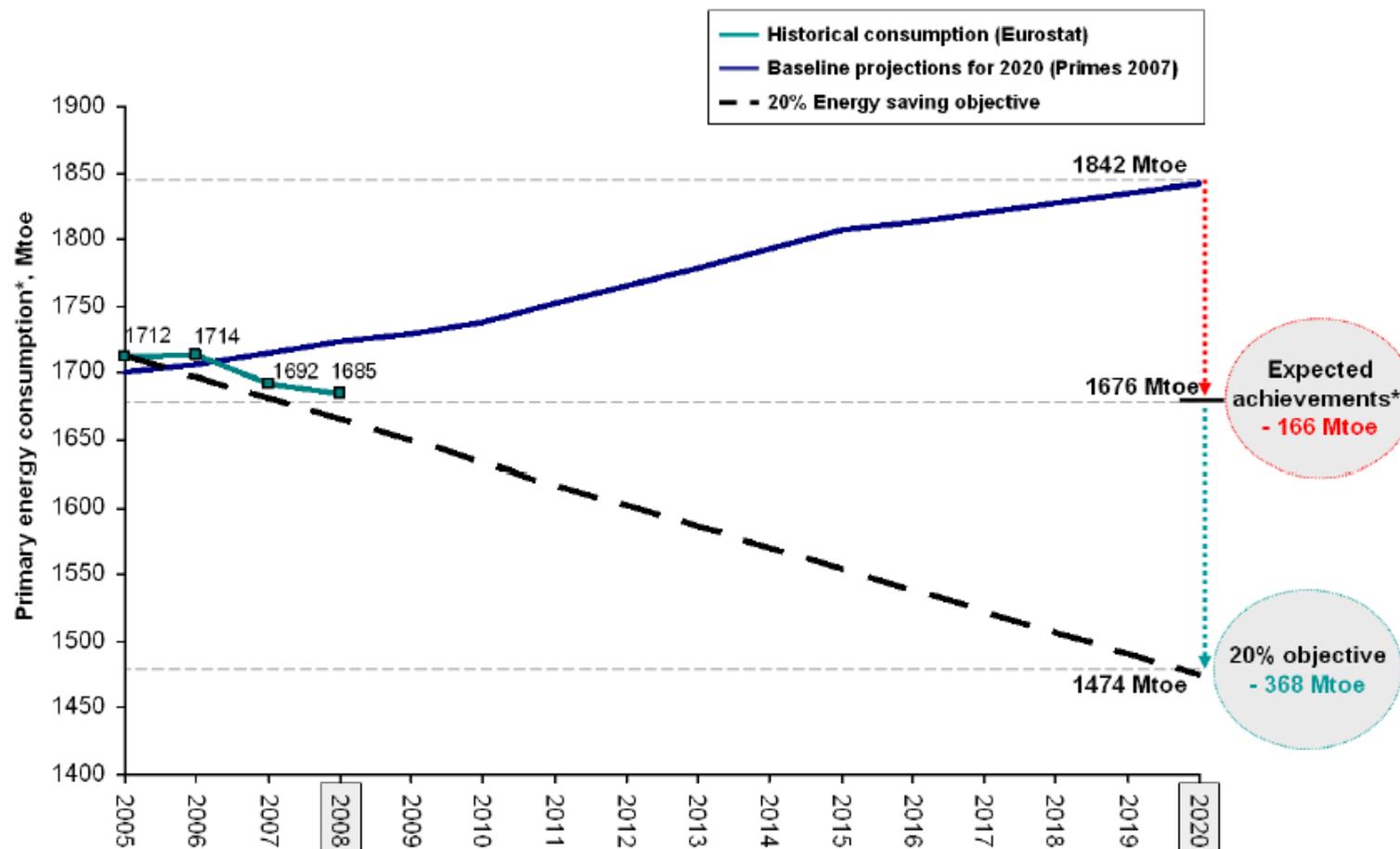


# The energy-relevant EU-Top-Performer-Products A contribution to achieve the EU 2020 goals

# Political Context: COM(2010) 639

20% energy saving objective  
vs. expected achievements of some major EEAP energy efficiency policies  
adopted until 2009 as projected by the energy model PRIMES



\* Gross inland consumption minus non-energy uses

\*\* Reflecting the impact of some major EEAP energy efficiency policies implemented until December 2009 as projected by the Energy Model Primes

# Political Context

- COM(2010) 639:

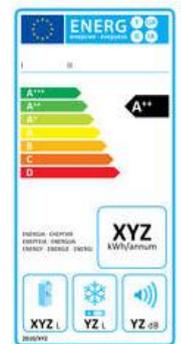
“Europe cannot afford to waste energy. Energy efficiency is one of the central objectives for 2020 as well as a key factor in achieving our long-term energy and climate goals.”

- Council Transport, Telecommunications and Energy 28.02.2011- Conclusion:

**“We must step up measures and make progress in terms of eco-design and also labelling in energy use“**

# Instruments

- Minimum Energy Performance Standards (MEPS) established under the **Ecodesign Directive** (2009/125/EG) that phase out inefficient products from the market.
- The **Energy Labelling** (Directive 2010/30/EG) informs consumers about the energy efficiency of products.
- Standards for public procurement and voluntary labels give incentive for manufactures to design more efficient products.



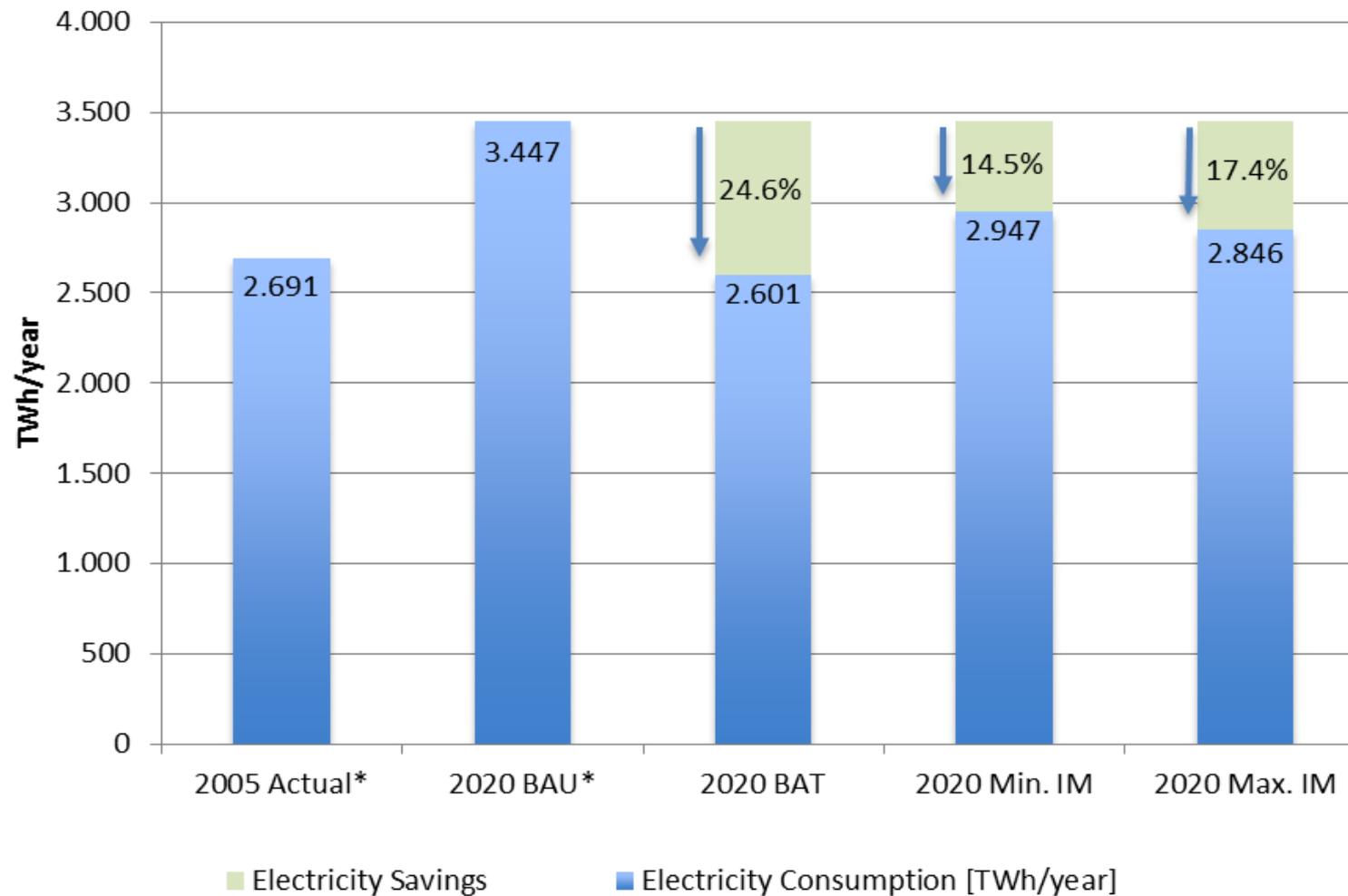
# Conclusions so far

- ✓ Product Policy can provide a major contribution to energy efficiency.
- ✓ For the field of energy related products the EU has established instruments which aim at improving the market penetration of efficient products.
- ✗ **However**, the EU product policy mix needs to use **a more dynamic and interactive system of incentives and requirements** to boost the best and most energy efficient products available on the market.

# The Ecodesign and Energy Labelling Directives: Apply the existing instruments, make them dynamic for continuous improvement and provide interaction between them

- (Ideas on the) The way forward in line with Art. 15 (5) Ecodesign Directive could include:
  - Ambitious ecodesign requirements,
  - A stronger role of benchmarks,
  - Pre-defined reference marks,
  - Consistent interaction of MEPS and the energy label.

# Final electricity consumption of product groups selected under the Ecodesign Directive

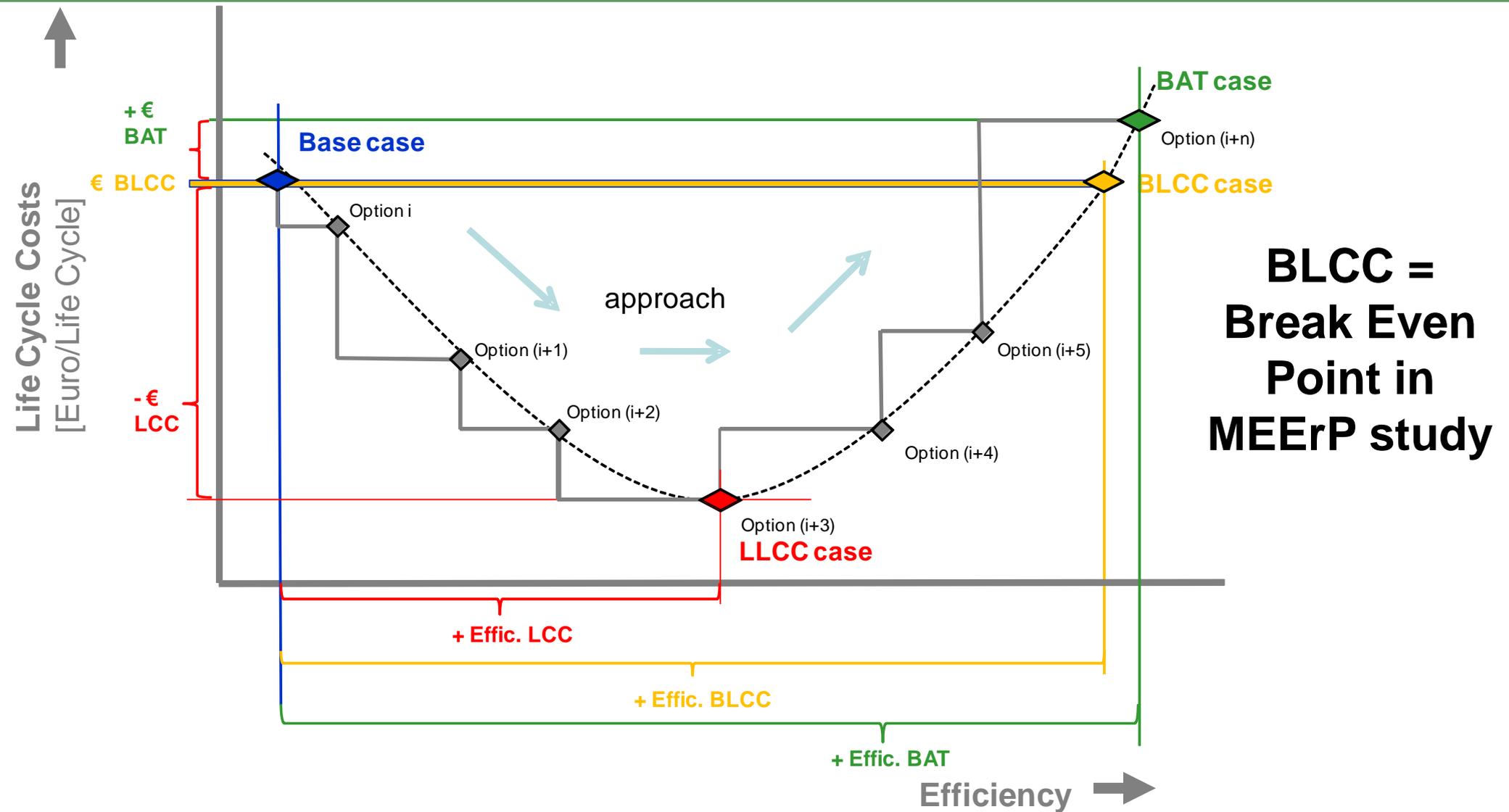


Source: Ökopol GmbH, Wuppertal Institute: Analysis of impact of efficiency standards on EU GHG emissions, Wuppertal Institute, Task 3  
Report: Outlook on the estimated GHG emissions reductions, 2010, [http://ec.europa.eu/clima/studies/effort/framework\\_en.htm](http://ec.europa.eu/clima/studies/effort/framework_en.htm)

# Ambitious Ecodesign Requirements

- Ambitious MEPS should in general aim at:  
a staged approach for the highest feasible energy efficiency level
  - as long as the life cycle costs do not exceed the life cycle costs of the average product range sold before the regulation
  - the requirements should be set up to and as closely as possible to this level but not exceeding the Base Case Life Cycle Costs (BLCC).
- This approach would be already in line and can be applied with the legal corridor provided by article 15 (5) (c) of the Ecodesign Directive. It should be also integrated in Annex II within the next revision.

# Beyond LLCC



Source: Ökopol – Institute for Environmental Strategies GmbH; IÖW – Institute for Ecological Economy Research, Leuphana University Lüneburg: Product-related Top Runner Approach at EU level, Research Project FKZ 363 01 233 on behalf of Federal Ministry of Environment and Federal Environment Agency, UBA-Texte 36/2011, 2011

# Example Air Conditioner

	Seasonal energy efficiency ratio (SEER)	Seasonal coefficient of performance (SCOP)
LLCC	4.0...4.1	3.8...3.9
first stage for 1 January 2013	If GWP of refrigerant > 150 3,60 If GWP of refrigerant ≤ 150 3,24	If GWP of refrigerant > 150 3,40 If GWP of refrigerant ≤ 150 3,06
second stage for 1 July 2014 up to 6 kW / 6 -12 kW	If GWP of refrigerant > 150 4,6 / 4,30 If GWP of refrigerant ≤ 150 4,14 / 3,87	If GWP of refrigerant > 150 3,80 / 3,80 If GWP of refrigerant < 150 3,42 / 3,42
Proposal Germany, Efficiency which can be reached by life cycle costs being lower or equivalent to the base case costs	5,4	4,8
benchmark according Draft Working Document on Commission Regulation, 16.11.2010	8,5	5,1
Japanese Top Runner Requirements for 2010	The Japanese Top-Runner requires an annual performance factor APF = 4.3 – 6.0, depending on the output power. An APF of 5.0 relates to SEER = 6.3 and SCOP = 4.6.	

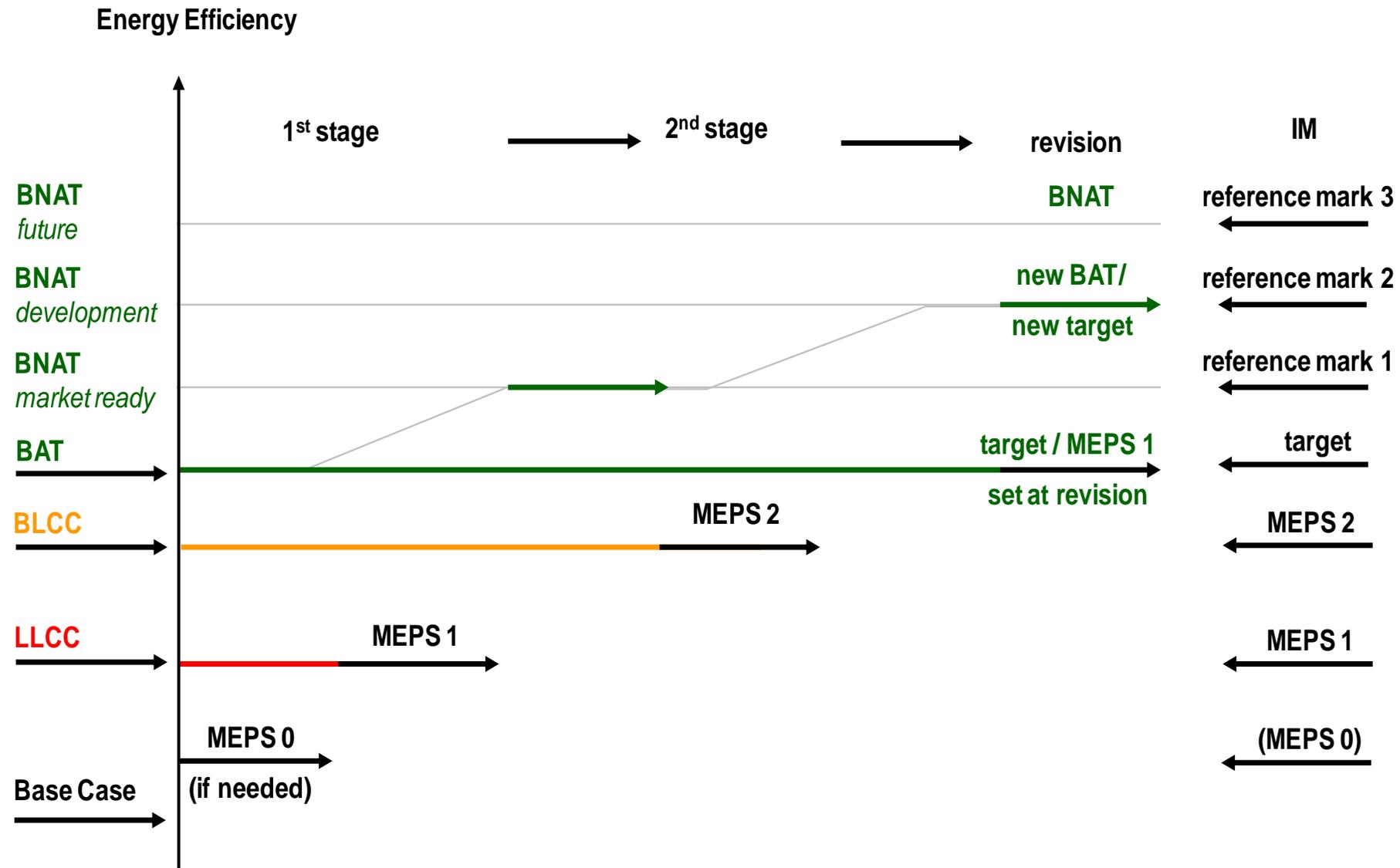
# Strengthening the role of benchmarks

- To achieve a better long-term planning benchmarks can already be indicated as target value for the aspired future MEPS and serve principally as default for the next MEPS.
- The next level MEPS which are to be defined at the revision of the Ecodesign implementing measure will consider the product and market situation, the structure of markets and the actual market developments If in line with Art. 15 (5) of the Ecodesign Directive the next MEPS can be set at BAT-level.

# Defining Reference Marks

- “Reference Marks” representing efficiency levels of possible future technical development (Best Not yet Available Technology – BNAT) should be indicated in the preparatory studies.
- They have an informal significance for product developers, consumers and regulators. They can serve as a support tool for the development of ambitious targets in energy efficiency.
- Such reference marks are in principle comparable to predefined efficiency classes in the Energy Label, as done in the regulation for televisions.

# The way forward: The EU Top-Performer Approach- Continuous improvement and interaction of instruments



# Framework conditions

- The provisions of article 15 (5) of the Ecodesign Directive are framework conditions which have to be fulfilled when setting MEPS and might be reasons for deviations from the before described principles:
  - **Technical limitations**, e.g. if BAT standard is not available for the entire application range of the product, in such cases subcategories for requirements could be defined;
  - Unacceptable impact on the **functionality of the product**;

# Framework conditions II

- Still significantly higher life cycle costs than base case (as respects application BAT as new MEPS in revision) or **unacceptable higher purchase prices** than the base case which are not reasonable for all customers (e.g. due to social reasons) and which could also hamper the exchange of old inefficient appliances in the stock;
- If technical infrastructure would need to be changed together with the product, which leads to unreasonable burdens for customers;

# Framework conditions III

- **Relevant negative impacts on health, safety and other environmental aspects**, for example trade-offs between energy efficiency and increasing materials use or increase of other emissions ;
- **Unacceptable effects on competition in the market:** concentration up to the formation of monopolies must be avoided. This is especially important to consider when the top products use proprietary technology;
- **Unacceptable effects on SMEs** when the MEPS force a technology change or change of expensive tools / productions lines which can be achieved only by larger companies.

# Energy Labelling

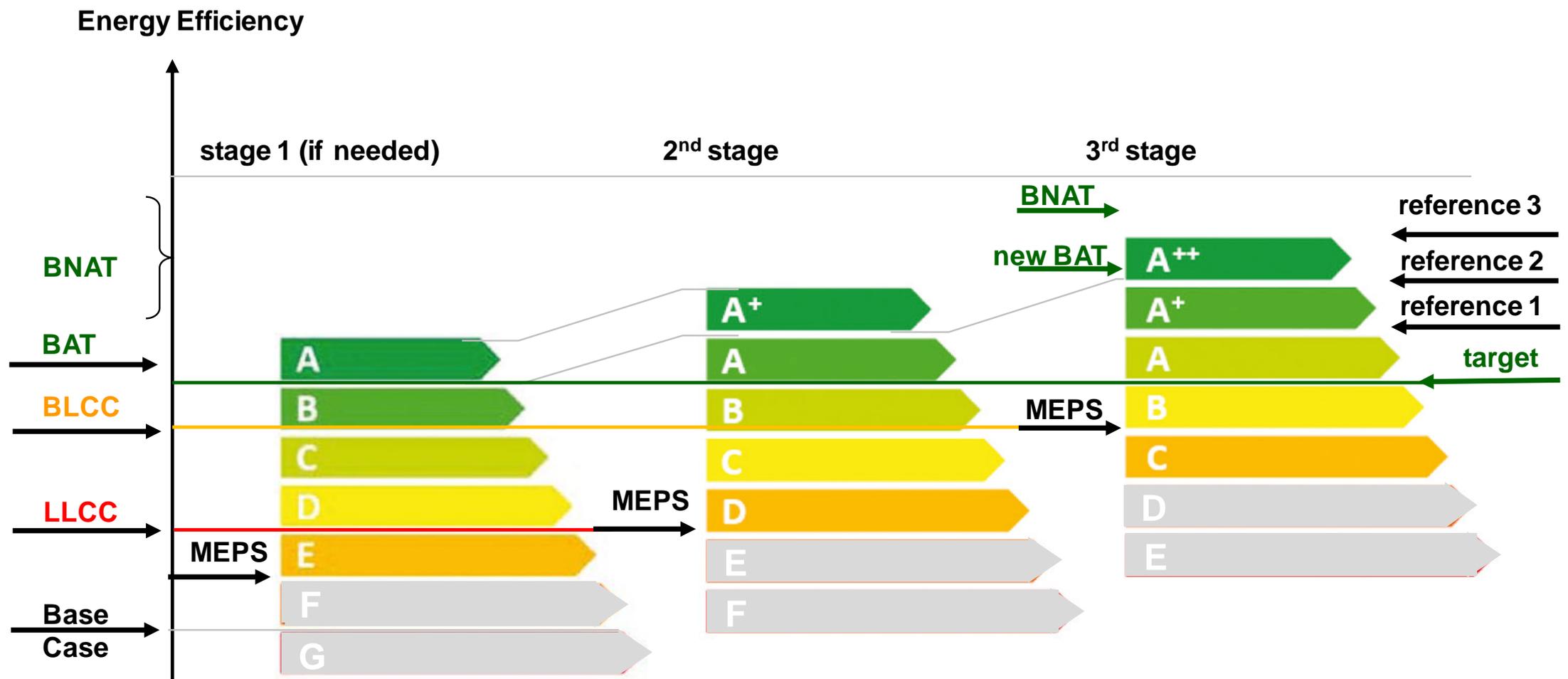
- Broad implementation: The Energy Label should be implemented in product segments, which are relevant for private consumers and commercial customers and also when mandatory ecodesign requirements are not (yet) in place or for product groups with a self-regulatory initiative.
- Make the best performing products visible – predefine future classes, which can already be displayed ( e.g. Label for TV).
- The evaluation of the Energy Labelling Directive in 2014 needs to investigate again, in how far the present scale provides a transparent and comprehensive labelling.

# Energy Label II

- Classes which can't be put on the market anymore due to requirements under the Ecodesign Directive should be coloured in grey (or other symbol) as otherwise consumers get the wrong picture of the real market situation



# Interaction of MEPS and Energy Label



# Further Measures to strengthen the push and pull mechanisms

## ■ Reliability of working plans and timeframes

- In this regard we appreciate that the working document on the working plan 2012-2014 provides a comprehensive time table of adoption of implementing measures. We propose to update this timetable regularly.
- The proposals submitted by Germany will not delay the drafting of ongoing and planned implementation measures.

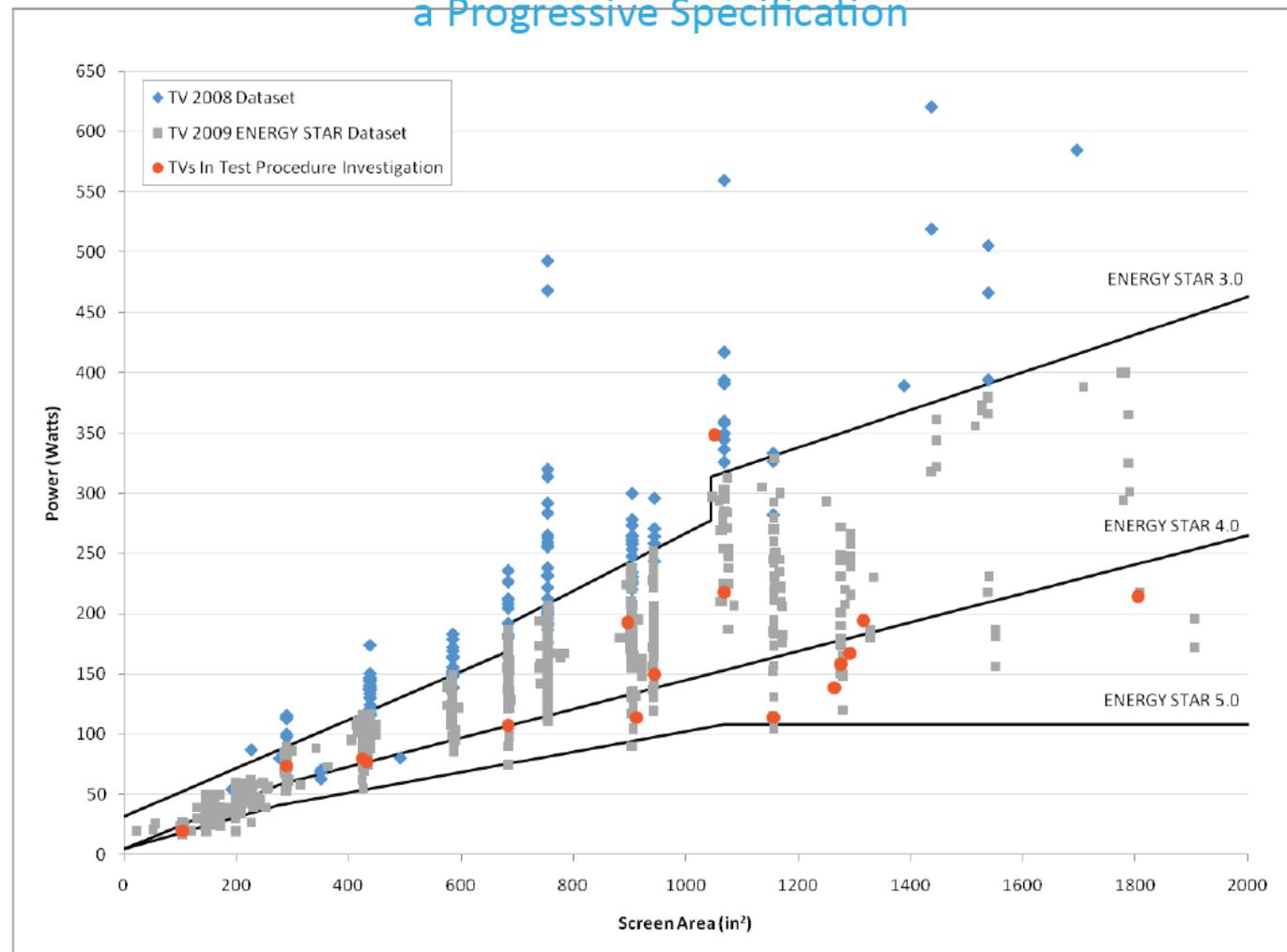
## ■ Establishing a sound data basis

## ■ Counteracting Rebound-Effects: Establish degressive standards where appropriate

## ■ Strengthen focus on technology independent requirements

# Example degressive Standards

ENERGY STAR TV Specifications – First High Profile Application of a Progressive Specification



Source: Chris Calwell: Is efficient sufficient? (no), presentation at the Workshop “Is efficient sufficient?“, European Council for an Energy Efficient Economy (eceee) 18 May 2010,