



SEESGEN-ICT

4° GENERAL WORKSHOP

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WP4.2 Results Presentation





Background

- ❑ Objective: Identification of the ICT requirements for the integration of the end user in Load management initiatives and focused on residential end users.
- ❑ Draws on results from D4.2 that identifies the ICT requirements for the integration of end users, DSOs and intermediary entities:
- ❑ Work focused on:
 - ❑ Technical requirements:
 - ❑ Needed equipment.
 - ❑ Interoperability.
 - ❑ ICT risks.
 - ❑ Non- technical requirements
 - ❑ Social.
 - ❑ Regulatory.



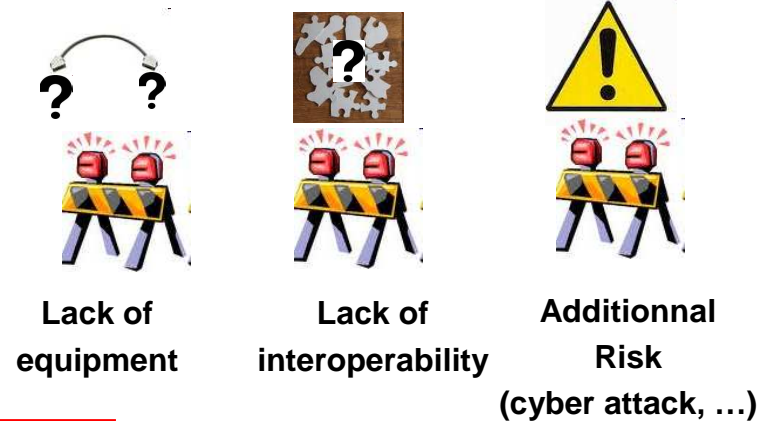
WP4 Results :barriers to be solved by DSSP

Non technical barriers



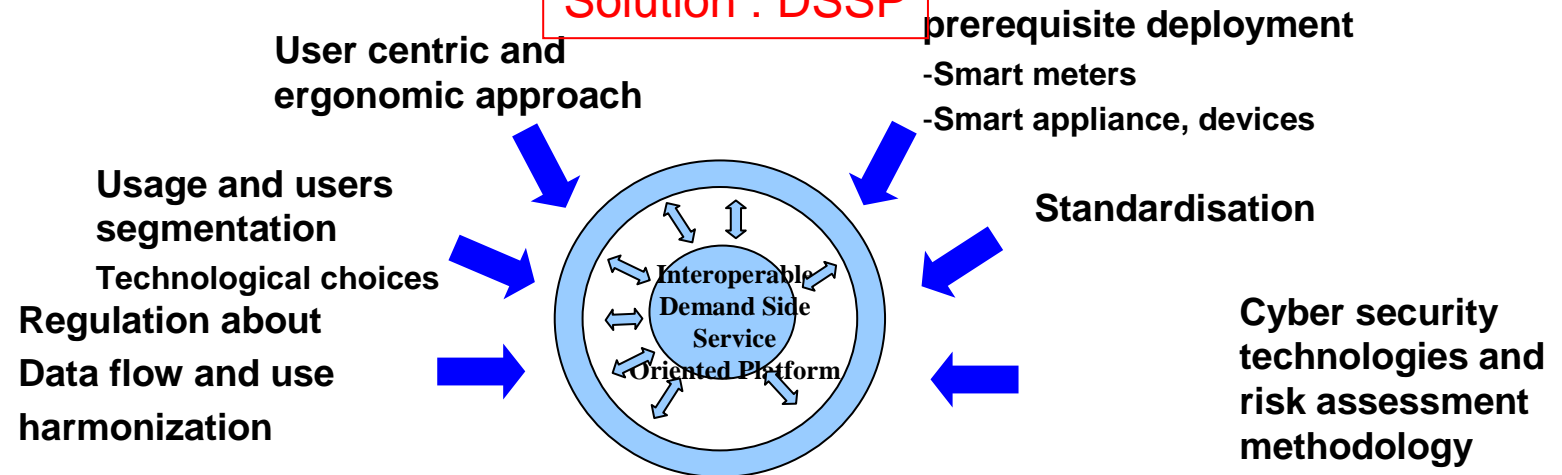
Lack of regulation Economical barriers Societal Barriers

Technical barriers



Lack of equipment Lack of interoperability Additional Risk (cyber attack, ...)

Solution : DSSP



The required Demand Side Service oriented Platform have to provide solutions for the different barriers



Equipment availability

■ Barriers:

- Lack of Smart Meters and agreed minimum functionality.
- Lack of Smart appliances and costs of retrofitting.
- Lack of home Automation products.

■ Solutions:

- Smart meters:
 - roll out or market based deployment; depends on regulation.
 - Working groups for agreed minimum functionality.
 - Interoperability with the data concentrator, the intermediary entities and home automation.
- Smart appliances:
 - Start time delay timers.
 - Procurement programs to generate the need of smart appliances.
 - Share the benefits.



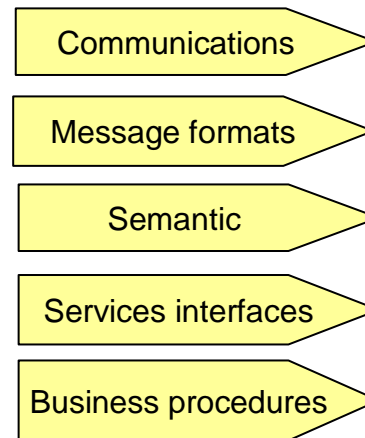
Interoperability (I)

■ Barriers:

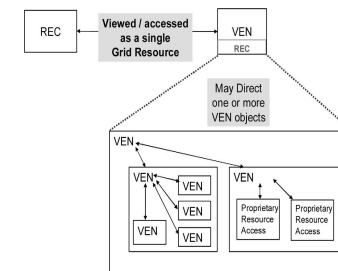
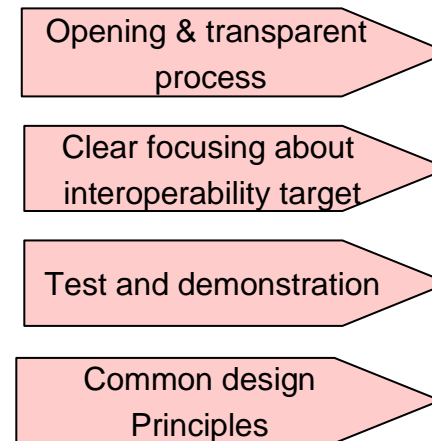
- Interoperability between the home controller and Smart Meter, Appliances and intermediary actors:
 - Communications, service interfaces, message formats, semantics and business procedures.
- Plug and play.
- Be based on stable standards.
- Easy of use.

DSSP requires
An appropriate
Standardisation
approach

Standardization scope

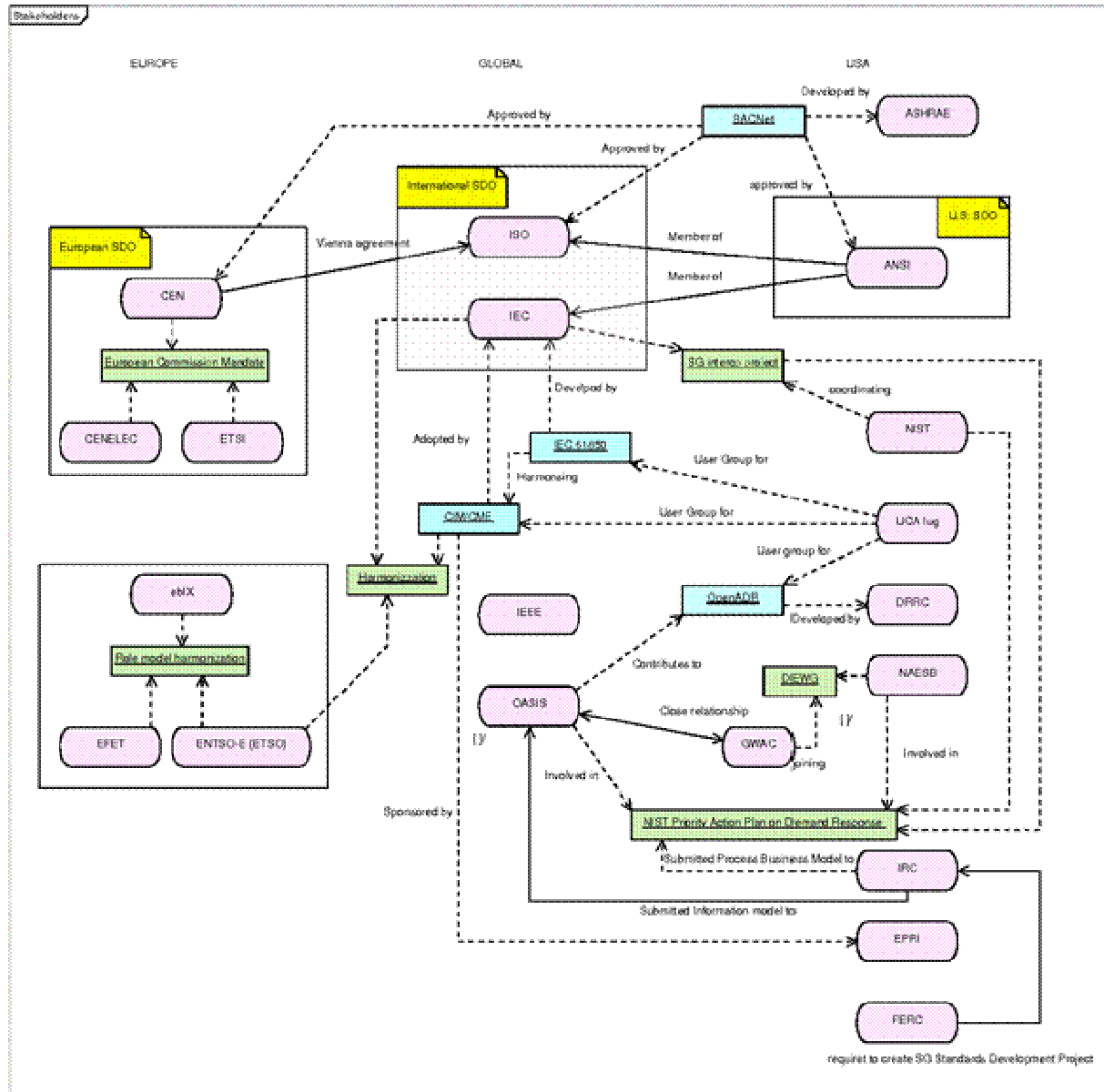


Principles for standardization Providing interoperability





Interoperability (II)

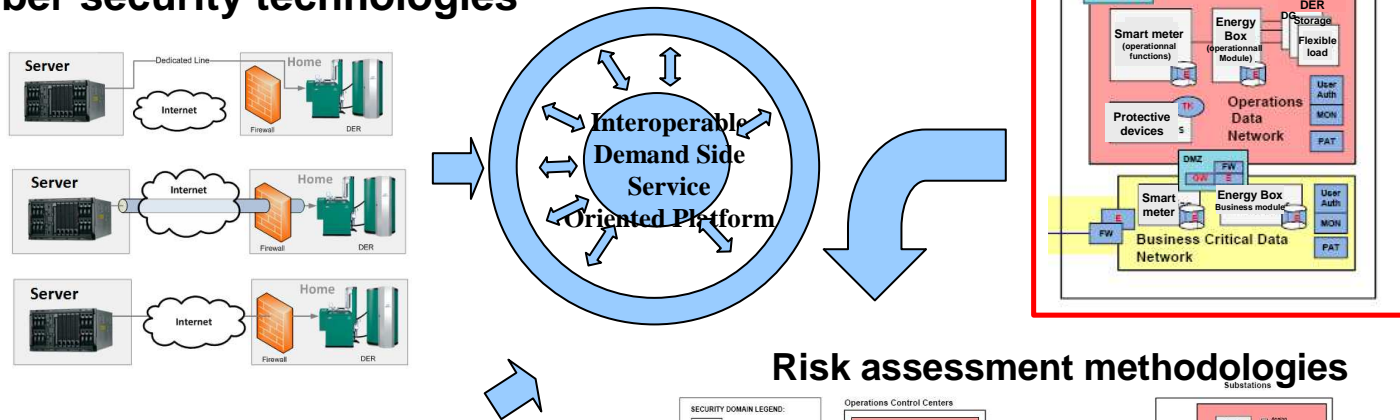




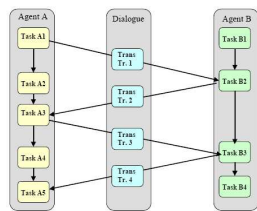
- Security barriers:
 - Confidentiality issues.
 - Integrity issues.
 - Availability issues

ICT risks

Cyber security technologies

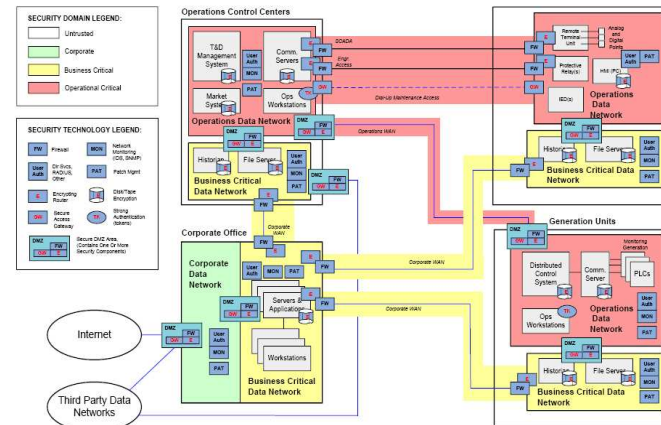


Innovative security technologie concept



•CRISP project

Risk assessment methodologies



•CIGRE reports

•The interoperable DSSP requires building an appropriate security framework





Social Barriers

■ Barriers:

- Threat to privacy:
 - EU directive on the protection of personal data.
 - User right to know the data that is being held.

■ Solutions:

- Good communication with the public.
- Application of privacy design principles in the system desing of DSI services, such as:
 - giving individuals the choice whether or not their information is recorded
 - minimizing the amount and detail of data recorded
 - pseudonymisation of data (replacement of identifying data by artificial identifiers)
 - signing data protection agreements with all partners in the business chain
 - and others



Country analysis

- The installation of meters goes at a different pace in different Countries.
- The regulation differs from Country to Country.
- Major activities are taking place in running R&D projects related to DSI.