EVALUATION OF THE ECODESIGN DIRECTIVE FOR THE EUROPEAN COMMISSION

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Agenda

- The Ecodesign Directive

- Evaluation objectives

- Methodological challenges

- Approach to the evaluation

- Findings

- Summing up

* Paper will be online but is not on CD-rom
** Evaluation conducted in collaboration with CSES of the UK and with inputs from Harmelink consulting

Adopted in 2005

Sets Minimum Energy Performance Standards (MEPS) for selected product groups

- **Covers Energy Using Products and Energy Related Products**
- **MEPS are based on thorough analysis and consultation with stakeholders**

- **Process for setting MEPS:**

1. Product study completed	2. Consultation Forum and proposal	3. Draft regulation	4. Approved by Regulatory Committee	5. Final regulation

11 product groups covered in our evaluation

Overall: To assess whether the directive is fulfilling its objective in terms of reducing energy consumption and relevant environmental impacts

More specific:

- What, if any, have been the changes in the markets of the products covered as results of the Directive?
- To what extent can the results achieved be attributed to the Directive?
- How do the improvements in energy efficiency compare to results from policies in third countries
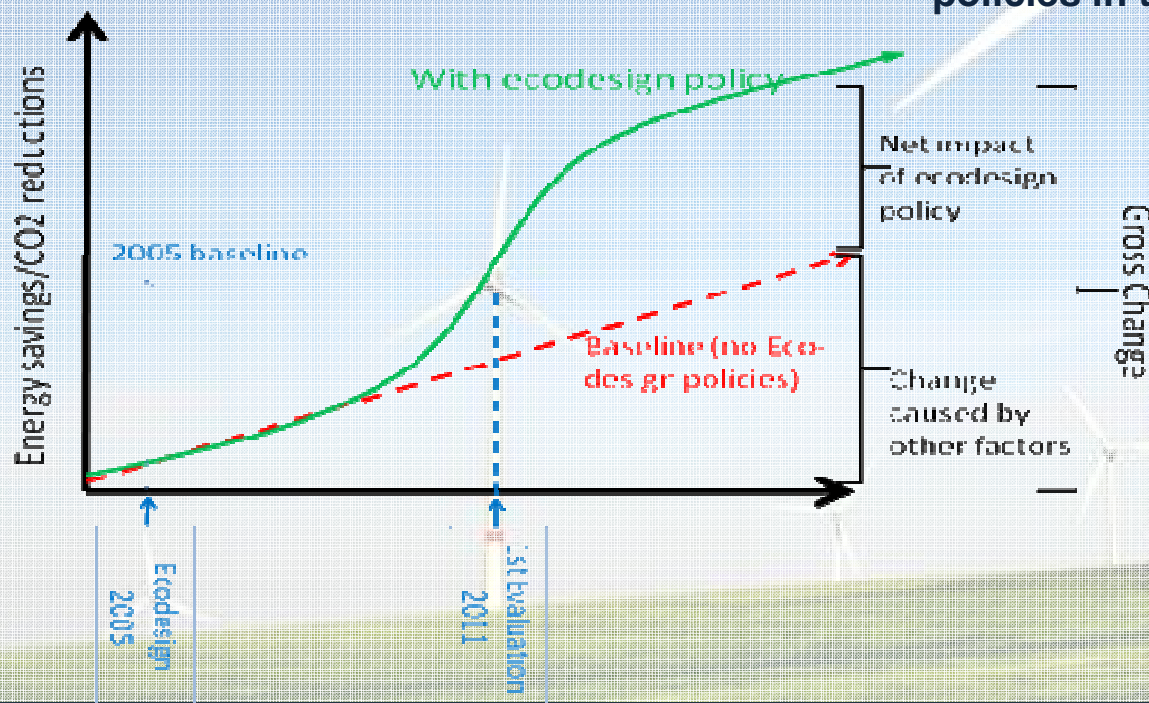
Methodological challenges

- **Heterogeneity**
  - 11 product groups, 27 countries

- **Product lifecycle**
  - Light bulbs versus electric motors

- **Recent implementation**
  - Implementing measures mainly adopted: 2009 and later
  - Then a phase in of requirements follow

- **Lack of appropriate data**
  - Not recent enough
  - Do not define product group the same way as IM

- **Attribution**
  - Technical Change independent of Ecodesign
  - Complex Policy Environment – many tools
  - Industry response

Approach – setting out the baseline

We have established the following for all product groups:

• Baseline (from preparatory study)

• Requirements and timeline for introducing requirements

• Targets for energy savings

Standby and off-mode losses - 2005 baseline and projected impact until 2020

	2005	2010			2020			
	Baseline	BAU	Policy	Annual savings	BAU	Policy	Annual savings	Accumulated savings
Number of products (bln.)	3.7				4.6			
Energy Consumption (TWh)	47	49.9	49.9	0	49	14	35	194
Electricity Costs (bln. €)	6.4			0				26.4
CO_2 emissions (Mt)	19			0				77.6

Approach – timeline and requirements

Timeline for setting Ecodesign Requirements – standby and off-mode

Preparatory Study		First proposal for regulation discussed at Consultation Forum	Impact assessment published	Implementing measure adopted
First stakeholder meeting	Study published			
September 2006	October 2007	October 2007	18/12/2008	17/12/2008

Dates for implementing the requirements set in the implementing measure

Mode	Maximum power consumption from January 07, 2010	Maximum power consumption from January 07, 2013
Off-mode	1.00 W	0.50 W
Standby mode without display	1.00 W	0.50 W
Standby mode with display	2.00 W	1.00 W

OXFORD
RESEARCH

First priority data:

- **Market composition of new products (sales/placed on the market) - often labelling**
  - **Allow us to assess bottom end of market**

- **Compliance of products (sales/being placed on the market)**

Alternative options:

- **Average energy efficiency**
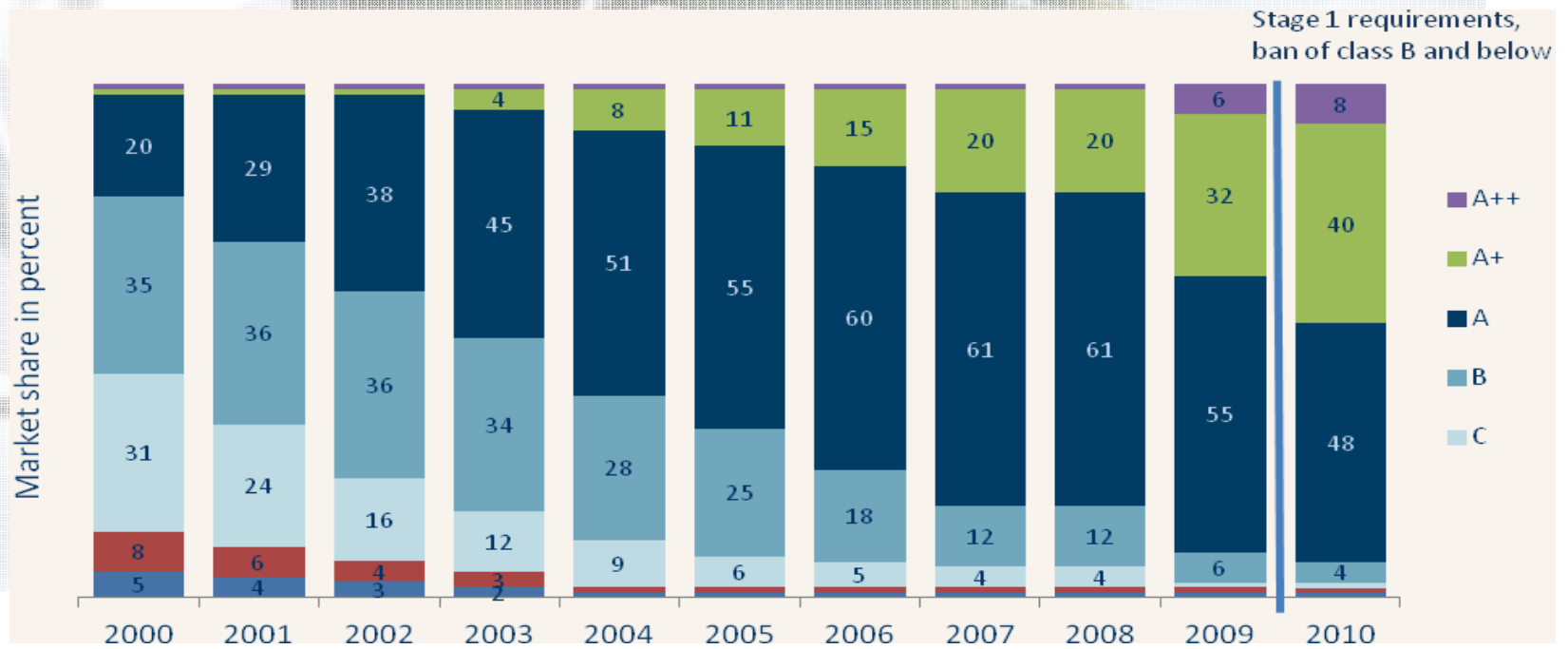
- **Total energy consumption**

These options are heavily influenced by other factors

Approach – checking for correlation

OXFORD RESEARCH

Does change in market composition correlate with major Ecodesign developments/milestones?
- **Acceleration of market change?**

Market composition of refrigerators and freezers (GfK, sales, EU-10)

Comparing developments in EU countries to developments in non-EU countries
- Using IEA's 4E mapping and benchmarking annex
- National reports and evaluations
- In many instances a correlation between high energy efficiency and early introduction of MEPS exist

**Comprehensive interview programme**
- 55 interviews with stakeholders (industry, NGOs, government and EU officials, etc)

3 stakeholder meetings to discuss findings

=> To obtain both quantitative and qualitative understanding of market change and dynamics behind
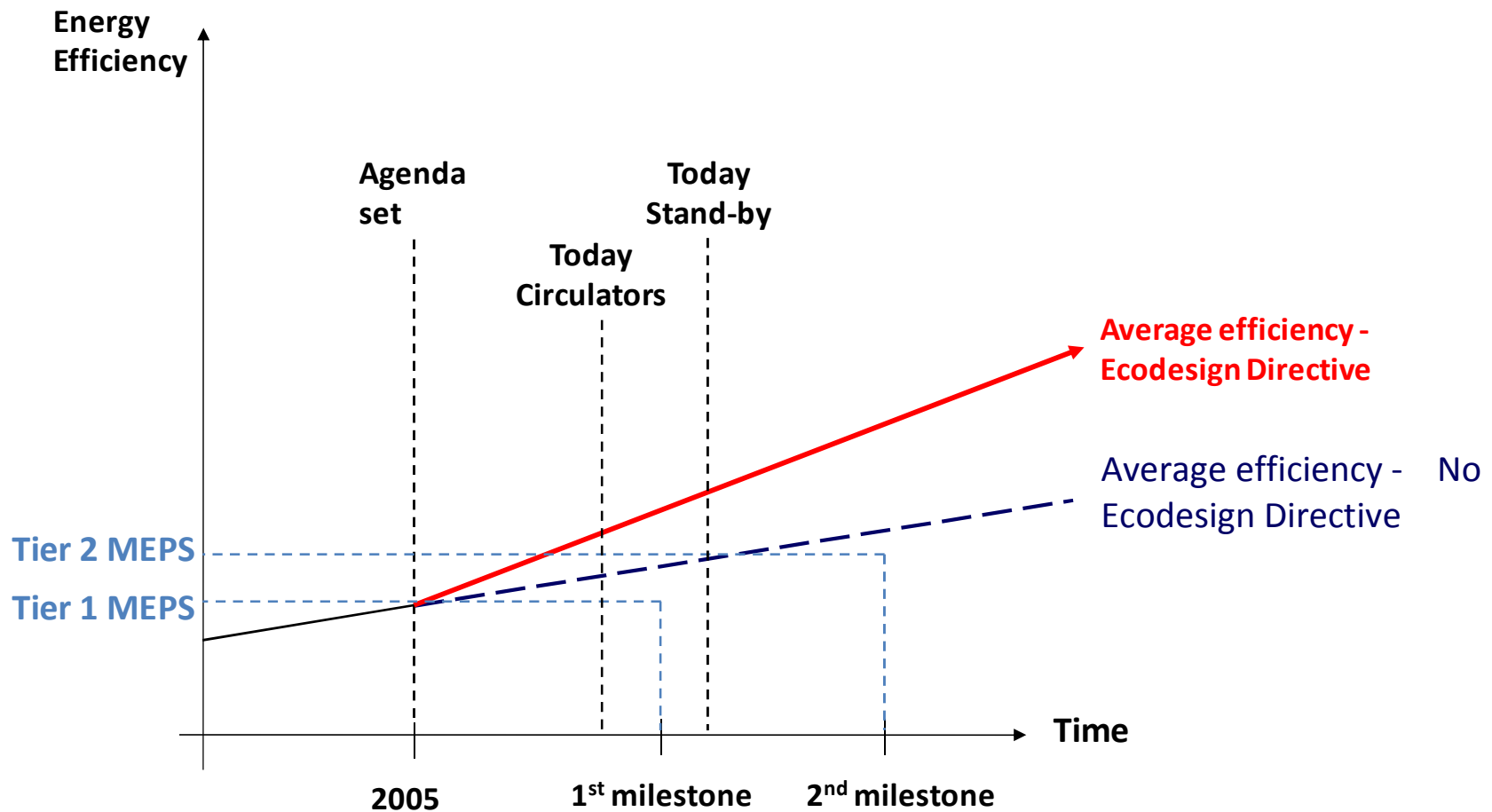
Findings - effects of the Directive

Direct effect – actual and projected evolution of average energy efficiency level (domestic lighting (possibly tertiary lighting, motors, circulators))
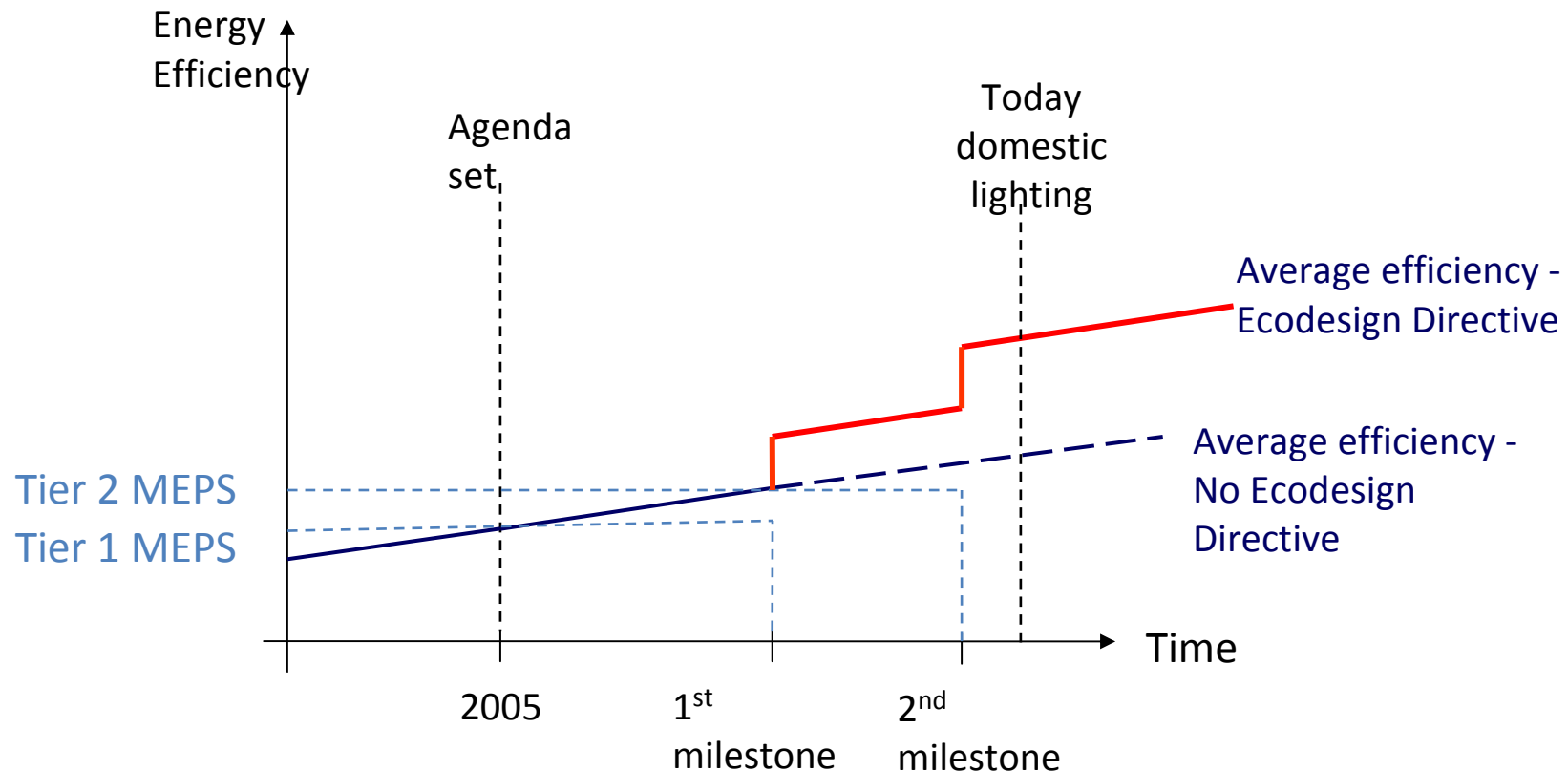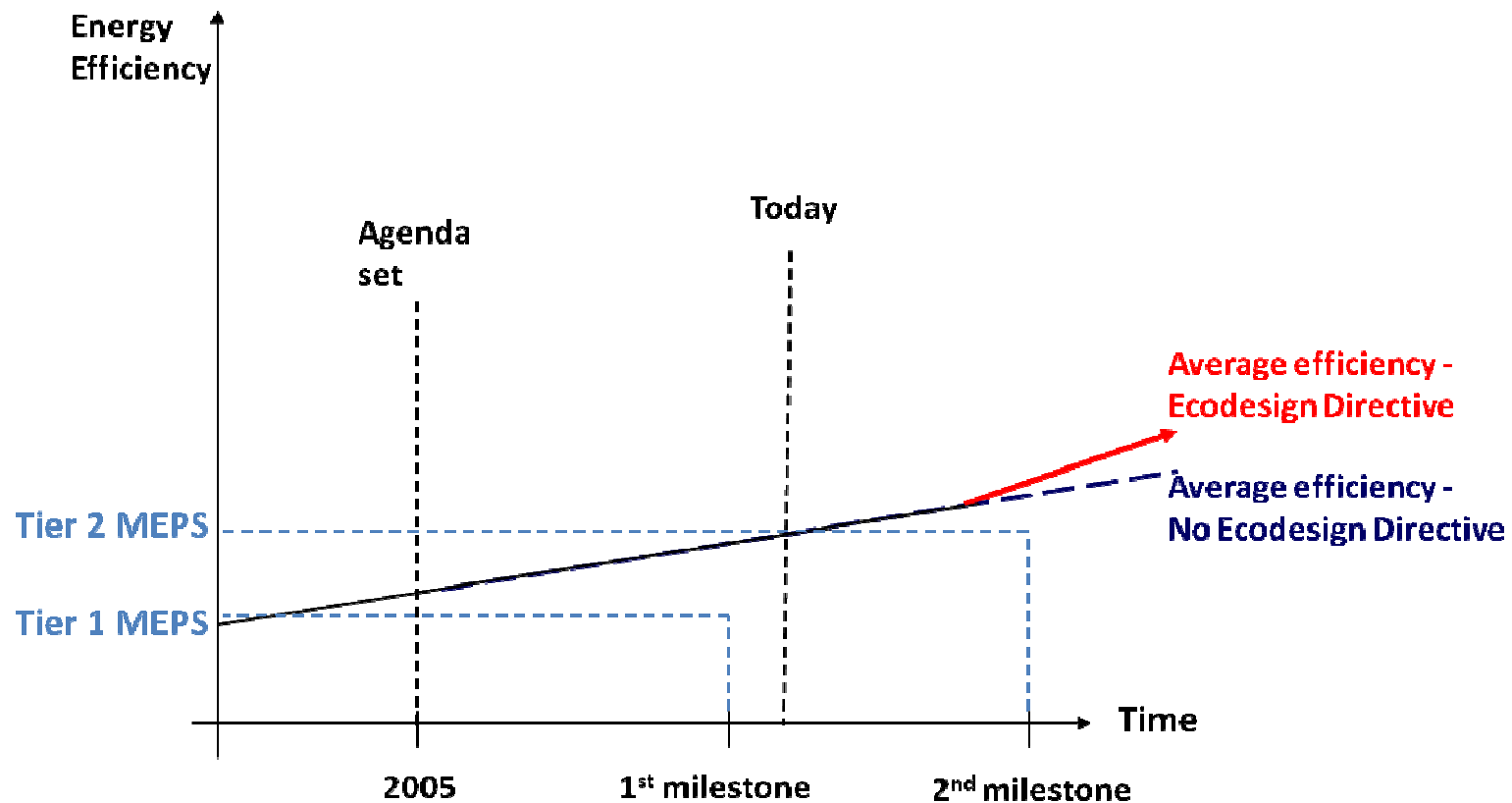
Findings - effects of the Directive

Anticipatory effect – actual and projected evolution of average energy efficiency level (circulators, stand-by):

Findings - effects of the Directive

Expected future effect – actual and projected evolution of average energy efficiency level (washing machines, dishwashers, cold appliances)

Summing up...

Several methodological challenges exist when conducting an evaluation of this type, linked to:
• 27 countries covered
• 11 Product groups
• Different timelines, baselines and requirements
• Recent introduction of requirements and often only tier-1

Availability of EU-wide data is major constraint

Data should be decided upon and collected as part of the Directive/implementing measures

We were not able to quantify impact but a move towards improved energy efficiency was established and tentatively linked to the Ecodesign Directive for most product groups

3 impact scenarios identified

THANK YOU

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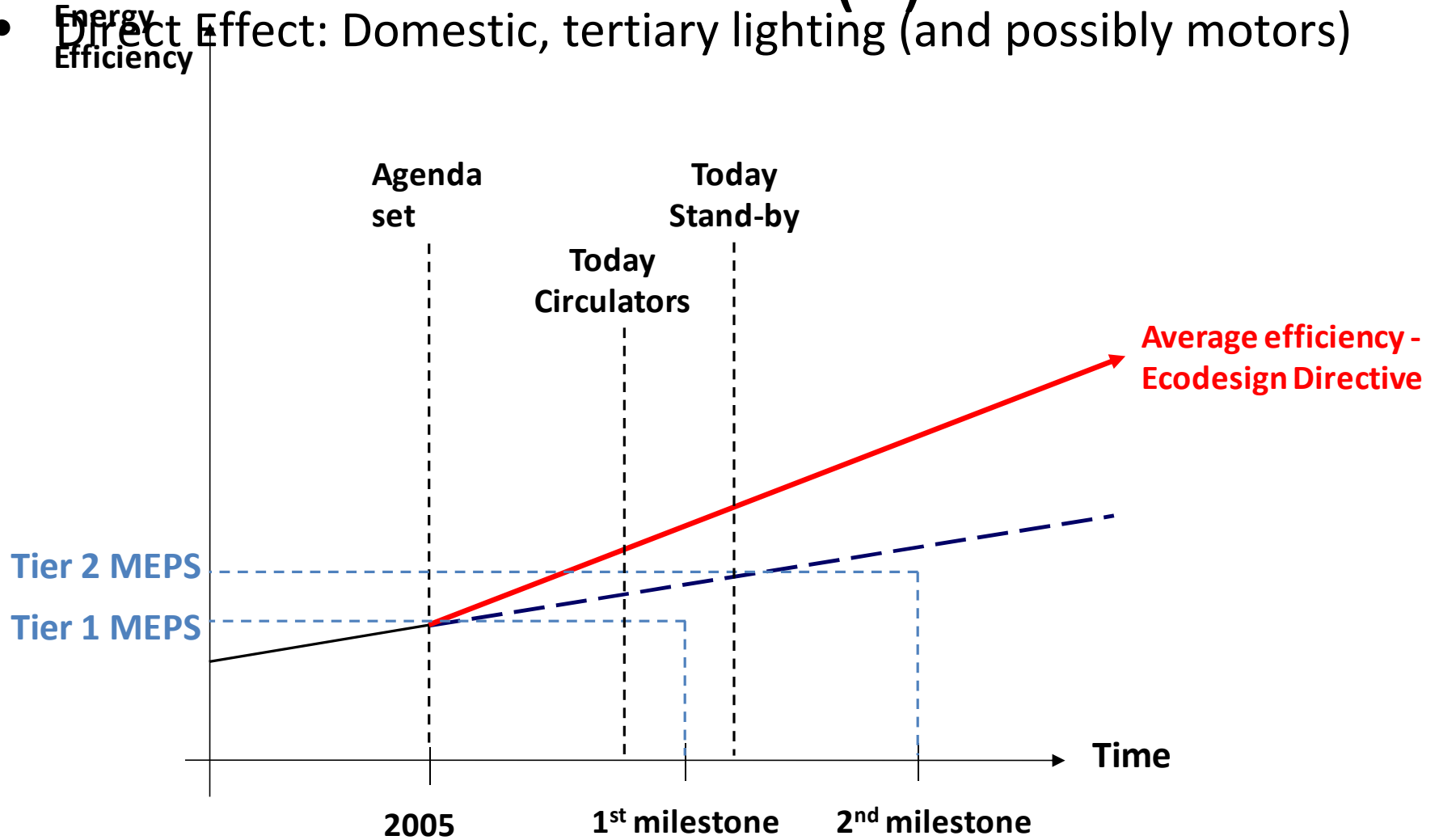Kjøita 42
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Effectiveness of Implementing Measures (IV)

- No current effect but (expected) future effect: domestic washing machines, dishwashers and domestic cold appliances
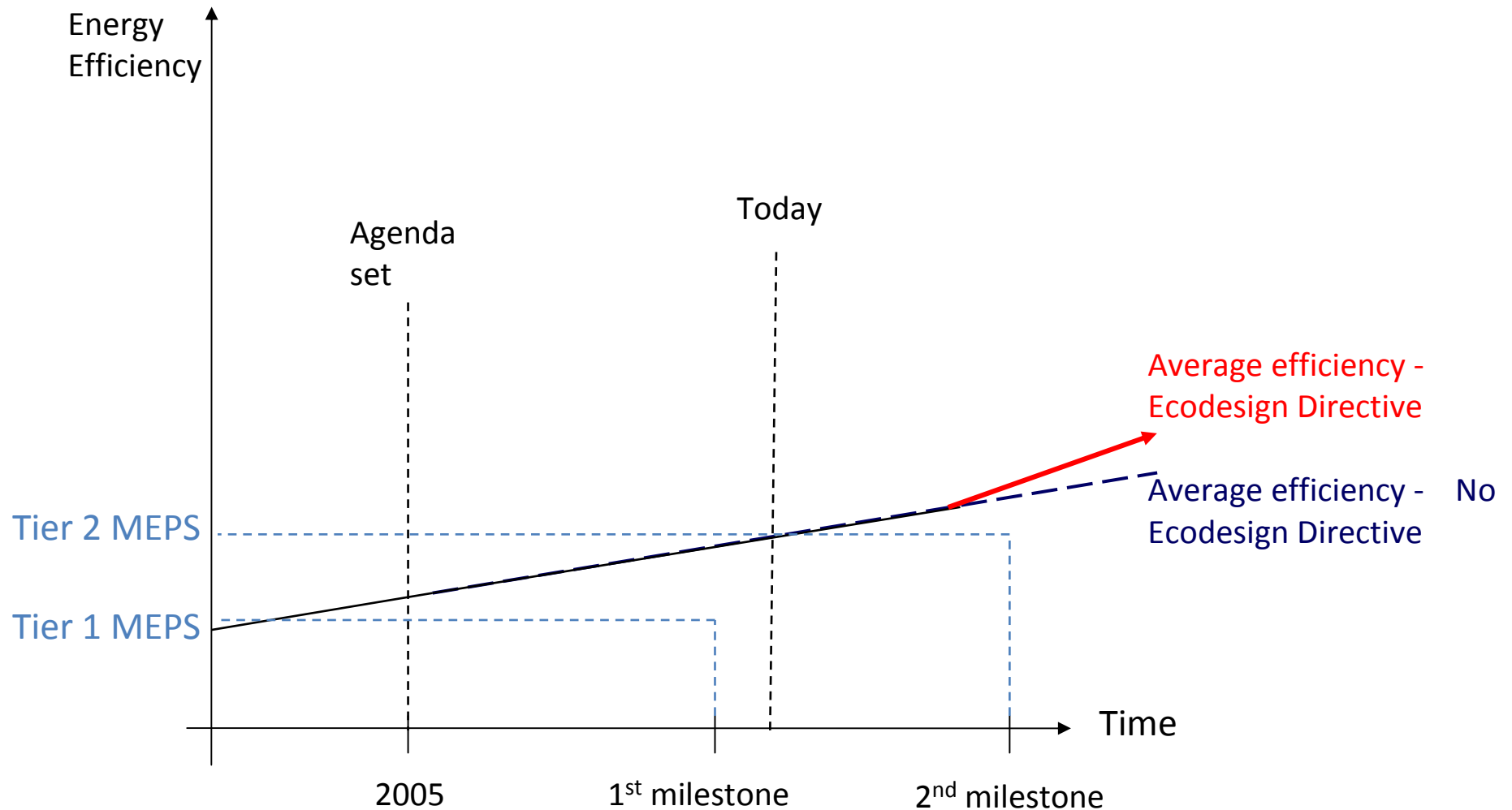
Effectiveness of Implementing Measures (II)

- Direct Effect: Domestic, tertiary lighting (and possibly motors)

Energy Efficiency

Agenda set

Today Circulators

Today Stand-by

Average efficiency - Ecodesign Directive

Tier 2 MEPS

Tier 1 MEPS

Time

2005

1st milestone

2nd milestone

Effectiveness of Implementing Measures (III)

- Anticipatory effect: standby & off mode and circulators