



enabling new Demand REsponse Advanced, Market oriented and
secure technologies, solutions and business models

New Demand Response Technologies and Services

Giuseppe Mastandrea (Energy@Work)

**Workshop on Flexibility 2.0: Demand Response and Self
Consumption , 29th October 2020**



**SUSTAINABLE
PLACES 2020**

October 27-30, 2020
Digital Event



The eDREAM project is co-funded by the EU's Horizon 2020 innovation programme under grant agreement No 774478.

- ❑ Title: eDREAM - enabling new Demand Response Advanced Market oriented and secure technologies, solutions and business models
- ❑ H2020 Call: 2020-LCE-2017-SGS (RIA)
- ❑ Duration: 36 months (Jan 2018 to Dec 2020)
- ❑ EU Contribution and Total Costs: € 3.822.125
- ❑ Coordinator: Engineering Ingegneria Informatica S.p.A.
- ❑ Country Coverage: Italy, Greece, Romania, Spain, UK
- ❑ Website: www.edream-h2020.eu



- ❑ ICT Players/Solution providers: ENG. ATOS, E@W
- ❑ Energy Stakeholders: ASM (DSO), KIWI, EMOT (Aggregators), SVT (ESCO)
- ❑ Academy/R&D: TUC, CERTH, TU

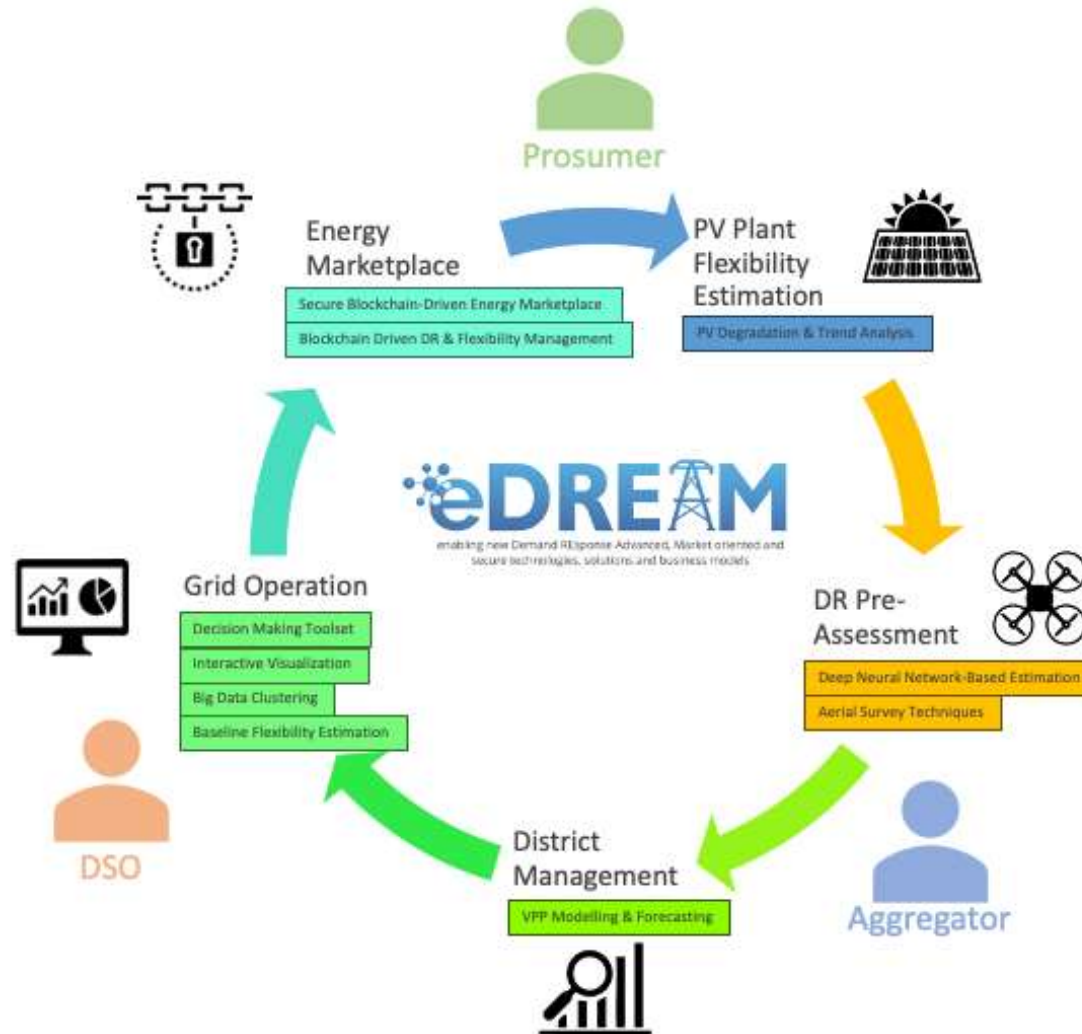
Integration of smart customers, DERs, Asset Management & DR network planning (UK)

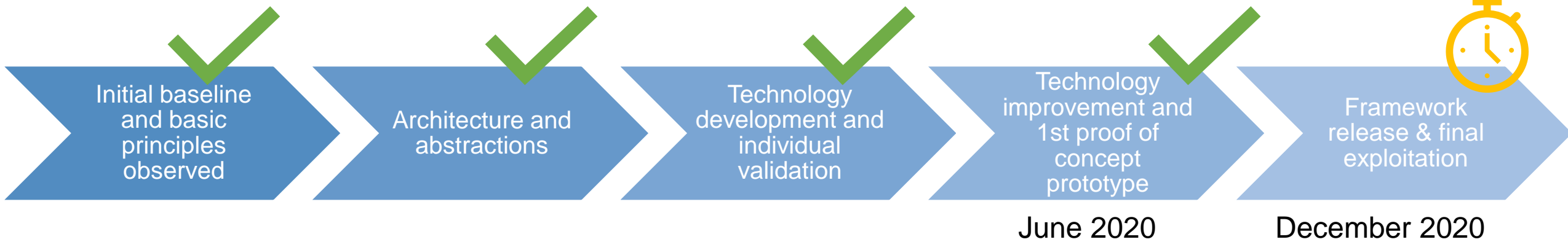
Secure micro-grid environment for participation in blockchain driven DR programs (Italy)

Lab-based validation of technologies and tools (Greece)



- ❑ **Objective:** Successful deployment of DSR technologies that consider Virtual Power Plants as well as decentralized approaches, towards achieving a reduction in peak grid demand and real savings for final consumers
- ❑ **What has been done?** eDREAM project is demonstrating a closed-loop demand response framework, designed to maintain the real-time balance of supply and demand in a decentralised environment
- ❑ **eDREAM new demand response technologies and services:**
 - ❖ **Techniques for Demand Response and Energy Flexibility Assessment**
 - ✓ Electricity and Virtual Power Plants: Modelling & forecasting
 - ✓ Baseline Flexibility Estimation
 - ✓ Multi-building DR characterisation through thermal, optical and LIDAR information fusion, and DR Aerial Survey Toolkit
 - ❖ **Next-generation of Demand Response Services for Aggregators and Customers**
 - ✓ Decision Making and DR Services Optimization Toolset
 - ✓ PV/RES Degradation & Trend Analysis
 - ✓ Big data Clustering techniques for Load Profiling and Customer Segmentation
 - ✓ Interactive visualization platform based on graph analytics for Decision Support System and DR Strategies Optimization
 - ❖ **Blockchain-enabled decentralised network control optimisation and Demand Response verification**
 - ✓ Blockchain Driven DR and Flexibility Management
 - ✓ Secured Blockchain-driven Energy Market





Thank you!



Atos

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