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OneNet – One Network for Europe

Project session INNOGRID

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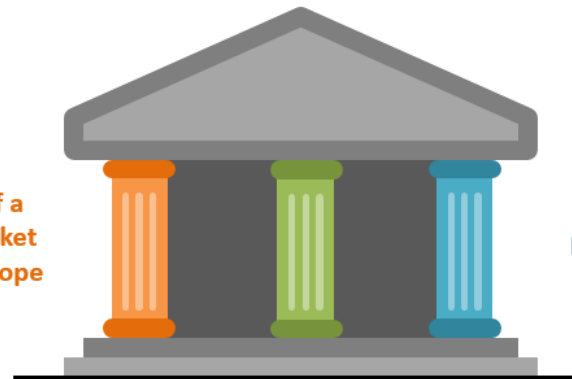
This project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No 957739

OneNet in brief

- Topic: “TSO – DSO – Consumer: Large-scale demonstrations of innovative grid services through demand response, storage and small-scale (RES) generation”
- **72 partners** (TSOs and DSOs, leading IT companies, R&D,...)
- EU contribution: **22 million Euro**
- **3,5 years** (2020 – 2024)
- **15 demonstrators** organized in **4 clusters**



Definition of a
common IT architecture and
common IT interfaces



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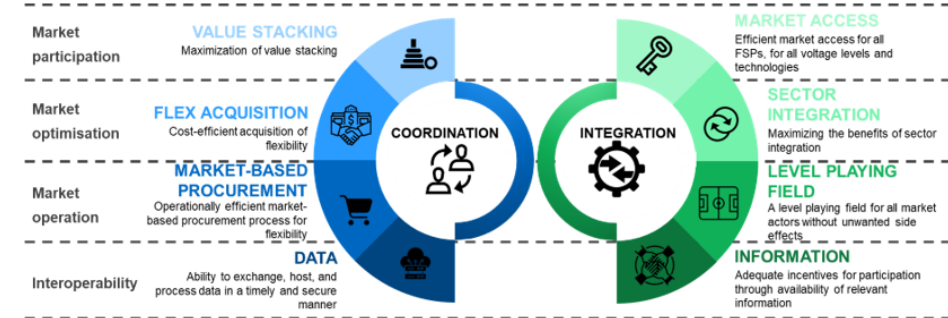
Verification of the
proposed solutions
in large field tests



Towards Coordinated and Integrated markets

Significant barriers exist that hinder market coordination and integration

Coordination objectives	Maximization of value stacking	B1 Insufficient coordination of flexibility markets for system services with energy markets with regard to timing. B2 Insufficient coordination of different system services over different timeframes, valid for all market phases, i.e., prequalification, baselining, procurement, activation, monitoring and settlement. B3 Lack of harmonization of flexibility products for system services for both TSO and DSO B4 Exclusivity clauses and non-harmonised contracts
	Cost-efficient acquisition of flexibility	B5 Coordination of explicit procurement of flexibility (flexibility markets) with implicit procurement of flexibility (tariffs, connection agreements,...) B6 No specific incentives in the regulatory mechanism (remuneration) that support a common approach between SOs for flexibility procurement
	Operationally efficient market procurement process for flexibility	B7 Limited cross-border coordination/integration B8 Limited coordination for procurement of flexibility by DSO and TSO B9 Lack of alignment in supporting processes such as prequalification, monitoring and settlement processes including baseline approach. B10 Lack of established methodology for network representation for the distribution grid
	Ability to exchange, host, and process data in a timely and secure manner	B11 ICT challenges: Large uncoordinated collection of data, timely exchange of (confidential) network information, etc.
Integration objectives	Efficient market access for all FSPs, for all voltage levels, for all technologies	B12 No appropriate baseline methodology and process established for new flexibility markets and new types of flexibility providers (e.g. low voltage flexibility) B13 No uniform access and registration process/platform for assets willing to participate to flexibility markets.
	Ensuring an equal level playing field for all market actors without unwanted side effects such as market power or risk of gaming	B14 Risk of gaming due to exertion of market power and/or shortcomings in the market setting
	Maximizing the benefits of sector integration	B15 Lack of coordination of markets of different carriers B16 Quantification of the benefits of sector integration is missing
	Adequate incentives for participation through availability of relevant information (e.g., anticipated flex needs, etc.)	B17 Unavailability of adequate information allowing FSPs to anticipate the value of their participation and hence not being able to quantify their business case

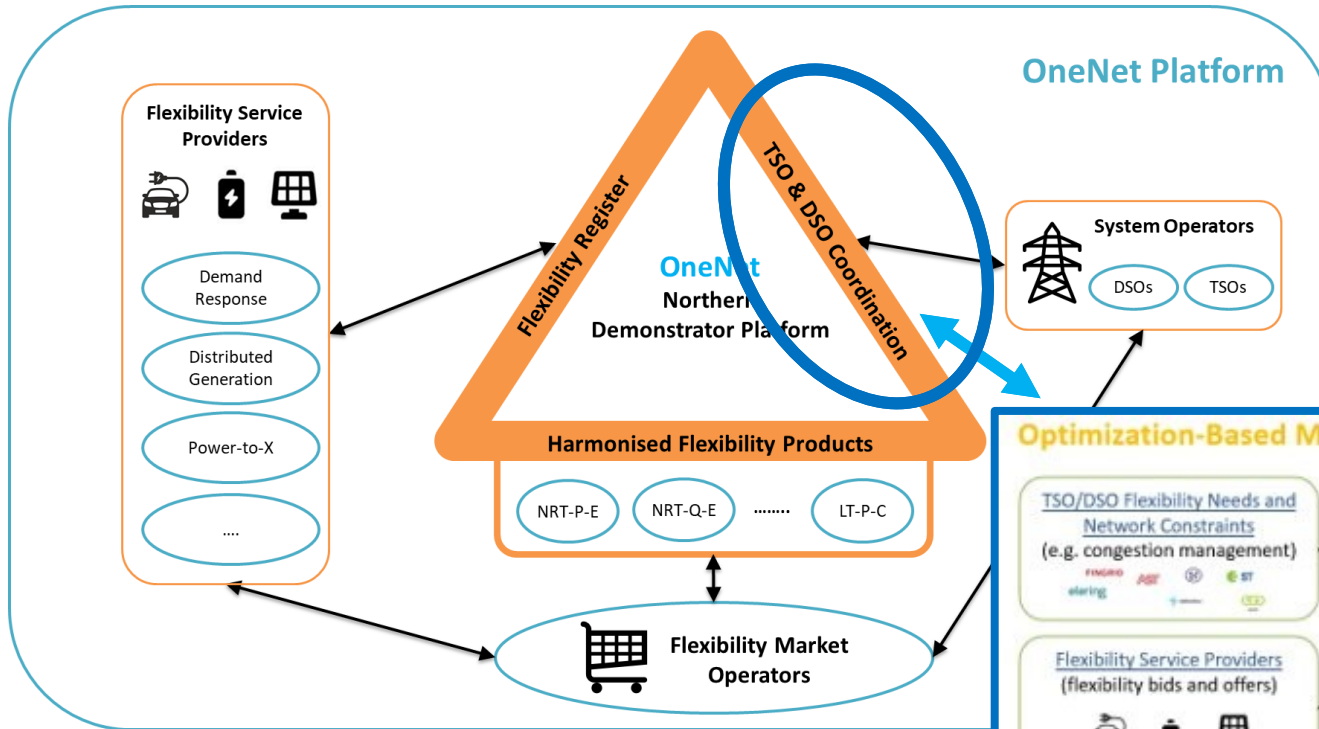
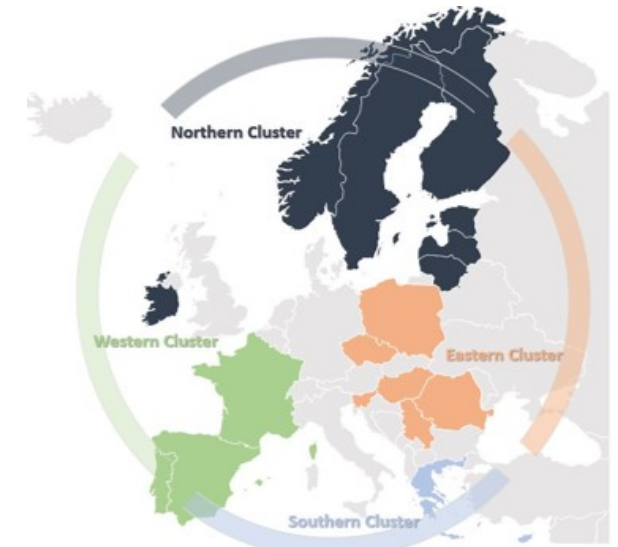


OneNet demo solutions – a trade-off between harmonised and local solutions



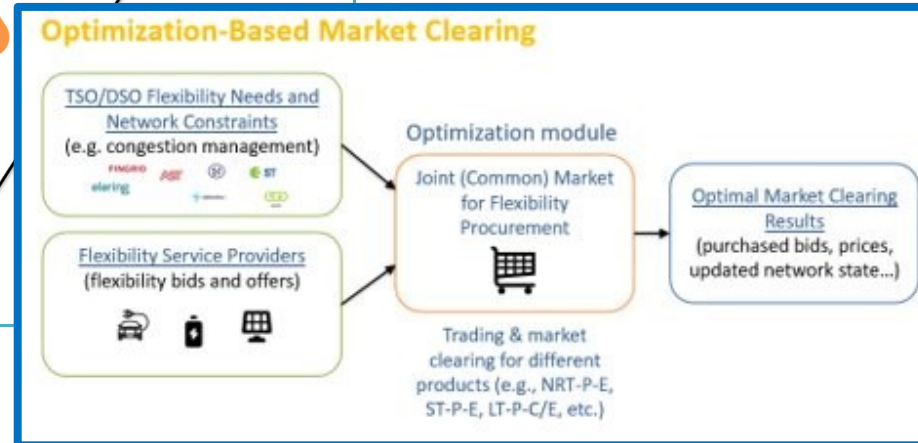
Solutions – zoom on the Northern cluster

Tool development for market, system and platform operators



Architecture Northern Cluster platform

Allowing cross-service/cross-product/cross-border/cross-voltage level/ flexibility optimization for **multiple system operators**



- ✓ Detailed grid impact assessment
- ✓ Beyond traditional merit order lists
- ✓ Compatible with existing energy and flexibility markets



Join us now!



Thank You



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