

A circular inset image on the left side of the slide. It shows a close-up, low-angle view of a white wind turbine's nacelle and three blades against a clear blue sky. Several black high-voltage power lines stretch diagonally across the frame, intersecting the turbine.

Managing future grids with the new **VPP Concept**



edgeFLEX Architecture and Data Management

23.06.2022

IoT Week - Croke Park

David Ryan – Walton Institute - South East Technological University

Project facts

3 years duration

From
April 2020 to
March 2023

10 project partners

From
Germany,
Ireland, Italy,
Romania,
Slovenia
Switzerland

4 trials

To test and
demonstrate
the edgeFLEX
services and
solutions

budget

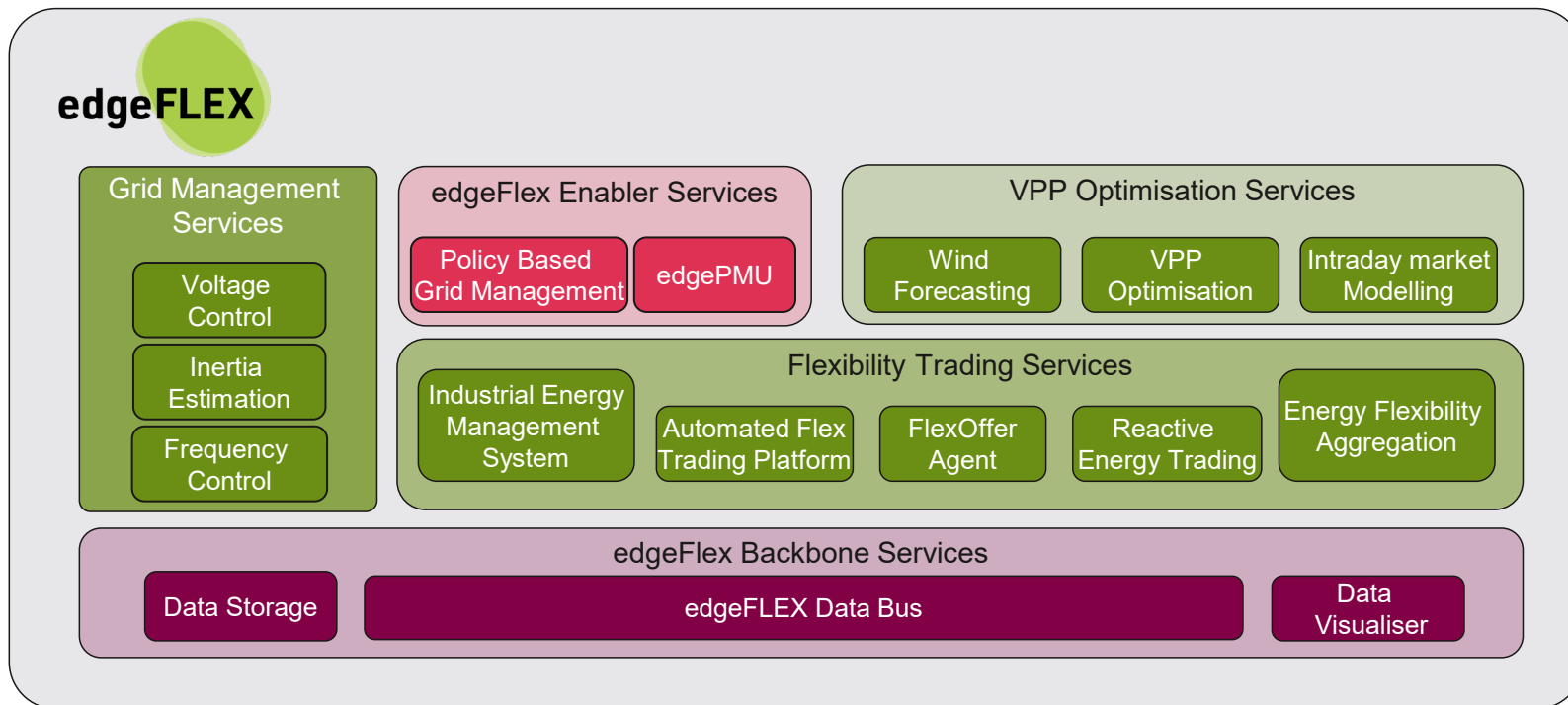
4.999.748 €

100 %
EU
contribution

edgeFLEX will **give VPPs a broader role** in power grid management by enabling slow and fast dynamics services

edgeFLEX will **bring energy communities into power grid** management by fostering a local energy and flexibility market where all involved actors will contribute in actively manage and operate the power grid

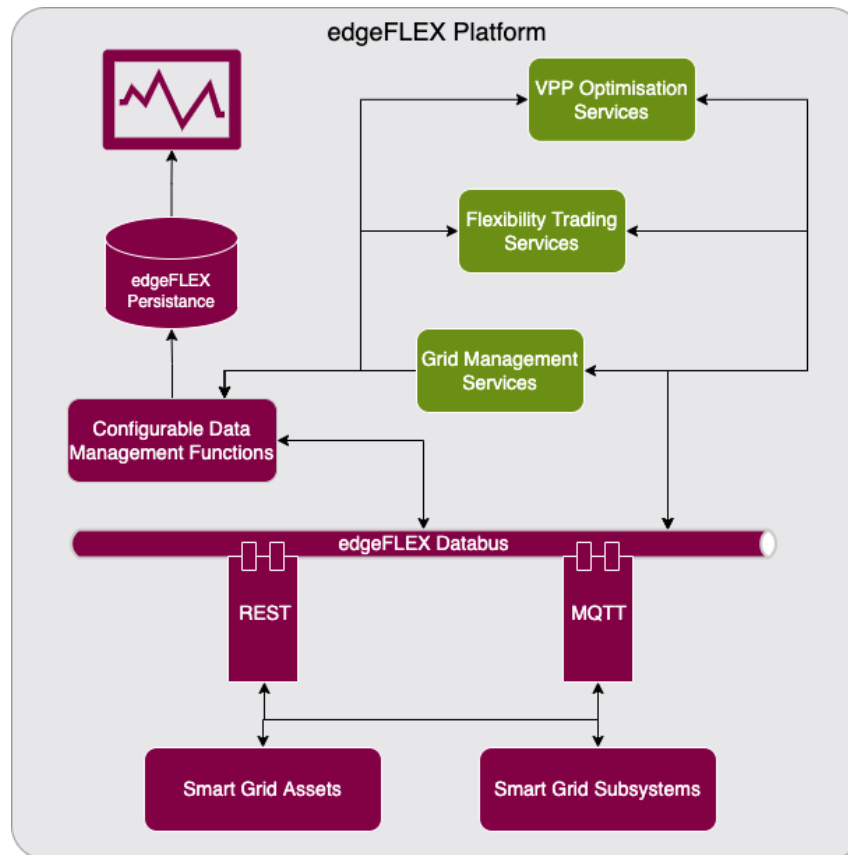
edgeFLEX Platform Components & Services



The edgeFLEX Data Interfaces

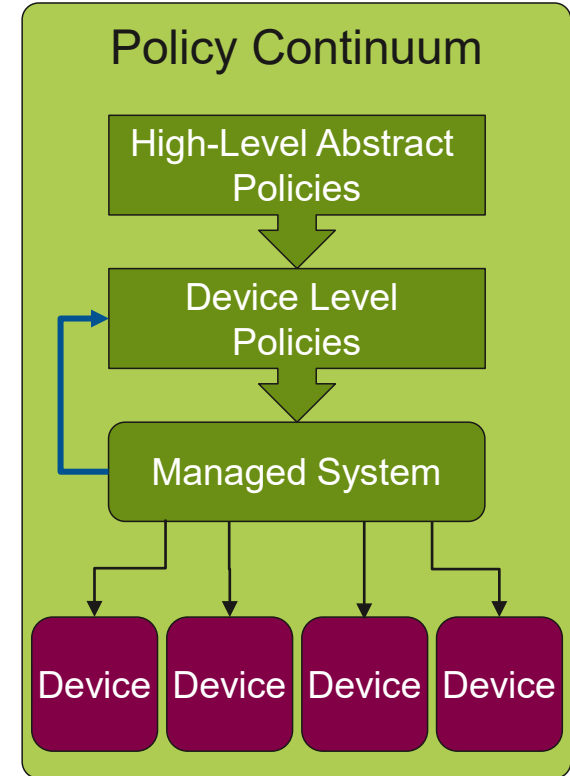


- Inside the company boundary
- Data Management functions are configured to map data to common internal data structures
- edgeFLEX Services can send and receive data via the data bus
- Databus provides secure interfaces for data ingress and control message dispatch

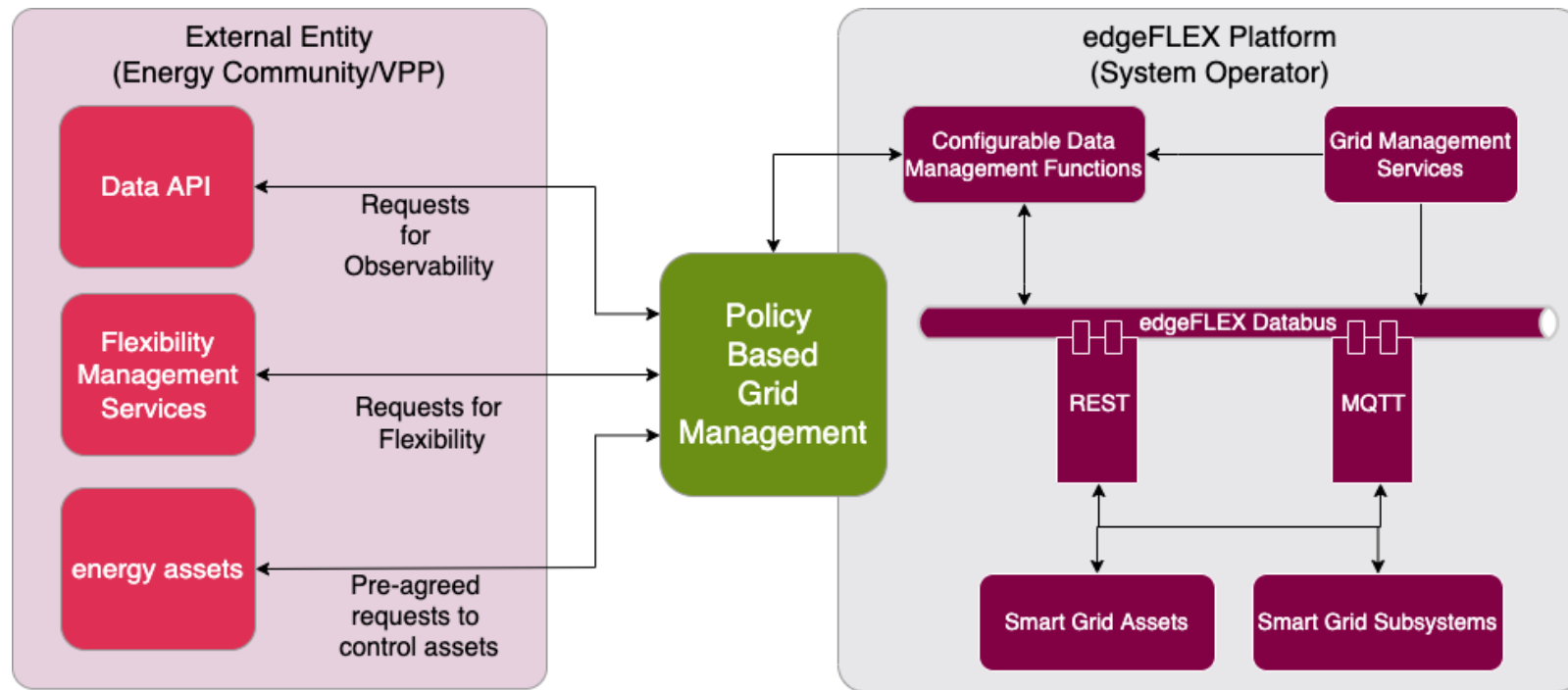


Policy Based Grid Management

- Based on Policy Based Network Management which has been used for >10years in the ICT industry
- At it's core it decouples the policies (the rules the system needs to satisfy) from the how they are applied.
- This decoupling offers flexibility in the application of the policy
- Has the concept of a policy continuum where high-level abstract representations of the system level policies
- Device level policies are somewhat dynamic and can be modified to react to system changes



edgeFLEX Cross Sector Collaboration Interfaces



The background of the slide features several overlapping, light green circular shapes of varying sizes. A prominent, thick, pinkish-purple line forms a large, irregular loop that encircles the central text.

www.edgeflex-h2020.eu



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