

ERA-Net Smart Energy Systems
JOINT PROGRAMMING CONFERENCE 2020
SMART ENERGY SYSTEMS

Minutes of the Status Conference

15 October 2020

© **ERA-Net SES Support Team**

Gotzinger Str. 48

81371 München

office@eranet-smartenergysystems.eu

www.eranet-smartenergysystems.eu



This document was created as part of the ERA-Net Smart Energy Systems Initiative, funded from the European Union's Horizon 2020 research and innovation programme under grant agreements no. 646039 and no. 775970.

Contents

Contents	2
1 Objectives of the Status Conference	3
2 Main results of the Status Conference.....	3
2.1 Farewell to new endeavors: 2016 Projects matchmaking with Associated Partners and Knowledge Community	4
2.2 Knowledge Community Meeting.....	6
2.3 Virtual networking lunch.....	7
2.4 Knowledge Community meetings	8
ERA-Net SES funding partners	8

1 Objectives of the Status Conference

The Status Conference is the annual public event of the Joint Programming Platform ERA-Net Smart Energy Systems (JPP SES) community. It was part of the three-day Joint Programming Conference 2020 Smart Energy Systems from 14-16 October 2020. Please find the slides for download on expira [here](#) (by creating an expira user account).

This year, the main objectives of the Status Conference were:

1. celebrating progress and learnings in time of crisis, with the projects approved in 2016 presenting their main achievements;
2. Sharing and creating knowledge in the Working Group meetings of the knowledge community;
3. Looking forward with an outlook on JPP SES, the Knowledge Community platform and its partner network.

2 Main results of the Status Conference

Michael Hübner, from the Federal Ministry for Climate Action, Environment, Energy, Mobility, Innovation and Technology of Austria and coordinator of the Joint Programming Platform ERA-Net Smart Energy Systems (JPP SES) welcomed the participants and launched the Status Conference.

He first recalled the successes of the JPP SES: in 5 years, more than 100mio Euros have been spend in 69 successful transnational projects which made the research advance in the sector of smart energy systems.

2020 has also been marked by a new initiative for the association of new partners to the network: the Living Labs (LL) and Digital Platform Providers (DPP). With the LL, the program has an enriched validation network for the take-up of project results. On the other hand, DPP support the projects with their already existing digital solutions. Based on the success of the initiative, a new call for LL and DPP was launched this autumn.

M. Hübner finally shared the aim of the programme for the next years to team up with the clean energy transition programme (CETP) – an upcoming initiative under the Horizon Europe programme – in which all ERA-Net and all European national programmes will work together in one partnership on common challenges.

Ludwig Karg, head of the Knowledge Community Management, introduced the agenda of the conference and presented a review of the main project achievements so far.

He first recalled the two pillars of the JPP SES programme: transnational projects and the Knowledge Community, before introducing the Knowledge Community: the repository, exchange and co-creation platform for JPP SES project partners and stakeholders.

L. Karg then introduced the network of Associated Partners: non-funded cooperation partners who help improve the quality of funded RDD projects and increase their overall impact. Beyond these partners, the programme is also linked with other initiatives at European and global level (e.g. with Mission Innovation) for example in the framework of the Taskforce on energy communities.

L. Karg then gave a review of the successes of the JPP SES projects funded so far and of the synergy between projects. The main project results are now featured in a [dedicated brochure: "Focus initiative Smart Grids Plus – Success stories from joint calls 2015 and 2016 projects"](#) as well as in the Card Deck.

Finally, he introduced [the projects approved in the MICall 2019](#) and presented the Joint Call 2020 (MICall20).

The floor was then open for the projects approved in 2016 to share their main achievements. The plenary presentation, including slides from the 2016 projects is available [here](#).

2.1 Farewell to new endeavors: 2016 Projects matchmaking with Associated Partners and Knowledge Community

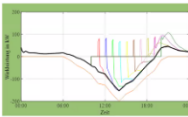
Moderator **Ludwig Karg** welcomed the project partners for their pitches.

The following projects pitched their results in the plenary.

Project Outline: Results



Category	Results
Technology	<ul style="list-style-type: none"> Modelling artificial LV- and MV-grid models Residual load models for restoration process studies Restoration tools coping high shares of renewables
Market	<ul style="list-style-type: none"> Specification and implementation guidelines for restoration tools Design of future grid restoration strategies
Adoption	<ul style="list-style-type: none"> Overview on grid restoration challenges coping high shares of renewables




KING (3)	
Autonome Handlungskategorien	
Wiederherstellung von Restlasten	Freiheitsplanung
Vorbereitung von Wiederherstellungsmaßnahmen	Wiederherstellung
Spannungsoptimierung	Spannungsoptimierung
Erhöhung der Wiederherstellungszeiten	Netzwerke
Netzwerke	Netzwerke
Netzvermessung	Netzvermessung
Spannungsoptimierung zu Lasten	Spannungsoptimierung zu Lasten
Spannungsoptimierung zu Lasten	Spannungsoptimierung zu Lasten
Zielvorgabe Standard	Zielvorgabe Standard
Technische Umsetzung von Restlast	Technische Umsetzung von Restlast
Übertragung von Handlungen	Übertragung von Handlungen
Interaktionen	
Projekt starten	Projekt starten
Ergebnis Anpassen	Ergebnis Anpassen



15/10/2020 Status Conference: Integrated Energy Systems for the Clean Energy Transition
© 2020 - ERA-NET SMART ENERGY SYSTEMS | 44

RestoreGrid4RES

The main results of the project are decision-support tools to support operators during system restoration. In addition, the project partners developed an awareness tool shows important indicators such as frequency stability and voltages to the operator. The partners also developed residual load models.




EMBS Energy Management Building Set
 #demand response #interoperability #energy cooperatives
 Runtime: August 2017 – June 2020

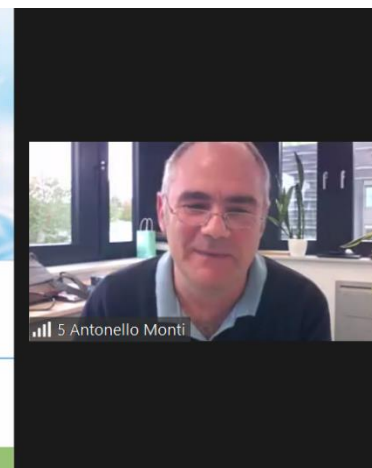


The **EMBS** project provides an ICT architecture to optimise the storage behaviour and to reduce CO2. It enabled to locally optimise the energy consumption based on different datasets: the price, the weather conditions, the consumption of the users and a model of the building. Main results are ready-to-use sustainable energy solutions for buildings.




FISMEP-
 FIWARE for Smart Energy Platform
 #FIWARE # Cloud # Smart Energy Platform
 Runtime: December 2017 – November 2020

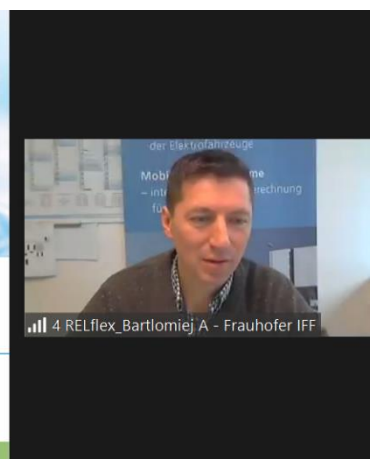
FIWARE for Smart Energy Platform



The aim of the **FISMEP** project was to use FIWARE solutions for energy systems. FIWARE is an open API platform developed by the Future internet platform of the European Commission. This project created the energy pillar of the FIWARE initiative, bringing this initiative forward with solutions oriented to customer involvement.




RELflex - Renewable Energy and Load Flexibility in Industry
 Industrial flexibility
 #Load and RES Flexibility # SMEs- small industry
 # DSM/DSR in EMS



The **RELFlex** project aimed at allowing the industry to produce green products (e.g. green chairs and green tables) from the energetic point of view by addressing the manufacturing processes. The project identified, mobilised and activated flexibility in the manufacturing processes via energy digitalisation, and towards smart industrial processes.



Smart Energy Systems ERA-Net

Multi-layer Aggregator Solutions to Facilitate Optimum Demand Response and Grid Flexibility (SMART-MLA)

Aggregator, Demand Response, Flexibility

<http://smart-mla.stimasoft.com>

Peer to Peer Feedback Session 2020

Smart meters, Multi-layer aggregator, Demand response aggregator, Internet of Thing, Big Data, Cloud computing

epira



9 SMART_MLA, Saeed

The **SMART-MLA** project aims to enhance flexibility from different layers: the customer layer (with flexibility appliances), a second layer of exchange between customers and aggregators to reduce the energy procurement costs as a flexibility option, and a third layer of in which the flexibility gathered at the aggregator level is traded in a local flexibility market with the coordination of the DSO.

After the pitches in the plenary, the projects held virtual booths in breakout rooms, in which they presented their results more in details and exchanged with participants, in particular associated partners on new perspectives.

Participants then joined the plenary session again for a wrap-up and introduction of the Knowledge Community meeting of the afternoon.

2.2 Knowledge Community Meeting

Ludwig Karg introduced the programme **Working Groups**:



1. System Architecture and Modelling & Interoperability and Standardisation
2. Storage and Cross Energy Carrier Synergies
3. Regulatory and Market Development
4. Consumer and Citizen Involvement
5. Regional matters

He then introduced the improved cooperation approach in Knowledge Community on the expera platform. Beyond the existing processes for the co-creation of Spotlights, Policy Briefs and project brochures, a new approach is now implemented for the co-creation of these

common outputs based on already existing reference documents with findings from other initiatives and other programmes. This approach is based on the use of discussion documents in which the findings for reference documents are confronted with the results of the projects in order to define the spotlights and policy briefs. The details can be found in the presentation for download on expera [here](#)

Contributing to the Working Group

- Register for expera <http://www.smartgridsplus.eu>
- Register as member of the Working Group on expera or by writing to knowledgecommunity@eranet-smartenergysystems.eu
- Review list of reference documents and relate them to your project:
 - Which documents seem most relevant to you?
 - Do you know of further documents which could be related to?
 - What is your perspective on the key points of these documents? Based on the experiences made in your project: do you (dis)agree? Why?

15/10/2020 Status Conference: Integrated Energy Systems for the Clean Energy Transition
© 2020 - ERA-NET SMART ENERGY SYSTEMS | 65

2.3 Virtual networking lunch

The lunch break was then the occasion for a meal sharing and virtual get-together with representatives of the Knowledge Community and the following Living Lab and Digital Platform Providers:

- **Gantner Instruments** monitors and controls data with fast edge devices for various energy applications - be it PV, EV, battery energy storage, wind or thermal power. By doing so, Gantner enables advanced smart energy services
- **Logarithm**: Join our logarithmo lunch bar with good jazz to discuss your digital ideas and the technological platform for making them real! We provide the flexible data and digital service platform for a variety of Smart Energy and AI use cases in Europe – we are happy to discuss the fit for your ideas bilaterally
- **EnerIT innovation**: Novel REAL-TIME bi-directional wireless PowerQualityAnalyzer & IoT Platform with Business Intelligence & Machine Learning feature-based solution having outstanding cost-value ratio for all segments

2.4 Knowledge Community meetings

After the break, participants distributed themselves along the six Knowledge Community working groups.

1. System Architecture and Modelling & Interoperability and Standardisation
2. Storage and Cross Energy Carrier Synergies
3. Regulatory and Market Development
4. Consumer and Citizen Involvement
5. Regional matters

Please find the minutes of the Working Groups on the respective space on [expira here](#). In case you are not member yet of the respective Working Group, please send us an email: knowledgecommunity@eranet-smartenergysystems.eu

ERA-Net SES funding partners



This initiative has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreements no. 646039 and no. 775970.