

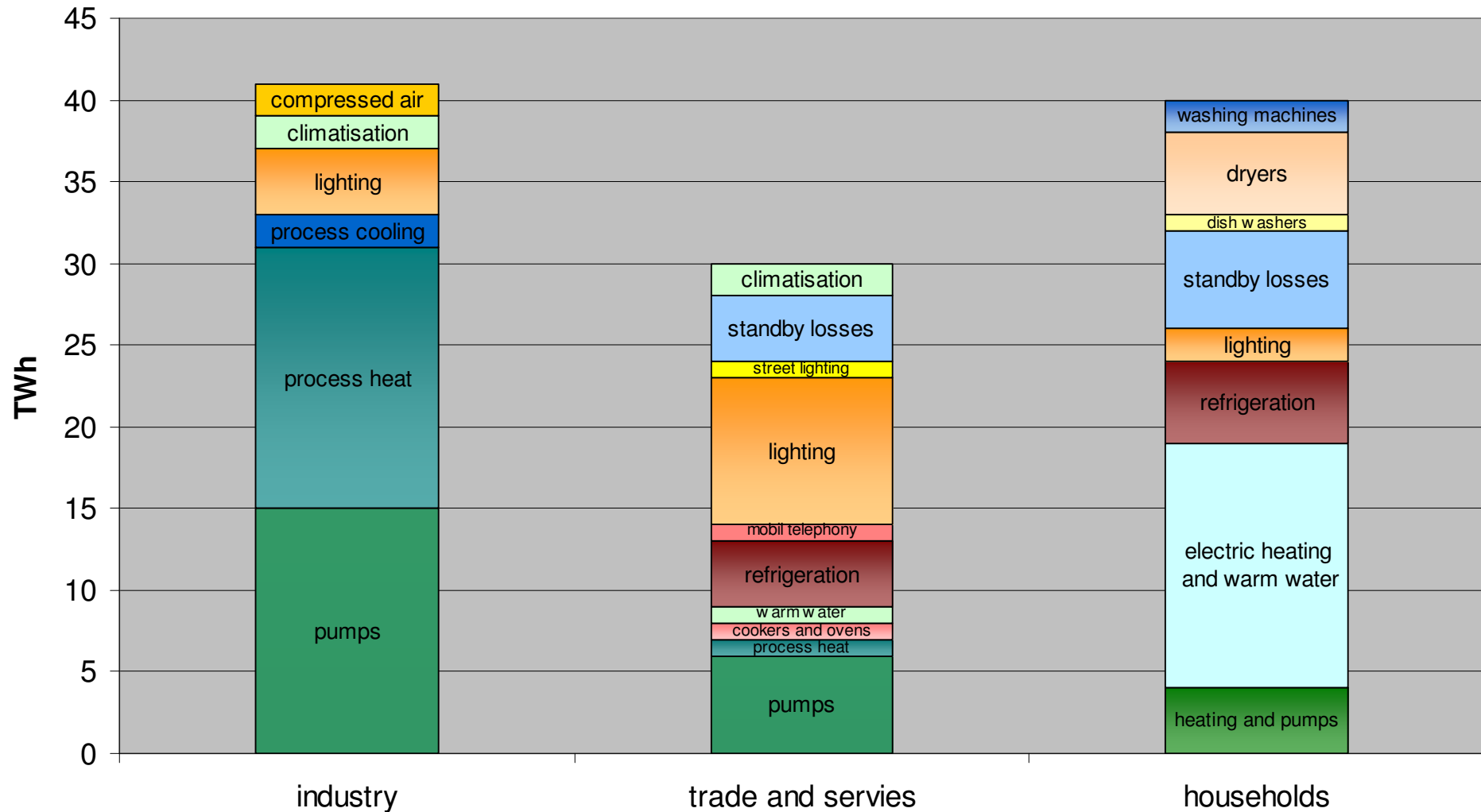
EuP: status of implementation and approach of German government

Ines Oehme (Federal Environment Agency, Section III 1.3
Ecodesign, Environmental Labelling, Environmentally Friendly Procurement)

outline

- 1. Introduction**
- 2. EuP directive and EuP-law in Germany**
- 3. Procedure of legislation**
- 4. Methodolgy**
- 5. Impact**

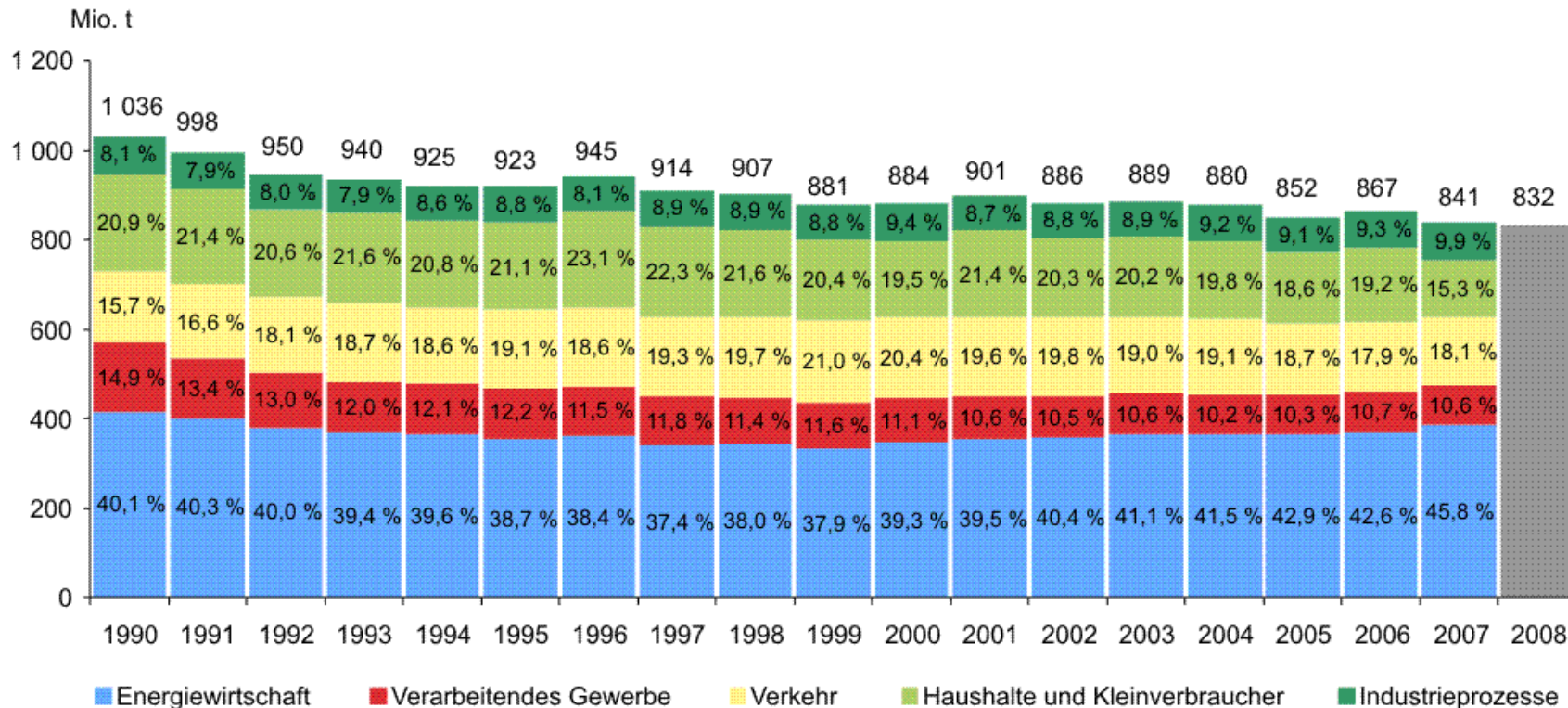
Potentials for saving electricity Germany in 2015



source: UBA 2007, „Saving electricity: less costs, less power plants, less CO2“

CO₂-Emission Germany

Emissionen von Kohlendioxid (CO₂) nach Quellkategorien



Kohlendioxidemissionen: ohne Landnutzung, Landnutzungsänderung und Forstwirtschaft

2008: Vorläufige Angabe auf Grundlage vereinfachter Berechnungen

Verkehr: ohne land- und forstwirtschaftlichen Verkehr

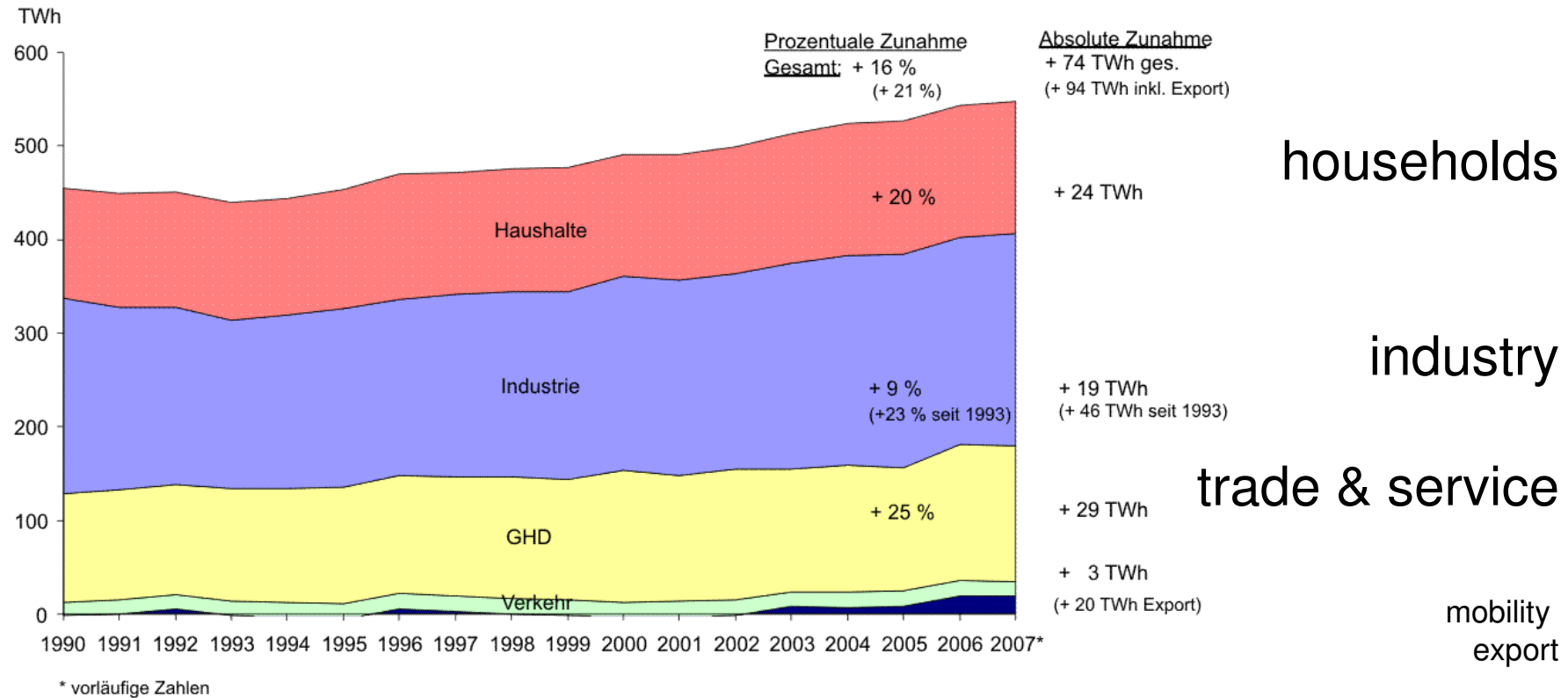
Haushalte und Kleinverbraucher: mit land- und forstwirtschaftlichem Verkehr sowie Militär

Lösemittel und andere Produktverwendung: Die Emissionen dieser Quellgruppe können in der Grafik nicht ausgewiesen werden und machen 0,2 % bis 0,3 % aus

Quelle: Umweltbundesamt, Nationale Trendtabellen für die deutsche Berichterstattung atmosphärischer Emissionen seit 1990, Emissionsentwicklung 1990-2007 (Endstand 12.11.2008) und Presseinformation 16/2009 vom 29.03.2009

Electricity Use in Germany

Entwicklung des Stromverbrauchs (Endenergie) von 1990 bis 2007



Quelle: AGEB, Auswertungstabellen zur Energiebilanz für die Bundesrepublik Deutschland, Stand 7.7.2008; AGEB, Jahresbericht Energiebilanz in Deutschland im Jahr 2007

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Legislation

- DIRECTIVE 2005/32/EC establishing a framework for the setting of ecodesign requirements for energy-using products, as amended 2008/28/EG
- Law regarding ecodesign of energy using products (Gesetz über die umweltgerechte Gestaltung energiebetriebener Produkte – EBPG - vom 27. Februar 2008 (BGBl. I S. 258))

Objectives of the EuP directive

- Improvement of energy efficiency and overall environmental impacts of energy using products
- Taking into account the whole of their life cycle
- By setting ecodesign requirements
 - Administrative law: implementing measures (mainly directives or regulations)
 - Voluntary agreements or other self-regulation matters

Scope of the EuP directive

- 'Energy-using product' or 'EuP' means a product which is dependent on energy input (electricity, fossil fuels and renewable energy sources) to work as intended, or a product for the generation, transfer and measurement of such energy
- EuP directive does not apply to means of transport for persons or goods
- Framework directive -> product specific implementing measures, if
 - significant volume of sales and trade, indicatively more than 200.000 units a year within the Community,
 - significant environmental impact,
 - significant potential for improvement in terms of its environmental impact without entailing excessive costs.
- Harmonisation of national laws -> Article 95 EC Treaty

Further development

Directive
2005/32/EG

energy using products

- boiler
- pc, laptop
- motors
- lighting
- ...

Recast
2008/0151(COD)

energy related products

- insulation
- tyres
- windows
- shower heads or
taps
- ...

Review
not later than 2012

Assess appropriate- ness of extending to non energy related products

- textiles
- building products
- furniture
- ...

EBPG regulates

- Placing on the market/putting into service of EuPs, covered by implementing measures
- Conformity assessment, declaration of conformity, CE conformity marking
- Market surveillance -> federal states
- Penalties

EBPG

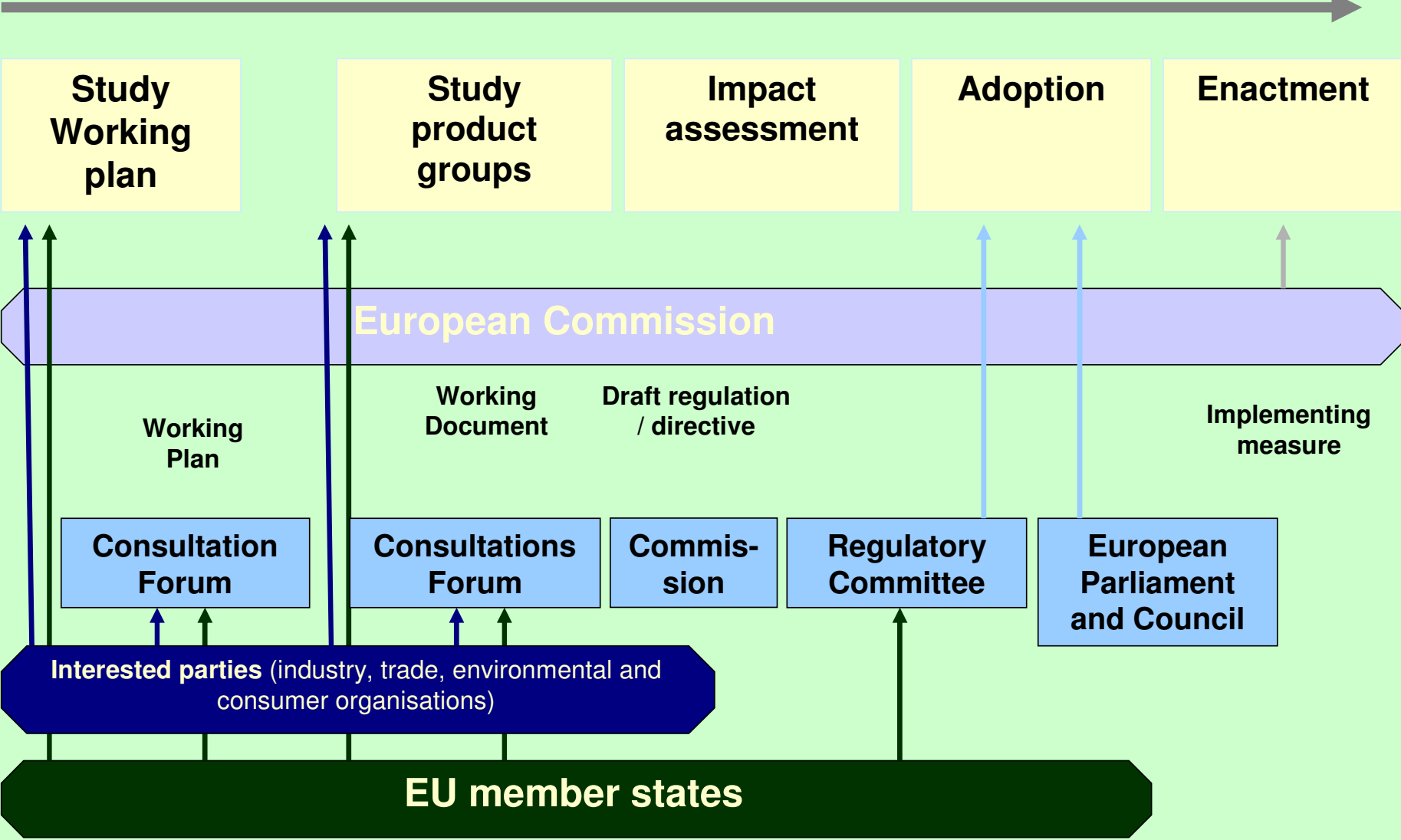
- Responsible authority: Federal Institute for Materials Research and Testing (Bundesanstalt für Materialforschung und -prüfung – BAM)
 - Informs the commission about results of the market surveillance
- Further tasks (§ 12 EBPG)
 - Supports economy by information: www.ebpg.bam.de
 - Supports authorities of federal states for development and implementation of a market surveillance concept as well as in technical and scientific questions,
 - For these tasks BAM cooperates with Federal Environment Agency (Umweltbundesamt – UBA).

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Process and stakeholders

time

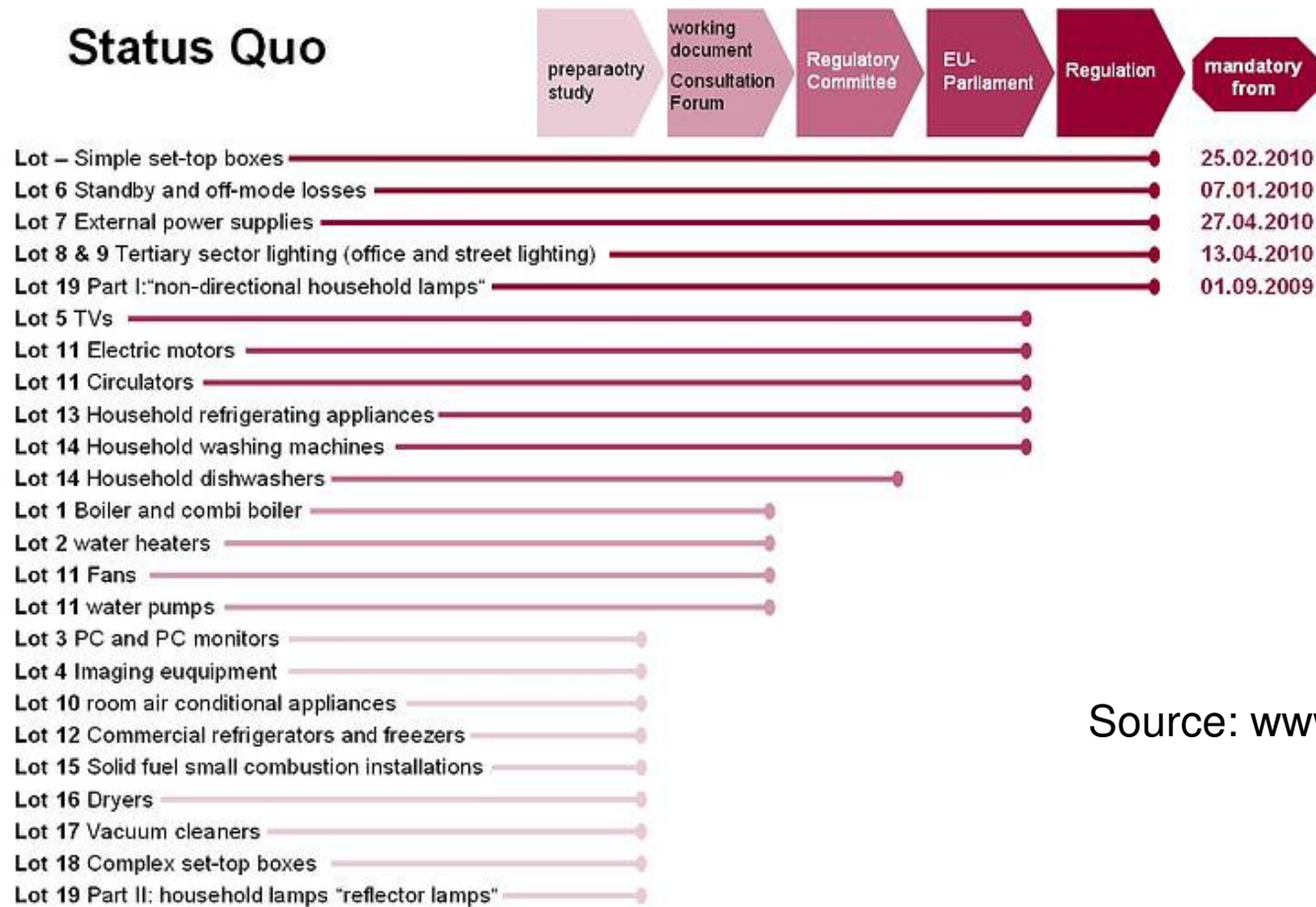


German „Consultation Forum“

- As soon as the commission provides a working document and invites to the consultation forum
- BAM invites stakeholders in Germany to a consultation forum at national level (hearing)
- BAM and UBA prepare a statement to the commission in accordance with the Ministry of economy and the Ministry of Environment and present it at the consultation forum at EU level

Status

Status Quo

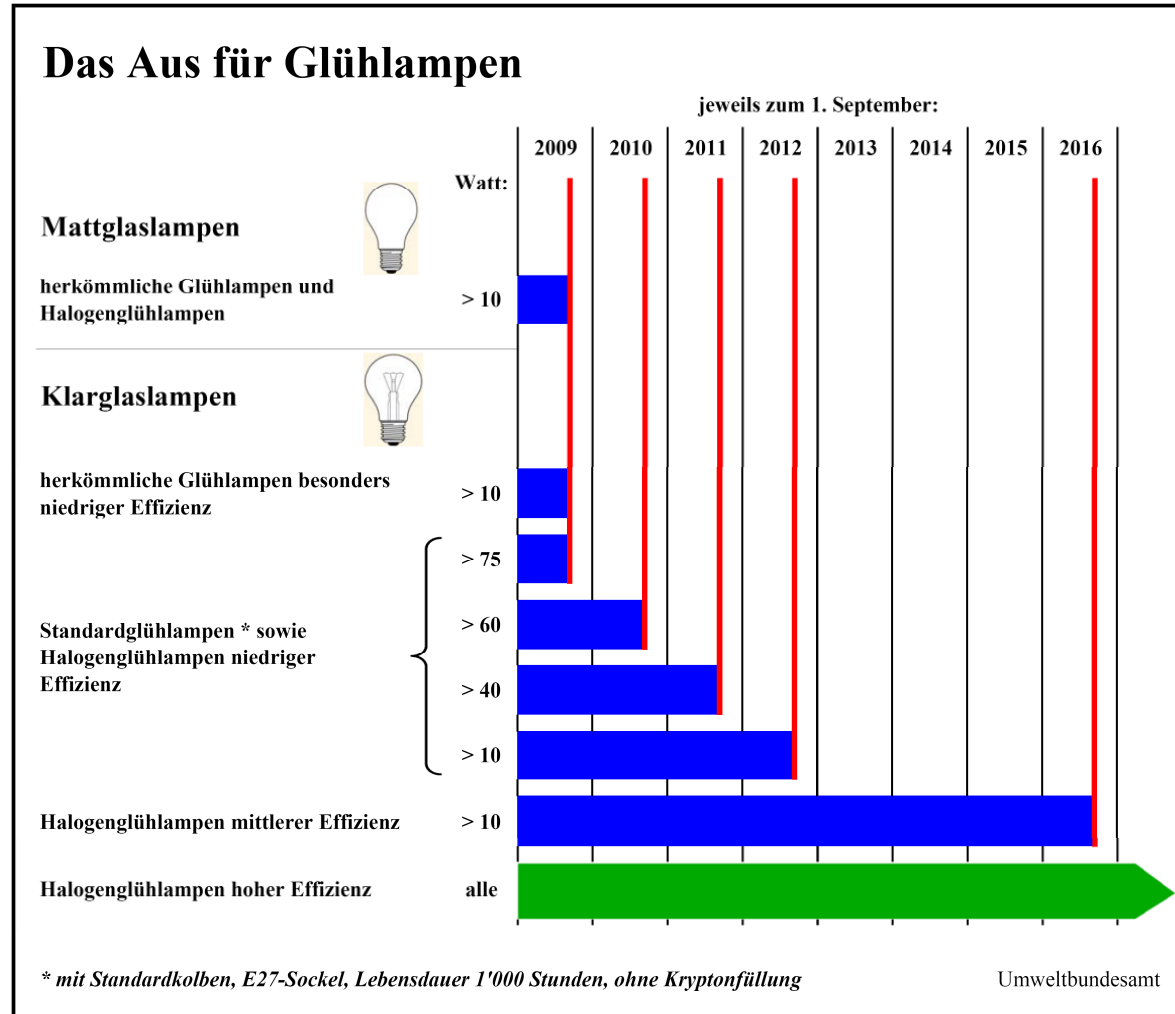


Source: www.eup-network.de

Implementing Measure

- Specific ecodesign requirements
 - Energy efficiency: limiting values for power input per function (e.g. standby, television), energy efficiency index (e.g. refrigerators) or efficiency factor
 - Limit values for harmful substances or pollutants, e.g. limiting values for NOx-emissions in case of boilers
 - Functionality requirements, e.g. lighting: rated lamp lifetime, number of switching cycles, starting time
- Generic ecodesign requirements
 - any ecodesign requirement based on the ecological profile as a whole of an EuP without set limit values for particular environmental aspects.
- Product information (product, packaging, technical documentation, web sites)

EuP does not ban techniques, however efficiency requirements may phase out certain techniques



Working Plan 2009-2011 (communication KOM(2008) 660)

- Air-conditioning and ventilation systems;
- 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 equipment;
- Sound and imaging equipment;
- Transformers;
- Water-using equipment.

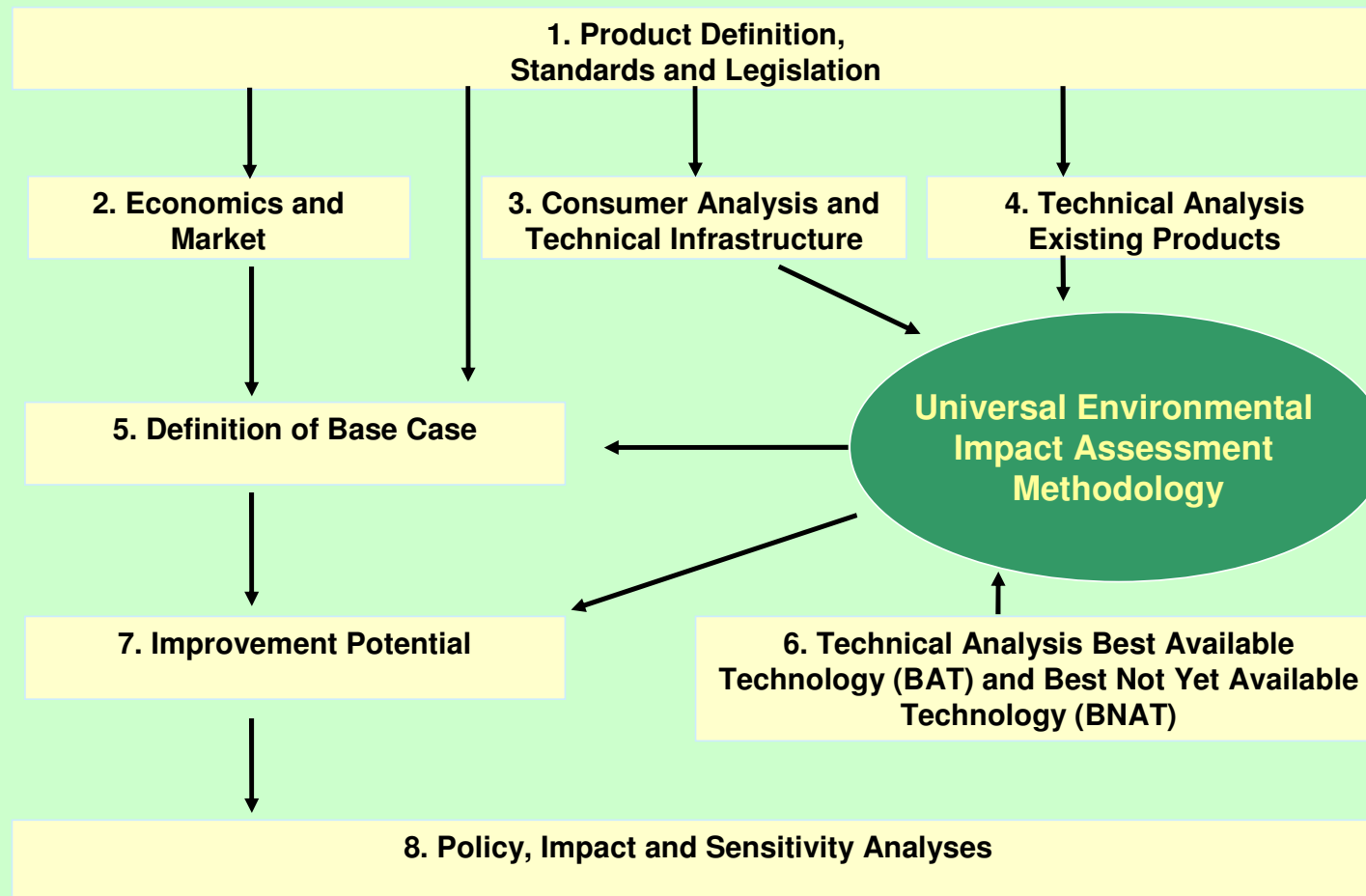
Preparatory Studies

- ENTR 1: Refrigerating and freezing equipment
- ENTR 2: Distribution and power transformers
- ENTR 3: Sound and imaging equipment
- TREN 20: Local room heating products
- TREN 21: Central heating products using hot air to distribute heat (other than CHP)
- TREN 22: Domestic and commercial ovens (electric, gas, microwave), including when incorporated in cookers
- TREN 23: Domestic and commercial hobs and grills, including when incorporated in cookers
- TREN 24: Professional washing machines, dryers and dishwashers
- TREN 25: Non-tertiary coffee machines
- TREN 26: Networked standby losses of EuPs
- TREN 27: Domestic uninterruptible power supplies (UPS)

outline

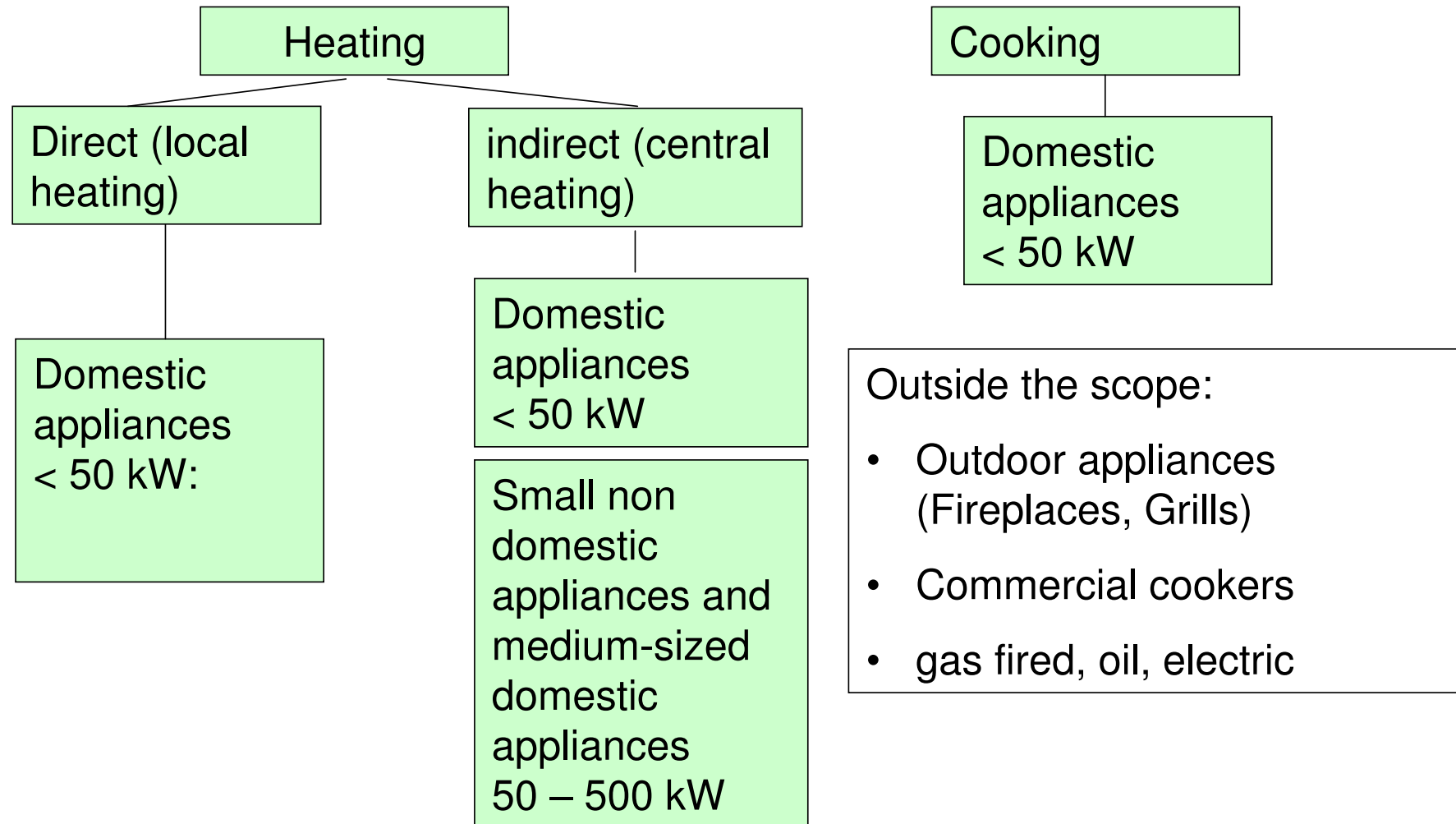
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Methodology

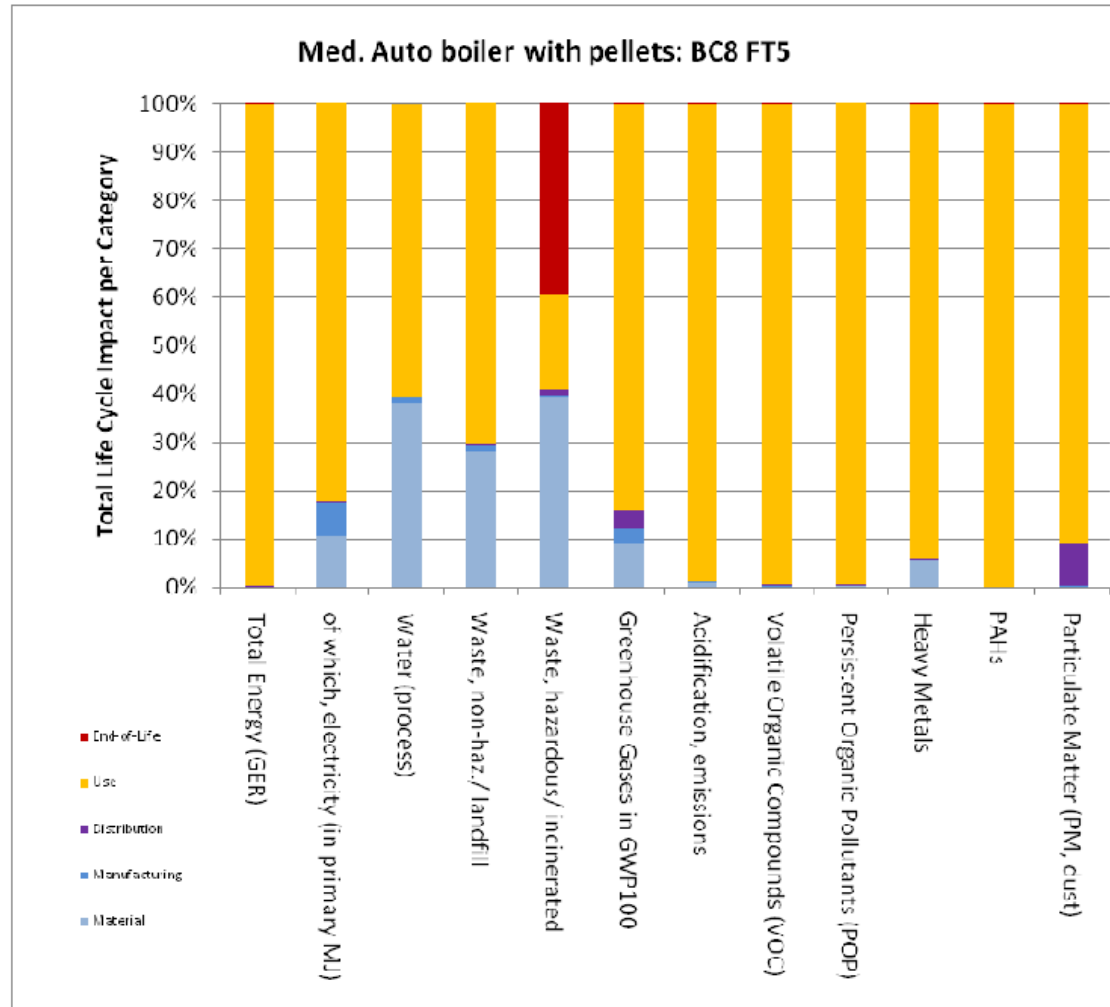


MEEuP Methodology Report, page 18

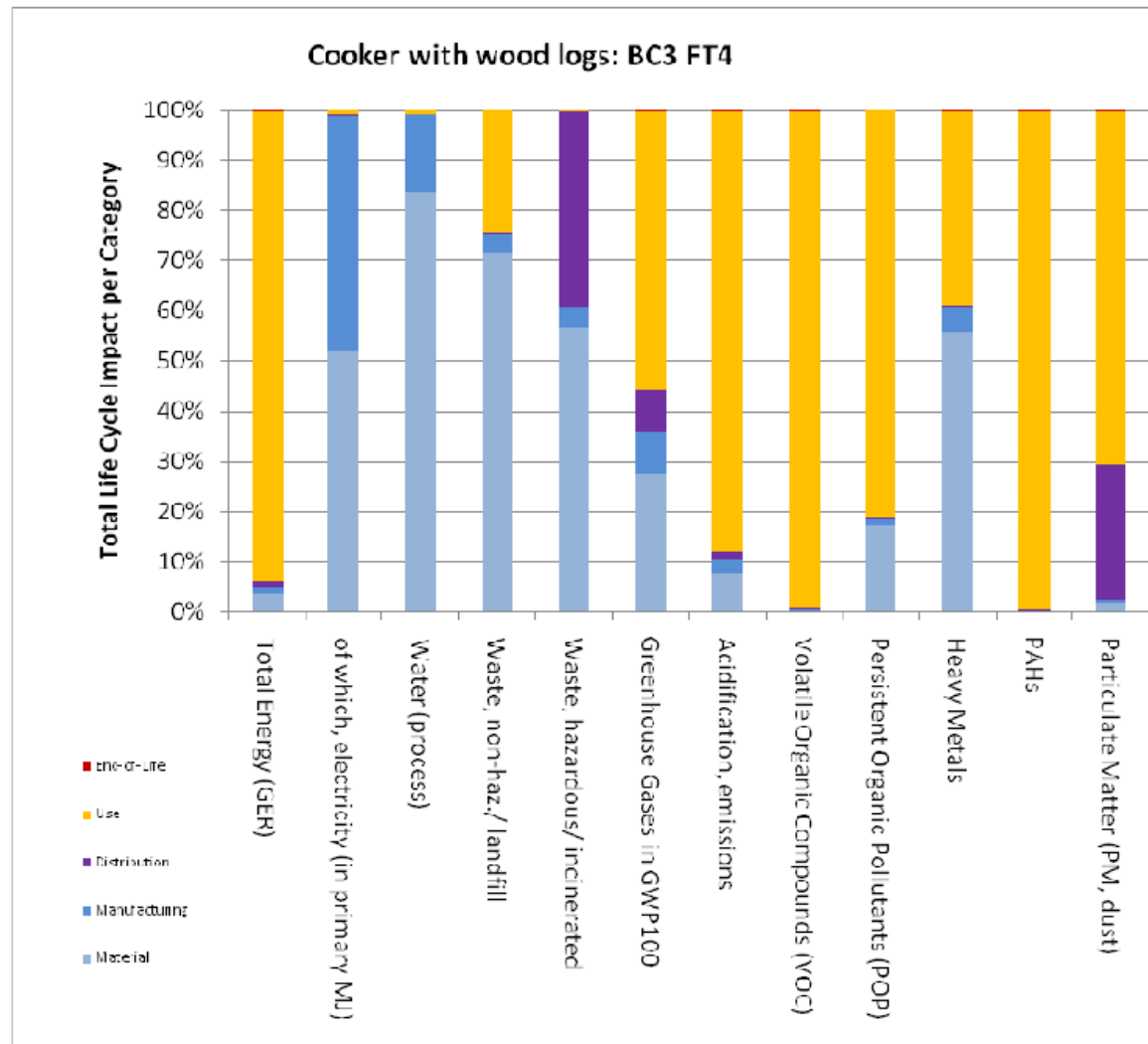
Solid fuel small combustion installations



Example: Result EuP Eco-report



Example: Result EuP Eco-report



Life Cycle Cost Analysis

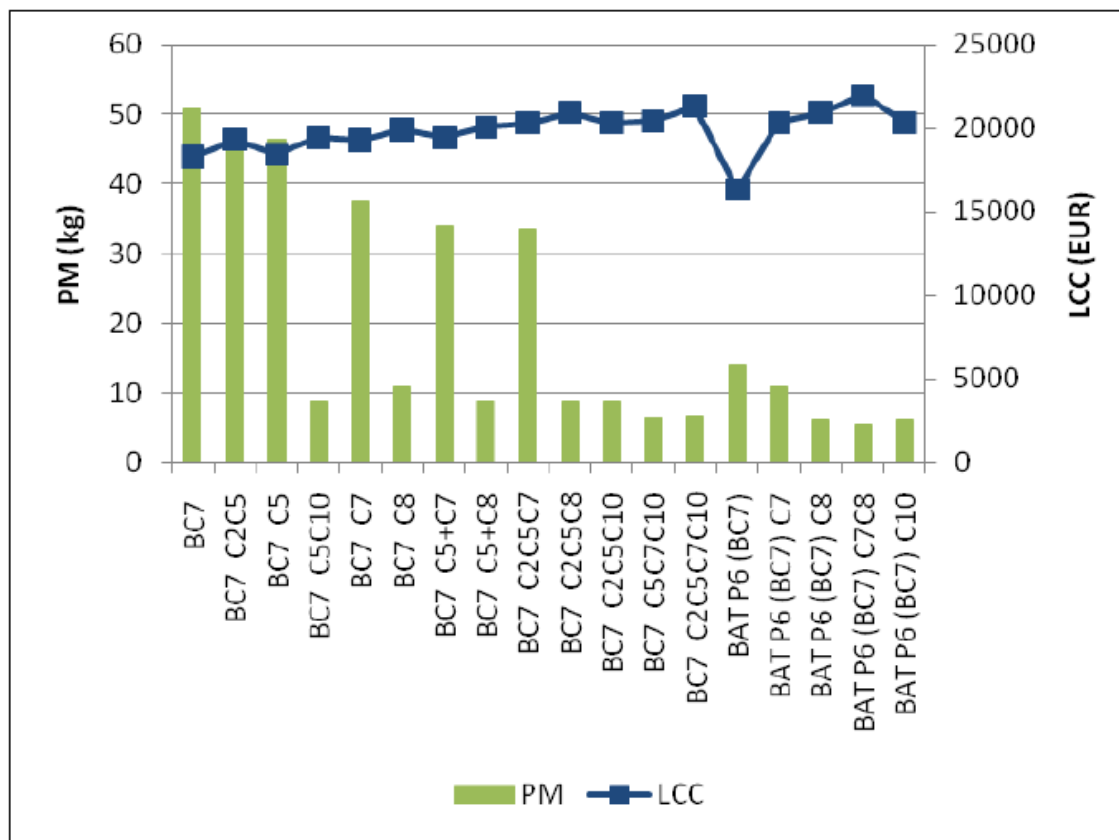


Figure 7-15: BC7: small automatic boiler with pellets – Total life cycle cost (LCC) and BAT (in terms of PM) per option

LLCC options

Table 7-21: Overview of the LLCC options for each base case

Base case	Least life cycle cost improvement option	Life cycle costs reduction potential	Life cycle energy reduction potential
BC1: Open fireplace (wood)	BAT P1: Fireplace insert (wood)	43%	89%
BC2: Closed fireplace (wood)	BAT P1: Fireplace insert (wood)	10%	30%
BC3: Traditional cooker (wood)	BAT P2: Advanced cooker (wood)	6%	33%
BC4: Traditional stove (wood)	BAT P4: Pellet stove (pellet)	29%	74%
BC5: Modern stove (wood)	BAT P4: Pellet stove (pellet)	29%	74%
BC6: Small manual boiler (wood)	BAT P5: Downdraught boiler (wood)	12%	20%
BC7: Small automatic boiler (wood)	BAT P6 : Pellet boiler (pellet)	11%	15%
BC8: Medium automatic boiler (wood)	BAT P8: Downdraught gasifying boiler (lignite)	5%	8%

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Impact

- Major Savings will provide implementing measure for boiler and water heaters: 5 percent of CO₂-Emissions of EU!
 - = quarter of EU-target: 20 percent reduction in CO₂ till 2020!!!
- Other already decided implementing measures (regulatory committee or already enacted) – only electricity using products:

Energy use (TWh) of concerned products		Saving compared to trend		Saving compared to 2005	
2005	2020 (Trend)	TWh	CO ₂ -Äq Mt	TWh	CO ₂ -Äq Mt
1716	2053	339	80	2	2
	+20%	-16% zum Trend ~ 12% des Stromverbrauchs 2005		0% zu 2005!	

Example Television

■ units

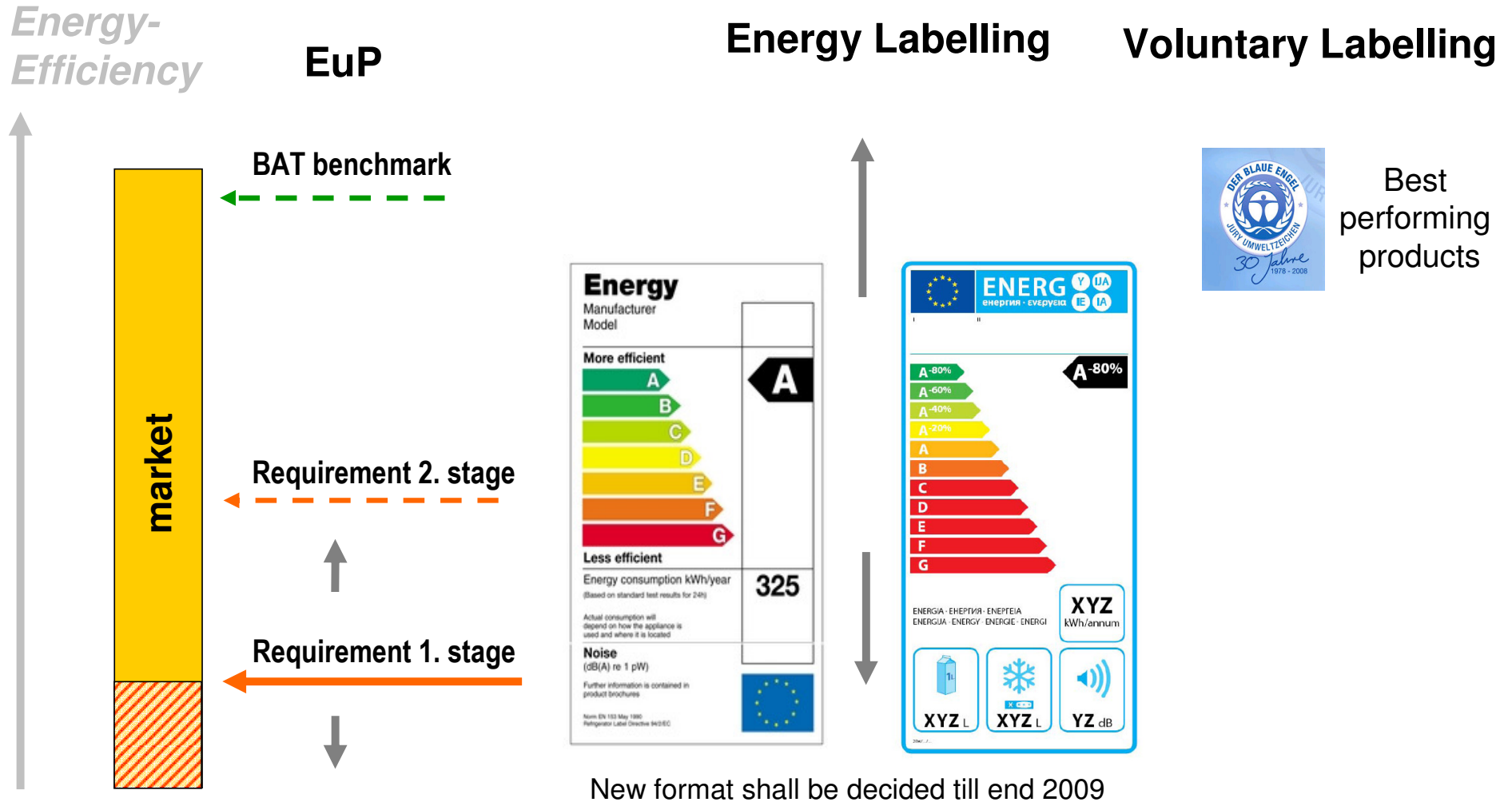
	2005	2010	2020	Increase 2020 compared to 2005
units	275.922.000	391.512.000	410.800.000	134.878.000

■ Saving Potential

Energy Use (TWh)		Saving compared to trend	
2007	2020 (Trend)	TWh	CO ₂ Mt
60	132	43	17,2

In absolute terms increase of 29 TWh

Mix of Instruments to establish a European Top Runner System



Information

- www.ebpgg.bam.de
- www.eup-netzwerk.de
- www.umweltbundesamt.de/produkte/oekodesign/index.htm