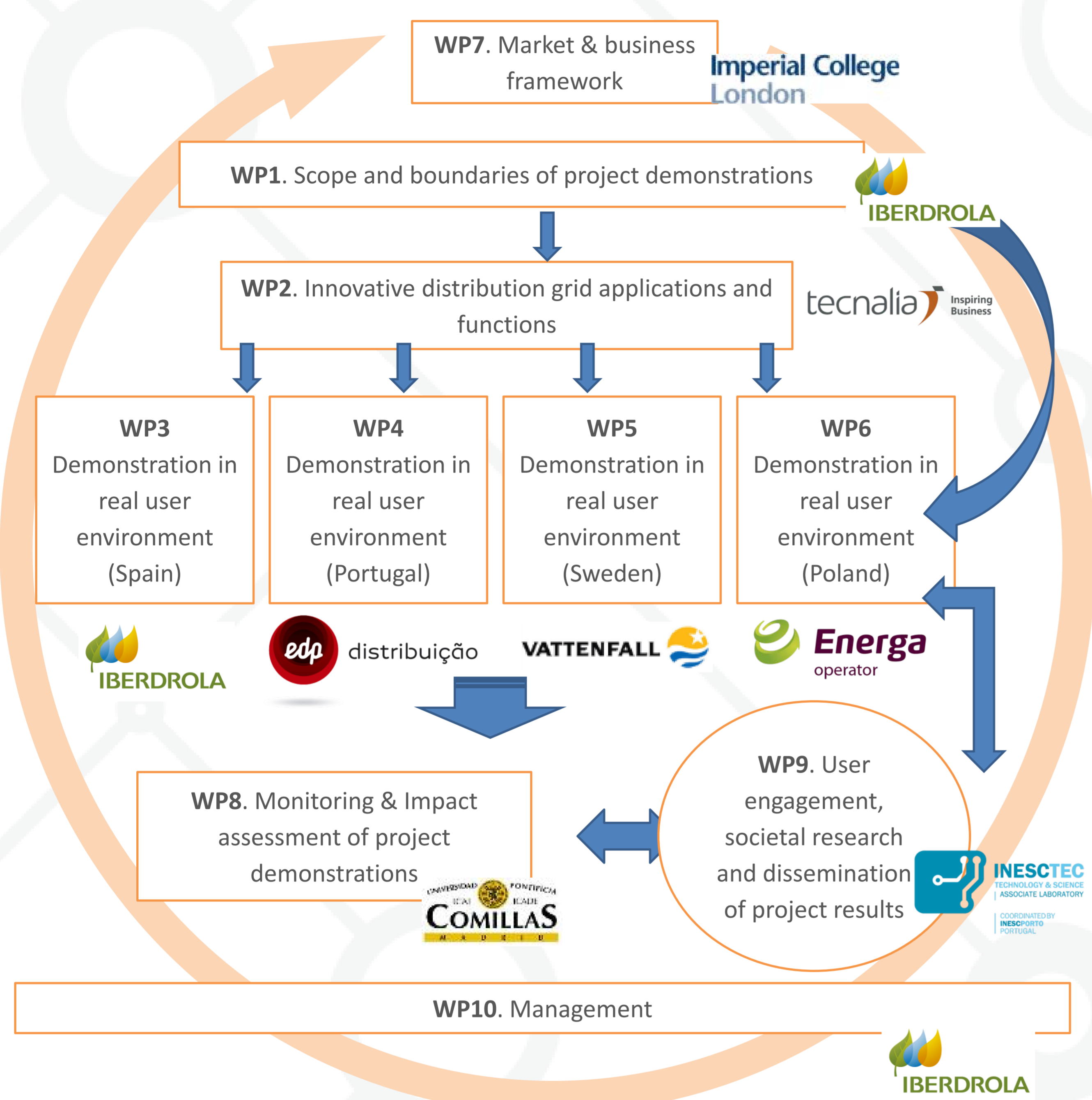


Real proven solutions to enable active demand and distributed generation flexible integration, through a fully controllable **LOW Voltage** and medium voltage distribution grid



Project Motivation:

UPGRID project focuses on addressing the constraints and needs arisen from *poor observability of LV grid, local accumulation of distributed generation, risks and difficulties in managing the distribution network, aging infrastructure and social and environmental restrictions that inhibit the grid development*. To be successful, **UPGRID** proposes an open, standardised and integral improvement of the LV grid.

Expected outcomes and impact

- Functional specification of **LV dispatching**
- Deployment of **mobility tools** to support LV operation of **field crews**
- **Achieve sound LV network** representation
- Integration and processing of **meter events** in the Outage Management System
- **Deployment of equipment** in SS and MV feeders to achieve a **supplier independent** solution for further deployment
- LV grid **remote control** operation over **PRIME** infrastructure
- **Multiservice PRIME subnetwork**
- Combined use of AMI and **Home Energy Management Systems** for **Demand Management**
- Improvement of consumer capacity building web-based systems
- New steps towards an **open market** for services (providing information to other agents through IT): **DSO as an “enabler”**
- Assessment of optimal **business models** for market participants
- **KPI framework** definition to evaluate impacts

Objectives

In economic area

- ✓ Increase of **LV infrastructure capabilities** and resulting boost of value provided by DSO to the Electrical System
- ✓ Development of **new LV products & services** (manufacturers & ICT providers)

In social area

- ✓ The creation of conscious **behavior** of efficient electrical energy use by consumer
- ✓ **Improvement of the service** provided to consumers (better restoration time, more accurate info, etc...)

In technical area

- ✓ Enhanced tools to operate the **LV grid**
- ✓ Improvement of **LV power system observability**
- ✓ Integration of **active demand** in the LV Network Management System

Key figures

H2020-LCE-2014-3 Call
LCE 7 – 2014: Distribution grid and retail market
Coordinator: Iberdrola Distribución Eléctrica, S.A.U.
Execution period: 01/01/2015 – 31/12/2017
Budget: 15,7 M€ (11,9 M€ funded)
19 Partners (7 European Countries: ES, PT, SE, PL, UK, FR, NO)
4 demonstration sites (ES, PT, SE, PL)

Partners

