



# European Conference on Smart Metering Deployment in the EU

Session 3 – Panel Discussion: "Lessons learned II – ensuring interoperability of metering systems and appliances: the role of functionalities and standards "

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# Smart Metering

## ■ Need for Smart Meters

- Metering, sensing and acting
- Interaction with Prosumers and services

## ■ Implementing cost-effective models

- Benefits from DSO rolling-out smart metering
- Stakeholders should share benefits but also costs
- Opt-out options could lead to additional costs

## ■ Communicating the benefits

- All stakeholders involved
- Smart metering is key driver for engagement
- EDSO-ESMIG web platform

## ■ Standardization

- Roll-out largely benefits from standardization (procurement; WFM; communication; etc.)



### "The role of DSOs in a Smart Grid environment"

Client: European Commission, DG ENER

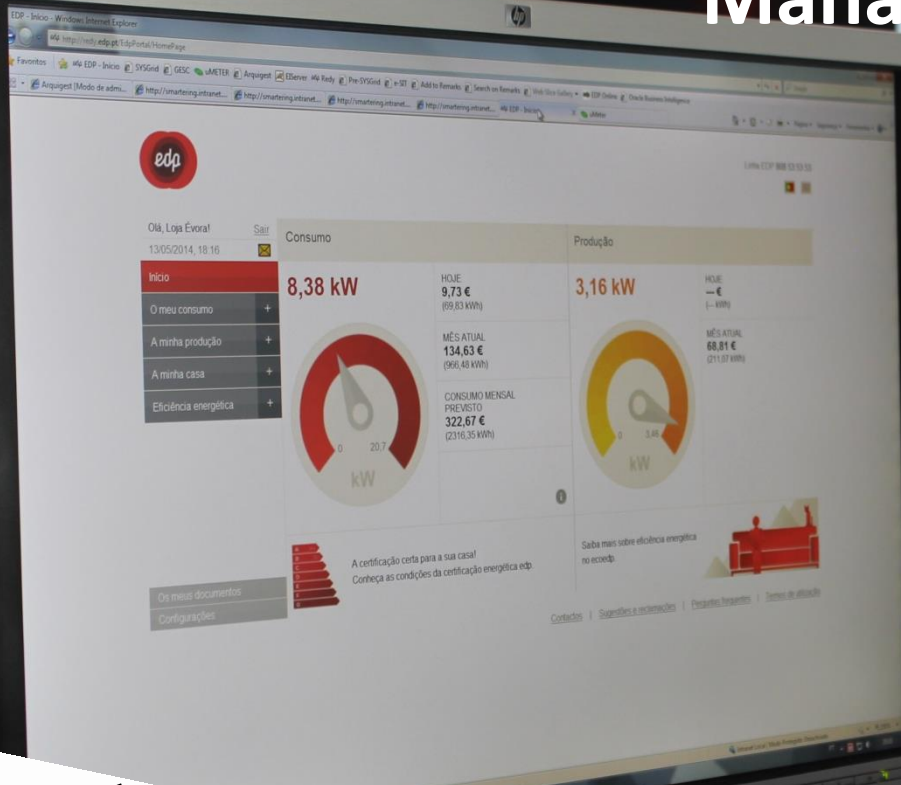
Final report

Amsterdam/Rotterdam, 23 April 2014

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# Data Management



- **Data is crucial to manage the network**
  - Challenges also coming from LV, and growing in number
  - Maintain security of supply
- **Already acting as neutral market facilitators**
  - Part of DSO business processes
  - Direct contact to all grid users' data
  - Regulated; non-discriminatory
- **Security and privacy are both critical**
  - Relevant experience
  - Additional investments
  - Find right balance between data provision and functionalities
- **Implementation models and costs**
  - Avoid duplication of costs
  - Transparent criteria
- **Standardization**

**NEW**

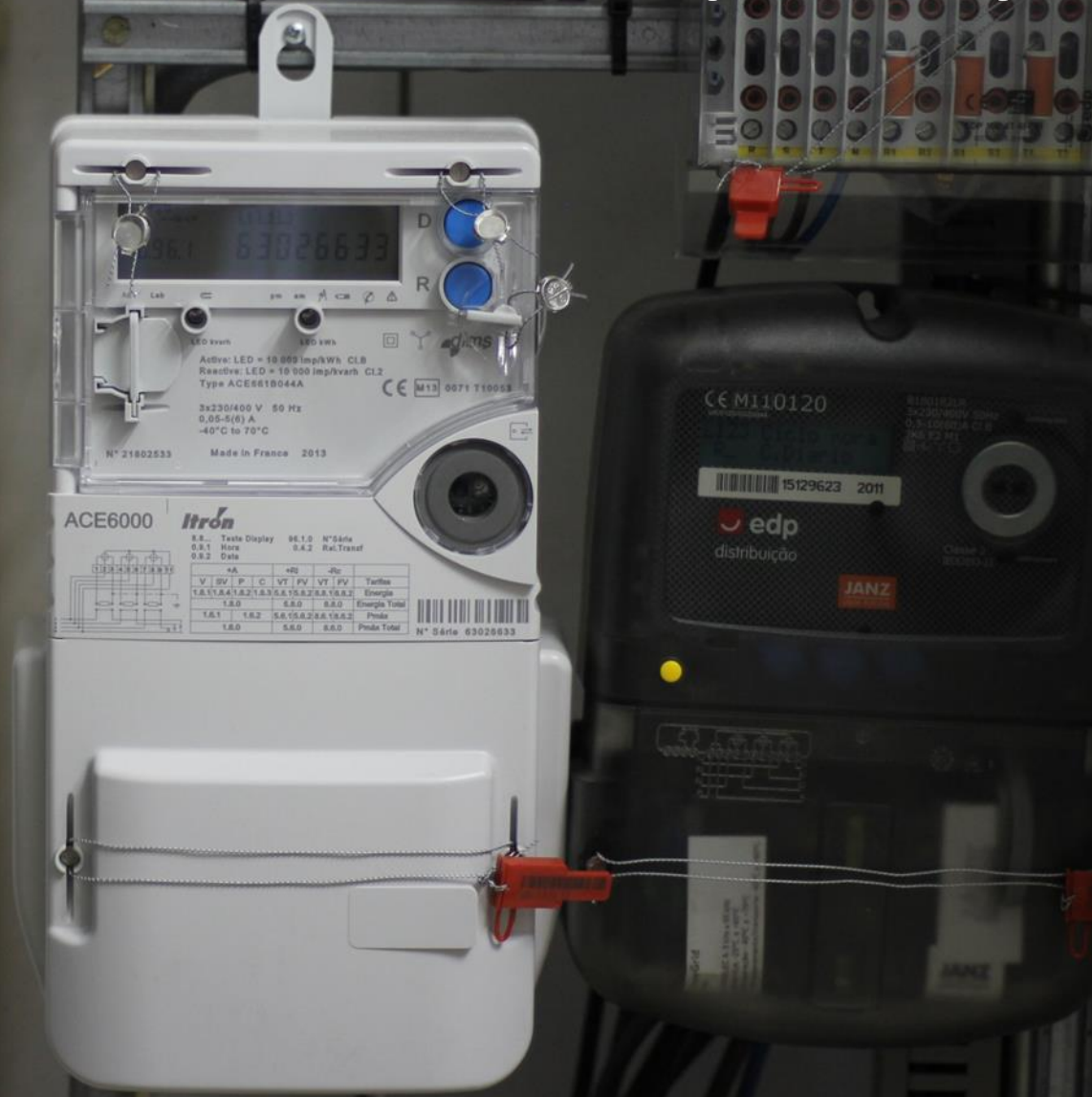
**EDSO**  
For smart grids

**European Distribution System Operators  
for Smart Grids**

**Data Management: The role of Distribution  
System Operators in managing data**

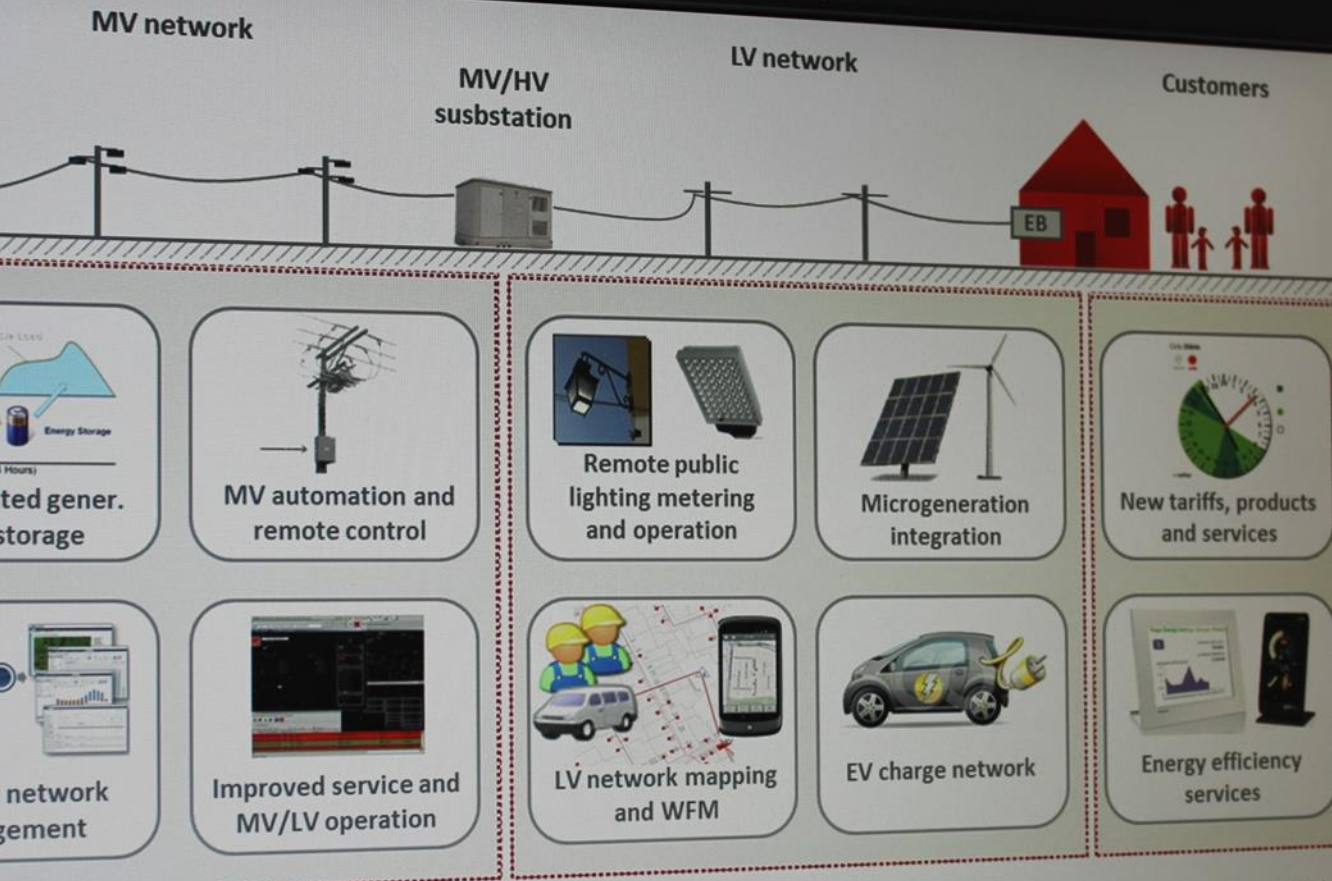
June 2014

# Standards and interoperability



- **Need for standards and interoperability**
  - Harmonising market models, roles and responsibilities
  - Less uncertainty and lock-in effects
  - Market to grow faster/more value
  - Compliance with standards and the European Mandates
- **Supervision of the networks /DER**
  - Standards for future services and installations (EV; DG; etc.)
  - Protect Cenelec A-band PLC
- **Information to Consumers/Citizens**
  - Enabling new services
- **Collaboration with TSOs**
  - Extensive work done; more to do
- **Collaboration with TELCOs**
  - DSOs perform mission critical activities
  - Keep and extend good cooperation
  - Provision of required and competitive services to DSOs

# InovGrid



## Smart Metering functionalities

- Solution fully compliant with set of functionalities from EC
- Direct access link to data (permission from Consumer)
- Large demonstration

## Evolution of data systems

- Adapting systems for big data/ analytical capabilities
- Additional requirements coming from market-based services

## Market facilitation and Consumer engagement

- Business as usual
- Real-life examples (Évora; SME; Municipalities; buildings)

WFM – Work Force management  
 EV – Electric Vehicle  
 HV, MV, LV – High, Medium, Low Voltage





I myself can see my consumption for any given day,

▪ **Benefits from a Consumer-centric approach**

- Approach proved to be very effective
- Energy efficiency is by far the single most important driver
- Detailed communication plan

▪ **Important results achieved**

- Findings from independent studies showing value from direct and indirect feedback
- According to BCA conducted based on methodology proposed by JRC, most benefits go to Consumers and Society
- Portuguese Regulator conducted a BCA with a clearly positive outcome
- Both results are very much aligned
- A positive decision is expected to be taken by the competent authorities



# Conclusions

The background of the slide features a photograph of a building's exterior. On the left, there are three solar panels mounted on a metal frame against a weathered, light-colored wall. Below the panels is a white wall with some peeling paint and a small plant growing from a crack. In the bottom right corner, there is a green plant with small orange fruits.

- DSOs can provide effective conditions
- Grids should be prepared
- Smart Grids, including Smart Metering, are essential tools
- Data and flexibility services are mandatory
- The role of the DSO as market facilitator should include data management (where the DSO is installing and managing meters)
- All stakeholders must help communicate clear messages to Consumers/Citizens
- Cooperation with TSOs and ICT should keep evolving
- Standards and interoperability are crucial to overcome the challenges ahead in a timely and cost-effective way