



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



ODYSSEE-MURE national seminar in Denmark

17th June 2015

Danish Energy Agency, Copenhagen

Monitoring energy efficiency policies – use of the MURE database

Barbara Schlomann

Fraunhofer Institute for Systems and Innovation Research ISI

Karlsruhe, Germany



New single website: www.odyssee-mure.eu

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](#)

The MURE database on energy efficiency policies (free access)

DATABASE - QUERY

DATABASE - ADVANCED

RADAR GRAPHS

SUMMARY TABLES

NEEAP Measures: NEEAP1 and NEEAP2 and NEEAP3

Article 7 measures:

EU related measures:

Impact evaluation:

Semi-quantitative impact: All

Status: All

Starting year: From All To All

- HOUSEHOLD
- TERTIARY
- INDUSTRY
- TRANSPORT
- GENERAL CROSS-CUTTING
- ALL SECTORS

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

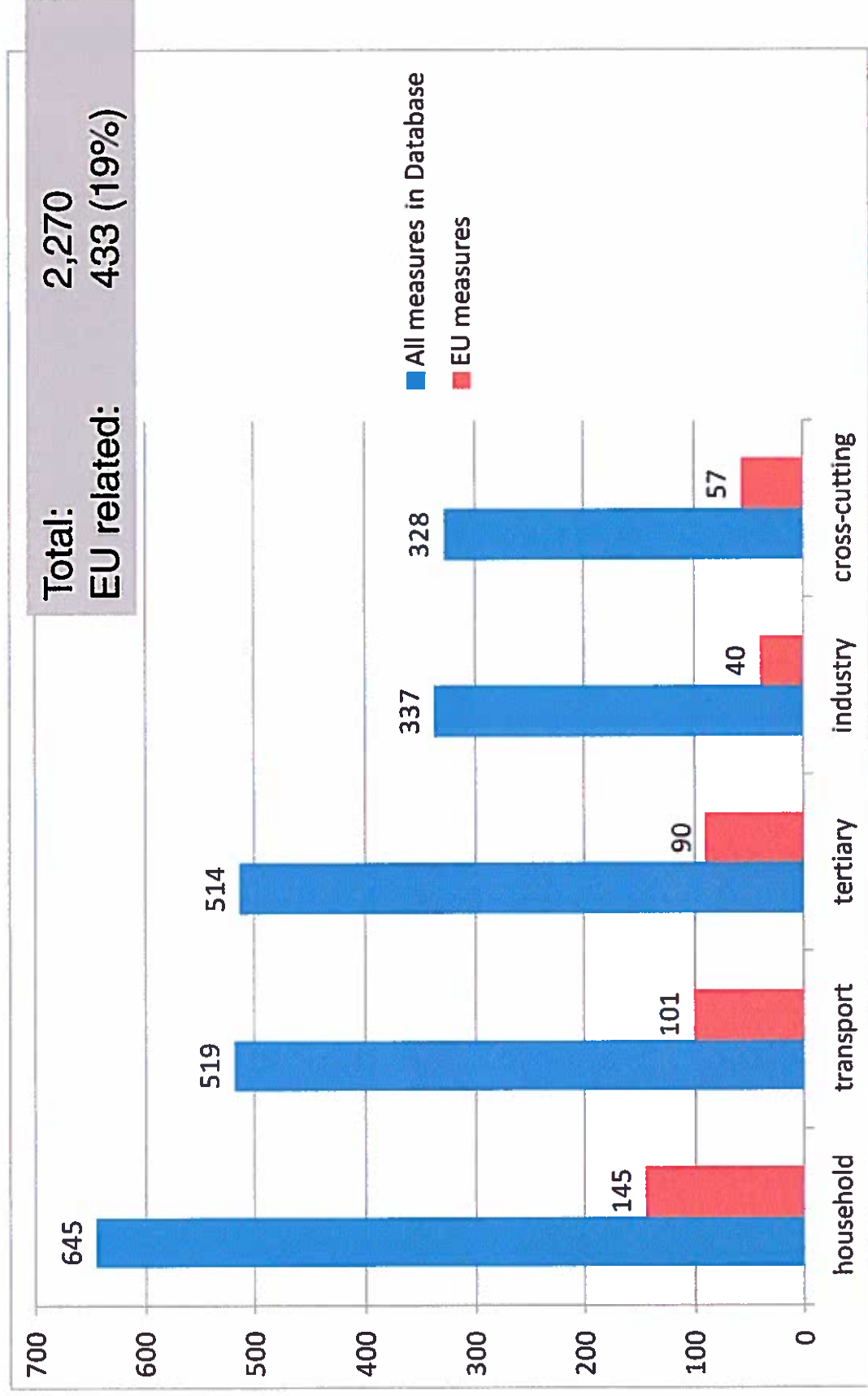
Measure type

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

Targeted end-use

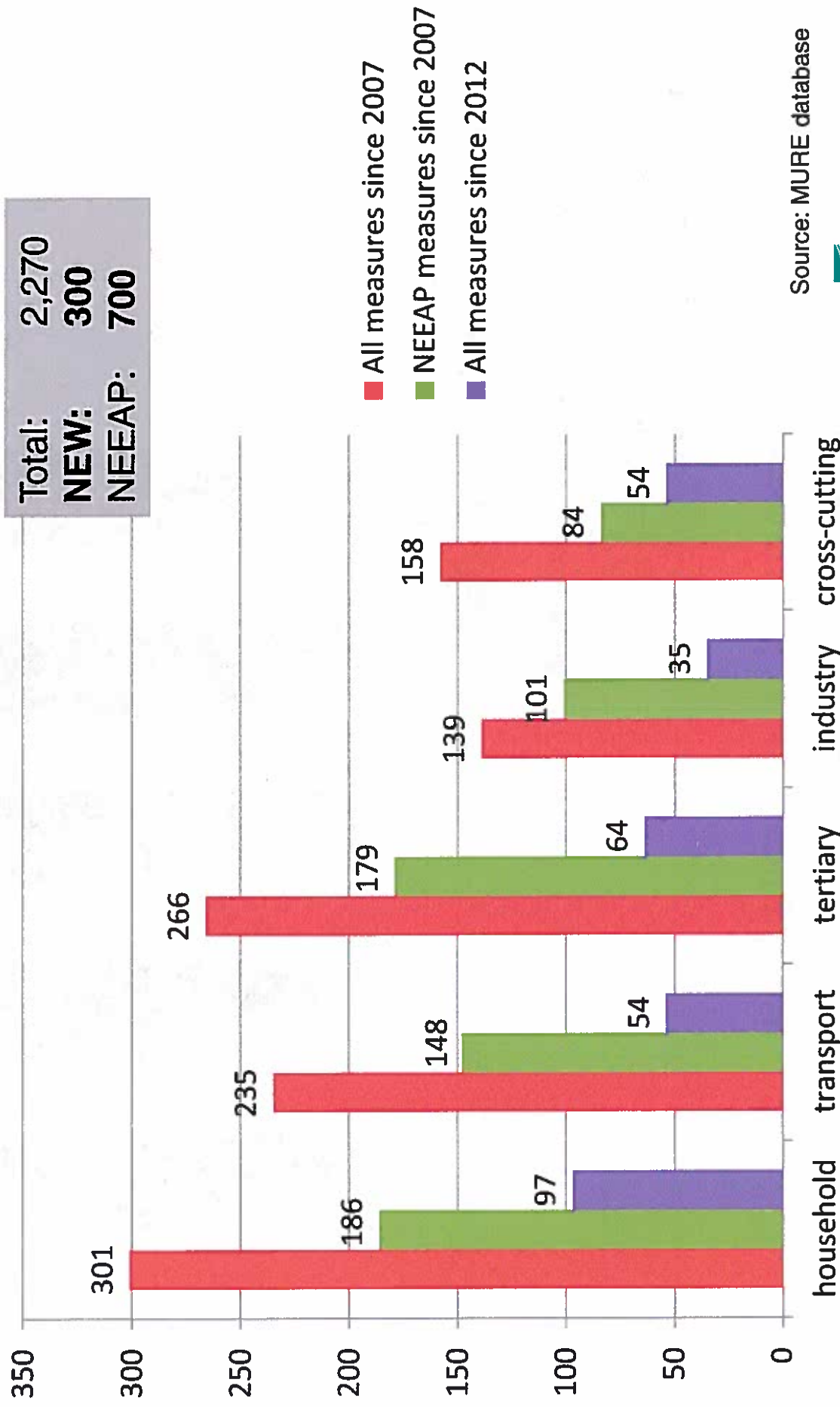
- Appliances
- Cooking
- Hot water
- Lighting
- Other targeted uses
- Space cooling
- Space heating
- Total electric consumption
- Total final consumption
- Total fuel consumption

Total number of measures in MURE and EU measures



Source: MURE database

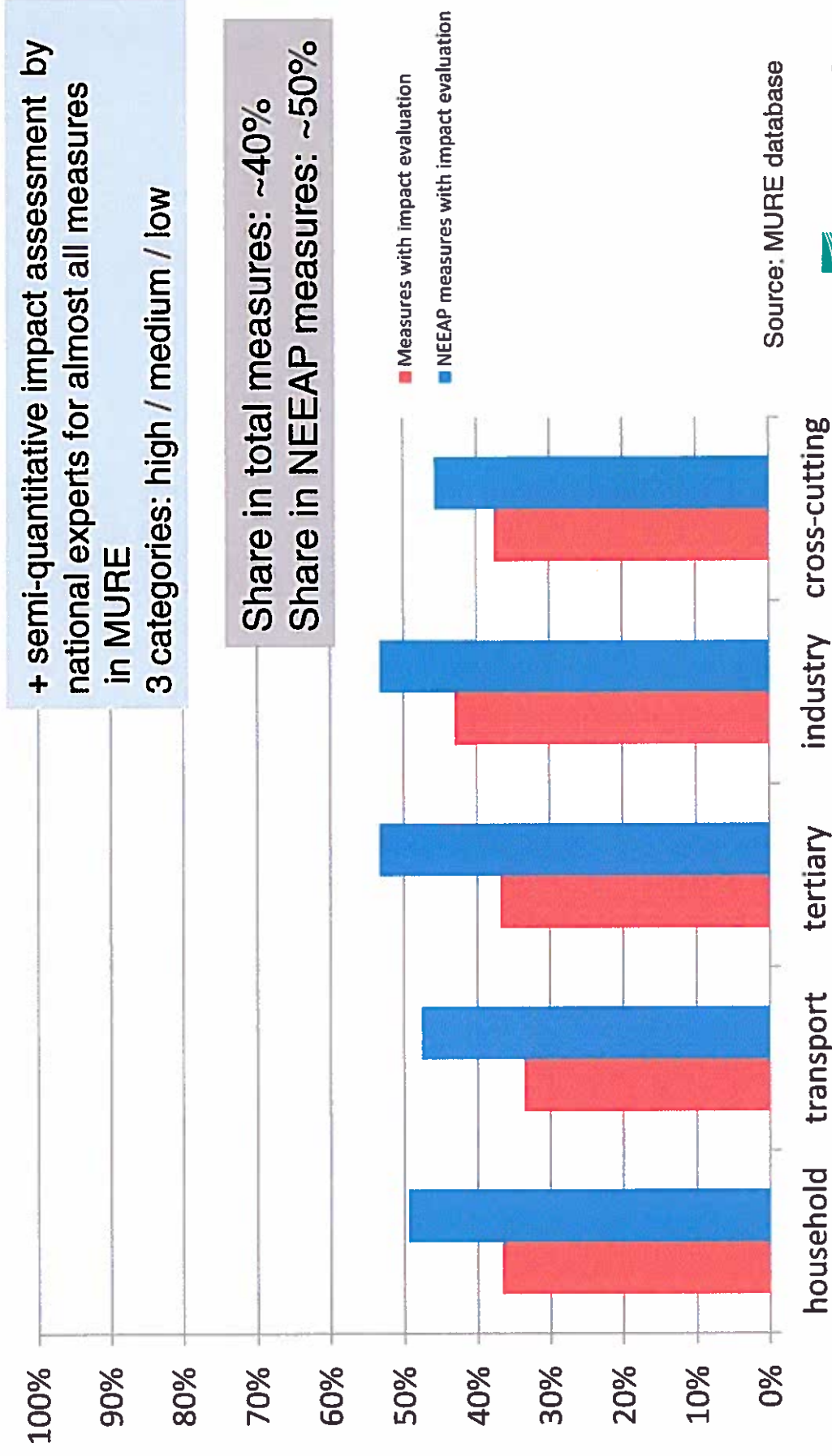
NEW measures and NEEAP measures



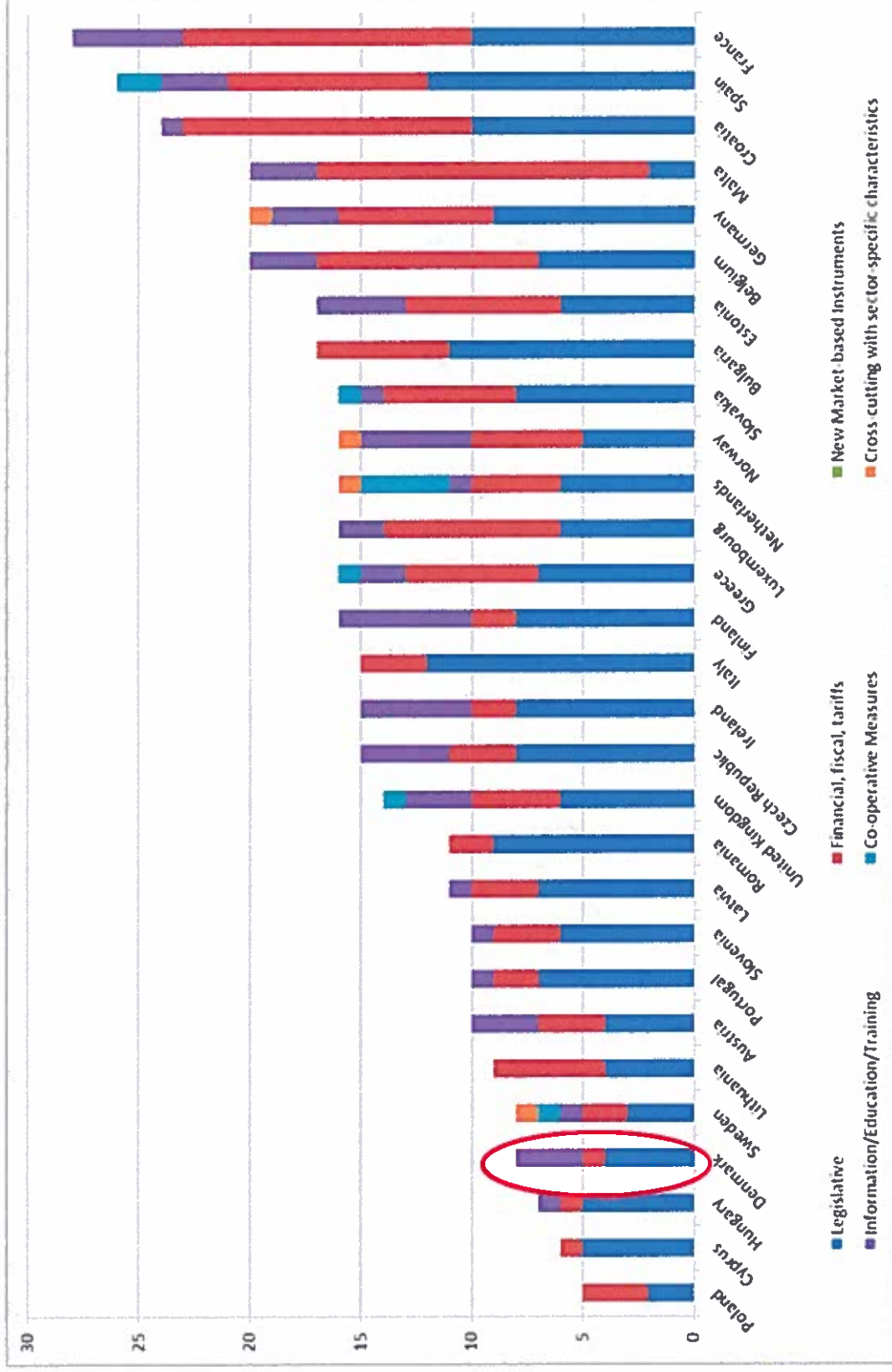
Source: MURE database



Measures with quantitative impact evaluation
⇒ this is unique for the MURE database compared to other international policy databases



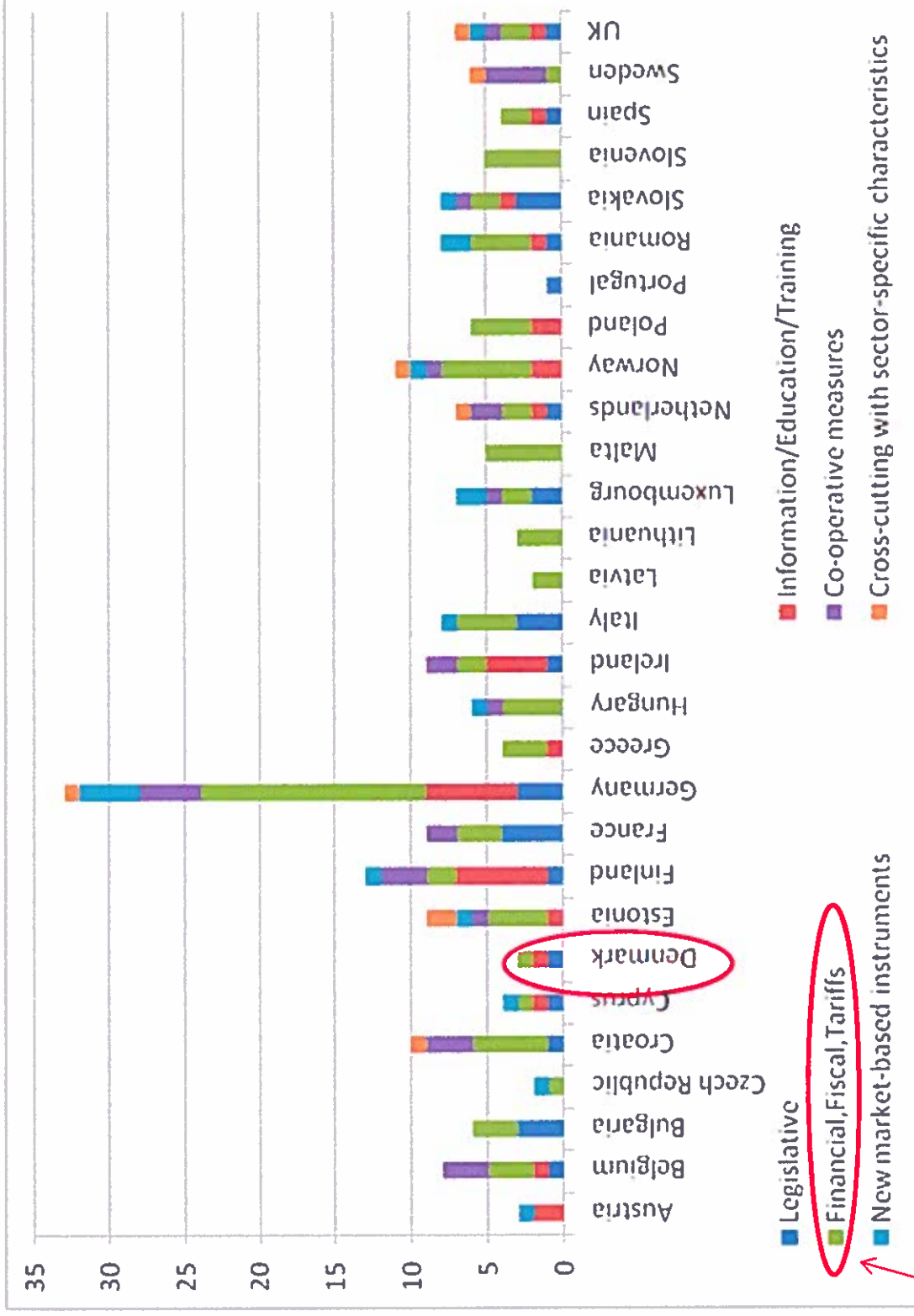
Policy measures by type and country - households



Legislative measures are the dominating measure type in the household sector. Depending on the country, financial and/or Informational measures are important, too.

Source: MURE database

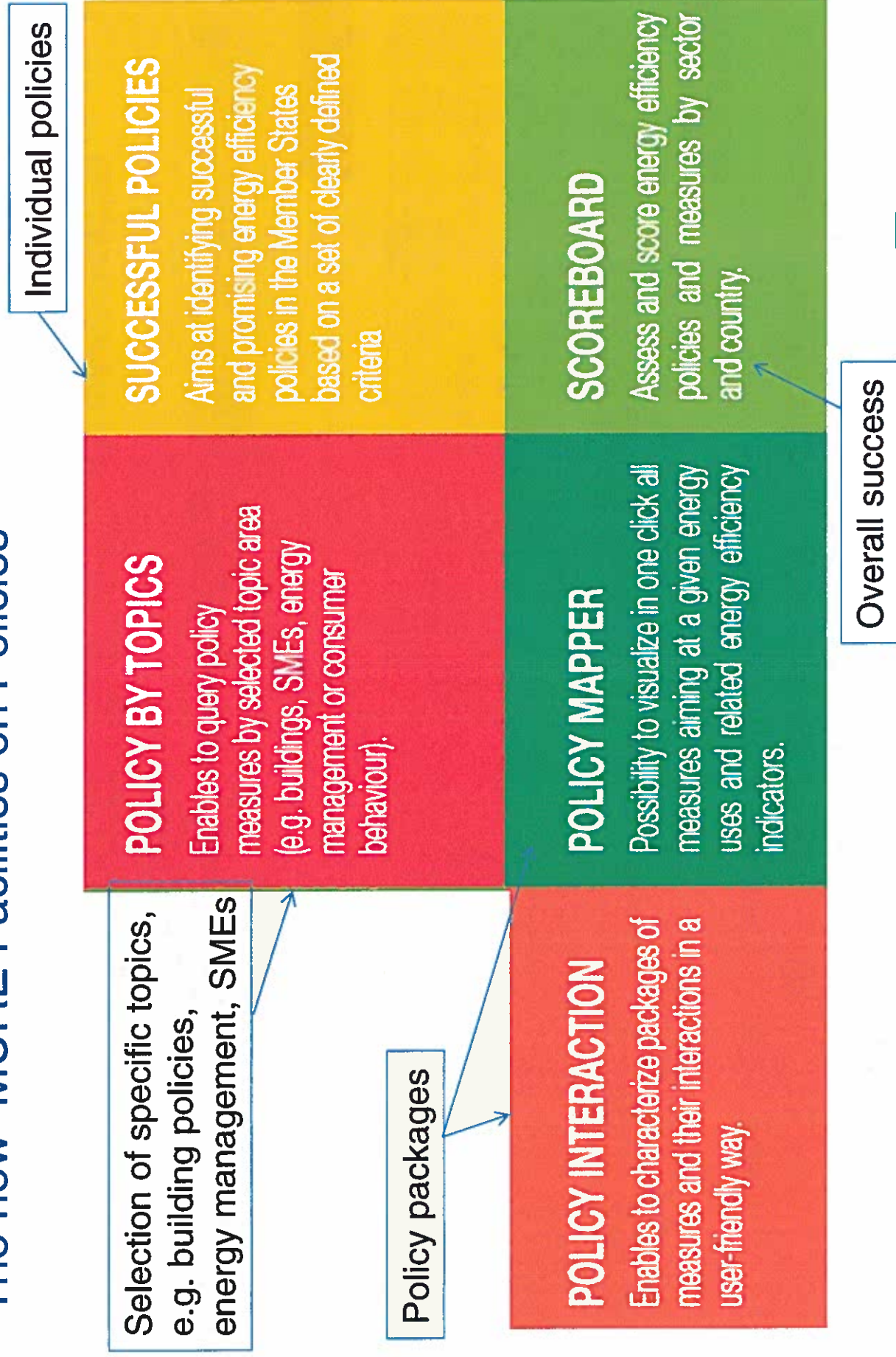
Policy measures by type and country - industry



Source: MURE database

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

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-conventional fuels, 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

All Topics Include completed measures

	Measures on SMEs	Energy management	Consumer behaviour	Measures on SMEs Energy management	Consumer behaviour	Promotion of energy services	Reduction of the transport demand	Promotion of non-conventionally fuelled vehicles	Measures on public procurement	Measures on energy efficiency and renewable energy in buildings	Measures on energy efficiency and renewable energy in buildings	Measures on energy efficiency and renewable energy in buildings	Total Measures	% on Total
Austria	4	0	5	0	0	0	0	0	0	0	0	0	20	47%
Belgium	6	0	5	0	0	0	0	0	0	0	0	0	40	55%
Belgium	14	0	4	0	0	0	0	0	0	0	0	0	50	58%
Croatia	10	4	2	0	0	0	0	0	0	0	0	0	50	58%
Cyprus	2	1	2	0	0	0	0	0	0	0	0	0	16	50%
Czech Republic	5	1	2	0	0	0	0	0	0	0	0	0	27	46%
Denmark	3	2	4	0	0	0	0	0	0	0	0	0	14	50%
Estonia	17	3	9	0	0	0	0	0	0	0	0	0	59	52%
European Union	8	3	2	0	0	0	0	0	0	0	0	0	32	30%
Finland	19	8	14	0	0	0	0	0	0	0	0	0	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

All Topics Include completed measures

	Measures on SMEs	Energy management	Consumer behaviour	Measures on SMEs Energy management	Consumer behaviour	Promotion of energy services	Reduction of the transport demand	Promotion of non-conventionally fuelled vehicles	Measures on public procurement	Measures on energy efficiency and renewable energy in buildings	Measures on energy efficiency and renewable energy in buildings	Measures on energy efficiency and renewable energy in buildings	Information on public transport (Transport)	Information on cycling or walking (Transport)	Information on energy efficient driving behaviour (Transport)	Information on energy efficient driving behaviour (Transport)	Information on energy efficient driving behaviour (Transport)	Total Measures	% on Total	
Austria	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Belgium	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Belgium	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Bulgaria	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Croatia	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Cyprus	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Czech Republic	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Denmark	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Estonia	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
European Union	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Finland	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
France	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

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				
Latvia				
Lithuania				
Luxembourg				
Malta				
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

Measures addressing SMEs in Denmark:

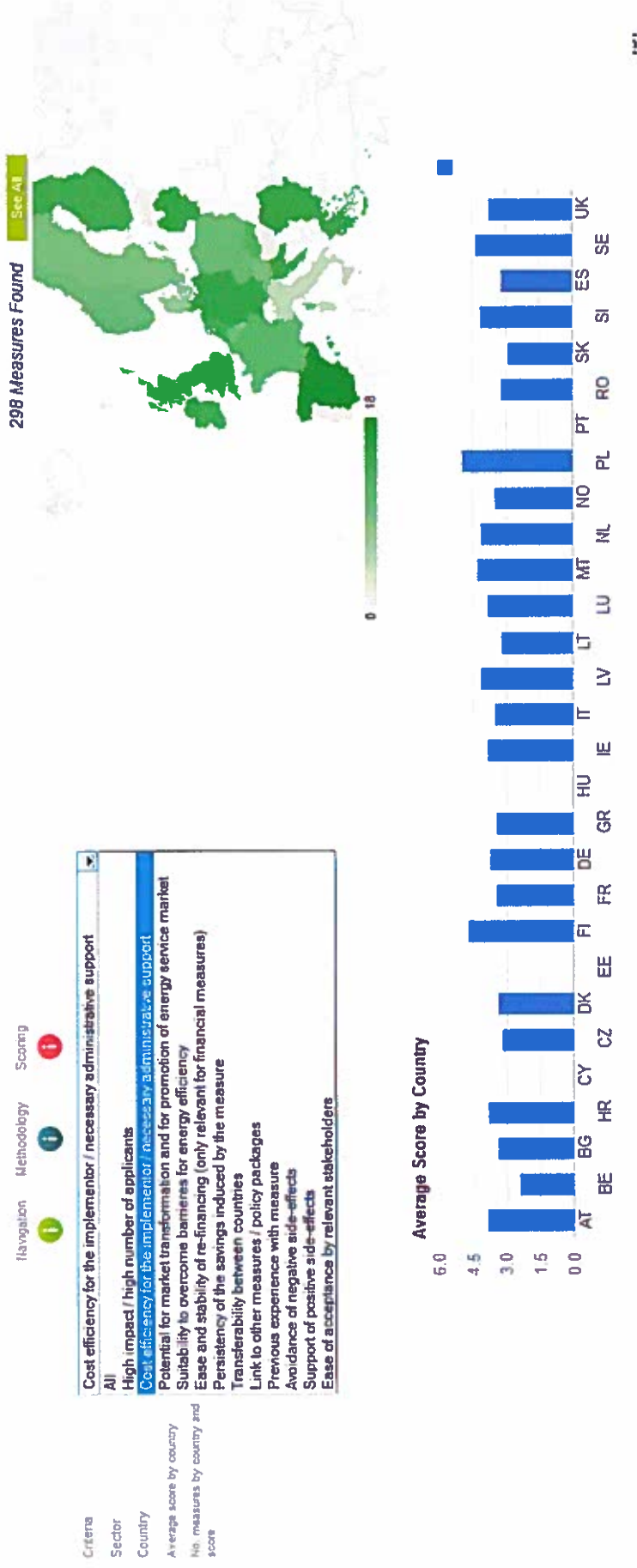
	Title	Status	Type	Starting Year
Latvia	Energy Performance of Buildings EPBD Recast (Directive 2010/31/EU) - Inspection of air-conditioning systems	Ongoing	Legislative/Normative	2008
Lithuania	Green taxes on energy use in industry	Completed	Financial, Legislative/Informative	1996
Luxembourg	Renewable energy for production processes	Ongoing	Financial	2013
Malta	Centre for energy savings in enterprises	Ongoing	Information/Education/Training	2014

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

ODYSSEE-MURE

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



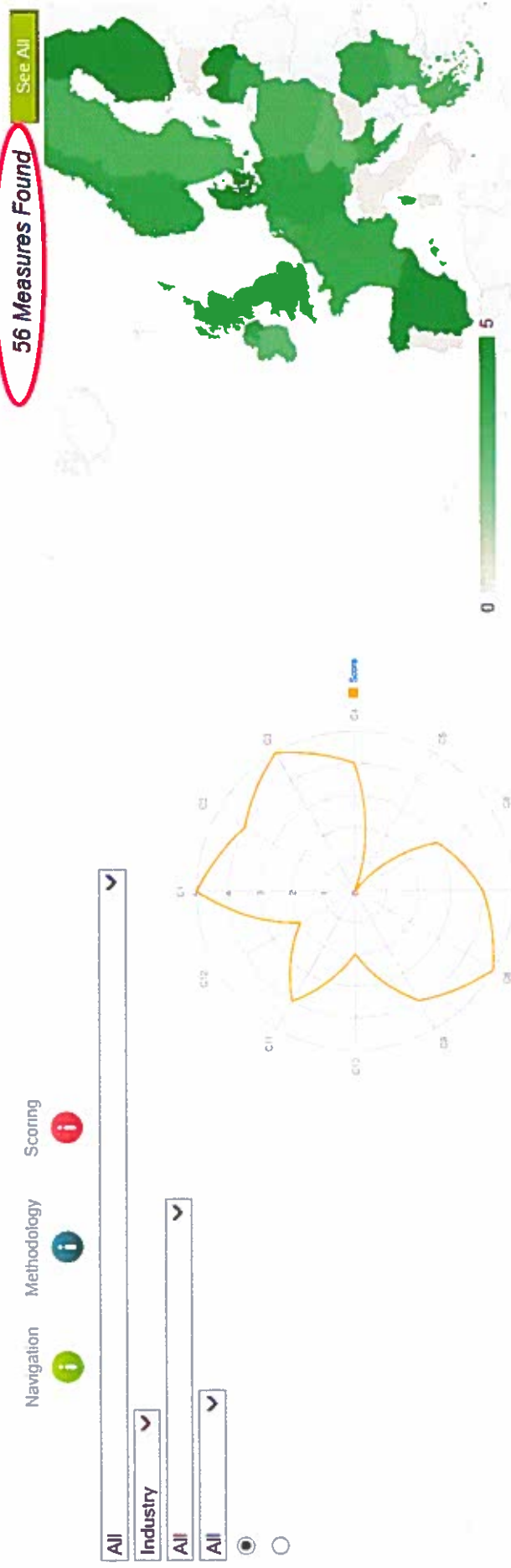


Chosen criteria for the quantification of the success level

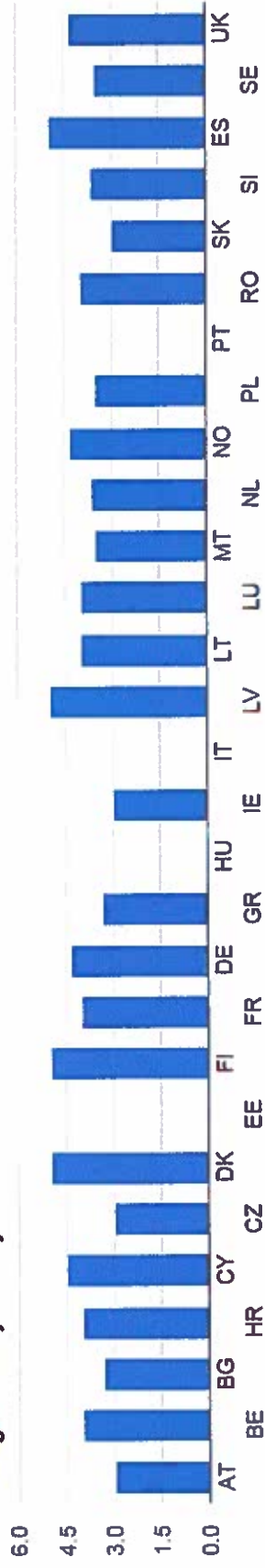


C1	High impact / high number of applicants	High priority
C2	Cost efficiency for the implementor / necessary administrative support	
C3	Potential for market transformation and for promotion of energy service market	
C4	Suitability to overcome barriers for energy efficiency	
C5	Ease and stability of re-financing (only relevant for financial measures)	
C6	Persistence 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	

Successful individual measures for industry



Average Score by Country



The 12 “successful measures” chosen for Denmark are a broad mix of all policy types (incl. market-based instruments)

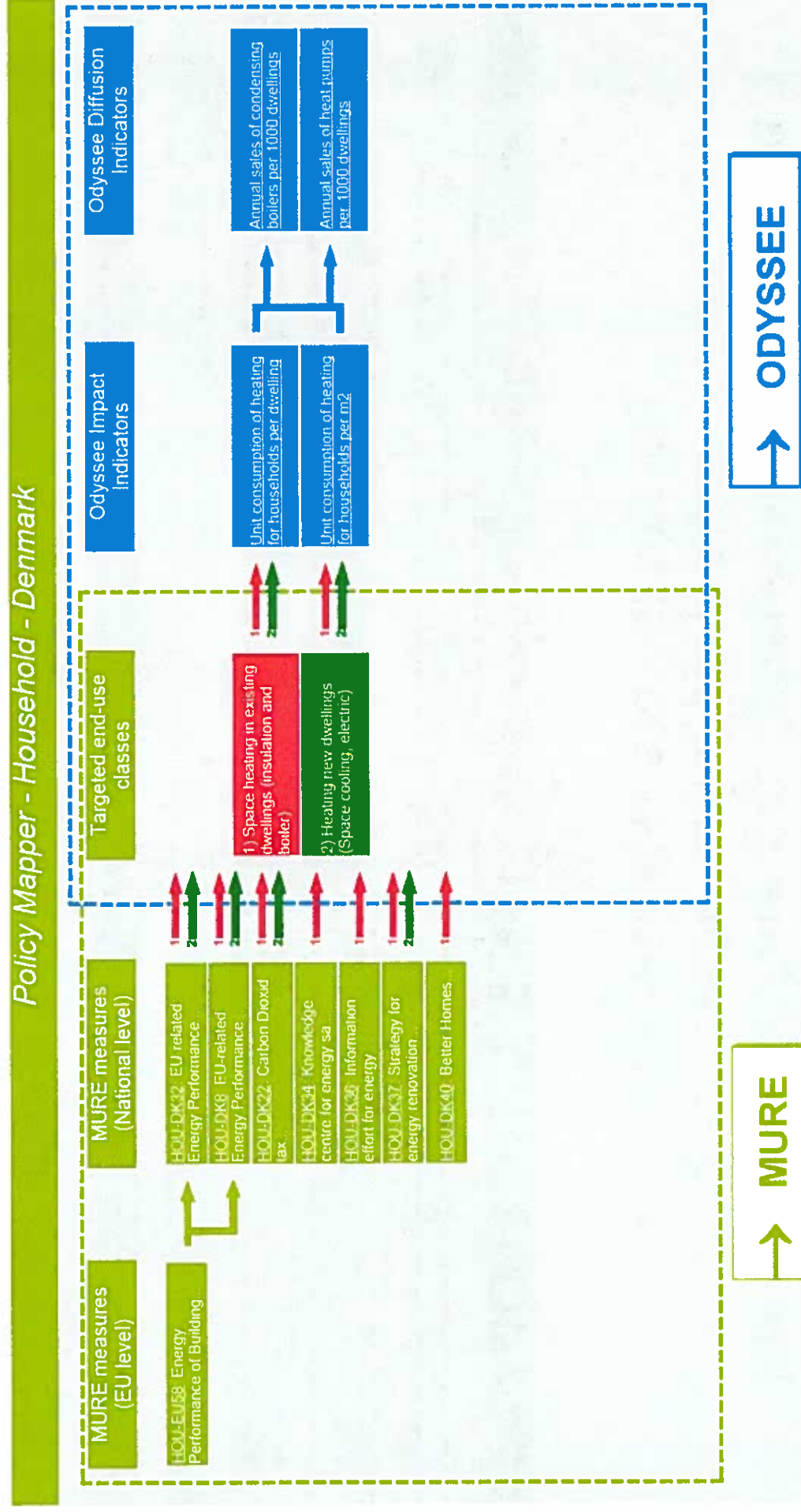
Successful measures chosen for Denmark

All Successful Criteria

Title	Avg Score	Status	Type	Starting Year
EU-related Energy Performance of Buildings EPBD Recast (Directive 2010/31/EU) - Energy Labeling of Buildings	3.38	Ongoing	Legislative/Normative	2005
EU-related: Recast Ecodesign Directive for Energy-related Products (Directive 2009/125/EC) - EU Energy labeling and ecodesign demands of energy-related products	3.73	Ongoing	Legislative/Normative	2009
Fund for advancement of alternatives to oil and natural gas boilers	3	Completed	Financial	2013
Promoting energy conservation in the public sector	2.7	Ongoing	Legislative/Informative	2005
EU-related Energy Performance of Buildings EPBD Recast (Directive 2010/31/EU) - Inspection of air-conditioning systems	3	Ongoing	Legislative/Normative	2008
Renewable energy for production processes	3.89	Ongoing	Financial	2013
Tax on gasoline	3.82	Ongoing	Fiscal	1999
Taxes on registration of a new cars	3.62	Ongoing	Fiscal	1971
EU-related: Passenger Car Labelling on fuel economy rating (Directive 1999/84/EC) - Energy label of new passenger cars	3.44	Ongoing	Legislative/Informative	2000
The Energy Companies' saving effort	4.33	Ongoing	Co-operative Measures	2006
Public funding for energy research, development and demonstration	3.88	Ongoing	Market-based Instruments	2007
Danish Energy Agreement 2012	4	Ongoing	General Energy Efficiency / Climate Change / Renewable Programmes	2012

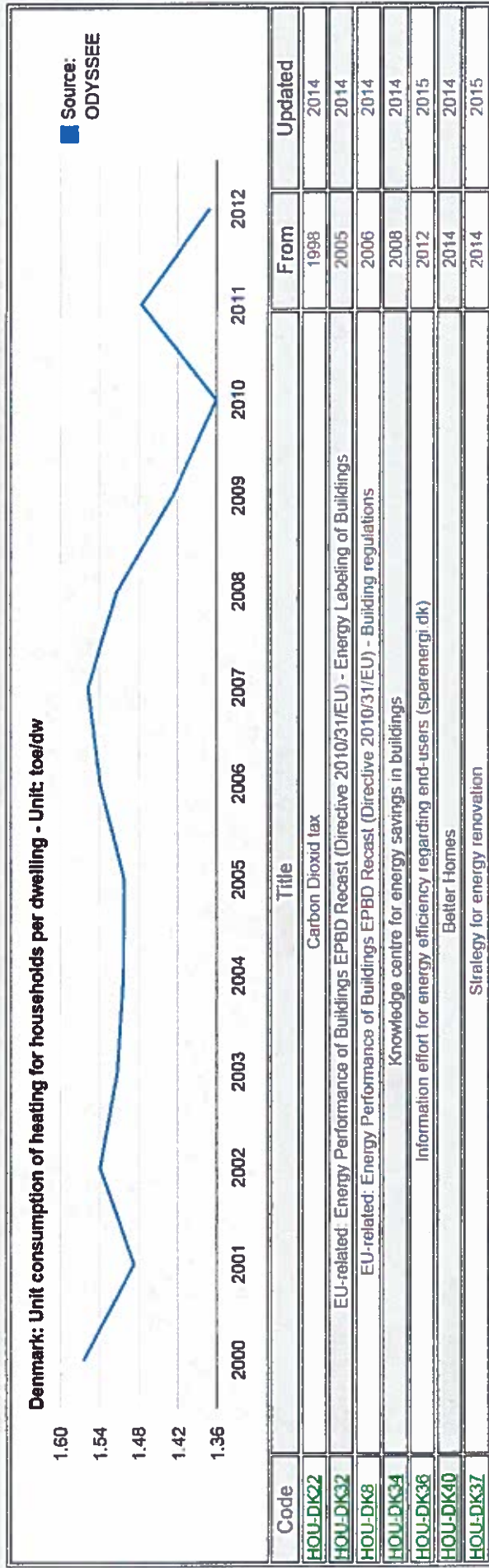
Policy mapper facility: Example for Denmark /1/

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:

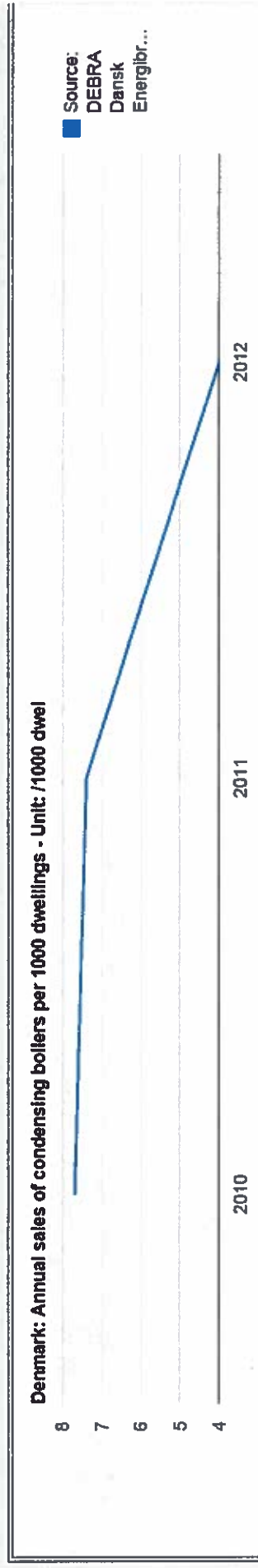


Policy Mapper Facility: Example for Denmark /2/

Policy Mapper - Household - Impact Indicators - Denmark



Policy Mapper - Household - Diffusion Indicators - Denmark



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)

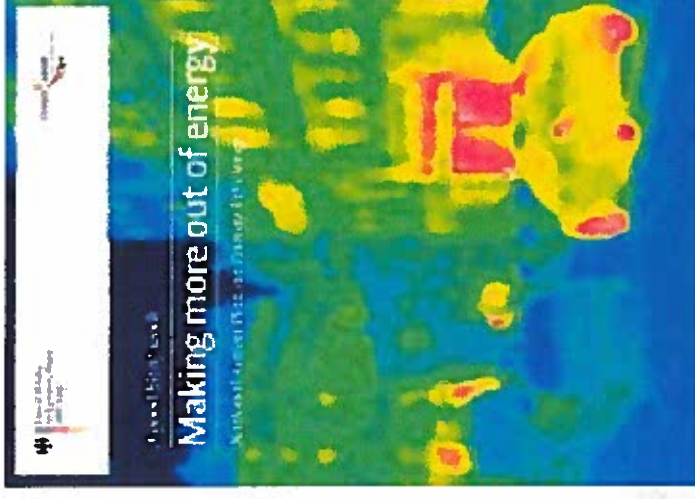
You can modify the values of the interaction matrix by choosing from the related list boxes, then click the button Confirm to make your own evaluation

	Leg-norm/invest	Leg-norm/use	Leg-inform/focus (label)	Leg-inform/broad (audit)	Finan-fiscal/invest (tariff)	Finan-fiscal/info (audit)	Inform/focus-invest	Inform/broad (center, etc.)	Coop/focus (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 refor								
Finan-fiscal/use (tariff)											
Finan-fiscal/info (audit)											
Inform/focus-invest											
Inform/broad (center, etc.)											
Coop/focus (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

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"	Informbroad (center, etc.)	High	18,895	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)				31,978	1,30%
Combined impact (with interaction)				33,287	1,40%
Difference (combined impact - sum of impacts)				2,414	0,08%

Creation of an „own measure package“ for industrial sector in Germany.

- Total impact re-calculated from semi-quantitative impact
- Interaction relatively low in this policy package (7% of total impact)

Scoreboard for Energy Efficiency Policies (still developed)

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

Methodological issues:

- 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
Denmark in the mid-range in respect to level and progress – low level for policies

EE LEVEL

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	9
Austria	0.0950	10
Poland	0.0964	11
Italy	0.1010	12
Netherlands	0.1021	13
Denmark	0.1027	14
France	0.1051	15
Czech Rep.	0.1053	16
Croatia	0.1060	17
Cyprus	0.1076	18
Ireland	0.1076	19
Greece	0.1096	20
Slovenia	0.1108	21
Romania	0.1135	22
Norway	0.1168	23
Latvia	0.1205	24
Bulgaria	0.1288	25
Belgium	0.1326	26
Estonia	0.1369	27
Finland	0.1488	28
Luxembourg	0.1584	29
Sweden	n.a.	

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

EE PROGRESS

Country	ODEX 2000-2012 *	Rank
Latvia	3.11%	1
Poland	2.79%	2
Romania	2.53%	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%	12
Denmark	1.24%	13
France	1.19%	14
Portugal	1.15%	15
Sweden	1.12%	16
Croatia	1.07%	17
Ireland	1.06%	18
Germany	1.04%	19
Cyprus	1.04%	20
Czech Rep.	1.01%	21
Austria	0.99%	22
Belgium	0.87%	23
Italy	0.83%	24
Estonia	0.75%	25
Greece	0.71%	26
Luxembourg	0.39%	27
Finland	0.34%	28
Spain	0.22%	29
Malta	0.10%	30

* Jährliche Energieeffizienzgewinne 2000-2012 (gemessen mit ODEX)

EE POLICY

Country	Policy im- pact*	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

Policy evaluation based on semi-quantitative estimates /1/

Country with larger number of measures

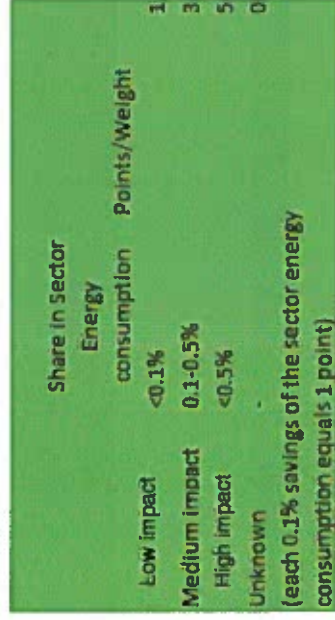
Country 1

	Sector 1	Sector 2
Measure 1	High impact	Medium impact
Measure 2	Medium impact	High impact
Measure 3	High impact	Low impact
Measure 4	Low impact	High impact
Measure 5	High impact	unknown

Country with less measures

Country 2

	Sector 1	Sector 2
Measure 1	Medium impact	High impact
Measure 2	Medium impact	Low impact
Measure 3	Low impact	Medium impact



Country 1

	Sector 1	Sector 2
Measure 1	5	3
Measure 2	3	5
Measure 3	5	1
Measure 4	1	5
Measure 5	5	0
Total	19	14

Country 2

	Sector 1	Sector 2
Measure 1	3	5
Measure 2	3	1
Measure 3	1	3
Total	7	9

Total

19

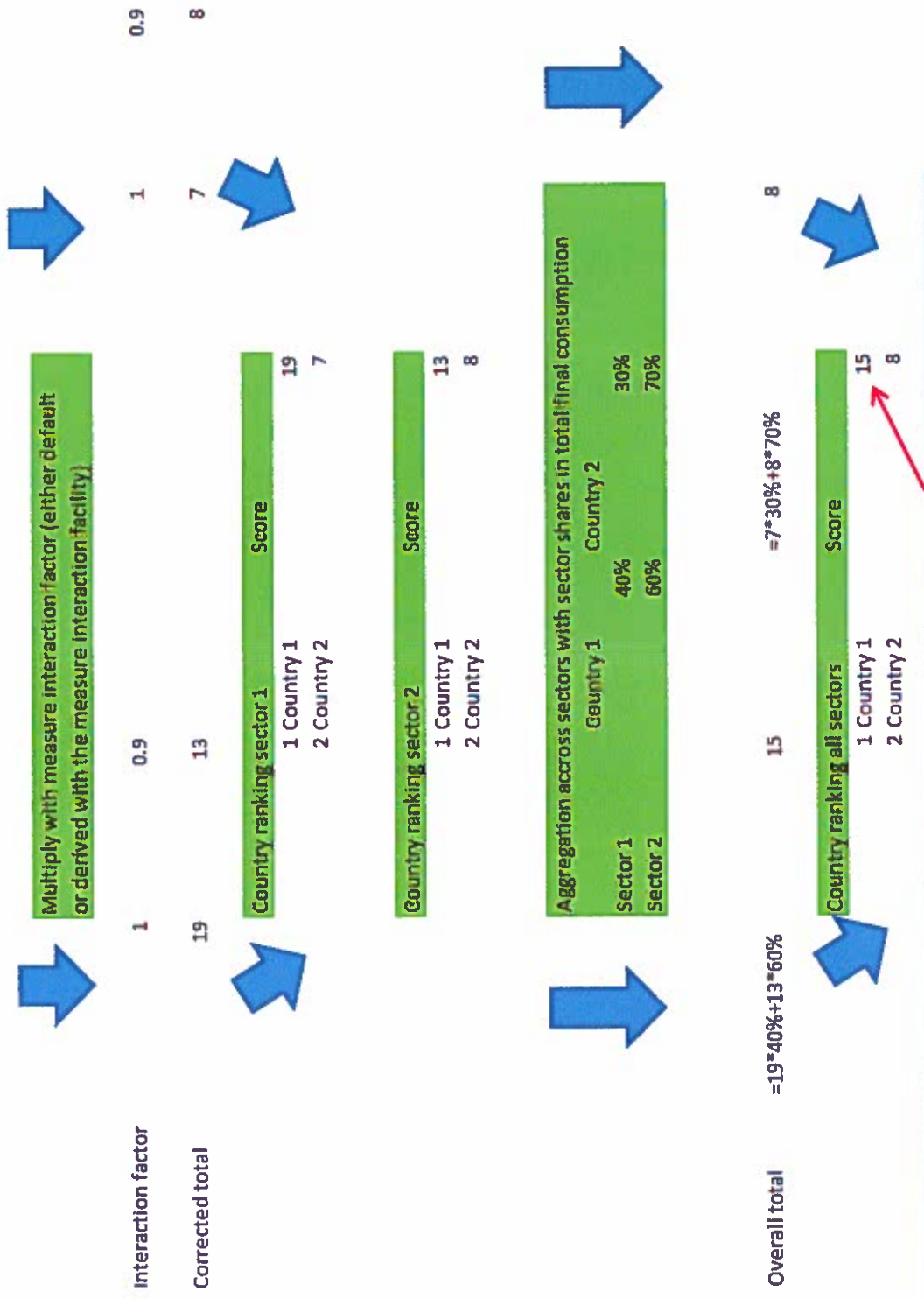
14

7

9

This figure can be interpreted as savings of $19 \cdot 0.1\% = 1.9\%$ of the sectoral energy consumption in sector 1/country 1 etc.)

Policy evaluation based on semi-quantitative estimates /2/



This figure can be interpreted as savings of $15 \cdot 0.1\% = 1.5\%$ of the total final energy consumption in sector 1/country 1 etc.)

Methodology for Energy Efficiency: Policy Impact

	Households	Industry	Transport	Services	Cross-cutting
Malta	86				
Croatia	78	50	76	70	66
Bulgaria	73	49	52	69	66
Ireland	71	58	47	55	47
France	66	54	44	55	41
Estonia	61	39	40	53	40
Norway	57	30	39	51	28
Portugal	57	27	38	51	26
Spain	55	27	35	51	25
Germany	55	25	30	49	24
Finland	50	23	29	46	24
Latvia	50	20	29	46	24
Netherlands	44	12	29	44	23
Hungary	38	18	28	38	22
Belgium	34	17	27	37	21
Slovakia	33	16	27	37	21
Luxembourg	31	16	20	37	21
Romania	31	15	20	33	21
UK	31	14	19	32	20
Slovenia	29	13	19	28	18
Italy	28	13	18	21	18
Malta	28	12	16	20	17
Cyprus	27	13	15	19	17
Greece	27	13	15	19	15
Norway	25	12	11	22	14
Denmark	25	11	11	23	13
Norway	24	11	11	23	13
Lithuania	19	9	10	13	11
Austria	10	8	9	12	11
Czech Repub	10	8	8	9	8
Sweden	6	4	6	5	7
Poland	6	3	4	4	6
Denmark	2	1	3	2	0
Lithuania	2	1	3	2	0

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



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

Implementation of Policy Scoreboard on MURE Website /1/

The screenshot shows the MURE website interface. At the top, there is a navigation menu with links: Mure Home, Query, Radar Graphs, Summary Tables, Topics Areas, Successful Measures, Policies Interaction, Policy Mapper, and Policy Scoreboard. Below the menu is the ODYSSEE-MURE logo. The main content area is titled 'Policy Scoreboard' and contains a bar chart. The chart is titled 'Country Score by Sector (max 20)' and shows scores for 20 countries across six sectors: Household, General Cross Cutting, Tertiary, Industry, Transport, and Untapped Opportunity. A legend is provided below the chart. A dropdown menu is open, showing options: Country Scores by Sector - Graph, Country Scores by Sector - Table, Country Scores by Sector - Map, Radar Graph by Targeted End-Use, and Final Scores and Ranking by Country. The browser's address bar shows the URL: www.measures-odyssee-mure.eu/SCOREBOARD/energy-efficiency-policy.asp. The browser's taskbar at the bottom shows the date and time: 21.05.2015, 10:10.

Implementation of Policy Scoreboard on MURE Website /2/

File Edit View History Bookmarks Tools Help
 MURE energy efficiency po... x +
www.measures-odyssee-mure.eu/scoreboard-energy-efficiency-policy.asp
 Most Visited Erste Schritte Aktuelle Nachrichten ETS Regulatory Updates
 CM-CC

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 Jurisdiction
- Final Scores and Ranking by Country

	Score	Rank
Total (max: 100)		
Egypt	26	6
El Salvador	25	9
Estonia	25	9
France	24	11
Lithuania	24	11
Romania	24	11
Norway	22	14
Uruguay	22	14
Slovenia	21	15
Austria	20	17
Poland	19	18
Italy	18	19
Czechia	18	19
Germany	16	22
Denmark	16	22

	Score	Rank
Household (max: 20)		
Estonia	6	6
Finland	6	6
Latvia	6	6
Malta	6	6
Netherlands	5	12
United Kingdom	5	12
Norway	5	12
Austria	5	12
Hungary	5	12
Slovenia	5	12
Romania	4	18
Slovakia	4	18
Denmark	4	18
Italy	4	18
Malta	4	18

	Score	Rank
Industry (max: 20)		
Slovenia	6	6
Norway	6	6
United Kingdom	6	6
Spain	5	11
Estonia	5	11
Finland	5	11
Italy	5	11
Greece	5	11
Uruguay	5	11
Malta	5	11
Latvia	5	11
Poland	5	11
Austria	5	11
Germany	4	19
Denmark	4	19
Italy	4	19

	Score	Rank
mar 20)		
Estonia	4	6
Hungary	4	6
United Kingdom	4	6
Belgium	3	11
Croatia	3	11
France	3	11
Germany	3	11
Italy	3	11
Malta	3	11
Greece	3	11
Uruguay	3	11
Latvia	3	11
Poland	3	11
Austria	3	11
Germany	2	15
Denmark	2	15
Italy	2	15

	Score	Rank
Transport (max: 20)		
Netherlands	6	3
Austria	6	3
Estonia	5	10
France	5	10
Greece	5	10
Latvia	5	10
Hungary	4	14
Poland	4	14
Denmark	3	16
Spain	3	16
Slovakia	3	16
Italy	2	18
Malta	2	18
Norway	2	18
United Kingdom	2	18

	Score	Rank
General Cross Cutting (max: 20)		
Poland	5	5
Latvia	4	8
Belgium	4	8
Hungary	4	8
Austria	4	8
Ireland	4	8
Portugal	4	8
Italy	4	9
Spain	4	9
Czechia	4	9
Germany	3	17
Denmark	3	17
Italy	3	17
Spain	3	17
Germany	3	17
France	3	17
Czechia	3	17

DE 19:00 21.05.2015
 Systemauswertung
 PC-Erweit
 Infohammer, Wolfgang Computer
 Desktop Bibliotheken

Implementation of Policy Scoreboard on MURE Website /3/



The screenshot shows the MURE website interface. The browser address bar displays 'www.measures-odysee-mure.eu'. The navigation menu includes: Mure Home, Query, Radar Graphs, Summary Tables, Topics Areas, Successful Measures, Policies Interaction, Policy Mapper, and Policy Scoreboard. The 'Policy Scoreboard' link is highlighted with a yellow triangle.

Policy Scoreboard

Select the output to be represented
Country Scores by Sector - Map



The screenshot shows the Windows taskbar at the bottom of the browser window. It includes icons for Desktop, Bibliotheken, and several system tray icons such as Netzwerk, Systemsteuerung, and the date/time display (10:40, 22.09.2015).

Some final remarks on the MURE database

- 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 just submitted in the EU HORIZON 2020.

Contact

Thank you for your attention

Dr. Barbara Schlomann

Fraunhofer Institute for Systems and Innovation Research ISI
Breslauer Str. 48, 76139 Karlsruhe, Germany
Phone +49 721 6809-136
barbara.schlomann@isi.fraunhofer.de
www.isi.fraunhofer.de