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BRIDGE is an initiative from the European Commission which unites **Horizon 2020 Smart Grid and Storage Projects** to create a structured view of issues which are encountered in the demonstration projects which are not of technological nature and may constitute an obstacle to innovation. Bridge involves four cross-project Working Groups **(Business Models, Consumer Engagement, Data Management** and **Regulations),** and a coordination team consisting of the chairs and rapporteurs of the four WGs. The **BRIDGE** process implements **continuous knowledge sharing** amongst projects thus allowing them to deliver with a **single voice** conclusions and recommendations about the future exploitation of the project results, according to the four areas of interest of the WGs.

The Bridge Business Models WG submitted its **First Annual Report** in September, with the Regulations, Consumer Engagement and Data Management WGs working towards completion of their reports by December 2016.

The next **Bridge meetings** will take place in Brussels in January 2017.

WGs: Tues. 17/01 13.00 – Wed. 18/01 13.00

Coordination: Wed. 18/01 13.00 – Thurs. 19/01 13.00

Share this link with your contacts so they can **sign-up** for the **Bridge Newsletter!** www.eepurl.com/bP4Op9.

ELSA is holding its midterm conference **'The ELSA battery storage system – safe, scalable and green'** on 27th October in Paris. Participants are invited to visit to the ELSA prototype installed at the headquarters of Bouygues Energies & Services. Click here to register!

In August, an electrical storage unit based on three second life Nissan Leaf batteries with a total capacity of 48 kWh was installed at the first ELSA pilot site – the Skills Academy for Sustainable Manufacturing and Innovation at Gateshead College. The **ELSA battery energy storage system** will be connected to an energy management system supplied by UTRC Ireland, Limited and together with a newly deployed rooftop 50 kWp photovoltaic system it is expected to provide peak shaving, demand response and energy purchase time shifting services.

A very successful **first ELSA stakeholder workshop** was held in May at the pilot site in Aachen. Stakeholders from the energy and building domain discussed business-cases for small-and medium scale storage solutions.

The **'First study of the economic impact in the local and national grid related to all demo sites'** deliverable is now available – click here to access it the ELSA website.

ENERGISE and the European Utilities Telecom Council (EUTC) are proud to announce the signing of a **Memorandum of Understanding.** The objective of working together is laid upon the future of ICT-infrastructure for Smart Grids and the co-operation between telecoms and utilities.

ENERGISE is working towards the project's final results, with the **Final Workshop** planned for March 2017. This will be attended by key stakeholders and solutions will be presented for overcoming existing hurdles in cooperation between the telecoms and energy sector.

ENERGISE is currently developing a **case study based tool** for decision on **ICT-infrastructure**, which will be the focal point of the Final Workshop. Meetings are being held with key stakeholders from the relevant industries and regulation authorities to gather case studies. The first draft has been completed and is undergoing stakeholder evaluation. One method of analysis is to cluster the case studies along the axis of the degree of asset ownership related to the mode of operation.

Check out the new **ENERGISE video** here.

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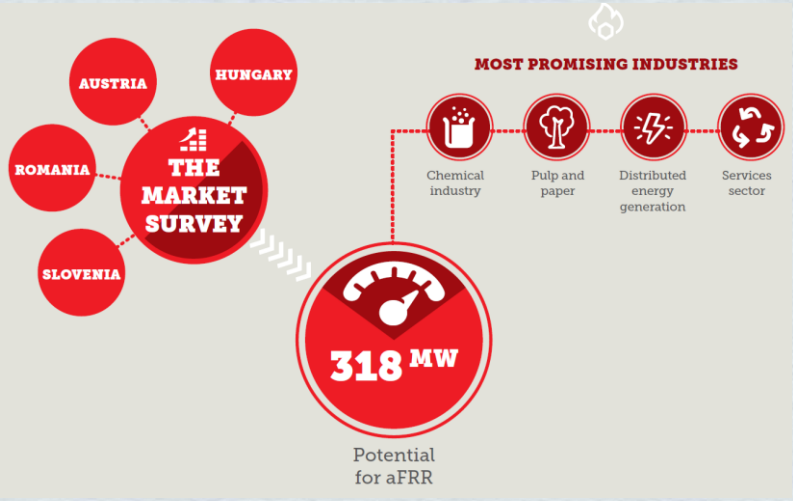
HORIZON 2020

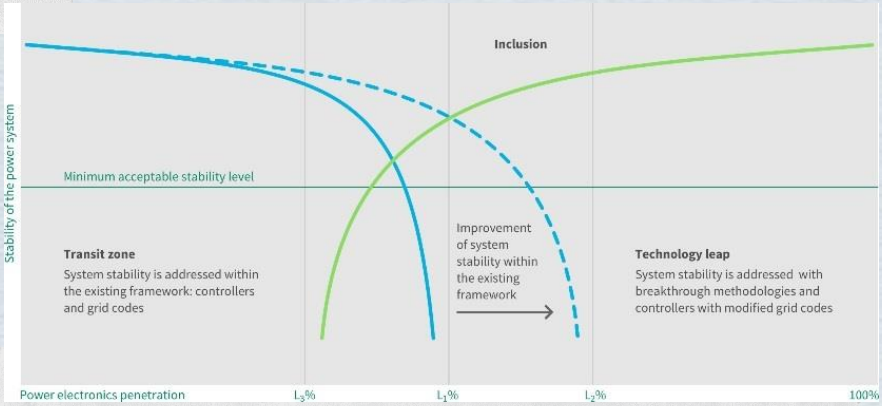
FUTUREFLOW partners have made ***an innovation breakthrough*** on how cross-border activation of flexible resources (loads, distributed generation and storage) should operate. This is an important precondition for creation of ***level playing field*** for all ***aFRR*** competitors and opening aFRR market for ***flexibility*** in a Continental Europe environment. An ***initial sketch*** design has been developed to show how national complementary resources and needs for ***balancing energy in aFRR*** (secondary) control could be efficiently combined in the pan-regional optimisation platform in most ***cost-effectively***, respecting the network limitations and European requirements for quality of balancing services. Strong emphasis is currently being placed on the development of cross-border trade of balancing energy under the conditions of limited cross-border capacities among countries/bidding zones. Project partners are creating a real-time ***optimisation algorithm*** where information on available capacity will be embedded in the core function.



The ***market survey*** in Slovenia, Austria, Hungary and Romania showed in total 318 MW of Commercial and Industrial flexibility potential for ***aFRR*** (Automatic Frequency Restoration Reserve). An equivalent amount of control reserves could only be provided through approx. 3000 MW of coal or gas power production.

The ***MIGRATE*** project is ***the first large scale R&I project originating from ENTSO-E*** and involving 11 control zones at once, with a close look at interoperability of the developed solutions: this unique level of coordination shows how R&I collaborative work and coordination between members states and European level can speed up the deployment of innovative solutions.

The MIGRATE project aims at proposing ***significant GRID Code evolutions*** in order to avoid system instabilities, harmonic distortion and the failure of protection systems caused by the increasing penetration of PE.



Implementation of the ***NETfficient*** ***smart electric grid*** on Borkum Island, North Sea, Germany is well underway with the demonstration expected to be up and running in early 2017. Testing and deployment involves the installation of energy storage and smart metering devices, PV panels for homes, public buildings, public lighting and aquarium water temperature regulation plus HVAC of public buildings. ***40 homes and 6 public buildings***, including the island's tourist office, have now volunteered to participate in the use cases thanks to an ***active recruitment campaign***. In August the first equipment and components (e.g. Heating/Cooling Units), Deposits for thermal energy storage (TES) and Solenco Powerbox) were shipped to Borkum. HCU, TES-Deposits and heat exchangers will be set up by the end of 2016 for UC 5 (aimed at keeping aquarium water at a constant temperature, using TES to avail of PV energy even when there is no PV production). In November, homes and buildings will be inspected in preparation for installation. A ***showroom on Borkum***, which will act as the centrepiece for dissemination of project results, is currently being designed. It will open in spring 2017 for visitors and will also be virtually accessible via the project website.

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HORIZON 2020

The first 6 months of ***SmartNet*** saw ***great progress*** with the analysis of various theoretical issues concerning the project including TSO-DSO coordination schemes and enhanced ancillary services market architectures. Mathematical models of the system components have been developed and an initial analysis of ICT requirements carried out. ***Two public consultations*** were launched in order to gather the feedback of the European stakeholders on crucial issues for the project. Read more here. The first edition of the ***project newsletter*** is available here. The first ***face-to-face project meeting*** was held in Copenhagen on 5-7 July 2016, during which the 23 project partners reviewed progress in the first 6 months and planned upcoming research activities. The ***three national pilots*** (Italy, Denmark and Spain) have started their activities and detailed functional specifications are being developed. An important meeting was held in Sand in Taufers (Italy) on 20-21 July to inspect the hydro power plants and the electric substation that will take part in the Italian pilot.

SmarterEMC2 organised several successful workshops during summer in Greece and Turkey in order to recruit end users for the project pilots. More than 100 residential customers agreed to participate in a ***Demand Response and Virtual Power Plant pilot*** in Rafina, Greece, and more than 300 industrial and commercial customers agreed to participate in a ***Demand Response pilot*** in Denizli, Mugla and Aydin, Turkey. ***Installation*** of the equipment on the pilot sites has already started and will be completed in Autumn 2016.

The RealValue trial is well underway, with ***SETS (Smart Electric Thermal Storage)*** units now installed in over half of the 50 participating buildings in ***Latvia***, 84 homes in ***Germany*** and over 200 properties in ***Ireland***. The majority of these properties have also been equipped with a RealValue Gateway and communications testing is progressing well. The Ludgate Hub in Ireland, which boasts 1GB of connectivity has also received a RealValue comms upgrade. RealValue has been presented at various events including ***Hannover Messe*** in Germany in April, ***Eurelectric Annual Conference*** in Vilnius in June, ***EASE Global Conference*** and a ***Eurelectric/Poyry*** Consumer Engagement event in Brussels in September. RealValue academic partners have been busy, presenting at a number of conferences recently and in the coming months, including ***BEHAVE 2016*** (Coimbra, Portugal, 8-9 Sept.), ***ASIM 2016*** (Korea, November), ***ICSAE 2016*** (Newcastle, October) & ***RTUCON*** (Riga, October). As part of RealValue's socioeconomic research, a ***Market Review Report*** was delivered to the European Commission in September; this document will be available on the RealValue website soon. The latest RealValue ***newsletter*** is available here. The ***'RealValue Explained'*** video, and website are now available in English, Latvian and German – click here to view.

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TILOS has received a license from the Regulatory Authority for Energy for the ***first ever, battery-based, Wind-PV power station in Greece***, a breakthrough which has revived the debate for alternative energy supply models in island regions, and promises to transform the Greek energy market. This hybrid power station with a 800kW wind turbine, 160kW PV park and 2.8MWh/800kW NaNiCl2 batteries will be at the ***heart of the TILOS smart microgrid***. Installation and on-site testing of the ***TILOS smart meter and DSM prototype*** began in September, as well as installation and commissioning of the ***SCADA control room*** in order to establish communication with weather measuring equipment and grid load meters onsite, and to enable data transfer on energy consumption from the participating homes.

The first container of ***FIAMM batteries*** is ready for shipping to the Younicos test center in Berlin in November. The battery will interface the grid-forming inverter of Indrivetec and the integrated prototype battery storage system will undergo several performance tests in Berlin before it travels to Tilos. In mid-April, the final WWF training session took place in preparation for the first phase of energy seminars aimed at ***mobilizing and educating the inhabitants*** of Tilos island.

In June TEIP was invited to participate in, and present on TILOS, at the ***'S3P Energy: Smart Mediterraneo: Best practices, innovation and pilot projects in smart grid development in the Mediterranean region'*** workshop organized by the European Commission Joint Research Centre Institute for Energy and Transport, in Bari, Italy. A poster on TILOS was presented at the 10th ***'International Renewable Energy Storage'*** (IRES) in Dusseldorf in March 2016.

STORY held a very successful ***First Advisory Board Meeting*** on 6-7 June 2016 in Espoo, Finland, at VTT, the Technical Research Centre of Finland. The 17 high-level Advisory Board Members from across Europe represented different parts of the energy value chain (generation, distribution, consumers, policy-makers and regulators) coming from businesses (DSOs, renewable energy companies, start-ups, aggregators, etc.); civil society; public institutions. The aim of this interactive meeting was for Advisory Board Members to ***identify the main opportunities and obstacles for the roll-out of energy storage***, while the STORY project team presented their work in more detail and explained how challenges will be overcome. The outcome was the identification of 14 key clusters based on the obstacles and opportunities, including ***Market Design, Network Management, Network Cost, Regulatory Aspects, Innovation / Business models, Access to funding / capital, Transport and Grid – Security of supply***. 13 out of 15 respondents giving the workshop a 5/5 rating.

AnyPLACE · CRYOHUB · Elsa · EMPOWER · energise · FLEXICIENCY · P2P-smarTest · FLEXMETER · MIGRATE · NAIADES · Nobel Grid Smart energy for people · NETfficient Storage for Life · Flex4Grid · FutureFlow · Real Value · SENSIBLE Storage-Enabled Sustainable Energy for Buildings and Communities · SmartNet · PROMOTioN PROGRESS ON MESHED HVDC OFFSHORE TRANSMISSION NETWORKS · STORY · STORE&GO · SmarterEMC2 · TILOS Technology Innovation for the Local Scale Optimum Integration of Battery Energy Storage · UP GRID

If there is anything you feel should be included in the next newsletter or if you have any queries, please contact: eva.jacques@glendimplex.com.