



Flexibility markets in distribution networks

Neue Anwendungen in einer neuen Stromwelt

Organised by E-Control

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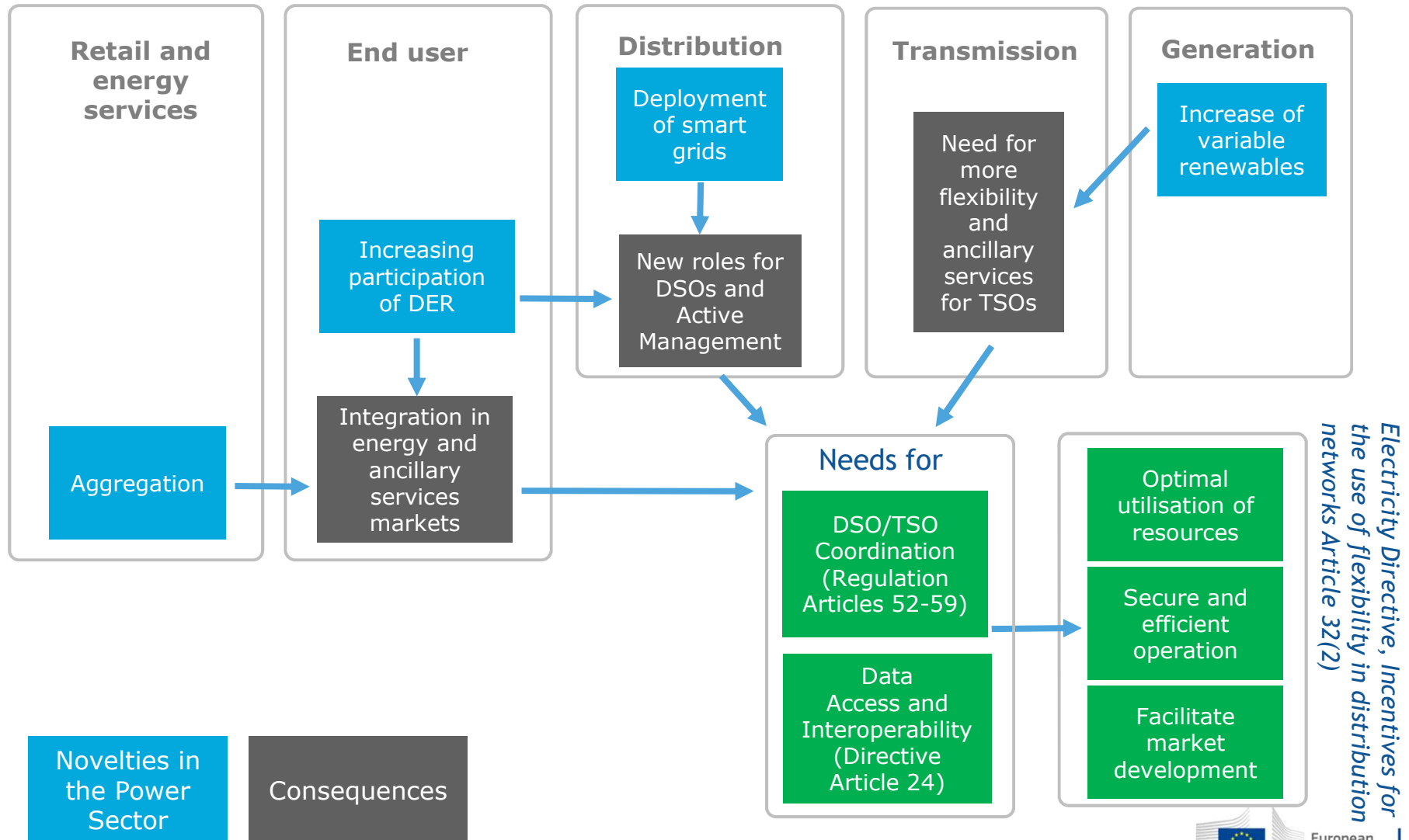
Team Leader for Smart Grids

DG ENER - Directorate for Internal Market. Retail Market Unit

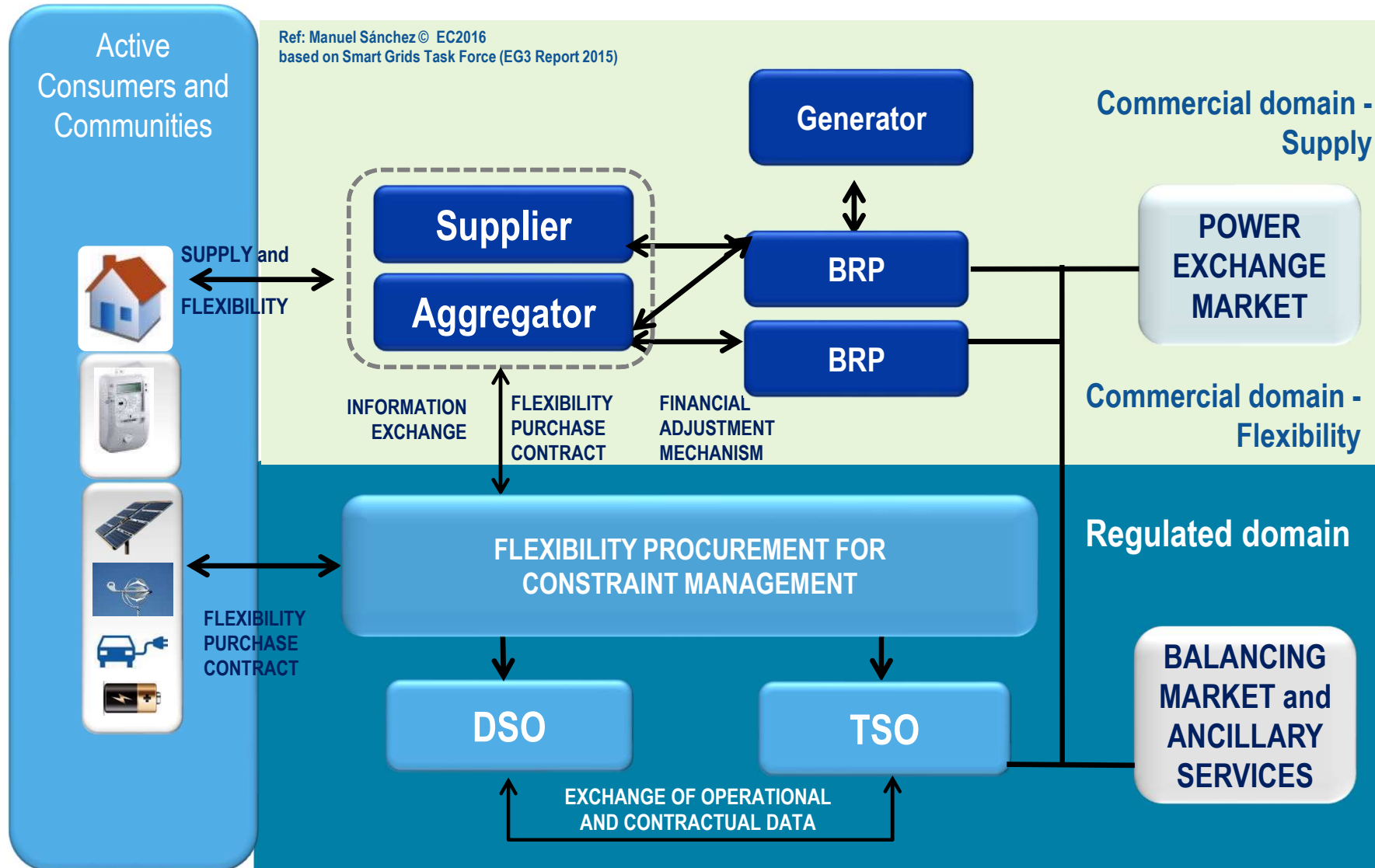
European Commission



The Electricity Market Design highlights greater system flexibility



CEP- Building blocks for flexibility markets



DSOs in the Electricity Market Design

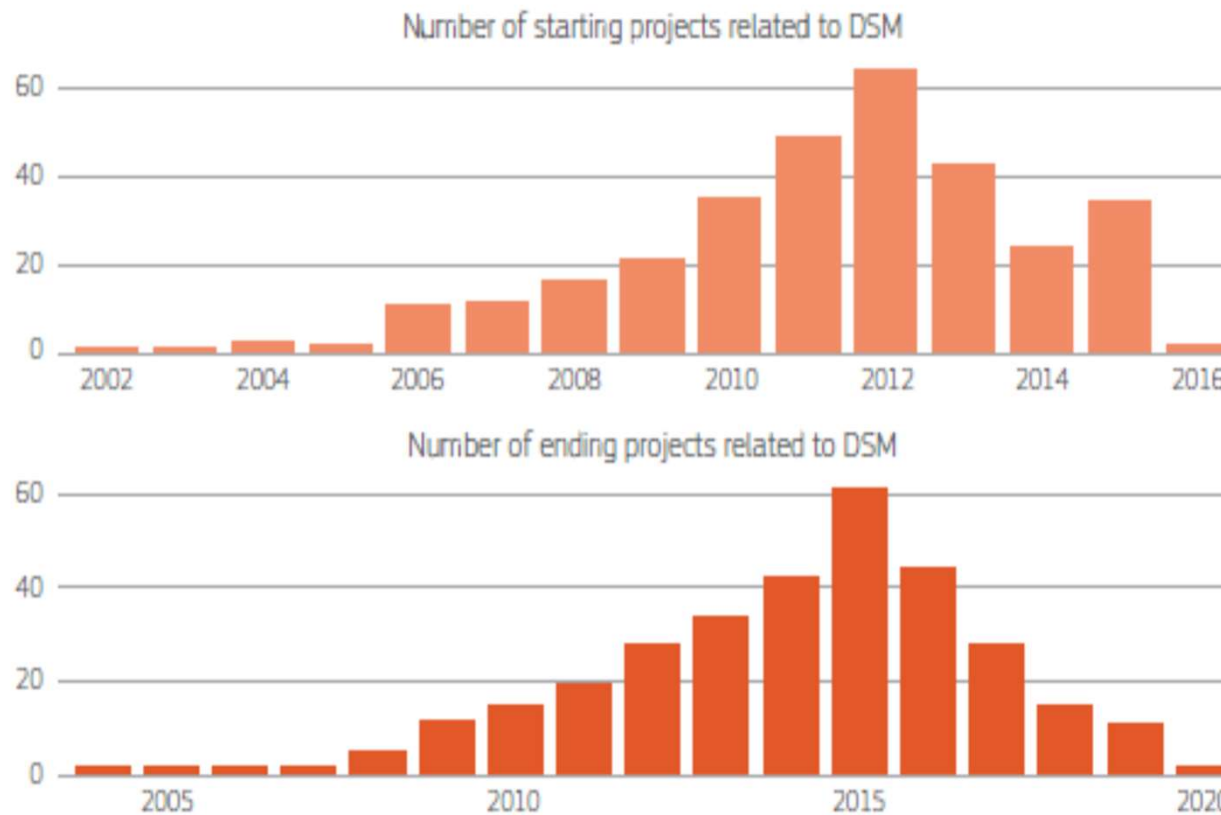
- **Encourage DSOs to innovate** and enable DSOs to **use all flexibility options**
- Ensure **DSOs' access to all necessary data** and maintain data formats already in place
- Respect the diversity of **national distribution tariff structures**
- **Set up the DSO Entity** as an effective and operational European framework for the DSO/TSO collaboration
- **Match DSO/TSO** responsibilities on network codes and data management



Demand Side Flexibility - Projects experience

- In Europe, the highest investments are in smart network management (34%), demand-side management (25%) and integration of distributed generation and storage (22%).
- These three taken account for around 80% of total investments.

Ref. EC DG JRC. Digital Transformation in Transport, Construction, Energy, Government and Public Administration.
<http://publications.jrc.ec.europa.eu/repository/handle/JRC116179>, December 2019



Demand Side Flexibility - Value of funded projects experience



Steering the implementation of smart metering solutions throughout Europe

JUL 2012 – JUN 2014




Methodologies and tools for evolving DSO roles for efficient DRES integration in distribution networks

SEP 2013 – DEC 2016



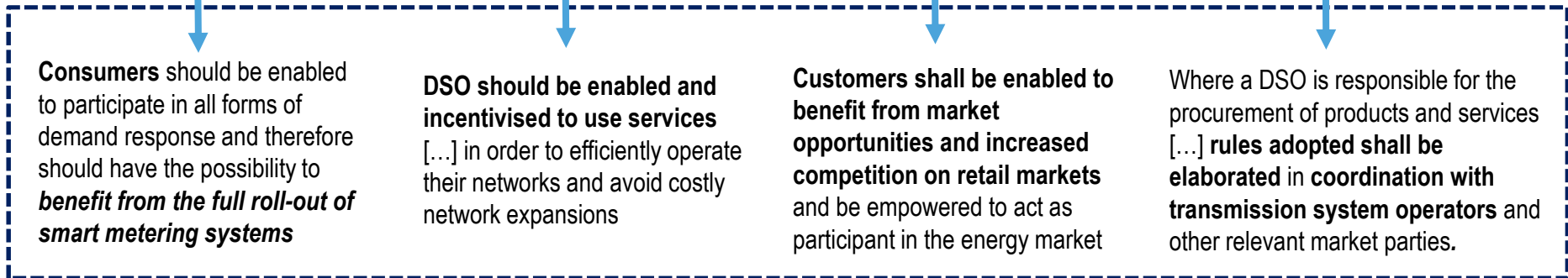
Deployment of novel services in the electricity retail markets, such as advanced monitoring and local energy control

March 2015 – January 2019

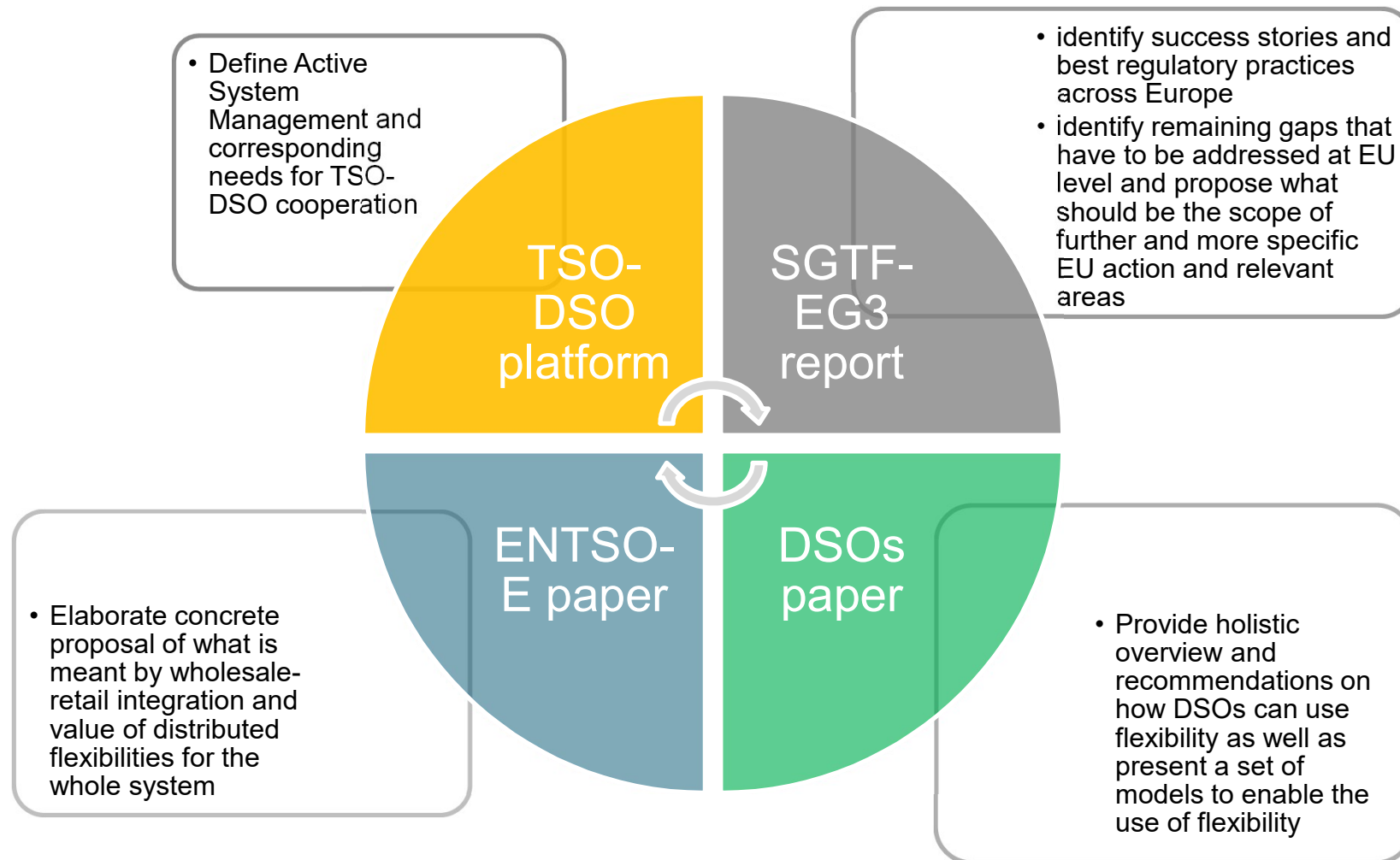


Coordination of DSOs and TSOs in the provision of grid services.

January 2019 – June 2022



Demand Side Flexibility - Current work by various groups



Demand Side Flexibility - Commercial platforms for flexibility



<https://projekt-enera.de/>

GOPACS

<https://gopacs.eu/>

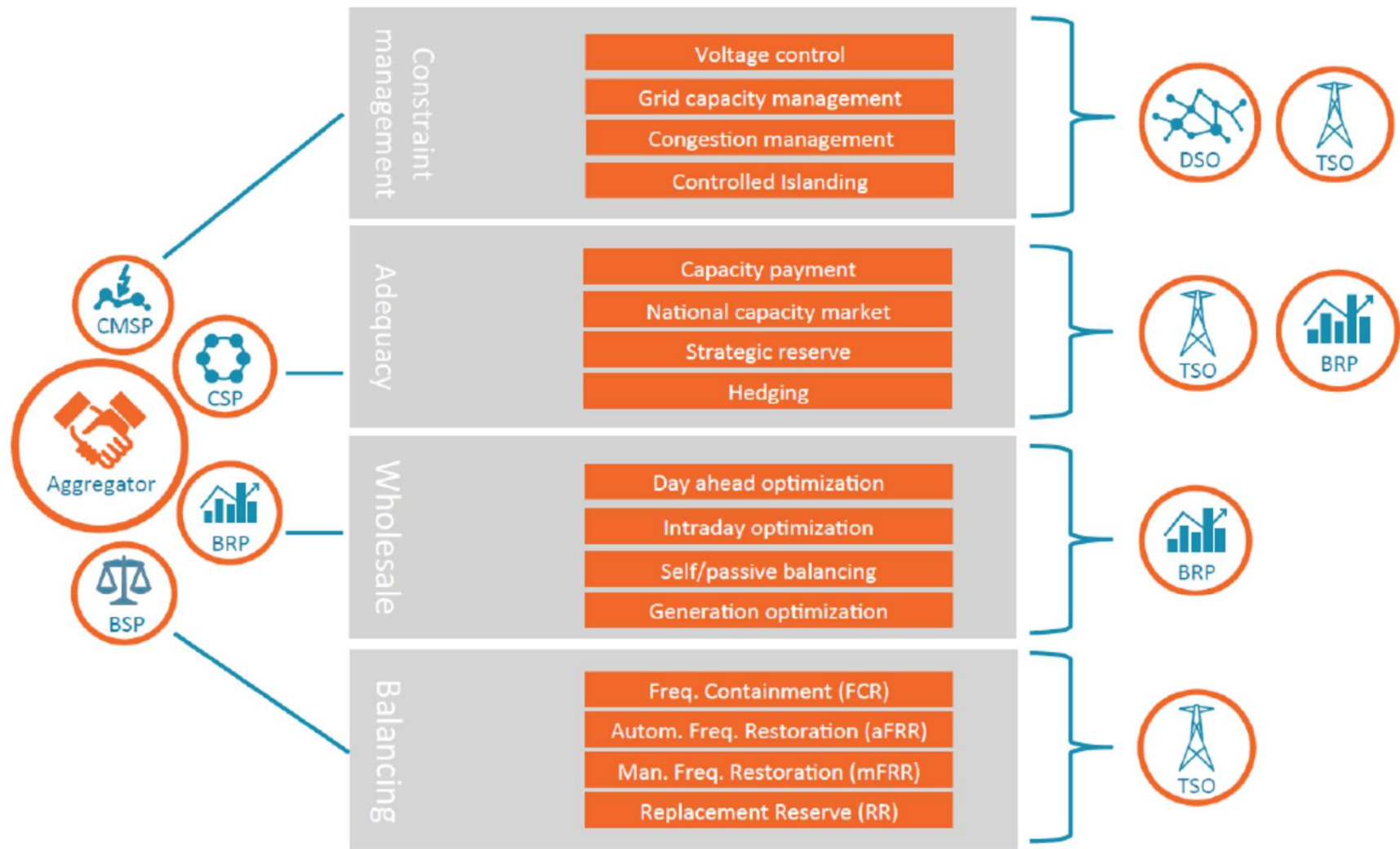
NODES

<https://nodesmarket.com/>



<https://picloflex.com/>

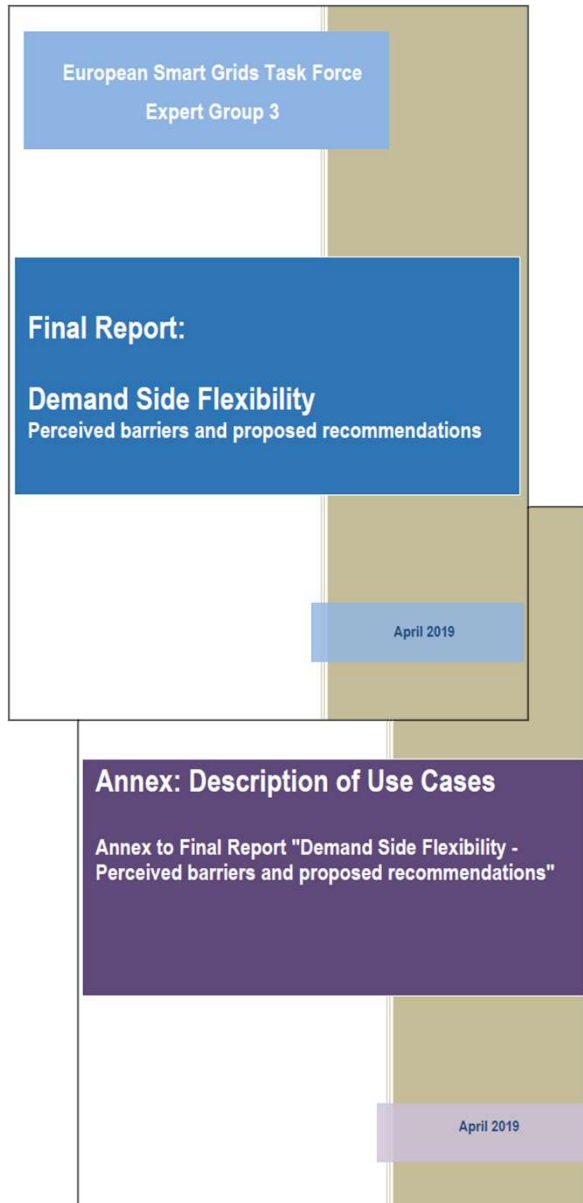
Demand Side Flexibility - Organised markets and products



Source: European Smart Grids Task Force - EG3, 2019

SGTF-EF3 Demand Side Flexibility report - Harmonisation

<https://ec.europa.eu/energy/en/topics/markets-and-consumers/smart-grids-and-meters/smart-grids-task-force>



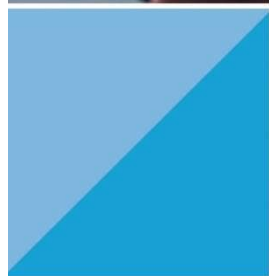
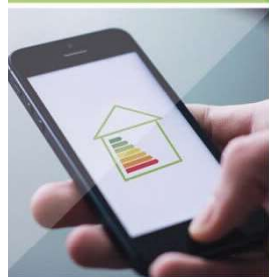
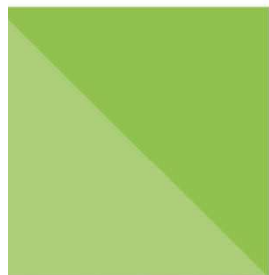
Stakeholders propose that all congestions (excluding emergency situations and structural issues) should be solved through a market-based allocation of flexibility services in combination with an adequate grid reinforcement.

What are the main messages in the paper?

- **Technical solutions:** EU level principles for equal level playing field of flexibility providers and integrated system approach.
- **Market access:** framework for data access, flexibility providers, baseline methodology and validation based on EU principles and national best practices
- **Flexibility products:** product definition, data requirements and pre-qualification at least at national level, but possible template and key elements at EU level
- **Consumer and incentives:** financial incentives, market monitoring, awareness and protection of consumers at national level based on EU principles and framework.



European
Commission



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