The challenges to foster clean energy transition, resilience and energy security in Europe

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OneNet project overview and use cases

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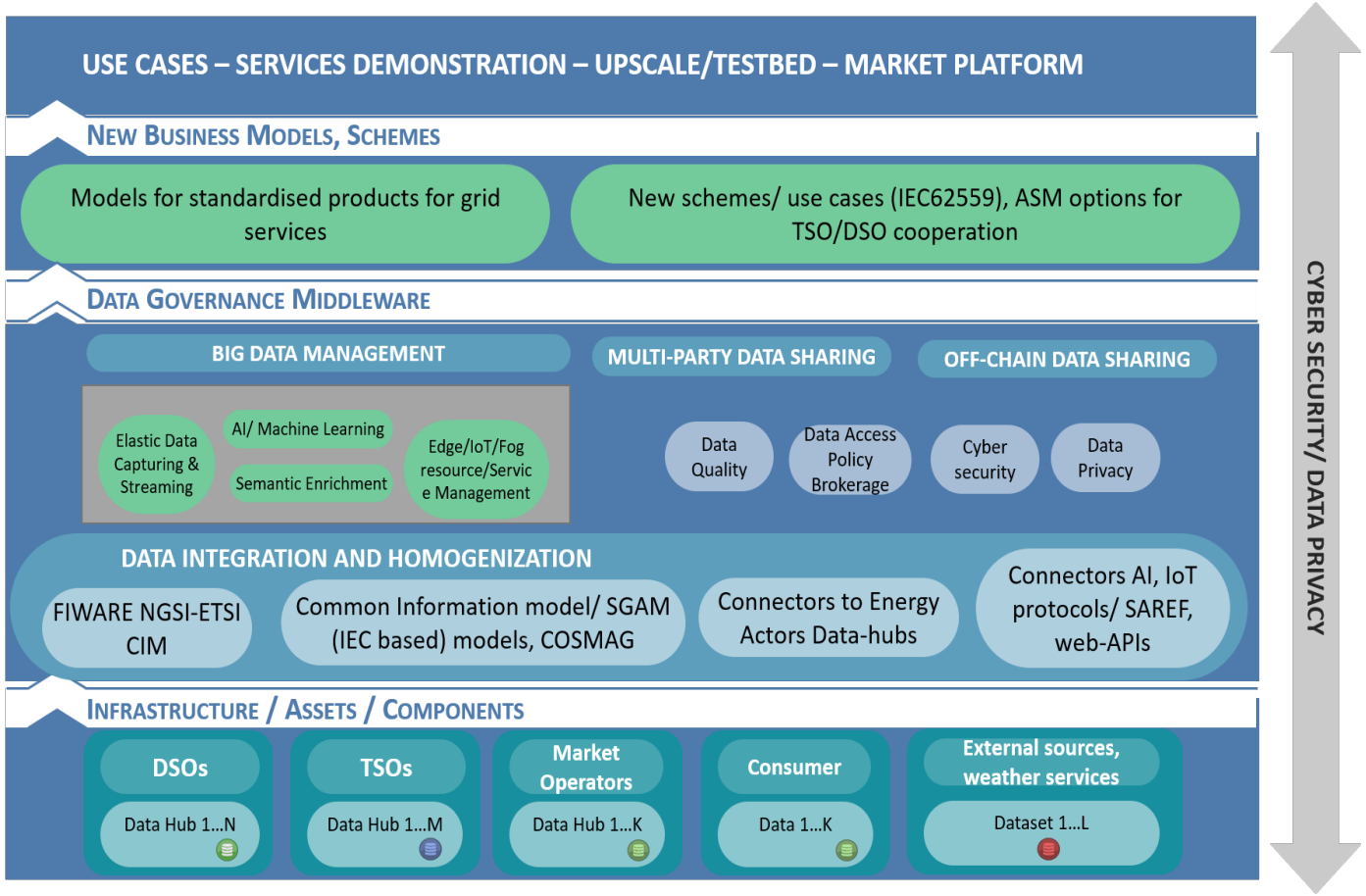
This project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No 957739

OneNet Vision

- To create a **fully replicable and scalable architecture** that enables the whole European electrical system to **operate as a single system** in which a **variety of markets** allows the **universal participation of stakeholders** regardless of their physical location – at every level from small consumer to large producers



Key facts about the OneNet project

Knowledge base

OneNet brings together the knowledge and technology developed in other H2020 projects (e.g. CoordiNet and INTERRFACE)

Demo clusters

15 European countries will be involved in demonstrating OneNet's concepts and solutions at the regional and cross-border level

European consortium

OneNet brings together 72 partners, including two associations of European system operators

GRIFOn

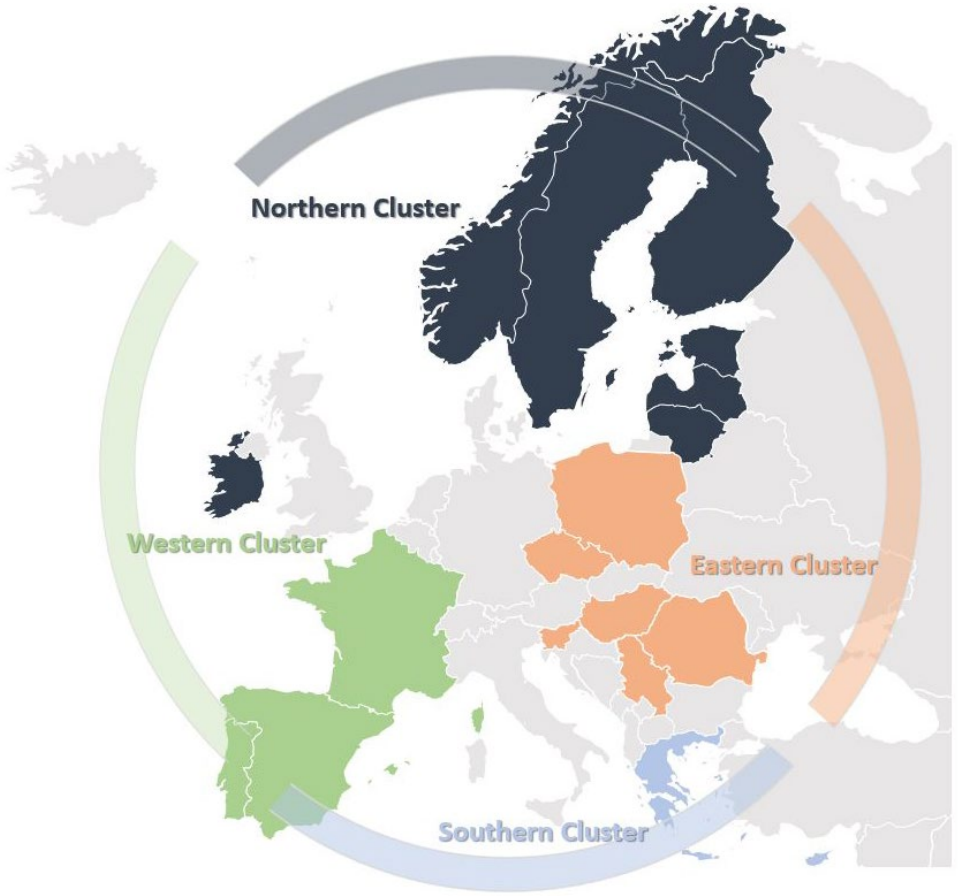
OneNet will enable constant dialogue with all relevant stakeholders through the GRIFOn platform

Knowledge base

- Project funded in the last call for TDO-DSO-Customer cooperation
- OneNet brings together the large base of knowledge and technology developed so far in H2020 projects
- OneNet builds on previous projects like CoordiNet and INTERRFACE
- OneNet vision is to create a standardized pan-European system of systems approach combining existing and new solutions

Demo clusters

- Several demos organized in 4 clusters covering the whole Europe
- Each cluster involving multiple DSO and TSO to implement completely new scenarios
- New market concepts tested in real life



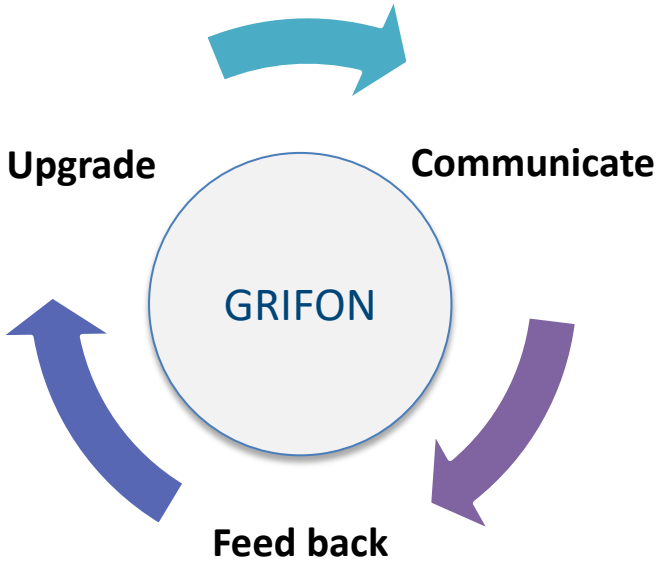
European consortium

- OneNet brings together >70 partners
  - Including E.DSO and ENTSO-E
  - Together with a large set of TSOs and DSOs
  - Leading IT companies and
  - Renowned research institutions

GRIFOn: A platform to create unique European level consensus

ONENET one network for Europe

- Create mechanisms of inclusions for any interested stakeholder
- Develop European level consensus and acceptance of OneNet proposed solutions
- Disseminate via two key documents:
  - **Interoperability Strategy** for OneNet
  - **Market design for** OneNet



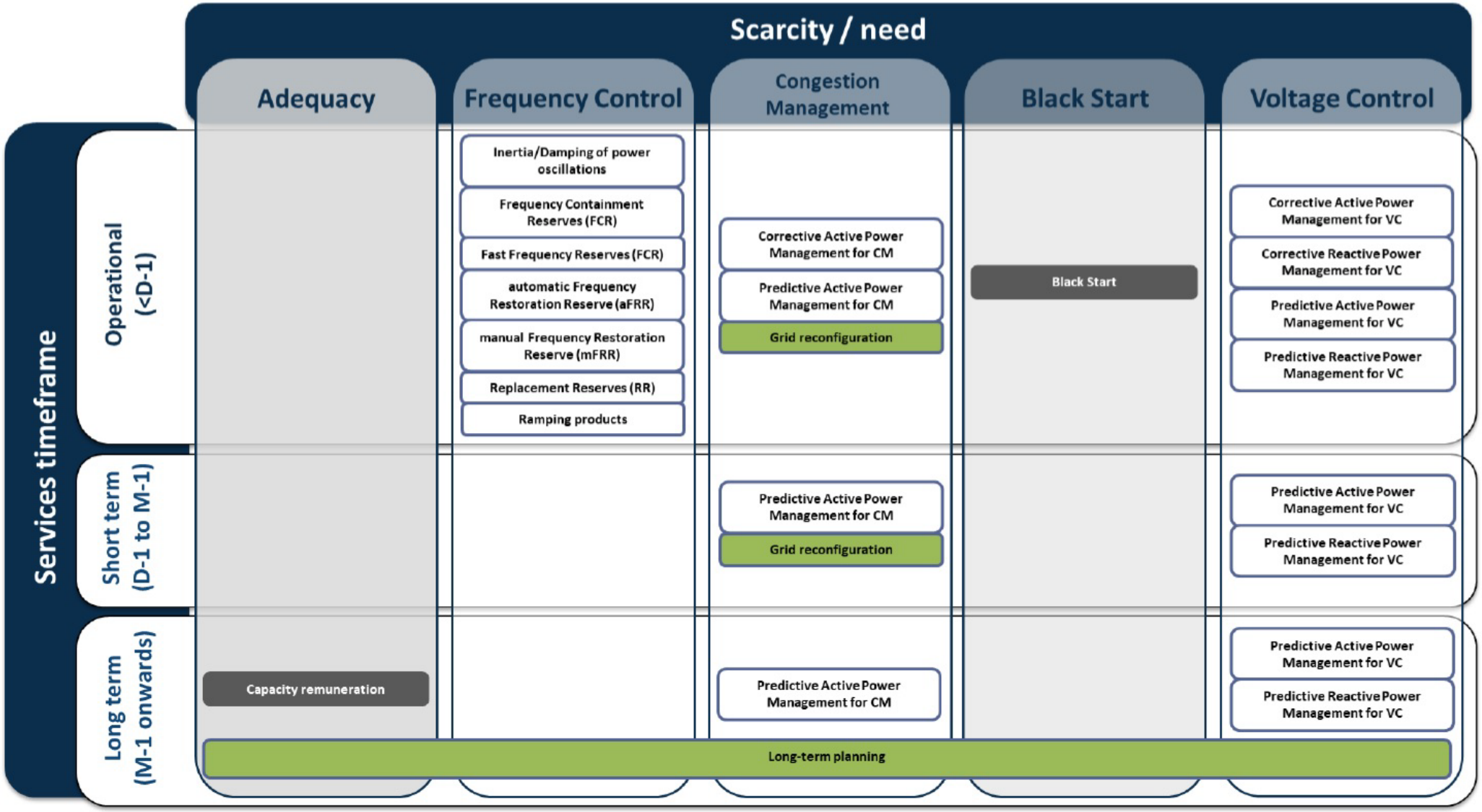
European and national stakeholders

Primary target audience	Constant dialogue with
TSOs & DSOs	ETIP SNET
Regulators	H2020 BRIDGE
Aggregators	OpenDEI
ICT & IoT	…
Market operators	

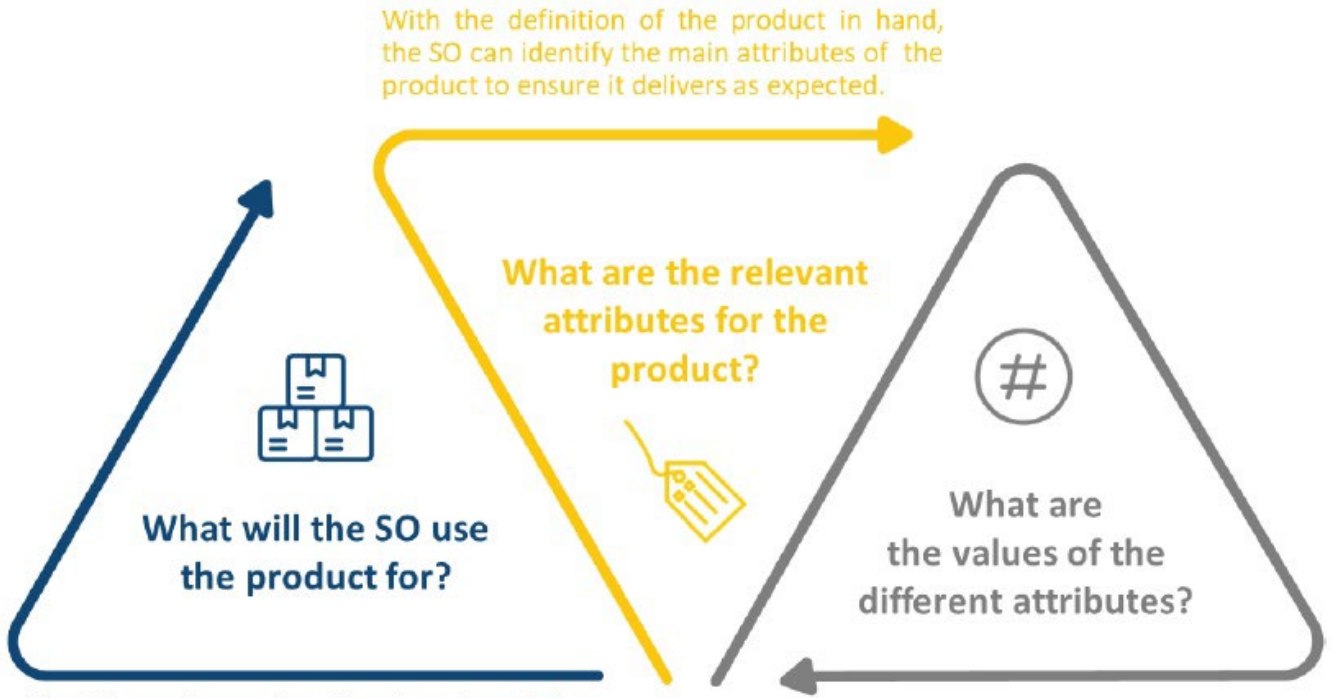
The starting point for building OneNet - methodology

1. A list of **15 H2020 projects** was selected to form the basis for the review. The projects were clustered based on the topic each one addressed.
2. A questionnaire was circulated to be filled in for each project to gather all the necessary information. The received answers in addition to the available projects' deliverables were studied and the important achievements and proposals on **product design, market design and BUCs** of each project were reported.
3. In addition to that, **4 national projects**, and collaboration initiatives among several stakeholders in energy sector based on their affinity to OneNet project are analyzed (DA/RE, GOPACS, NODES, and Piclo Flex). Relevant EU publications and research papers were studied to supplement the findings of the core projects.
4. The major findings were analysed and the starting point for building OneNet was defined.

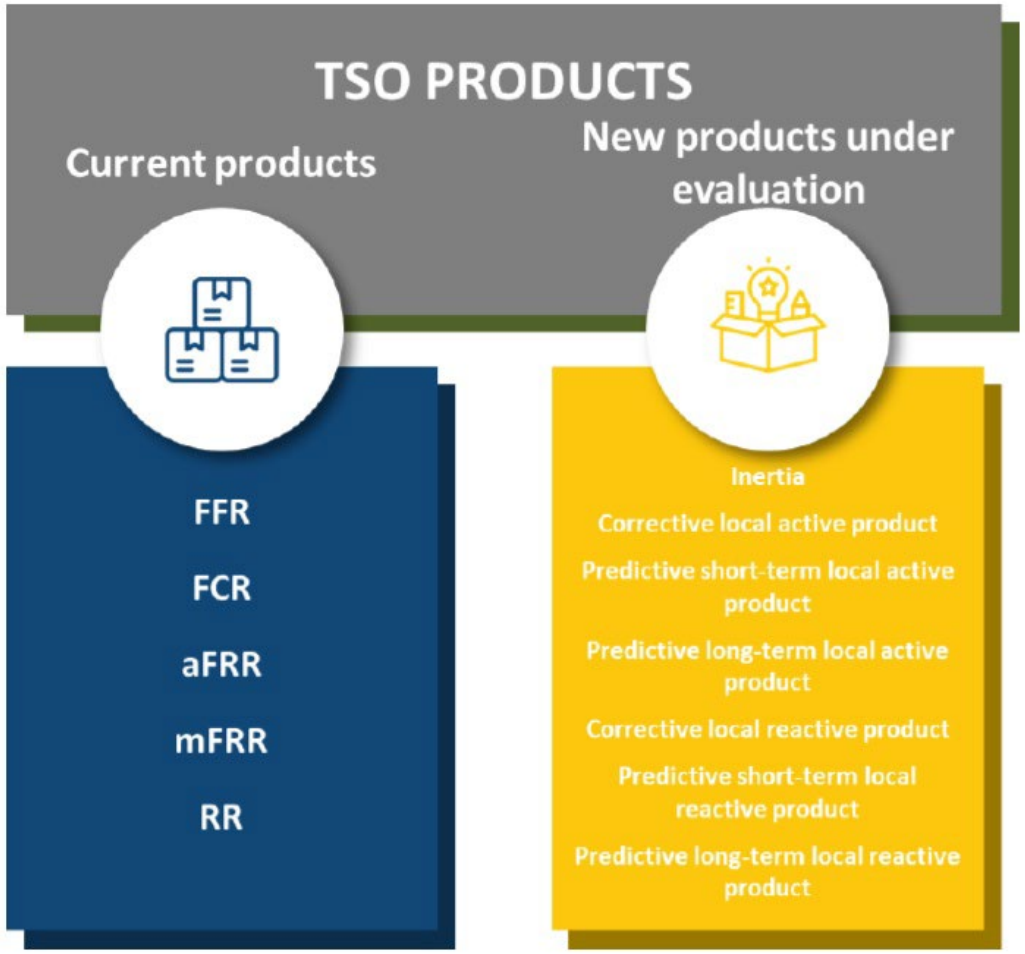
System services identified in OneNet



Product framework

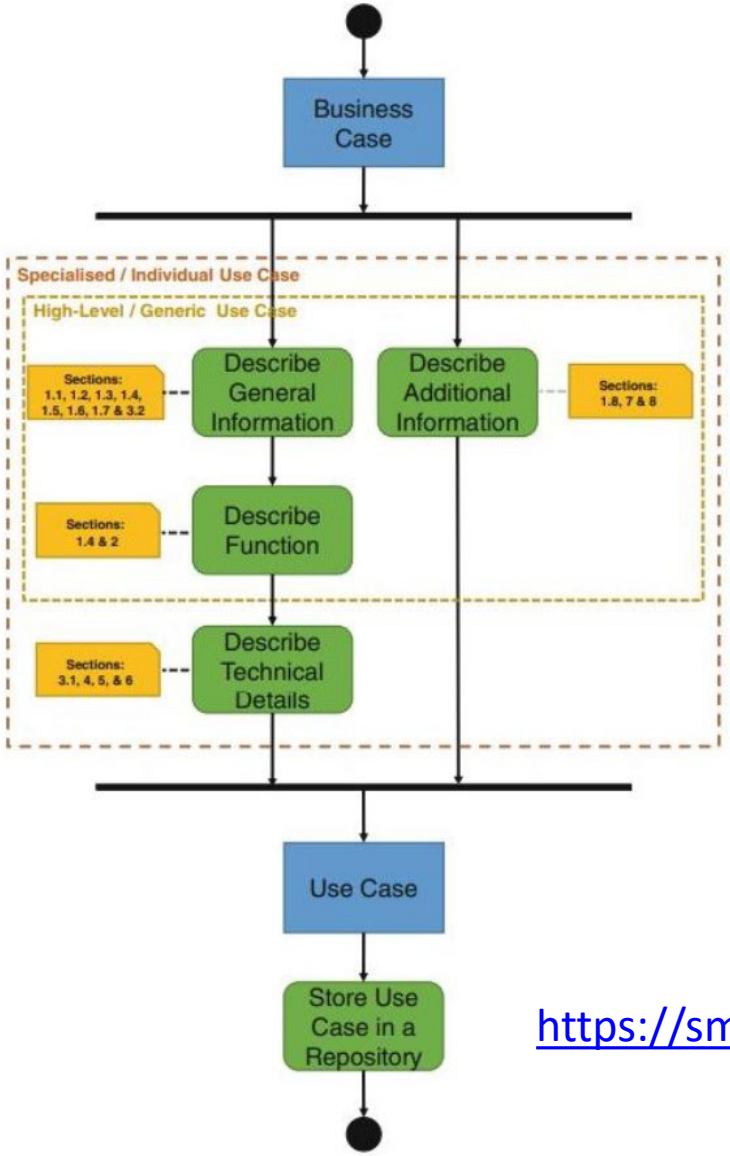


TSO current and potential products for the main system services



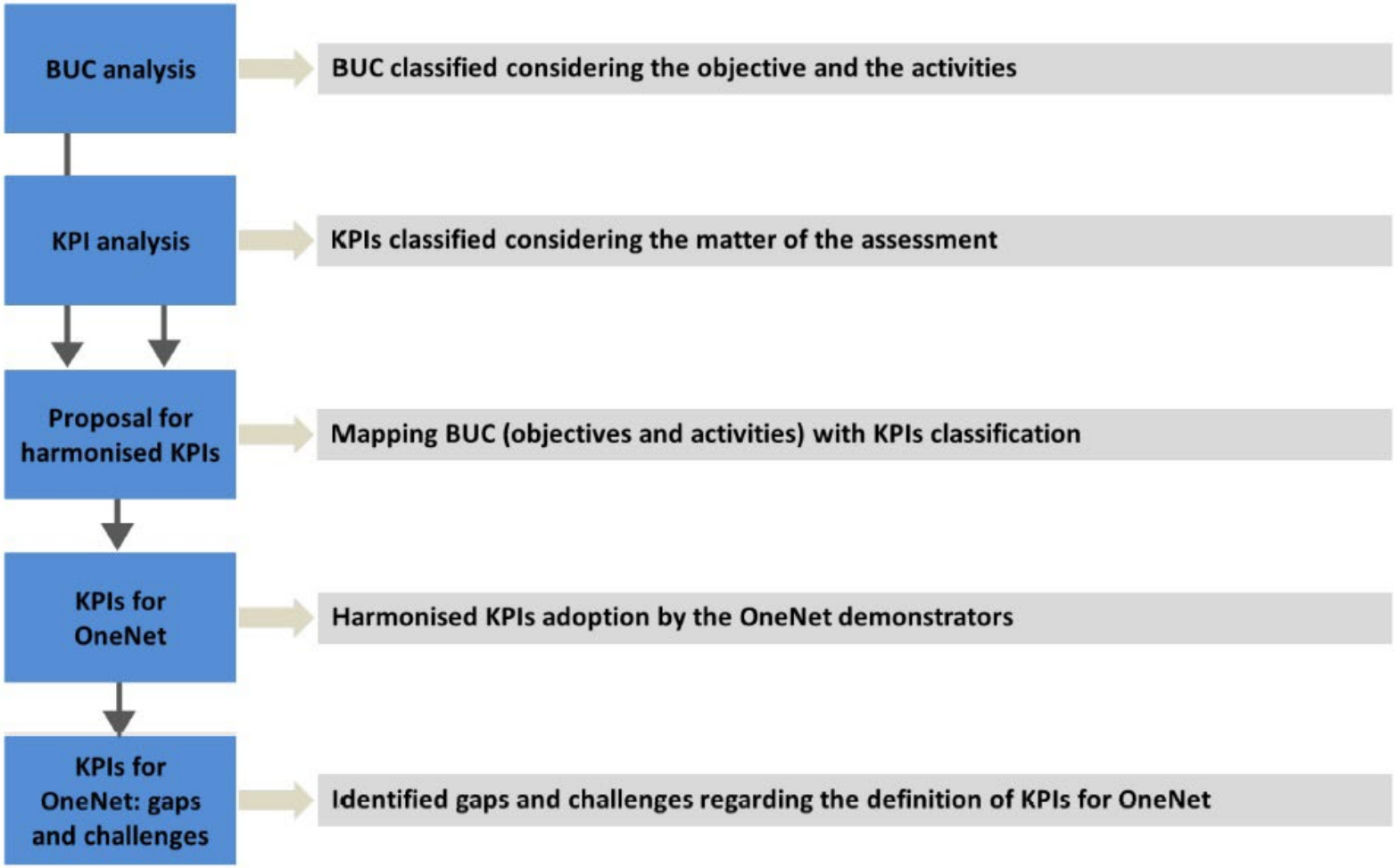
Products identified for DSOs

Process of the Use Case methodology



https://smart-grid-use-cases.github.io/docs/usecases/onenet/

Methodology developed and applied for harmonizing the KPIs definition



https://onenet-project.eu/

Thank You

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