



Co-funded by the Intelligent Energy Europe
Programme of the European Union



„Energy Efficiency –
The Need and The Chance of Polish Economy”
National ODYSSEE-MURE seminar

11th June 2015
Ministry of Economy, Warsaw

Indicator facilities of ODYSSEE: Indicators analysis
for countries benchmarking.
Energy efficiency of Polish economy related to EU
and/or selected EU countries

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Key features of the ODYSSEE-MURE project

- Current project supported by EU (IEE 2012)
- Project ongoing since mid 1990s
- Network of 32 partners in almost all EU MS + Norway

Heart of the project: two databases which are further developed and regularly updated (period covered: 1990 – 2013/14)

ODYSSEE: energy efficiency and CO₂ indicators (about 180 indicators) with energy consumption data by sector and end-use and their drivers (about 600 main data series).

MURE: structured description of past, present and planned energy efficiency policies in the EU and all Member States (+Norway) with a special focus on policies from the NEEAPs

New developments in the ongoing project:

- New single website: www.odyssee-mure.eu
- More detailed distinction of policies from NEEAPs and Article 7 EED.
- New support tools for a more convenient use of the two databases (**ODYSSEE and MURE facilities**)

Organisational structure of the project

Coordinator: ADEME, France (Didier Bosseboeuf)

Technical Coordination

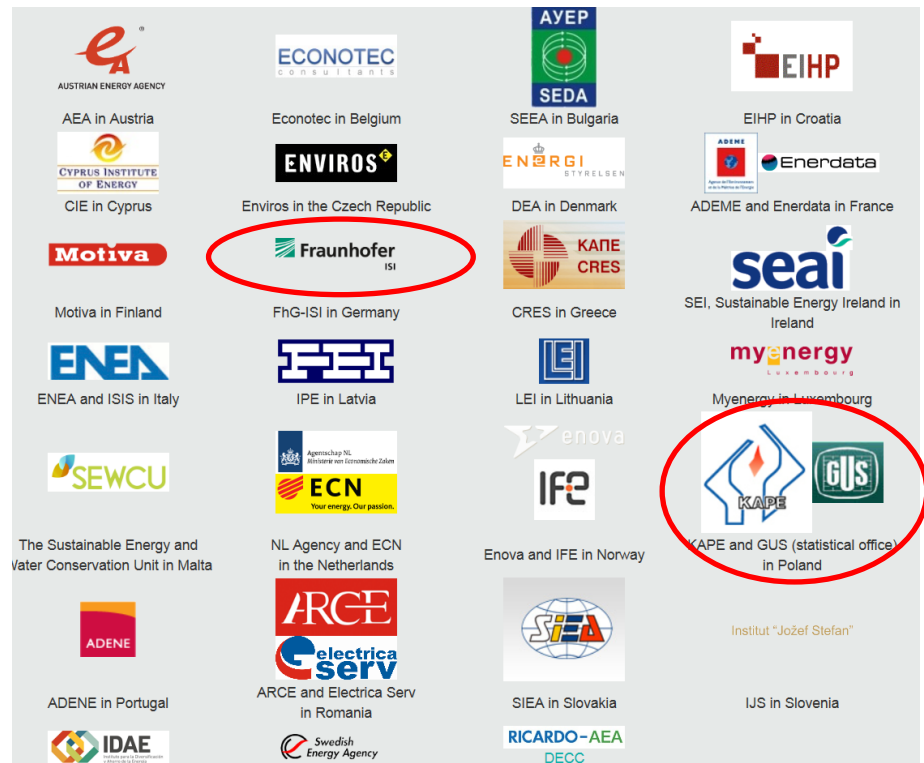
ODYSSEE Enerdata, France + ECN, NL

MURE Fraunhofer ISI, Germany + ISIS, Italy

National teams:

National partners in all EU MS + Norway

⇒ Delivery and update of data and policies



Main objectives of the project

- (1) Evaluate and compare energy efficiency progress by sector for EU countries, Norway and Croatia and for the EU as a whole, and relate this progress to the observed trend in consumption.
- (2) Contribute to the evaluation of national energy efficiency policy measures in the EU countries and analysing the dynamic of implementation over the 3 NEAAPs.
- (3) Provide a monitoring approach for EU and national targets on energy efficiency that helps to understand developments to complement and support official monitoring systems.
- (4) Develop support “facilities” to help ODYSSEE-MURE users analyse and make the most from the two databases. These facilities should also strengthen the project’s communication by providing results in an interactive and attractive way

New single website: www.odyssee-mure.eu

8+1 3

Partners

ODYSSEE-MURE

Overview Data Tools Publications News Contact

WELCOME TO THE ODYSSEE MURE PROJECT

This project gathers representatives from the 28 EU Member States plus Norway. It aims at monitoring energy efficiency trends and measures in Europe, using on two complementary internet databases: **ODYSSEE** on energy efficiency / CO₂ indicators, including detailed data on energy consumption, activities and related CO₂-emissions (around 1000 data series by country) and **MURE** on energy efficiency policy measures, including their impact (around 2000 measures).



LATEST NEWS

03 October 2014

Third project workshop on energy efficiency focusing on transport, in Croatia hosted by [EIHP](#).

Presentations available [here](#).



LATEST PUBLICATION

[Key Messages on Energy Efficiency in](#)



REGISTER TO THE NEWSLETTER

Sign-up to our newsletter to stay informed of our recent activities relating to the ODYSSEE-MURE project.

[Register](#)

Latest newsletter: [November 2014](#)

Classification of ODYSSEE indicators:

~180 indicators split in 7 different types of energy efficiency indicators and 2 types of CO₂ indicators

Type	Level
1. Energy intensities	by sector & sub sector
2. Adjusted intensities	final and industry
3. Specific energy consumption	by sub sector & end-use
4. Benchmarked specific energy consumption	steel, cement, paper, heating
5. Energy efficiency indices (ODEX)	final and by sector
6. Decomposition of energy consumption	primary, final, by sector and sub sectors
7. Indicators of diffusion	by sector
8. CO ₂ intensities	by sector & sub sector
9. Specific CO ₂ emissions	by sub sector & end-use

ODYSSEE database: the original online tool (restricted access)



Selected criteria

Items : 1
Primary energy intensity

Countries : 1
Poland

Years : 15
2014
2013
2012
2011
2010

Add a year :

2012
2011
2010
2009
2008
2007
2006
2005
2004
2003

Add

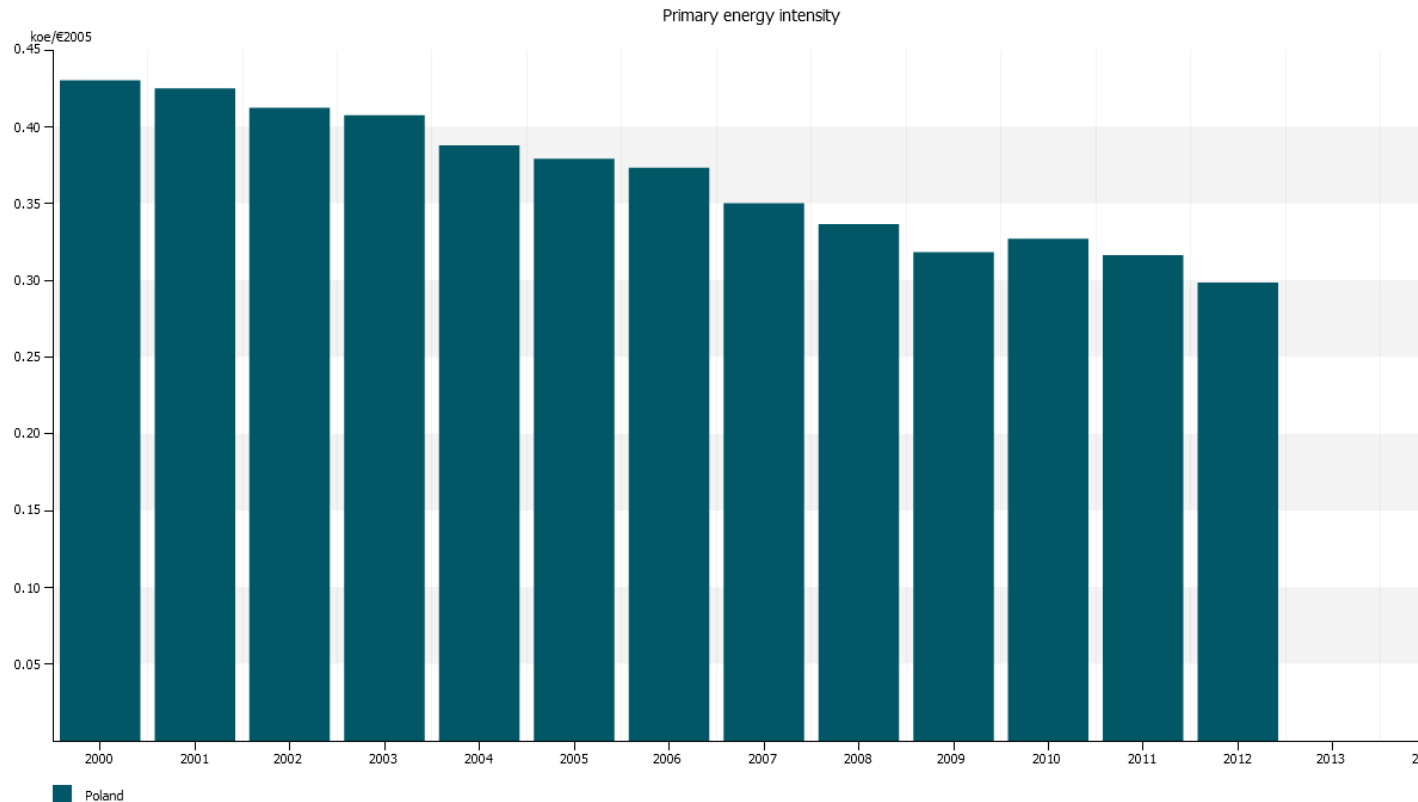
Add a period :

From 2000 to 2012

Add

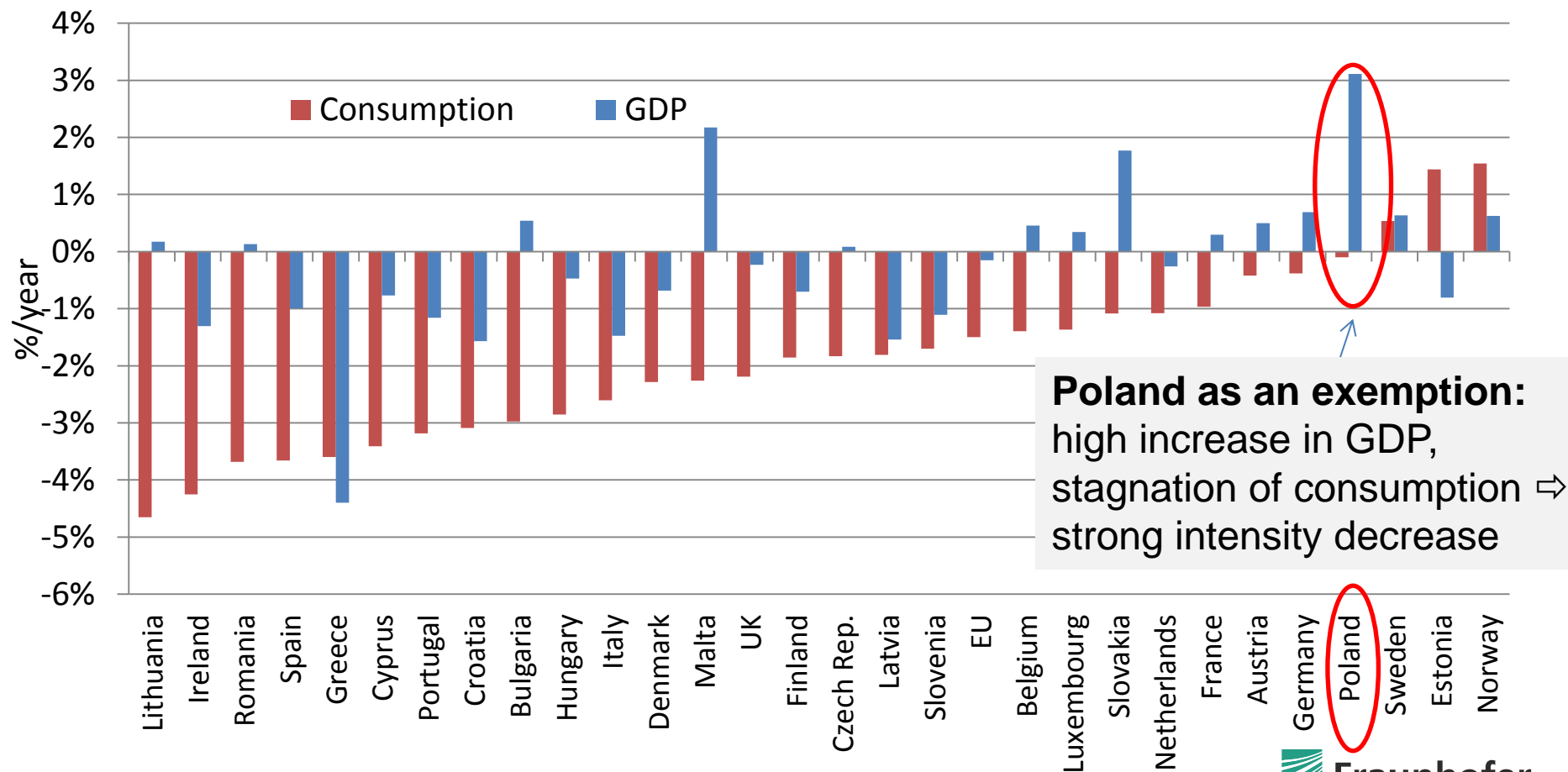
Hold the ctrl key to select several years.
By default, the 5 last years are selected.

Primary energy intensity



Ex.: Variation of primary energy consumption and GDP by country (Period 2007-2013)

- 26 countries with a **decrease** in the primary energy consumption since 2007, of which 9 countries with a reduction over 3%/year.
- In most countries consumption decrease much larger than GDP reduction → rapid intensity decrease.



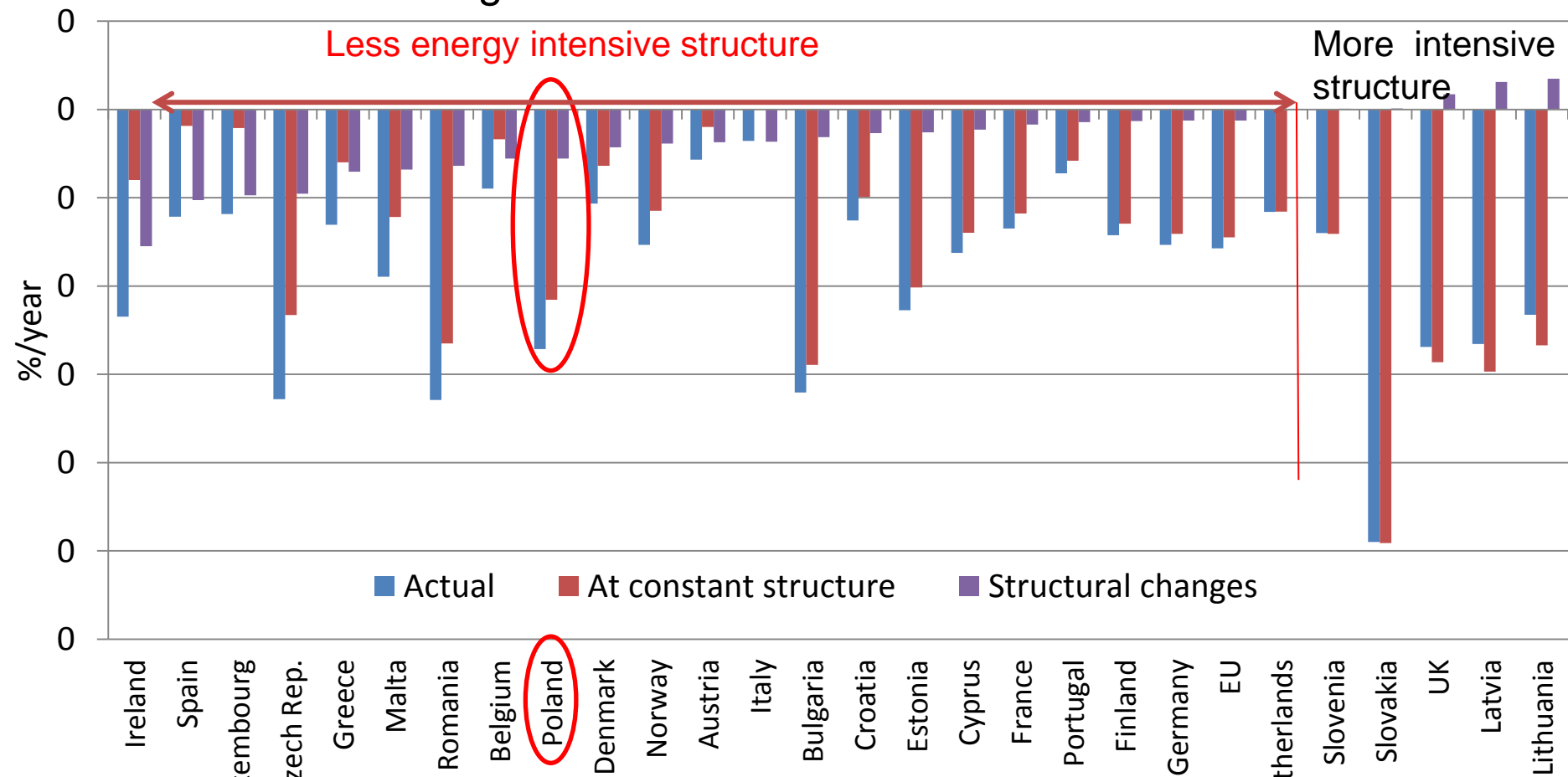
Poland as an exemption:
 high increase in GDP,
 stagnation of consumption →
 strong intensity decrease

*at normal climate

Ex.: Final energy intensity and impact of structural changes

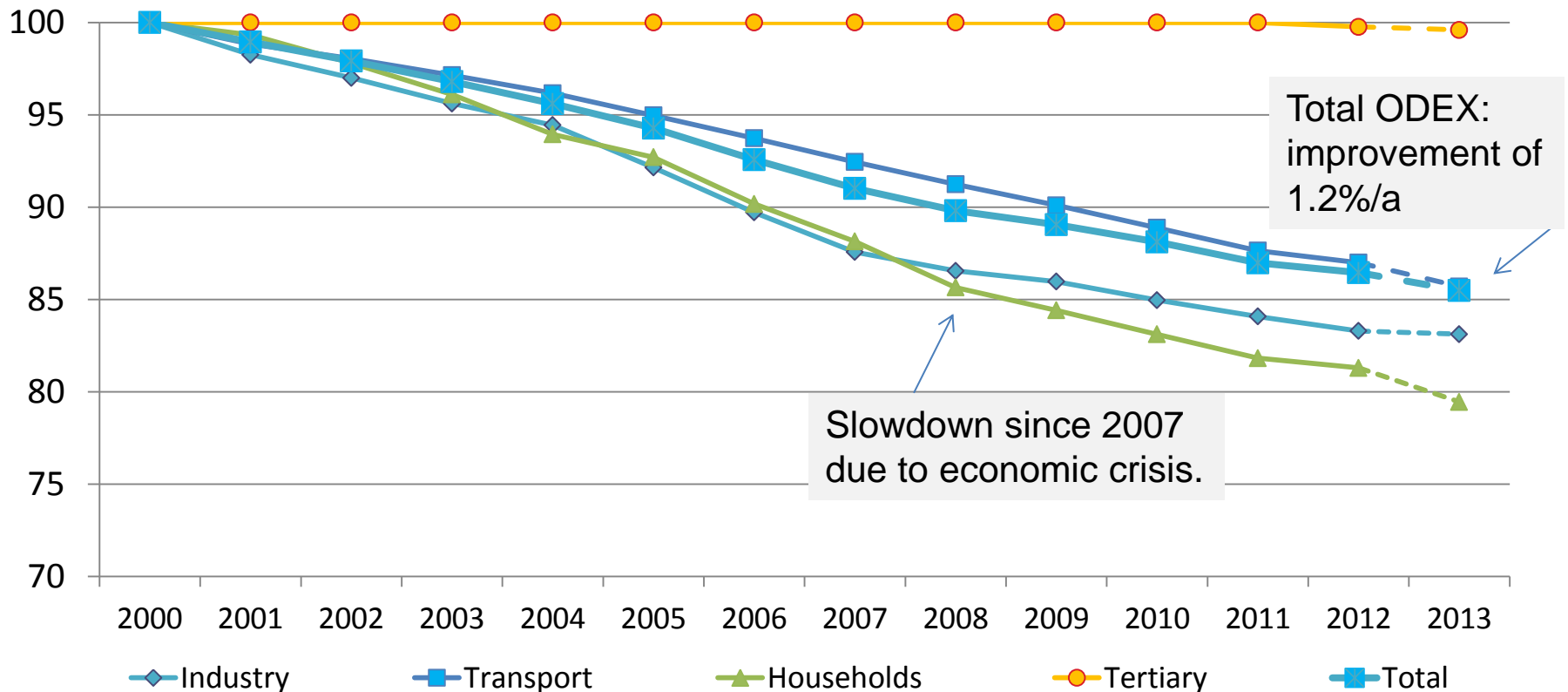
(Period: 2000-2012)

- Most countries have moved to less energy intensive sectors.
- Strong decrease of final energy intensity in Poland and moderate impact of structural changes.



Ex: Energy efficiency index (ODEX) for final consumers (EU)

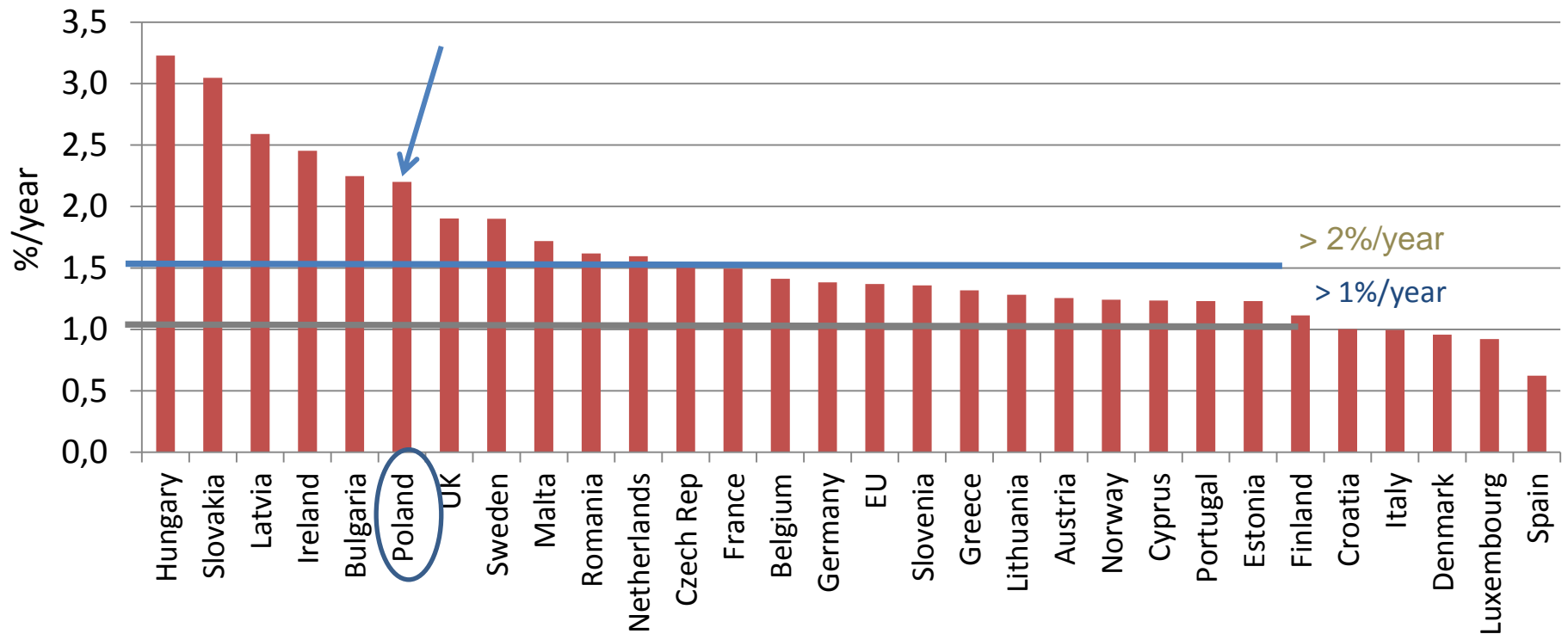
The ODEX is a re-aggregated energy efficiency indicator first calculated at the level of sectors and then re-aggregated to the whole economy. It is cleaned from temperature, structural, and behavioural changes which cannot be attributed to energy efficiency. It is therefore a better proxy for energy efficiency developments than pure energy intensities.



Technical ODEX; calculated as a 3 years moving average to avoid short term fluctuations. 2013 based on estimates from short term indicators.

Ex: Total ODEX by country (Period: 2000-2012)

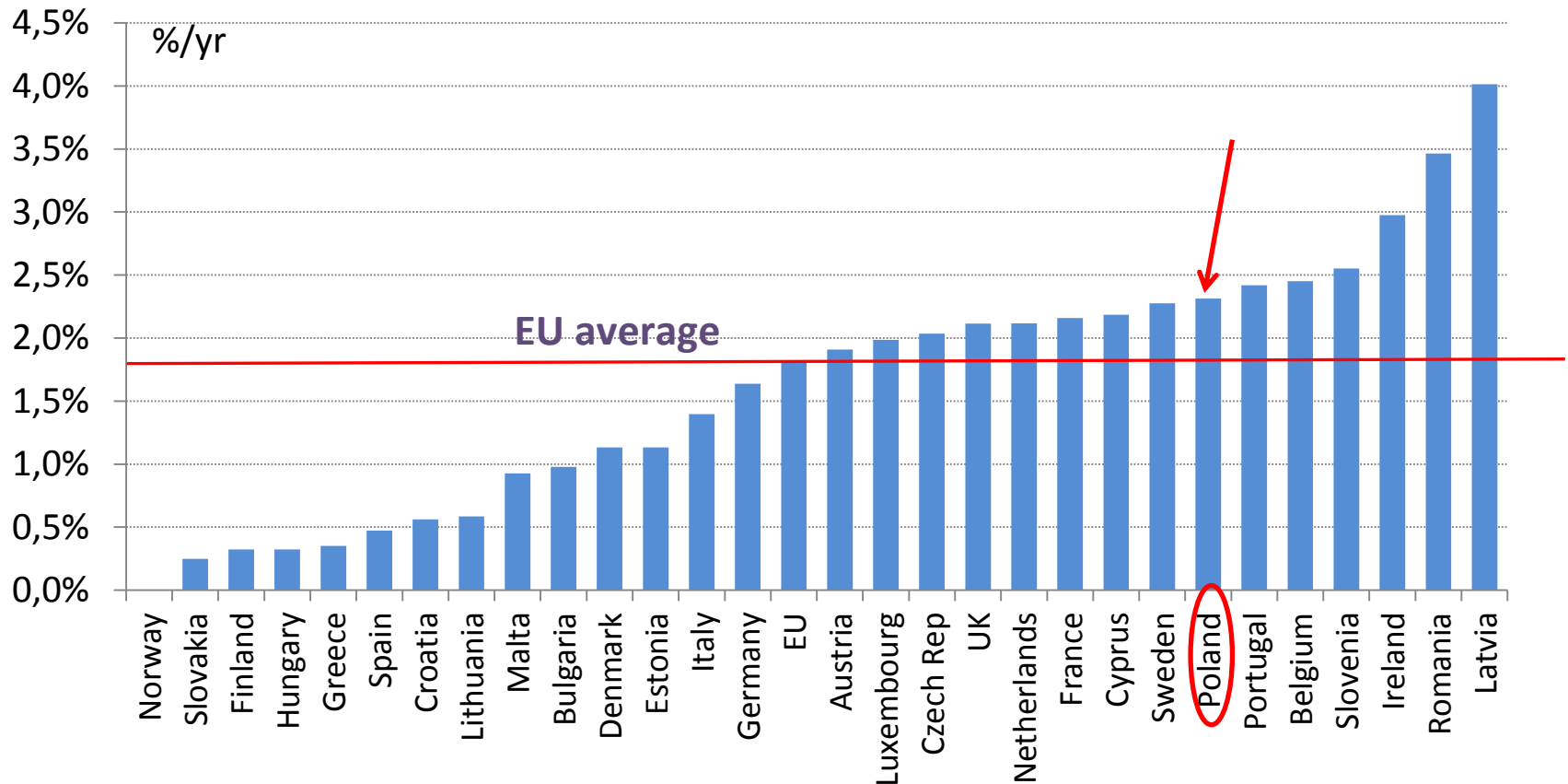
- Energy efficiency improvement above or around 2%/year for 6 countries since 2000 (Hungary, Slovakia, Latvia, Ireland, Bulgaria and **Poland**)
- 18 countries with energy efficiency between 1 and 2%/year.



2010 for Estonia & Hungary; 2011 for Romania and Belgium

Ex: Household ODEX by country (Period: 2000-2011)

- Most countries improved efficiency between 1.5%/year and 2.5%/year between 2000 and 2011 (1.8%/year on average in EU).
- Improvements twice higher than the EU average in Latvia, Slovenia and Romania; Poland also above average



Period of analysis: 2000-2010 for Estonia, Hungary and Malta

The new ODYSSEE Facilities on Indicators (free access)

KEY INDICATORS

Data mapping tool displaying 30 key indicators

MARKET DIFFUSION

Monitoring the progress in the market penetration of energy-efficient technologies

DECOMPOSITION

Change in energy consumption in a given period is explained by various drivers (e.g. activity, structure, behaviour, efficiency)

BENCHMARKING

Comparison of the performance of one country with selected others by adjusted indicators

ENERGY SAVINGS

Compilation of historical data, targets and projections for energy consumption and energy savings.

SCOREBOARD

Assessing and scoring the energy efficiency performance by sector and country.

Market diffusion facility: the tool includes 26 main diffusion indicators (15 for buildings, 9 for transport) and 50 indicators in total.

ODYSSEE-MURE

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Odyssee



MARKET DIFFUSION FACILITY



Database

Key Indicators

Market diffusion

Decomposition

Benchmarking

Energy Saving

Scoreboard

▼ Efficient & alternative cars

Alternative fuels

Sales

Stock

New cars

<100 gCO₂-sales

<100 gCO₂-stock

<130 gCO₂-sales

▶ Modal shift

▶ Efficient heating

▶ Bioenergy

▶ Efficient appliances

▶ Smart meter

▶ Efficient buildings

Sources

Compare countries

Click on the map to select countries

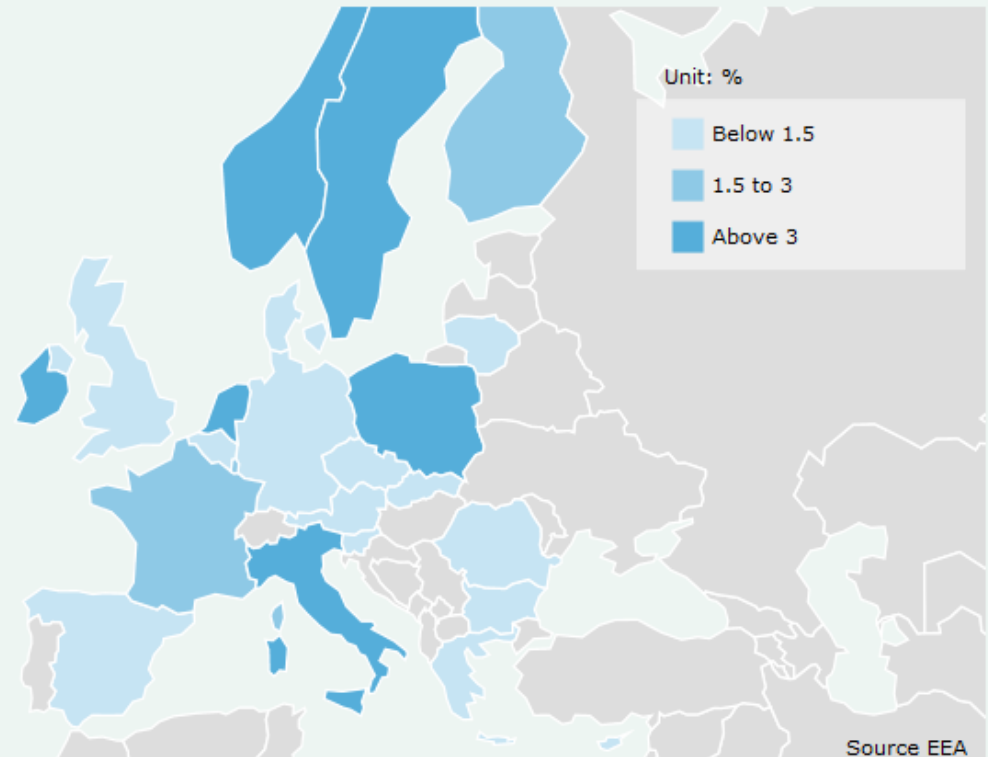
Share of alternative fuel vehicles in total annual sales

Year: 2012



Map

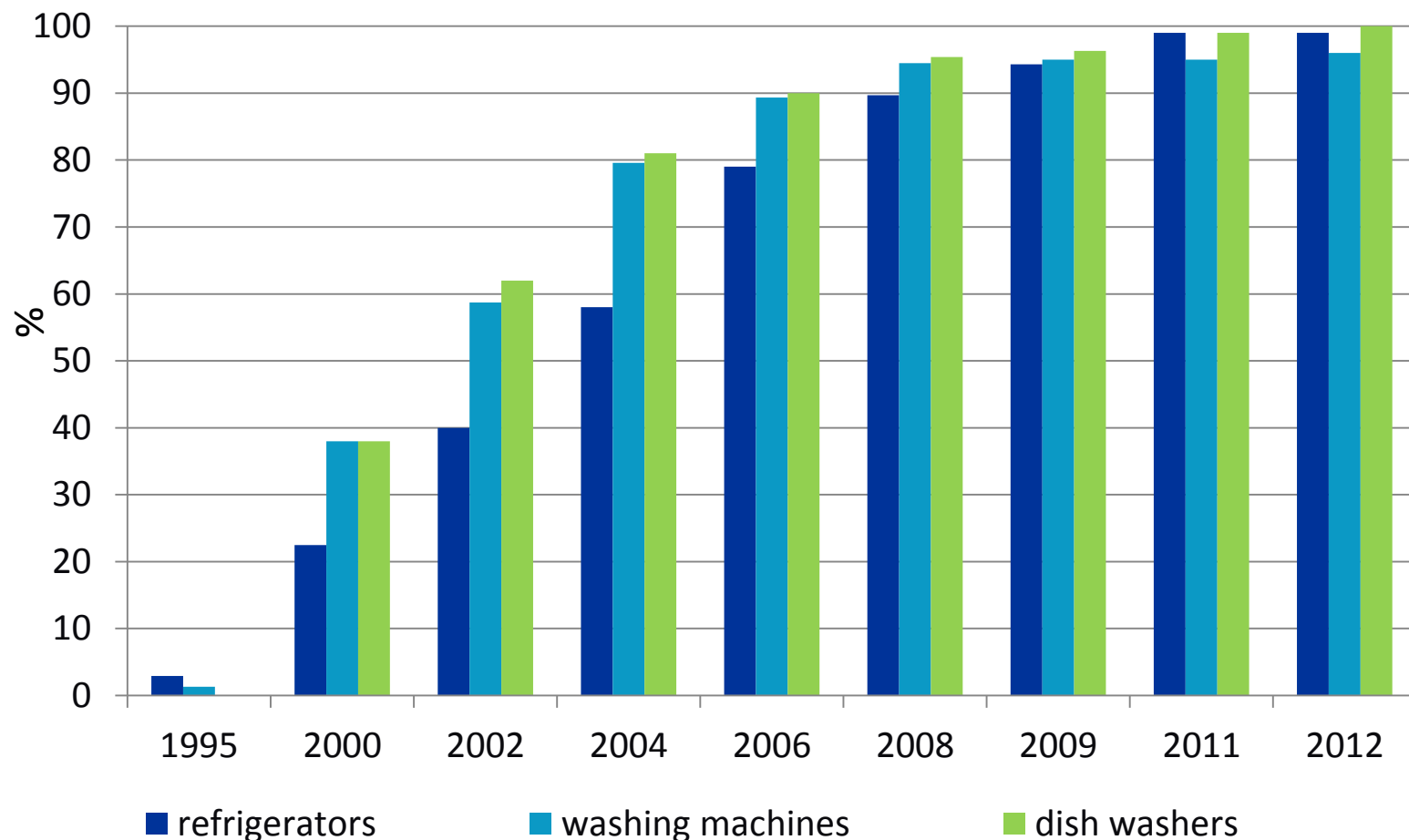
Excel



Source EEA

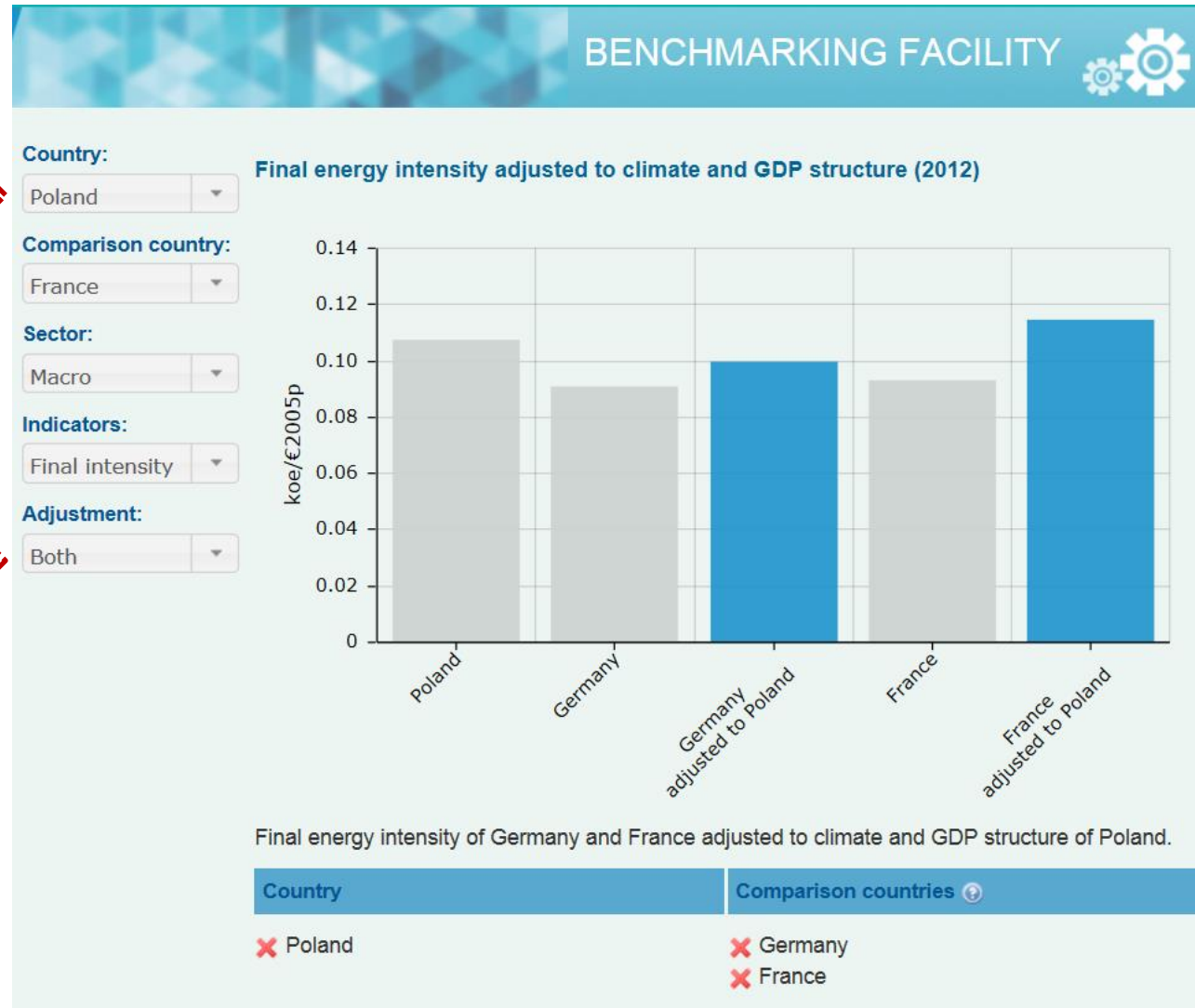
Almost 90% of refrigerators, washing machines and dishwashers with label equal or above A class; nearly 1/3 of washing machine sold in 2012 are A++/A+++

Market share of label A, A+ and A++ for cold and washing appliances (EU)



Source GFK, EEDAL

Benchmarking facility: enables the user to compare county X with the country(s) of its choice by adjusting the different indicators to its own characteristics.



List automatically adapts to the selected sector

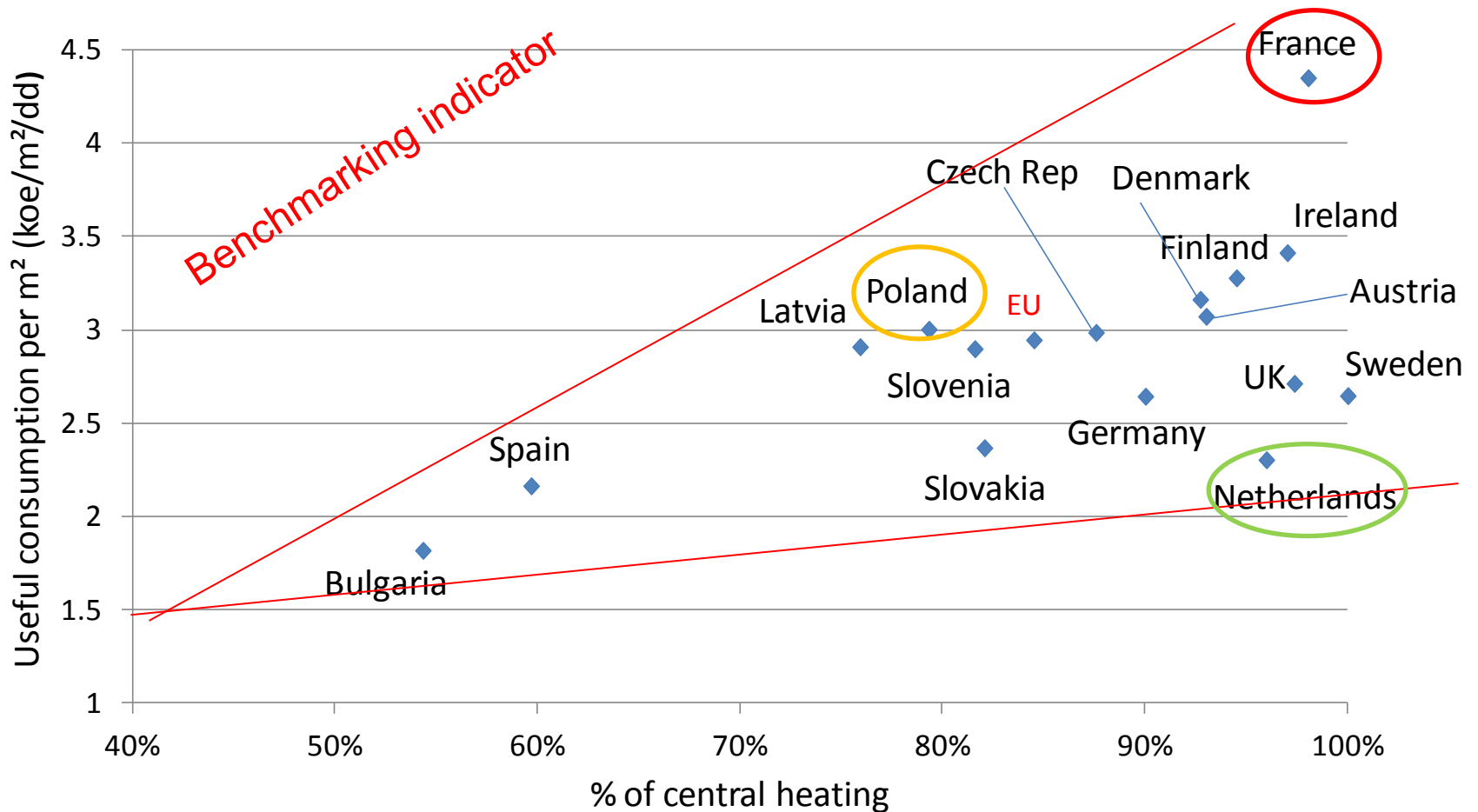
Adjustment tailored to the indicator

Main results or explanatory sentence

Units Glossary

Units can be changed (eg PJ, TJ, GWh)
Definition presented in a glossary

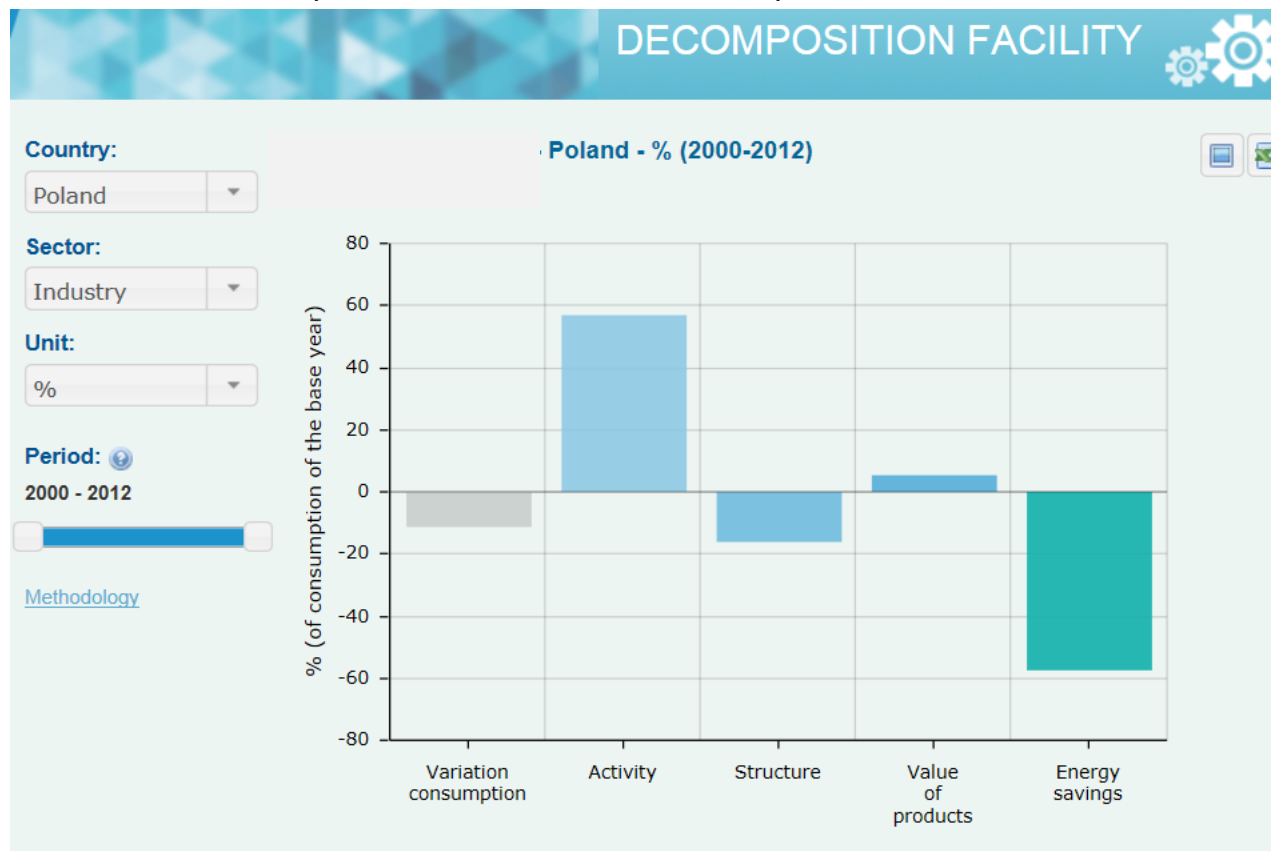
Benchmarking of space heating consumption for dwelling (2011): a Dutch dwelling consumes on average 45% less than a French one Poland has a medium position



Decomposition facility

This facility enables to display the different effects (i.e. the drivers for energy consumption) :

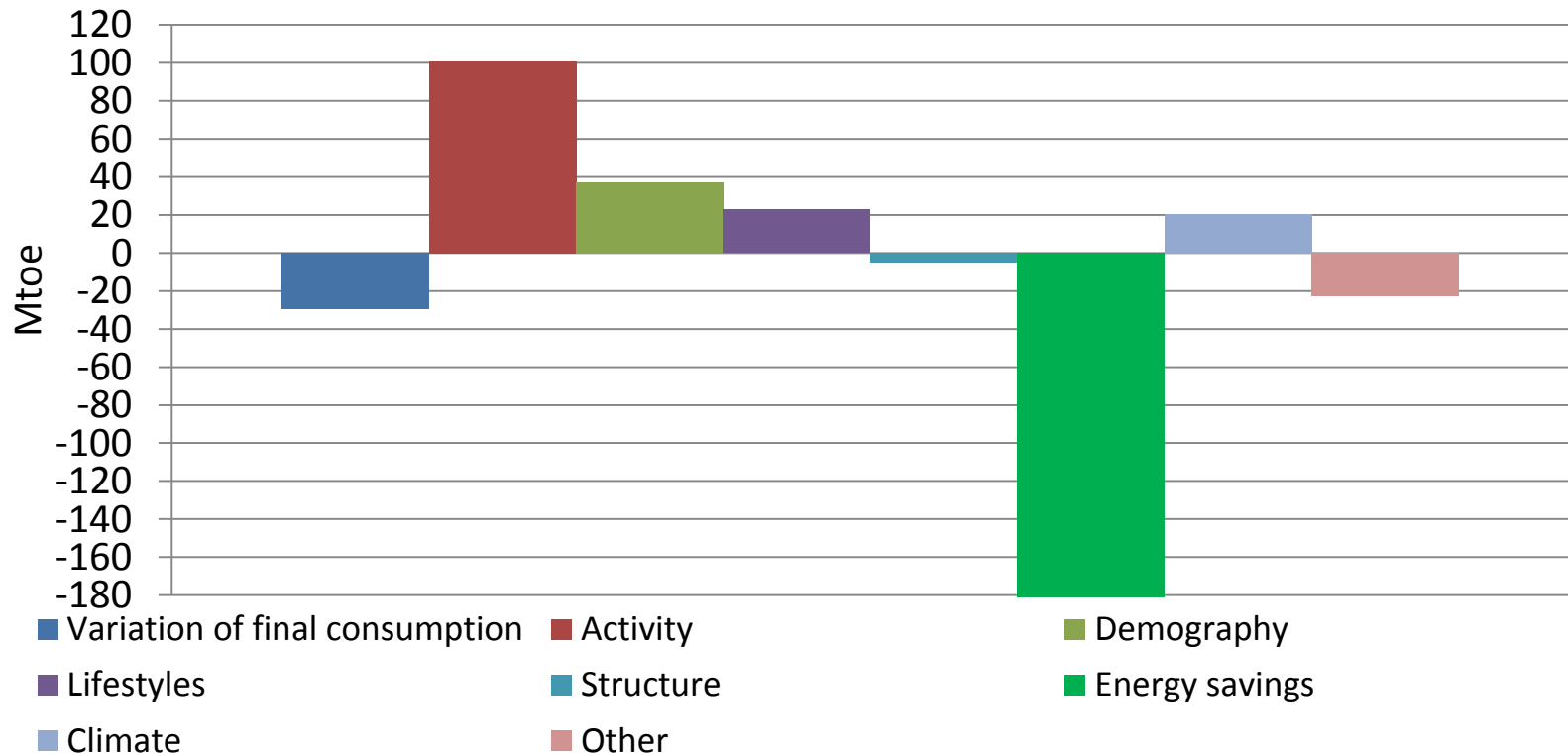
- by **country**;
- by **sector** (primary, power, total final or end-use sector);
- for a **selected period** (since 2000);
- in various **units** (ktoe, TJ, GWh and %)



A text appears below to explain the meaning of the drivers shown.

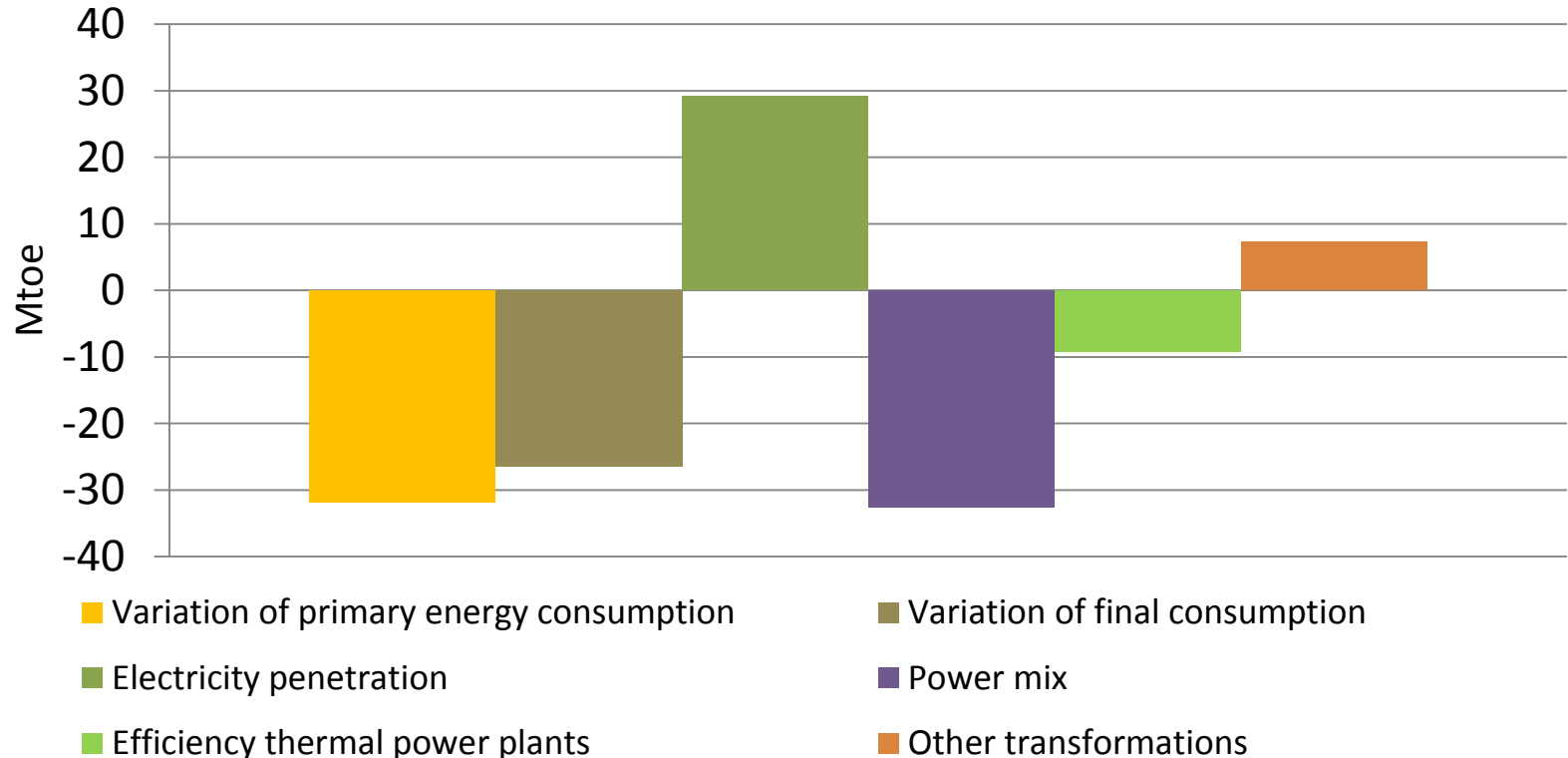
Decomposition of final energy consumption in the EU (Period 2000-2012)

- Economic activity increased consumption by around 100 Mtoe over 2000-2012.
- Demography and lifestyles (increase appliance ownership and larger dwellings) also contributed to increase consumption by around 40 and 20 Mtoe respectively.
- The colder climate in 2012 compared to 2000 also contributed to an increase of 20 Mtoe.
- Energy savings of 180 Mtoe offset the effect of these 4 drivers of consumption growth leading to a decrease in final consumption.



Decomposition of primary energy consumption in the EU (Period 2000-2012)

- The primary consumption decreased slightly more than the final consumption.
- This is mainly explained by a change in the power mix (higher share of renewables, lower share of nuclear) and improvements in the efficiency of thermal power generation.
- This trend more than offset the effect of the penetration of electricity, which otherwise would have increased the primary consumption by 30 Mtoe.



Energy saving facility

Database

Key Indicators

Market diffusion


Decomposition

Benchmarking


Energy Saving

Scoreboard


Country: 

Poland 

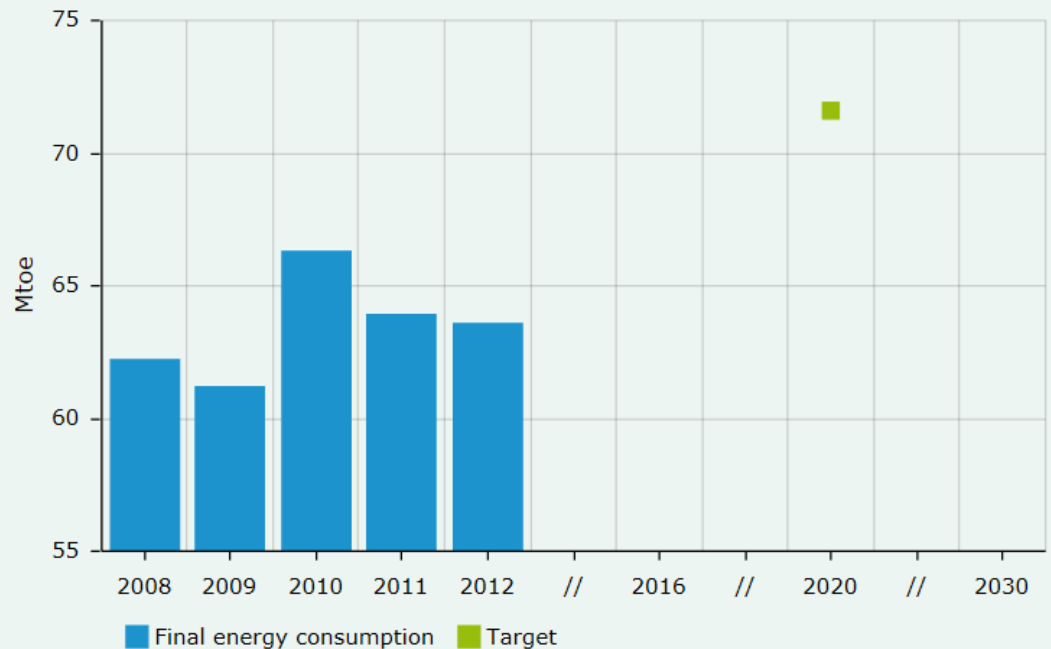
Item:

Final consumpti 

Unit:

Mtoe 

Final energy consumption: trends, targets and projections - Poland



Glossary

Final energy consumption: Energy consumed by end-users (ie industry, transport, households, services and agriculture) excluding non-energy uses.

Target: National energy efficiency target for 2020 from Article 3 of the Energy Efficiency Directive (EED)

Sources

Final energy consumption: Eurostat database

Target: NEEAP, reporting targets (http://ec.europa.eu/energy/efficiency/eed/reporting_en.htm)

No official projections to 2030.

Scoreboard Facility on Indicators

Odyssee



INDICATOR SCOREBOARD FACILITY



Database

Key Indicators

Market diffusion

Decomposition

Benchmarking

Energy Saving

Scoreboard

The objective of the scoreboard tool is to assess and score the level and progress of countries in energy efficiency, by sector (residential, transport, industry and services). The scoring is done for a list of selected indicators representative of end-uses, transport mode or sub-sector.

The scoring methodology is based on OECD Composite Indicators methodology, which gives normalized scores across the countries within a range of 0-1.

To get the average score by sector, each indicator is weighted with the same weight for all countries, taking into account a typical share of end-use or subsector. For each type of indicator both the level and the trend is considered with an equal weight. For instance, in transport, the indicator for car (l/100km) has a weight of 50%, of which 25% for the level and 25% for the trend.

The total score is calculated from the scores by sector with a weight representative of the share of the sector in the country's final energy consumption.

The score are calculated with the latest date available (2012) and the trend values as the annual growth rate over the period 2000-2012.

There are two main sections for viewing results:



Positioning: In this section, the performance of a country in a particular sector is compared with the best country, the EU average or any other countries.

2 options for the tool:

- 1) Visualize the position of one country compared to benchmarks**
- 2) Directly score the countries**

Scoreboard facility on energy efficiency indicators (still under development)

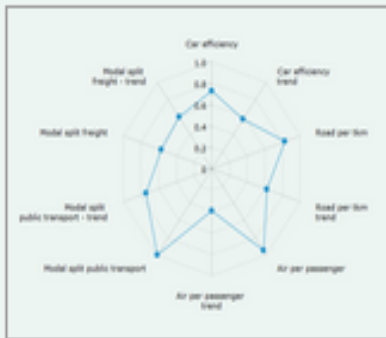
Objective : Assess and score the level and progress of countries in energy efficiency, globally and by end-use sector.

Energy efficiency will be assessed by sector through a selection of indicators:

- Indicators of level, e.g. for transport: specific consumption of cars, of goods vehicle, share of public transport.
 - Indicators of progress : trends in the previous indicators (e.g. Trend in specific consumption of cars and truck...)
-
- **Scoring will be done in two ways**
 - Position any country vis a vis 3 references: the best quartile (i.e. the best 25%), the EU average and any country.
 - Score all countries by sector, and showing as an option the position indicator by indicator.

Scoreboard facility on energy efficiency indicators

There are two main sections for viewing results:



Positioning: In this section, the performance of a country in a particular sector is compared with the best country, the EU average or any other countries.

Still open questions:

1. **Both trends and level shown together in the spidergraph**
2. Display trends and level separately
(2 spider graphs, one for trend, one for level)



Scoring: This section is dedicated to show the country ranking. The countries are shown in quartiles according to their score. The ranking can be displayed for each sector.

Still open questions:

1. **Only the 5 first best countries are ranked**
(the others are presented by quartile & alphabetic order)
2. Or only score the top ten and the other countries are not shown
3. Or score all countries and show ranks of all countries.



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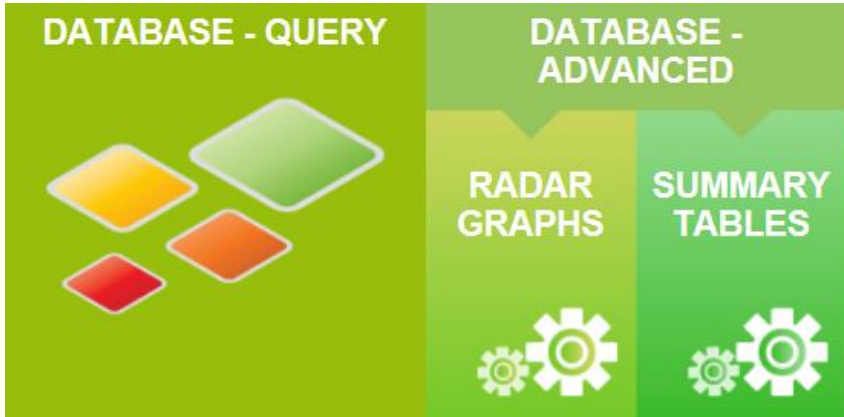
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Policy facilities of MURE database for evaluation
of measures implemented in Poland. Poland in the
light of other EU countries activities in the field

Barbara Schlomann
Fraunhofer Institute for Systems and Innovation Research ISI

The MURE database on energy efficiency policies (free access)



NEEAP Measures: ▼

Article 7 measures:

EU related measures:

Impact evaluation:

Semi-quantitative impact: ▼

Status: ▼

Starting year: From ▼ To ▼

-
-
-
-
-
-

Search by text on measure type, title, reference

Search by text on measure description (PDF)

Mure II Database - Query - Household - Select your options and push the button Query

Country

- Countries
- European Union

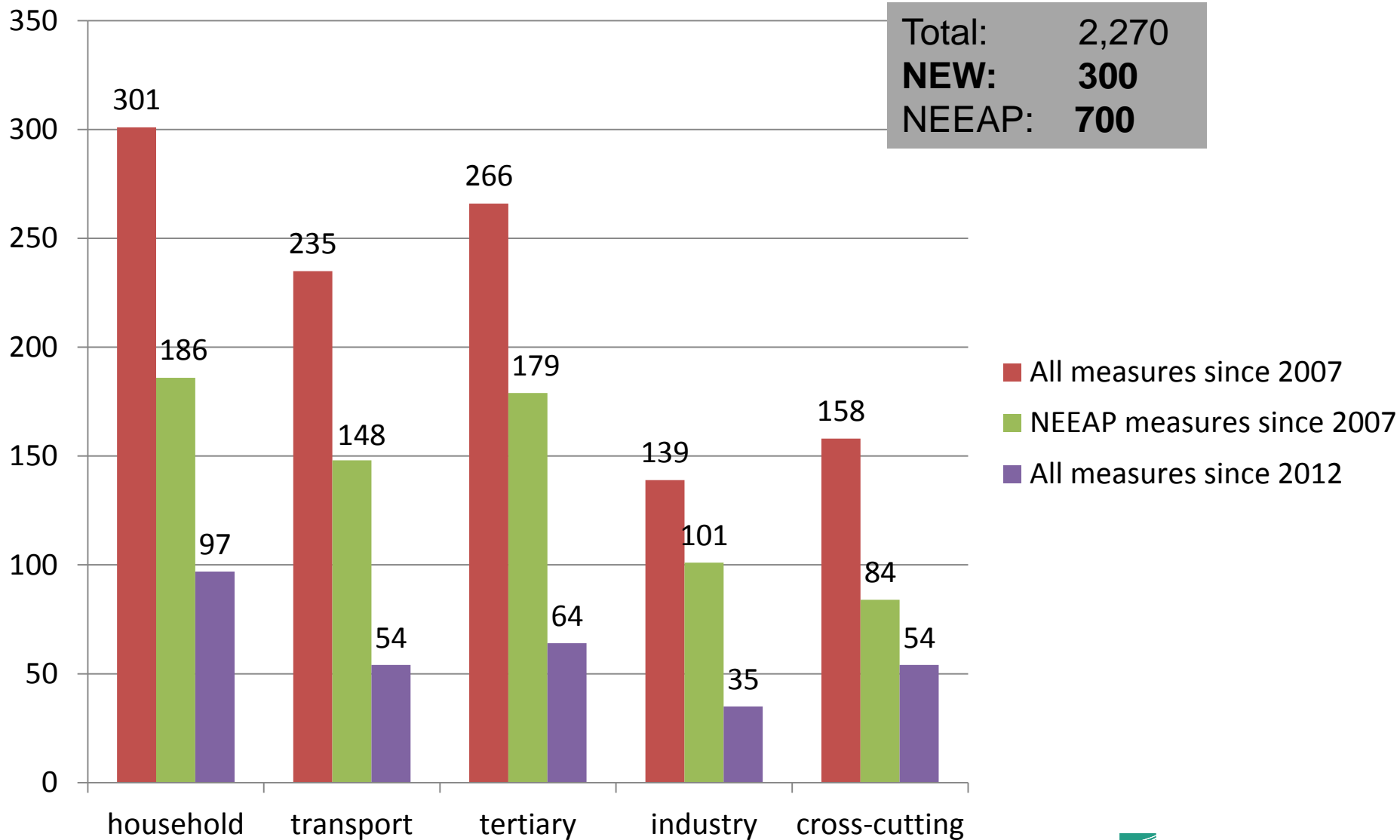
Measure type

- Co-operative Measures
- Cross-cutting with sector-specific characteristics
- Financial
- Fiscal/Tariffs
- Information/Education
- Legislative/Informative
- Legislative/Normative

Targeted end-use

- Appliances
- Cooking
- Hot water
- Lighting
- Other targeted uses
- Space cooling
- Space heating
- Total electric consumption
- Total final consumption
- Total fuel consumption

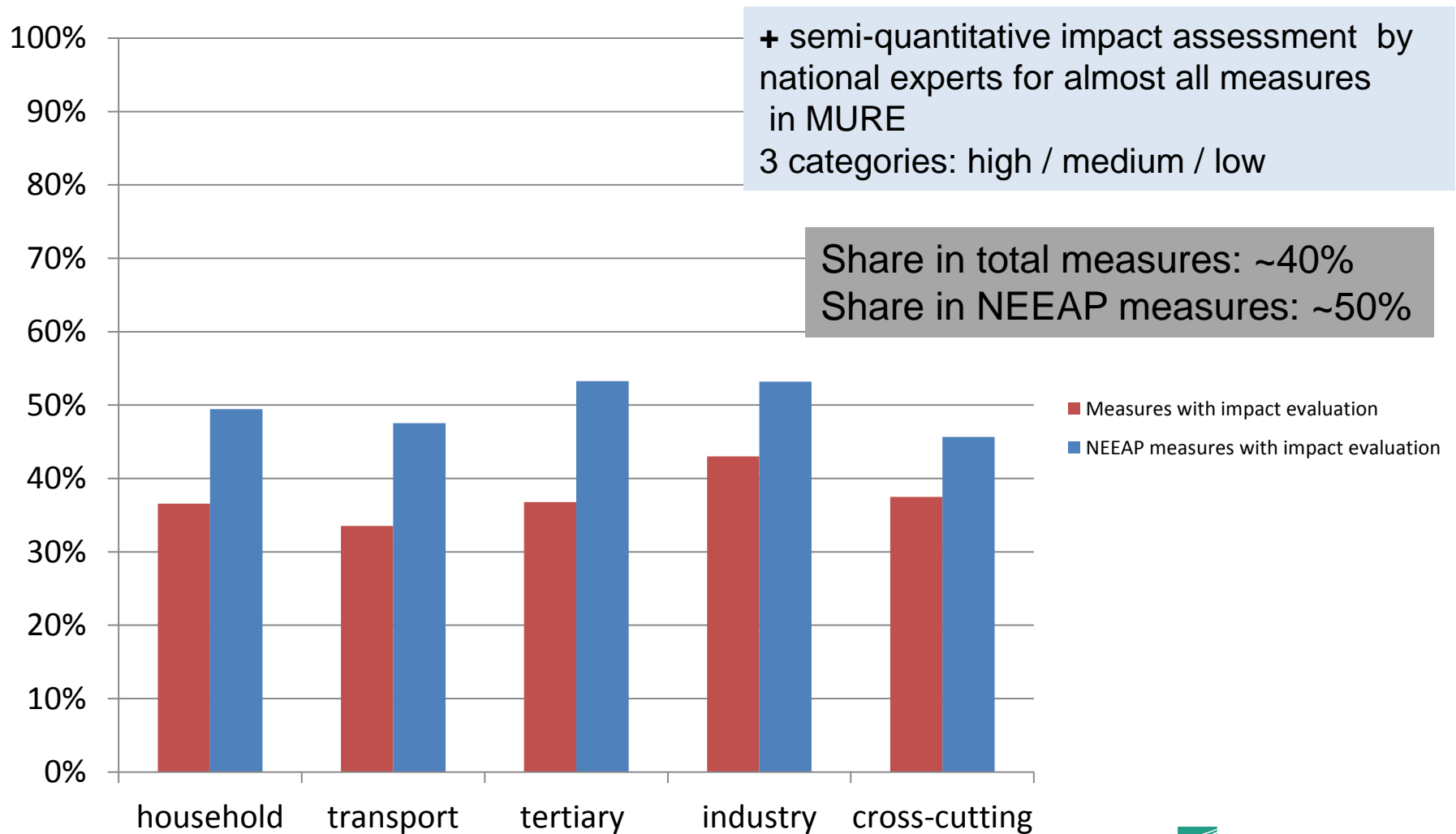
NEW measures and NEEAP measures



As of 21/5/2015

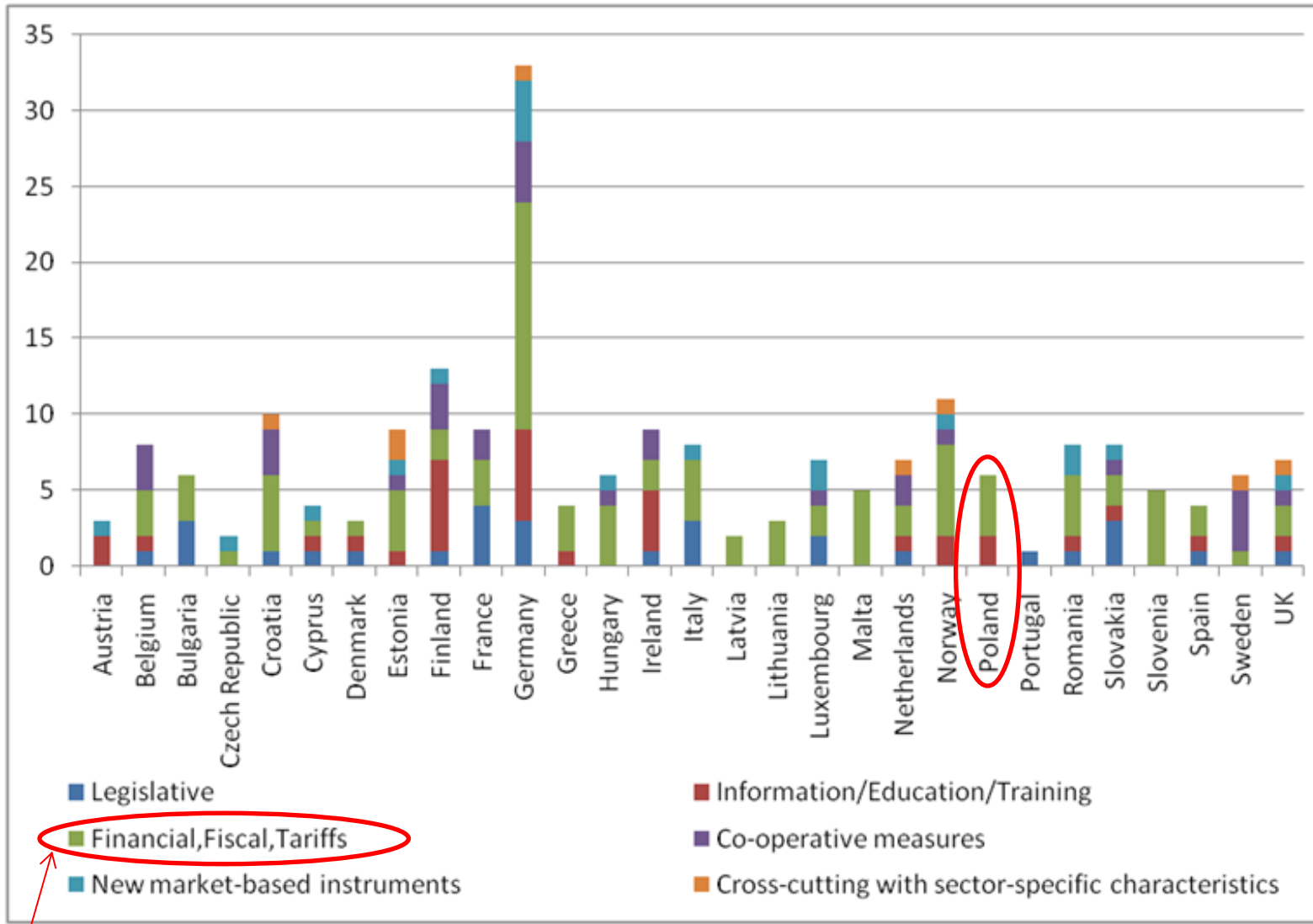
Measures with quantitative impact evaluation

⇒ this is unique for the MURE database compared to other international policy databases



As of 21/5/2015

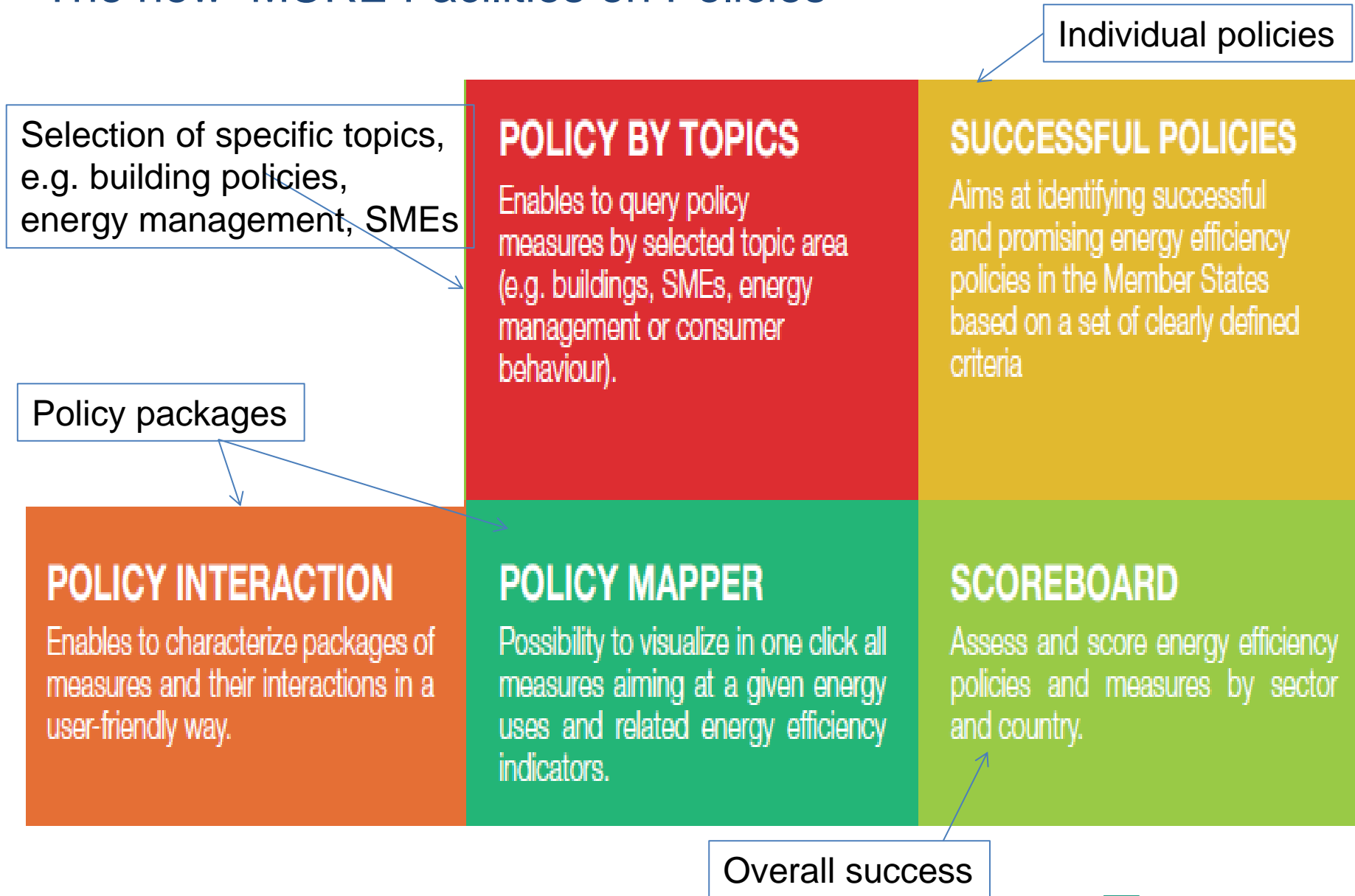
Policy measures by type and country - industry



Financial measures are the dominating measure type in most of the countries.

Source: MURE database, May 2015

The new MURE Facilities on Policies



Policies by topic facility

This facility enables to display information on selected policy topics: SMEs, energy management, consumer behaviour, energy services, bioenergy, transport energy, non-conventionally fuelled vehicles, public procurement, energy efficiency/renewables in buildings:

ODYSSEE-MURE Mure Home Query Radar Graphs Summary Tables **Topics Areas** Successful Measures Policies Interaction Policy Mapper Policy Scoreboard

Select the Topic from the list beside Include completed measures

	Measures on SMEs	Energy management	Consumers behaviour	Promotion of non-conventionally fuelled vehicles	Measures on public procurement	Measures on energy efficiency and renewable energy in buildings	Total Measures	% on Total	
Austria	4	0	5	2	0	7	20	47%	
Belgium	6	6	5	0	0	20	40	55%	
Bulgaria	14	9	4	1	1	18	50	59%	
Croatia	10	4	2	9	2	23	50	58%	
Cyprus	2	1	2	2	2	7	16	50%	
Czech Republic	5	1	5	1	4	3	14	27	46%
Denmark	3	2	4	1	2	1	5	14	50%
Estonia	17	3	9	1	3	13	20	59	52%
European Union	8	3	2	2	4	1	32	30%	
Finland	18	6	14	1	5	4	55	51%	

All policy topics

ODYSSEE-MURE Mure Home Query Radar Graphs Summary Tables **Topics Areas** Successful Measures Policies Interaction Policy Mapper Policy Scoreboard

Select the Topic from the list beside Include completed measures

	behaviour (Household)	smart meters (Household)	Detailed energy/electrical aiming at EE improvement (Household)	Information / training on energy efficient driving behaviour (Transport)	Promotion of cycling or walking (Transport)	Information on public transport (Transport)	behaviour (Transport)	Total Measures
Austria	0	1	1	2	1	1	0	5
Belgium	0	0	0	0	1	0	0	5
Bulgaria	0	0	0	2	3	0	0	4
Croatia	0	0	0	1	0	0	0	2
Cyprus	0	0	0	0	0	0	0	2
Czech Republic	0	0	0	2	1	1	0	5
Denmark	0	0	0	1	1	0	0	4
Estonia	1	0	0	4	1	0	0	9
European Union	1	0	0	1	0	0	0	2
Finland	0	0	0	8	1	1	0	14
France	2	0	0	3	2	4	0	11

Policies addressing consumer behaviour

Policies by topics: policies addressing SMEs

	(Tertiary)	(Industry)	(Transport)	Total Measures
Austria	2	1	0	3
Belgium	1	5	0	6
Bulgaria	0	14	1	15
Croatia	5	8	0	13
Cyprus	1	1	0	2
Czech Republic	0	6	0	6
Denmark	1	3	0	4
Estonia	5	12	0	17
European Union	3	5	0	8
Finland	9	9	0	18
France	1	4	0	5
Germany	20	28	0	48
Greece	2	1	0	3
Hungary	0	6	0	6
Ireland	14	7	0	21
Italy	0	6	0	6
Latvia	8	7	0	15
Lithuania	0	6	0	6
Luxembourg	4	4	0	8
Malta	3	2	0	5
Netherlands	11	15	0	26
Norway	6	17	0	23
Poland	1	2	0	3
Portugal	0	2	0	2
Romania	0	3	0	3
Slovakia	4	7	0	11
Slovenia	1	6	0	7
Spain	7	8	0	15
Sweden	1	5	0	6
Switzerland	0	0	0	0
United Kingdom	7	4	0	11
Total	117	204	1	322

Typical measures for SMEs:

- Support for energy audits
- Support for EE investment
- Energy management activities

Title
Thermal Modernisation Fund
Polish Sustainable Energy Financing Facility (PoISEFF)
Improvement of Energy Efficiency. Part 4 – Energy Efficiency Investments in SMEs



Facility on successful policies

This facility enables to identify successful energy efficiency policies:

- 12 criteria to define success measures (6 “high” and 6 “low” priority criteria)
- Quantitative evaluation of each policy with a score between 1 (worst) and 5 (best) for each of the 12 criteria (expert evaluation)
- Selection by sector and/or country



Navigation Methodology Scoring

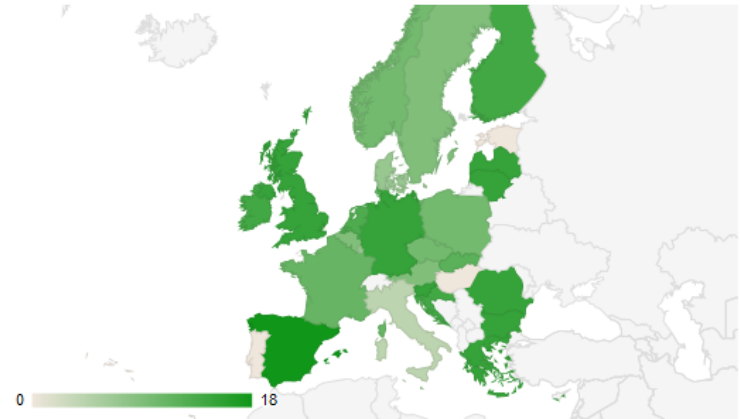


Criteria
Sector
Country
Average score by country
No. measures by country and score

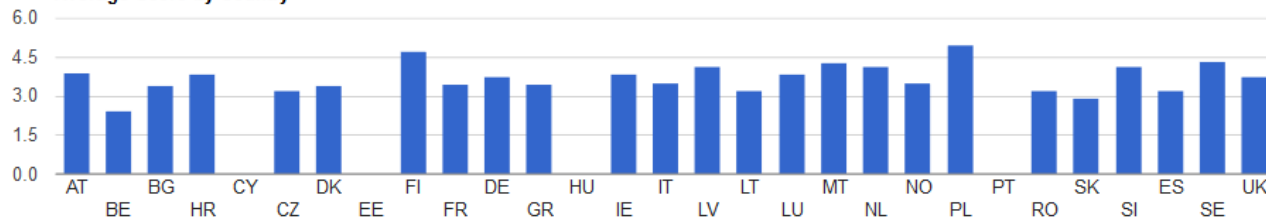
- Cost efficiency for the implementor / necessary administrative support
- All
- High impact / high number of applicants
- Cost efficiency for the implementor / necessary administrative support**
- Potential for market transformation and for promotion of energy service market
- Suitability to overcome barriers for energy efficiency
- Ease and stability of re-financing (only relevant for financial measures)
- Persistency of the savings induced by the measure
- Transferability between countries
- Link to other measures / policy packages
- Previous experience with measure
- Avoidance of negative side-effects
- Support of positive side-effects
- Ease of acceptance by relevant stakeholders

298 Measures Found

[See All](#)



Average Score by Country





Chosen criteria for the quantification of the success level



C1	High impact / high number of applicants	
C2	Cost efficiency for the implementor / necessary administrative support	
C3	Potential for market transformation and for promotion of energy service market	
C4	Suitability to overcome barriers for energy efficiency	
C5	Ease and stability of re-financing (only relevant for financial measures)	
C6	Persistency of the savings induced by the measure	High priority
C7	Transferability between countries	
C8	Link other measures / policy packages	Low priority
C9	Some experience with measure	
C10	Avoidance of negative side-effects	
C11	Support of positive side-effects	
C12	Ease of acceptance by relevant stakeholders	

Successful individual measures for industry

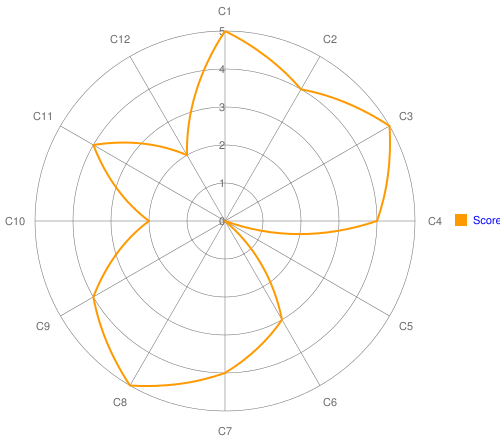
Navigation i Methodology i Scoring i

All ▼

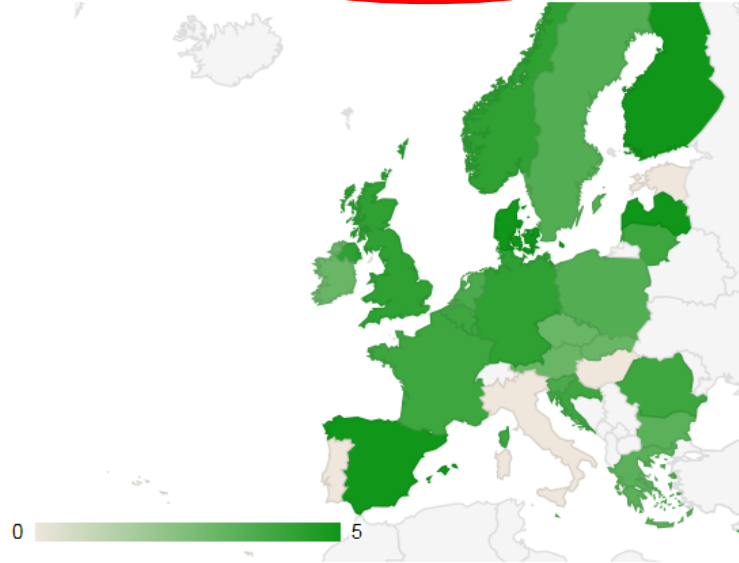
Industry ▼

All ▼

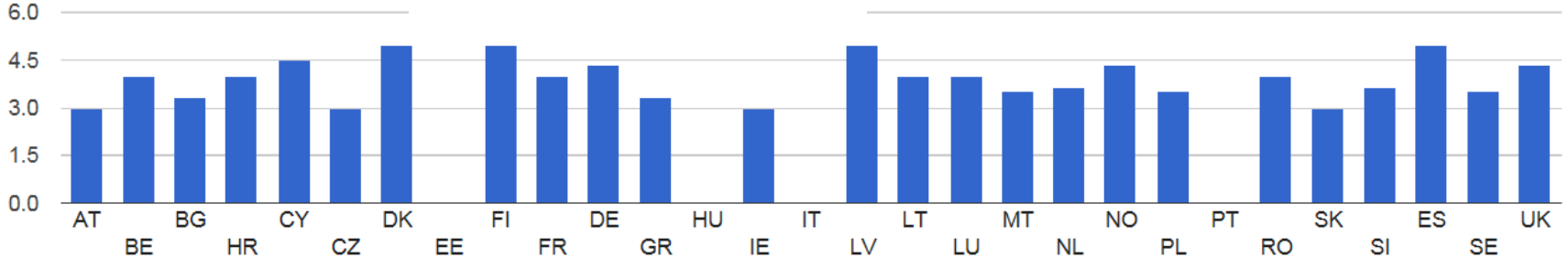
All ▼



56 Measures Found See All



Average Score by Country



Almost half of the 10 “successful measures” chosen for Poland are financial measures, but: other half is a broad policy mix (incl. market-based instruments).



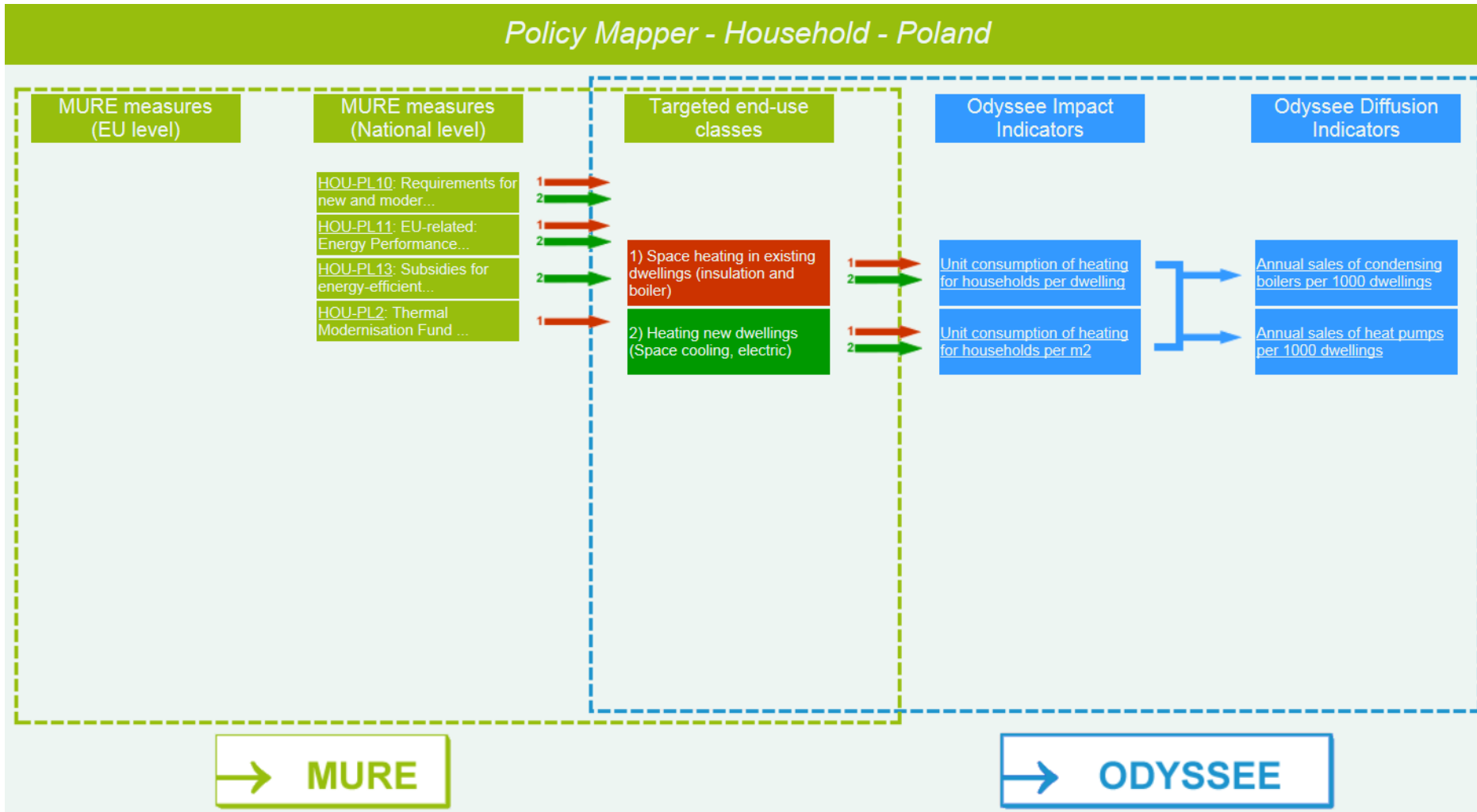
Successful measures chosen for Poland

All Successful Criteria					
Code	Title		Avg Score	Status	Type
HOU-PL9	Promotion of solar collectors in households sector		3,08	Ongoing	Financial
HOU-PL10	Requirements for new and modernised buildings		4,09	Ongoing	Legislative/Normative
TER-PL1	Thermal Modernisation Fund		4,58	Ongoing	Financial
TER-PL12	Green Investment Scheme. Part 1 - energy management in public buildings		3,08	Ongoing	Financial
TER-PL13	Green Investment Scheme. Part 5 – Energy Management in Buildings of Selected Public Sector Entities		3,08	Ongoing	Financial
IND-PL11	Priority Programme “Efficient use of energy. Part II” - Soft loans support for investments decreasing energy consumption		3,5	Ongoing	Financial
IND-PL10	Priority Programme “Efficient use of energy. Part I” - Grants for energy audits in industrial enterprises		3,08	Ongoing	Information/Education/Training
GEN-PL12	System of white certificates - Energy efficiency Act		4,36	Ongoing	Market-based Instruments
GEN-PL1	Green certificates for electricity production from renewable energy sources		4,09	Ongoing	Market-based Instruments
GEN-PL5	The National Fund for Environmental Protection and Water Management (NFOSiGW)		3,67	Ongoing	Financial Measures

Policy mapper facility: Example for Poland /1/

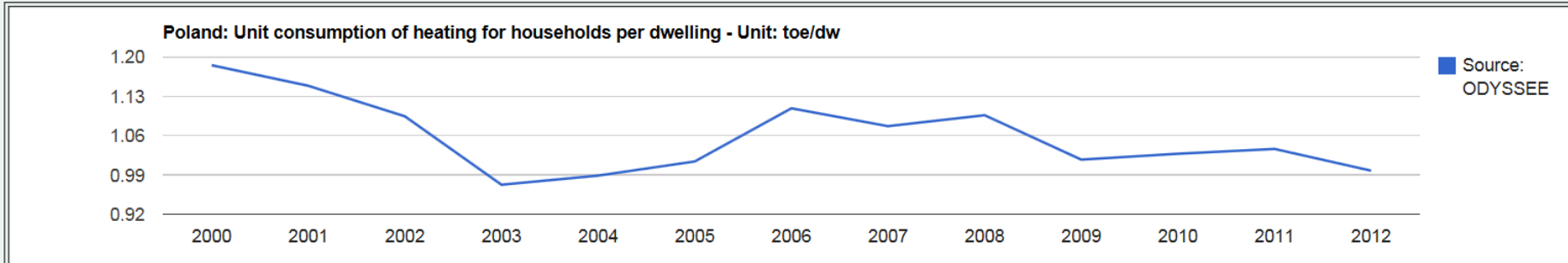
This facility enables to identify interacting energy efficiency policies for a given targeted end-use (heating in buildings etc.).

Selection by sector and/or country:



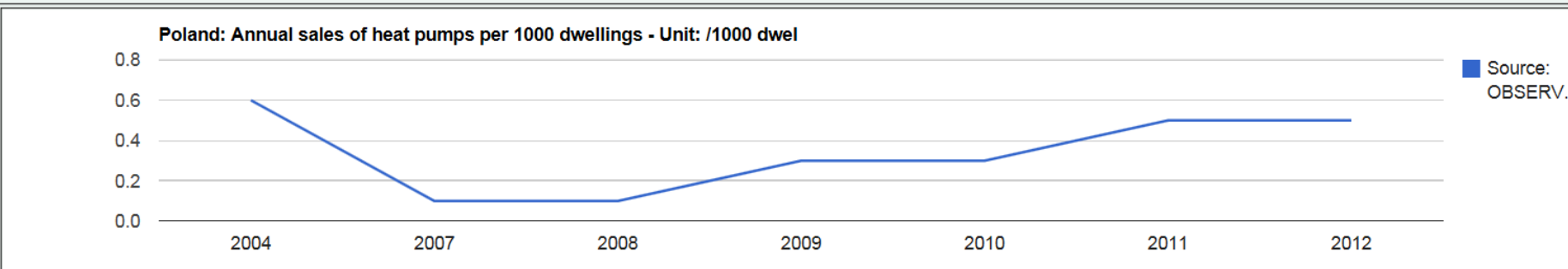
Policy Mapper Facility: Example for Poland /2/

Policy Mapper - Household - Impact Indicators - Poland



Code	Title	From	Updated
HOU-PL2	Thermal Modernisation Fund	1999	2015
HOU-PL11	EU-related: Energy Performance of Buildings (Directive 2002/91/EC) - Certificates of energy performance for buildings	2009	2014
HOU-PL13	Subsidies for energy-efficient houses	2013	2014
HOU-PL10	Requirements for new and modernised buildings	2014	2014

Policy Mapper - Household - Diffusion Indicators - Poland



Code	Title	From	Updated
HOU-PL2	Thermal Modernisation Fund	1999	2015
HOU-PL11	EU-related: Energy Performance of Buildings (Directive 2002/91/EC) - Certificates of energy performance for buildings	2009	2014
HOU-PL13	Subsidies for energy-efficient houses	2013	2014
HOU-PL10	Requirements for new and modernised buildings	2014	2014

Policy interaction facility

This facility enables to evaluate concretely the impacts of interacting measures.



Measure types group interaction matrix - Poland - Space heating in existing dwellings (insulation and boiler)

You can modify the values of the interaction matrix by choosing from the related list boxes, then click the button Confirm to make your own evaluation



	Leg-norm/invest	Leg-norm/use	Leg-inform/focus (label)	Leg-inform/broad (audit)	Finan-fiscal/invest	Finan-fiscal/use (tariff)	Finan-fiscal/info (audit)	Inform/focused-invest	Inform/broad (center, etc.)	Coop/focused (VA-manufacturers)	Coop/broad (VA-sector)	Cross-cutting/taxes
Leg-norm/invest												
Leg-norm/use	Some overlap ▼											
Leg-inform/focus (label)	Strong overlap ▼	Not interacting ▼										
Leg-inform/broad (audit)												
Finan-fiscal/invest	Strong overlap ▼	Some overlap ▼	Strong reinfor ▼									
Finan-fiscal/use (tariff)												
Finan-fiscal/info (audit)												
Inform/focused-invest												
Inform/broad (center, etc.)												
Coop/focused (VA-manufacturers)												
Coop/broad (VA-sector)												
Cross-cutting/taxes												

Case study: The German “National Energy Efficiency Action Plan” (NAPE)

Title	Characterisation	Type of instrument
Buildings		
Upgrading, continuation and increased funding of the CO ₂ Building Renovation Programme	Further development	Financial
Energy saving legislation	Further development	Regulation
Quality assurance and optimising of energy consulting	Further development	Advice/Information
Tax incentives for energy-efficient renovations	New	Financial
Heating check	New	Financial
Appliances & products		
National Top Runner Initiative	New	Advice/Information
EU energy efficiency labelling and ecodesign	Further development	Regulation
National Energy-efficiency Label for Old Heating Installations	New	Advice/Information
Industry & commerce		
Waste Heat Utilization Initiative	Further development	Financial
Energy Efficiency Networks Initiative	Further development	Advice/Information
Upgrading the KfW energy efficiency programmes	Further development	Funding
Obligation to perform energy audits for non-SMEs (implementation of Art. 8 EED)	New	Regulations
Cross-cutting instruments		
Funding programme „Energy Performance Contracting“	New	Contracting
„Energy Performance Contracting“ - default guarantees by banks for investments	New	Contracting
Introduction of a competitive tendering scheme for energy efficiency	New	Financial



Measures related to industry / tertiary

Interaction facility: check of overlaps of the new German policy package for industry

Select the country, the targeted end-use class, then click on the button Submit to calculate the energy saving of the measures package

Germany

Your own measures package

Submit

Open
Guideline

Code	Measure Title	Types group	Qualitative Impact	En. Saving (PJ)	% of Saving
IND-GER53	Further development of KfW energy efficiency programs – KfW energy efficiency program for industrial sector	Finan-fiscal/invest	Low	2,414	0,10%
IND-GER54	Initiative “Energy Efficiency Networks”	Inform/broad (center, etc.)	High	16,895	0,70%
IND-GER55	Mandatory execution of Energy Audits in the large enterprises (non-SMEs)	Leg-inform/focus (label)	Medium	7,241	0,30%
IND-GER56	Loss – secured Contracting (Ausfallbürgschaft Contracting)	Finan-fiscal/invest	Low	2,414	0,10%
IND-GER57	Supporting measures to increase the waste heat utilization	Finan-fiscal/invest	Low	2,414	0,10%
Sum of impacts (without interaction)				31,376	1,30%
Combined impact (with interaction)				33,789	1,40%
Difference (combined impact - sum of impacts)				2,414	7,69%

Measures from the NAPE newly added to the industrial sector in the MURE database
 ⇒ creation of an „own measure package“ for Germany.

Scoreboard for Energy Efficiency Policies (still under development)

This facility enables to compare the strength of energy efficiency policies between the Member States

Methodological issues (still discussed):

- Add-on to already existing ranking approaches (e.g. aceee) by making use of more detailed information on EE policies in MURE.
- Definition of **policy areas**: structure by final consumption sectors and main end-uses from MURE + cross-cutting section ⇒ weighting by share in energy consumption
- Definition of **policy subsets**: by types of policies (categories from MURE) ⇒ equal weight of policy types.
- **How to score the individual policies within each subset**:
 - (mainly) output/performance based („policy impacts“) ⇒ can be directly drawn from MURE (use of semi-quantitative and quantitative impact)
 - (partly) input based (e.g. level of program budgets, ambitiousness of standards) ⇒ information can only be drawn from detailed measure descriptions in MURE or from external sources.
- **How to rank the countries according to their scores?**
 - Strong ranking principle or medium strong ranking principle?

Germany below EU average with energy efficiency progress – Level of energy efficiency and energy efficiency policies however good

Tabelle 1
Deutschland steht beim Niveau der Energieeffizienz noch auf vorderen Plätzen...

Country	2012 Final Energy Intensity *	Rank
Malta	0,0717	1
United Kingdom	0,0746	2
Lithuania	0,0851	3
Germany	0,0884	4
Slovakia	0,0888	5
Hungary	0,0909	6
Spain	0,0925	7
Portugal	0,0930	8
European Union	0,0947	
Austria	0,0950	9
Poland	0,0964	10
Italy	0,1010	11
Netherlands	0,1021	12
Denmark	0,1027	13
France	0,1051	14
Czech Rep.	0,1053	15
Croatia	0,1060	16
Cyprus	0,1076	17
Ireland	0,1076	18
Greece	0,1096	19
Slovenia	0,1108	20
Romania	0,1135	21
Norway	0,1168	22
Latvia	0,1205	23
Bulgaria	0,1288	24
Belgium	0,1326	25
Estonia	0,1369	26
Finland	0,1488	27
Luxembourg	0,1584	28
Sweden	n.a.	

* Final energy intensity (koe/€2005p) adjusted for differences in industry and economic structure, as well as for climate differences (ppp, 2005)

Tabelle 2
...erzielte aber seit 2000 nur vergleichsweise bescheidene Fortschritte

Country	ODEX 2000-2012 *	Rank
Latvia	3,11%	1
Poland	2,79%	2
Romania	2,55%	3
Bulgaria	2,47%	4
Lithuania	2,02%	5
United Kingdom	1,89%	6
Netherlands	1,84%	7
Norway	1,81%	8
Slovenia	1,77%	9
Hungary	1,60%	10
Slovakia	1,54%	11
European Union	1,34%	
Denmark	1,24%	12
France	1,19%	13
Portugal	1,15%	14
Sweden	1,12%	15
Croatia	1,07%	16
Ireland	1,06%	17
Germany	1,04%	18
Cyprus	1,04%	19
Czech Rep.	1,01%	20
Austria	0,99%	21
Belgium	0,87%	22
Italy	0,83%	23
Estonia	0,75%	24
Greece	0,71%	25
Luxembourg	0,39%	26
Finland	0,34%	27
Spain	0,22%	28
Malta	0,10%	29

* Jährliche Energieeffizienzgewinne 2000-2012 (gemessen mit ODEX)

Tabelle 3
Ein guter Platz bei der Energieeff. politik könnte bei konsequenter Umsetzung erlauben, die Energiewendeziele zu erreichen

Country	Policy impact*	Rank
Bulgaria	56	1
Croatia	54	2
Germany	53	3
Ireland	48	4
Spain	48	5
France	46	6
Estonia	40	7
Finland	36	8
Latvia	36	9
Romania	34	10
Portugal	29	11
UK	27	12
Hungary	26	13
Belgium	25	14
Slovakia	25	15
Malta	25	16
Netherlands	23	17
Norway	21	18
Slovenia	21	19
Cyprus	20	20
Greece	20	21
Italy	20	22
Poland	15	23
Luxembourg	12	24
Czech Republic	12	25
Lithuania	11	26
Denmark	11	27
Austria	10	28
Sweden	10	29

* in energy efficiency base points (1 point = 0.1% of final energy consumption), based on impact assessments provided in the MURE database on energy efficiency policies 2000-2014

Methodology for Energy Efficiency Policy Impact

Households	Industry	Transport	Services	Cross-cutting						
Malta	86	1 Bulgaria	50	1 Croatia	78	1 Ireland	70	1 Germany	68	1
Croatia	78	2 Germany	46	2 Ireland	52	2 Croatia	69	2 Bulgaria	66	2
Bulgaria	73	3 Spain	38	3 Romania	47	3 France	55	3 France	47	3
Ireland	71	4 Romania	34	4 Germany	44	4 Latvia	55	4 Slovakia	41	4
France	68	5 Finland	33	5 Finland	40	5 Bulgaria	53	5 Estonia	40	5
Estonia	61	6 Norway	30	6 France	40	6 Germany	53	6 Romania	28	6
Portugal	57	7 Ireland	29	7 Bulgaria	39	7 Spain	52	7 UK	28	7
Spain	55	8 UK	27	8 Spain	38	8 Belgium	51	8 Slovenia	26	8
Germany	56	9 Netherlands	25	9 Portugal	35	9 Estonia	51	9 Poland	25	9
Finland	50	10 France	21	10 Latvia	30	10 Finland	49	10 Finland	24	10
Latvia	50	11 Italy	20	11 Estonia	29	11 UK	46	11 Ireland	24	11
Netherlands	44	12 Croatia	18	12 Hungary	29	12 Portugal	44	12 Hungary	23	12
Hungary	38	13 Hungary	18	13 Poland	28	13 Greece	38	13 Latvia	22	13
Belgium	34	14 Belgium	17	14 Netherlands	27	14 Lithuania	37	14 Belgium	21	14
Slovakia	33	15 Cyprus	16	15 Cyprus	20	15 Slovakia	37	15 Malta	21	15
Luxembourg	31	16 Czech Reput	16	16 Italy	20	16 Romania	33	16 Spain	21	16
Romania	31	17 Luxembourg	15	17 Slovenia	19	17 Malta	32	17 Croatia	20	17
UK	31	18 Greece	14	18 Sweden	19	18 Norway	28	18 Cyprus	18	18
Slovenia	29	19 Latvia	13	19 Belgium	18	19 Italy	21	19 Portugal	18	19
Italy	28	20 Malta	13	20 UK	16	20 Slovenia	21	20 Czech Reput	17	20
Cyprus	27	21 Poland	13	21 Greece	15	21 Cyprus	19	21 Austria	15	21
Greece	27	22 Estonia	12	22 Malta	11	22 Netherlands	18	22 Greece	14	22
Denmark	25	23 Slovakia	11	23 Slovakia	11	23 Hungary	15	23 Denmark	13	23
Norway	24	24 Slovenia	11	24 Luxembourg	10	24 Poland	13	24 Norway	13	24
Lithuania	19	25 Sweden	9	25 Austria	9	25 Austria	13	25 Italy	11	25
Austria	10	26 Austria	8	26 Norway	8	26 Luxembourg	9	26 Luxembourg	8	26
Czech Reput	10	27 Portugal	6	27 Czech Reput	6	27 Czech Reput	5	27 Sweden	7	27
Sweden	6	28 Denmark	5	28 Lithuania	6	28 Sweden	5	28 Netherlands	6	28
Poland	2	29 Lithuania	1	29 Denmark	5	29 Denmark	2	29 Lithuania	0	29

Country	Policy impact*	Rank
Bulgaria	56	1
Croatia	54	2
Germany	53	3
Ireland	48	4
Spain	48	5
France	46	6
Estonia	40	7
Finland	36	8
Latvia	36	9
Romania	34	10
Portugal	29	11
UK	27	12
Hungary	26	13
Belgium	25	14
Slovakia	25	15
Malta	25	16
Netherlands	23	17
Norway	21	18
Slovenia	21	19
Cyprus	20	20
Greece	20	21
Italy	20	22
Poland	15	23
Luxembourg	12	24
Czech Republic	12	25
Lithuania	11	26
Denmark	11	27
Austria	10	28
Sweden	10	29

Based on semi-quantitative impacts of sectoral policies (expressed as share of sectoral energy consumption)

* based on impact assessments provided in the MURE database on energy efficiency policies 2000-2014 (www.measures-odyssee-mure.eu)

Implementation of Policy Scoreboard on MURE Website /1/

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MURE energy efficiency po... x +

www.measures-odyssee-mure.eu/scoreboard-energy-efficiency-policy.asp

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ODYSSEE-MURE

Mure Home Query Radar Graphs Summary Tables Topics Areas Successful Measures Policies Interaction Policy Mapper Policy Scoreboard

Policy Scoreboard

Select the output to be represented

- Country Scores by Sector - Graph
- Country Scores by Sector - Graph
- Country Scores by Sector - Table
- Country Scores by Sector - Map
- Radar Graph by Targeted End-Use
- Final Scores and Ranking by Country

Country Score by Sector (max 20)

- Household
- Tertiary
- Industry
- Transport
- General Cross Cutting
- Untapped Opportunity

Global Economies Analyzed

Country	Household	Tertiary	Industry	Transport	General Cross Cutting	Untapped Opportunity
Bulgaria	4	4	4	4	4	0
Ireland	4	4	4	4	4	0
Croatia	4	4	4	4	4	0
Finland	4	4	4	4	4	0
Spain	4	4	4	4	4	0
Portugal	4	4	4	4	4	0
Netherlands	4	4	4	4	4	0
Belgium	4	4	4	4	4	0
Estonia	4	4	4	4	4	0
Germany	4	4	4	4	4	0
France	4	4	4	4	4	0
Latvia	4	4	4	4	4	0
Romania	4	4	4	4	4	0
Norway	4	4	4	4	4	0
United Kingdom	4	4	4	4	4	0
Slovakia	4	4	4	4	4	0
Austria	4	4	4	4	4	0
Hungary	4	4	4	4	4	0
Malta	4	4	4	4	4	0
Greece	4	4	4	4	4	0
Slovenia	4	4	4	4	4	0

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Implementation of Policy Scoreboard on MURE Website /2/

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ODYSSEE-MURE Mure Home Query Radar Graphs Summary Tables Topics Areas Successful Measures Policies Interaction Policy Mapper Policy Scoreboard

Policy Scoreboard

Select the output to be represented

- Final Scores and Ranking by Country
- Country Scores by Sector - Graph
- Country Scores by Sector - Table
- Country Scores by Sector - Map
- Radar Graph by Targeted End-Use
- Final Scores and Ranking by Country

Total (max 100)			Household (max 20)			Tertiary (max 20)			Transport (max 20)			General Cross Cutting (max 20)					
	Score	Rank		Score	Rank		Score	Rank		Score	Rank		Score	Rank			
Bulgaria	36	1	Ireland	9	1	Croatia	9	1	Spain	8	1	Finland	7	1	Bulgaria	8	1
Ireland	33	2	Spain	9	1	Ireland	8	2	Netherlands	8	1	Germany	7	1	France	7	2
Croatia	30	3	Croatia	9	1	Belgium	8	2	Bulgaria	7	3	Ireland	6	3	Slovakia	6	3
Finland	29	4	Portugal	9	1	Portugal	8	2	Ireland	6	4	Bulgaria	6	3	Germany	6	3
Spain	28	5	Belgium	8	5	Bulgaria	7	5	Finland	6	4	Croatia	6	3	Slovenia	5	5
Portugal	28	5	Bulgaria	8	5	France	7	5	Norway	6	4	Romania	6	3	Estonia	5	5
Netherlands	27	7	Luxembourg	7	7	Latvia	7	5	Romania	5	7	Portugal	6	3	Finland	5	5
Belgium	26	8	Estonia	6	8	Slovakia	6	8	Estonia	4	8	Netherlands	6	3	Poland	5	5
Estonia	25	9	Finland	6	8	Norway	6	8	Hungary	4	8	Austria	6	3	Latvia	4	9
Germany	25	9	Latvia	6	8	United Kingdom	6	8	United Kingdom	4	8	Estonia	5	10	Belgium	4	9
France	24	11	Malta	6	8	Spain	5	11	Belgium	3	11	France	5	10	Hungary	4	9
Latvia	24	11	Netherlands	5	12	Estonia	5	11	Croatia	3	11	Greece	5	10	Austria	4	9
Romania	24	11	United Kingdom	5	12	Finland	5	11	France	3	11	Latvia	5	10	Ireland	4	9
Norway	22	14	Norway	5	12	Italy	5	11	Germany	3	11	Hungary	4	14	Portugal	4	9
United Kingdom	22	14	Austria	5	12	Greece	5	11	Italy	3	11	Poland	4	14	Romania	4	9
Slovakia	21	16	Hungary	5	12	Lithuania	5	11	Malta	3	11	Slovenia	3	16	United Kingdom	4	9
Austria	20	17	Romania	5	12	Netherlands	5	11	Slovakia	3	11	Belgium	3	16	Malta	3	17
Hungary	19	18	Cyprus	4	18	Germany	5	11	Greece	2	18	Sweden	3	16	Netherlands	3	17
Malta	19	18	Slovenia	4	18	Austria	4	19	Luxembourg	2	18	Malta	3	16	Czech Republic	3	17
Greece	18	20	Denmark	4	18	Romania	4	19	Poland	2	18	Norway	3	16	Cyprus	3	17
Slovenia	18	20	Italy	4	18	Malta	4	19	Czech Republic	2	18	United Kingdom	3	16	Croatia	3	17

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Implementation of Policy Scoreboard on MURE Website /3/

The screenshot displays a web browser window with the URL www.measures-odyssey-mure.eu/scoreboard-energy-efficiency-policy.asp. The page features a navigation menu with 'Policy Scoreboard' highlighted. Below the menu, a green header reads 'Policy Scoreboard'. A dropdown menu is set to 'Country Scores by Sector - Map'. Six maps of Europe are arranged in a 2x3 grid, each with a legend below it:

- Total Sectors (max 100):** Legend range 9 to 36.
- Household (max 20):** Legend range 1 to 9.
- Tertiary (max 20):** Legend range 0 to 9.
- Industry (max 20):** Legend range 0 to 8.
- Transport (max 20):** Legend range 1 to 7.
- General Cross Cutting (max 20):** Legend range 0 to 8.

The bottom of the image shows a Windows taskbar with the system tray displaying the time 10:40 and date 21/05/2015.

Some final remarks on ODYSSEE-MURE

- The ODYSSEE and MURE databases on energy efficiency indicators and policies are strong monitoring tools which were further developed and improved during the last 20 years.
- In the ongoing project, new facilities were developed to better support the user in the analysis.
- The scoreboard facilities are still under development, especially the ranking principle (strong or medium-strong) is still discussed among the participating project partners.
- The basis for all facilities is the quality of the input data in the two databases ⇒ a last update of both databases (ODYSSEE: data until 2013; MURE: policy measures until mid 2014) is just going on until summer 2015.
- The ongoing project will be finalised in early autumn 2015
- The future of the project is uncertain. A new proposal was submitted in the EU HORIZON 2020 program on 4 June 2015 ⇒ 38 proposal in the relevant call (capacity building)

Contact

Thank you for your attention

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