

ENERGY EFFICIENCY POLICIES & MEASURES IN THE EU: THE ODYSSEE-MURE PROJECT

Presentation in the frame of the IAEA - Virtual Regional Training Course on
Assessing Demand-side Contributions to Energy and Climate Strategies

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ODYSSEE-MURE

Overview Tools Publications Q&A Events Contact Partners

A DECISION-SUPPORT TOOL FOR ENERGY EFFICIENCY POLICY EVALUATION

ABOUT THE ODYSSEE-MURE PROJECT
Comprehensive monitoring of efficiency trends and policy evaluation in EU countries, Norway, Serbia and Switzerland.
[LEARN MORE](#)

ABOUT ODYSSEE
Database on energy efficiency indicators and energy consumption by end-use and their underlying drivers in industry, transport and buildings.
[Learn more](#)

ABOUT MURE
Database on energy efficiency policies and measures by country in industry, transport and buildings.
[Learn more](#)

LATEST NEWS
07 JULY 2020
Update and redesign of the MURE database on energy efficiency policies and measure in Europe
The **MURE database** has been updated with most recent policies and measures that are implemented in EU28 countries and Norway, Switzerland and Serbia. It has been redesigned to improve its user-friendliness and functionalities. The user is rapidly guided to the required information, thanks to an improved front end-user interface and

KEY PUBLICATIONS

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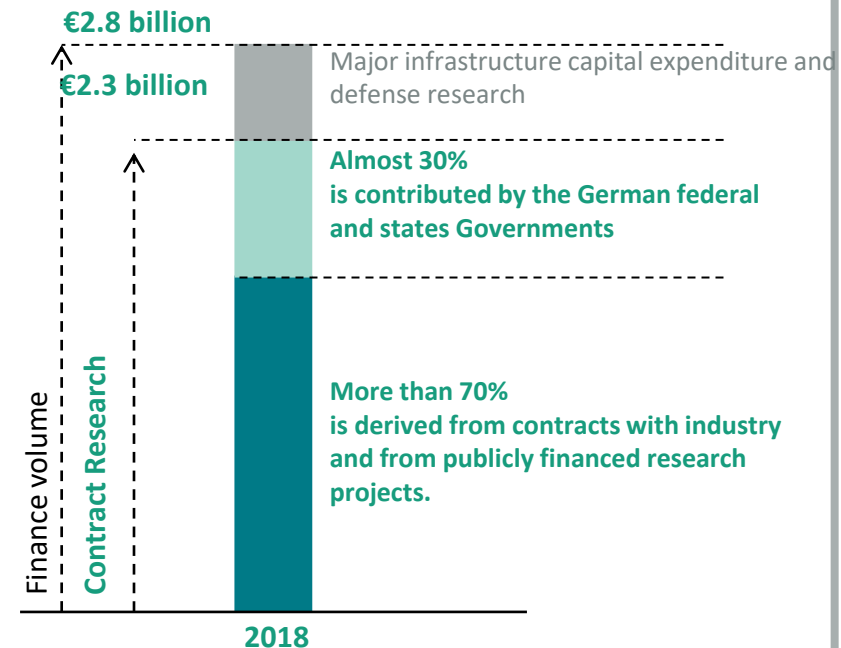
The Fraunhofer-Gesellschaft undertakes applied research of direct utility to private and public enterprise and of wide benefit to society.



28,800 staff



74 institutes and research units

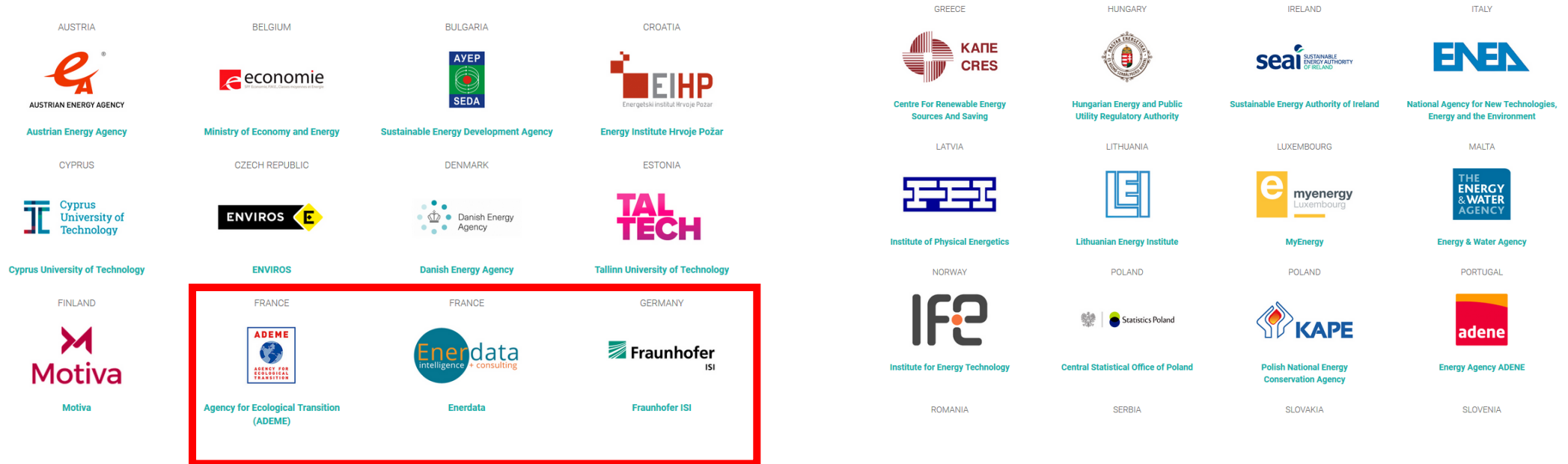


The European ODYSSEE-MURE project on Energy Efficiency Indicators and Policies

- 31 EU countries represented by energy efficiency agencies
- Decentralised data collection ➡ legitimacy of the results
- Exchange on methodologies, interpretation through workshops gathering 60 experts
- Harmonised data collection allowing data going « beyond the energy balance », Rapid updating (- one year), quality check
- Dissemination process (free access to non-profit organisations, sectoral and country profiles, national reports)
- Communication tools - Analysis facilities for end users , A single website :

<http://www.odyssee-mure.eu/>

The ODYSSEE-MURE network : more than 150 experts mainly from energy efficiency agencies, statisticiens and policy analysts



Co-ordinators

Users of ODYSSEE-MURE...

- **Europe/EC** : (DGEN, JRC, **EEA**, Eurostat, ECEEE, EnR club)
- **Others** :
 - IEA (EEUMD for G20),
 - Latin America : UN-CEPAL (project BIEE& ROSE 25 countries), Mexico (AFD-CONUEE),
 - Africa (MEDENER 7 Mediterranean countries, UN-Tunisia,
 - Asia : India (BEE)
- **National level (e.g. German Ministry of Economic Affairs BMWi)**
- **ISO 500049**: Energy saving calculation at country, region and cities : Energy efficiency index, structural changes of energy intensities and decomposition analysis



ISO 50049:2020(fr) Méthode de calcul pour l'efficacité énergétique et les variations de consommation d'énergie aux niveaux national, régional et urbain
Calculation methods for energy efficiency and energy consumption variations at country, region and city levels

How ODYSSEE-MURE was used...



Brussels, 30.11.2016
SWD(2016) 405 final
PART 1/3

COMMISSION STAFF WORKING DOCUMENT

IMPACT ASSESSMENT

Accompanying the document

Proposal for a Directive of the European Parliament and of the Council
amending Directive 2012/27/EU on Energy Efficiency

{COM(2016) 761 final}
{SWD(2016) 406 final}

- Reporting for National Energy and Climate Plans NECPs (and previously National Energy Efficiency Action Plans NEEAPs)
- Impact assessments (e.g. Energy Efficiency Directive, Energy Performance Directive for Buildings)
- Monitoring of targets (e.g. with the ODYSSEE decomposition tool)
- Monitoring of measures with MURE (e.g. analysis of measures contributing to the 2030 energy efficiency targets, identification of gaps and measures who could close the gaps)
- European Energy Efficiency Scoreboard: comparison of national efforts

ODYSSEE: A Database on Energy Indicators and Analysis Tools



ODYSSEE PROJECT

ABOUT THE ODYSSEE DATABASE

The Odyssee indicators are accessible under different data tools: the full data base, the key indicators facility, as well as five specific data facilities that focus on specific issues and provide some interpretation: market diffusion, decomposition, benchmarking, energy saving and indicator scoreboard. The access to the data base is restricted, whereas all other data tools are in public access.

ODYSSEE DATABASE



KEY INDICATORS



MARKET DIFFUSION



DECOMPOSITION



COMPARISON





ENERGY SAVING









ENERGY EFFICIENCY INDICATOR SCOREBOARD



ODYSSEE: A Database on Energy Indicators and Analysis Tools



Odyssee

[UPDATE STATUS](#) | [DATA REVISION](#) | [GLOSSARY](#) | [HOW TO USE](#) | [OPTIONS](#) | [SUPPORT](#) | [TERM OF USE](#)

Items

Countries

Years

Items: 1

Countries: 28

Years: 9

Search...

×

Residential - Indicators

- Gross index
- Energy savings
 - Technical
 - Observed
- Energy savings rate
- Unit consumption
 - All dwellings
 - All uses
 - Space heating, water heating
 - Space heating
 - Per dwelling with climatic corrections
 - Useful energy per dwelling
 - Per dwelling scaled to european climate
 - Useful energy per dwelling and degree day
 - Per m2 with climatic corrections
 - Useful energy per m2

Unit consumption per dwelling for space heating with climatic corrections (cutocloghc)

	ISO code	Source Code	Note	Unit	2010	2011	2012	2013	2014	2015	2016	2017	2018
Austria	AT	ODYSSEE		toe/dw	1.286	1.329	1.338	1.360	1.387	1.358	1.339	1.315	1.289
Belgium	BE	ODYSSEE		toe/dw	1.440	1.462	1.325	1.368	1.335	1.369	1.279	1.320	1.353
Bulgaria	BG	Calculated		toe/dw	0.485	0.471	0.501	0.508	0.490	0.510	0.518	0.512	0.522
Croatia	HR	EIHP		toe/dw	1.194	1.221	1.176	1.148	1.220	1.183	1.143	1.117	1.124
Cyprus	CY	ODYSSEE		toe/dw	0.263	0.303	0.293	0.301	0.333	0.304	0.324	0.321	0.361
Czechia	CZ	ODYSSEE		toe/dw	1.221	1.257	1.242	1.220	1.217	1.176	1.147	1.137	1.212
Denmark	DK	ODYSSEE		toe/dw	1.340	1.455	1.334	1.338	1.425	1.415	1.415	1.407	1.431
Estonia	EE	ODYSSEE		toe/dw	0.889	0.945	0.880	0.906	0.841	0.784	0.850	0.821	0.838
Finland	FI	ODYSSEE		toe/dw	1.352	1.352	1.344	1.324	1.317	1.365	1.289	1.244	1.230
France	FR	ODYSSEE		toe/dw	1.053	1.052	1.025	0.987	0.973	0.977	0.972	0.959	0.950
Germany	DE	ODYSSEE		toe/dw	1.090	1.103	1.088	1.122	1.049	1.004	1.065	1.056	1.054
Greece	GR	ODYSSEE		toe/dw	0.806	0.763	0.725	0.573	0.612	0.683	0.656	0.632	0.664
Hungary	HU	ODYSSEE		toe/dw	1.198	1.272	1.278	1.271	1.265	1.255	1.263	1.274	1.247
Ireland	IE	ODYSSEE		toe/dw	1.106	1.079	0.963	0.968	0.934	0.928	0.951	0.942	0.993
Italy	IT	ODYSSEE		toe/dw	0.963	0.934	0.957	0.966	0.940	0.964	0.976	0.931	0.944
Latvia	LV	ODYSSEE		toe/dw	1.060	1.167	1.138	1.091	1.076	1.004	0.984	1.015	1.073
Lithuania	LT	LITSO		toe/dw	0.788	0.851	0.793	0.794	0.758	0.772	0.753	0.751	0.778
Luxembourg	LU	STATEC		toe/dw	2.031	2.324	2.012	1.883	2.130	2.104	2.033	2.083	2.007
Malta	MT	ODYSSEE		toe/dw	0.087	0.073	0.060	0.097	0.092	0.068	0.091	0.083	0.094
Netherlands	NL	CBS		toe/dw	1.187	1.096	1.065	1.080	0.970	0.939	0.944	0.950	0.959
Poland	PL	SP		toe/dw	1.060	1.122	1.094	1.088	1.118	1.057	1.066	1.064	1.084
Portugal	PT	ODYSSEE		toe/dw	0.147	0.161	0.132	0.133	0.150	0.157	0.143	0.162	0.137
Romania	RO	ODYSSEE		toe/dw	0.558	0.541	0.546	0.575	0.595	0.600	0.580	0.582	0.630
Slovakia	SK	SOSR		toe/dw	0.871	0.837	0.764	0.802	0.838	0.765	0.757	0.777	0.820

Right click to select all items of a level.

ODYSSEE: A Database on Energy Indicators and Analysis Tools

(Example: Decomposition Analysis for the Power Sector)



DECOMPOSITION TOOL

Country:

European Union

Sector:

Power

Unit:

Mtoe

Period:

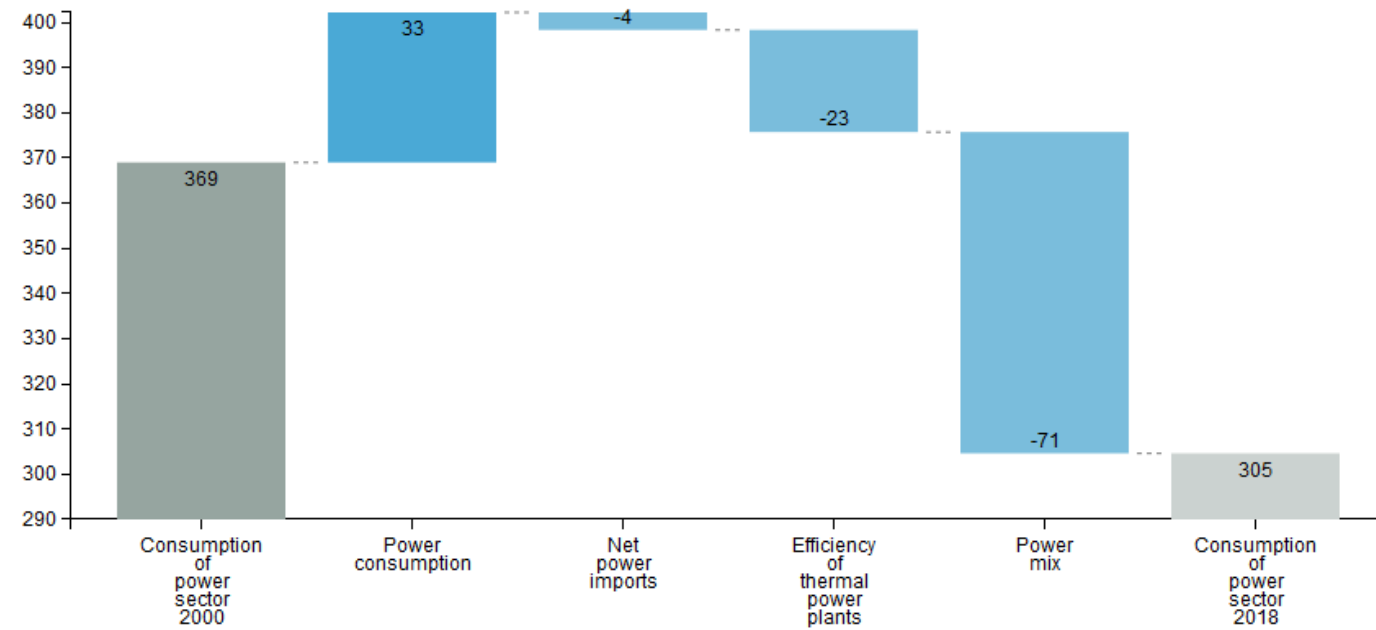
2000 - 2018

Graph:

Waterfall

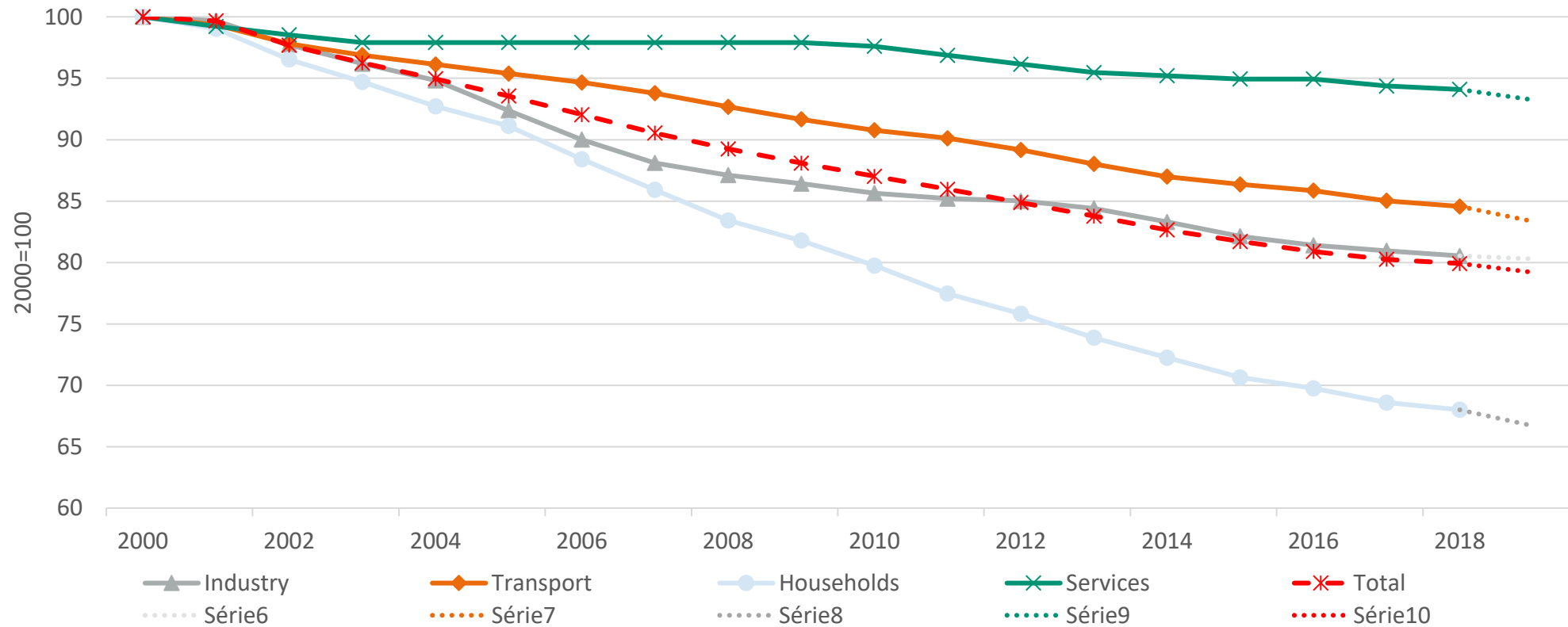
[Methodology](#)

VARIATION POWER SECTOR CONSUMPTION
EUROPEAN UNION
MTOE (2000-2018)



ODYSSEE: A Database on Energy Indicators and Analysis Tools

(Example: ODEX – Dow Jones of Energy Efficiency)



The ODEX calculates energy efficiency indicators at detailed level and aggregates them into a singly indicator

MURE: A Database on Energy Efficiency Policies and Analysis Tools

MUREII

Database Radar graph Summary Table

Search ⓘ :
Enter text to search in measures

Sector :
Household

Countries :
Select...

Measure type :
Financial

Targeted end-use :
Select...

Search

Clear All

Less options

Measure Characterisation ▶

more detail

149 measures found

Export

Country	Sector	Title
Austria	Household	Residential building subsidy
Austria	Household	National renovation campaign / renovation voucher
Austria	Household	Energy audits (advice) for households
Austria	Household	Smart Metering and Informative Billing
Belgium	Household	Brussels - Energy grant for households
Belgium		
Belgium		
Bulgaria		
Bulgaria		
Bulgaria		
Bulgaria		
Bulgaria		
Bulgaria		
Bulgaria		
Croatia		
Croatia		
Croatia		
Cyprus		
Cyprus		
Cyprus		
Cyprus		
Czech Republic		

Measure Code :
Country :
Title :
Short description :
Reference :

HOU-DE0640
Germany
Upgrading the CO2 Building Renovation Programme (Weiterentwicklung, Verstetigung und Aufstockung des CO 2 - Gebäudesanierungsprogramms bis 2018 - inkl. Einführung des Förderstandards Effizienzhaus Plus)
This measure includes financial subsidies for renovational works that make buildings more energy efficient. The programme aims at saving energy, especially in non-residential buildings as those make 30% of all buildings in Germany. The utilization of 300 million euros for the grants-funding with subsequent coverage option for the interest subsidy is planned.
National Action Plan Energy Efficiency (2014) (Nationaler Aktionsplan Energieeffizienz) <http://www.bmwi.de/BMWi/Redaktion/PDF/M-O/nationaler-aktionsplan-energieeffizienz-nape,property=pdf,bereich=bmwi2012,sprache=de,rwb=true.pdf>

Export

Status

Issuing date

Starting date

Ending date

Semi quantitative Impact ⓘ

NECP ⓘ

Article 7 ⓘ

Yes

No

View quantitative evaluation impact

View Detailed Measure Description

MURE: A Database on Energy Indicators and Analysis Tools

(Example: The European Energy Efficiency Scoreboard)

EUROPEAN ENERGY EFFICIENCY SCOREBOARD

View:

Overview

Sector:

Overall

Score:

Combined

METHODOLOGY

SUMMARY

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.

The scoreboard can be viewed by selecting a criterion which ranks the country according to their score ("Overview"). The score by country for each criterion can be displayed by selecting "View by country".

For each criterion each country is scored with a score between 0 and 1 on the basis of indicators and policies (see methodology).

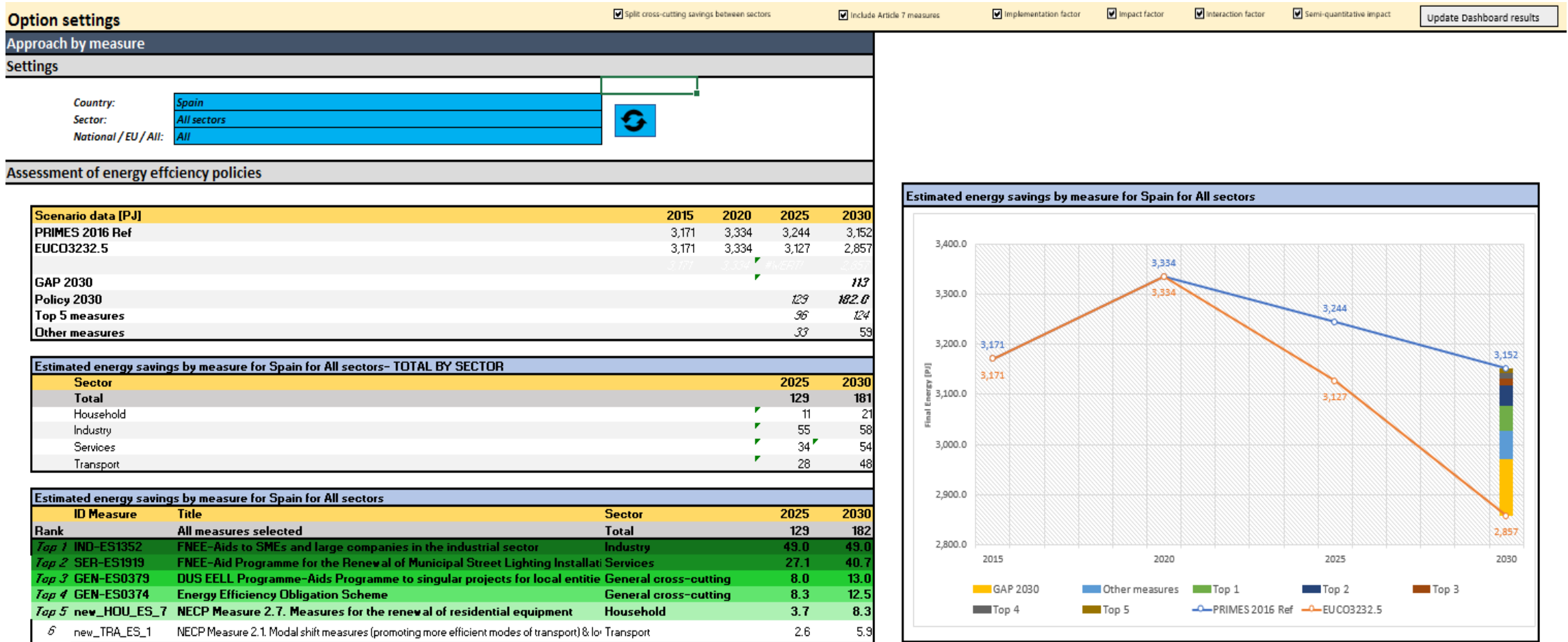
OVERALL: OVERALL ENERGY EFFICIENCY SCORE

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).

Switzerland	0.86
Ireland	0.74
Romania	0.70
UK	0.63
Latvia	0.60
Slovakia	0.55

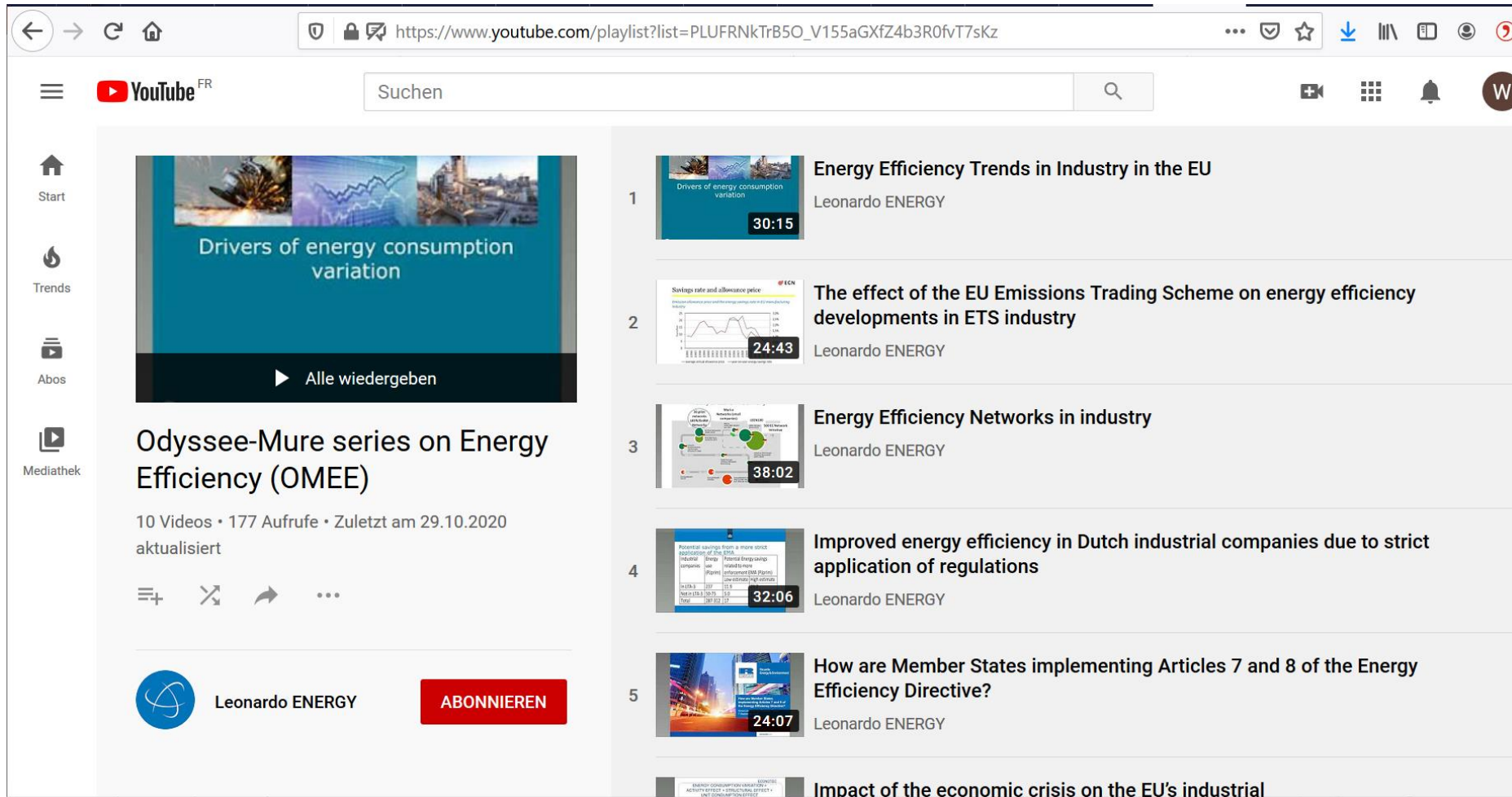
MURE: A Database on Energy Indicators and Analysis Tools

(Example: Assessment of Energy Efficiency Policies for 2030)



Dissemination Channels: example YouTube

(and: country/sector profiles, policy briefs, scientific articles, seminars, webinars, trainings...)



The screenshot displays a YouTube playlist interface. At the top, the browser address bar shows the URL: https://www.youtube.com/playlist?list=PLUFRNkTrB5O_V155aGXfZ4b3R0fvT7sKz. The YouTube logo and a search bar are visible. The playlist is titled "Odyssee-Mure series on Energy Efficiency (OMEE)" and is by the channel "Leonardo ENERGY". It contains 10 videos, with 177 views, and was last updated on 29.10.2020. The main video player shows a thumbnail for "Drivers of energy consumption variation" with a duration of 30:15. Below the player, the channel name "Leonardo ENERGY" and a red "ABONNIEREN" button are visible. To the right, a list of five videos is shown:

1. **Energy Efficiency Trends in Industry in the EU** (Leonardo ENERGY, 30:15)
2. **The effect of the EU Emissions Trading Scheme on energy efficiency developments in ETS industry** (Leonardo ENERGY, 24:43)
3. **Energy Efficiency Networks in industry** (Leonardo ENERGY, 38:02)
4. **Improved energy efficiency in Dutch industrial companies due to strict application of regulations** (Leonardo ENERGY, 32:06)
5. **How are Member States implementing Articles 7 and 8 of the Energy Efficiency Directive?** (Leonardo ENERGY, 24:07)

Below the list, a partially visible video titled "Impact of the economic crisis on the EU's industrial" is shown.

How the ODYSSEE-MURE approach could support your countries...

- Inspire systematic and harmonized collection of data and information on energy efficiency trends and policies
- Inform NECPs, Nationally Determined Contributions NDCs or similar national strategies
- Help to establish monitoring tools for target achievement
- Help to understand why targets are achieved/not achieved
- Support impact assessments and conception of new policies
- Serve for comparisons in terms of indicators and policies (e.g. MURE policy mapper and successful policy facility)
- Help to standardize the determination of energy savings
- ...

Thank you for the attention

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