

BRIDGE

How to maximise replication of projects results

Minutes of the session

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European Utility Week - Paris

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EU project zone – 12 November 2019, 15:30 – 17:05

In view of the climate urgency, the speed up of the deployment of innovative solutions fostering the transformation of the energy system is needed. The session addressed this issue and included a panel discussion on how to maximise the replication potential of some of the solutions demonstrated in the EU funded projects on smart grids and storage.

The Southeast-Asia IPR SME Helpdesks is an initiative of the European Union. Its main aim is to support EU SMEs to protect and enforce their Intellectual Property Rights (IPR), through the provision of free, first-line, confidential advice on Intellectual Property (IP). Having a comprehensive Intellectual Property (IP) strategy in place should be at the forefront of any SMEs willing to offer sustainable energy solutions in South-east Asia.

Four BRIDGE projects presented their experiences in terms of Scalability/Replicability. It was followed by the discussion panel between EC representatives and BRIDGE projects, where it was the opportunity to discuss on:

- How the SRA methodology could maximise the replication potential of some of the solutions demonstrated in the EU funded projects on smart grids and storage, how the methodology should be further detailed/developed;
- What information complementary to the methodology would help the projects: toolbox or repository of past experiences, including best-practices and necessary data for quantitative/qualitative analysis?

The different PPT presentations of the afternoon are uploaded in the restricted area of the BRIDGE website. More information about the BRIDGE project presented can be found in the BRIDGE Brochure (<https://www.h2020-bridge.eu/>).

15:30-15:35	Introduction by the Commission, Eric Lecomte (chair, DG ENER)
	<p>Presentation of the BRIDGE initiatives: 44 projects with high TRL involving more than 500 organization and EU-28 countries. The community comes from a wide range of stakeholders. The BRIDGE demonstrations and pilots are based in 38 countries. Reminder of the programme for the session:</p> <ul style="list-style-type: none"> - How to maximise the replication of project results? - How to digitalize the energy sector and how to green this digitalisation? - Integrating the energy sector with transport, buildings and energy sectors and how this integration can benefit the stability of the grids? - Storage services and how the services can serve the network operator?

15:35-15:45	Increasing the impact of BRIDGE projects, Mark van Stiphout (EC-ENER)
	<p>BRIDGE cooperation is important in terms of improvement and changing the way grids are working. The projects shall lead in the end to improvement on the field and for the future of R&I projects, promote their results. The importance to support individual research project through the EC funding is reminded as well as the aim to bring all the projects together to discuss their results and have projects getting better to reach the market.</p> <p>In replication, BRIDGE dedicated Task Force (TF) creates a methodology to approach this problem and avoid similar and parallel tasks. The creation of common quality standards to have project learning from each other (methods, lessons learnt, scalability and replicability, not invent the wheel) is stressed. The scope of the discussions shall be expended and the involvement of other projects from which we can learn something, involve regulators the ministry and national policy makers shall be foreseen. Through the BRIDGE meetings, we extend the view and help the EC and national regulators with concrete inputs.</p> <p>The dissemination of the projects is key to show that collaboration is possible between member states.</p>
15:45-15:50	The SEA IPR SME Helpdesk: how can the helpdesk help SMEs of the sustainable energy sector to protect their intellectual property when doing business in South-east Asia, Gilles Trouveroy (EC-EASME)
	<p>The main points of the presentation are the following:</p> <ul style="list-style-type: none"> - Replicability in Europe is good and the south-east Asia (SEA) is an important emerging market: it is a growing market, with request of know-how from EU. - Helpdesk free services (legal advice and fast with the helpline) in Brussels and in Asia, main resources website and newsletter, training WS and live webinars, e-learning & business tools are available; - Advising SMEs on the importance to protect the intellectual properties as soon as possible.
15:50-16:00	Presentation of the methodology for Scalability Replicability Analysis (SRA), José Chaves (COMILLAS)
	<p>The Task Force (TF) tries to set common Basic Guidelines for SRA. A questionnaire was disseminated, and several conclusions and next steps were highlighted:</p> <ul style="list-style-type: none"> - Lack of methodological guidelines and common standards, lack of input of data; - Need to provide general methodological guidelines; - Need to provide and exchange open data sources for ongoing and future projects;

	<p>The first observation is the following: variety of dimensions and approaches. The SRA method should be adapted to each project and need to rely on existing experiences. Proposed methodological guidelines:</p> <ul style="list-style-type: none"> - Look at the SGAM layers: which layers are relevant to the project (interoperability dimensions); - Look at the domains; - Define what is the methodology (three approaches identified: quantitative, qualitative or mixed methodology); - Focus on the dimensions jointly or separately? Pilot on a specific country and then scaling-up at European level or focus at the European level; - Define KPIs and which kind of model approach should be used; - Identify critical parameters; - Define SRA scenarios; - Define data requirements and sources. <p>It is important to collect data and perform the SRA for the defined scenarios in each dimension. The conclusions from the dimensions can be then combined to develop SRA rules or SRA roadmap.</p> <p>Regarding the data provision, the repository should be updated regularly otherwise it will be quite soon obsolete. For the next steps, the identification of all different dimensions that may be analysed within each SGAM layer and benchmark study on SRA methodologies implemented in previous projects are needed. Common steps to guide projects shall be defined and agreed.</p> <p>The guidelines will be tested within WiseGRID and GOFLEX projects and in parallel open sources data will be collected.</p>
<p>16:00-16:30</p>	<p>Presentations of BRIDGE projects: SRA experience, lessons learned, difficulties, SRA methodology.</p>
<p>WiseGrid, Alvaro Nofuentes, ETRA</p>	<p>The main goal of the WISEGRID project is to bring the Energy transition close to the citizens. In this aim, the increase of the input of renewables in energy mix and the use of storage technologies for mobility are needed. Five pilot sites and nine technologies were developed within the project. The tools developed addressed all the actors of the energy systems: cooperatives, operators, small consumers, large consumers, electromobility field, services company, small DSO and microgrid operator. Those tools are managed by an interoperable platform. The integration of the SRA methodology into the WiseGrid project covers:</p> <ul style="list-style-type: none"> - Selection of Function, information and communication layers; - Regulatory analysis in 28 EU Member States performed before the end of the project; - Economic analysis; - Software and ICT replicability based on already existing protocols

	<p>A desk research was performed by providing a questionnaire to pilot leaders: dimensions are analysed individually and jointly. The analysis is currently in progress and the final steps should be done beginning 2020 in order to finish before the end of the project (April 2020).</p> <p>The SRA methodology was considered as easy to apply and quite flexible. The SGAM framework is useful for smart grids projects. No specific difficulties identified: the challenge is to have a common path between the different partners (Researchers, pilot site etc... double effort in applying this methodology).</p> <p>Main conclusions:</p> <ul style="list-style-type: none"> - use cases repository are important for the function layer; - pros and cons of the qualitative and quantitative approach shall be considered.
<p>INVADE, Dieter Hirdes, Smart Innovation Norway</p>	<p>The INVADE project is about how to use medium size batteries in the distribution grids, small batteries in house (PV owners) and flexibility management. Within the project, a platform (machine learning) is developed that communicated with distributed and battery management system. Recommendations for the regulation bodies and for building a grid more sustainable are identified.</p> <p>Some key messages are highlighted:</p> <ul style="list-style-type: none"> - Interoperability, communication, data integration and exploitation of data are important; - Businesses have to focus on end users otherwise it will not work; - Interoperability and data integration take more times than expected (recommendation to have a data integrator to do the data integration and communication); - Difficulties faced to apply SRA methodology: pilots are different, should be extendable; - Missing standards was a challenge. <p>Main conclusion: start exploitation at day one to have a whole project exploitable and used by external actors.</p>
<p>Integrid, Ricardo André, EDP</p>	<p>The Integrid project shows how market facilitator enables participation and innovative business models, and tests integrated solutions for grid operation. The project demonstrates the key role of DSO as a market facilitator. Business models were addressed in order to solve conflicts and support SR.</p> <p>Regarding the SGAM application:</p> <ul style="list-style-type: none"> - Collaborations is the key: information from DSO, ICT and technology providers, consumers, etc., data harmonization from the DSOs in 3 different countries; - Difficulties: hard to get data, choose relevant scenarios and shift the analysis to functional and ICT part (the generalization of the conclusions can be a challenge);

	<ul style="list-style-type: none"> - Good practices: SGAM is a powerful tool. An architecture is important to have better results.
<p>FutureFlow, Peter Nemcek, CyberGrid</p>	<p>The FutureFlow project gathers three TSOs (Slovenia, Austria and Romania) and 12 partners from 8 countries. The aim of the project is to create a regional platform for balancing. The main Key Exploitable Results are: five ICT technologies (3 platforms and 2 tools supporting them). This system leads to aggregate 96 prosumers from 4 countries and use flexibility in real life (not only simulations). The main output highlighted is the following: 23% of energy savings and increase of cost savings supporting the actions behind integration of balancing market in Europe.</p> <p>The key aspects of SRA methodology (please see deliverables 6.6 on Futureflow website):</p> <ul style="list-style-type: none"> - Regarding communication/cybersecurity and interoperability, requirements for equipment to be adapted to the size and type of resource (small resource, small risk and investment); - Cross boarder organised market to be established; - Baseline methodology shall be harmonized to evaluate the flexibility needed; - Many regulatory issues need to be tackled to boost this kind of services; - Economic barriers were identified and they are linked to regulatory barriers: need to harmonize products to a minimum level to identify regulatory and economic rules and scale up the project results. <p>Challenges faced:</p> <ul style="list-style-type: none"> - Importance to include market prices: if the prices are high enough, you will have the resources to scale up and replicate; - Change the financing methodology especially for the DSOs; - Lack of marketing and sales power of involved SMEs; - Way of financing the growth of the business shall be explored: a big financial push is needed to go from TRL6 or TRL 8 to the market (risk capitals, ventures etc...investment bank?) - Involve all consortium partners: difficult if 20 partners but at least need to have most of them.
16:30-16:55	Discussion panel between EC, INEA and BRIDGE projects, moderated by Eric Lecomte (DG ENER)
	<p>For your project close to an end, how the SRA methodology would have helped you?</p> <p>Futureflow: the methodology could help to address the barriers from the beginning: it would have helped to pinpoint barriers in early stage and addressed them from the beginning. Indeed, the SRA/exploitation started to late.</p>

	<p>Regarding the regulatory framework, the new directive that will be implemented by 2020 would harmonize the regulation between countries and help the SRA. Indeed, so many different national regulations complexify the possibility to develop a single technology.</p> <p>INVADE: Regulators need to be involved in the project.</p> <p>WiseGRID: The regulatory analysis performed will be made available for other projects. Need to have a plan to harmonize regulations for Eu-28 and involve regulators.</p> <p>Coordinet: Needs to have project adapted to local conditions and DSO needs but on the other hand needs to have a harmonized product for Europe.</p> <p>What should be collected for the SRA from the other projects (if we build a repository)?</p> <p>INVADE: On the repository: real grid data would be useful but it is challenging to maintain them. Need to include the load data but difficult to share this information, due to privacy. Need transparency in the market and on the grid data.</p> <p>What could be useful for new projects</p> <p>On the methodology: add economic and market dimensions.</p> <p>FutureFlow: standard methodology for future projects allows to make comparisons on the same basis. Future projects should go beyond their market area.</p> <p>WiseGrid: Review the document to be sure that market aspects are included. Barriers shall be pointed out and mentioned in the methodology.</p>
16:55-17:05	Wrap-up, next steps and conclusion, Eric Lecomte (DG ENER)
	<p>The development of the methodology is important and will be useful to enhance Scalability and Replicability of future projects, as this SRA would be performed earlier, and quality standards would be set.</p> <p>The usefulness of a repository (e.g. for data sets on grids and loads ...) is confirmed, but the kind of data to be included and how to maintain them is still to be defined.</p>