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ODYSSEE-MURE

ODYSSEE-MURE seminar

*„Efektywność energetyczna – konieczność i szansa polskiej
gospodarki”*

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Warszawa

Monitoring energy efficiency policies – the MURE database

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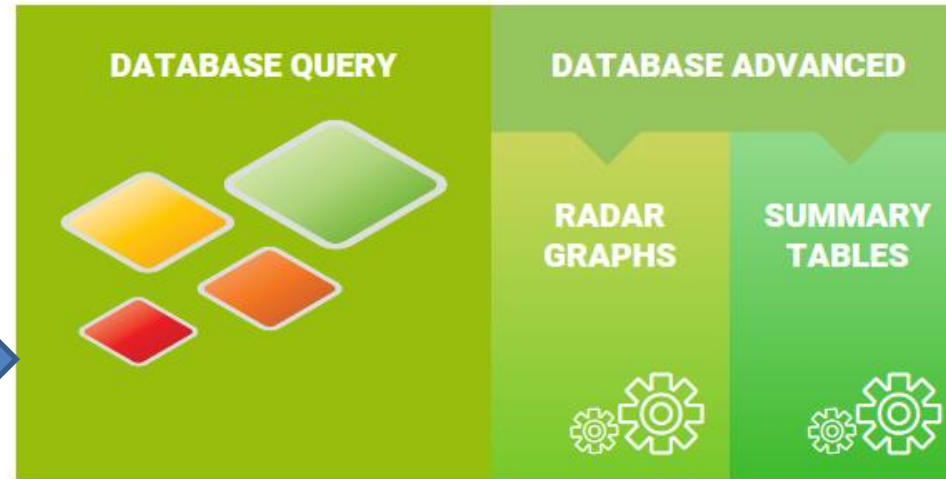
Outline

- The MURE database: a quick overview
- The MURE tools on energy efficiency policies
- The new Combined Indicator and Policy Scoreboard in ODYSSEE-MURE

THE MURE DATABASE

ABOUT THE MURE DATABASE

MURE (Mesures d'Utilisation Rationnelle de l'Energie) provides information on energy efficiency policies and measures that have been carried out in the Member States of the European Union. The information is accessible by query in the database. The distribution of measure by type can be visualized through radar graph. Finally several facilities enable specific queries.



POLICIES BY TOPICS



SUCCESSFUL POLICIES



POLICY INTERACTION



POLICY MAPPER



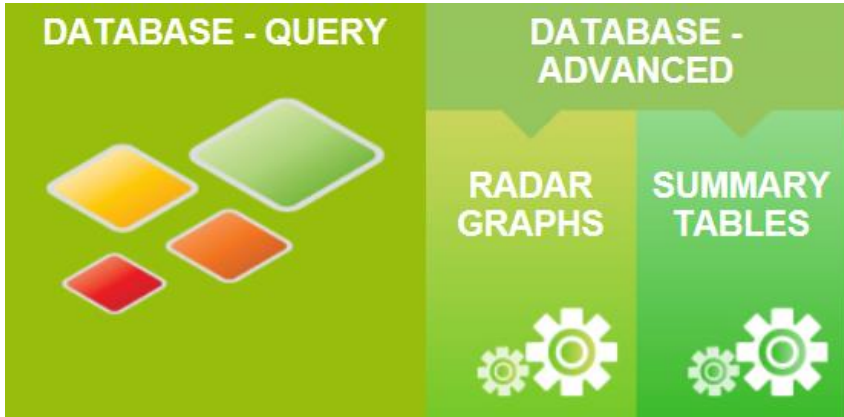
POLICY SCOREBOARD



IMPACT EVALUATION



The query section of the MURE database



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

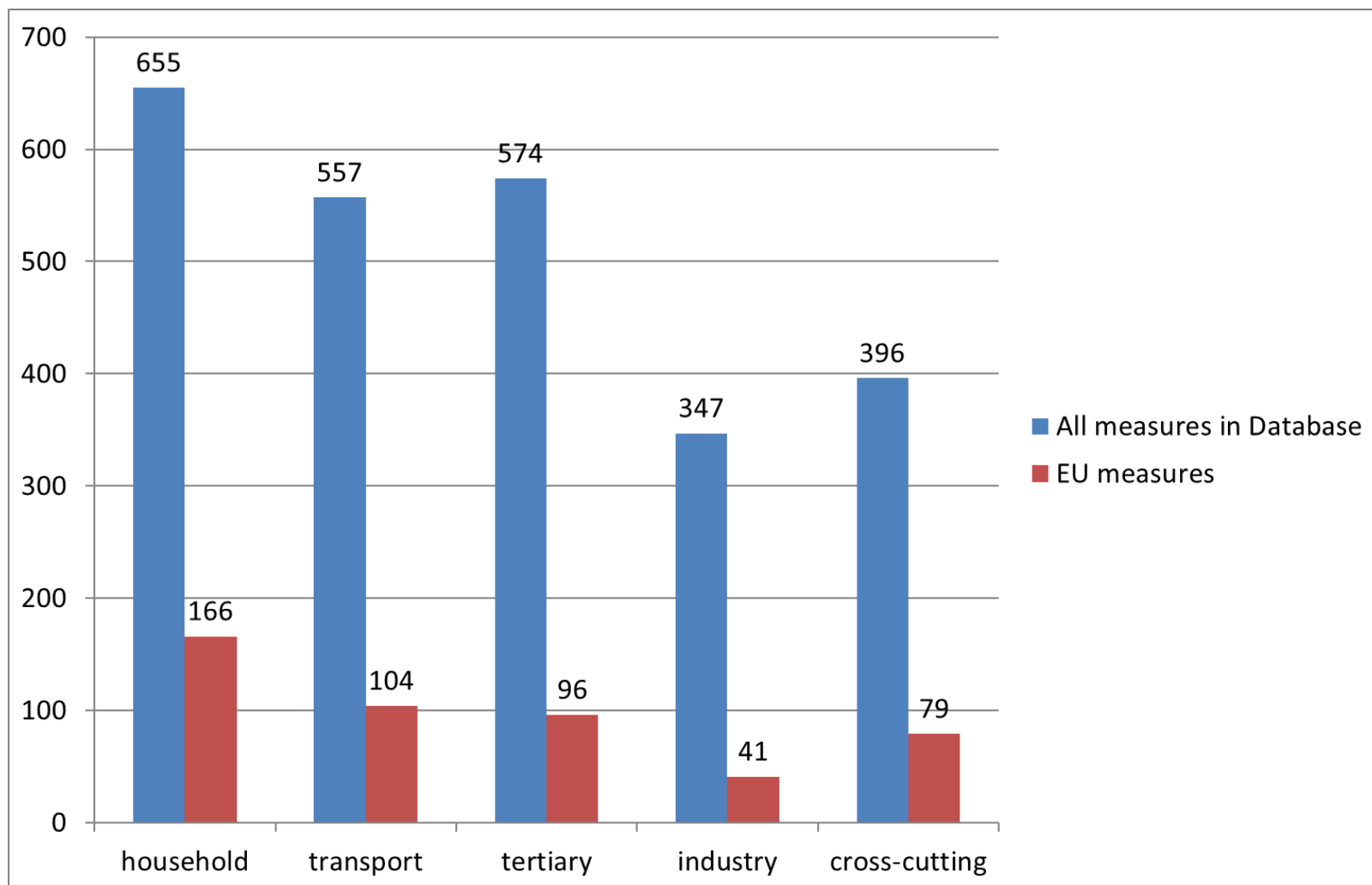
Measure type

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

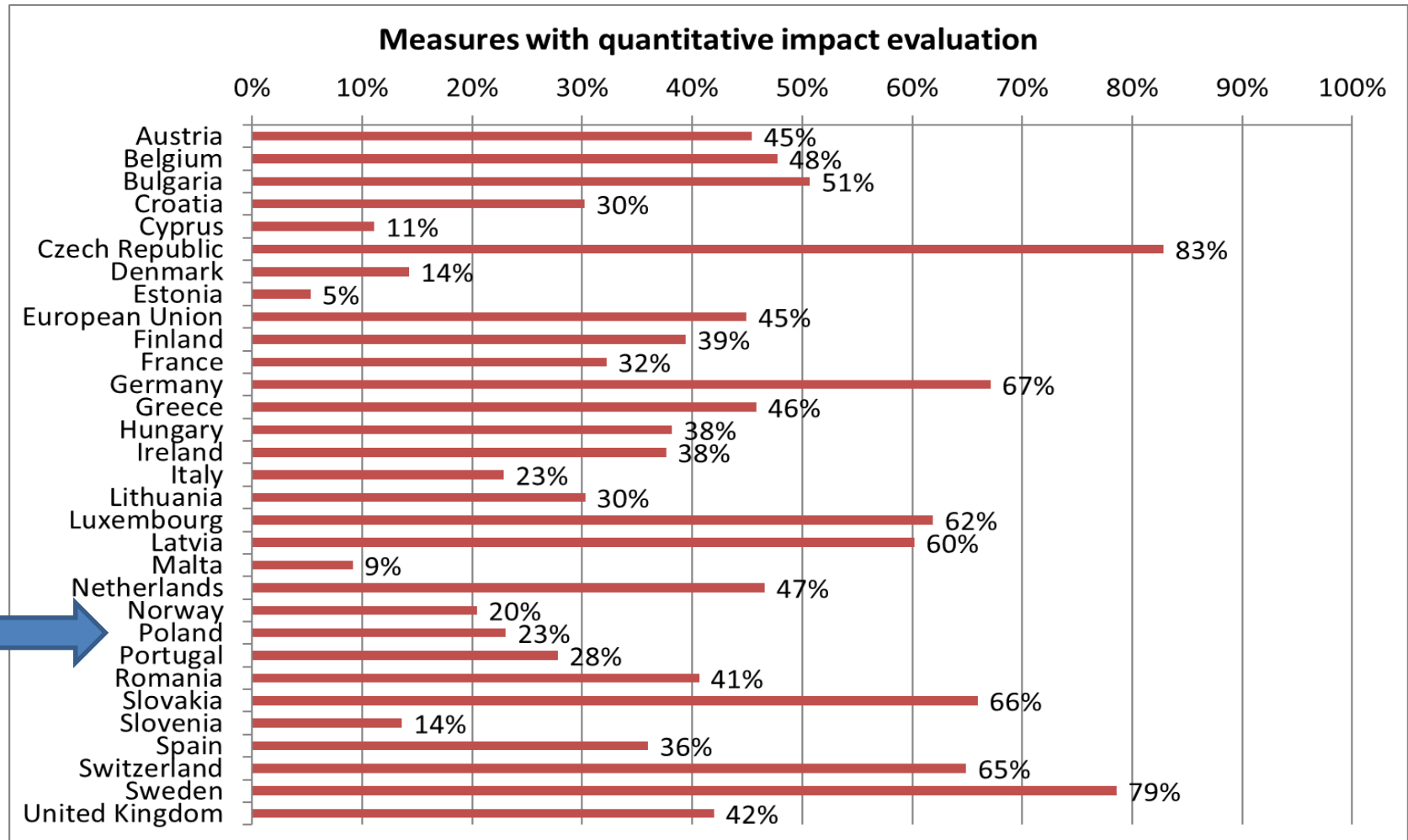
Targeted end-use

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

Present status of the MURE database (April 2018): around 2,500 energy efficiency policies/measures



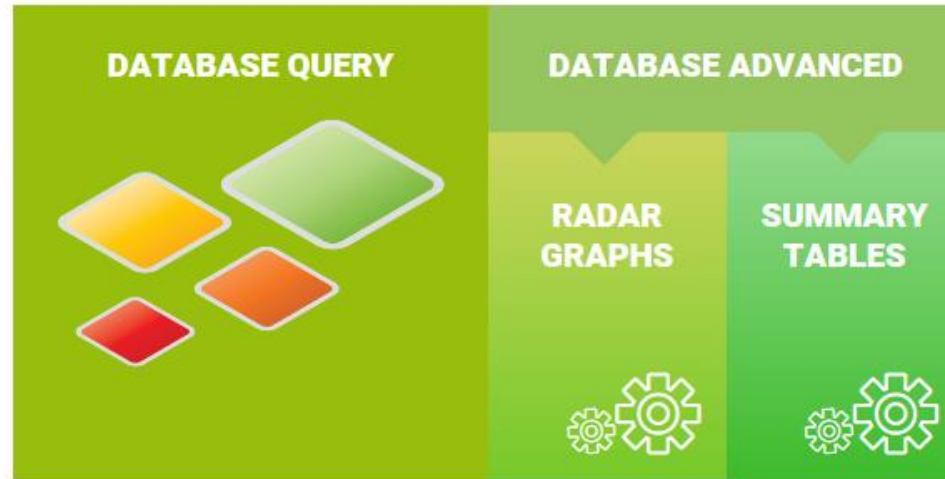
Present status of the MURE database (April 2018): measures with quantitative impact evaluation



THE „SUCCESSFUL POLICIES“ FACILITY

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Successful Policies facility

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 i Methodology i Scoring i

Criteria:

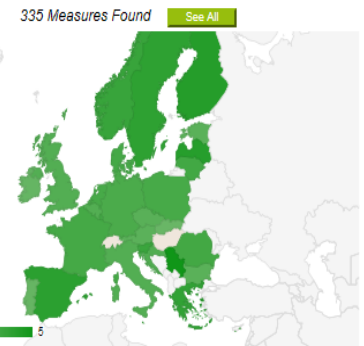
Sector:

Country:

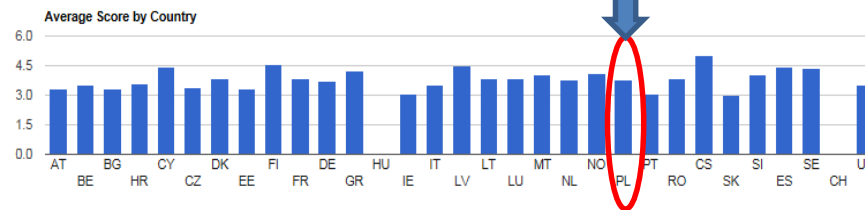
Average score by country:

Distribution of measure score:

343 successful policies



Average score Poland: 3.7



The assessment criteria



- | | | |
|-----|--|---------------|
| C1 | High impact / high number of applicants | High priority |
| 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 | |
| C7 | Transferability between countries | Low priority |
| C8 | Link other measures / policy packages | |
| C9 | Some experience with measure | |
| C10 | Avoidance of negative side-effects | |
| C11 | Support of positive side-effects | |
| C12 | Ease of acceptance by relevant stakeholders | |

Most of the 9 “successful measures” for Poland are financial measures; but the remaining instruments are a broad policy mix (incl. market-based instruments with the highest scores)



9 Measures Found

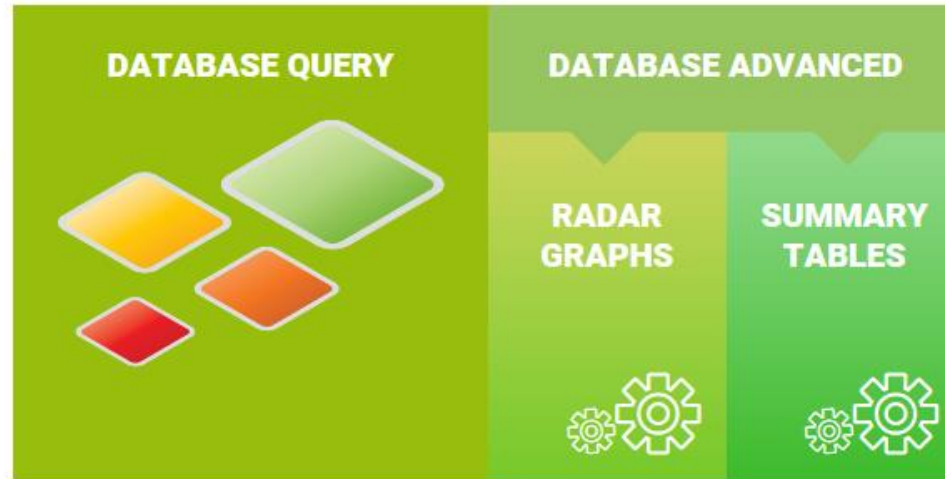
All Successful Criteria

Code	Title		Avg Score	Type
HOU-PL10	Requirements for new and modernised buildings		4,1	Legislative/Normative
HOU-PL9	Promotion of solar collectors in households sector		3,1	Financial
TER-PL13	Green Investment Scheme. Part 5 – Energy Management in Buildings of Selected Public Sector Entities		3,1	Financial
TER-PL12	Green Investment Scheme. Part 1 - energy management in public buildings		3,1	Financial
IND-PL11	Support for entrepreneurs on low-emission and resource-saving economy. Part 2.		3,5	Financial
IND-PL10	Support for entrepreneurs on low-emission and resource-saving economy. Part 1.		3,1	Information/Education/Training
GEN-PL12	System of white certificates - Energy efficiency Act		4,4	Market-based Instruments
GEN-PL1	Green certificates for electricity production from renewable energy sources		4,1	Market-based Instruments
GEN-PL5	The National Fund for Environmental Protection and Water Management (NFOSiGW)		3,7	Financial Measures

THE «POLICY INTERACTION» FACILITY

ABOUT THE MURE DATABASE

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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

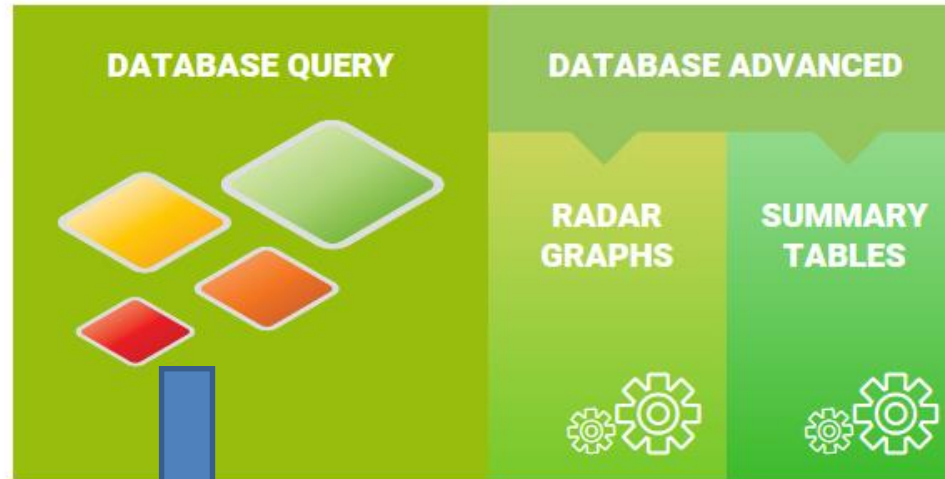


	Leg-norm/invest	Leg-norm/use	Leg-inform/focus (label)	Leg-inform/broad (audit)	Finan-fiscal/invest	Finan-fiscal/use (tariff)	Finan-fiscal/info (audit)	Inform/focused-invest	Inform/broad (center, etc.)	Coop/focused (VA-manufacturers)	Coop/broad (VA-sector)	Cross-cutting/taxes
Leg-norm/invest												
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												

THE «POLICY MAPPER» FACILITY

ABOUT THE MURE DATABASE

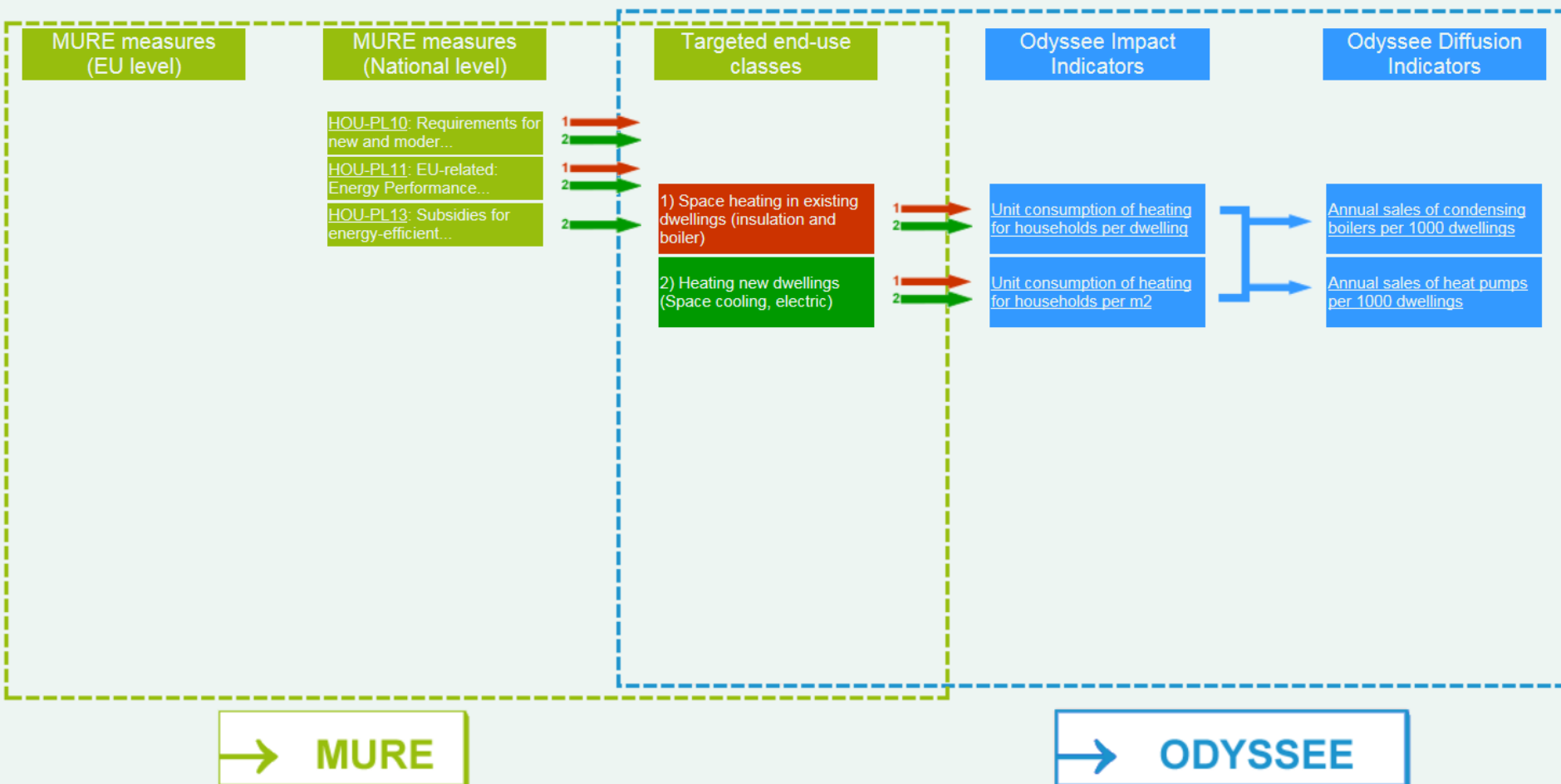
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Policy Mapper Facility: Example for Poland /1/

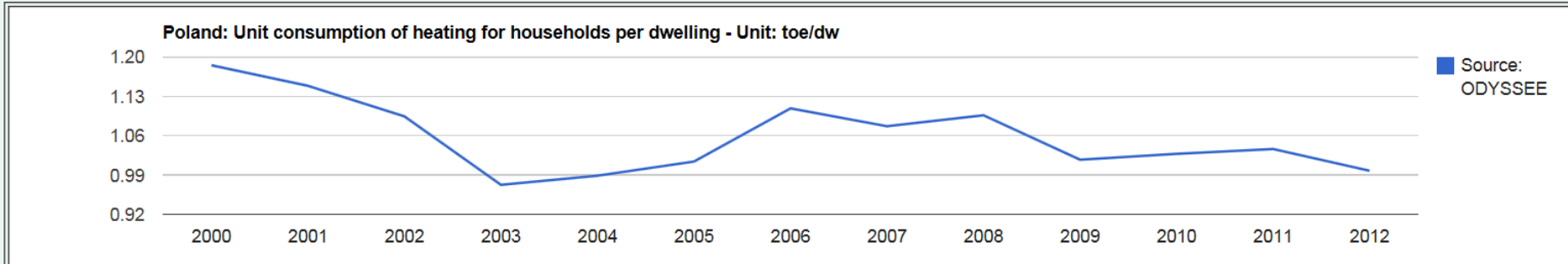
This facility enables to visualize all energy efficiency policies aiming at a given targeted end-use (e.g. heating in buildings) and provides a link to the respective energy efficiency indicators in the ODYSSEE database.

Policy Mapper - Household - Poland



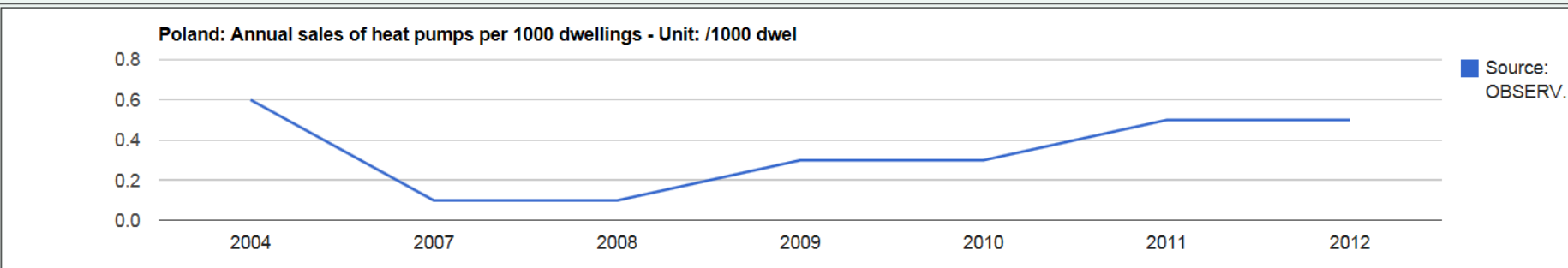
Policy Mapper Facility: Example for Poland /2/

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



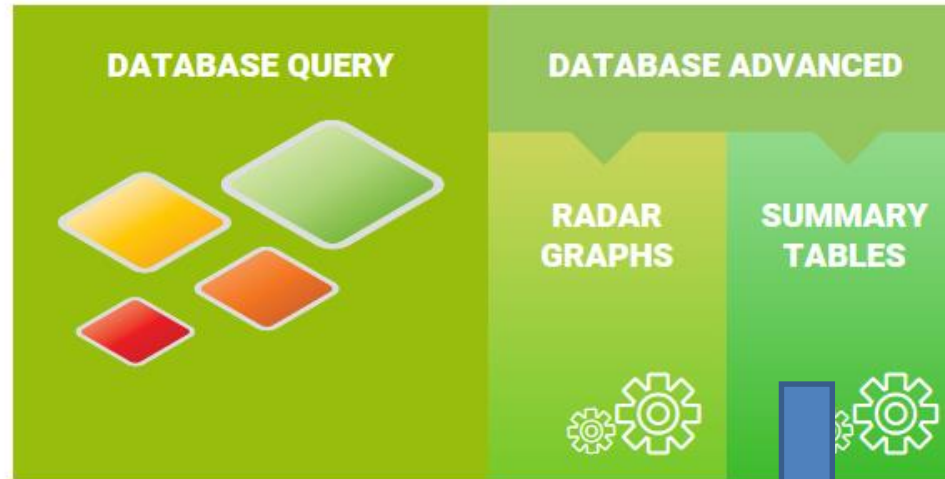
Code	Title	From	Updated
HOU-PL2	Thermal Modernisation Fund	1999	2015
HOU-PL11	EU-related: Energy Performance of Buildings (Directive 2002/91/EC) - Certificates of energy performance for buildings	2009	2014
HOU-PL13	Subsidies for energy-efficient houses	2013	2014
HOU-PL10	Requirements for new and modernised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

MURE database and tools on energy efficiency policies

THE NEW «IMPACT EVALUATION» FACILITY

ABOUT THE MURE DATABASE

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POLICIES BY TOPICS



SUCCESSFUL POLICIES



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POLICY MAPPER



POLICY SCOREBOARD



IMPACT EVALUATION



Functionalities of the new Impact Evaluation Tool in MURE

The new facility gathers functionalities which to a large degree are were available in the MURE database:

- Access measures by type of evaluation method (methods mainly taken from the EMEEES project and Annex EED)
- Extract information on outputs (quantitative and semi-quantitative impacts) and inputs (e.g. volumes of financial measures)
- Access to “good” impact evaluations (around 3-5 per country)
- Guide to carry out own impact evaluations (by a combination of MURE tools)
- Overview information on impact evaluations (graphs)
- Information on “ideal” impact evaluations (matrix impact evaluations – measure types)

Main page of the new impact evaluation facility

Allowing for a structured approach to measure impact evaluations

- Overview of evaluation methods for energy efficiency policies and measures in MURE -

Help and Good Practices

See how the measures are distributed per evaluation method and which are the recommended evaluation methods per measure types



- Distribution of evaluation methods (matrix)
- Distribution of evaluation methods (graphs)

Submit

Then see which measures have been evaluated with a given evaluation methods and evaluate their impact with the Policy Interaction Facility



Sector

Evaluation Method

Country

Submit

Evaluation methods distribution (Matrix)



Recommended evaluation methods and actual measures distribution of evaluation methods per measure type - Household



Sector

**= the method is recommended, **= the method provides reliable results, *= it is possible to use this method if the others are not possible, nr.= number of measures

		Bottom Up				Bottom Up/Top Down		Top Down		Integrated BU/TD	
		Direct measurement	Billing analysis	Enhanced engineering estimates	Mixed deemed and ex-post estimate	Deemed estimate unit savings	Stock modelling	Diffusion indicators	Specific consumption indicators	Econometric modelling	Integrated BU/TD methods
Legislative/Normative											
Mandatory Standards for Buildings											
29	1	* 0	*** 1	** 4	6	4	*** 3	** 0	*** 4	0	*** 7
10	2	* 0	0	** 2	1	0	*** 0	** 0	*** 1	0	6
Regulation for Heating Systems and hot water systems											
6	3	* 0	1	0	1	*** 2	*** 0	0	*** 0	0	2
0	4	* 0	0	0	0	*** 0	*** 0	0	*** 0	0	0
0	5	** 0	0	0	0	*** 0	0	*** 0	*** 0	0	0
1	6	** 0	0	1	0	*** 0	0	*** 0	*** 0	0	0
4	7	* 0	1	1	0	*** 0	0	*** 0	*** 0	0	2

Case studies for good impact evaluation of energy efficiency policies in MURE

Selection of case studies

- 3-5 case studies per country
- Covering different types of EE instruments (subsidy programs, EEOs, information)
- Covering different sectors
- Focus on good examples from stakeholder training sessions
- Collaboration with H2020 project EPATEE

<i>Title of the measure:</i> □ □

General description ¶



Impact evaluation ¶



Integration of the case studies in the already existing detailed measure description

Interaction of measures ¶



Historical data ¶



References ¶

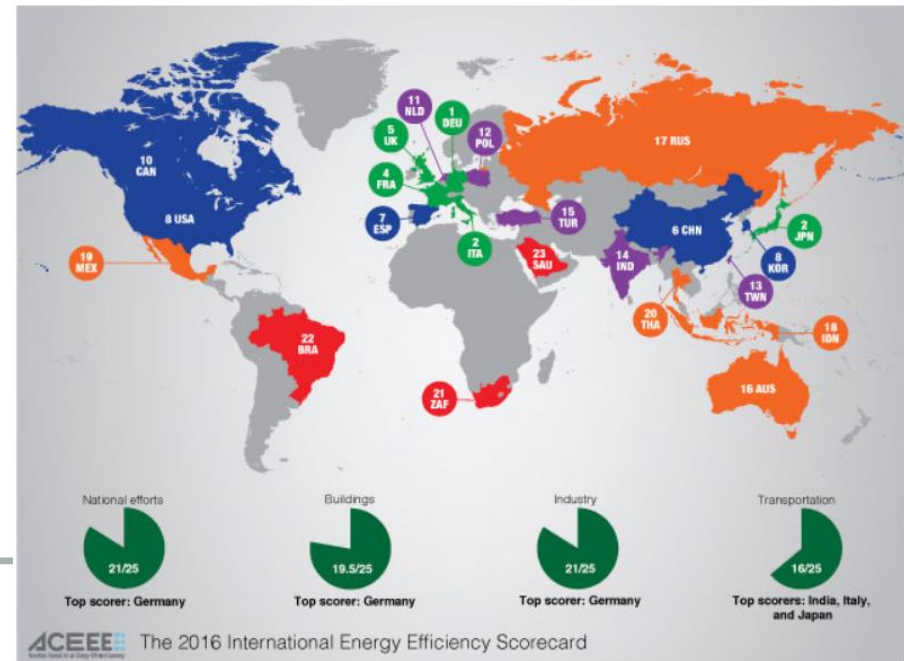


Combined Indicator and Policy Scoreboard in ODYSSEE-MURE

WHY SCORING?

- School marks
- Sports competitions (football...)
- Companies are scoring the performance of different parts of the company and employees
- Scoreboards for different fields such as innovation, education (PISA), universities....

The ACEEE International Energy Efficiency Scorecard



OBJECTIVE OF ODYSSEE-MURE SCOREBOARD ON ENERGY EFFICIENCY INDICATORS AND POLICIES

Score EU countries on different energy efficiency criteria:

- the energy efficiency level
- the energy efficiency progress
- the energy efficiency policies



The overall energy efficiency score is obtained as an average of the three scores obtained for “energy efficiency level”, “energy efficiency progress” and “energy efficiency policies” (i.e. **one third weighting**).

ODYSSEE-MURE combined scoreboard on energy efficiency indicators and policies



ODYSSEE-MURE SCOREBOARD ON ENERGY EFFICIENCY INDICATORS AND POLICIES

View:

Overview

Sector:

Overall

Score:

Combined

The objective of the ODYSSEE-MURE scoreboard on energy efficiency indicators and policies is to score EU countries on different energy efficiency criteria:

- the energy efficiency level,
- the energy efficiency progress,
- the energy efficiency policies,
- a combination of all these criteria.

[Methodology](#)

SUMMARY

For each criterium each country is scored with a score between 0 and 1 on the basis of a variety of indicators that are explained in more detail in two complementary scoreboards: the first one on energy efficiency progress and level ([ODYSSEE Scoreboard for Indicators](#)) and the other one on policies ([MURE Scoreboard for Energy Efficiency Policies](#)).

The scoreboard can be viewed, either by criterion or by country; in the later case, the scoring is detailed for each country by criterion

OVERALL: OVERALL ENERGY EFFICIENCY SCORE

The overall energy efficiency score is obtained as an average of the three scores obtained for "energy efficiency level", "energy efficiency progress" and "energy efficiency policies" (i.e. one third weighting).

Spain	0.86
UK	0.84
Ireland	0.82
Germany	0.74
France	0.71
Italy	0.70
Denmark	0.69
Slovakia	0.68
Latvia	0.68
Portugal	0.67
Romania	0.67
Netherlands	0.66
Bulgaria	0.65
Poland	0.62

THE ODYSSEE-MURE SCOREBOARD

- For each criterium each country is scored with a score between 0 and 1 on the basis of a variety of indicators that are explained in more detail in two complementary scoreboards: the ODYSSEE Scoreboard for Indicators and the MURE Scoreboard for Energy Efficiency Policies.
- The scoreboard can be viewed, either by criterion or by country; in the later case, the scoring is detailed for each country by criterion

View:

Overview ▾

Sector:

Overall ▾

Score:

Combined ▾

SCORING METHODOLOGY FOR ODYSSEE INDICATORS

- Based on OECD Composite Indicators methodology,
- Normalized scores across countries (range 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.
- 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 scores are calculated with the latest date available.
- The trend values are calculated as the annual growth rate over the period 2000 to latest year available.

SCORING METHODOLOGY FOR MURE POLICIES

- Makes use of information in the MURE database on energy savings (“policy output”) and compares the savings with the final energy consumption of the sector for a given year (Output-based scoring based on energy savings).
- The MURE database comprises quantitative impacts (provided by detailed evaluations; about 40% of measures) and semi-quantitative expert estimates in three categories (low, medium, high; defined in terms of share in sector energy consumption)
- The whole is normalised to a range 0-1.
- By default the scoring period comprises measures from 2000 to present but other periods can be selected.

Web facility on Combined Scoreboard

Live demo in Browser

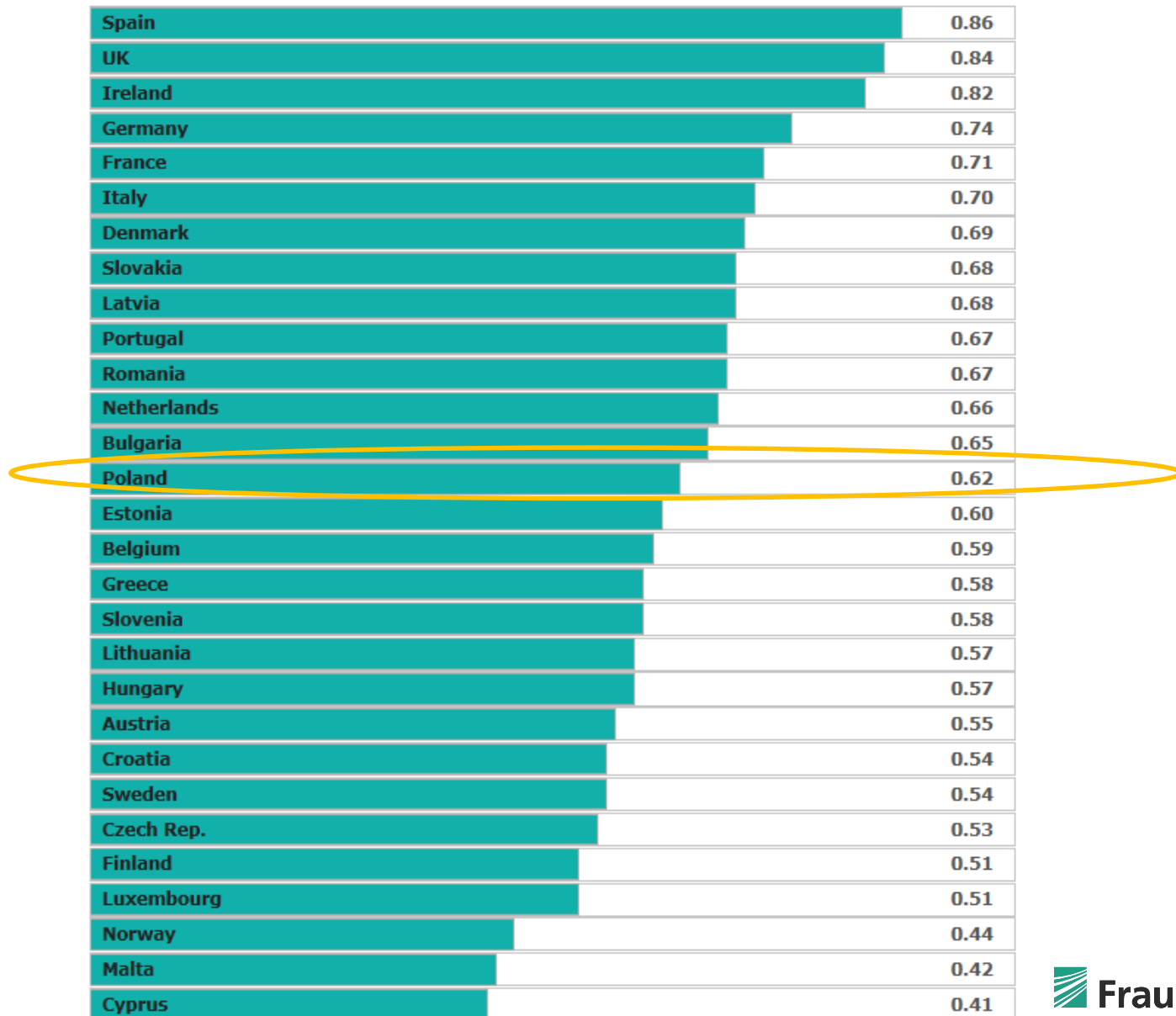
[LINK](#)

[Back up](#)

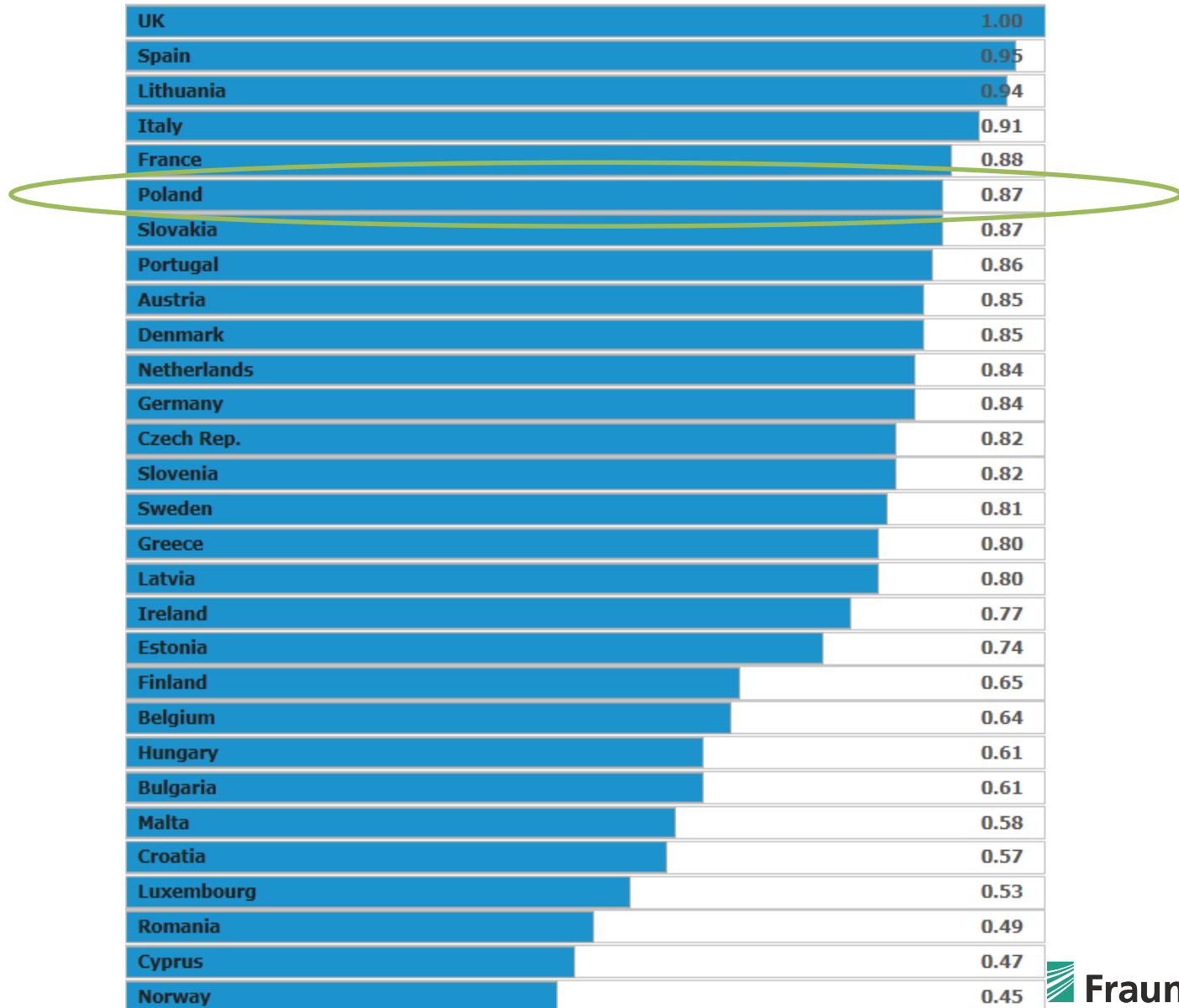
<http://www.indicators.odyssee-mure.eu/energy-efficiency-scoreboard-combined.html>

(The Combined Scoreboard is in the phase completion. Later on this will be integrated into the official ODYSSEE-MURE website.)

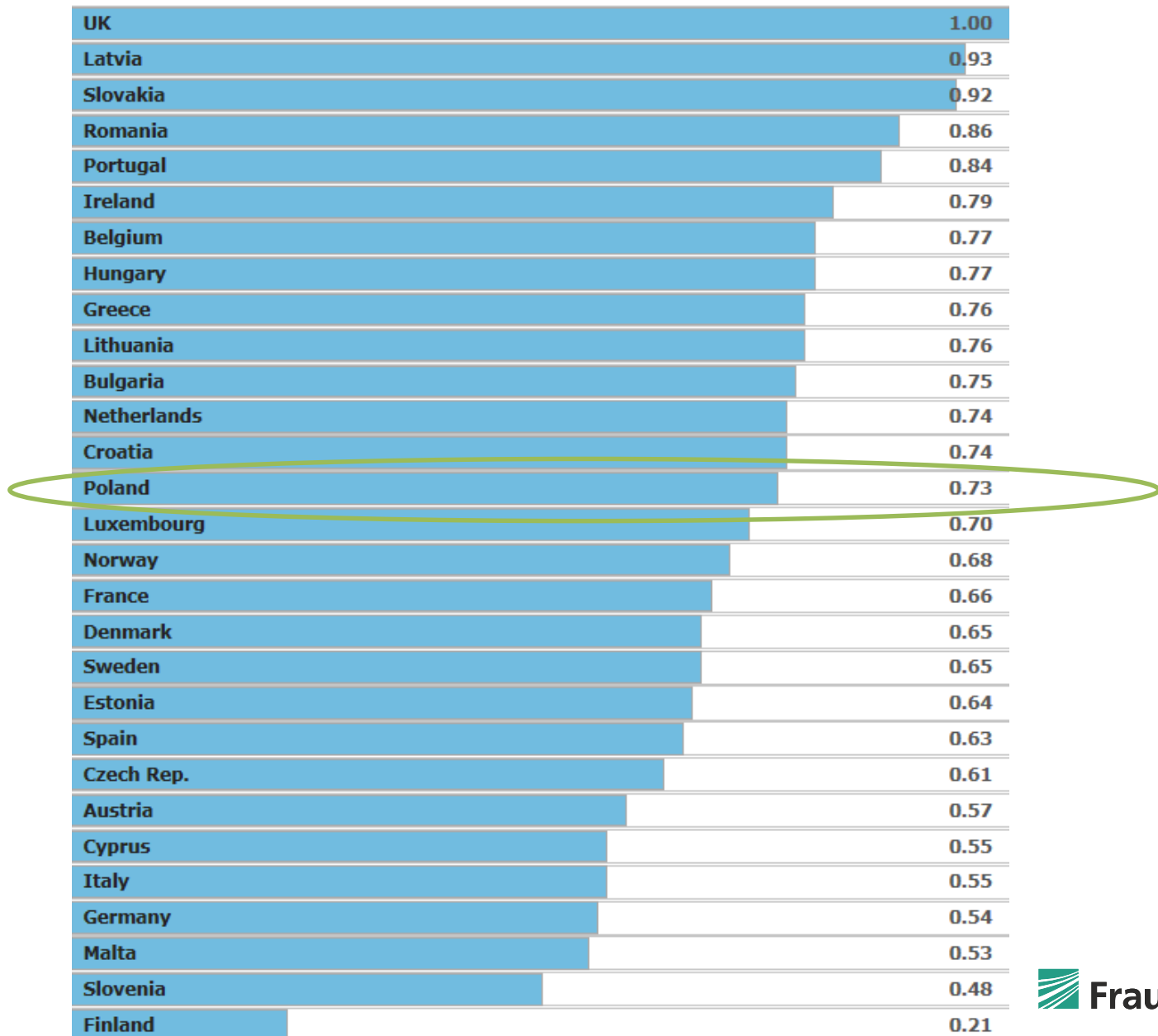
Combined Scoreboard: Overall Result (all 3 criteria)



Combined scoreboard: result for energy efficiency level



Combined scoreboard: result for energy efficiency trend



Combined scoreboard: result for energy efficiency policies

Spain	1.00
Ireland	0.90
Germany	0.83
Finland	0.66
Romania	0.66
Italy	0.63
Bulgaria	0.59
France	0.59
Denmark	0.56
UK	0.53
Estonia	0.43
Slovenia	0.43
Netherlands	0.39
Belgium	0.36
Portugal	0.32
Croatia	0.32
Hungary	0.32
Latvia	0.32
Luxembourg	0.29
Poland	0.26
Slovakia	0.26
Cyprus	0.22
Austria	0.22
Norway	0.19
Greece	0.19
Czech Rep.	0.16
Malta	0.16
Sweden	0.16
Lithuania	0.02

Combined scoreboard: Summary of results for Poland

POLAND - SUMMARY

		Level	Trend	Policies	Combined
Overall	Poland	6 / 29	14 / 29	21 / 29	14 / 29
	Highest score (benchmark)	UK	UK	Spain	Spain
Industry	Poland	4 / 28	3 / 28	17 / 29	5 / 29
	Highest score (benchmark)	Italy	Lithuania	Spain	Denmark
Transport	Poland	11 / 29	18 / 29	11 / 29	10 / 29
	Highest score (benchmark)	Italy	UK	Spain	Spain
Households	Poland	18 / 29	23 / 29	29 / 29	27 / 29
	Highest score (benchmark)	Bulgaria	Ireland	Ireland	Ireland
Services	Poland	13 / 29	25 / 29	24 / 29	25 / 29
	Highest score (benchmark)	Lithuania	Hungary	Spain	Ireland

Thank you for your attention

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[**www.odyssee-mure.eu**](http://www.odyssee-mure.eu)