INPUT FOR THE WORKSHOP
Expert Stakeholder Consultation Workshop: DIGITISING ENERGY VALUE CHAIN – Deployment Challenges and EU level Intervention 2020-2030 – 26/2/2018
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1)   The electricity markets are operating better at regional level therefore the communications infrastructure should follow this trend and to be developed in the first stage on regional basis. In the later stages these regional approach may be extended by merging several regional markets. Trying to impose a common approach to whole European countries seems more difficult to achieve. This design process is rather complex and involves several parallel activities. A better level of harmonisation at DSO level and in terms of regulation is a key element. The lack of harmonisation in regulation among the Member States is currently so relevant that it is hard to imagine an Energy Union. Even if differences may be ok to reflect local conditions, there should be an agreement on some basic principles.

2)   Yes, I agree on the need of e-platforms and we can imagine several EU platforms. One example is given by an EU level coordination on Cybersecurity: an activity in this direction is under development in the project SUCCESS[2]. The creation of a multi-country advanced simulation platform based on open-source software to monitor and predict the evolution of the grid at European level could be useful. The idea has been proposed and is under development in the project RESERVE[3]. Such platform should be managed in cooperation with JRC supporting also decision such as Project of Common Interest or also to evaluate impact of new market rules at European level. A scientific driven, transparent process would definitely increase acceptance in the energy sector.The creation of such platforms must be an answer to a certain need coming from the power sector. Developing a performant platform with quality information, fast response and reliable operation it requires a lot of human and financial resources therefore the users must have a direct interest to access the platform.

3)   It is obvious that if an utility has a urgent need for such a platform it will not wait until some indications are coming from the European level and it will start developing it a.s.a.p. In these conditions it is better to focus on a set of rules and regulation that will ensure the proper transfer of information (compatibility) in between them. This approach will pave the way for a future merging of the software tools. Definition of clear and open Application Program Interfaces is a key element to make these platforms useful. Effort is on the way in several H2020 project but this should be coordinated and formalized in Standards. The risk I see right now is that many utilities are building their own platforms (for services, user interaction and so on) and then we could have serious issues of interoperability. DG Connect promoted for example the creation of Open API in the FI-PPP. I think the energy sector should join that effort and follow the same philosophy. The FIWARE philosophy, result of the PPP, is a winning option and it still support competition among stakeholders.

4)   Definitely yes. This is already happening at Transmission Level but there is need of more coordination TSO-DSO and also among DSOs. Starting at regional level as the first stage of the process should be considered.

5)   There are needs at different level. At Physical Layer, we should start considering linking Distribution Grids directly among each other across different DSOs. At the boarder this would mean also across different MSs. At the data level, the concept of EU-level cloud platform would help interaction and interoperability (see also previous answers 2-3). At this stage probably it is interesting to have this better communication between the big DOS's and the small DSO's located in the area of operation of the first ones because in this way the

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[2] SUCCESS – Securing Critical Energy Infrastructures (http://www.success-energy.eu/)
[3] RESERVE – Renewables in a Stable Electric Grid (http://www.re-serve.eu/)

small ones will be able to subcontract more of their activities to the bigger ones. The deployment of the devices should be in accordance with the type of services subcontracted.

6)   5G is an interesting option to support Smart Grid deployment for a variety of reasons. Thanks to virtualisation 5G and Edge Cloud will support a new approach to automation based on Software as a Service (H2020 Project SOGNO[4]). At the same time 5G will facilitate sharing among different infrastructures (i.e. e-mobility) reducing costs and supporting also interesting synergies and sector couplings. 5G is a young technology and probably in the next years will become more interesting form all points of view: technical capabilities, costs, reliability etc. Different possible utilisation may require different approaches so probably both will be interesting.

7)   I think this should be addressed case by case: it should be a combination of EU, Local government and private investment. It is hard to give a general rule. If the investments will provide added value for sure the funding will come from the interested parties and this should be the main approach. Of course there may be cases where EU and/or local governments will be interested to help the funding.

8)   Concerning Cybersecurity, we need to build more coordination and sharing of experience. As mentioned in my answer 2, a EU level monitoring platform for cybersecurity could be a good approach. For interoperability, I also gave hints in my answer 3. We need open and standardized application interfaces to get interoperability and also to avoid vendor lock-in while supporting a flexible and competitive market. Interoperability and standardisation should focus in this stage on the interface rules and conditions. This will pave the way for future merging and integration. Cybersecurity is a different issue and it is strongly connected with the previous ones. It is easier to provide cyber security in a better controlled environment where you find a fixed and previously known set of inputs.

9)   I think it is important to develop new market models that will encourage participation at more local level. Currently we only have a wholesale market very far away from the customers/small producer. Creating new markets concept at the Distribution Level will open new opportunity of interaction and service sharing. We should make the access to the incentives easier for both suppliers and consumers by developing software platforms easy to understand and use.

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[4] SOGNO - Service Oriented Grid for the Network of the Future (Link)