

Supporting the development and deployment of advanced metering infrastructures in Europe

#### Smart metering for Europe's smart(er) households



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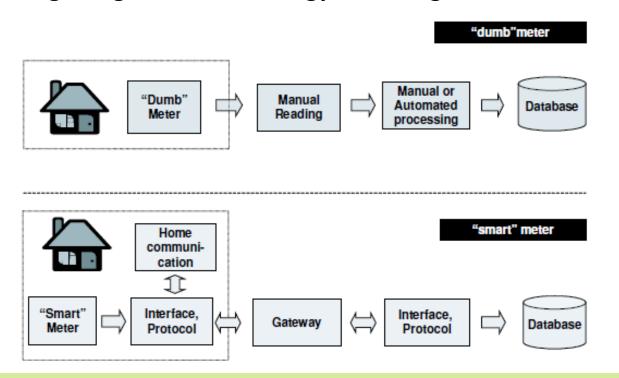








- U Smart meters are seen as one of the pillars of the smart grids
- Smart meters will help transition towards active network evolution, massively integrating renewable energy into the grid





















Third parties:

EDP Distribuçao

Endesa Distribución

**Enel Distribuzione** 

**Enel Distributie Muntenia** 

**ERDF** 

Gas Natural Fenosa

Iberdrola Distribución

Politecnico di Milano

Universita Commerciale Bocconi







# **Legal basis for roll-out**





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EU Directives 2009/72/EC electricity 2009/73/EC gas



- MSs shall ensure the implementation of intelligent metering systems that shall assist the active participation of consumers in the energy supply market.
- May be subject to an economic assessment of long-term costs and benefits – by 03.09.2012.
- MSs shall prepare a timetable with a target of up to ten years for the implementation of intelligent metering systems.
- When is assessed positively, the provision for electricity states that at least 80% of consumers shall be equipped with intelligent metering systems by 2020



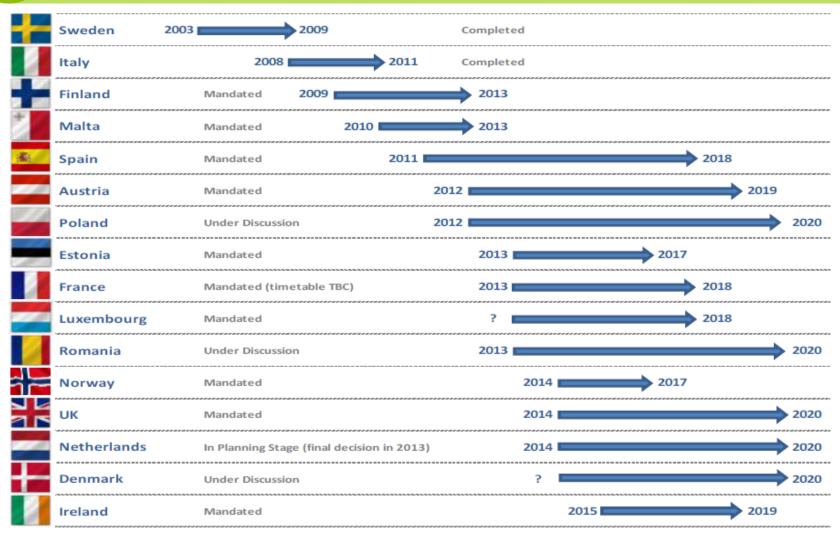


# **Roll-out plans**





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## Minimum functionalities





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#### **CONSUMER**

- Provide readings directly to the consumer and/or any 3rd party
- Update the readings frequently enough to use energy saving schemes

#### METERING OPERATOR

- · Allow remote reading by the operator
- Provide 2-way communication for maintenance and control
- Allow frequent enough readings to be used for networking planning

# COMMERCIAL ASPECTS OF SUPPLY

- Support advanced tariff system
- Allow remote ON/OFF control supply and/or flow or power limitation

# SECURITY AND DATA PROTECTION

- · Provide secure data communications
- Fraud prevention and detection

#### DISTRIBUTED GENERATION

Provide import/export and reactive metering









- collection of information related to smart metering projects;
- analysis of each project according to the identified set of information domains;
- drawing conclusions and recommendations on the way forward based on the lessons learned from the most successful smart metering experiences.

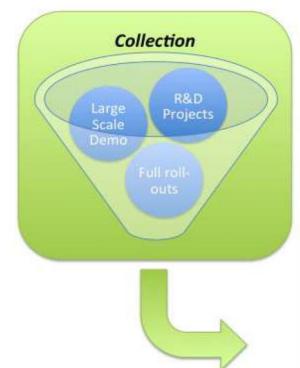
**METER UN** covers ~ 100 million smart meters (2020)



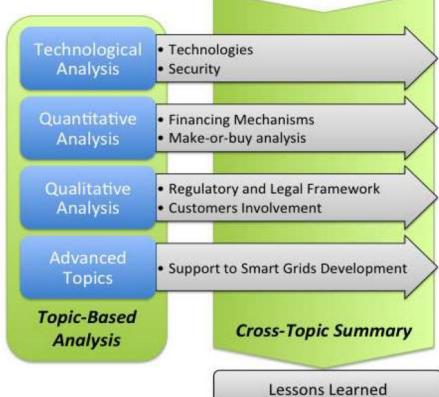








#### via questionnaires









# **Collected information**





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14 projects from 10 EU countries (1st stage)

Various detail of data provided



#### Type of projects

- 6 roll-out + 1 small-roll-out of E&G (company level)
- 1 demonstration project
- 3 pilot projects
- 2 R&D projects + 1 R&D-pilot

### Dimension

- 3 above 1 million meters
- 5 above 100.000 meters
- 3 less or equal to 100.000
- 3 less than 10.000 meters









The recurrent issues vis-à-vis customers and smart metering solutions

- security and privacy related issues
- cost related issues
- energy efficiency











- 10 countries 10 "ways of smart metering"
- Deployment strategy needs to involve all stakeholders

from the start

- Utilities need to establish a trustful relation with the

consumer (ex. Finland)







# EU Sustainable Energy Week 24-28 June

## www.eusew.eu

# Free registration for many events High level meetings and EU initiatives



will have a dedicated conference on 26<sup>th</sup> of June in the Charlemagne Building









## www.meter-on.eu

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**GRAZIE** 



