


## Smart Appliances

### Ecodesign Preparatory Study

Ulrike Nuscheler  
European Commission  
DG ENERGY  
C3 "Energy efficiency"

First stakeholder meeting  
10 March 2015

Energy



## The broader picture

### Energy Union Framework Strategy

COM(2015)80 final, 25.2.2015

*"The Commission will continue to push for standardisation and to support the national roll-out of smart meters and to promote the further development of smart appliances and smart grids, so that flexible energy use is rewarded."*

(...)

*"However, this will only work if market prices send the right signals."*

#### Smart appliances

- help accommodate renewable energy
- help increase efficiency over the whole system
- can contribute to improve end user energy efficiency
- thus save energy and CO2 and contribute to security of supply

#### "Chicken & Egg Problem"

- Without price signals and rewards, no incentive for consumers to buy smart appliances and to participate in DR.
- Without consumers equipped to participate in demand response, less (or no) incentive to offer time-differentiated supply contracts.

Energy




## Policy context & other relevant initiatives

- Energy Efficiency Directive and Internal Market-legislation
- Buildings Directive
- "November Package", SWD on Demand Response
- State Aid Guidelines
- Demand Connection Code
- (up-coming) Market Design and Retail Market Communication
- Ecodesign/Label vertical product regulations (e.g. heaters, airco, refrigeration; networked standby)
- Smart meter-recommendation and roll-out reports

- Smart Grids Task Force , EG 1 (standardisation)
- Smart Grids Task Force, EG 3 (flexibility – business models/contractual arrangem.)
- DG CNECT – ontology for smart appliances study
- CENELEC committees including vertical ones
- On-going activities in ETSI

Energy

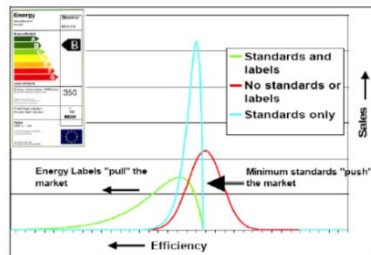


## Product Policy

### Environmental performance of products – main instruments

**Ecodesign Directive 2009/125/EC:**  
Framework defining the «rules» for setting product-specific requirements/ legislation on aspects that determine the environmental performance of a product (focus: energy efficiency but also other parameters).

**Energy Labelling Directive 2010/30/EU:**  
Framework defining the «rules» for setting product-specific requirements/ legislation on standard information regarding the consumption of energy and other resources




The Ecodesign Directive addresses the **supply side** while the Energy Labelling Directive addresses the **demand side**.

It is the **combined** effect of both measures which ensures a dynamic improvement of the market.


Energy

## Ecodesign




Ecodesign sets (mandatory) requirements for **Energy related Products ("ErP")** to improve their environmental performance.

- Ecodesign Directive 2009/125/EU establishes the framework (conditions, criteria, procedures etc.)
- Products are subject to – usually - product-specific "Implementing Measures" (Regulations) or "Voluntary Agreements"
- Legal base is (old) Article 95: Internal Market – free movement of goods
- Products to be addressed under Ecodesign are stipulated in the "Ecodesign Working Plan"
- Basis for any Ecodesign measure is a technical "preparatory study (delivers also relevant elements for energy label)".
- Ecodesign is about products, not systems





## Energy Labelling

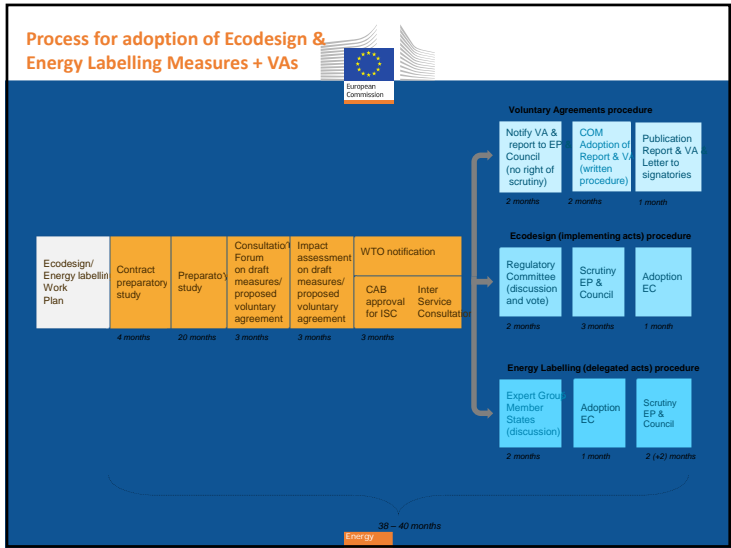


The Labelling Directive 2010/30/EU establishes a framework for (...) labelling and standard product information, on the consumption of energy and where relevant of other essential resources during use, and supplementary information concerning energy-related products (...)


- The label is mandatory;
- displays annual energy consumption or energy consumption per cycle
  - plus other information regarding use of energy/other resources: e.g. water consumption, volume of the appliance etc.



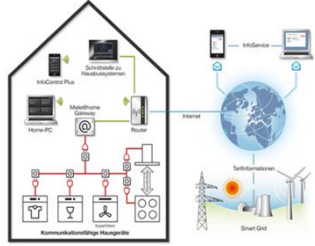




## Smart appliances under Ecodesign




"Smart appliances/smart meters"  
Priority action in Work Programme 2012-14.  
**Lot 33**




Smart appliances

- have an impact on energy consumption during use
- can help accommodate renewable energy and increase efficiency across the energy system
- smartness might imply additional energy consumption
- connectivity comes with interoperability challenges



**Preparatory Study  
Lot 33**




Preparatory Studies analyse the technical, economic, environmental, market and societal aspects of a product group.

Basic structure is the "MEErP" (Methodology for Energy related products).

The Lot 33-Preparatory Study (kicked off in October 2014):

- has a horizontal approach
- will mainly be about functionalities (strong focus on demand response)
- will assess possible positive and negative impacts of these functionalities on the environment, consumers, industry etc.
- Smart meters will be mainly assessed in terms of their energy consumption
- Interoperability seems to be a major challenge



**Today's meeting**



10 March 2015  
First stakeholder meeting

Seeking input/validation primarily on/of:

- scope of the study
- interoperability issues



**Thank you for  
your attention**

