

EU Energy Efficiency Product Policy Developments



**EFCEM - European Catering
Equipment Industry
Conference**

London, 26 June 2013

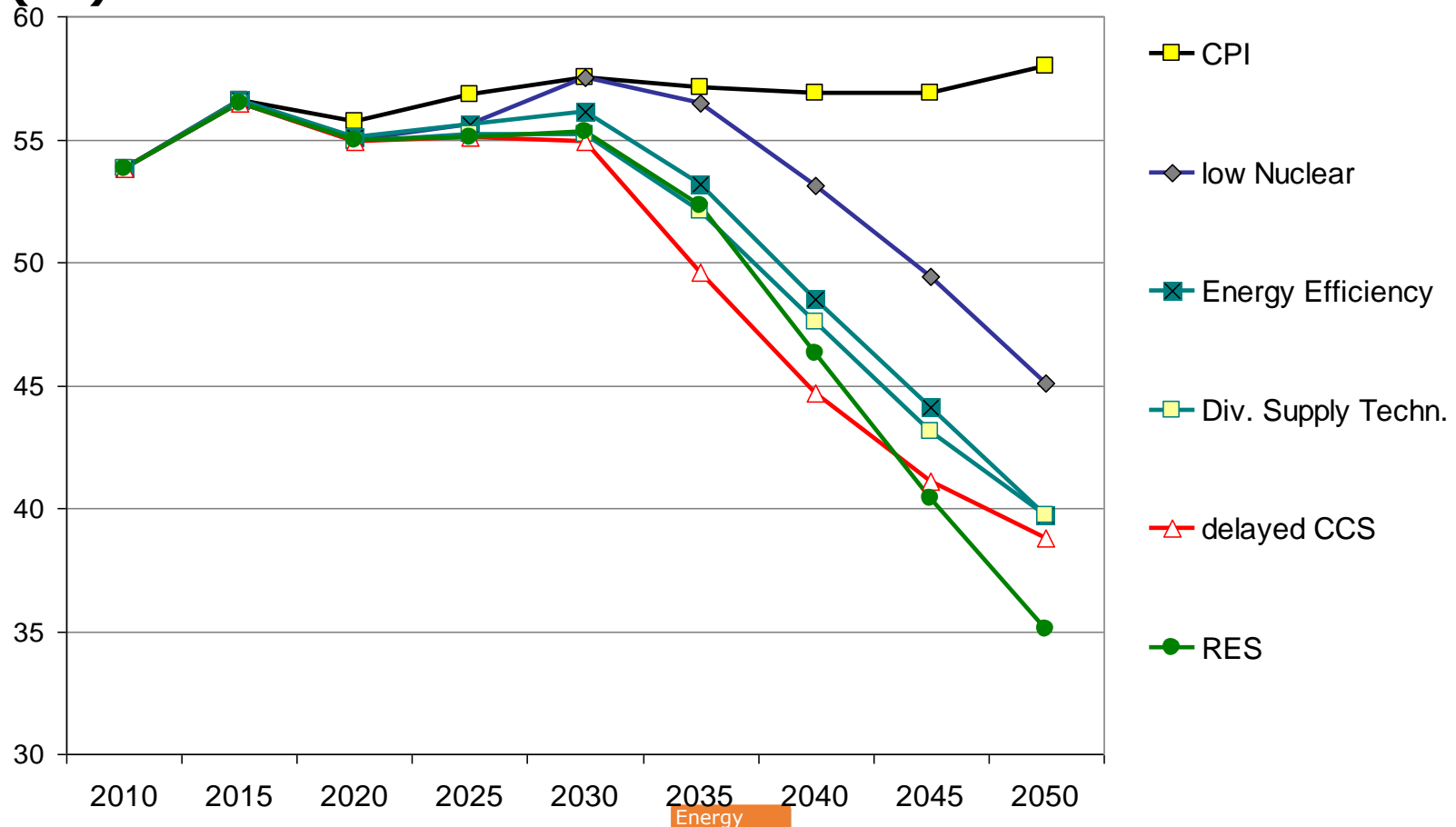
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DG Energy Unit C3
Energy Efficiency**

Presentation structure

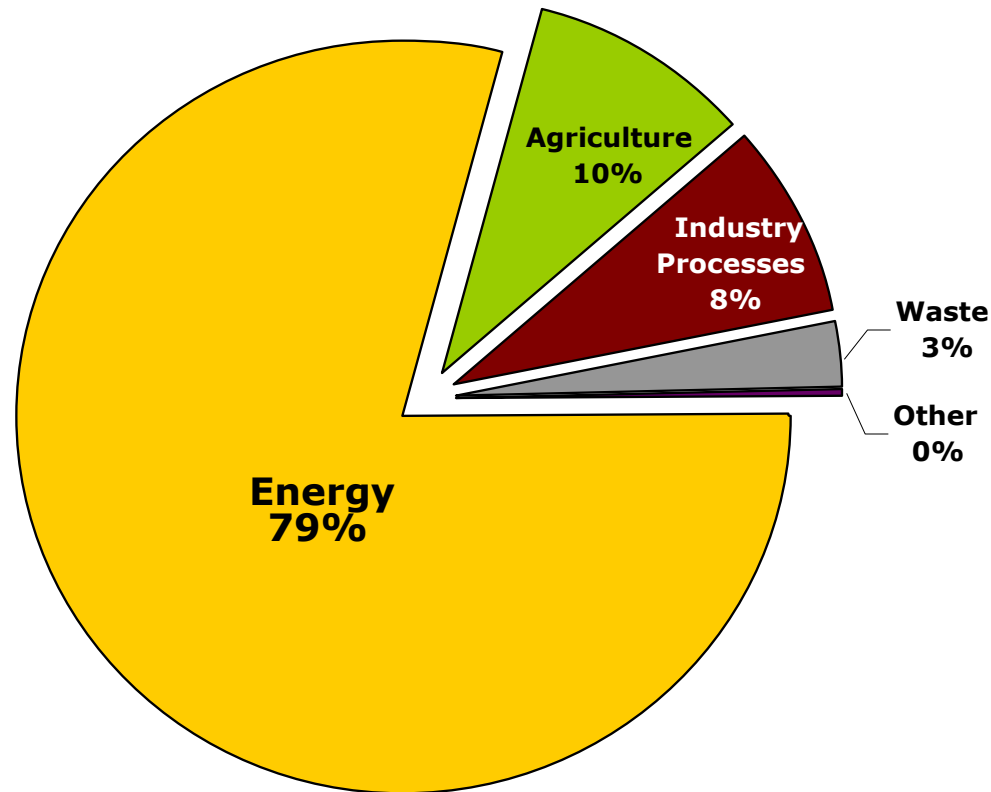
- **Why?** Context, policy drivers, savings potential, objectives
- **How?** Funding, legal instruments
- **What?** Implementing measures, preparatory study

Key policy drivers - energy security

Import dependency under current trends and decarbonisation (%)



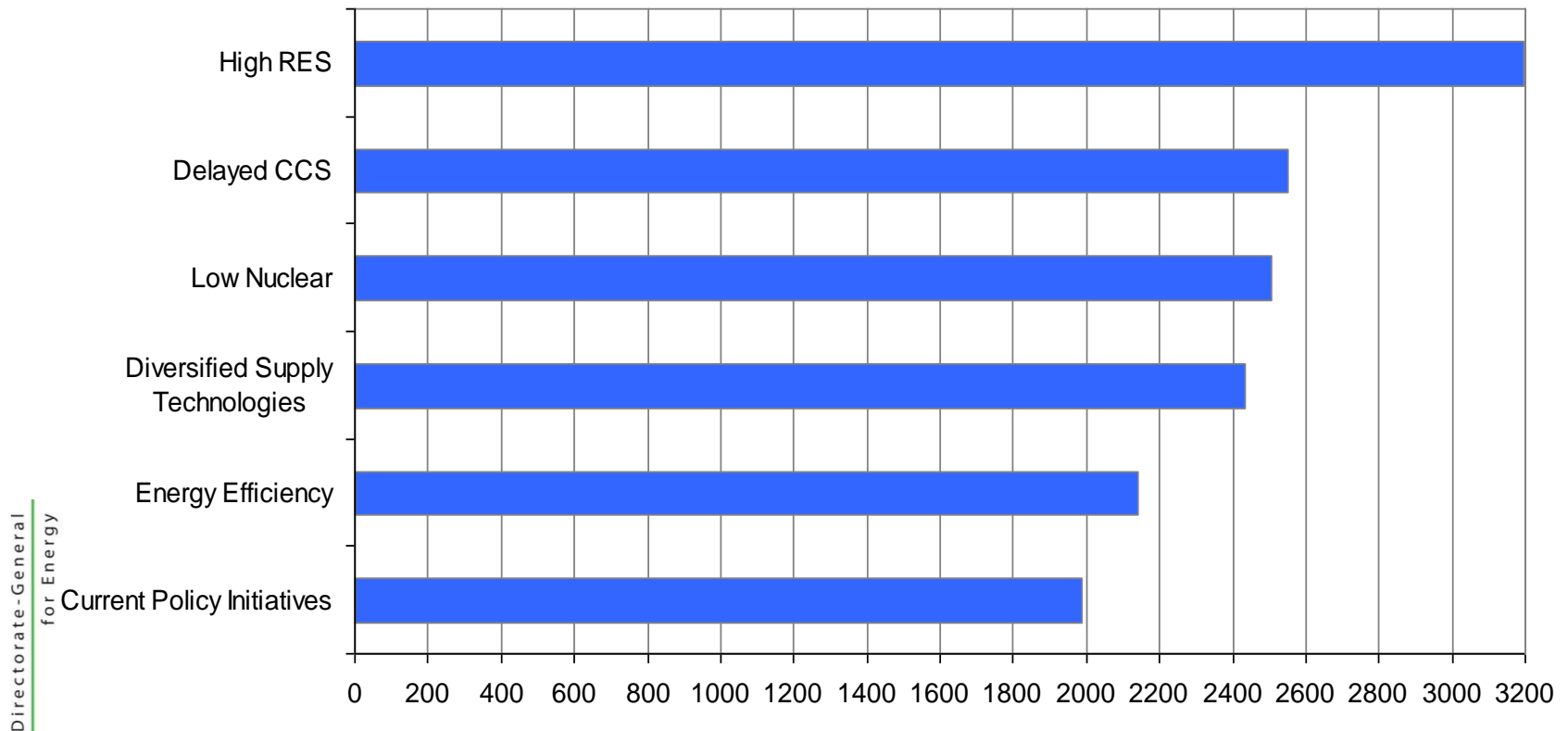
Key policy drivers - Climate challenge



Share of greenhouse gas emissions

Key policy drivers – Investment constraints

Cumulative investment expenditure for power generation from now up to 2050 (in billion €)

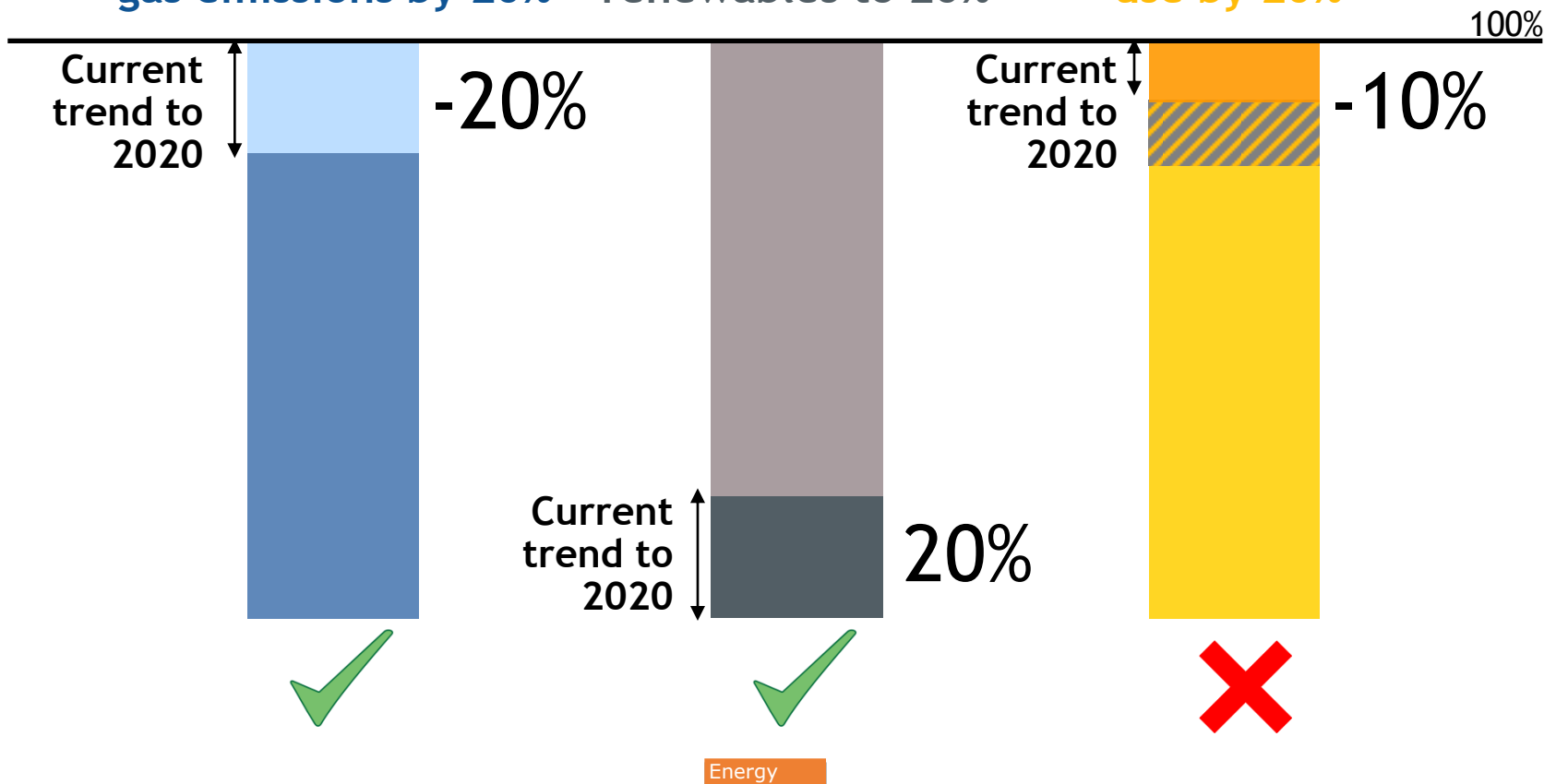


Context : the EU 20-20-20 targets by 2020

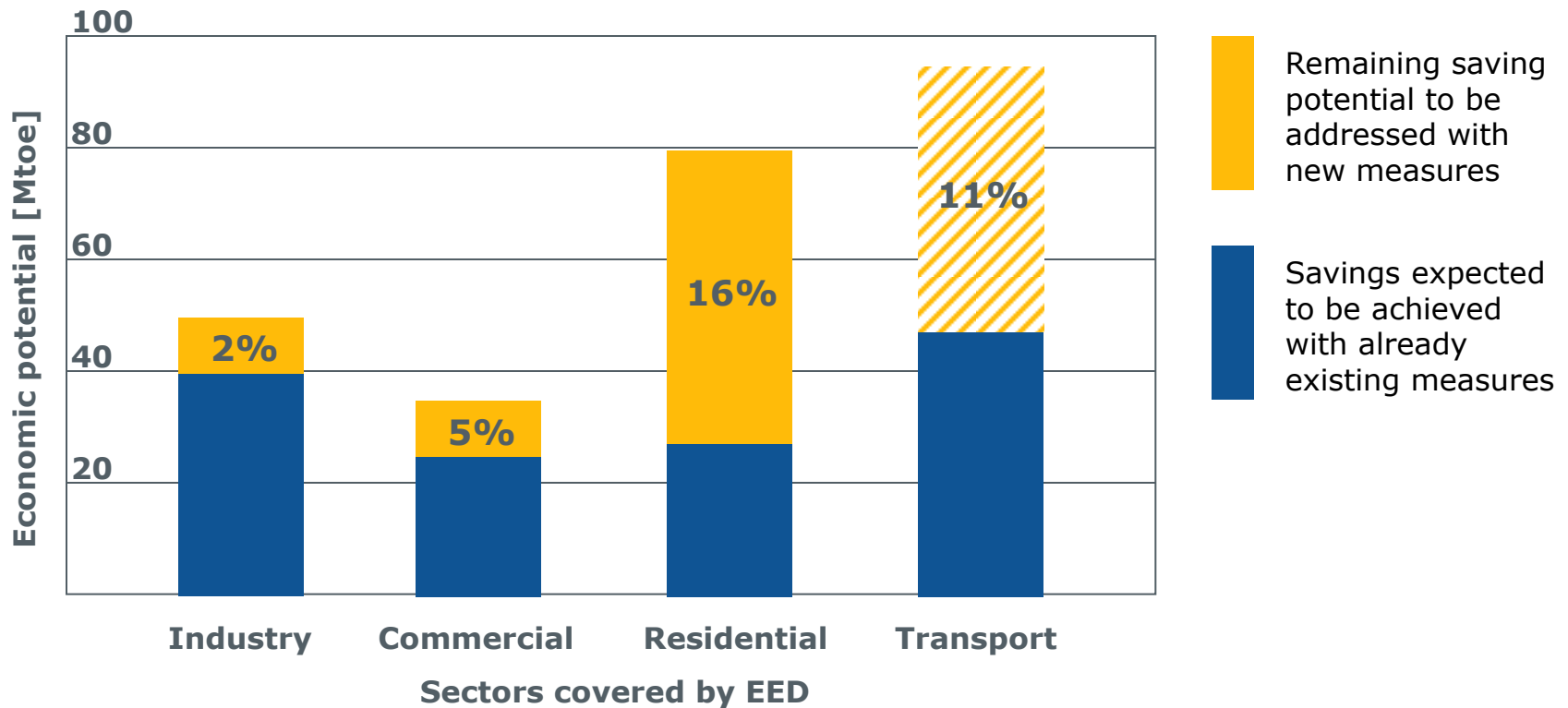
Reduce greenhouse
gas emissions by 20%

Increase share of
renewables to 20%

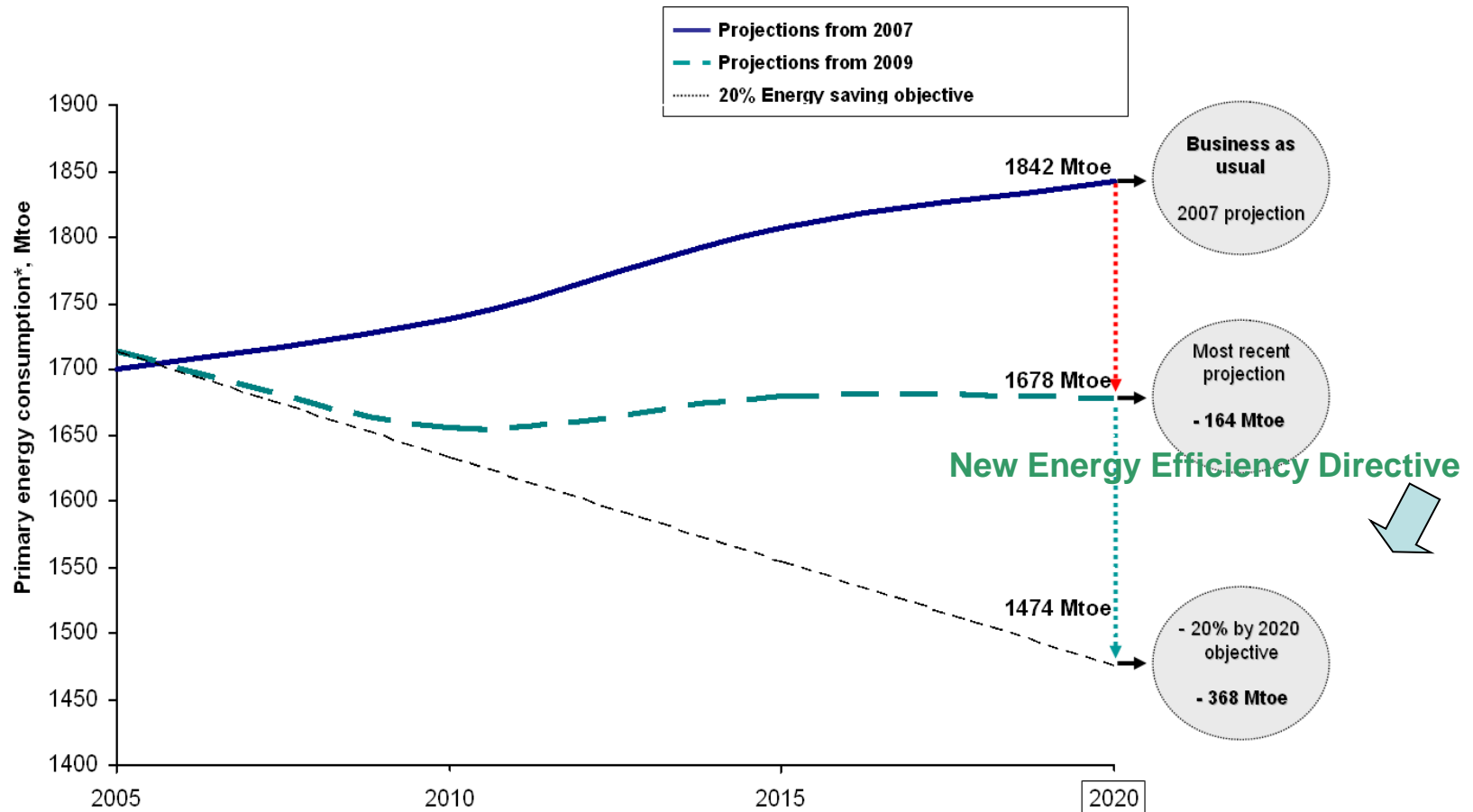
Reduce energy
use by 20%



Context : untapped savings potentials across all major sectors

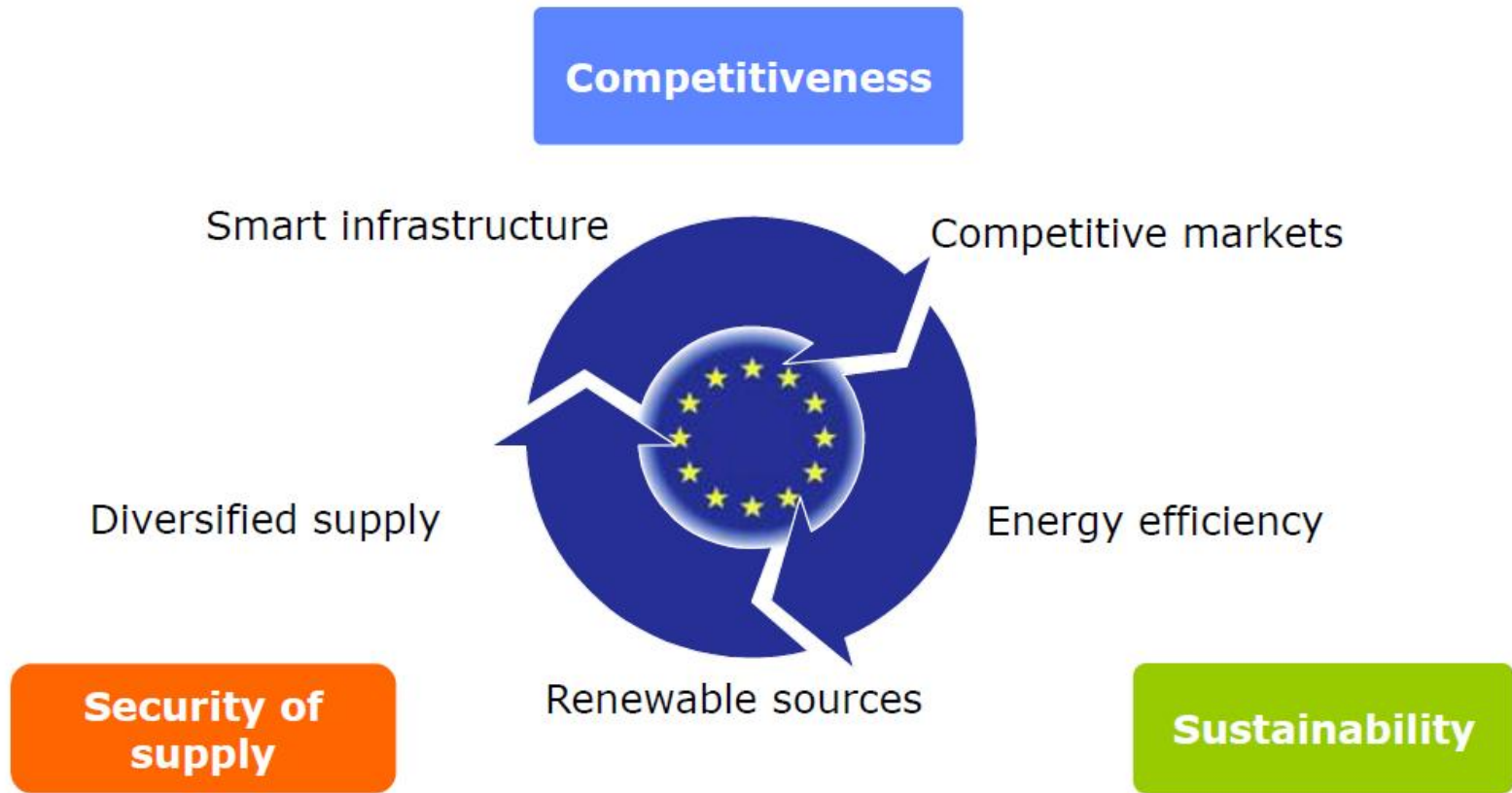


Objective to reduce energy use by 2020



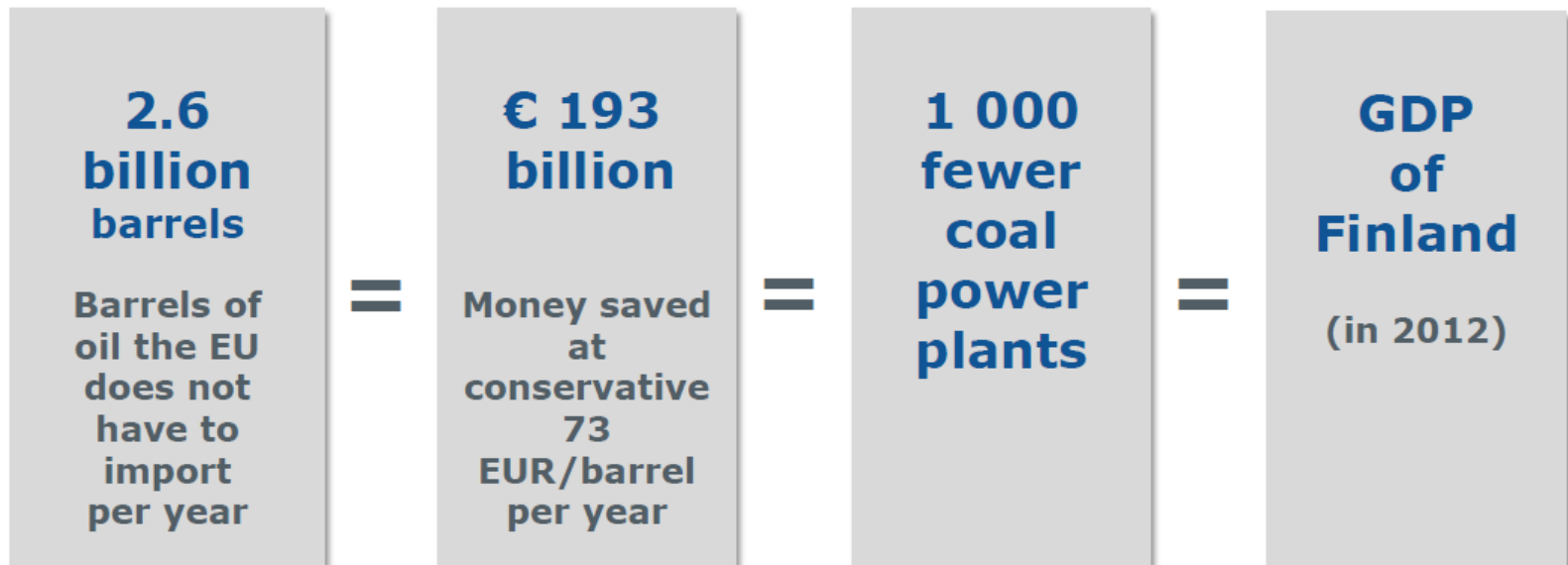
* Gross Inland consumption minus non-energy uses

A "no regrets" scenario for Europe



Benefits of boosting energy efficiency

Benefits of EU energy savings target of 20% by 2020



Presentation structure

- **Why?** Context, savings potential, objectives
- **How?** Legal instruments, funding
- **What?** Implementing measures, preparatory study



Four directives to grasp the potential in key sectors and the whole energy system



Past and current tools

Cohesion policy funds (2007-2013): *4,6 billion € for energy efficiency*

ELENA Facility: *97 million € for technical assistance to mobilise investments*

European Energy Efficiency Fund (EEE-F): *265 million € for investments into mature, bankable efficiency/renewables projects. 20 million € for technical assistance*

Intelligent Energy Europe Programme (2007-2013): *735 million € for 'soft' energy efficiency/renewables projects*

Next Multi-Annual Financial Framework (2014-2020) proposals

Cohesion funding to allocate some **17 billion € to energy efficiency and renewable energy** (doubling current allocations)

Horizon 2020: **6.5 billion €** is to be allocated to research and innovation in "**Secure, clean and efficient energy**"

Energy Efficiency Policy – Main Instruments

- **Energy Efficiency Directive 2012/27/EU** (integrating end use energy efficiency and energy services directive 2006/32/EC and cogeneration Directive 2004/8/EC)
- **Energy Performance of Buildings Directive** recast 2010/31/EU
- **Energy Labelling Directive** 2010/30/EU
- **Ecodesign Directive** 2009/125/EC

EED measures for buildings

*Directive 2012/27/EU: Entry into force in December 2012 -
Transposition deadline: 5 June 2014 (for most articles) and 5
December 2014 (for reporting on certain aspects)*

Building renovation

- by 04/2014 MS must make long-term strategies for mobilising investments for building renovation

Exemplary role of the public sector

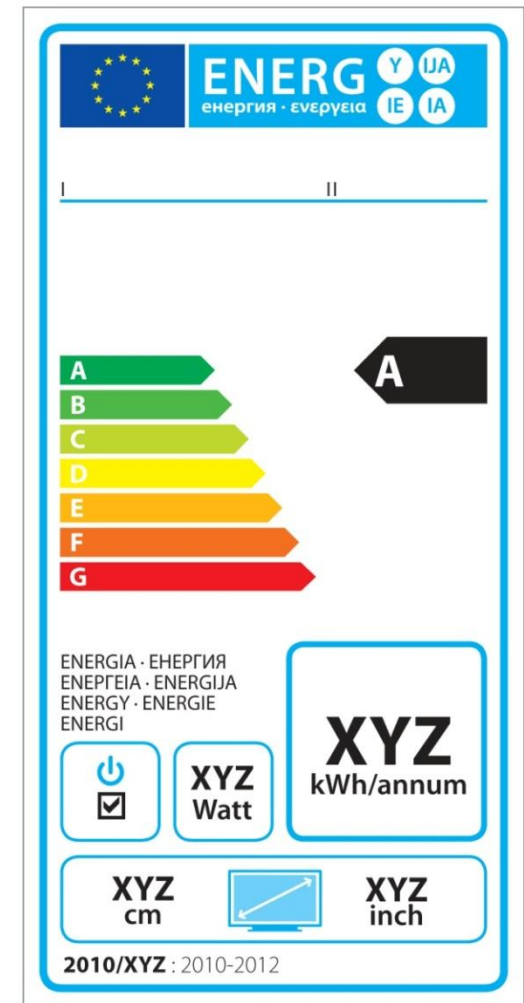
- MS must renovate 3% (by floor area) of their central government buildings per year or adopt measures to achieve equivalent energy savings in these buildings (voluntary for other authorities)
- Central government to purchase only products, services and buildings with high energy efficiency performance

Energy Performance of buildings

- Directive 2010/31/EU on the energy performance of buildings (recast) entered into force in July 2010, to be transposed by July 2012
- Minimum energy performance requirements to be set with a view to achieving cost optimal levels
- Minimum energy performance requirements apply to all new buildings and buildings undergoing major renovation (certain categories of buildings may be excluded)
- MS had until 21 March 2013 to calculate, compare and report to the Commission
- Equivalent level of ambition in Member States but no harmonisation

Energy Labelling Directive 2010/30/EU

- **Information requirements** on the consumption of energy and essential resources
- **Target:** end-users, public and private demand (installers)
- Lisbon Treaty: consultation of stakeholders but no Committee with a vote by Member States - EP and Council scrutiny
- Review 2014 (evaluation of impact on 2013/2014)



Ecodesign Directive 2009/125/EC

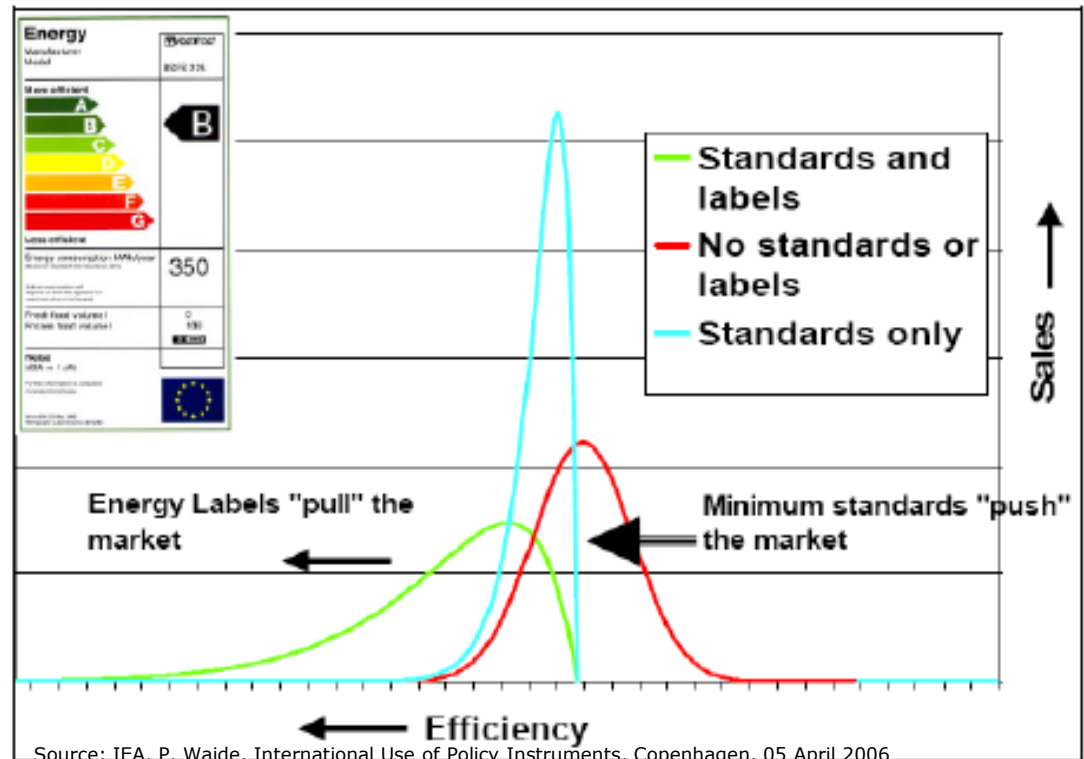
- EU's main legal instrument to improve the environmental performance of **energy-related products**
 - >> *ErP: means any good that has an impact on energy consumption during use which is placed on the market and/or put into service, and includes parts intended to be incorporated into energy-related products covered by this Directive which are placed on the market and/or put into service as individual parts for end-users and of which the environmental performances can be assessed independently*
- **Framework Directive** → requirements on product-by-product basis via:
 - >> Implementing measures, **or**
 - >> Voluntary agreements
- **Implementing measures only for products with:**
 - >> Significant environmental aspects
 - >> Significant potential for improvement
 - >> Significant trade and sales volume
(indicative threshold: 200 000 units per year)
- **Based on Life-cycle approach**

Ecodesign – Labelling Directives

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.

They are one of most effective policy tool for energy efficiency



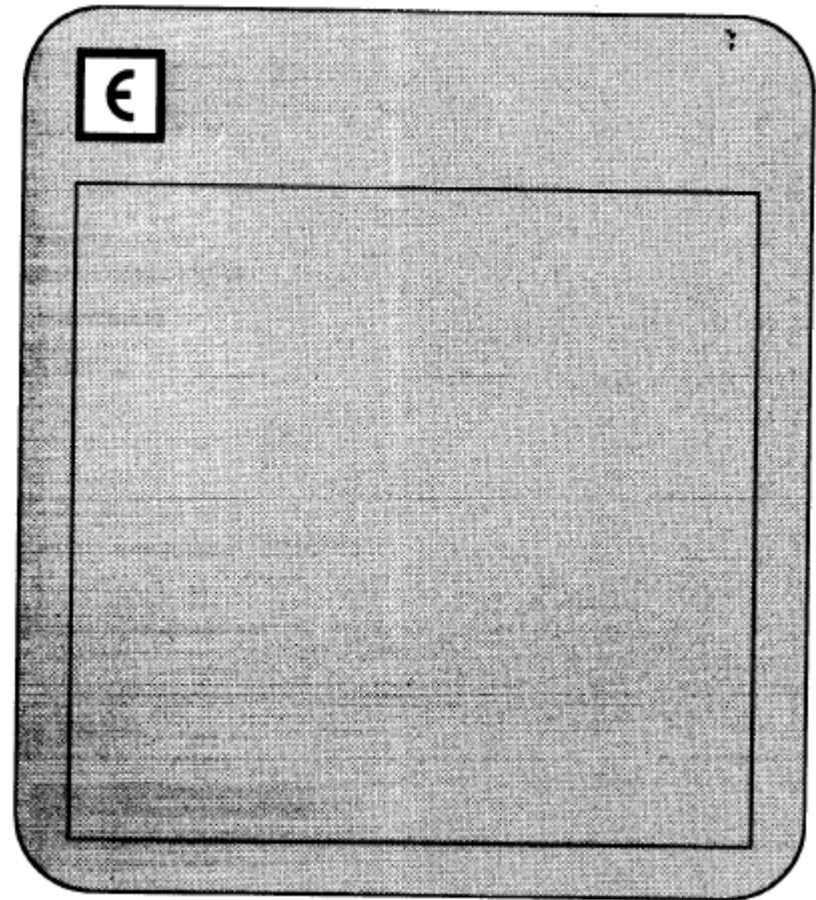
Review process

- **Broad review study started**
First stakeholder meeting 27 June 2013
- **Additional study on consumer understanding of the energy label to start soon**
- **Formal public consultation in the summer/fall 2013**
- **As regards Ecodesign aspects, Ecodesign Consultation Forum likely to be consulted in the course of 2014**
- **Studies to be finalised early 2014**
- **Commission review due end 2014**



European
Commission

Review process - distant past



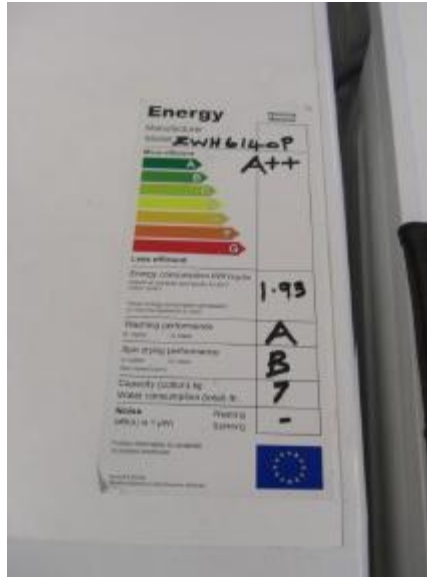


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Past



Energy		Washing machine
Manufacturer		
Model		
More efficient Less efficient		B
Energy consumption kWh/cycle <small>(based on standard test results for 60°C cotton cycle)</small> <small>Actual energy consumption will depend on how the appliance is used</small>		1.75
Washing performance <small>A: higher G: lower</small>		A B C D E F G
Spin drying performance <small>A: higher G: lower</small> Spin speed (rpm)		A B C D E F G 1400
Capacity (cotton) kg		5.0
Water consumption		5.5
Noise (dB(A) re 1 pW)	Washing	5.2
	Spinning	7.6
Further information contained in product brochure		



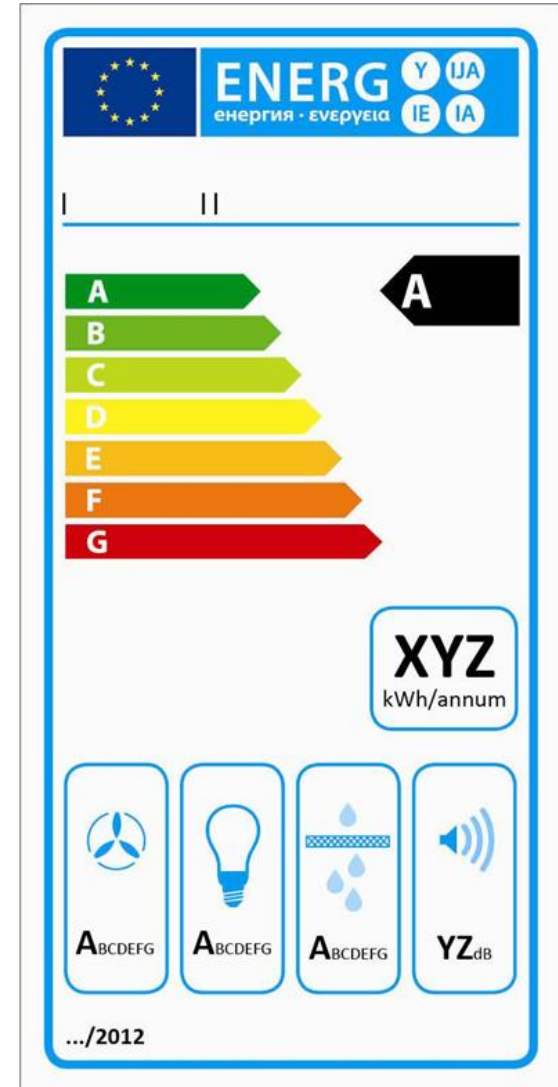
Ενέργεια		Ηλεκτρικός φούρνος
Προμηθευτής		Logo
Μοντέλο		ABC 123
Πιο αποδοτικό Λιγότερο αποδοτικό		B
Κατανάλωση ενέργειας (kWh) Λειτουργία θέρμανσης Συμβατική Με κυκλοφορία θερμού αέρα <small>(με βάση τυποποιημένο φορτίο)</small>		X.YZ X.YZ
Ωφέλιμος όγκος (λίτρα)		XYZ
Τύπος:	Μικρός Μεσαίος Μεγάλος	— — — ←
Θόρυβος (dB(A) ανά mW)		
Περισσότερες πληροφορίες στο ενημερωτικό φυλλάδιο		
Πρότυπο EN 50304 Ηλεκτρικοί φούρνοι Οδηγία 2002/40/ΕΚ για την επισήμανση της κατανάλωσης ηλεκτρικής ενέργειας		

Energy



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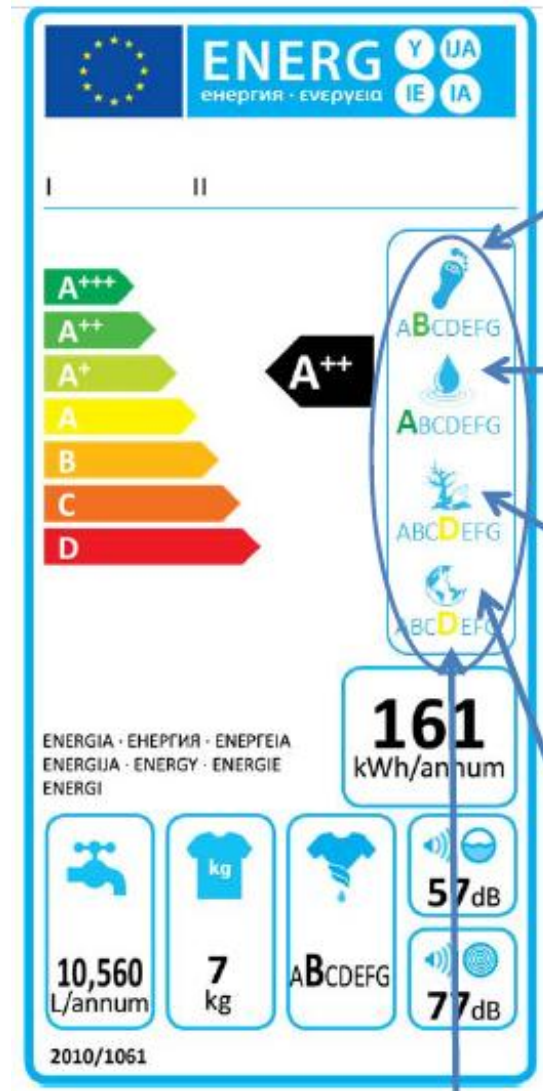
Present





European Commission

Future?



Presentation structure

- **Why?** Context, savings potential, objectives
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Ecodesign Implementing Measures

State of play on the identification of priority products

- **List of product groups following Article of 2005 Ecodesign Directive**

- **1st Ecodesign Working Plan 2009-2011 (adopted in 2008)**

- **2nd Ecodesign Working Plan 2012-2014 (adopted in December 2012)**

Ecodesign Implementing Measures

List of product groups following Article of 2005 Ecodesign Directive

8 product groups identified for the adoption of implementing measures in the transitional period between the entry into force of the 2005 Directive and the adoption of the first working plan (2009-2011)

- Heating and water-heating equipment
- Electric motor systems
- Lighting (domestic & tertiary sectors)
- Domestic appliances
- Office equipment (domestic & tertiary)
- Consumer electronics
- HVAC (heating/ventilating/air conditioning) systems (domestic)
- Electronics and electrical products operating in stand-by modes

Ecodesign Implementing Measures

1st Ecodesign Working Plan 2009-2011 (under 2005 Ecodesign Directive)

- air-conditioning and ventilation systems (commercial & industrial)
- electric and fossil-fuelled heating equipment
- food-preparing equipment
- industrial and laboratory furnaces and ovens
- machine tools
- network, data processing and data storing equipment
- refrigerating and freezing
- sound and imaging equipment
- transformers
- water-using equipment

Ecodesign Implementing Measures

2nd Ecodesign Working Plan 2012-2014 (under 2009 Ecodesign Directive)

This plan has direct implications on **labelling** as well given the complementary nature of the two Directives.

Study (finalised on 16 December 2011) to support the new Working Plan and to identify energy-related products (with significant savings potential, not covered earlier and according to criteria in the Ecodesign Directive). Savings potential for windows: 294 PJ by 2020, 785 PJ or 19 Mtoe by 2030.

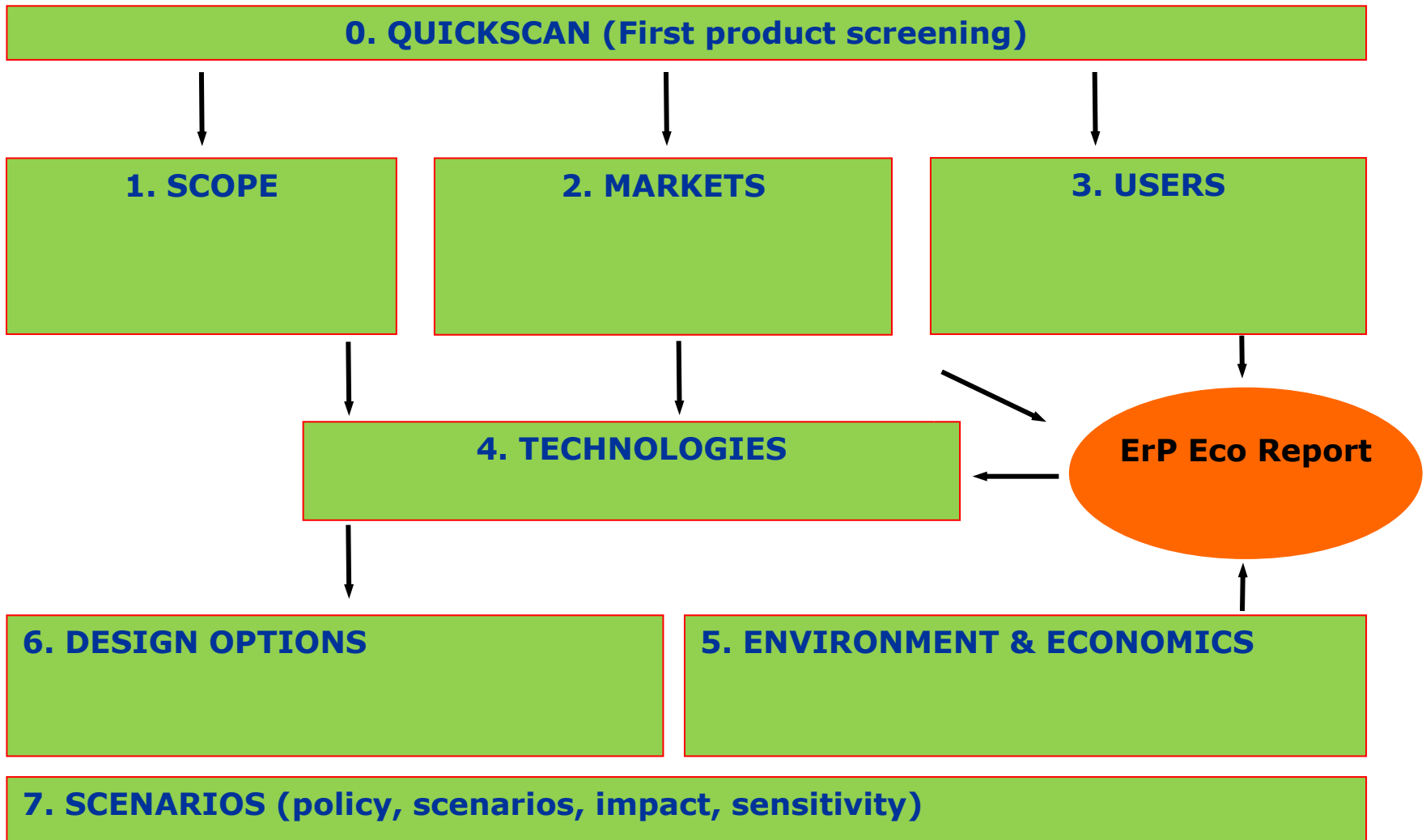
List of product groups based on qualitative assessment:

Windows products, steam boilers, power cables, enterprises' servers, storage and ancillary equipment, smart appliances/meters, wine storage appliances, water-related products, *positive displacement pumps, fractional horse power motors under 200W, heating controls, lighting controls/systems, thermal insulation products for buildings.*

Support to the preparation of implementing measures: Preparatory Studies - Methodology

- **Preparatory study** : technical, environmental and socio-economic analysis of product groups done by a Consultant with input from stakeholders
- **Study** followed an agreed methodology (MEErP - Methodology Study for the Ecodesign of Energy Related Products)

Methodology of Preparatory studies (“MEErP”)



Ecodesign and Energy Labelling Implementing Measures

39 'Lots' with some 50 product groups to carry out preparatory studies.

16 Ecodesign Regulations, 3 amending Regulations, 7 Energy Labelling Regulations, and 2 Voluntary Agreements have been adopted so far.

2013/2014 Objective

New implementing measures to be adopted corresponding to savings of some 550 TWh by 2020

Product	Estimated savings (annual by 2020) [TWh]
Standby	35
Simple set-top boxes	6
Street & Office lighting	38
External power supplies	9
Domestic lighting	37
Electric motors	135
Circulators	23
Freezers/refrigerators	6
Televisions	43
Washing machines	1
Dishwashers	2
Fans	34
Air conditioning and comfort fans	11
Water Pumps	3
Tumble Dryers	3
Directional & LED lighting	25
Complex set top boxes (VA)	6
Imaging equipment (VA)	6
Total [TWh]	423

Commercial catering products

- **Preparatory studies on domestic and commercial appliances (ovens, hobs, grills) finalised in 2011.**
- **Ecodesign Forum meetings in March 2011, April 2012 and July 2012.**
- **The Forum supported the development of implementing measures for domestic products:**
 - ecodesign measures for domestic ovens, hobs and range hoods;
 - labelling measures for domestic ovens and range hoods.
- **The Forum also agreed not to address currently commercial products due to the lack of data, available standards and measuring methods.**

Thank you for your attention

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