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The BRIDGE initiative recently participated in EUSEW 2017 and InnoGrid2020+, EU events held in Brussels focused respectively on sustainable energy policy issues and innovation in electricity networks. BRIDGE was also showcased during European Utility Week in Amsterdam, which is the premier business, innovation and information platform covering the entire smart system value chain. Several BRIDGE projects were showcased at these events and representatives took part in a number of discussion forums, offering the audience best practices and key learnings from their intensive work within BRIDGE on:

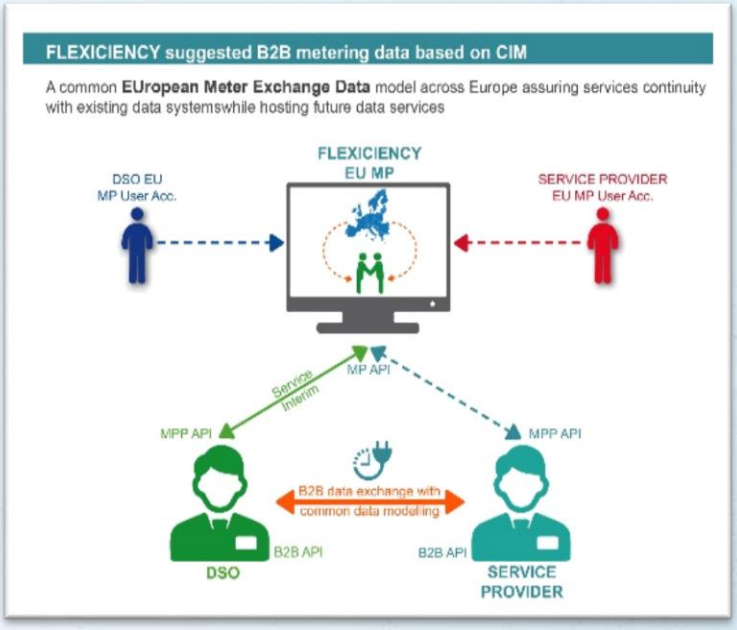
- the main obstacles to ***engaging customers***
- innovative approaches to ***data management*** to boost the removal of existing barriers
- key ingredients to enable new ***business models***
- recommendations on ***policy issues***

Currently there are ***32 Horizon 2020 Smart Grid & Energy Storage projects*** participating in BRIDGE, representing ***379 organisations*** from ***31 countries,*** in receipt of a total of ***€337M of EU funding***

Click here to read the new BRIDGE factsheet!

For more information visit www.h2020-bridge.eu and follow @BRIDGE_H2020 on Twitter!

At the ELSA ***Open Day in Kempten,*** Germany, on 12th September, ***the project's*** components and related business models were showcased and discussed with local stakeholders. The Kempten trial site is one of six demonstrating that combining 2nd-life batteries with innovative ***local ICT-based energy management systems*** is technically feasible and environmentally friendly. District level energy storage with undismantled 2nd-life batteries from electric vehicles to enhance self-consumption of electricity from roof-top solar panels is a promising alternative to individual batteries in single-family houses. The 2nd-life batteries are used for ***stationary energy storage systems*** and are installed in a transformer station near apartment blocks.



EMPOWER has created a new local energy market model where consumers and prosumers can sell and buy electricity to and from each other via a ***cloud-based ICT platform***. In addition, the project has developed a microgrid containing a full-fledged **Microgrid Power Router,** making it possible to operate part of the local grid in island mode in the case of power outages, and switch the microgrid back into connected mode when the local grid is operating normally again. The **Sandbakken Microgrid** is one of Europe's first full-fledged microgrids of its kind, and was officially opened by the Norwegian Minister of Petroleum and Energy on 5th September

FLEXICIENCY has defined a data model for ***Metering Data Exchange***, enabling a common B2B language at EU level. After defining common semantics in the Data Model and Interface Deliverable, the project has now delivered a report on Data Modelling for B2B Communication to support the interactions between Flexiciency users. A detailed specification is now available for B2B Metering data exchanges based on the CIM (Common Information Model) standard; further attributes have been added to fit FLEXICIENCY use cases. The model, called EUMED CIM (European Union Metering Exchange Data CIM format), addresses service continuity with existing data systems, while hosting future data services. It plays a pivot format function for cross border exchanges among regulated and unregulated companies. Click here for more information.

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GOFLEX is promoting a new energy system based on a cellular approach. From prosumers to microgrids, and distribution grids to transmission grids, each cell aims to be ***energy efficient,*** and ***balance energy consumption and energy generation*** by utilising and trading the available ***flexibility***. This energy system provides the framework for integration of distributed and volatile ***renewable energy sources;*** the cell owner is also responsible for managing it. **GOFLEX** has created a ***video*** to explain this new energy system which was successfully presented at EUW 2017 click here to view it!

COBRA GROUP, in collaboration with the **GRIDSOL** Consortium and Advisory Board members, organised the project's ***1st International Workshop*** to present the initial results. The event took place at Carlos III University (Madrid, Spain) and was attended by experts in the field of ***Renewable Energy Integration***. The modelling of Renewable Energy and Energy Storage technologies in ***Smart Renewable Hubs*** was presented. Participants had the opportunity to learn about the initial case studies for continental and island scenarios. The session provided a clear overview of requirements and recommendations for the future, identifying ***key challenges and barriers*** to delivering the next generation of renewable energy technologies of renewable. Visit **www.gridsolproject.eu** for more information!

InteGrid is soon to finalize the use cases which will feed into the three demonstrators in ***Lisbon***, ***Stockholm*** and ***Slovenia***. The twelve use cases which are built around four themes (Grid Operations; Grid & Market Hub; Grid Users and Energy Services) will ***enhance the role of the consumer*** in the energy sector; ***allow new market interactions*** facilitated by the Grid-Market Hub; and ***increase the resilience of the grid***, through the implementation of advanced operation tools. Follow **InteGrid** on Twitter **@integridproject** and on **YouTube!**

The name and logo of InterFlex's **French demonstrator NICE SMART VALLEY** were unveiled at the first Nice Côte d'Azur Smart City Forum in April. The inauguration ceremony of the innovative showroom will take place on 20th December. Within the **NICE SMART VALLEY** demonstrator, work is being carried out on ***computation of the flexibility needs*** of the demonstrator areas, and development of the ***aggregator portal***. This demonstrator is focussed on communications testing for gas-electric flexibilities as well as customer recruitment. In other news, CEZ Distribuce, the biggest Distribution System Operator (DSO) in the Czech Republic, has launched the demonstration phase of the ***Interflex Czech pilot*** by implementing voltage regulation systems in a photovoltaic park and a wind farm. The setup aims to increase the ***renewable energy*** hosting capacity on the medium voltage distribution network.

NETfficient is now entering a critical stage; thanks to a huge amount of effort, PV and storage systems have now been fitted in 40 ***homes*** and five ***buildings,*** and a ***street lighting*** system has been installed across Borkum. The sophisticated ***PV-to-heat storage system*** is nearly complete. The systems cover a wide range of storage technologies including Li-Ion battery, ultracapacitors and hydrogen. They have all been deployed, with the exception of the ***MV storage solution*** which is still undergoing testing. Everything is expected to be fully connected to Borkum grid by early 2018, which will allow production of greener energy on the island, and demonstration of the NETFFICIENT intelligent energy management and market integration technologies.

Installations for Use Case - Aquarium

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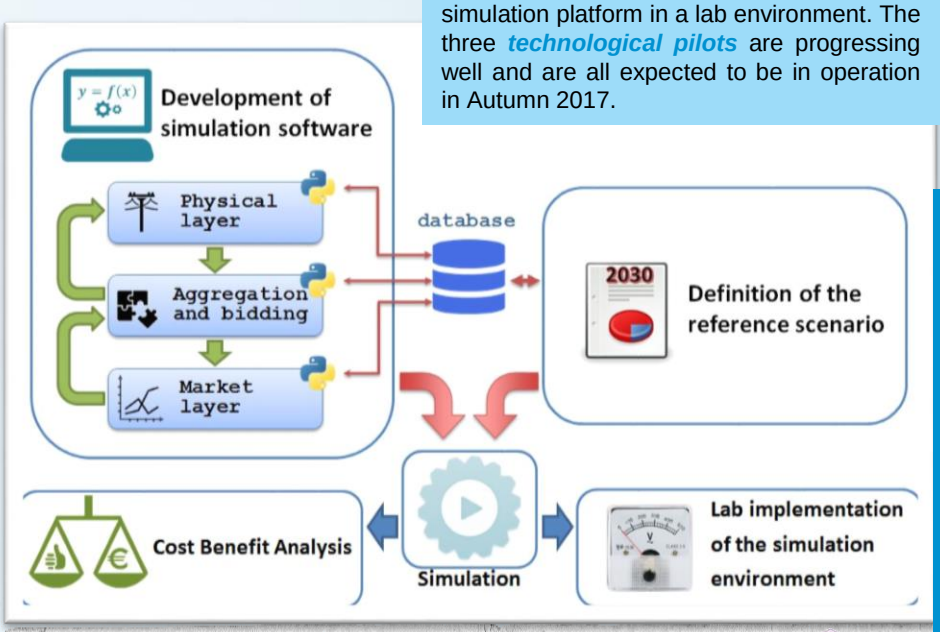
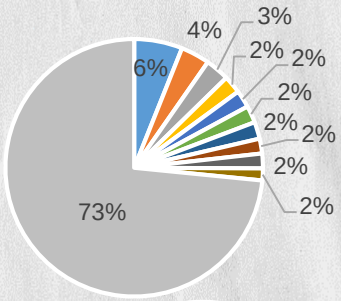
SmartNet is approaching the end of its second year. ***Important achievements*** to date include delivery of ***architecture for the ancillary services market*** ready to include bids from the distribution grid; a ***mathematical model for flexibility resources***; and an ***aggregator model***. A decision has been taken to present arbitrage between different energy markets in a simplified way (day-ahead, intraday and real-time/balancing). The task of carrying out ***cost-benefit analysis*** of five TSO-DSO coordination schemes is now underway following implementation of the simulation platform in a lab environment. The three ***technological pilots*** are progressing well and are all expected to be in operation in Autumn 2017.

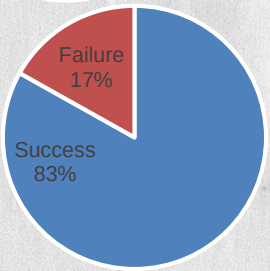


PROMOTioN has successfully demonstrated an AC short-circuit generator based ***high power test environment for HVDC circuit breakers*** – the first test of its kind in an independent laboratory. Tests on a ***Mitsubishi Electric*** prototype at ***DNV GL's KEMA Laboratories*** showed that AC short-circuit generators operated at a frequency below 50 Hz, can be used to safely and directly apply the current and energy stresses that occur in HVDC circuit breakers during DC fault current interruption. This is a major step in the development of test methods and circuits for HVDC circuit breakers, ***enabling independent verification*** of their performance and thereby increasing their technology readiness level. Find out more ***here***.

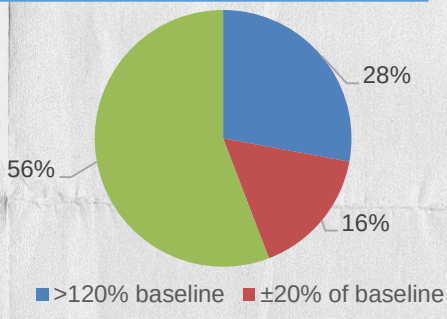
SmarterEMC2 has made some ***key early findings*** related to the project's ***DR pilots***:



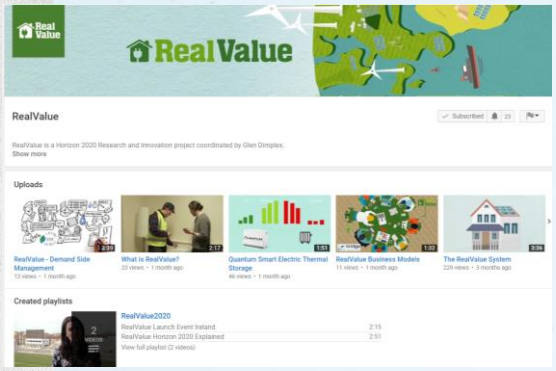
The reliability of the DR program is characterised (amongst other indicators) by the success rate of the scheduled events. In the context of the Turkish pilot, an event is considered successful when the verified shed is greater than the expected shed. **So far, the Turkish DR pilot has achieved an 83% success rate.**



An indicator of the demonstration's success was the reduction of consumers' consumption compared to the baseline. **In the DR pilot in Greece, almost 56% of the participants achieved load shedding greater than 20% of their baseline consumption.**



Each participant in a DR program contributes differently in the overall load shedding achievement. **In the DR pilot in Turkey, the top 10 participants in terms of load shedding, provided 27% of the total estimated load shed.**



As ***RealValue*** enters its final heating season there are 50 properties in Latvia, 100+ homes in Germany, and 500+ homes in Ireland equipped with ***Smart Electric Thermal Storage (SETS)*** space and water heating devices. Smart Meter installation is ongoing, as well as rollout of a ***'retrofit' gateway*** to enable smart control of traditional storage heating in 50 homes in Germany. Check out **RealValue's** latest newsletter for detailed ***updates***, and visit the ***YouTube*** channel to view recently released new videos on **The RealValue System, Business Models** and **Quantum SETS!**

On 6th-8th June, NOBEL GRID presented its energy solutions to more than 10,000 visitors at the *8th Clean Energy Ministerial* in Beijing, including energy ministers and high-level delegates from 24 member states and the European Union. In particular, NOBEL GRID presented its advanced *Smart Meter SLAM*, with advanced functions which provide additional energy services to all actors in the smart grid and energy market to create a more *stable sustainable and secure electricity network.* INEA selected NOBEL GRID from 200 EU projects to be exhibited at this international event.

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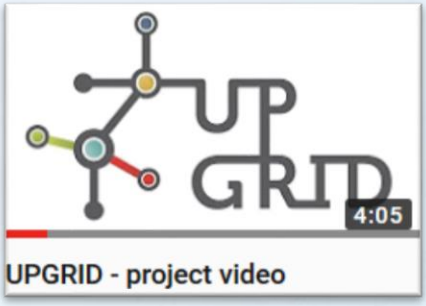
In Spain, the STORY project is looking at the potential for ***energy storage*** to ***integrate more renewables*** and ***optimise grid operations***. The demonstrator comprises a 112 kWp-PV plant and a 50 kW/200kWh Li-ion battery, which have been running since August, using the STORY developed energy management strategies. Whilst the Spanish regulatory framework currently only allows ***renewable electricity*** to be stored in batteries, this is expected to change soon, and an ***advanced strategy*** for grid charging is under development. Simulations and preliminary battery operation show that peak saving could reduce peak power by 30%, amounting to around 16% of ***peak demand charge savings.*** Read more ***here.***



Most people aren't aware that smart grids already exist; UPGRID's main innovations focus on improving the management of the ***low-voltage grid*** – the final segment of the entire power supply chain, which is directly linked to the consumers. With all demonstrators now up and running, UPGRID has produced a ***video***, summarising how the project is helping to build the energy system of the future. The results were successfully presented to utilities and power industry professionals at the last *EUW2017* in Amsterdam, and will be presented to a wider audience in Madrid, during *UPGRID's final event*, on 21st February 2018. To view the video, click *here*.

The ***Factory Acceptance Tests*** (FAT) of the integrated TILOS FZSonik battery storage system were completed in Berlin at the end of March. The TILOS ***info kiosk*** is now open to the public, following the renovation of a local building in Livadia village.

TILOS won both the ***EUSEW 2017 Energy Islands and the Citizens' Awards***, after a highly successful two-month promotional campaign for the project which reached hundreds of thousands of stakeholders with recognition and leverage from the European Commission, whilst also promoting TILOS Island and the innovative TILOS solution to a wider audience.

WiseGRID puts the consumer at the centre of the grid; at the beginning of October, during a high-level meeting, ***WiseGRID*** partners presented their innovative solutions, technologies and business models to increase the smartness, stability and security of an open, consumer-centric ***European energy grid.*** As the pre-planning and preparation phase of the project comes to an end, the partners are eager to start developing the ***WiseGRID tools. WiseGRID*** has launched a brand-new website which will be used as a platform to present all the latest details, progress updates and news on the project. Visit www.wisegrid.eu!

SMILE started in May 2017 and aims to demonstrate different innovative technological and non-technological solutions in ***large-scale smart grid demonstration projects*** on the Orkney, Samsø and Madeira islands, paving the way for introducing them into the market in the near future. The technological solutions include integration of battery technologies, power to heat, power to fuel, pumped hydro, electric vehicles, electricity stored on board boats, an aggregator approach to demand side management (DSM) and predictive algorithms. The SMILE pilots will demonstrate ***operation of the distribution grid under stable and secure conditions***, to implement solutions for ***demand response, intelligent control*** and ***automation of distribution networks.***

If there is anything you feel should be included in the next newsletter or if you have any queries, please get in touch!