

Platone: Advanced Grid Management for Customer Inclusion

Prof. Antonello Monti, PhD | RWTH Aachen

Agenda for today

- . **09h30** Welcome - **Antonello Monti**
 - Introduction of Platone Advisory Board
 - Introduction to Platone project
- . **10h10** Platone's platform architecture - **Ferdinando Bosco**
- . **10h30** Use cases and Key Performance Indicators in the Platone demonstration sites - **Kirsten Glennung**
- . **10h45** *10 min break*
- . **10h55** Scaling-up and Replication and Cost-Benefit Analysis - **Iaria Losa**
- . **11h10** Communication and Dissemination of project results - **Ludwig Karg**
- . **11h25** *10 min break*
- . **11h35** Discussion between Platone Advisory members
- . **11h55** Feedback from Platone Advisory Board members
- . **12h30** End of the Meeting

Platone in a nutshell



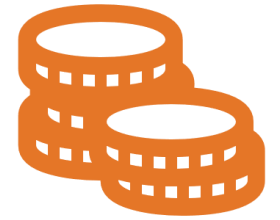
4 years
of project work
from 2019 until
2023



**12 project
partners**
from Belgium,
Germany,
Greece and Italy



3 demonstrations
to test and
demonstrate the
Platone solutions



9 600 957,58 €
budget in general
7 535 148,02 €
EU contribution

Platone vision

- The world envisioned by PLATONE will provide a seamless integration of operation and market simplifying the life of customers, distribution grid operator and aggregators, thanks to a multilayer platform architecture collecting data on the edge and delivering secure information both to Distribution Management Systems and to an open Marketplace for service provision



Platone goals, objectives

— Platone Strategic Challenge

- Platone will address the growing needs of DSO's to have **real-time insight** into the operation of their networks while unlocking new flexibility markets in a fair and open way. Main goal is to provide a **cost-effective** and **seamless, secure** power supply for their customers as active players while supporting the TSO in their system level responsibilities

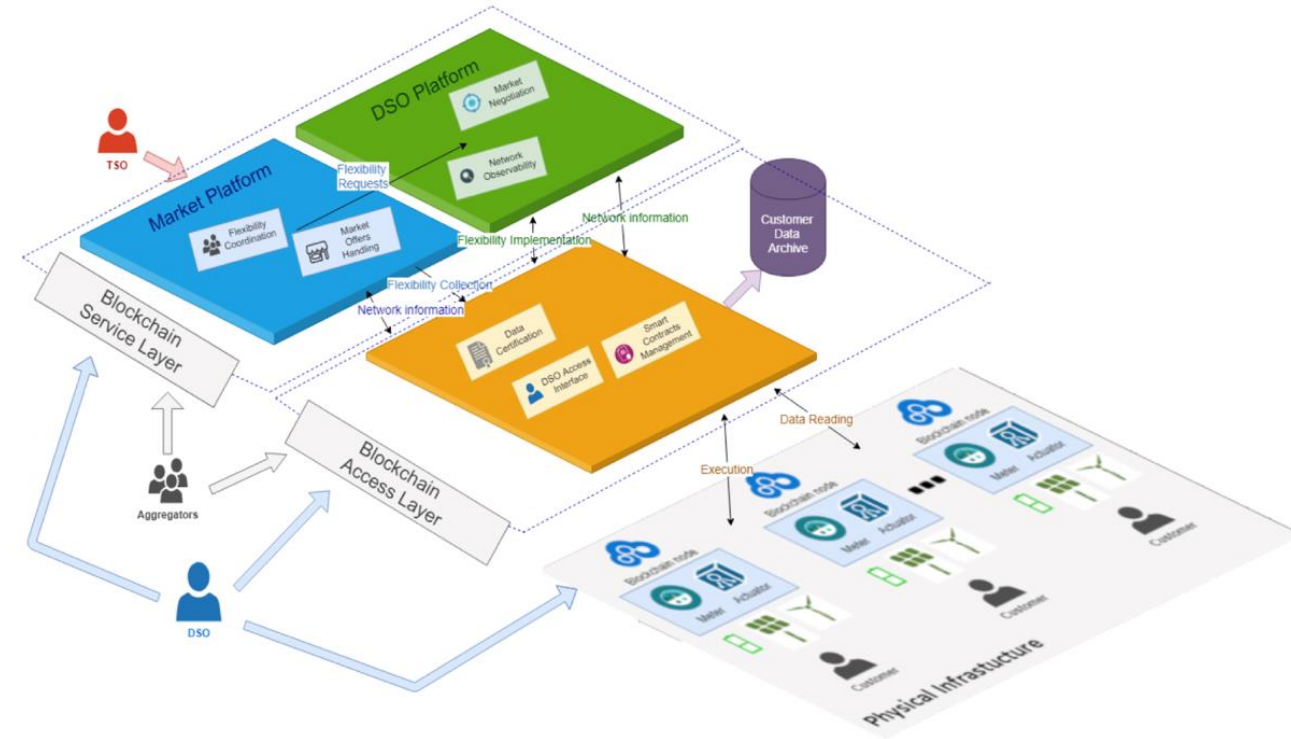
— Platone Strategic Objective

- Platone will develop a two-layer platform for distribution network operation and market operation creating a seamless integration of local prosumers in an open market structure

Open Source and dual use of data as key ingredient of an open platform

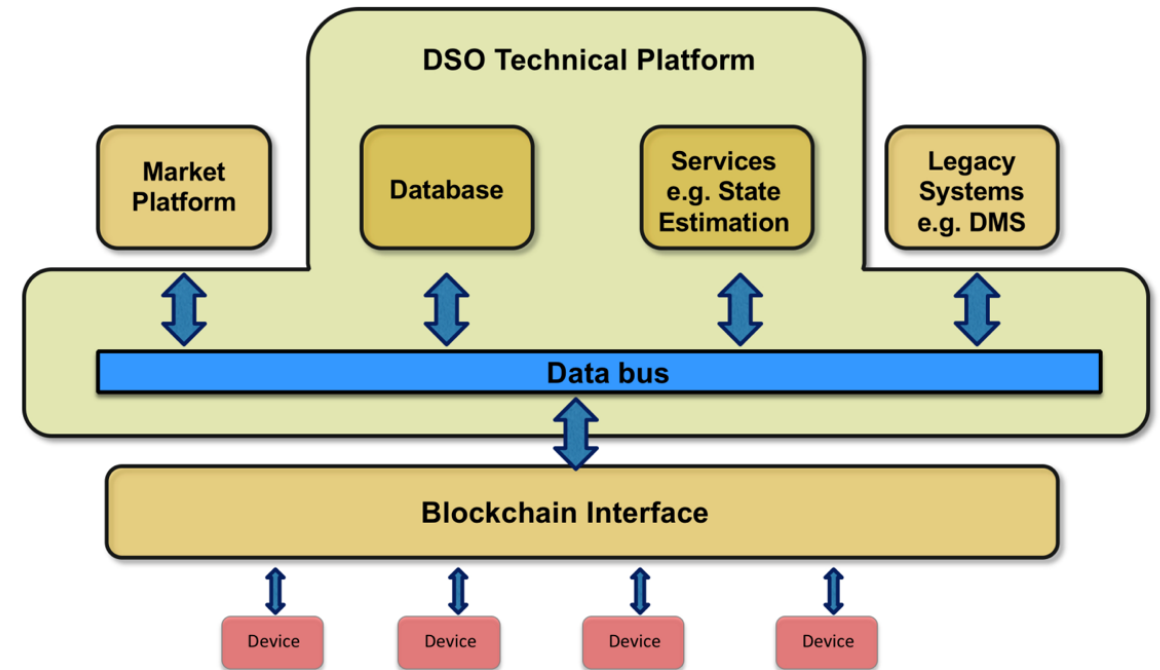
Architectural proposal of H2020 Platone

- Multi-layered hybrid IoT/off chain vs DLT/Blockchain/Smart Contract to enable:
 - Consumer access layer
 - Optimal coordination and operation of fair and transparent multi-stakeholder marketplaces
- Dual use of data for market and technical services
- Integration of legacy solutions



Putting all together to overcome limits of legacy solutions

- Combining the solutions envisioned in the previous architecture, here we have:
 - Secure data link thanks to blockchain
 - Integration of legacy DMS
 - Link to market for dual use of data
 - Integrated data bus for flexible integration of new services



Platone field and tests and simulation

Germany

Balancing between local
and higher-level network

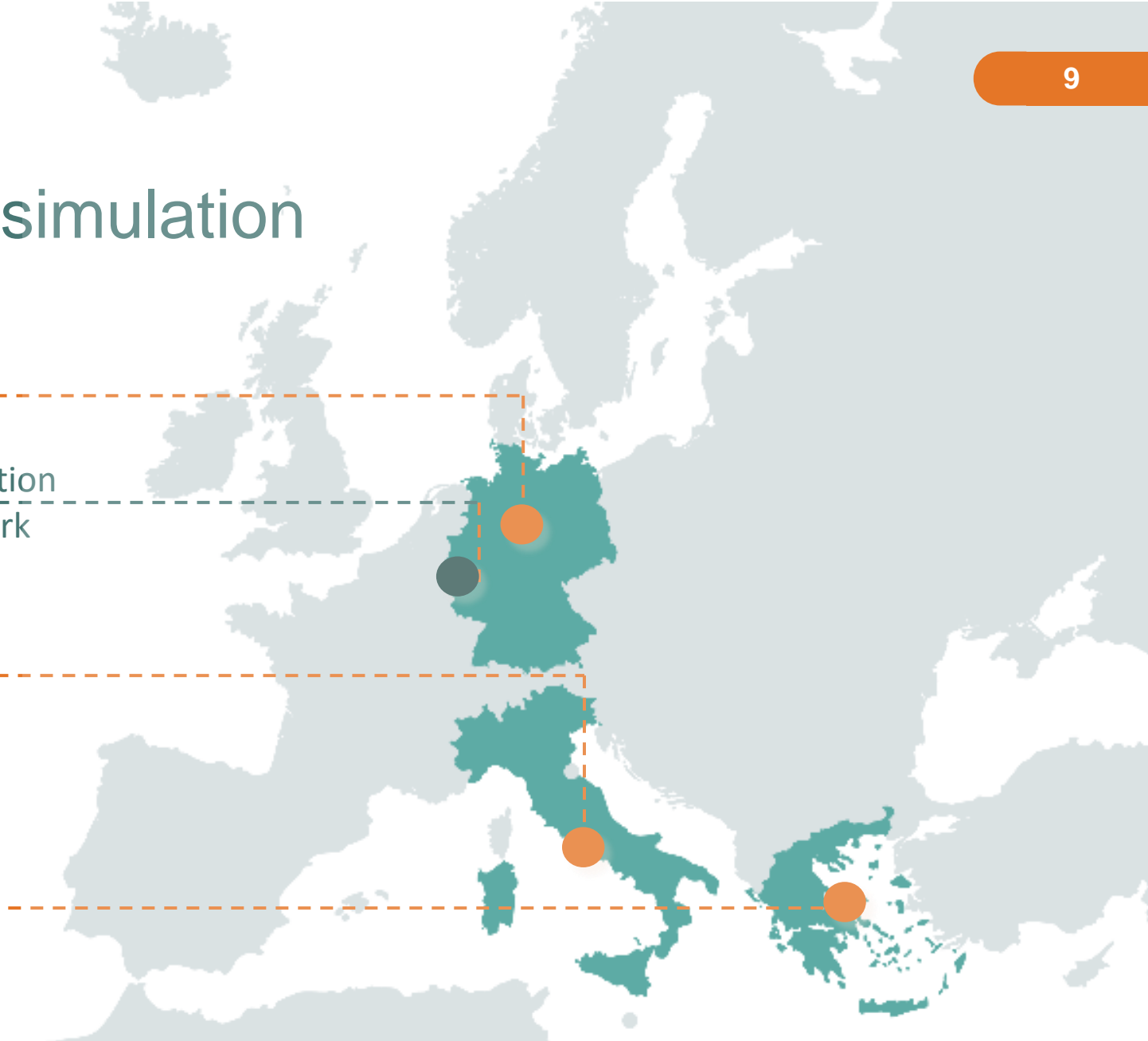
Reference implementation
and higher-level network

Italy

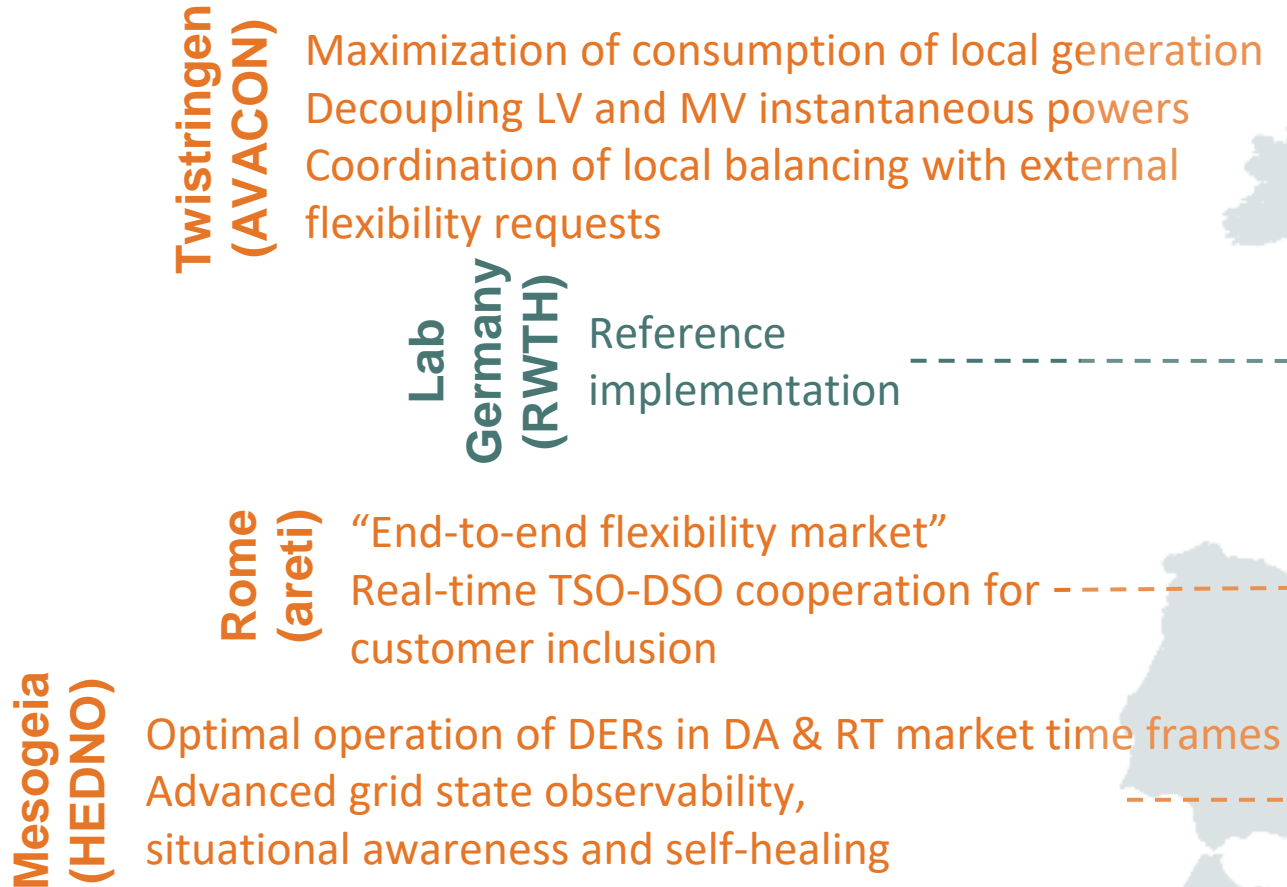
Cutting barriers,
unlocking flexibility

Greece

Connecting flexibility between distribution
and transmission system operators



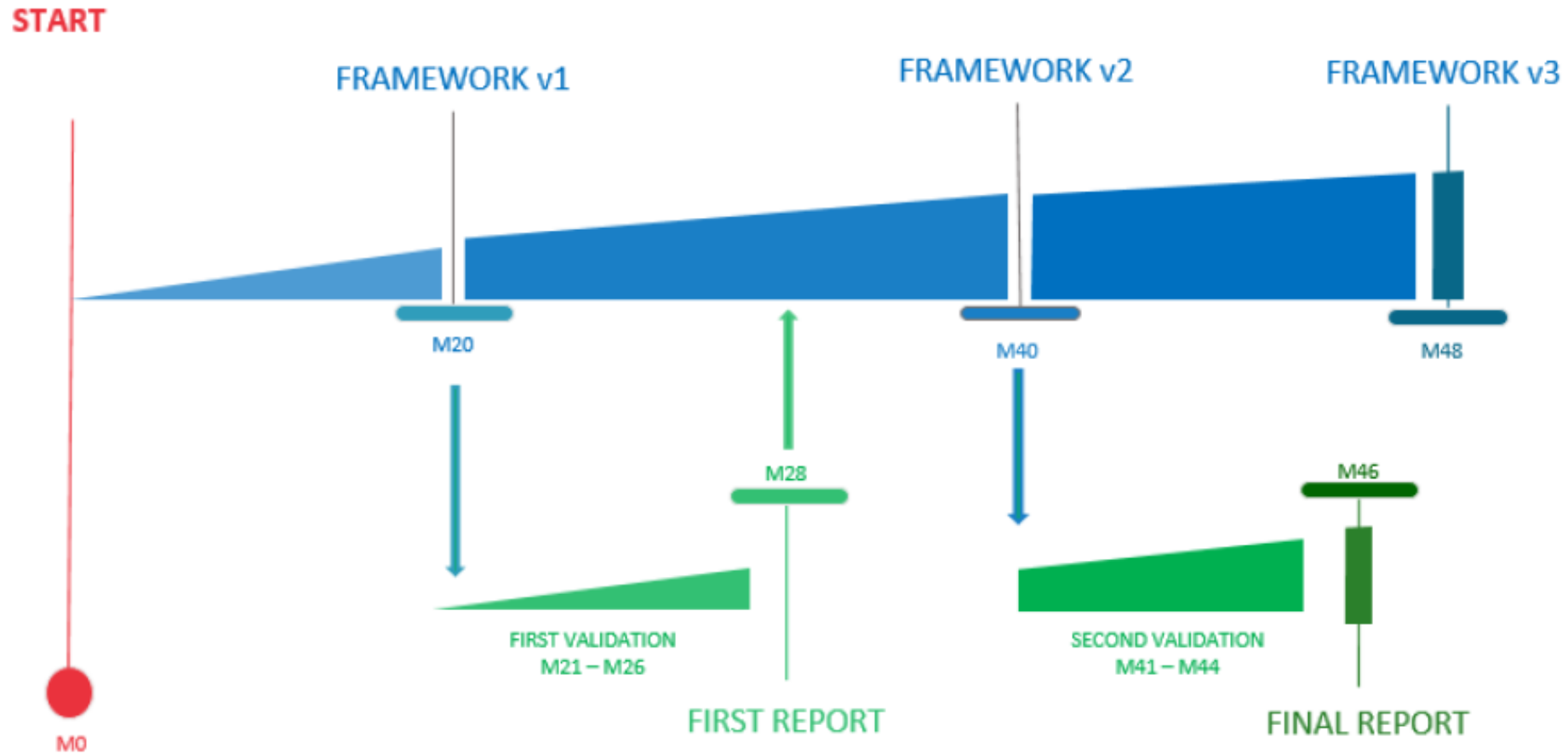
Platone field and tests and simulation



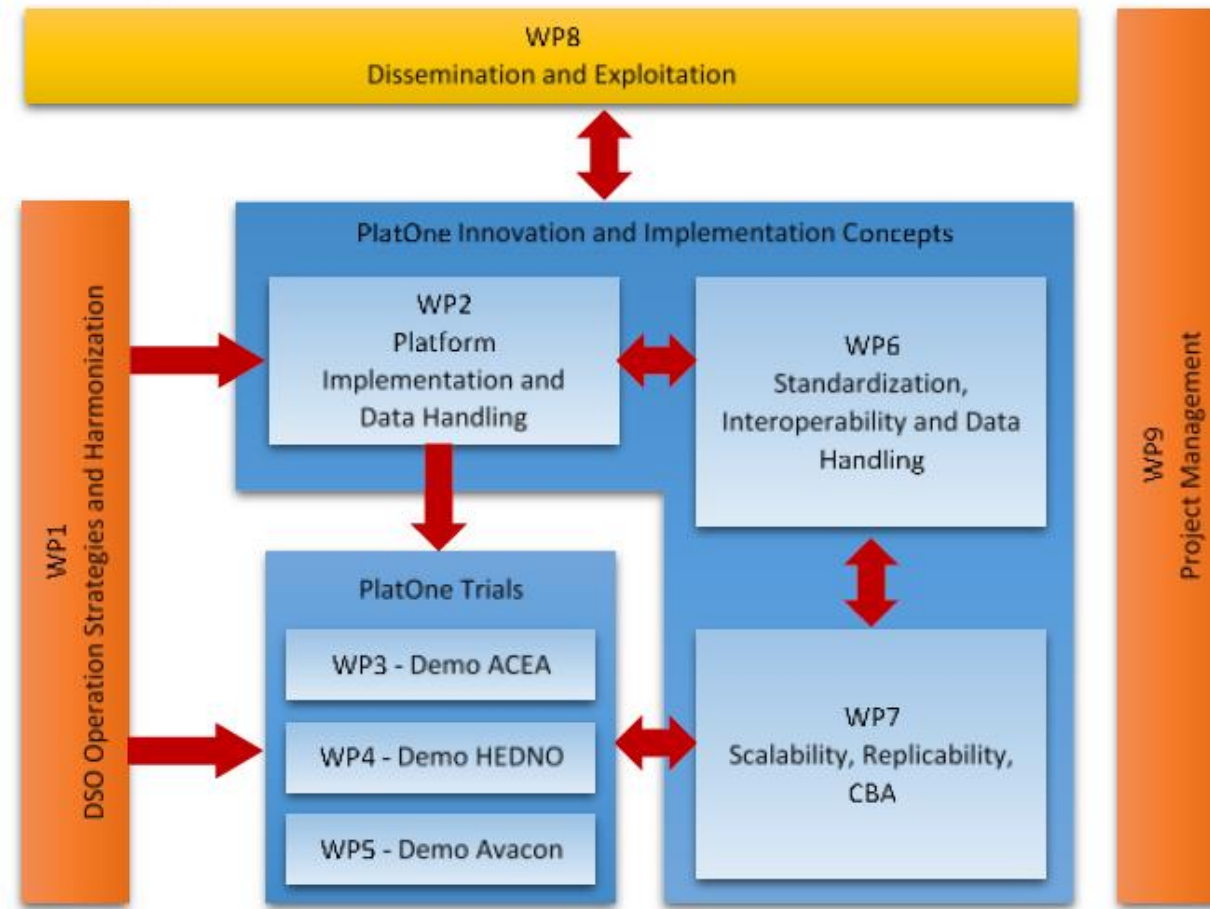
Platone cooperation with Canada

- Cooperation with on-going large demonstration project
- Signed agreement with University of Alberta
- Extension of our field test to include Microgrids
- Possibility to exchange experiences on the regulatory aspects

Platone development and evaluation phases

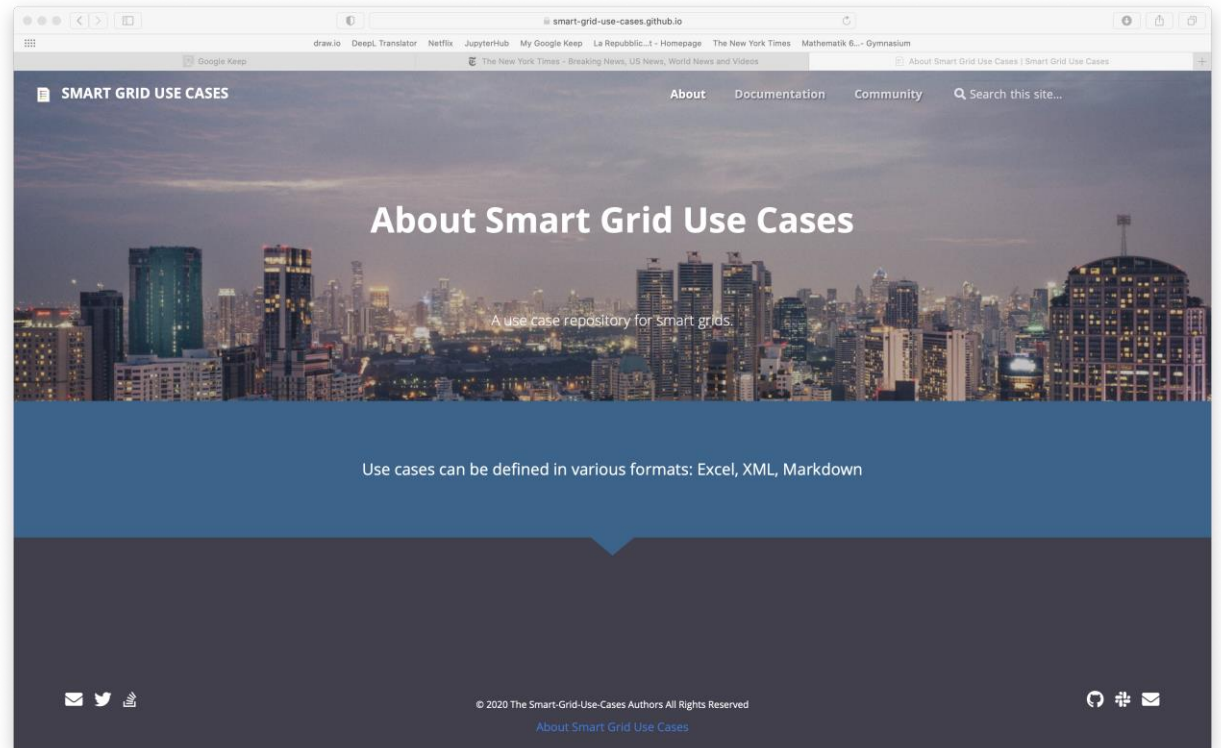


WP relationships



Platone and BRIDGE

- Platone is very active on BRIDGE
- Two main activities are worth mentioning:
 - Coordination of the work related HEMRM (areti)
 - Methodology for use-case inclusion and repository development (RWTH)



We are interested in your thoughts!

- Are we achieving openness to customers?
- Do we think we can get a momentum in Europe to follow Platone approach?
- Are the DSOs ready or what should be done to make it happen?
- Do TSOs want to support and cooperate?
- Do you share this approach to remove barriers to flexibility markets?



Thank you!

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All information provided reflects the status of the Platone project at the time of writing and may be subject to change. All information reflects only the author's view and the Innovation and Networks Executive Agency (INEA) is not responsible for any use that may be made of the information contained in this publication.