

Interoperable platforms and data exchange for energy services: practical experience from the BRIDGE projects

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inteGRIDy



❑ inteGRIDy aims:

- to **integrate** cutting-edge **technologies**, **solutions** and **mechanisms**
- in a **scalable Framework** of **replicable** solutions
- to **connect** existing energy networks with diverse stakeholders with enhanced observability of both **generation** and **consumption profiles**

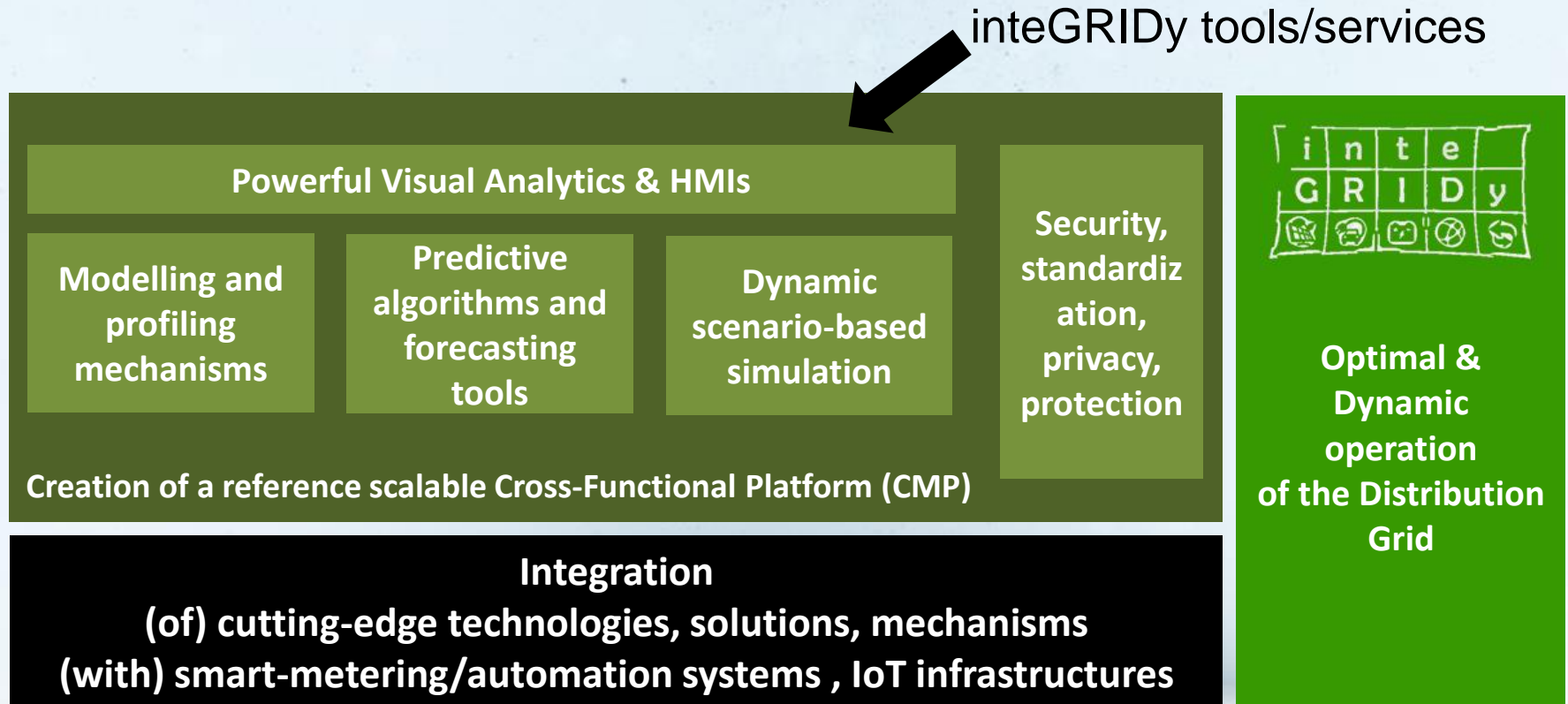
❑ which will facilitate:

- the **optimal** and **dynamic** operation of the Distribution Grid,
- fostering grid **stability** and **coordinating Distributed Energy Resources** (DERs), **Virtual Power Plants** (VPPs) and collaborative **Storage schemes**
- within a continuously **increased** share of Renewable Energy (RES)

Data in your project

- inteGRIDy is developing tools oriented to DSOs. Therefore the exchange of data is made directly at DG level
 - Collection of real data from users
 - Aggregation
 - Modelling
 - Forecasting
- The output is provided to DSOs so that they can make informed decisions for balancing optimally the DG

Architecture

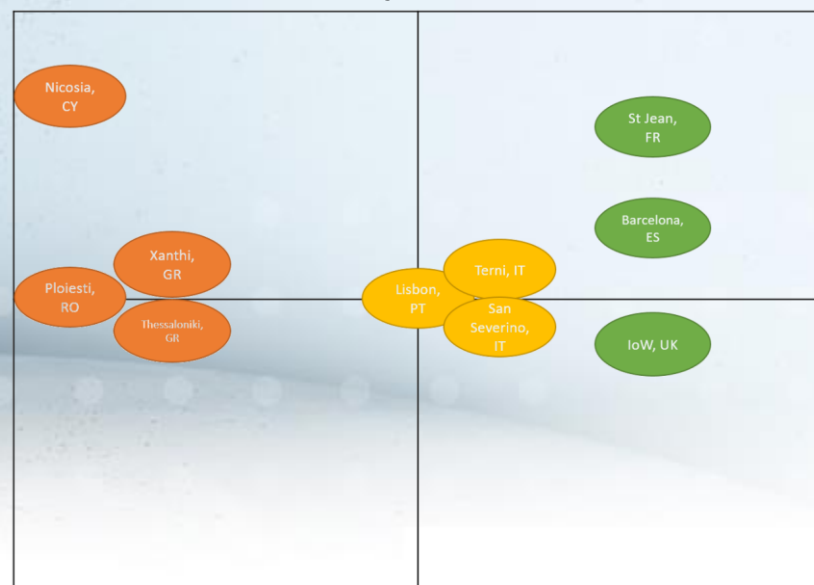


Customized project approach

Business model

- Each pilot is studied separately as there are country/regulation specific constraints.
- Based on this, the following 3 exploitation routes were derived by correlating the estimated level of business case attractiveness with the market maturity level in each pilot country:
 - “Avoided DSO investments”,
 - “Imbalance Management”,
 - “Free Market Trading”.
- Pilot final exploitation plans to be studied and provided later in the project

Business
case
outcome



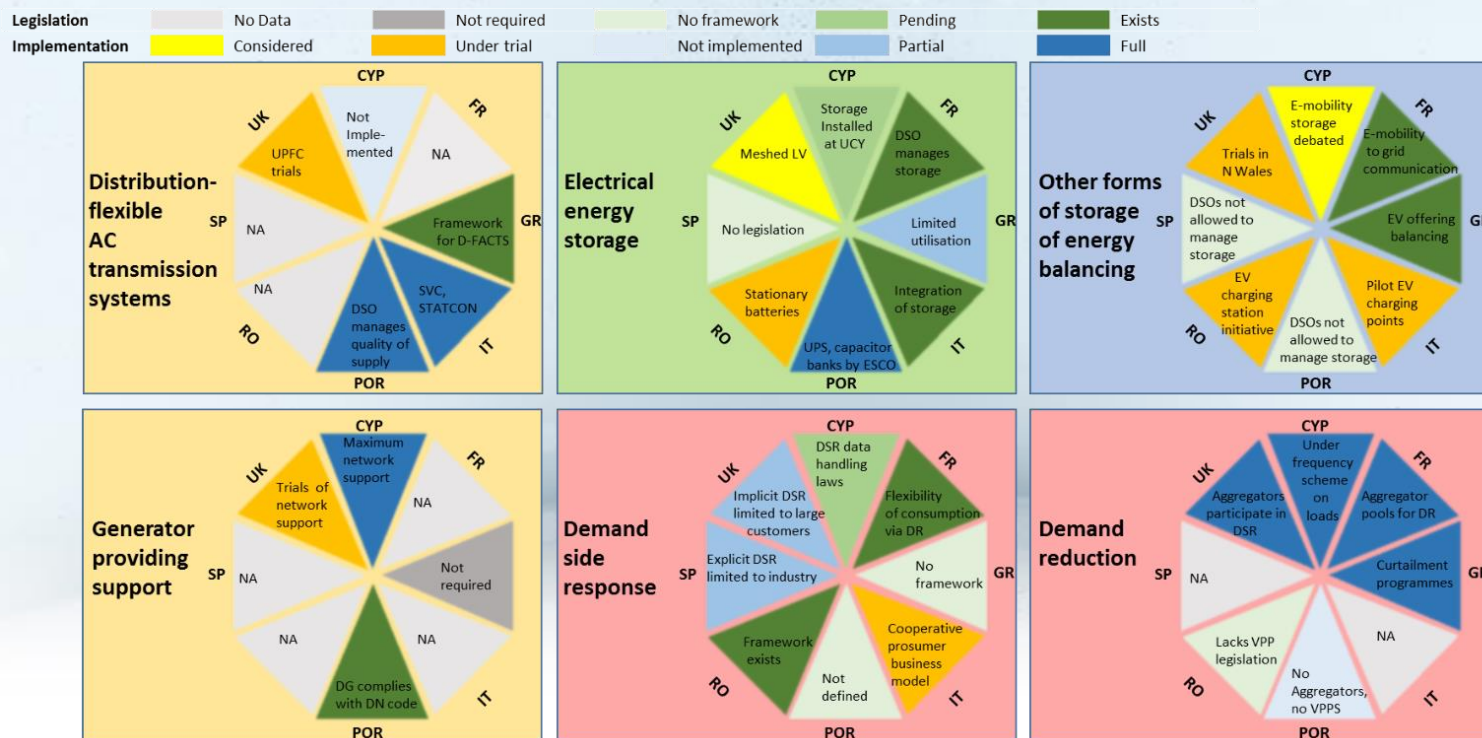
Market Maturity

Consumer involvement and benefit

- inteGRIDy focuses on the Distribution Grid, and, therefore, the outcomes are oriented to DSOs.
- Consumers will benefit indirectly of the deployment of DR and user interaction techniques, but the project is not focusing on end user perspective.
- Nevertheless, some pilots, involving users, will enhance their user experience by extending, enhancing and innovating the service provided.

Regulation

- No specific barrier, but the scattered scenario is limiting the replicability of tools



Next frontier

- RES penetration with no curtailment
- Decentralized trading of energy between peers
- Electric vehicle integration
- Grid balancing with new actors

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