



Co-funded by the Horizon 2020 programme
of the European Union



ODYSSEE-MURE

Latest updates in the ODYSSEE-MURE tools and scoreboard

workshop ENSMOV Plus' project, 20 *March 2024 Budapest*
Dr Didier Bosseboeuf, ADEME



TOR = The new proposal 2022-2025 in brief

- **Programme** : LIFE-CET
- **Topic**: Towards an effective implementation of key legislation in the field of sustainable energy policy
- **Duration** : 30 months, starting **October 2022**
- **Funding** : around 2 M€, 95% direct cost, 7% overhead

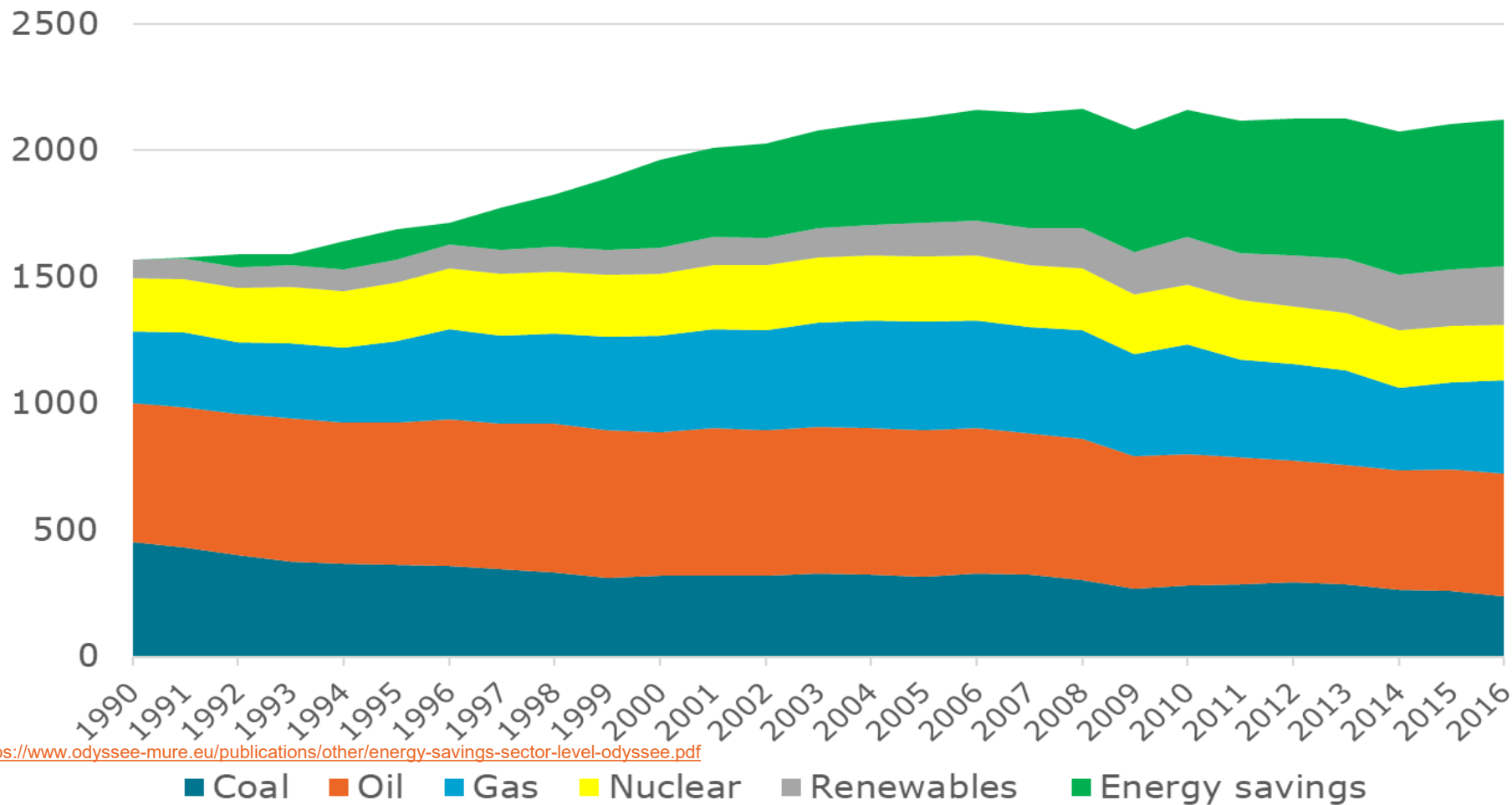
- **40 partners of which 18 EnR members, of which 9 Balkans countries, coordinated by ADEME, 30 letters of support including EnR club**

- Updates of ODYSSEE (3) and MURE databases (2) and facilities
- Support in capacity building for EC countries by Croatia and other partners
- Odyssee: **New updating process**, using more widely EUROSTAT data and horizontal sources
- Integration of a web-based **Policy Assessment Tool Policy radar** (based on Artificial Intelligence AI/Web scraping methods)
- Dissemination of the Odyssee-MURE/eceee European EE Scoreboard: **social media**

ODYSSEE-MURE delivers

- KO meeting ODYSSEE-MURE (November 28th 2022) (92 participants)
- First regional Meeting (Hybrid, Zagreb hosted by EIHP, 80 participants, 35 Countries) (April 24-25 th 2023)
- First training meeting to Energy community countries (Hybrid, Zagreb, hosted by EIHP)(April 25-26th)
- First updating (up to 2021 data) of the two data bases (Spring-summer 2023), focus on transport
- **New series of deliverables updated until 2021**
 - 1 news letter (among 6)
 - Country profiles (2021 data) 26 available)
 - Sectoral profiles (2021 Data) (200 slides with short analysis
 - Series of policies briefs (2) (among 20)
 - Series of Webinars (4) (among 20)
 - 2023 Scoreboard with ECEEE
 - Social media : Videos, rewriting Wikipedia
 - Article for the CORDIS Platform (March)
 - Participation to EEUSW
- 3 Technical coordination meetings (2 on-line, 1 in presence, FHG-ISI, Karlsruhe (March 2023)
- Adaptation of the ODYSSEE-MURE website to cyber security

Creating an automatic graph expressing EEFP



<https://www.odyssee-mure.eu/publications/other/energy-savings-sector-level-odyssee.pdf>

Source : ODYSSEE based on eurostat and national data

ODYSSEE-MURE is in WIKIPEDIA



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Energy efficiency in Europe (study)

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- This article **needs additional citations for verification**. *(October 2010)*
- This article **may rely excessively on sources too closely associated with the subject**, potentially preventing the article from being [verifiable](#) and [neutral](#). *(December 2018)*
- This article **contains text that is written in a promotional tone**. *(April 2022)*

The **Energy efficiency in Europe** study is part of the [Odyssee project](#).^[1] It aims to monitor [energy efficiency](#) progress and [CO₂](#)-reduction for the EU-28 countries and [Norway](#), understand the [energy demand](#) trends for European countries, compare the countries in their relative energy efficiency performance, as well as to benchmark values, measuring the contribution of innovative energy efficiency and renewables technologies to the Lisbon targets to make Europe more competitive and analyse and evaluate the performance of energy efficiency policies in the different EU Member States and at EU level.

The [ODYSSEE MURE](#) is a program coordinated by ADEME and supported under the [Intelligent Energy Europe Programme](#) of the [European Commission](#).

Energy efficiency is at the heart of the EU's Europe 2020 Strategy for smart, sustainable and [inclusive growth](#) and of the transition to a [resource efficient](#) economy. According to EU Commission the EU needs to act now (2011) to get on track to achieve its target while the EU is on course to achieve only half of the 20% objective. The combined effects of full implementation of the measures will generate financial savings of up to €1000 per household

Work programme until end of 2024

- Webinars (continued)
- Policy briefs (Continued)
- Third News letter
- More videos
- New updating ODYSSEE (2022 data) and focus on building and MURE (inclusion of NECP policy impact evaluation for all EU MBS)
- Finalisation and case studies for the Policy Assessment Tool: application to Art. 4 target policies
- Side event at ECEEE
- **Second regional meeting (Roma, 25-27 September 2024)** kindly hosted by ENEA) Ensmov is invited

List of policy briefs et webinars

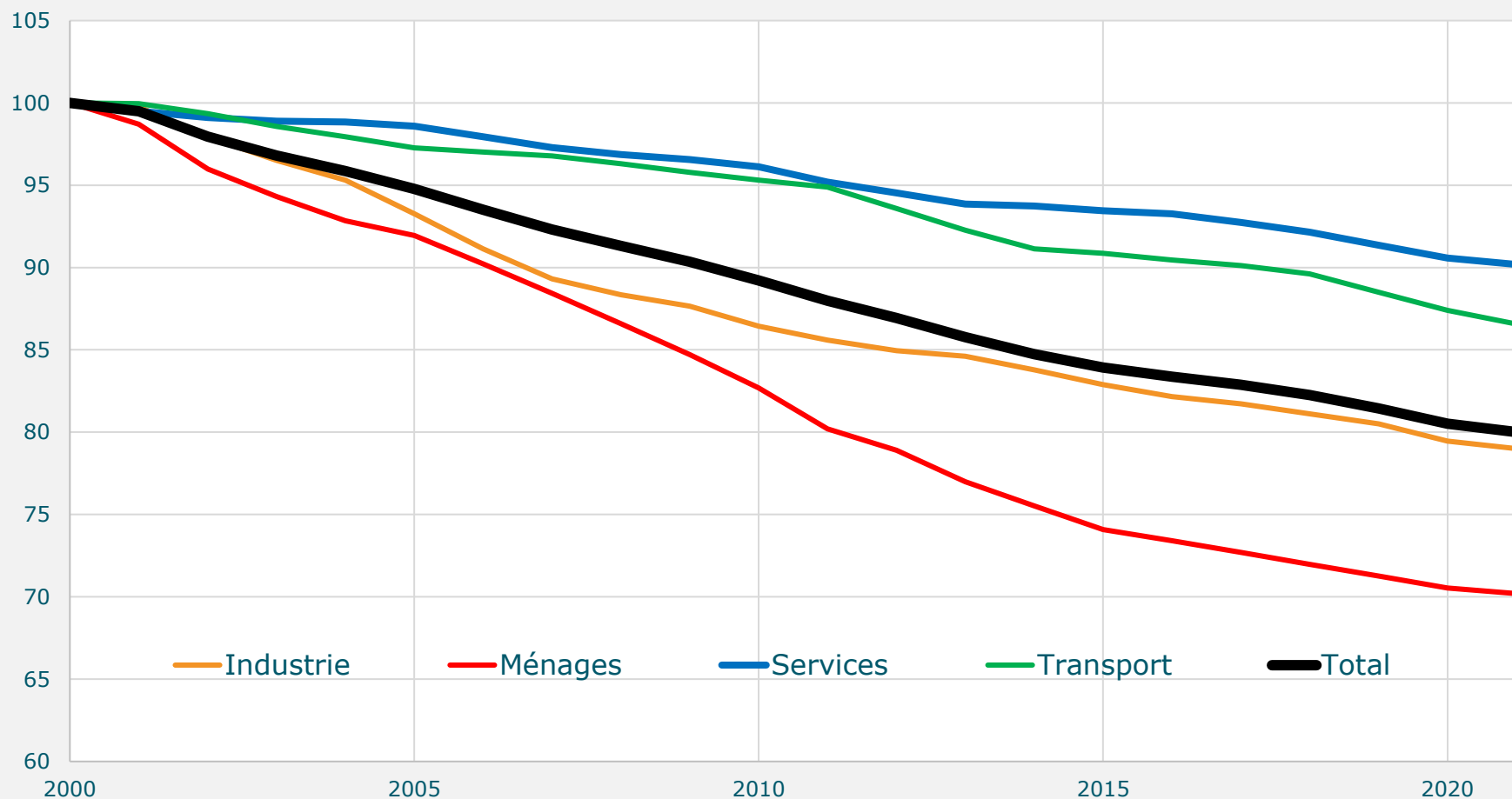
| Topic bundle Energy Efficiency Directive (EED) | Topic webinar | Speaker |
|--|--|--------------------------|
| The role of the Energy Efficiency First Principle (EE1) in the EED | Energy efficiency in time of crisis at EU level | 02-Enerdata |
| | Are climate policies and energy efficiency policies increasingly in contradiction? How can energy efficiency first be implemented in climate policies? | 03-Fraunhofer |
| Part 1: Energy Efficiency Targets: are we on the path?/ Part 2: Closing the gap to EED 2030 targets (Art 8-11) | Overall energy efficiency trends and EED targets | 02-Enerdata & Fraunhofer |
| Energy Efficiency Targets: are we on the path? | Trends of Energy Efficiency Indicators in all sectors | 13-CRES |
| | EU energy efficiency trends in the transport sector | 02-Enerdata |
| | EU energy efficiency trends in the household sector | 02-Enerdata |
| Exemplary role of public sector | The role of municipal energy advisors in achieving energy efficiency targets | 28-STEM |
| | The exemplary role of public buildings | 32-IEECP |
| | Incentive schemes for energy efficiency in buildings | 17-ENEA |
| Closing the gap to EED 2030 targets (Art 8-11) | The European Energy Efficiency Scoreboard 2023 | 03-Fraunhofer |
| | The European Energy Efficiency Scoreboard 2024 | 03-Fraunhofer |
| Heating strategy in the EED | Policy options for efficient domestic water heating in southern Europe | 21-EWA |
| | Energy efficiency indicators for the heating and cooling supply sector | 10-TaITech |
| Energy poverty in the EED | Progress in the alleviation of energy poverty by energy efficiency policies | 32-IEECP |
| | Energy Poverty reflected in MURE measures | 25-KAPE |
| Sufficiency: The "missing article" in the EED | A scoreboard for European sufficiency policies and indicators | 12-Motiva |
| | Evolution of sufficiency policies in the EU | 24-GUS |

Some topics under discussion in ODYSSEE-MURE

- Improvements/ modification of ODYSSEE and MURE tools (ex: Successful measures facilities, criteria of evaluation)
- Energy efficiency first principle graph
- Methodological issue concerning the technical calculation of the energy efficiency Index ODEX (2010 base year, transport)
- Specific indicators for EnCs
- Heat pump saving calculation (position paper)
- CO2 variation décomposition
- UK and Norway data collection updating (or not)
- Scoreboard 2024 : Integration of new countries (Switzerland, EnC), sufficiency/fuel poverty issues (ex. Romania, Bulgaria, other)
- sufficiency indicators, poverty indicators
- Adjustment size

Pay attention, the energy efficiency improvement is still slowing down since 2014 in the EU

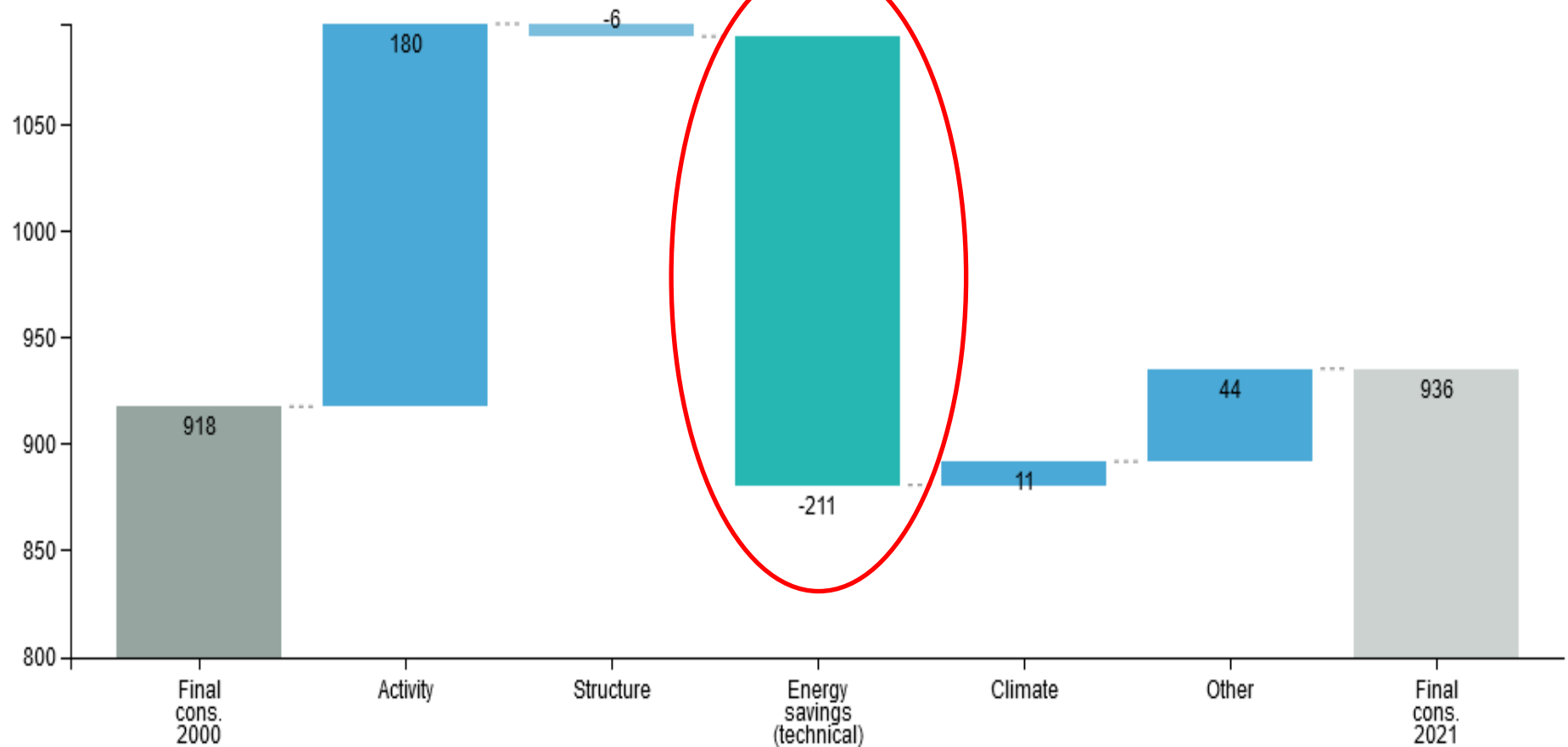
Can we define an Energy sufficiency index?



During the last 2 decades, energy savings have offset the impact of economic and demographic growth

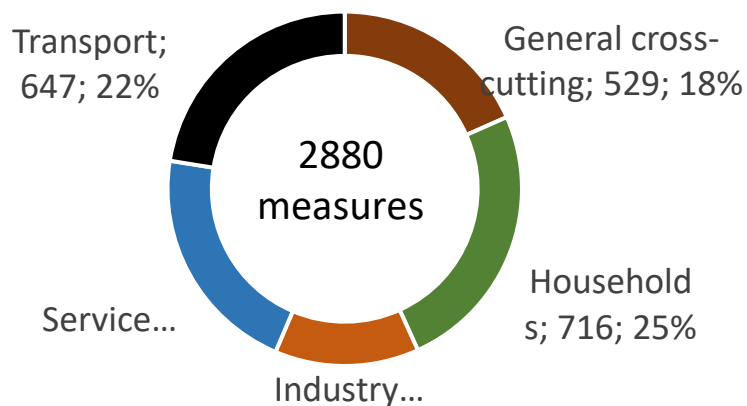
VARIATION FINAL ENERGY CONSUMPTION
EUROPEAN UNION
MTOE (2000-2021)

VARIATION ENERGY INTENSITY

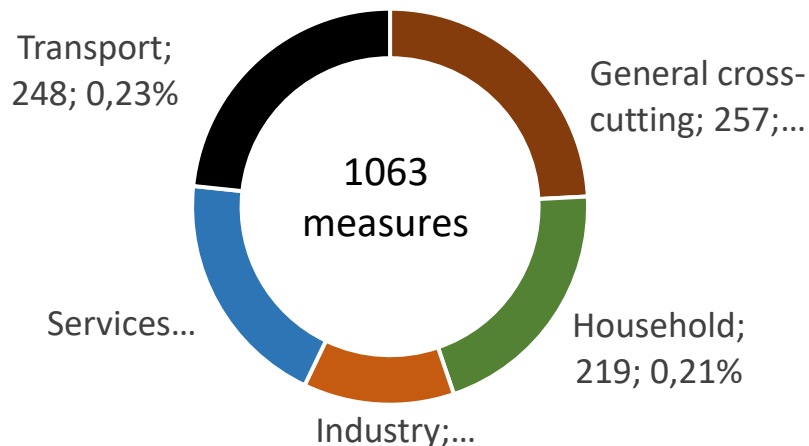


WP3: Status of the MURE database after the first update (excl. EnC)

All measures



Newly added or modified measures (since Oct. 2022)



Energy poverty & sufficiency

- Energy poverty
 - aiming mainly or exclusively at energy poverty
 - including an important component addressing energy poverty
- Sufficiency
 - Avoiding/Ceasing of energy services
 - Substitution of energy services
 - Adjustment of energy services

MURE : Improvement of the data base and related end-uses facilities

More focus on **sufficiency policies** in MURE database

- Inclusion of more sufficiency policies in the MURE database
→ currently 42 measures are linked to sufficiency
- Better identification and classification of sufficiency policies → session at Zagreb meeting
- Effort on evaluations and quantification of impacts
→ detailed explanations in MURE guidelines and webinars for national teams

Improvement of MURE features:

- Further effort on reliable evaluations and quantification of impacts
→ detailed explanations in MURE guidelines and webinars for national teams
- Strengthening the link to energy poverty → currently 59 measures are linked to energy poverty
- Strengthening the link to article 8 EED (former Article 7)
→ detailed explanations in guidelines, main focus of individual quality control by IEECP
- New link to measures using EU funding implemented

Light update of MURE policy tools

- Impact Evaluation Facility → Integrated in Impact Assessment Tool (see WP4)
- Policy Mapper Facility → automatically updated with update of ODYSSEE and MURE databases
- Successful Policies Facility → update planned in the next reporting period

Improving the weighting of the criteria to define successful measures

- ❑ 12 criteria have been identified to define the success level of a measure
- ❑ Per each criteria, a score between 1 and 5 has been applied to quantify the success level of a measure
- ❑ This ranking scheme has been applied to +/- 3 measures per sector for each country

| | |
|-----|--|
| 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 |
| C7 | Transferability between countries |
| 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 |

Updating of the energy efficiency facilities

The MICATool

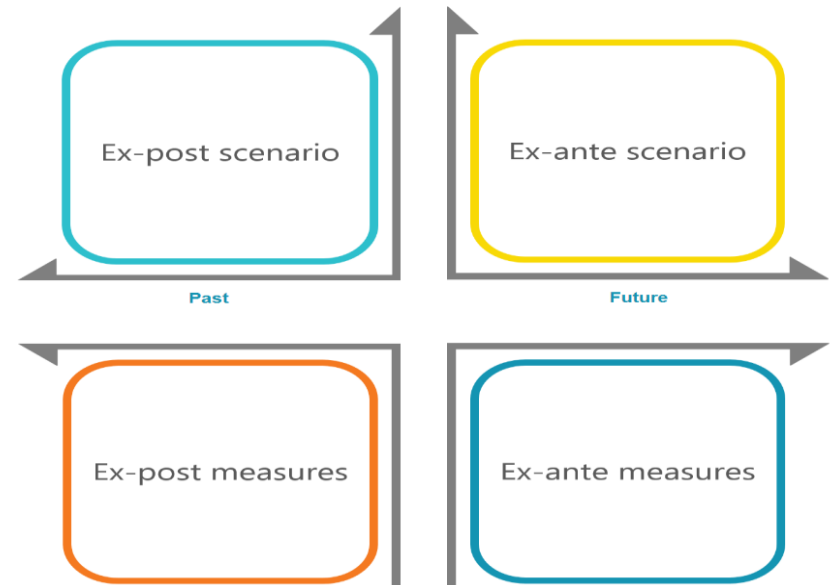
The MICATool aims to enable policy makers, practitioners, scientists, and many more to assess the multiple impacts of all kinds of interventions. Therefore, the tool works along two main axes, ex-post (in the past) and ex-ante (in the future) as well as covering single measures and complete scenarios. While the former describes a single programme, such as a renovation scheme, the latter describes a package of measures, for instance a National Energy and Climate Plan (NECP).

Since the MICATool aspires to be a swift, simple, and easy-to-use online tool, it does not encompass an energy modelling module. Thus, it cannot evaluate the savings accruing in the course of an energy efficiency measure or scenario. As a result, the energy savings necessary as inputs need to be evaluated beforehand.

In order to quantify and monetise the multiple impacts as accurately as possible, the scenarios and measures need to be decomposed in smaller parts in a second step. This means differentiating the portions of the interventions into different energy efficiency improvement actions in different sectors and subsectors.

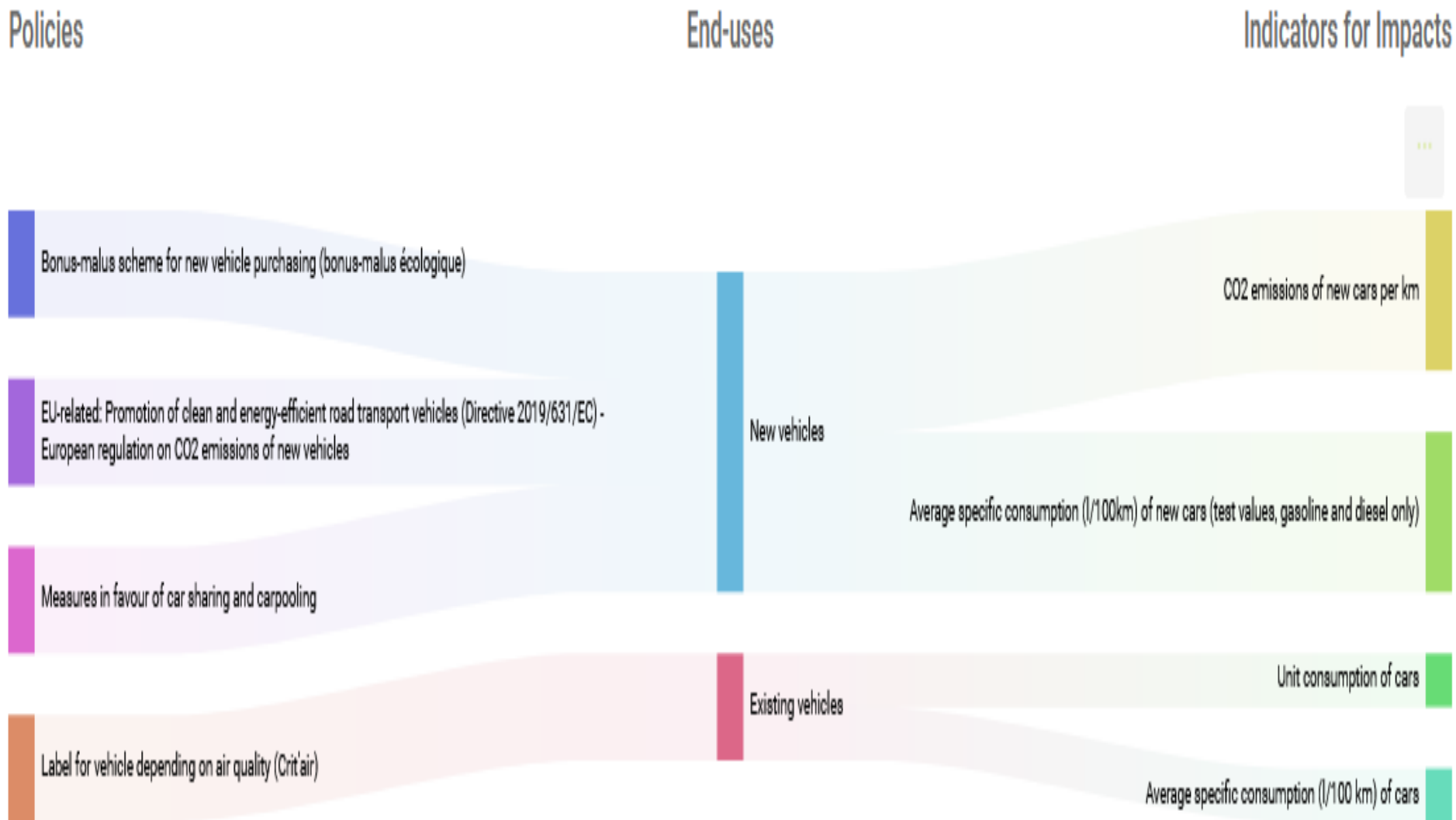
To get started with the MICATool, you can select the right quadrant for your use case in the graphic on the right hand.

[Show more](#)



- Make use of the MICATool, which is the last weeks of finalisation.
- For recall: MICAT brought together MB:EE and COMBI
- Will work on an interface where the MURE database provides the bottom-up savings and ODYSSEE the top-down savings.
- The MICATool then provides the MB based on those savings. Need to prepare output webpages linked to MICAT and ODYSSEE-MURE
- Advantage: make use of all the methodological improvements, and of the front and back-end developed for MICAT
- Will hand in deliverable with some delay. Most likely towards the end of the year/beginning 2024.

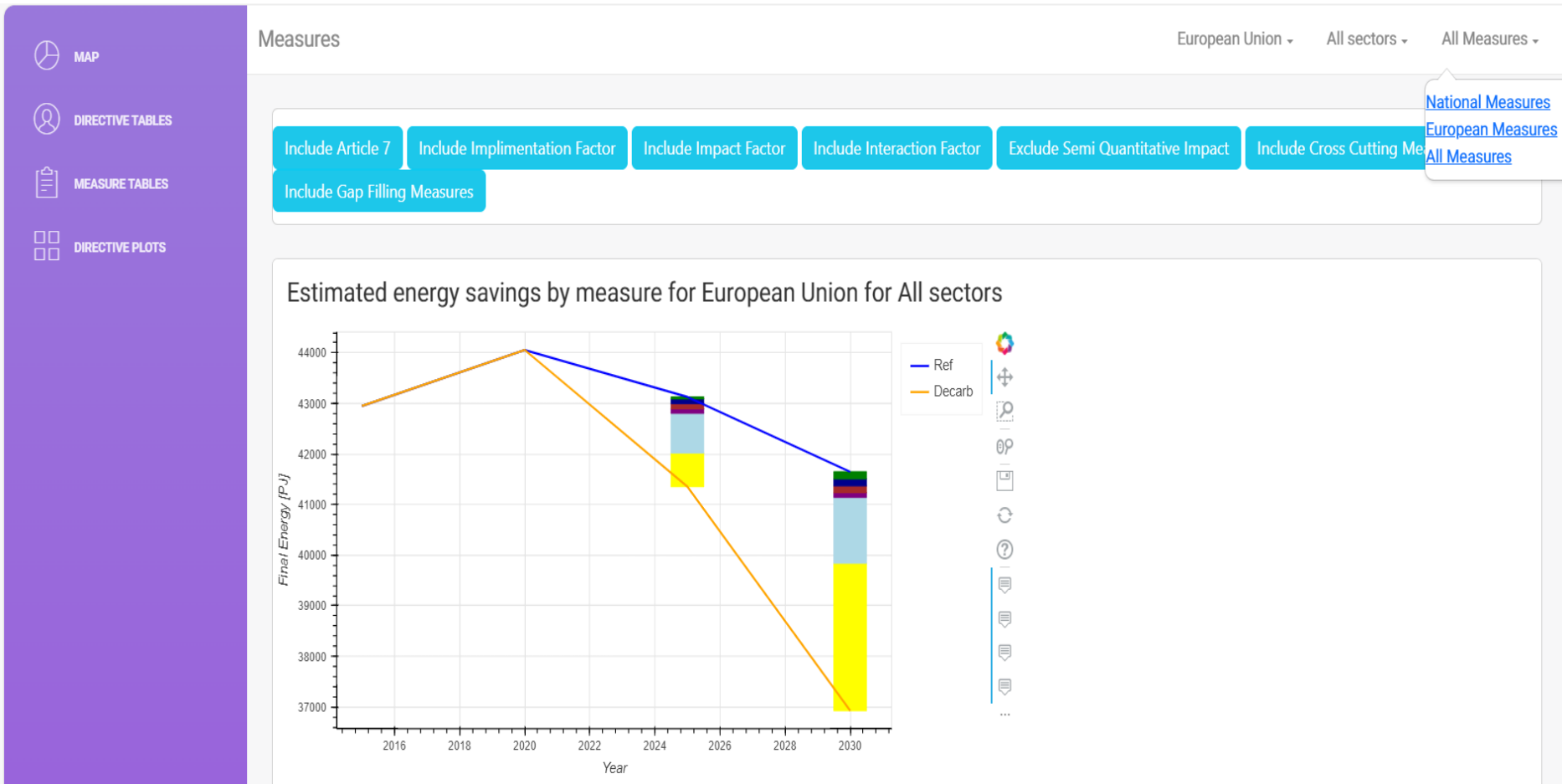
An attempt to link policies and indicators : More or less workable depending on the end-uses



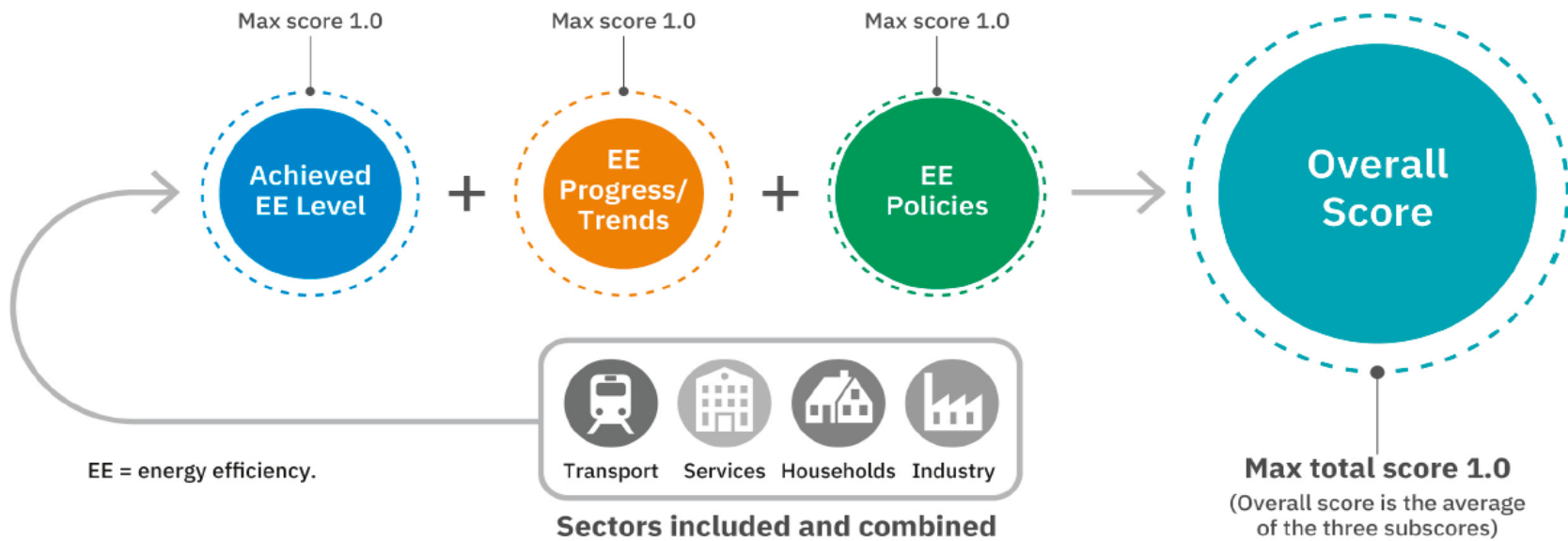
Development and implementation of a web tool “EE Policy Assessment Tool”

:

- First version of the web-based tool for testing
- Work on the transfer of measures from the MURE and Odyssee Databases to the web-based assessment tool in work



How does the ODYSSEE-MURE scoring method work?



The 2023 ODYSSEE-MURE European scoreboard

The winner is?

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 policy" (with equal third weighting).



Germany gets the best score 2023 on „Policy“

Policy – Industrial Sector ranking top 5

| Rank | Country | Score |
|------|------------|-------|
| 1 | Germany | 1.0 |
| 2 | Finland | 0.87 |
| 3 | Bulgaria | 0.47 |
| 4 | Luxembourg | 0.40 |
| 5 | Poland | 0.28 |



The methodology has been judged robust enough to be the core of an ISO standard

ISO 50049:2020

Calculation methods for energy efficiency and energy consumption variations at country, region and city levels

This document gives guidelines for methods for analysing changes in energy efficiency and energy consumption, and for measuring energy efficiency progress, for countries, regions and cities. It is composed of three different calculation methods:

- evaluation of structure effects in the variation of energy intensity;
- calculation of energy efficiency indices;
- decomposition analysis of energy consumption variation.

This document is applicable to providing an aggregated statistical evaluation for a country, region or city. It does not apply to calculating changes in the energy consumption or in energy efficiency at the individual consumer's level (e.g. households, organizations, companies).

5 Evaluation of structure effects in the variation of energy intensity

5.1 General

▶ 5.2 Calculation methods

▶ 5.3 Calculation issues related to structure effects

6 Calculation of energy efficiency indices

6.1 Objective and overview of calculation

▶ 6.2 General calculation

▶ 6.3 Computational issues in the calculation of the energy efficiency indices

▶ 6.4 Reliability of energy efficiency indices

7 Decomposition analysis of energy consumption variation

7.1 Objective and overview of calculation

▶ 7.2 General calculation

▶ 7.3 Other issues related to the decomposition of the energy consumption variation

Annex A Calculation of structure effects

International dissemination

- ODYSSEE Methodology currently applied in:
 - In 8 SMECs (Medener and RCREEE through EC funding) energy efficiency week (Marocco), UFM (Barcelone)
 - Training in Jordan and Marocco, next energy efficiency week in April (Tunisia)



Conclusions

ENSMOV-ODYSSEE-MURE : a win win friendship

- ENSMOV outputs can be an input of the MURE data base
- Consequently, MURE may adapt its menu in facilities (ex article 8 or 4)
- ENSMOV output can help ODYSSEE-MURE analysis (ex Scoreboard)
- ENSMOV can provide remarks on the MURE database