



MURE PROJECT

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.

DATABASE QUERY



SUCCESSFUL
MEASURES



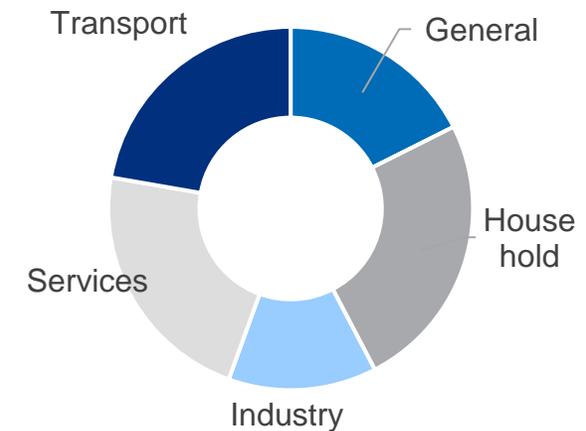
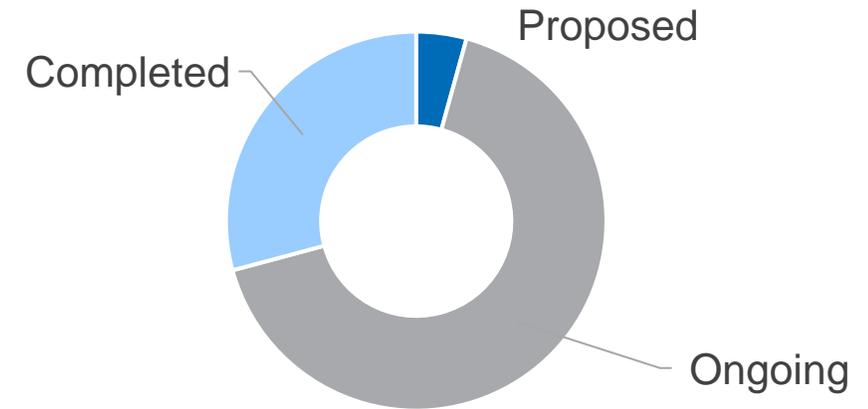
POLICY MAPPER



ENERGY
EFFICIENCY
SCOREBOARD



- Contains detailed descriptions of 2,736 measures
- EU27 countries plus Norway, Serbia, Switzerland and the United Kingdom; also contains entries for EU wide measures
- Data base searchable by:
 - sector and subsector
 - key word
 - measure type
 - status of measure
 - targeted end use
 - actor
 - audience
 - NEEAP measures,
 - EU related measures
- 99% of measures contain semi-quantitative estimates of measure impact:
 - Low impact <0.1% of sector energy consumption
 - Medium impact: 0.1 to 0.5%
 - High impact >0.5%
- Many measures also contain quantitative estimates of the measures impacts in terms of energy and CO₂ savings



- Database of implemented energy efficiency policies and measures
 - Cross cutting
 - Household
 - Industry
 - Services
 - Transport
- Includes:
 - Descriptions
 - Impacts (PJ and CO₂)
 - Links to evaluations
 - Relation to EU framework
 - Implementation details/history
 - Useful links and references

Database Radar graph Summary Table
☰

Sector :
Household

Countries :
Countries x

Impact evaluation

Semi quantitative impact :
Select...

Starting year :
From To

Search

Clear All

Types Targeted end uses

Types	Austria	Belgium	Bulgaria	Croat
Mandatory information				
Labels				
Mandatory labelling electrical appliances			1L	
Mandatory labelling heating equipment				
Mandatory standards				
Standards for buildings				
Energy Performance Standards		3H		1H
Minimum thermal insulation standards	1H	3H	1H	
Standards for electrical appliances				
Minimum efficiency standards for electrical appliances				
Mandatory measures for efficient lighting				
Other regulations				
Individual billing			1L	
Limiting indoor temperatures/ heating periods				
Regulation for heating and hot water systems				
Compulsory replacement of old boilers above a certain age				
Control systems for heating				
Mandatory heating pipe insulation				
Mandatory use of solar thermal energy				
Minimum efficiency standards for boilers				
Periodic mandatory inspection of boilers		2H		
Periodic mandatory inspection of Heating/Ventilation/AC (HVAC)		2H		
Financial				
Subsidies				
Subsidies for efficient/renewable heating technologies	1H	1H	1H	

Access MURE here: <https://www.measures.odyssee-mure.eu/>

Uses of Mure: Searching for policies and examining policies in detail



Database Radar graph Summary Table

Search ⓘ :
Enter text to search in measures

Sector :
Household

Countries :
Select...

Measure type :
Fiscal x Market-based Instruments x

Targeted end-use :
Cooking x Hot water x Space cooling x

Search

Clear All

More options

more detail 2 measures found Export

Country ^	Sector ▾	Title	EU ⓘ	Type	Starting
Spain	Household	Norms and technical complementary instructions for homologation of solar panels	No	Market-based Instruments	1980
Sweden	Household	Technology procurement groups	No	Market-based Instruments	1989

Database Radar graph Summary Table

Search ⓘ :
Enter text to search in measures

Sector :
Household

Countries :
Select...

Measure type :
Fiscal x Market-based Instruments x

Targeted end-use :
Cooking x Hot water x Space cooling x

Search

Clear All

More options

By default only ongoing measures are selected. For visualizing completed and proposed measures, click on "more options/status"

Technology procurement groups - Measure Detail Export

Measure Code : HOU-SE1003

Country : Sweden

Title : Technology procurement groups

Reference : <http://www.energimyndigheten.se/sv/Foretag/Teknikupphandling1/Vad-ar-en-teknikupphandling/> www.belok.se, www.bebostad.se

Status	Issuing date	Starting date	Ending date	Semi quantitative Impact ⓘ	NECP ⓘ	Article 7 ⓘ
Ongoing	1989	1989		Low	Yes	No

Types : Market-based Instruments - Technology procurement

Actors : Associations
Energy agencies

Target Audience : Building professions
Housing associations
Landlords
Owner-occupiers
Tenants

Uses of Mure: Searching the whole database for an overview

Database Radar graph Summary Table

Sector : Household

Countries : Select...

Impact evaluation

Semi quantitative impact : Select...

Status : Ongoing

Starting year : From To

Search

by periods by qualitative impact

Number of periods: 1 Weighted by semi quantitative impact

Allows user to weight for semi-quantitative impact

Category	Percentage (1967-2022)
Mandatory information	15%
Mandatory standards	25%
Financial	10%
Fiscal	5%
Information/training	5%
Market-based Instruments	5%
Others	5%
General programme	5%

1967 - 2022 (428)

MURE Database – Analysis facilities

SUCCESSFUL MEASURES



Successful measures identifies different implementations of measures targeting a specific end-use or sector, which can be seen as “**good practices**” and were deemed as successful.

POLICY MAPPER



This tool maps policies in the [MURE database](#) to their respective end-uses, highlighting thus policies which are likely to interact among each other and **to link policies and top-down indicators calculated in the [ODYSSEE database](#)**, which evaluate in a aggregate manner policy impacts.

ENERGY EFFICIENCY SCOREBOARD



The scoreboard ranks nations which submit to the Mure database based on different energy efficiency criteria:

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



- Identify countries that have developed successful policies to address specific energy efficiency issues.
- Can filter based on impact criteria, sector and targeted end use

High impact, household, hot water

Criteria :

Sector :

Targeted end-use :

Below are presented the top-ten countries with successful and innovative measures according to the criteria/sector/end-use selected in the left menu. To view detailed measures and describe one country, click on it in the map.

Top 10 countries

Croatia	5.0
Ireland	4.7
Bulgaria	4.5
Spain	4.4
Austria	4.3
Finland	4.3
Greece	4.3
Slovenia	4.3
Belgium	4.0
Denmark	4.0



- All criteria
- High impact / high number of applicants
- Cost efficiency for the implementer
- Potential for market transformation an...
- Suitability to overcome barriers for ene...
- Ease and stability of re-financing finan...
- Persistency of the savings induced by ...
- Transferability between countries
- Link to other measures / policy packag...
- Level of experience with the measure
- Avoidance of negative side-effects
- Positive side-effects

Sector :

Targeted end-use :

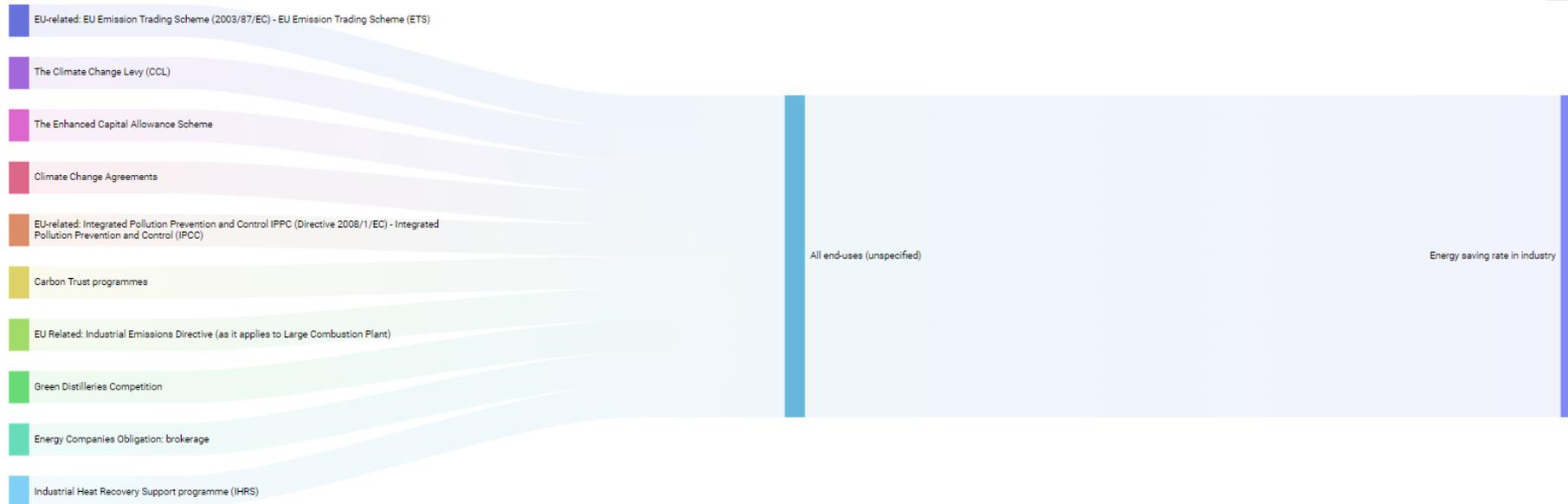
- ▶ Appliances
- Space heating
- Cooking
- Hot water
- Space cooling
- Lighting
- All electric end-uses (unspecified)
- All fuel-related end-uses (unspecified)
- All end-uses (unspecified)

Code	Title	Type	High impact / high
HOU-IE0706	EU-related: Energy Performance of Buildings (Directive 2002/91/EC) - Irish Response to the Energy Performance of Buildings Directive	Mandatory information	5.0
HOU-IE0721	EU-related: Energy Performance of Buildings EPBD Recast (Directive 2010/31/EU) - Building regulations 2011	Mandatory standards	5.0
HOU-IE0723	Better Energy Homes (Residential Retrofit)	Financial	4.0

- Countries select 2-3 successful measures per sector (10 to 15 per county) – 300 in total in tool
- Measured scored (1 to 5) against each criteria
- 6 high priority criteria, 6 low priority

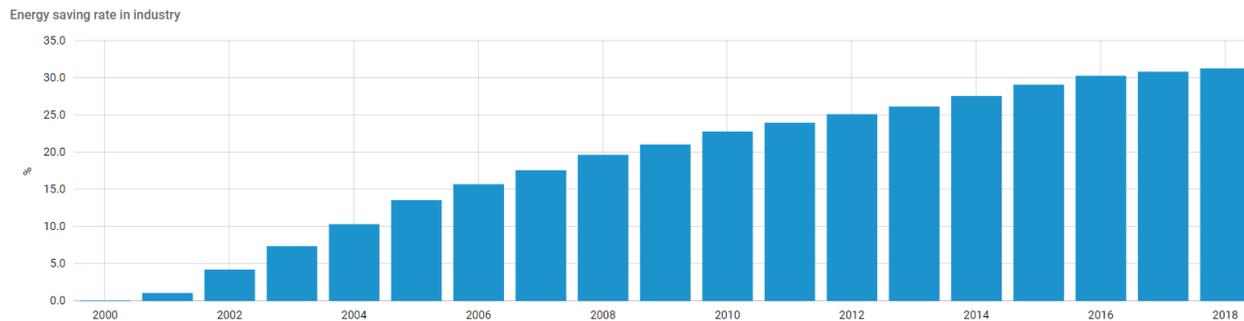


UK Industry



The objectives of this tool are

- To map policies in the MURE database to their respective end-uses, highlighting policies which are likely to interact with each other
- To link policies with the top-down indicators calculated in the ODYSSEE database, which evaluate policy impacts in an aggregate way



ENERGY EFFICIENCY SCOREBOARD



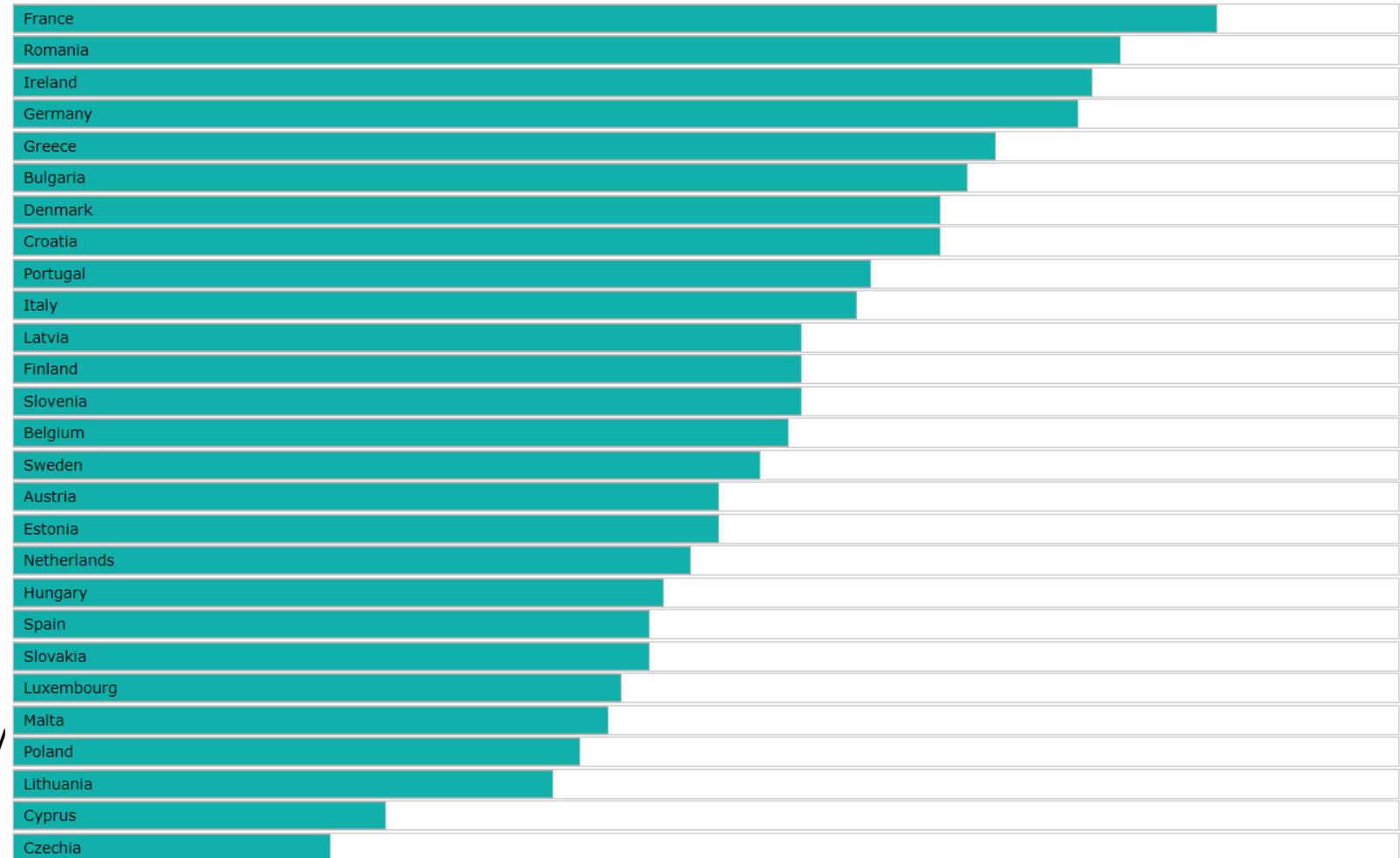
The objective of the ODYSSEE-MURE scoreboard on energy efficiency indicators and policies is to score EU countries on different energy efficiency criteria:

- efficiency level,
- efficiency progress,
- efficiency policies,
- of all these criteria.

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”

TRANSPORT: 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).



- This tool presents a quantitative indicator approach to measure multiple benefits of energy efficiency (MB-EE)
- The MB-EEs are classified into three groups: environmental, economic, and social –related MBs.
- MB:EEs linked to:
 - Bottom-up savings from MURE
 - Top-down savings from ODYSSEE
- Full description of methodology is available
- Supporting documents
- Excel download of data





MB:EE | Employment effects

Info Documents Graph

Info

The direct effects of energy efficiency savings. While the former triggers a demand for relevant technology, the latter produces products in the long-run. However, in a broader sense, energy efficiency savings indirectly affect other sectors as well. The economic impacts of certain demand changes in economic sectors can be analyzed using Input-Output analysis. It also allows for the calculation of added value (GVA) in selected sectors which is then converted into employment effects by coefficients, which link GVA to fulltime data on energy savings from the ODYSSEE demand changes in economic sectors.

MB:EE | Employment effects

Info Documents Graph

Documents

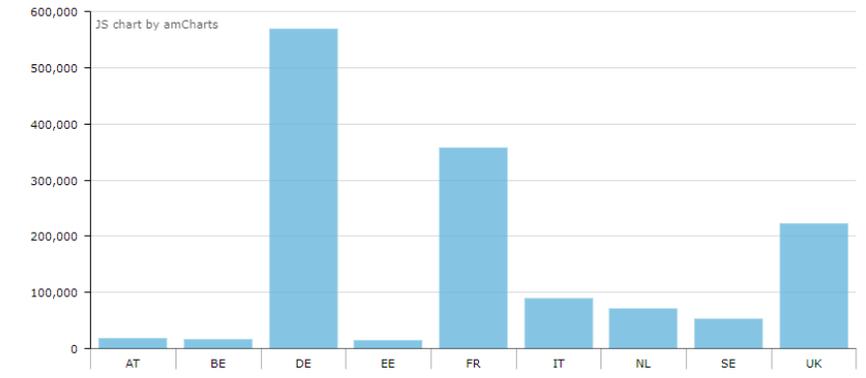
- Mapping and analyses of the current and future (2020 - 2030) heating / cooling fuel deployment (fossil / renewables)
Fraunhofer Institute for Systems and Innovation Research ISI et al., 2016

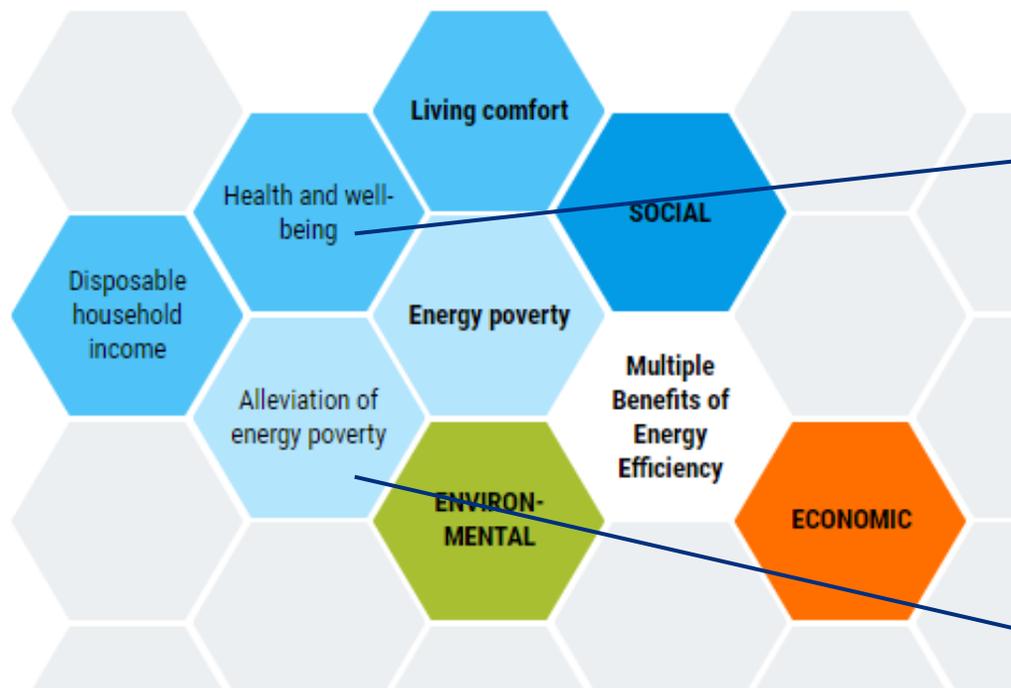
MB:EE | Employment effects

Info Documents Graph

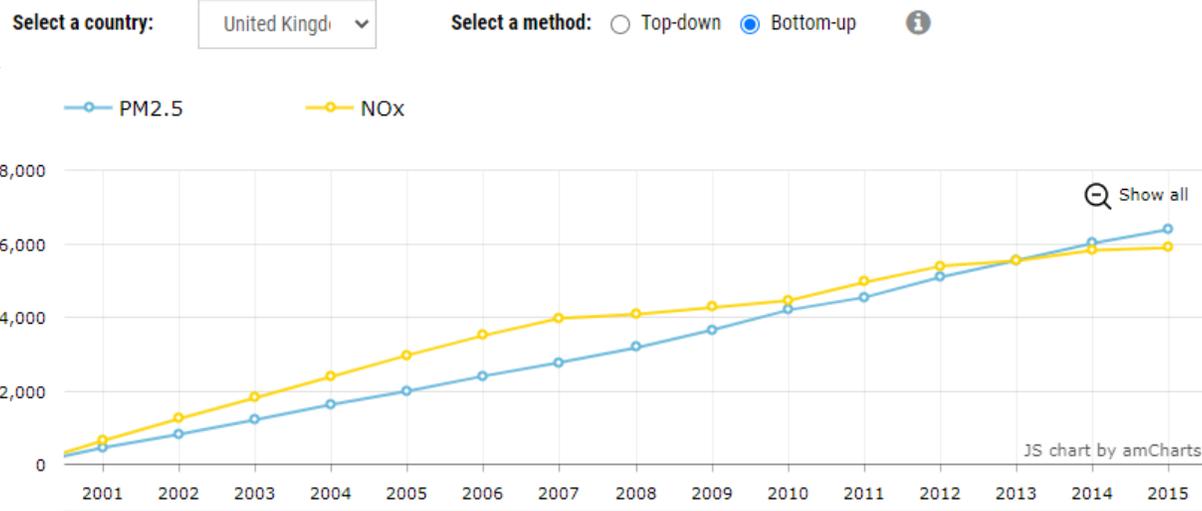
Employment effects 2010 - 2015 [FTE]

Select an approach: Top-down savings

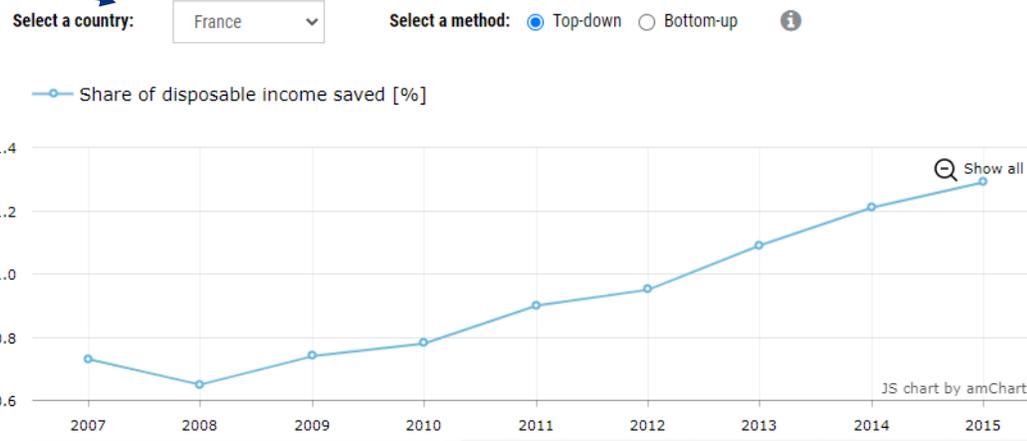


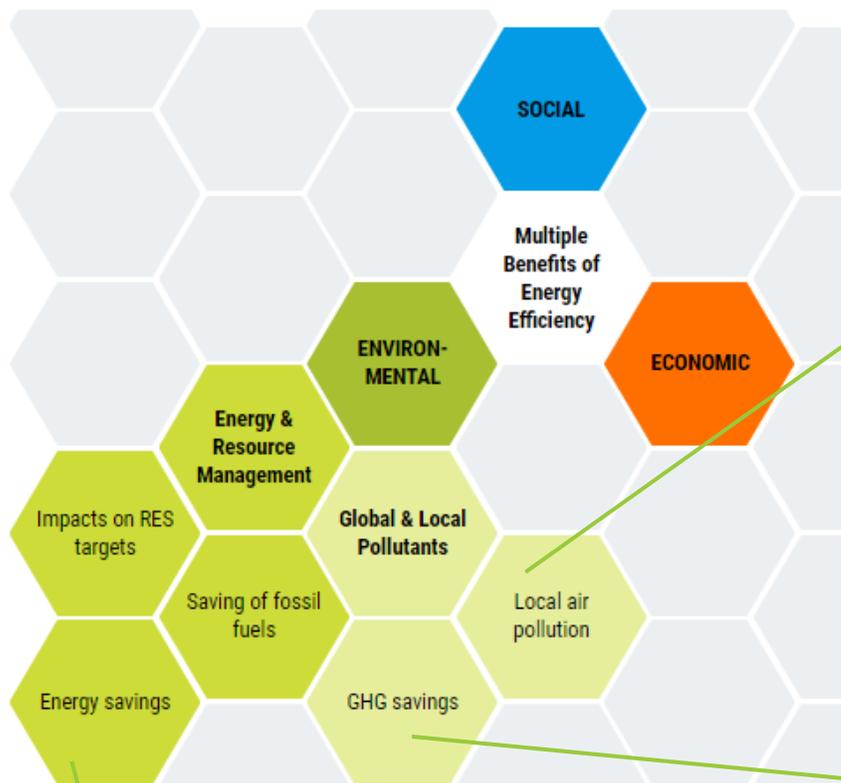


Avoided premature deaths per year compared to 2000 [deaths]

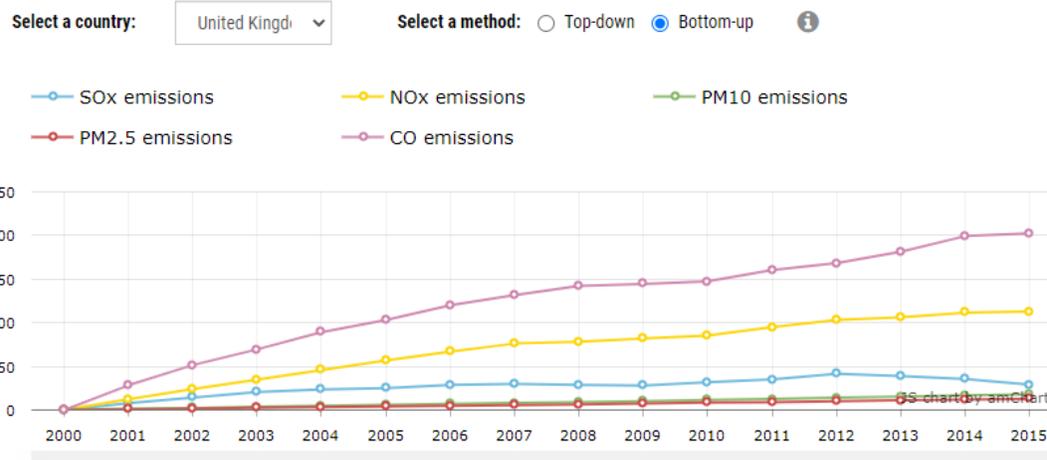


Energy cost saved as share of disposable income compared to 2000 [%]

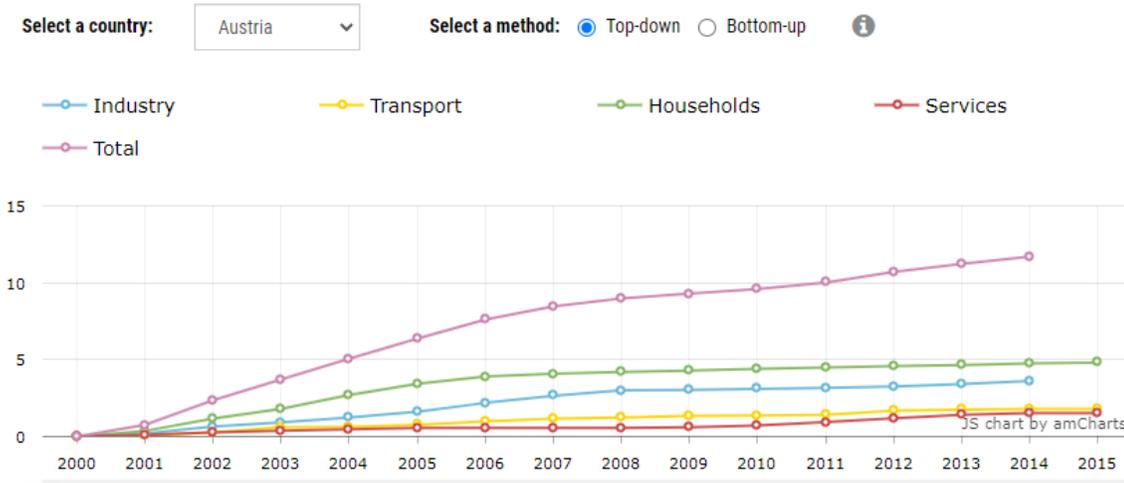




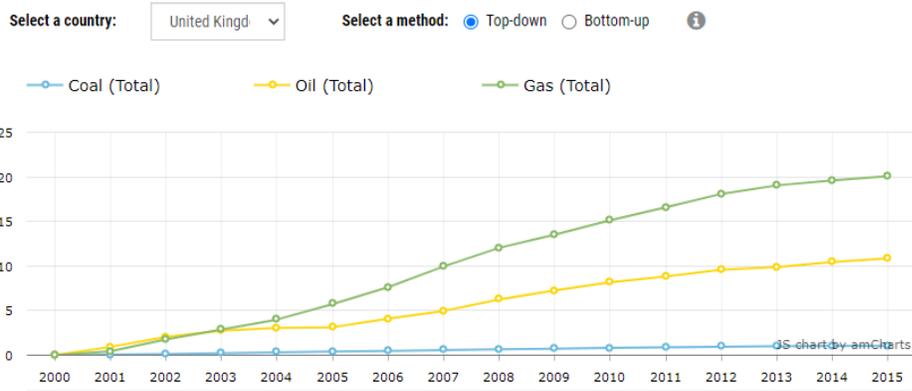
Annual local pollutants emissions avoided compared to 2000 [Gg]



Annual CO₂ savings compared to 2000 [Mt CO₂]



Annual energy savings by fuel compared to 2000 [Mtoe]



Creating a world
fit for the future



Conclusions

<https://www.odyssee-mure.eu/project.html>

- **ODYSSEE** – Registered user access only
- **MURE** – Freely available on website

Contact Samantha.morgan-price@ricardo.com to request access

- Consortium is planning a new phase under LIFE programme. The projects coordinators are (really) keen for the UK to continue.

Creating a world
fit for the future



Q&A