



Water and energy efficiency for water related products

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**Taps & Shower Ecodesign Preparatory Study,
1st stakeholder meeting, Barcelona 26th June 2013**

Content

- 1. Recent key policies on "water related products"***
- 2. Why water related products (e.g. taps and showers)?
(REMINDER)*
- 3. Update on what is the European Commission doing to deliver?*
- 4. What's in it for you?*
- 5. What could it mean in practice?*



1. Recent key policies on "water related products"

- *"A Blueprint to Safeguard Europe's Water Resources" (COM (2012) 673 final);*
- *"Working Plan 2012-2014 under the Ecodesign Directive" (SWD (2012) 434 final);*
- *"Ecolabel for Taps and Showers" positively voted by Ecolabel Regulatory Committee;*
- *more voluntary labelling schemes, in particular "CEIR Water Label" launched at European level.*

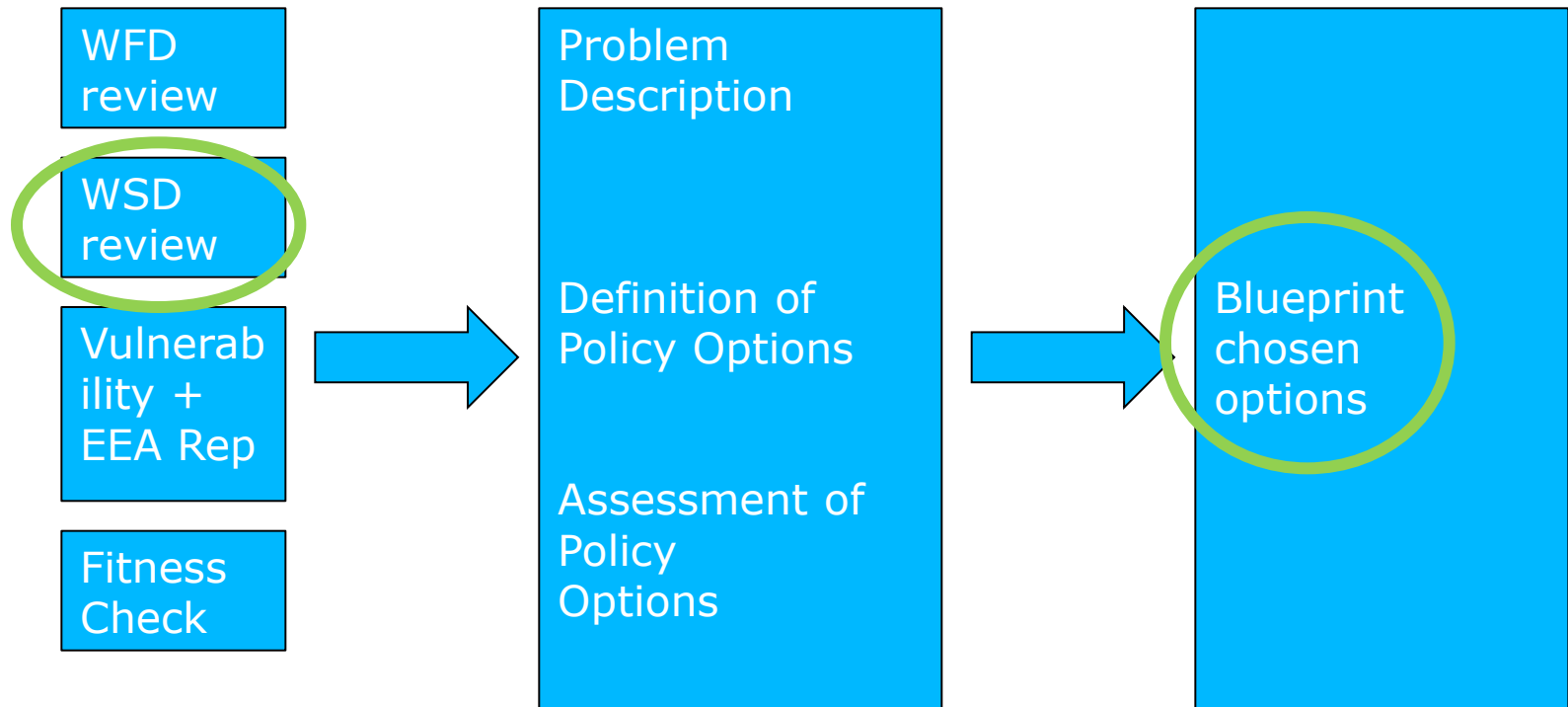
A Blueprint to Safeguard Europe's Water Resources

- *Clean water is part of the natural capital on which health, well-being, and our economy depend*
- *The Blueprint is the milestone for water on the Roadmap for a Resource Efficient Europe and contribute to growth and jobs in Europe. It includes:*
 - Review of Water Framework Directive implementation
 - Review Water Scarcity and Droughts policy implementation
 - Review of water resources vulnerability
 - Fitness Check of fresh water policy
 - EEA reports & other studies

Water scarcity and drought in the European Union

- Since 1980, the number of droughts in Europe has increased, and they have become more severe, costing an estimated €100 billion over the past 30 years.
- One of the worst droughts occurred in 2003, when one-third of EU territory and over 100 million people were affected.
- Between 1976 and 2006, the number of people and areas hit by drought rose by almost 20%, and the yearly average cost has quadrupled

Blueprint impact assessment



- Public consultation included 57 policy options

Blueprint impact assessment: 12 priority problems

1. Lack of water pricing
2. Lack of metering
3. Lack of labeling of traded goods
4. Land use/Agricultural impacts (NWRM)
5. Inefficiency in buildings/appliances
6. Inefficient water infrastructure
7. Lack of water re-use
8. Governance
9. Target setting
10. Drought management
11. Understanding costs and benefits
12. Knowledge base

Recommended policy option for water efficiency

- Enforce water pricing/cost-recovery obligations under the WFD, including metering when relevant
- Make water pricing/cost recovery an ex ante condition under the Rural Development and Cohesion policy funds
- Develop CIS Guidance on trading schemes and on a cost/benefit assessment
- Make water use reduction a pre-condition for some irrigation projects under Rural Development
- Develop CIS Guidance on water accounts (and ecological flow)
- Develop CIS Guidance on target-setting
- Include water-related products in the Eco-design Working Plan
- Develop voluntary EU Ecolabel and Green Public Procurement criteria for water related products
- Spread best practices/tools to achieve a sustainable economic leakage level.

Working Plan 2012-2014 under the Ecodesign Directive

Priority Products	Estimated energy savings potential (in PJ/year as of 2030)
Water-related products	885
Window products	785
Steam boilers ⁸ (< 50MW)	177
Power cables	182
Enterprises' servers, data storage and ancillary equipment	135
Smart appliances/meters	802

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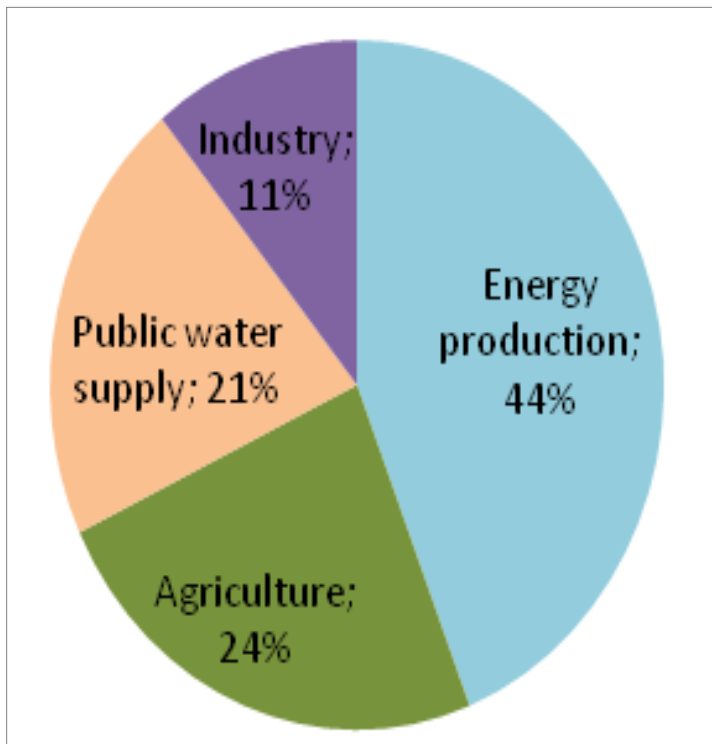
1. Why water using products (e.g. taps and showers)?

The evidence supporting the case for action:

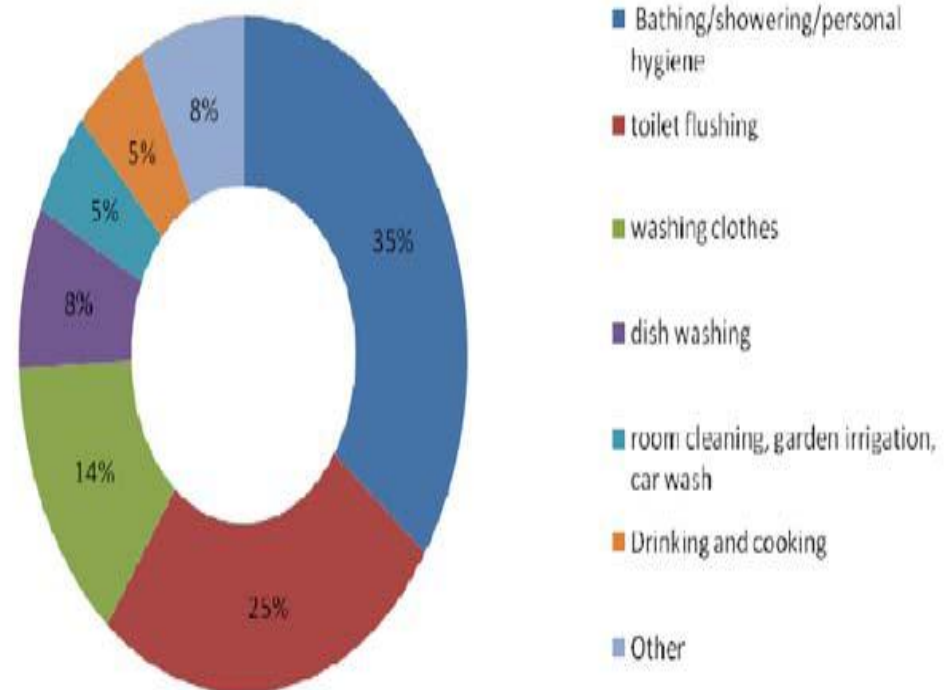
- *large potential for water savings;*
- *large potential for energy savings;*
- *market/information/policy failures; and*
- *some stakeholders and public support.*

Large potential for water savings

Water Abstraction per sector in EU



Residential Water Use in EU



Large potential for water savings

For showerheads:

- *Water saving of 25.2 L/property/per day*
- ***Water saving of 8%*** compared to total household water consumption.

For taps:

- *Water savings between 12 and 65L/day at home;*
- ***Water saving of 7 to 11.6%*** compared to total household water consumption.

For Toilets:

- *Water savings are high both in households and even more so in commercial/public buildings,*
- *e.g. Water saving of 3046 to 17043 L/property per day.*

Large potential for energy savings

Table 1 Estimated water and energy saving potential in EU 27

	Taps		Showerheads	
	Domestic	Non-domestic	Domestic	Non-domestic
Water [Mio. m ³ /year]	2 100	720	650	70
Energy [TWh/ year]	70	24	27	3

**Tot: 124
TWh/year
in 2020**

Source: <http://susproc.jrc.ec.europa.eu/ecotapware/>

**Tot: 245 TWh/year
in 2030**

Energy ranking #	Product group	Saving potential (PJ/year, 2030)	Conclusions	Final ranking	Suitable for energy labelling	Remarks
2	Taps and showerheads	885	The analysis indicates an opportunity for introducing EU Energy labelling	1	yes, labels exist	upgraded, because of large saving potential and opportunities for an energy rating scheme

Source: <http://www.ecodesign-wp2.eu/index.html>

What are 885PJ per annum?

- This equates, for example, to the entire annual (2010) energy consumption of Romania



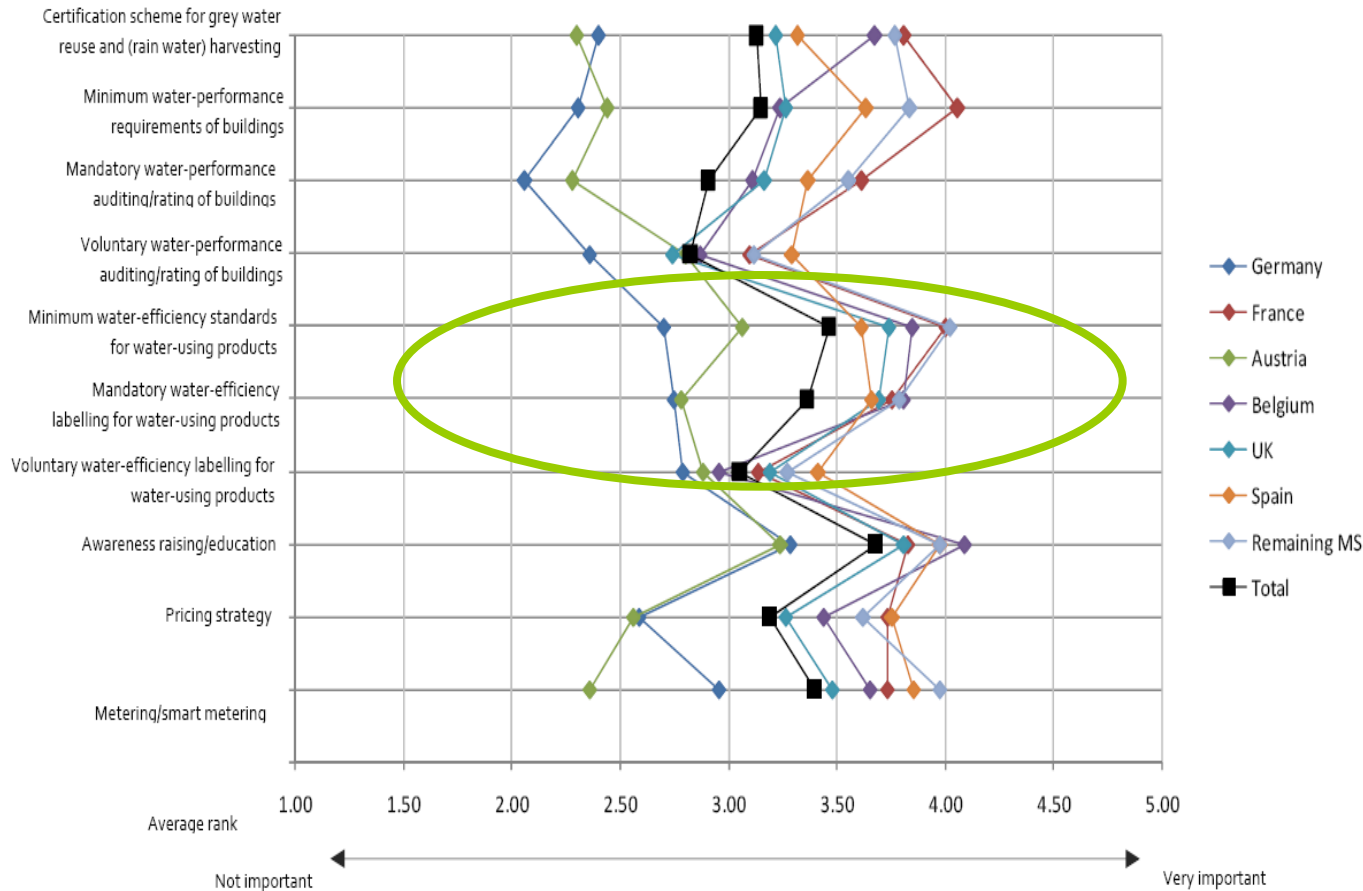
Market failures

- There are technologies already available to achieve such large savings which provide the same level of comfort to users.
- Aerators for example were found to **add only few Euros** to the upfront price of a tap/showers **while they can save hundreds of Euros** (in reduced energy and water bills) during the lifetime of the product.
- In general the **payback time** of more efficient technologies for taps and showers have been found to range **from 1 to 20 months** while the average life expectancy of these products is measured in years (16 and 10 years for domestic taps and showers respectively).



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Stakeholders and public support



Results of public Consultation on "Water efficiency in Building" project

Number of respondents: 465 out of 465

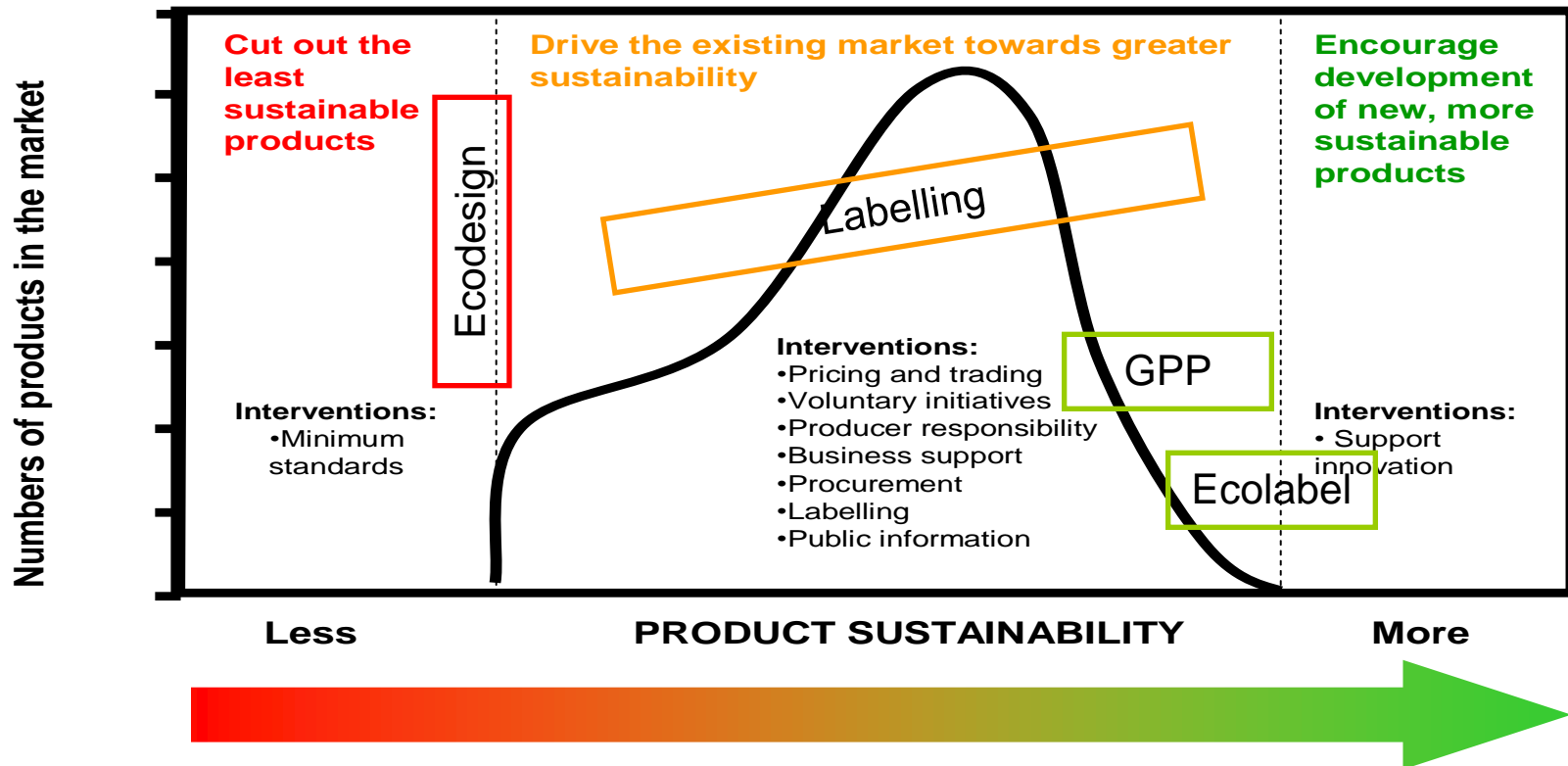
Source: http://ec.europa.eu/environment/consultations/pdf/WaterPerformanceBuildings_results%20of%20consultation2011..pdf

Figure 24: Results by MS to the question 'How important would the following policies and measures be as components of EU action on water efficiency in buildings?'

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Product policy: approach & examples



Water Related Products: Policies update

- EU Ecolabel
- EU Green Public Procurement
- Preparatory Studies for Ecodesign and (Energy) labelling



Adoption of EU Ecolabel

Taps & Showers:

- *successful vote in Reg Cmt in Nov 2012*
- *expected publication in Official Journal: 1st week June 2013*
- *criteria include: min & max water flow, temperature mgt, time control, quality and lifetime*

Toilets & Urinals:

- *expected vote in Reg Cmt: 20th June 2013*
- *expected publication in Official Journal: end 2013*
- *draft Criteria include: max water flow, quality, lifetime*

Adoption of Green Public Procurement

Taps & Showers:

- expected publication in Commission website: 1st week June 2013*
- criteria include: min & max water flow, temperature mgt, time control, quality and lifetime*

Toilets & Urinals:

- expected publication in Commission website: end 2013*
- draft Criteria include: max water flow, quality, lifetime*



Ecodesign & Labelling of energy and other resources

What does it mean being in the Ecodesign Working Plan?

- *does not mean that a particular policy and/or regulation is adopted or will be adopted;*
- *does means that "preparatory studies" are started to see what can be done to improve environmental performance (e.g. energy efficiency and water efficiency);*
- *the studies will collect evidence, explore policy options and recommend the best policy mix (ecodesign and/or labelling and/or self-regulation/voluntary measures), if any, to be deployed;*
- *studies are open to participation by all interested parties, citizens, businesses, NGOs and others;*
- *political decision on which further policies to deploy, if any, will be taken by the Commission at the end of the preparatory study and following further consultation with stakeholders on the specific proposal.*



Preparatory studies - Products & Tasks

Draft studies will be started for:

- a) Taps & Showers**
- b) Toilets & Urinals**

They will cover the following tasks:

- Task 1 – Scope**
- Task 2 – Markets**
- Task 3 – Users**
- Task 4 – Technologies**
- Task 5 – Environment and Economics**
- Task 6 – Design options**
- Task 7 – Scenarios**
- Task 8 - Recommendations**

Particular attention on completing previous studies (e.g. more information on users behaviours, impact on sewage)



Preparatory study - Timetable

JRC – IPTS, Seville (Olive Wolf) delivering study on behalf of DG Environment

Taps & Shower

- *Launched April 2013, register at http://susproc.jrc.ec.europa.eu/taps_and_showers/*
- *First questionnaire issued to all stakeholders;*
- *First "Kick off" meeting: 27th June 2013, Barcelona*
- *1st Technical Working Group: expected October 2013*
- *2nd Technical Working Group: expected March 2014*
- *Study completion: expected June 2014*

Toilets & Urinals

- *Study to be launched by end of 2013*

Possible future timetable

Subject to the results of the Preparatory study and further political decisions, the process for adoption of measures take roughly a further 1 year (from June 2014 end of prep study). Key steps in this process are as follows:

- Commission produces "working document(s)" for possible proposal(s);
- Official Ecodesign/Labelling "Consultation Forum meeting" consider working documents and provides comments;
- Commission draft Impact Assessment and successfully completes Impact Assessment Board;
- WTO notification (3 months, Ecodesign only);
- Commission adopts Delegated Act (Labelling) or call vote in Regulatory Committee (Ecodesign);
- European Parliament & Council have 3 month to scrutinise (support or oppose) the measure(s);
- Final publication of measures in Official Journal (e.g. summer/end 2015).

Normally any requirement(s) originating from any measures agreed does not "bite" until a further 12 months from publication in Official Journal (e.g. summer/end 2016)

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5. What's in it for you?

Societal and environmental benefits as well as consumer/users benefits are clear (e.g. save water, save energy, save resources, reduce costs, etc).

There are a number of possible benefits for industry too:

Possible benefits for industry

- increase future **market recognition** and therefore **greater competitive advantage** for those manufacturers that make the effort to differentiate their products and communicate it via voluntary labelling.
- In addition, possible **"first move advantage"** if, for example, mandatory labelling and/or minimum requirement policies are introduced
- greater future ability to **access "public procurement" market** across EU for those that meet GPP criteria
- greater future ability to benefits from **any national level incentives** that Member States may set up in this area (some MS, e.g. UK, have introduced such schemes)

Content

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Labelling Directive (2010/30/EU)

- *"the indication by labelling and standard product information of the consumption of energy and other resources by energy-related products"*
- Obligation to label how product perform, can continue to sell whatever you produce/procure;
- Only "in use phase" consumption of resources can be labelled;
- No possibility to label other "embedded" environmental impact;
- No possibility of Voluntary Agreement (even if their existence will be in Commission's mind in deciding whether or not to have mandatory label).



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Examples of recent Labels

The image displays four energy labels. The first three are standard EU energy labels for different appliances, each featuring a color-coded efficiency scale from A+++ (green) to G (red) and a specific energy consumption value (XYZ kWh/annum). The fourth label is a 'New Energy Label' for a Fujitsu air conditioner, which includes additional performance metrics: SEER (Seasonal Energy Efficiency Ratio) and SCOP (Seasonal Coefficient of Performance), both with their own efficiency scales and values. It also shows sound power level (00dB) and a map of Europe with a color-coded efficiency distribution.

Standard Energy Label 1: Energy class A, consumption XYZ kWh/annum. Includes icons for power, water, and weight.

Standard Energy Label 2: Energy class A++, consumption XYZ kWh/annum. Includes icons for water, weight, and noise.

Standard Energy Label 3: Energy class A++, consumption XYZ kWh/annum. Includes icons for water, weight, and noise.

New Energy Label (Fujitsu): Energy class A+, consumption XYZ kWh/annum. Includes SEER and SCOP scales, sound power level (00dB), and a European map.





Ecodesign Directive (2009/125/EC)

- *establishing a framework for the setting of ecodesign requirements for energy-related products"*
- Need to meet the requirement(s) set in Ecodesign in order to be allowed access to single market (CE based)
- Do not need to label the products (just include CE marking)
- Possible types of requirements:
 - Generic requirements
 - Specific performance requirements
 - Information requirements
- Can impose requirement on all significant impacts of a product over the life cycles (include "embedded" impacts) provided they are verifiable/enforceable
- Voluntary Agreement should be preferred if industry come forward with such agreement that meet specific requirements (Annex VIII "Self-Regulation")



***Thank you
for your attention***

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