

An energy Marketplace in Terni powered by Future Internet enablers

Terni Trial Site (Italy)

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Outline



- Scenario
- Energy marketplace concept
- Terni trial architecture
 - *Energy marketplace dashboard (DEMO)*



Scenario

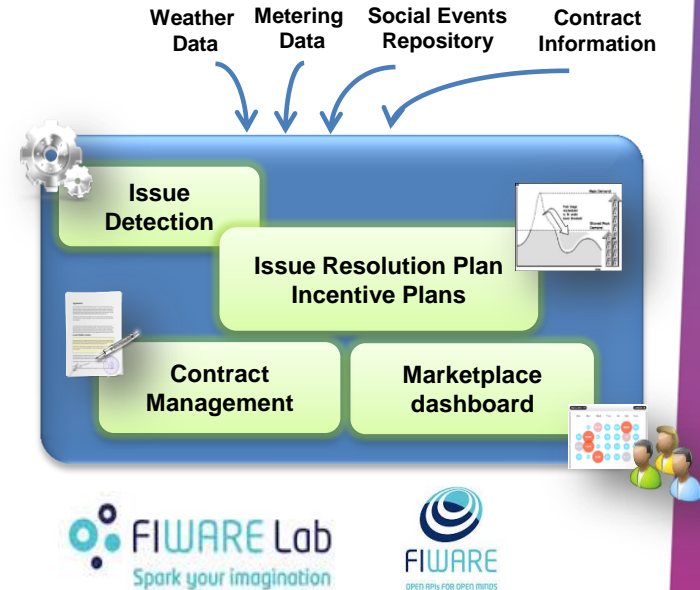
- Growing density of Renewable Energy Sources (RES) in the electrical grid
 - **Issues:** misalignment between RES production and users consumption, reverse power flows, power losses, voltage drops
- **Proposed solution:** an **energy marketplace**, fed with "raw" data coming from different external sources related to the pilot area in the **city of Terni**, built on top of **FIWARE GEs** to enable both demand response and "**issue solving**" actions on **MV/LV grid**

Energy marketplace concept

FUTURE
INTERNET
SMART
UTILITY
SERVICES

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- The marketplace acts as an **energy “information hub”** for the different energy value-chain stakeholders
- The marketplace is equipped with:
 - a **monitoring dashboard** that a **DSO** uses for day-to-day operation and through which approves “issue solving” actions proposed by an **Aggregator**;
 - a **demand response service dashboard** that allows an **Aggregators** to manage “issue solving actions”, an **Energy Retailers** to offer contract proposals and related incentives/disincentives to the final **Customer**.



Terni trial architecture

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