

Evaluation of the Ecodesign Directive



**Effectiveness of the Ecodesign Directive -
Approach and initial findings
Brussels, 10 April 2011**



Centre for
**Strategy & Evaluation
Services**



Structure of presentation

- Questions on effectiveness to be addressed in data analysis
- Challenges of evaluating the effectiveness of the ecodesign directive
- Description of approach and initial findings
 - Impact on environment, market and industry
 - Impact on innovation
 - Impact on third markets
 - Questions for discussion and stakeholder input
- Next steps

Key evaluation questions

Effectiveness: the extent to which the legislation is achieving its objectives

- **Impacts on environment** (fulfillment of the objectives, rebound effect, compared to third countries)
- **Impacts on market and industry** (market sizes of products, effects of the regulation to the market, trade, trade barriers, effect on competition and costs, market structure)
- **Impact on innovation** (obstacles or incentives)
- **Global impacts** (impact on third markets, harmonisation)

Why is it difficult to evaluate the effectiveness of the Ecodesign Directive?

- Limited time period since entry of implementing measures
 - The implementing measures have only been adopted recently
 - Most of them apply a phased introduction of measures
 - Products have rather long life-cycles which limit the effect of the Directive on the total stock
- Lack of data
 - Few data cover the period after the measures have been put in place
 - Data from official statistical offices are normally 2-3 years old when released
- Causality is complex
 - Change in market is not necessarily a reflection of the effectiveness of the Ecodesign Directive
 - Other instruments may have played a role too
 - General technological development or consumer behavioral change can also influence developments.

Overall approach to address effectiveness

- A multilayered approach
- Sources:
 - Literature review and data analysis
 - Stakeholder meetings and input
 - Online survey of stakeholders
 - Interviews (Commission officials, member state officials, industry organisations, environmental groups, standardisation bodies, other experts)



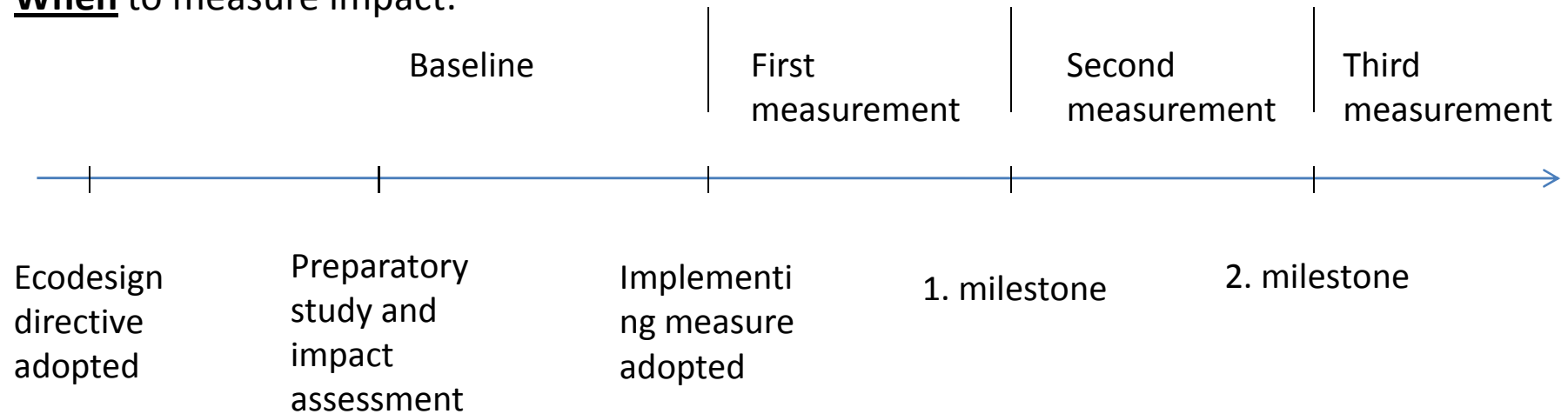
Impact on environment, market and industry

Structure of analysis for each product group

- Introduction
- Limitations
 - Data sources
 - Methodological considerations
- Baseline
 - Initial or preparatory studies
 - Implementation requirements
 - Implementation schedule
- Effects of the Directive
 - Change from baseline (quantitative)
 - Secondary effects (qualitative and quantitative)
- Summary

Establishing the baseline

When to measure impact:



Baseline for evaluation:

From preparatory studies and impact assessment (example from standby and off-mode energy consumption):

Number of products	Energy consumption in EU27	Electricity costs	Co2 emission
3.7bln (2005)	47TWh (2005)	6.4 bln Euro (2005)	19 Mt

If possible supplemented by other sources

Initial findings from data analysis

- Overall conclusion: very little useful data publicly available
 - Several reports deal with the Ecodesign directive and the relevant product groups
 - But few contain data which can be used to answer the evaluation questions
- Example: data collection on impact of standby and off-mode energy consumption

Standby and off-mode energy consumption – example of useful study

Q: impact on market and industry

Indicators which can provide insight on impact on environment, market and industry:

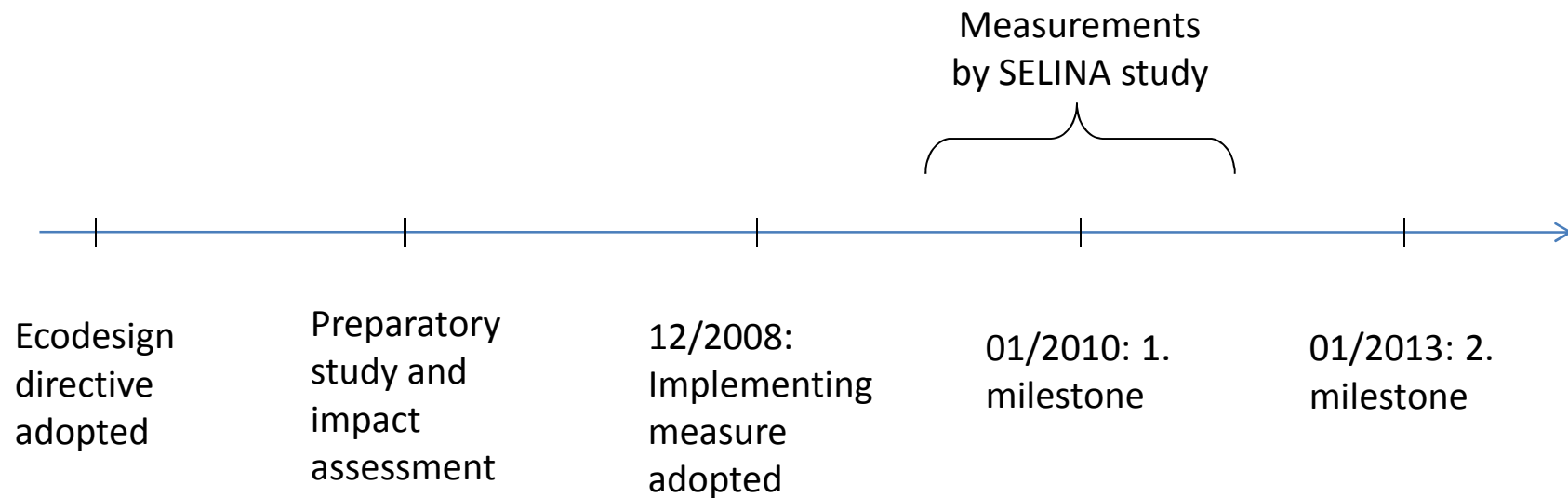
- Development in market composition (sale/stock)
- Development in average energy consumption (sale/stock)
- Share of products fulfilling the requirements for standby and off-mode energy consumption

Standby and off-mode energy consumption – example of useful study

SELINA project (Standby and Off Mode Energy Losses in New Appliances)

- Objective: measure the standby and off-mode electricity consumption of new appliances on the market
- Methodology: Measurements in shops and collection of data from manufactures

Timeline and the SELINA study:



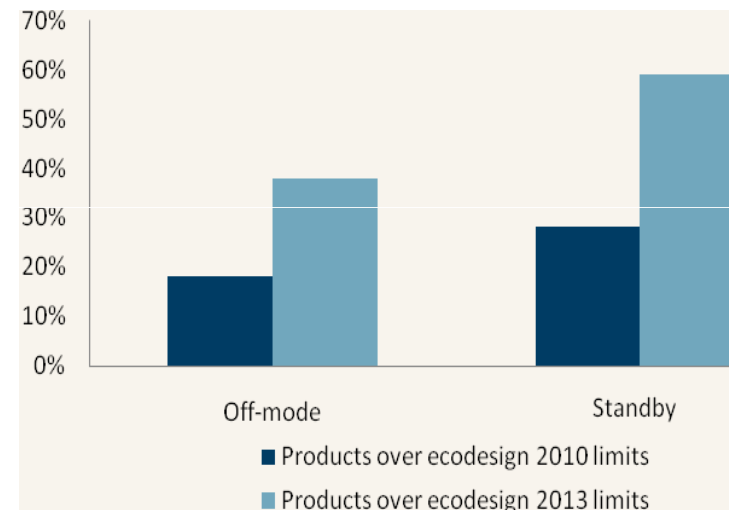
Standby and off-mode energy consumption – example of useful study

Results:

- 20-28 % of products do not meet 2010 ecodesign requirements
- No change in products over ecodesign limits shortly before and after requirements entered into force

Conclusions:

- No immediate effect of regulation on share of products over limits
- Room for improvement of market surveillance
- Regulation will have significant effect on energy consumption if implemented effectively.



Questions to stakeholders

- Is the proposed structure and focus adequate and suitable?
- Are additional data available related to :
 - **Impacts on environment:**
 - Total energy consumption
 - Total CO₂ emission
 - Change in consumer behaviour
 - **Impacts on market and industry:**
 - Direct effect of the regulation
 - Shifts in the market shares across the classes of products
 - Different classes of products
 - Aggregate/average efficiency gains achieved
 - Product withdrawal
 - Indirect effects of the regulation:
 - Sales volumes and prices
 - Product variety
 - Consumer choice
 - Other effects?
 - Qualitative changes

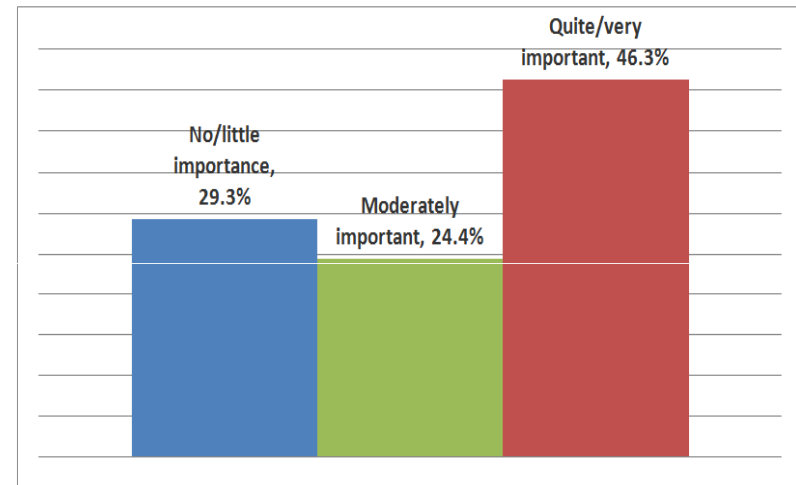


Impact on innovation

Impact on innovation

- Importance of Ecodesign for the development of innovation generally recognised - especially in conjunction with Energy labelling
- Provides clear timetable and legal certainty
- But, Coolproducts study indicates that the specific requirements (especially phase 1) are not ambitious enough in all cases
- Survey responses do not indicate substantial impact on product functionalities
- Very limited reference to the role and use of the advanced benchmarks (limited examples of use in GPP)

Importance of Ecodesign for the development of innovation in firms



Impact on innovation – Questions for discussion

- Does the (expected) introduction of implementing measures create incentives for innovation?
- Could/should the requirements be more ambitious? Is the least life cycle cost criterion adequate?
- Is there evidence that the introduction of implementing measures hampered innovation ?
- How do the requirements interact with other policy tools?
- Why are advanced benchmarks not used? How could they become more relevant?



Impact on third markets

Impact on third markets

- When possible manufacturers would like to “impose” EU standards to third countries market
- Industry is very supportive of global harmonisation – starting with common measurement standards
- But, there seems to be limited progress in this direction
- Input provided so far indicates certain countries (Canada, Switzerland, Australia?) developing similar measures with the implementing measures
- Others (Russia, Mexico) suggested as moving in completely different direction

Questions for discussion

- Is there any evidence of the adoption of regulation setting similar requirements to that of the Ecodesign in other countries?
- Is there any information/evidence of changes in the energy efficiency of products circulating in third countries?
- What are the main obstacles for the harmonisation of standards related to the products covered by the Directive?



Next steps

Next steps

In order to answer questions on effectiveness adequately the following work will be undertaken:

Collect additional evidence:

- Quantitative
 - Additional search for available data and literature
 - Receive input from stakeholders present here today
 - Contact additional relevant stakeholders (industry organisations, environmental groups, standardisation bodies, other experts)
 - Analyse survey results
- Qualitative
 - Additional search for available information
 - Receive input from stakeholders present here today
 - Interview stakeholders

Integrate findings from different studies