regulated and non-regulated markets), which depend on their replication potential;
- A continuous update to the consortium about parallel related projects
- The update of the risk mitigation plan with regard to the exploitation of the results;
- The progressive building of the exploitation plan, in particular the management of IP.

E-GIN will develop the role of exploitation manager of CoordiNet.

Four exploitation workshops will take place at the end of each review periods (M12, M24, M36, and M41). The first workshop took place on February 6th and 7th 2020 through conference calls were all partners were invited to participate.

These annual exploitation workshops intend to define the exploitation plan aiming to:

- Develop a dedicated methodology that will be used for hardware and software solutions used in the demonstration. It includes the assessment in terms of value creation, customers, management of resources, networking and financial issues.
- In parallel, for all other results, each partner will provide an exploitation strategy answering the following crucial questions: clarification of exploitable results and development of exploitation; identification of lead early adopters to use the exploitable result; which form(s) will the exploitation of these results take; issues and ownership of knowledge.

The CoordiNet Exploitation Manager will be responsible for establishing the principles of the invention and proposing to the Consortium the possibility to apply for a patent protecting the generated IP.

As agreed in the GA, each IP owner will provide an exploitation strategy answering the following crucial questions: clarification of exploitable results and development of exploitation; identification of lead early adopters to use the exploitable result; which form(s) will the exploitation of these results take; IP issues and ownership of knowledge.

The Exploitation Strategy will consider activities related to business processes, which include:

- To provide information of the commercialization of the developments in CoordiNet such as platforms, components, algorithms, methodologies, etc.
- To assess the following pillars: value creation, customers, management of resources, networking and financial issues.
- To develop new business models that link the CoordiNet solutions with the customers in novel or engaging ways.

4. Monitoring and reporting of communication and dissemination activities in 2019

4.1. Online communication during 2019

4.1.1. CoordiNet webpage

The main communication channel of the project is the CoordiNet webpage where the project description and the public deliverables are available: https://coordinet-project.eu/

By using Data Analytics from Google, the CoordiNet project is able to track the number of users. Since the public launch of the CoordiNet webpage, there have there have been 2087 users as of December 12th 2019 as shown in Figure 6.

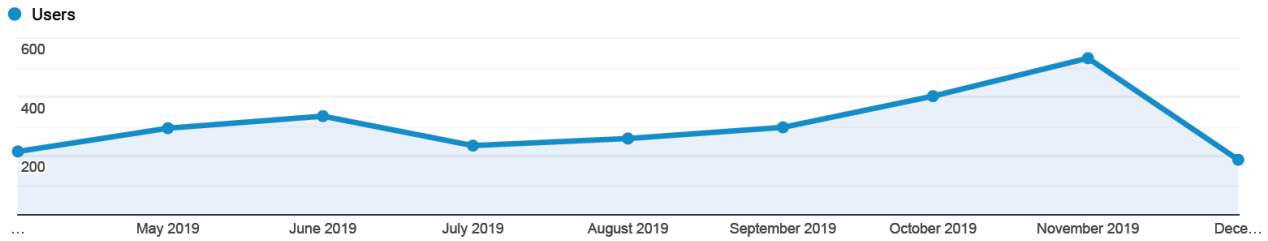

Figure 6 CoordiNet webpage users in 2019

The project has a wide geographic attention as shown in Figure 7. The countries with the higher number of users of CoordiNet webpage are Sweden, Spain and United States.

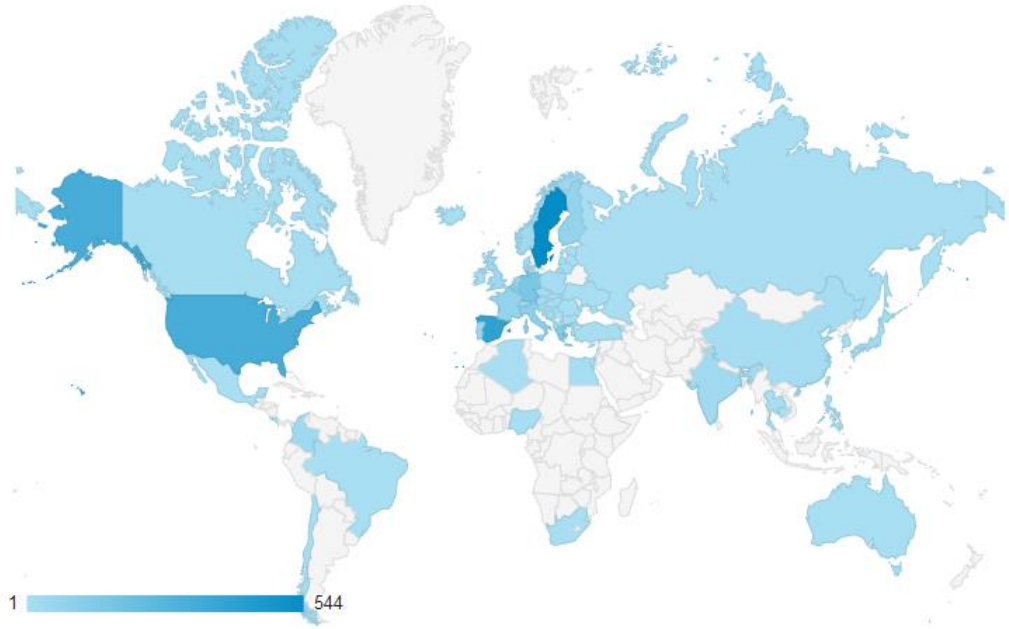

Figure 7 CoordiNet webpage users by location in 2019

4.1.2. Social media

4.1.2.1. Twitter

The project has set up a general twitter account, as well as dedicated accounts for each of the national demos. The national CoordiNet accounts allows for the demos to engage with their national audiences in the local language.

Account	CoordiNet_	CoordiNet SE	CoordiNet GR	CoordiNet ES
Followers M12	N/A	120	0	0
Following M12	8	80	5	12

Table 3: CoordiNet twitter activity per M12

The initial CoordiNet general account (CoordiNet_eu) experienced an issue being mistakenly locked down by Twitter. By December 20th 2019, projects communication team opened a new account CoordiNet_ as the previous one could not be re-established. Thus, statistics for this account is missing in Table 3 above.

4.1.2.2. LinkedIn

The CoordiNet LinkedIn account has 204 followers. The language of the posts is English, and the aim is to reach audiences who do not use twitter, as well as taking advantage of the wider margins regarding the length of messages compared to Twitter.

4.1.3. CoordiNet Newsletter

All stakeholders receive the CoordiNet newsletter sent by project partner Energiforsk. The newsletter is a way to keep the stakeholders updated and interested in the project as it reports on the latest developments in the project and informs about upcoming events with CoordiNet.

During the first year of the project a total of 2 CoordiNet newsletters has been written and sent.

Newsletter edition	Date
1st CoordiNet Newsletter	7 March 2019
2nd CoordiNet Newsletter	30 October 2019

Table 4 CoordiNet Newsletter submission dates

4.1.4. Webinars

The CoordiNet project will offer three stakeholder webinars, allowing stakeholders to interact with the project regardless of their geographic location.

4.1.4.1. 1st Webinar – 2019

The first CoordiNet webinar was organized on December 5th 2019 in the ISGAN framework using their webinar platform.

4.1.4.1.1. Participants

The total number of registrations amounted to 270, with the actual number of participants being 110.

4.1.4.1.2. The agenda

The webinar was facilitated by ISGAN, while a general presentation of the project was given by project coordinator Marco Baron from Enel. Kris Kessels from VITO gave an overview of the work done in the project related to definition of coordination schemes and services. Gonca Gürses-Tran from RWTH presented the business use cases. In addition, the webinar was supported by Jose Pablo Chaves from Comillas, the leader of the project dissemination and communication who also participated actively to the Q&A phase of the webinar.

The recorded webinar will be posted in ISGAN website: https://www.iea-isgan.org/our-work/annex-8/

4.1.5. Press releases and webpages publications

Different press releases and publications about CoordiNet in different webpages have been published during 2019. Some of the most relevant from different institutions are the following:

- European Commission: https://ec.europa.eu/inea/en/horizon-2020/projects/h2020-energy/grids-storage-energy-systems/coordinet
- Bridge: https://www.h2020-bridge.eu/projects/coordinet/
- E.DSO: https://www.edsoforsmartgrids.eu/project/coordinet/
- Swedish Smart Grid: http://swedishsmartgrid.se/globalassets/exempel/exempel_coordinet.pdf
- Vattenfall:
    - https://www.vattenfalleldistribution.se/vart-arbete/kapacitetsutmaningen/projekt-coordinet/
    - http://www.e-magin.se/paper/kqnxjdvs/paper/23#/paper/kqnxjdvs/23
    - https://www.nyteknik.se/premium/effektbehovet-ar-den-stora-utmaningen-6951474
    - https://fastighetstidningen.se/lagg-energi-pa-effekten/
    - https://www.kth.se/forskning/forskningsplattformar/energi/aktuellt/news/har-fyller-politiker-pa-med-kunskap-fran-energiforskare-och-industri-1.897163
    - https://branschaktuellt.se/energi/25612-bristningsgransen-kapacitetsbristen-ett-faktum-i-svenska-elnat
    - https://program.almedalsveckan.info/event/user-view/59521
    - https://www.cired-repository.org/bitstream/handle/20.500.12455/75/CIRED%202019%20-%20583.pdf?sequence=1&isAllowed=y
    - https://www.vattenfalleldistribution.se/vart-arbete/kapacitetsutmaningen/losningar/
    - https://www.youtube.com/watch?v=ZhqFlIN8608
    - https://www.unt.se/ekonomi/uppsala-har-slagit-i-eltaket-5155206.aspx
    - http://www.swedishsmartgrid.se/globalassets/publikationer/flex_for_okad_kapacitet191220.pdf
- Endesa: https://www.endesa.com/es/prensa/news/d201901-endesa-lidera-el-proyecto-europeo-coordinet-para-crear-una-plataforma-europea-de-energia-y-abrir-el-mercado-a-los-consumidores.html
- NSIDE:https://www.n-side.com/coordinet-h2020-european-project/
- OFFIS: https://www.offis.de/en/offis/project/coordinet.html
- RWTH: https://www.acs.eonerc.rwth-aachen.de/go/id/bgwdk?lidx=1

4.2. Management of the dissemination physical activities during 2019

4.2.1. Common communication activities in 2019

4.2.1.1. Stakeholder Forum

The first CoordiNet Stakeholder Forum was conducted in Brussels on the 25th of November 2019. The meeting was organized by E.DSO. Further details on the event are reported in D7.3.2.

A Stakeholder Forum list has been created within the first months of the project. The list is online which allows for the members of the consortium to continuously add stakeholders. The list is organized in nine different stakeholder categories, and encompasses at M12 (29-11-2019) 89 stakeholders distributed according to Table 5.

Stakeholder Category	No. of registered stakeholders
SH1: Local & National Government	2
SH2: Regulators	5
SH3: DSOs	12
SH4: TSOs	8
SH5: Flexibility Service Providers	16
SH6: Academic Institutions	10
SH7: European Commission & other H2020 projects	26
SH8: Media & General Public	0
Other SH	10

Table 5: Stakeholders per category

It should be noted that SH7 stakeholders who belong to the group due to their involvement in other H2020 projects, could, if listed according to their professional capacity, have belonged another group. Nevertheless, stakeholders are only listed once in the list.

4.2.1.2. Advisory Board meeting

The first Advisory Board meeting took place on September 24th 2019 at Liaison Agency Flanders-Europe, Kortenberglaan 71, and 1000 Belgium.

Table 6 shows the members of the Advisory Board who were present in the first Advisory Board meeting.

Representative	Institution
Norela Constantinescu (Rapporteur of the Board)	ENTSO-E
Miguel Rodrigo Gonzalo	IDAE
Therese Hindman Persson	Swedish Energy Markets Inspectorate
Emil Hillberg	RISE
Stamatios Chondrogiannis	JRC
Ercole De Luca	ARETI

Table 6: Members of the Advisory Board present in the 2019 meeting

The detailed list of questions and feedback provided during the Advisory Board meeting is presented in the Appendix 1.II.

4.2.2. Consortium partners communication activities involvement in 2019

In this section the list of events to which the project participates is continuously updated throughout the project. The list provides an overview with regards to type of activity CoordiNet has been involved in, who represented the project, and which were the stakeholder group targeted, a summary of those events are presented in Table 7.

Each of the partners will be in charge of contacting and interacting with targeted stakeholders. In this way, the Consortium will interact with each identified SH. An Excel template was sent to collect the inputs from the different partners.

	SH1: Local and national govern-ments	SH2: Regu-lators	SH3: DSOs	SH4: TSOs	SH5: Flexibility Service Providers	SH6: Academic institu-tions	SH7: European Commissio n & other H2020	SH8: Media and general public
Spain	e-di Comillas REE I-DE Tecnalia	e-di Comillas REE i-DE Tecnalia	e-di Comillas REE i-DE Tecnalia	e-di Comillas REE i-DE Tecnalia	e-di Comillas i-DE REE	e-di Comillas Tecnalia ETRAID REE ETRA I+D	Comillas Tecnalia ETRA I+D	e-di Comillas Tecnalia REE ETRA I+D
Sweden	Vattenfall E.ON Uppsala Kommun Energifors k SvK	Vattenfall E.ON Uppsala Kommun Energifors k SvK	Vattenfall E.ON Uppsala Kommun Energifors k SvK	Vattenfall E.ON Uppsala Kommun Energifors k SvK	Vattenfall E.ON Uppsala Kommun Energifors k SvK	Vattenfall Energifors k Uppsala Kommun Energifors k		Vattenfall E.ON Uppsala Kommun Energifors k SvK
Greece	ICCS	ICCS HEDNO	ICCS HEDNO	ICCS HEDNO		ICCS HEDNO	ICCS HEDNO	ICCS
Others countrie s	E-GIN RWTH	E-GIN RWTH VITO	E-GIN E.DSO VITO RWTH OFFIS	E-GIN E.DSO VITO RWTH OFFIS	E-GIN RWTH	E-GIN VITO RWTH E.DSO OFFIS	E-GIN VITO E.DSO OFFIS RWTH	E-GIN E.DSO RWTH

Table 7 Summary table of physical communication events

In the first year of the CoordiNet project, partners participated in 39 different major communication and dissemination activities to spread awareness about the project and engage stakeholders. Of these, four were media activities and the rest were conferences, workshops and other C&D activities[4]. Several stakeholder groups were targeted with each action, with an even distribution among these.

[4] One of the key C&D activity was the 2019 European Utility Week where flyers and a video were prepared. Different stakeholders were interested in the project and exchanged thoughts with CoordiNet partners from Comillas, E-GNI and E.DSO. Information about the project is available at: https://www.european-utility-week.com/exhibitors/coordinet#/

SH1	SH2	SH3	SH4	SH5	SH6	SH7	SH8
17	15	22	18	14	26	14	18

Table 8: Number of times the different Stakeholder categories were targeted through 2019 activities

4.2.2.1. Media

The media coverage in 2019 added up to:

- Article about electricity network services and CoordiNet in particular, provided by Energiforsk to the Swedish media Tidningen Energi published on 19th of February 2019
- Video on capacity constraints in Sweden, by E.ON, Vattenfall, Svenska Kraftnät, published 19th of May 2019
- Press release by E.ON, published on 19th of September 2019
- Press release by E.ON, published on 19th of November 2019
- Multiple press releases and webpage publications as reported in Section 4.1.5.

4.2.2.2. Events

WORKSHOPS

1. Bridge Initiative meeting on H2020 TSO-DSO projects, organized by the European Commission in Brussels, CoordiNet represented by Comillas, E-GIN, 19 February 2019
2. Open meeting with customers in Gotland, CoordiNet represented by Vattenfall, 18 February 2019
3. Open meeting with customers in Uppland arranged by Uppsala City in Uppsala, CoordiNet represented by Vattenfall, Uppsala municipality, 8 March 2019
4. Bridge Initiative meeting on H2020 TSO-DSO projects organized by the European Commission in Brussels, CoordiNet represented by NTUA, E-GIN, 12 March 2019
5. CoordiNet Forum, organized by Energiforsk in Stockholm on 14 March 2019
6. 'The truth about Flexibility', organized by E.DSO in Brussels, presentation by E-GIN, 12 April 2019
7. Joint horizon2020 workshop organised by H2020 EU-SysFlex: TSO-DSO cooperation in flexibility market integration in Brussels, CoordiNet represented by VITO, 13 May 2019
8. Open meeting Skåne in Malmö, CoordiNet represented by E.ON, 14 May 2019
9. Meeting with the Municipality of Murcia and the University of Murcia in Murcia, CoordiNet represented by E-DI, 15 May 2019
10. Liaison with H2020 TDX-Assist project in Brussels, CoordiNet represented by Offis, June 2019
11. Meeting with IDAE in Madrid, CoordiNet represented by Comillas, REE, e-distribución, i-DE, Tecnalia, 10 June 2019
12. Meeting with the Spanish Regulator (CNMC) about flexibility in Networks, CoordiNet represented by Comillas,1 September 2019
13. Flexibility workshop with industrial consumers, CoordiNet represented by Comillas, 26 Sep. 2019
14. ISGAN TSO-DSO workshop in Montreux, CoordiNet represented by RWTH Aachen, 3 October 2019
15. X-FLEX kick-off meeting in Valencia, CoordiNet represented by ETRAID, 7 October 2019
16. National flexibility workshop in Madrid, CoordiNet represented by e-distribución, Tecnalia and Comillas, 8 October 2019
17. Bridge and 'national' projects that test flexibility markets and TSO-DSO cooperation organised by the European Commission in Brussels, CoordiNet represented by Tecnalia, VITO, 24 October 2019
18. Distribution Systems Working Group session on Horizon 2020 Projects in Brussels, CoordiNet represented by Tecnalia, Enel, VITO, Comillas, 22 November 2019
19. IEEE conference on Smart grids with high share of DER, CoordiNet represented by e-distribución, 4 December 2019

CONFERENCES

1. Energy 2019: Unlocking Flexibility, in Stockholm, CoordiNet represented by Vattenfall, 22 March 2019
2. Energi 2019 in Stockholm, CoordiNet represented by Energiforsk, 29 March 2019
3. Conference on capacity shortage in Uppsala, CoordiNet represented by Vattenfall, Uppsala Municipality, 10 April 2019
4. Conference on grid services in decarbonized electricity systems in Seville, CoordiNet presented by e-distribución, on 24 April 2019

5. Innogrid, organized by E.DSO and ENTSO-E in Brussels, CoordiNet represented by HEDNO, NTUA, VITO, 13-14 May 2019
6. CIRED, in Madrid, CoordiNet represented by NTUA, 3 June 2019
7. CIGRE, in Aalborg, DK, CoordiNet represented by Tecnalia, 4-7 June 2019
8. EU Sustainable Energy Week (EUSEW19) in Brussels, CoordiNet represented by NTUA 17 June 2019
9. IoT Week in Aarhus, DK, CoordiNet represented by NTUA, 20 June 2019
10. IEEE PES General Meeting 2019 in Atlanta GA, USA, CoordiNet represented by NTUA, 1 August 2019
11. 16th International conference on the European energy market organized by the Faculty of Electrical Engineering, University of Ljubljana in Ljubljana, CoordiNet represented by ETRAID, Tecnalia on 18 September 2019
12. Smart Energy Systems Conference 2019 in Namur, BE, CoordiNet represented by E.DSO, 9 October 2019
13. European Utility Week in Paris, CoordiNet represented by Enel, Comillas, E.DSO, 12-14 November 2019
14. Conference on flexible resources for operation of the distribution grid in Madrid, CoordiNet represented by Tecnalia, Comillas, REE, e-distribución, on 12 December 2019

The detailed participation of CoordiNet partners in C&D events is provided in Appendix III.

5. Communication and dissemination plan 2020

This section describes the main C&D activities which are foreseen for 2020 both for the overall project as well as for the individual partners.

5.1. Bridge events

CoordiNet is committed to active participation in Bridge activities, already CoordiNet conformed the participation in the BRIDGE General Assembly on February 13th, 2020. Also, in addition to Bridge events, the European Commission organizes workshops to discuss TSO-DSO related topics, CoordiNet also confirmed participation on the Flexibility Markets and TSO-DSO Cooperation on February 12th, 2020. In these events CoordiNet will present the project approach and it is expected to obtain feedback from related projects as well as from European Commission and relevant stakeholders.

5.2. Conferences

Conferences are key communication events that allows to present the project solutions and obtain feedback from the scientific community and experts in the field. Some key conferences for CoordiNet are CIRED and CIGRE. In these conferences CoordiNet intends to present the work developed in WP1 and in the demos. Specifically, in CIRED, already papers have been confirmed about the Spanish and Swedish demos. In addition, another paper about regulation, BUCs, and coordination schemes developed in D1.1, D1.3 and D1.5 will be presented.

In CIGRE Tecnalia will present part of the work developed in WP2, the markets and platforms to coordinate the procurement of energy services from large-scale and small-scale assets connected to the electricity network.

A key conference which is very much in line with the CoordiNet project is the 8th Annual Grid Integration and Electricity Ancillary Services, where Vattenfall will present the Swedish demo developments. Partners will be encouraged to participate in IEEE Conferences as they cover some of the topics of CoordiNet with a high quality level.

5.3. Meetings with regulators

During 2019, CoordiNet participated in a workshop with CEER where a discussion on regulatory aspects took place including topics of high relevance such as: the market based alternatives for procuring products, actors involved on providing solutions technical and economic solutions, regulatory and legal frameworks, product definitions, data exchange requirements, prequalification processes, organisational processes, tendering procedures, platforms, operators of platforms and regulatory recommendations.

CoordiNet is committed to continue the dialogue with regulators through CEER but also with national regulators from the demo countries, in this way the developments of the project can be contrast with the regulatory framework.

5.4. Events

There are key dissemination events that CoordiNet participated in 2019 and they were identified of great impact and success in terms of stakeholders' audience and interaction. These are the IINNOGRID conference which attract the participation of TSOs and DSOs. Another great C&D event is the EUW, which attracts the participation of many stakeholders including industry, European Commission representatives and research projects, academia, among others.

Other relevant events are the European Sustainability Week and Energy Days[5] which are massive events which attracts many stakeholders and where CoordiNet can disseminate its results.

5.5. Demo events

National dissemination events are key to present the demo developments. Swedish partners are very active in social media, events, meetings with local governments, etc., as done in 2019. These activities are expected to continue during 2020 and even increase as the demo runs and initial results take place in 2020[6]. For the Spanish demo different events are expected as well, including the participation in the national Smart Grid Conference, Greencities event in Malaga[7], and other key events. In Greece, IPTO will intend to participate in the 30th CIGRE Greece National Conference presenting the Greek demo.

[5] https://eusew.eu/about-energy-days
[6] Some of the Swedish disseminations activities are available at:
https://www.uochd.se/article/view/696223/elnatskapacitet_som_saljs_fran_en_dag_till_en_annan
https://www.energinyheter.se/20200122/21313/coordinet-ska-forbattra-natkapaciteten-ytterligare-i-uppsala
[7] https://www.nferias.com/greencities/

6. Exploitation strategy per partner

The exploitation strategy per partner is presented by partner group depending on the main activities they perform in CoordiNet.

6.1. TSOs

Partner	Exploitable results	Expected deliverables	Indicative timeline	Approach for exploitation	Targeted stakeholder
REE	TSO/DSO coordination platform	Operational TSO/DSO coordination interfaces	During and after the project	Intermediate steps: adaptation of TSO platforms (G+ and eSIOS) in order to make compatibles with CoordiNet platform. Risks: Difficulties regarding the TSO platforms upgrades due to the criticality of the application	TSO, DSOs, Aggregators, regulators, FSP
REE	Upgrade TSO existing Platforms (G+ and eSIOS)	Upgrades which include the requirements defined in the Spanish BUCs			TSO
REE	Voltage Market Assessment	Product and market definition for voltage control	During and after the project	Identify barriers and support from the regulator	TSO, DSO, regulator, FSP
IPTO	Development of local markets to interconnected islands	Workshops	During the project and up to 1 year after the end of the project. New markets will be considered after the successful operation of the target model.	Intermediate Steps: proposal for the modification of the market framework Points of Attention: provide a fair non-discriminatory access to all users to the new markets. Risks: difficulties in implementations due to the initial stage of the Target Model. Barriers: target model has not yet been implemented.	Aggregators, Energy Suppliers, Wind farms, DSO

IPTO	Communication platform that can connect the IPTO (TSO) and HEDNO (DSO) irrespectively to the protocols they use.	CoordiNet Platform		Intermediate Steps: successful implementation of pilots Points of Attention: the communication platform will not belong to IPTO. Risks: changes in the electricity market and in the Greek electricity mix may affect the usage of the proposed communication platform. Barriers: currently the platform does not have the ability to operate real time.	HEDNO, NTUA/ICCS, Aggregators, Energy Suppliers
IPTO	Measure the benefits of a local market for the TSO	Publications in conferences and journals	During the project and up to 1 year after the end of the project.	Intermediate Steps: simulation model, calculation of flexibility vs. business as usual costs for IPTO Points of Attention: assumptions are needed. Risks: the developed model does not represent reality. Sensitivity analysis is required. Barriers: confidentiality of IPTO data & investment based of TSOs vs. of cost-efficient benchmarking	Universities, Research Centres, TSOs, DSOs
Svenska kraftnät	Increased volumes of balancing services (mFRR) in Sweden	New Balancing Service Providers (BSPs)	During the project and after the project onwards	FSP bids that are not activated by the DSO is provided to the TSO, making it possible for owner of flexible asset to participate in multiple markets. Point of attention can be to avoid undesirable arbitrage possibilities	FSPs, BSPs, DSO, TSO, regulator

Table 9 shows the strategies for the three TSOs involved in the CoordiNet project: REE, IPTO and SvK.

Partner	Exploitable results	Expected deliverables	Indicative timeline	Approach for exploitation	Targeted stakeholder
REE	TSO/DSO coordination platform	Operational TSO/DSO coordination interfaces	During and after the project	Intermediate steps: adaptation of TSO platforms (G+ and eSIOS)	TSO, DSOs, Aggregators, regulators, FSP

REE	Upgrade TSO existing Platforms (G+ and eSIOS)	Upgrades which include the requirements defined in the Spanish BUCs		in order to make compatibles with CoordiNet platform. Risks: Difficulties regarding the TSO platforms upgrades due to the criticality of the application	TSO
REE	Voltage Market Assessment	Product and market definition for voltage control	During and after the project	Identify barriers and support from the regulator	TSO, DSO, regulator, FSP
IPTO	Development of local markets to interconnected islands	Workshops	During the project and up to 1 year after the end of the project. New markets will be considered after the successful operation of the target model.	Intermediate Steps: proposal for the modification of the market framework Points of Attention: provide a fair non-discriminatory access to all users to the new markets. Risks: difficulties in implementations due to the initial stage of the Target Model. Barriers: target model has not yet been implemented.	Aggregators, Energy Suppliers, Wind farms, DSO
IPTO	Communication platform that can connect the IPTO (TSO) and HEDNO (DSO) irrespectively to the protocols they use.	CoordiNet Platform		Intermediate Steps: successful implementation of pilots Points of Attention: the communication platform will not belong to IPTO. Risks: changes in the electricity market and in the Greek electricity mix may affect the usage of the proposed communication platform. Barriers: currently the platform does not have the ability to operate real time.	HEDNO, NTUA/ICCS, Aggregators, Energy Suppliers

IPTO	Measure the benefits of a local market for the TSO	Publications in conferences and journals	During the project and up to 1 year after the end of the project.	Intermediate Steps: simulation model, calculation of flexibility vs. business as usual costs for IPTO Points of Attention: assumptions are needed. Risks: the developed model does not represent reality. Sensitivity analysis is required. Barriers: confidentiality of IPTO data & investment based of TSOs vs. of cost-efficient benchmarking	Universities, Research Centres, TSOs, DSOs
Svenska kraftnät	Increased volumes of balancing services (mFRR) in Sweden	New Balancing Service Providers (BSPs)	During the project and after the project onwards	FSP bids that are not activated by the DSO is provided to the TSO, making it possible for owner of flexible asset to participate in multiple markets. Point of attention can be to avoid undesirable arbitrage possibilities	FSPs, BSPs, DSO, TSO, regulator

Table 9 Exploitation strategies for TSOs

6.2. DSOs

The DSOs exploitable results are summarized in the following tables for each of the demo countries.

Partner	Exploitable results	Expected deliverables	Indicative timeline	Approach for exploitation	Targeted stakeholder
i-DE	Publication of research output on the demonstrators results	Journal and conference papers	During the project and up to 5 years after the project	Support for the regulator	Research community
i-DE	DSO platform experience	Use of operational platform		Investigate DSO needs and impact on grid operation and planning.	DSO, regulator
i-DE	Local Market Assessment	Evaluation of local market platform and discussion with the regulator to		Identify barriers and support for the regulator	DSO, regulator

		check its implementation			
i-DE	Common Market Assessment	Make interoperable platforms for TSO-DSO coordination			DSO, TSO, regulator
i-DE	Controlled Islanding product	Management systems for controlled islanding which can be replicated in other networks			DSO, regulator
e-di	Publication of research output	Publications in domestic and international journals and conferences	During the project and up to 1 year after the project	Prepare publications on the assessment of the project outcomes, during the lifetime of the project and after.	Research community
e-di	DSO platform	Use of operational platform	During the project and up to 3 years after the project	Launch of DSO platform within the CoordiNet project. Investigate DSO needs and impact on grid operation and planning.	DSO, regulator
e-di	Local Market	Evaluation of local market platform and discussion with the regulator to check its implementation	During the project and up to 3 years after the project	Identify barriers for implementation and support for the regulator	DSO, regulator
e-di	Common Market Assessment	Make interoperable platforms for TSO-DSO coordination	During the project and up to 3 years after the project	Identify barriers and support for the regulator	DSO, TSO, regulator
e-di	Service maturity and standardisation	Set of flexibility standard services	During the project and up to 3 years after the project	The services traded in the CoordiNet Spanish demonstrations will serve a starting point for the future implementation of DSO flexibility markets in Spain.	DSO, TSO, regulator

Table 10 Exploitable strategies for Spanish DSOs

Partner	Exploitable results	Expected deliverables	Indicative timeline	Approach for exploitation	Targeted stakeholder
Vattenfall	Publication and information of demonstration output regarding products for flexibility services	Different publication are expected during and after the project on aspects related to market designs and products and results of the demonstrations	During the project and up to 2 years after the project	Publications of results on national and international conferences, journals and media	DSO, TSO, regulator
Vattenfall	Service maturity and standardisation	Standardized products and services for flexibility needs	2022-2025	The services traded on the markets in the Swedish demonstration of CoordiNet will serve as a basis for the future implementation of DSO flexibility service markets in Sweden. The services developed will be an important signal to potential FSP's to what requirements and benefits that are to be expected in the future.	DSO's, TSO's, FSP's, Regulator
E.ON	Market platform P2P	A market platform for P2P capacity trading	2022-2025	This platform will be a foundation for an assessment and proof of the possibility to trade grid capacity in a P2P setup	Energy community, grid companies, producers, consumers
E.ON	Market platform Congestion management	A market platform for congestion management	2022-2025	Assessment of the market and data handling platform developed for the Swedish demonstration of the CoordiNet project. The platform will be aimed at Swedish DSO's in a primary phase and then expanded to other European and	DSO's, TSO's in Sweden and internationally

				international markets. It will be expanded from the CoordiNet scope to include features and scalability that is not part of the fund received by the EC.	
E.ON	Service maturity and standardisation	Assessment the possibility to create a software product which we could sell to other DSO's and TSO's	2022-2025	The services traded in the Swedish demonstration of CoordiNet will serve as a basis for the future implementation of DSO flexibility service markets in Sweden. The services developed will be an important signal to potential FSP's to what requirements and benefits that are to be expected in the future.	DSO's, TSO's, FSP's, Regulator
E.ON	Strategic and cultural change	Meetings with relevant stakeholders	2022-2027	The implementation of DSO flexibility markets will affect the strategic direction of E.ON with regards to the future DSO role stipulated in the Winter package. Also, the cultural change of how to regard grid planning and operations in the future will be impacted by CoordiNet on a short and long term horizon.	E.ON Sweden, DSO's, Regulator

Table 11 Exploitable strategies for Swedish DSOs

Partner	Exploitable results	Expected deliverables	Indicative timeline	Approach for exploitation	Targeted stakeholder

HEDNO	Acquiring knowledge and expertise from DSO - TSO collaboration practices	Delivery of the CoordiNet Greek platform	During the project	Assessment of challenges and solutions for TSO-DSO collaboration	DSOs, TSOs
HEDNO	Analysis of policy and regulation frameworks to identify threats and opportunities of new products and services	Products definition.	During the project	Analysis of existing regulatory framework	TSOs, DSOs, Regulatory Authority for Energy
HEDNO	Engaging end-users in participating in local markets. New customer relationships will be promoted. This will create knowledge and good practices for critical issues like requirements for data handling, data safety and consumer protection	Pool of end users to be used in providing grid services in the future.	During the project and up to 12 months after the project	Intermediate step to monitor: Use social KPIs defined in CoordiNet D1.6	TSOs, DSOs, Regulatory Authority for Energy, DG owners
HEDNO	An emerging role of HEDNO is to become a market facilitator in the distribution network. In this field new business opportunities will be identified for products and services of already existing or future markets.	Evaluation of new products and services and discussion with the regulator to check its implementation	During the project and up to 12 months after the project	Points of attention: The new products developed should be aligned with the regulatory framework or appropriate suggestions for modification of the current regulatory framework should be delivered to Regulatory Authority for Energy	TSOs, DSOs, Regulatory Authority for Energy, DG owners
HEDNO	Finding cost efficient solutions that will cope with voltage and congestion problems that occur in the distribution network	New guidelines for the development of distribution network plan	During the project and up to 12 months after the project	Points of attention: The solutions proposed should be aligned with the regulatory framework or appropriate suggestions for modification of the current regulatory framework should be delivered to Regulatory Authority for Energy	TSOs, DSOs, Regulatory Authority for Energy, DG owners

HEDNO	Exploiting the capabilities of existing software and hardware tools like SCADA DMS, forecasting software etc. and improving their functionalities by integrating the new software and hardware tools that will be developed	Establishing an updated set of requirements for software and hardware tools as well as new guidelines with regard to the exploitation of their functionalities	During the project and up to 12 months after the project	Risk: Develop non-generic tools, software and platform that will not be easily adaptable in order to be used outside of CoordiNet Barriers: The existing tools should be adapted to CoordiNet needs	TSOs, DSOs, Regulatory Authority for Energy, DG owners
HEDNO	Finding cost efficient solutions that increase the RES hosting capacity of our grids.	New guidelines for RES terms of connections	During the project and up to 12 months after the project	Points of attention: The solutions proposed should be aligned with the regulatory framework or suggestions for modification of such framework should be delivered to Regulatory Authority for Energy	TSOs, DSOs, Regulatory Authority for Energy, DG owners
HEDNO	Develop technical and policy solutions which are interoperable, scalable and standardized and will enable a mass participation of end users	Make interoperable platforms for TSO-DSO coordination	During the project and up to 12 months after the project	Regulatory proposals for standardized product, services and interoperable platforms	TSOs, DSOs, Regulatory Authority for Energy, DG owners

Table 12 Exploitable strategies for the Greek DSO

6.3. Research Centres and University

Research centres and universities will exploit CoordiNet results to advance on technical proposals, contribute to the development of different tools and make regulatory recommendations based on the solutions provided and tested during the project.

Partner	Exploitable results	Expected deliverables	Indicative timeline	Approach for exploitation	Targeted stakeholder
ICCS	Offer high-skilled consultancy in TSO-DSO coordination and the procurement of system services from the DGs	The knowledge gained in CoordiNet can be used to consulting services to various stakeholders	Up to 6-12 months after the end of the project	Points of attention: The consultancy should be aligned with the regulatory framework or appropriate suggestions for modification of the	TSOs, DSOs, Regulatory Authority for Energy, DG owners

				current regulatory framework should be delivered to Regulatory Authority for Energy	
ICCS	Publication of research output	Publications in domestic and international conferences and journals.	During the project and up to 12 months after the project	Intermediate step to monitor: Assessment of dissemination using appropriate KPIs	Research community
ICCS	Support the future developments of Electricity Grids, in the framework of the partnership with the European Industry	Gain knowledge that can be shared in meetings organized by EC and conferences with high participation of European Industry	Up to 6-12 months after the end of the project	Participate in main European forums (BRIDGE, EC workshops, etc.) and conferences (CIGRE, CIRED, etc.)	European Industry, EC
ICCS	Develop tools for monitoring and operating DSO and TSO systems, coordination, aggregation tools and a market platform that supports the procurement of system services	Development of tools that can be used and further extended in future European projects. These tools can be a starting point for identifying the requirements of system operator tools for a real-life application. The algorithms of the tools that will be developed during CoordiNet could lead to scientific publications	Up to 6-24 months after the end of the project	Risk: Develop non-generic tools, software and platform that will not be easily adaptable in order to be used outside of CoordiNet	TSOs, DSOs, Research Community
ICCS	Develop a relationship of trust with the end-users that will be engaged in the project. The end users will gain knowledge in the provision of system services, while ICCS will	Relationship built with end-users can be used to engage them in future European projects. In addition, the knowledge they gained from CoordiNet can	Up to 6-12 months after the end of the project	Intermediate step to monitor: Use social KPIs defined in D1.6	End-users

	create a pool of eager end-users to get involved in future research projects	be used in future projects			
Comillas	Publication in scientific journals and conferences, in order to share with the scientific community, the actions proposed and further opportunities to improve flexibility in the power system.	Different publication are expected during and after the project on aspects related to market designs, role of agents, Economics of the power sector, demo's results, among others. Meetings with policy makers and regulators are also expected	During the project and up to at least 5 years after the project	Comillas will identify and evaluate current barriers and propose solutions	Academic Community, Students
Comillas	Proposed improvements on methodologies for Scalability and Replicability Analysis.	A publication on SRA results are expected to be achieved as result of the work developed on the topic	During the project and up to at least 5 years after the project	Improvements of existing methodologies	Other research projects
Comillas	Reinforcement of Comillas knowledge in regulation and innovative solutions procurement of system services.	The project results will be a key gain to be exploitable in following projects in Europe and in other regions	During the project and up to at least 5 years after the project	Regulatory barriers will be identified and solutions proposed	Regulators,
Comillas	Incorporate new knowledge on regular courses thought by Comillas	Knowledge gain in CoordiNet will be an input on courses though for undergraduate students, maters and PhD training.	During the project and up to at least 5 years after the project	Updates on existing teaching material on Smart Grids will be incorporated based on the project results	Students and general public

VITO	Coordination schemes and standardized products for grid services and will develop a market model to evaluate them.	The outcomes of the project can be used for policy and strategy support towards national and European policy and decision makers. The research and the market model can be extended by considering other alternative market designs and products on request of any interested stakeholder (such as system operators, aggregators, policy makers, regulators, market operators, (potential) flexibility service providers, etc.).	During and after the project	Risk/needed step: approach needs to be adapted/extended to the market situation under study	System operators, aggregators, policy makers, regulators, market operators, (potential) flexibility service providers, etc.
VITO	Clearing and aggregation algorithms.	Converting the algorithms, or parts of them, to a commercial product in cooperation with a software company, commissioned by relevant partners such as market operators and aggregators.	After the project	Risk/needed step: algorithms need to be adapted/extended to the specific situation	Market operators and aggregators
TECNALIA	Publication of research output	Publications in domestic and international conferences and journals.	Up to 12 months after the project	Prepare regular publications during the lifetime of the project to assess the best way to publish the main project outcomes	Research community

TECNALIA	Support the future developments of Electricity Grids, in the framework of the partnership with the European Industry	Follow-up projects	Up to 6-12 months after the end of the project	Participate in main European forums (BRIDGE, EC workshops, etc.) and conferences (CIGRE, CIRED, etc.)	European Industry, EC
TECNALIA	Develop tools for the development of flexibility markets: both for the operator of the flexibility market and for aggregators participating in it.	Aggregation software, software for the identification of congestion sensitivity	During the project	Risk: Develop non-generic tools, software and platform that will not be easily adaptable in order to be used outside of CoordiNet	TSOs, DSOs, aggregators, flexibility providers
TECNALIA	Reinforcement of knowledge in the operation of local and flexibility markets	Follow-up projects	During the project and up to at least 5 years after the project	Regulatory and market barriers will be identified and solutions proposed	Regulators, TSOs, DSOs, flexibility service providers, aggregators
Energiforsk	Gap analysis legal setting/possible market and technical possibilities	D3-D5 transfer of knowledge and ideas to start-up of local market platform project within Energiforsk. D6 gap analysis used to enhance future electricity market design project on role of networks	During and after project	Follow and map development especially of interaction between DSO and new participants. Discuss and exploit new ideas concerning customer interaction	Other research projects. Academia. Policy makers
RWTH	Statistical and ANN model using machine learning to forecast grid state on primary and secondary substation level ready to be deployed in the platform for better planning of flexibility orders	Grid state model enabling the integration of the model towards the platform by EON including knowledge transfer sessions to further develop the forecasting tools (Jan 2020) Developed and deployed	Near Future (2020) with long term impact	1. Models already used by target stakeholders in CoordiNet. RWTH continues studies to increase accuracy specifically for congestion and to use model for customer loads. 2. Scientific publication planned during 2020 3. Potential integration to H2020 SOGNO	1. TSOs, DSOs, Aggregators and customers 2. Energy and Machine Learning, and corporate research communities 3. In a first stage, both consortia

		machine learning SW for: a) Customer load Forecasting and b) Grid state forecasting in August 2020		project to compare and evaluate different developed models	
RWTH			Long Term (starting 2021)	4. Learnings can be applied for student projects and seminars that deal with machine learning	4. Students and PhD candidates

Table 13 summarizes the expected exploitable results from ICCS, Comillas, VITO, Tecnalia, Energiforsk and RWTH.

Partner	Exploitable results	Expected deliverables	Indicative timeline	Approach for exploitation	Targeted stakeholder
ICCS	Offer high-skilled consultancy in TSO-DSO coordination and the procurement of system services from the DGs	The knowledge gained in CoordiNet can be used to consulting services to various stakeholders	Up to 6-12 months after the end of the project	Points of attention: The consultancy should be aligned with the regulatory framework or appropriate suggestions for modification of the current regulatory framework should be delivered to Regulatory Authority for Energy	TSOs, DSOs, Regulatory Authority for Energy, DG owners
ICCS	Publication of research output	Publications in domestic and international conferences and journals.	During the project and up to 12 months after the project	Intermediate step to monitor: Assessment of dissemination using appropriate KPIs	Research community
ICCS	Support the future developments of Electricity Grids, in the framework of the partnership with the European Industry	Gain knowledge that can be shared in meetings organized by EC and conferences with high	Up to 6-12 months after the end of the project	Participate in main European forums (BRIDGE, EC workshops, etc.) and conferences (CIGRE, CIRED, etc.)	European Industry, EC

		participation of European Industry			
ICCS	Develop tools for monitoring and operating DSO and TSO systems, coordination, aggregation tools and a market platform that supports the procurement of system services	Development of tools that can be used and further extended in future European projects. These tools can be a starting point for identifying the requirements of system operator tools for a real-life application. The algorithms of the tools that will be developed during CoordiNet could lead to scientific publications	Up to 6-24 months after the end of the project	Risk: Develop non-generic tools, software and platform that will not be easily adaptable in order to be used outside of CoordiNet	TSOs, DSOs, Research Community
ICCS	Develop a relationship of trust with the end-users that will be engaged in the project. The end users will gain knowledge in the provision of system services, while ICCS will create a pool of eager end-users to get involved in future research projects	Relationship built with end-users can be used to engage them in future European projects. In addition, the knowledge they gained from CoordiNet can be used in future projects	Up to 6-12 months after the end of the project	Intermediate step to monitor: Use social KPIs defined in D1.6	End-users
Comillas	Publication in scientific journals and conferences, in order to share with the scientific community, the actions proposed and further opportunities to improve flexibility in the power system.	Different publication are expected during and after the project on aspects related to market designs, role of agents, Economics of the power sector, demo's results, among others. Meetings with	During the project and up to at least 5 years after the project	Comillas will identify and evaluate current barriers and propose solutions	Academic Community, Students

		policy makers and regulators are also expected			
Comillas	Proposed improvements on methodologies for Scalability and Replicability Analysis.	A publication on SRA results are expected to be achieved as result of the work developed on the topic	During the project and up to at least 5 years after the project	Improvements of existing methodologies	Other research projects
Comillas	Reinforcement of Comillas knowledge in regulation and innovative solutions procurement of system services.	The project results will be a key gain to be exploitable in following projects in Europe and in other regions	During the project and up to at least 5 years after the project	Regulatory barriers will be identified and solutions proposed	Regulators,
Comillas	Incorporate new knowledge on regular courses thought by Comillas	Knowledge gain in CoordiNet will be an input on courses though for undergraduate students, maters and PhD training.	During the project and up to at least 5 years after the project	Updates on existing teaching material on Smart Grids will be incorporated based on the project results	Students and general public
VITO	Coordination schemes and standardized products for grid services and will develop a market model to evaluate them.	The outcomes of the project can be used for policy and strategy support towards national and European policy and decision makers. The research and the market model can be extended by considering other alternative market designs and products on request of any interested stakeholder (such as system operators, aggregators,	During and after the project	Risk/needed step: approach needs to be adapted/extended to the market situation under study	System operators, aggregators, policy makers, regulators, market operators, (potential) flexibility service providers, etc.

		policy makers, regulators, market operators, (potential) flexibility service providers, etc.).			
VITO	Clearing and aggregation algorithms.	Converting the algorithms, or parts of them, to a commercial product in cooperation with a software company, commissioned by relevant partners such as market operators and aggregators.	After the project	Risk/needed step: algorithms need to be adapted/extended to the specific situation	Market operators and aggregators
TECNALIA	Publication of research output	Publications in domestic and international conferences and journals.	Up to 12 months after the project	Prepare regular publications during the lifetime of the project to assess the best way to publish the main project outcomes	Research community
TECNALIA	Support the future developments of Electricity Grids, in the framework of the partnership with the European Industry	Follow-up projects	Up to 6-12 months after the end of the project	Participate in main European forums (BRIDGE, EC workshops, etc.) and conferences (CIGRE, CIRED, etc.)	European Industry, EC
TECNALIA	Develop tools for the development of flexibility markets: both for the operator of the flexibility market and for aggregators participating in it.	Aggregation software, software for the identification of congestion sensitivity	During the project	Risk: Develop non-generic tools, software and platform that will not be easily adaptable in order to be used outside of CoordiNet	TSOs, DSOs, aggregators, flexibility providers
TECNALIA	Reinforcement of knowledge in the operation of local	Follow-up projects	During the project and up to	Regulatory and market barriers will	Regulators, TSOs, DSOs, flexibility

	and flexibility markets		at least 5 years after the project	be identified and solutions proposed	service providers, aggregators
Energiforsk	Gap analysis legal setting/possible market and technical possibilities	D3-D5 transfer of knowledge and ideas to start-up of local market platform project within Energiforsk. D6 gap analysis used to enhance future electricity market design project on role of networks	During and after project	Follow and map development especially of interaction between DSO and new participants. Discuss and exploit new ideas concerning customer interaction	Other research projects. Academia. Policy makers
RWTH	Statistical and ANN model using machine learning to forecast grid state on primary and secondary substation level ready to be deployed in the platform for better planning of flexibility orders	Grid state model enabling the integration of the model towards the platform by EON including knowledge transfer sessions to further develop the forecasting tools (Jan 2020) Developed and deployed machine learning SW for: a) Customer load Forecasting and b) Grid state forecasting in August 2020	Near Future (2020) with long term impact	1. Models already used by target stakeholders in CoordiNet. RWTH continues studies to increase accuracy specifically for congestion and to use model for customer loads. 2. Scientific publication planned during 2020 3. Potential integration to H2020 SOGNO project to compare and evaluate different developed models	1. TSOs, DSOs, Aggregators and customers 2. Energy and Machine Learning, and corporate research communities 3. In a first stage, both consortia
RWTH			Long Term (starting 2021)	4. Learnings can be applied for student projects and seminars that deal with machine learning	4. Students and PhD candidates

Table 13 Exploitable strategies for Research Centres and Universities

6.4. DSO associations

E.DSO is the only DSO association participating in CoordiNet, the identified exploitable results from E.DSO are presented in Table 14.

Partner	Exploitable results	Expected deliverables	Indicative timeline	Approach for exploitation	Targeted stakeholder
EDSO	TSO-DSO-Consumer coordination schemes	input to paper on flexibility market coordination	up to 3 years after the project	(1) identify need for potential update of existing recommendation on the topic in the light of the CoordiNet results, in particular the ASM report. (2) use CoordiNet results in future innovative work on the same topic	DSOs, TSOs
E.DSO	Tools and services developed by EDSO members in the project	input to DSO workshop on flexibility and TSO-DSO coordination	During the project and to 5 years after	Support the exploitation of individual members using its projects committee and relations with the European institutions	DSOs, policy makers EU level

Table 14 E.DSO exploitable strategy

6.5. Technology providers

ETRA I+D develops and adapts in CoordiNet different solutions and tools for DSOs, TSOs and other agents. Table 15 presents the ETRA I+D exploitation strategy these developments.

Partner	Exploitable results	Expected deliverables	Indicative timeline	Approach for exploitation	Targeted stakeholder
ETRA I+D	1.RES forecaster	Commercial software that can be put in the market as Software as a Service or License. The different individual exploitable results can be delivered as fully operational applications or as modules to be integrated with external systems.	2022 – 2027 (approx. 5 years after the project conclusion)	New adopters of B2B solutions and increasing the level of utilization of products. The revenue model has several revenue leverages: - Acquisition of hardware and the technology (CAPEX). - Renting the hardware, solution as a Service (OPEX) with a fee or pay per use. - Mixed solution combining both CAPEX and OPEX. - Yearly maintenance and update fee. - New revenues through UpSell (monitoring/managing a larger number of assets/grids/markets) or	Utilities, DSOs, TSOs, Aggregators, RES producers
ETRA I+D	2.Demand forecaster				Utilities, DSOs, TSOs, Market operators, Aggregators, RES producers
ETRA I+D	3.Bid & Profile Management Mechanism				DSOs, TSO, Market operators, Aggregators, RES producers
ETRA I+D	4.TSO/DSO coordination platform (ESB)				DSOs, TSOs

ETRA I+D	5.GUI for market actors		CrossSell (if selling other products) Channels ETRA uses to address the market: - Offline: direct sales through own commercial channels. - Online: use of digital channels and events. - Commercial partners: companies with commercial affinity.	DSOs, TSOs, Market operators, Aggregators, RES producers

Table 15 ETRA I+D exploitable strategy

6.6. Municipalities and independent aggregator

Two municipalities, Malaga and Uppsala, will actively work to engage flexible resources. In addition, one independent aggregator (ONE) will perform aggregation activities. The knowledge gain during the project are expected be exploited after the project ends (see Table 16).

Partner	Exploitable results	Expected deliverables	Indicative timeline	Approach for exploitation	Targeted stakeholder
Uppsala Municipality	Working to identify flexibility resources within the municipal organisation (including municipal companies and administration), and providing advice on how to participate in the market.	Knowledge on what flexibility resources municipal companies and administration can activate, and also on how an aggregator role can be interpreted within a municipal organisation.	During and after the project	Engagement of partners in charge of managing municipality resources to understand the available flexibility activate flexible resources	Flexibility providers

Malaga Municipality	Offers of flexibility so that utilities improve value-added services and savings on the electricity bill. This monitoring must be installed through value-added services	Analyse, as municipality, of the services provide for the other partners during the demo. For example, energy and power curves.	During and after the project	Engagement of partners in charge of managing municipality resources to understand the available flexibility and the potential to activate flexible resources	Flexibility providers and utilities
ONE	Reinforcement of knowledge and experience in the adaptation of aggregation business models. From a product development and implementation perspective	Development of more advanced aggregation software modules, insight in the business models for the development of new business lines in assisting 3rd parties to develop their aggregation businesses (consulting to 3rd parties).	12-24 months after the project conclusion	Develop generic tools, participate to Project experiences and build dialogue with end users. Barriers and catalysators will be identified and solutions will be proposed and implemented	SMEs, Utilities, Large commercial and industrial users

Table 16 6.6. Municipalities and independent aggregator exploitable strategies

6.7. Solution providers

Different solution providers will develop tools for CoordiNet that once the tasks where the developments occur can be exploitable as shown in Table 17.

Partner	Exploitable results	Expected deliverables	Indicative timeline	Approach for exploitation	Targeted stakeholder
Expektra	Commercialization of grid prediction service	Commercial viable service available for purchase	2021	Investigate current need, establish proof of concept, present and market the solution	DSOs, TSOs,
Expektra	Commercialization of planning tool for aggregators	Commercial viable service available for purchase	2022	Investigate current need, establish proof of concept, present and market the solution	Aggregators, flexibility providers

Expektra	Commercialization of grid forecasting algorithm	Include grid forecasting algorithms in commercial forecasting service	2020	Incorporate algorithms in prediction service and planning tool	DSOs, TSOs, Aggregators, flexibility providers and Electricity retail actors
N-SIDE	Commercialization of market clearing tool(s)	Commercial viable market clearing service available for purchase High level description of this service provided in the Deliverable D3.2 : Report of H/W and S/W tools developed for the DSO, TSO, market and aggregator	During and after the project	Identify the current needs of the DSO, TSO (type of network model, market design...). Design an algorithmic solution which is at the same time modular (and so will allow to integrate new feature depending on the new needs that would be identified), usable in various configuration, and which can solve efficiently large instances. Implement the software Market the solution while keeping it evolving depending on the market needs.	TSO(s), DSO(s), MO(s) in general
Engineering	Tangible asset: Validation system platform based on blockchain technology (able to manage all the energy transactions between flexibility providers after a marketplace session)	Swedish pilot completion	2022-2023(2 years)	Monitoring: 1. Platform Delivery 2. Testing the interaction of the Platform with the regional capacity P2P marketplace in Swedish demo 3. Platform replicability test; Potential Risks: 1. Amount of data flow from smart meters exceeding the initial estimation 2. Small number of users for testing the Platform	Prosumers who offer flexibility and meet financial goals in a P2P capacity market (optional) DSO

Engineering	Intangible assets: 1. Validation system platform reference architecture (based on blockchain) 2. Know-how on components and technology development 3. Experimentation methodology (planning, integration and development) 4. Guideline related to evaluation and validation of Platform effectiveness and interoperability	Swedish pilot completion	2022-2023(2 years)	Monitoring: 1. Results of project deliverables are one relevant knowledge asset 2. Blockchain regulations in the energy domain; Barrier: legal framework related to usage of blockchain in different countries	Prosumers who offer flexibility and meet financial goals in a P2P capacity market; (optional) DSO
OFFIS	Modelling of requirements and architectures	IEC Standards	During the project and following the maintenance of standards	Feeding back experience from CoordiNet into the IEC SyC SE Wg 5 for methods and tools, extending SGAM, IEC 62559 as well as best practices	R&D as well as standardisation
OFFIS	IT-Security for Smart grids	ISO 27009 feedback	During the project	Basic IT protection for future Smart grids solutions from the technical point of view	RC, DSO

Table 17 Solution providers' exploitable strategies

7. Conclusions

This deliverable presents the Communication, Dissemination and Exploitation plan for CoordiNet project and the involvement of CoordiNet partners in C&D activities during 2019.

As part of the Communication and Dissemination strategy key high-level messages have been identified. These include solutions on the improvement of cooperation between TSOs and DSOs to procure system services and the involvement of customers to become flexibility service providers to provide those services. In this way, CoordiNet will contribute to smart, secure and more resilient energy system through demonstrating cost-efficient model(s) for electricity system services. Specific messages from each of the demo sites have been also highlighted.

The identified target groups have been divided in key stakeholder groups which CoordiNet aims to reach and share the project results with. These groups include: local and national governments, regulators, DSOs and TSOs, flexibility service providers, academic institutions, the European Commission and H2020 projects and the general public.

The Dissemination activities intend to expose the project results to a broad audience. Proposed activities as participation in Bridge Initiative meetings, international conferences, workshops and scientific publications intend to engage with relevant stakeholders such as Academia, H2020 projects, system operators and flexibility service providers. These interactions contribute to ensure the quality of the proposed solutions and the project results.

The project website, press releases, webinars and newsletters are means to reach a wide international audience, while publications in social media contributes to continuously engage stakeholders.

CoordiNet has successfully engaged different key stakeholders both in its Advisory Board as well in the Stakeholder Forum activities. Positive feedback has been received from both activities and recommendations to strongly collaborate with other H2020 projects has been discussed, in particular with the project INTERRFACE where agreements on common position papers are currently being conducted.

CoordiNet has been active in online communication including website, news and newsletter, a webinar and social media. In addition, during 2019, CoordiNet has been present in 36 highly relevant physical events in which different partners have represented the project. Some of these key events include: H2020 Bridge meetings, relation with the ISGAN, meeting with national regulators, local, regional and national governments, the Council of European Energy Regulators, participation in the European Utility Week, presentations in international conferences organized by IEEE, CIGRÉ, CIRED, EEM, among others. In these events the project approach and the public results developed so far have been presented.

Finally, this deliverable presents the initial strategies per partner to exploit the results obtained during the development of CoordiNet. The highlighted exploitable results include: the development of standardized products and services which can be traded after the project completion, the development of interfaces between TSOs, DSOs and other market agents, academic publications on the proposed solutions, commercial software for aggregation and other key activities to enable the provision of flexibility services, regulatory recommendations to adapt the current framework to the CoordiNet findings, among others.

Appendixes

I Members of the Advisory Board

The members of the CoordiNet Advisory Board are the following:

- European Network of Transmission System Operators for Electricity (ENTSO-E): **Laurent Schmitt**, Secretary-General
- International Smart Grid Action Networks (ISGAN) and RISE Research Institutes of Sweden: **Emil Hillberg**, Technical Lead of Annex 6 on Power Transmission and Distribution Systems within ISGAN
- Italian Regulatory Authority for Energy, Networks and Environment (ARERA): **Luca Lo Schiavo** (Vice director)
- Joint Research Centre of the European Commission: **Gianluca Fulli** (Deputy Unit "Energy Security, Distribution and Markets).
- Smart Energy Demand Coalition (SEDC): **Jessica Stromback** (Founder and Chair)
- Spanish Market Operator (OMIE): **Sergio Muñoz Delgado** (Direction of Technology, Innovation and New Developments)
- Swedish Regulatory Authority: Therese Hindman Persson (Chief Economist)
- Spanish Agency for Energy Saving and Diversification (IDAE): **Miguel Rodrigo Gonzalo** (Regulatory Framework and Corporate Strategy for the Energy Transition).
- ARETI ACEA Group. **Ercole De Luca**. Engineering & Innovation. Deputy in EU Utility Association

II Advisory Board Agenda and notes

The agenda of the Advisory Board which took place on September 24th in Brussels is provided below.

- S1 - 10.00 - 10.20 - Meeting introduction and CoordiNet general presentation (Marco Baron, ENEL GI&N)).
- S2 - 10.20 - 11.00 - Coordination schemes and brief introduction of products and services (Kris Kessels, VITO) 15 minutes Q&A
    - S3 - 11.00 - 11.40 - Synthesis of the pilots and next steps for the demo run implementation
    - Spanish pilot - 10 minutes (José Pablo Chaves, COMILLAS)
    - Swedish pilot - 10 minutes (Yvonne Ruwaida, VATTENFALL)
    - Greek pilot - 10 minutes (Manolis Voumvoulakis, HEDNO)
    - 10 minutes Q&A
- S4 - 11.40 – 12.00 - Coffee break
- S5 - 12.00 – 12.30 - Use cases description - Gonca Gürses-Tran (RWTH) + 10 minutes Q&A
- S6 - 12.30 – 12.40 - Conclusions - Jose Pablo Chaves (COMILLAS) and Marco Baron (ENEL GI&N)
- S7 - 12.40 – 12.55 - Advisory Board members internal meeting
- S8 - 12.55 – 13.30 - Advisory Board members feedback

Questions made during the presentation sessions

S1 – Meeting introduction and CoordiNet general presentation. Presenter: Marco Baron

No questions.

S2 – Coordination schemes and brief introduction of products and services Presenter: Kris Kessels

- **Hari (Opus One Solutions) - how will you look at the grid needs and how will ensure in real time that solving one congestion at the distribution grid does not create an additional congestion in another part of the grid ?**

  Kris (VITO) answered that it will be looked at it in next stages of the project.

- **Stamatios (JRC) - Are the energy regulators informed about the demos?**

  Yvonne (VATTENFALL), Manolis (HEDNO) and Jose Pablo (COMILLAS) said that they are involved and regularly informed about them (in the Greek case, the relationship has not been so close, but they plan to do it).

- **Ercole de Luca (ARETI): how do you plan to compare the different schemes? Is it planned the use of KPIs for that?**

  Kris (VITO) talks about the simulations, economic assessment and replicability studies to be carried out in WP6.

- **Ercole de Luca (ARETI): since the answer is yes, I do not see any KPIs to make the assessment**.

  Kris (VITO) answered that there are KPIs, even if we did not prioritise them.

- **Norela Contanstinescu (ENTSO-E): did you focus more on the balancing and congestion management services? And how you take into account the scaling up and replication?**

  Kris Kessels (VITO) says that the main focus will be on congestion management for TSOs and DSO and on balancing.

  Regarding the scalability, **José Pablo Chaves (COMILLAS)** announces that there is a task to deal with it, which will use a well-known methodology.

  José Pablo Chaves (COMILLAS) also announced that COORDINET is thinking of writing a common position paper among the two projects, so we will talk to each other.

S3 - Synthesis of the pilots and next steps for the demo run implementation

Spanish demo - José Pablo Chaves

- **Hari Suthan (Opus One Solution)**: Do you plan to use different types of services within each market?

  José Pablo Chaves (Comillas) answered that different sources can provide multiple services.

- **Camila Fernandes (Enel X)**: Will you receive notifications from REE about the performance of the units after being dispatched?

  José Pablo Chaves (Comillas) COORDINET will monitor both the aggregator response and the individual answer by each unit.

- **Stamatios (JRC)**: Can you provide some information about the needed upgrades on the tools of the system operators?

  José Pablo Chaves (Comillas) said that, for the moment, the observability is increasing, installing the required equipment to be able to do so. The DSO platforms to procure flexibility must be

developed, almost from scratch, although for sure they will be linked to existing planning and operation tools.

Swedish demo - Yvonne Ruwaida

- **Miguel Rodrigo (IDAE)**: For all the demos: did you consider any minimum capacity for the bids?

  Yvonne Ruwaida (VATTENFALL) answered that they considered 1 MW, but then reduced to 0.1 MW.

- **Miguel Rodrigo (IDAE)**: Will it be common to all the demos?

- **Jose Pablo (Comillas)** said that it is still under discussion. Manolis Voumvoulakis (HEDNO) answered that they did not define, but, since they defined thresholds for the products, he thinks that it will be the same.

- **Ercole de Luca (ARETI)**: Will you test intraday or real-time products?
  Yvonne Ruwaida (VATTENFALL) said that they will test them in demo run 2.

- **Ercole de Luca (ARETI)**: Which is the relationship among the 5-minute measurement and the results of the market.
  Yvonne Ruwaida (VATTENFALL) said that the 5-minute measurement is linked to the load prognosis, rather to the operation or monitoring of the grid. The market is either one day-ahead or 2-hours-ahead, so they do not need such granularity.

- **Ercole de Luca (ARETI)**: The shortest reaction is 1 hour?
  Yvonne Ruwaida **(VATTENFALL)** answered that it is 2 hours.

- **Stamatios (JRC)** What is the market buying time?
  Yvonne Ruwaida (VATTENFALL): it is 45 minutes. He insists on the 5-minute measurements.
  Yvonne Ruwaida (VATTENFALL) said that they will also change the market from 1 hour to 15 minutes (outside CoordiNet), but it is delayed.

Greek demo - Manolis Voumvoulakis

No questions.

S5 - Business Use Cases - Gonca Gürses

- **Ercole de Luca (ARETI)**: Did you make any comparison on how service providers will be remunerated? Will you use existing market mechanisms for that? Will the approaches in the different pilots be aligned?

  Gonca Gürses (RWTH) hopes that there will be aligned approaches by the end of the project, but she leaves pilot leaders to answer to the rest. YR says that there will be different business cases for different demo needs. She says that she expects to have pay-as-clear

- **Ercole de Luca (ARETI)**: Do DSOs have a budget to pay for this?

  Yvonne Ruwaida (VATTENFALL) says that they will.

  Ercole De Luca (Areti) said that it is crucial that DSOs have a budget, as otherwise the project has a risk.

Advisory Board' Conclusions

S6 - Next steps - Marco Baron (Enel GI&N), Carlos Madina (TECNALIA) and José Pablo Chaves (COMILLAS)

WP2 Month 1 – 36

- Markets and platforms to coordinate the procurement of energy services from large-scale and small-scale assets connected to the electricity network
- Intermediate results to be agreed on with WP2 leader and participants

WP3 - Spanish demo

- **Report on functionalities and services** delivered
- hardware and software testing ongoing

WP4 - Swedish demo

- **First demo run** implemented
- Report on lessons learned, adjustments in products delivered

WP5- Greek demo

- **Hardware, software and system integration completed**
- Demonstration plan consolidated

Advisory Board members feedback

Norela Constantinescu (ENTSO-E) presented the official feedback of the Advisory Board members. 7 key messages were delivered:

1) Concerning the market models presented by Kris Kessels, the Advisory Board is interested in the assessment of scalability and replicability of such models as well as the capability of such markets to ensure enough liquidity for the services; COORDINET should make its best to push towards the standardization of market platforms and products in terms of functionalities.
2) Demos should interact with each other to ensure interoperability and standardization of demo solutions in preparation of the last phase of the project, where COORDINET intends to deliver recommendation for the implementation of a pan-EU market.
3) AB members invite the consortium to interact with the existing market platforms operators in the different countries in order to receive feedback on the project approach.

   Jose Pablo Chaves (COMILLAS) answered that the all demo participants are in close contact with the national market operators and in particular, the Spanish demo had regular discussions.

4) A common terminology for ancillary services, grid services, and flexibility services is welcome. **Jose Pablo Chaves (Comillas)** answered that some revisions were already made and he proposed to have a common terminology with the "twin project" INTERRFACE in the future.
5) For the next Advisory Board, the AB would recommend to investigate more the adoption of peer-to-peer market in the Swedish Demo. Kris Kessels briefly reacted to this request, but she suggested to come back to this point at the end of December, when a clearer view will be available.

6) During the project, the Consortium is invited to highlight pros and cons of each market model and use possible KPIS to measure them.
7) The AM members suggested getting in contact with other existing and forthcoming H2020 projects dealing with the participation and engagement of final users in the markets.

Marco Baron (ENEL GI&N) thanked all the participants at the end of the meeting and invite the representatives of the INTERFACE project to jointly organize the next Advisory Board. Indeed, he highlighted the interest of the Commission to have a unique positioning by these projects.

III Communication activity per CoordiNet partner

This section describes how each of the partners will be involved in different communication and dissemination activities.

Enel Global Infrastructure Networks

The dissemination activities where E-GIN participated in 2019 related to the different stakeholders are presented in Table 18.

Company	SH1: Local and national governments	SH2: Regulators	SH3: DSOs SH4: TSO	SH5: Flexibility Service Providers	SH6: Academic institutions	SH7: European Commission & other H2020	SH8: Media and general public
E-GIN		- CEER workshop -Bridge meeting TSO-DSO	-Bridge Initiative meetings on H2020 TSO-DSO - TSO-DSO coordination projects meeting - CEER workshop	-IoT Week 2019	-Bridge Initiative meetings on H2020 TSO-DSO projects -TSO-DSO coordination projects meeting -Smart Energy Systems Conference 2019		-Active in social media
	Advisory Board meeting, Stakeholder Forum, European Utility Week, ISGAN Webinar						

Table 18 E-GIN participation in CoordiNet dissemination activities

e-distribución Redes Digitales S.L

The dissemination activities where e-distribución participates in 2019 related to the different stakeholders are presented in Table 19.

Company	SH1: Local and national governments	SH2: Regulators	SH3: DSOs SH4: TSO	SH5: Flexibility Service Providers	SH6: Academic institutions	SH7: European Commission & other H2020	SH8: Media and general public
e-di	-Meeting with IDAE -Flexibility Workshop Endesa -Spanish Smart Grid Conference -Workshop "Grid services in decarbonized electricity systems"	-Flexibility Workshop Endesa -Spanish Smart Grid Conference -Workshop "Grid services in decarbonized electricity systems"		-Regular meetings with FSP of e-distribución demo -Flexibility Workshop Endesa -Spanish Smart Grid Conference	-Workshop "Grid services in decarbonized electricity systems" - Workshop "Grid services in decarbonized electricity systems" -Flexibility Workshop Endesa		Active in social media -Flexibility Workshop Endesa -Spanish Smart Grid Conference

				-Spanish Smart Grid Conference		
	Stakeholder Forum					

Table 19 e-distribución participation in CoordiNet dissemination activities

I-DE Redes Eléctricas Inteligentes S.A (i-DE)

The dissemination activities where I-DE participates in 2019 related to the different stakeholders are presented in Table 20.

Company	SH1: Local and national governments	SH2: Regulators	SH3: DSOs	SH4: TSO	SH5: Flexibility Service Providers	SH6: Academic institutions	SH7: European Commission & other H2020	SH8: Media and general public
I-DE	-Meeting with IDAE -Spanish Smart Grid Conference -Meeting with Murcia Municipality	-Spanish Smart Grid Conference			-Regular meetings with FSP of E-DI demo -Spanish Smart Grid Conference	-Smart Grid Conference		-Spanish Smart Grid Conference
	Advisory Board meeting, Stakeholder Forum							

Table 20 i-DE participation in CoordiNet dissemination activities

Red Eléctrica de España

The dissemination activities where Red Eléctrica de España participates in 2019 related to the different stakeholders are presented in Table 21.

Company	SH1: Local and national governments	SH2: Regulators	SH3: DSOs	SH4: TSO	SH5: Flexibility Service Providers	SH6: Academic institutions	SH7: European Commission & other H2020	SH8: Media and general public
REE	-Meeting with IDAE -Spanish Smart Grid Conference	-Spanish Smart Grid Conference			-Spanish Smart Grid Conference	-Smart Grid Conference		-Spanish Smart Grid Conference
	Advisory Board meeting, Stakeholder Forum							

Table 21 REE participation in CoordiNet dissemination activities

Fundación Tecnalia Research and Innovation

The dissemination activities where Tecnalia participates in 2019 related to the different stakeholders are presented in Table 22.

Company	SH1: Local and national governments	SH2: Regulators	SH3: DSOs	SH4: TSO	SH5: Flexibility Service Providers	SH6: Academic institutions	SH7: European Commission & other H2020	SH8: Media and general public
Tecnalia	-Meeting with IDAE -Flexibility Workshop Endesa -Spanish Smart Grid Conference	-Flexibility Workshop Endesa -Spanish Smart Grid Conference -CEER workshop -Bridge meeting TSO-DSO			-Flexibility Workshop Endesa -Spanish Smart Grid Conference	-Flexibility Workshop Endesa -Spanish Smart Grid Conference -EEM 2019 -Bridge meeting TSO-DSO	-Bridge meeting TSO-DSO -CEER workshop	-Active in social media -Flexibility Workshop Endesa -Spanish Smart Grid Conference
	Advisory Board meeting							

Table 22 Tecnalia participation in CoordiNet dissemination activities

Universidad Pontificia Comillas

The dissemination activities where Comillas participates in 2019 related to the different stakeholders are presented in Table 23.

Company	SH1: Local and national governments	SH2: Regulators	SH3: DSOs	SH4: TSO	SH5: Flexibility Service Providers	SH6: Academic institutions	SH7: European Commission & other H2020	SH8: Media and general public
Comillas	-Meeting with IDAE -Flexibility Workshop Endesa -Spanish Smart Grid Conference	-Flexibility Workshop Endesa -Spanish Smart Grid Conference -CEER workshop -Bridge meeting TSO-DSO -Meeting with the Spanish regulator			-Flexibility Workshop Endesa -Spanish Smart Grid Conference -Workshop with AEGE	-Flexibility Workshop Endesa -Spanish Smart Grid Conference -Bridge meeting TSO-DSO	-Bridge meeting TSO-DSO -CEER meeting	-Active in social media -Flexibility Workshop Endesa -Spanish Smart Grid Conference
	Advisory Board meeting, Stakeholder Forum, European Utility Week, ISGAN Webinar							

Table 23 Comillas participation in CoordiNet dissemination activities

Vattenfall Eldistribution AB

The dissemination activities where Vattenfall participates in 2019 related to the different stakeholders are presented in Table 24.

Company	SH1: Local and national governments	SH2: Regulator	SH3: DSOs	SH4: TSO	SH5: Flexibility Service Providers	SH6: Academic institutions	SH7: European Commission & other H2020	SH8: Media and general public
Vattenfall	-Open meeting with customers in Uppland -CoordiNet Forums -Conferences in Uppsala & Gotland on capacity shortage -CIRED 2019 - Unlocking flexibility Conference -Report Swedish Smart Forum - Flexibility and CoordiNet Conference - EnergiNätverk Sverige	-CoordiNet Forums - Unlocking flexibility Conference -Conferences in Uppsala & Gotland on capacity shortage - Flexibility and CoordiNet Conference - EnergiNätverk Sverige - Energy Authority at Almedalen			Open meeting with customers in Uppland -CoordiNet Forums - Flexibility and CoordiNet Conference	- Unlocking flexibility Conference - Conferences in Uppsala & Gotland on capacity shortage -CIRED 2019 -CoordiNet Forums - Flexibility and CoordiNet Conference - EnergiNätverk Sverige		- Conferences in Uppsala & Gotland on capacity shortage CIRED 2019 -Video Capacity constraint in Sweden -CoordiNet Forums - Unlocking flexibility Conference - Flexibility and CoordiNet Conference -CoordiNet movie
	Advisory Board meeting, Stakeholder Forum							

Table 24 Vattenfall participation in CoordiNet dissemination activities

E.ON Energidistribution AB

The dissemination activities where E.ON participates in 2019 related to the different stakeholders are presented in Table 25.

Company	SH1: Local and national governments	SH2: Regulators	SH3: DSOs	SH4: TSO	SH5: Flexibility Service Providers	SH6: Academic institutions	SH7: European Commission & other H2020	SH8: Media and general public
E.ON	-Open meeting with customers in Uppland -CoordiNet Forums -Conference in Uppsala on capacity shortage -CIRED 2019 -Open meeting Skåne	-CoordiNet Forums -CEER workshop -Conference in Uppsala on capacity shortage			-Open meeting with customers in Uppland -Open meeting Skåne -CoordiNet Forums	-CoordiNet Forums		- Conference in Uppsala on capacity shortage -Video Capacity constraint in Sweden -Flex providers contracted press release -CoordiNet Forums -Go live demo press release

						-CoordiNet movie
	Advisory Board meeting, Stakeholder Forum					

Table 25 E.ON participation in CoordiNet dissemination activities

Svenska kraftnät

The dissemination activities where Svenska Kraftnät participates in 2019 related to the different stakeholders are presented in Table 26.

Company	SH1: Local and national governments	SH2: Regulators	SH3: DSOs	SH4: TSO	SH5: Flexibility Service Providers	SH6: Academic institutions	SH7: European Commission & other H2020	SH8: Media and general public
Svenska Kraftnät	-Open meeting with customers in Uppland -CoordiNet Forums -Conference in Uppsala on capacity shortage	-CoordiNet Forums -Conference in Uppsala on capacity shortage			-Open meeting with customers in Uppland -CoordiNet Forums	-CoordiNet Forums		-Conference in Uppsala on capacity shortage -Video Capacity constraint in Sweden -Flex providers contracted -CoordiNet Forum -CoordiNet movie
	Advisory Board meeting							

Table 26 Svenska Kraftnät participation in CoordiNet dissemination activities

Uppsala Kommun

The dissemination activities where Uppsala Kommun participates in 2019 related to the different stakeholders are presented in Table 27.

Company	SH1: Local and national governments	SH2: Regulators	SH3: DSOs	SH4: TSO	SH5: Flexibility Service Providers	SH6: Academic institutions	SH7: European Commission & other H2020	SH8: Media and general public
Uppsala Kommun	-Open meeting with customers in Uppland -CoordiNet Forums -Conference in Uppsala on capacity shortage	-CoordiNet Forum			-Open meeting with customers in Uppland -CoordiNet Forums	- Conference in Uppsala on capacity shortage -CoordiNet Forums		-Conference in Uppsala on capacity shortage -Video Capacity constraint in Sweden -CoordiNet Forums - Report Swedish

						Smart Forum
	Advisory Board meeting					

Table 27 Uppsala Kommun participation in CoordiNet dissemination activities

Energiforsk AB

The dissemination activities where Energiforsk participates in 2019 related to the different stakeholders are presented in Table 28.

Company	SH1: Local and national governments	SH2: Regulators	SH3: DSOs	SH4: TSO	SH5: Flexibility Service Providers	SH6: Academic institutions	SH7: European Commission & other H2020	SH8: Media and general public
Energiforsk	-CoordiNet Forum - Conference Energi 2019 -CoordiNet Forums	-CoordiNet Forums - Conference Energi 2019			-CoordiNet Forums	-Conference Energi 2019 -CoordiNet Forums		-Article Tidningen Energi Sweden Energy magazine -CoordiNet Forums
	Advisory Board meeting							

Table 28 Energiforsk participation in CoordiNet dissemination activities

Institute of Communication and Computer Systems (ICCS)

The dissemination activities where ICCS participates in 2019 related to the different stakeholders are presented in Table 29.

Company	SH1: Local and national governments	SH2: Regulators	SH3: DSOs	SH4: TSO	SH5: Flexibility Service Providers	SH6: Academic institutions	SH7: European Commission & other H2020	SH8: Media and general public
ICCS	- EUSEW	-EUSEW	- EUSEW - INNOGRID	- EUSEW - INNOGRID	- EUSEW	-CIRED 2019 -IEEE PES General Meeting 2 -Bridge Initiative meeting -INNOGRID - EUSEW	-Bridge Initiative meeting - EUSEW - IEEE PES General Meeting 2 -INNOGRID	-Active in social media
	Advisory Board meeting, Stakeholder Forum							

Table 29 ICCS participation in CoordiNet dissemination activities

HEDNO S.A. (Hellenic Electricity Distribution Network Operator S.A.)

The dissemination activities where HEDNO participates in 2019 related to the different stakeholders are presented in Table 30.

Company	SH1: Local and national governments	SH2: Regulators	SH3: DSOs	SH4: TSO	SH5: Flexibility Service Providers	SH6: Academic institutions	SH7: European Commission & other H2020	SH8: Media and general public
HEDNO		-INNOGRID				-INNOGRID		
	Advisory Board meeting, Stakeholder Forum							

Table 30 HEDNO participation in CoordiNet dissemination activities

VITO

The dissemination activities where VITO participates in 2019 related to the different stakeholders are presented in Table 31.

Company	SH1: Local and national governments	SH2: Regulators	SH3: DSOs	SH4: TSO	SH5: Flexibility Service Providers	SH6: Academic institutions	SH7: European Commission & other H2020	SH8: Media and general public
VITO		-INNOGRID -CEER workshop				-INNOGRID -EEM 2019 -Bridge meeting TSO-DSO -H2020 EU-SysFlex	-INNOGRID -Bridge meeting TSO-DSO -H2020 EU-SysFlex	
	Advisory Board meeting, Stakeholder Forum, ISGAN webinar							

Table 31 VITO participation in CoordiNet dissemination activities

E.DSO for Smart Grids (E.DSO)

The dissemination activities where E.DSO participates in 2019 related to the different stakeholders are presented in Table 32.

Company	SH1: Local and national governments	SH2: Regulators	SH3: DSOs	SH4: TSO	SH5: Flexibility Service Providers	SH6: Academic institutions	SH7: European Commission & other H2020	SH8: Media and general public

E.DSO		- INNOGRID	- Workshop: The Truth about Flexibility - INNOGRID	- INNOGRID		-INNOGRID -Smart Energy Systems Conference 2019	-Active in social media
	Advisory Board meeting, Stakeholder Forum, EUW						

Table 32 E.DSO participation in CoordiNet dissemination activities

E.ON ERC at RWTH Aachen University

The dissemination activities where E.ON ERC at RWTH participates in 2019 related to the different stakeholders are presented in Table 33.

Company	SH1: Local and national governments	SH2: Regulators	SH3: DSOs	SH4: TSO	SH5: Flexibility Service Providers	SH6: Academic institutions	SH7: European Commission & other H2020	SH8: Media and general public
RWTH	- ISGAN Workshop on TSO-DSO interaction.							
	Advisory Board meeting, ISGAN webinar							

Table 33 RWTH participation in CoordiNet dissemination activities

ETRA Investigación y Desarrollo, S.A. (ETRA I+D)

The dissemination activities where ETRA I+D participates in 2019 related to the different stakeholders are presented in Table 34.

Company	SH1: Local and national governments	SH2: Regulators	SH3: DSOs	SH4: TSO	SH5: Flexibility Service Providers	SH6: Academic institutions	SH7: European Commission & other H2020	SH8: Media and general public
ETRA I+D						-X-FLEX kick-off meeting -EEM19		-Active in social media
	Advisory Board meeting, Stakeholder Forum							

Table 34 ETRA I+D participation in CoordiNet dissemination activities

OFFIS

Table 35 presents the dissemination activities where OFFIS participates in 2019.

Company	SH1: Local and national governments	SH2: Regulators	SH3: DSOs	SH4: TSO	SH5: Flexibility Service Providers	SH6: Academic institutions	SH7: European Commission & other H2020	SH8: Media and general public
OFFIS			-Liaison with H2020 TDX-Assist project			-Liaison with H2020 TDX-Assist project		
	Advisory Board meeting							

Table 35 OFFIS participation in CoordiNet dissemination activities