



ODYSSEE-MURE

ODYSSEE-MURE fit-4-55 (2022-2025) ***30 years in monitoring energy efficiency in Europe***

Make Energy Efficiency visible in the energy mix
On line workshop November 7th 2023

Didier Bosseboeuf (ADEME) : Project coordinator;

This project has received funding from the European Union's LIFE programme under grant agreement No. 101075902



ODYSSEE-MURE 2022-2025 work program 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**
- **40 partners** from 28 EU countries (mainly represented by energy efficiency agencies) and **9 EnCs**, coordinated by ADEME with a technical coordination (Enerdata and FHG-ISI)
- The project relies on 2 data bases:
 - **ODYSSEE**: 200 energy efficiency indicators and 4 related facilities; 3 updates; **New updating process**, using more widely EUROSTAT data and horizontal sources
 - **MURE** : 3000 national energy efficiency policies and ex-post impact evaluation and related facilities
- Integration of a web-based **Policy Assessment Tool Policy radar** (based on Artificial Intelligence AI/Web scraping methods)
- **Dissemination** : Country profile; national report; newsletters; Scoreboard; **presence in social**

ODYSSEE-MURE

Overview

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POLICY BRIEFS

Odyssee-Mure policy briefs aim at providing short analysis on energy efficiency evaluation in the EU. They are organized by sector: cross cutting, industry, buildings, and transport. For each sector, one brief will be dedicated to present energy efficiency trends while the others will present best practices in energy efficiency policy.

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, Switzerland and Energy Community countries.

[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

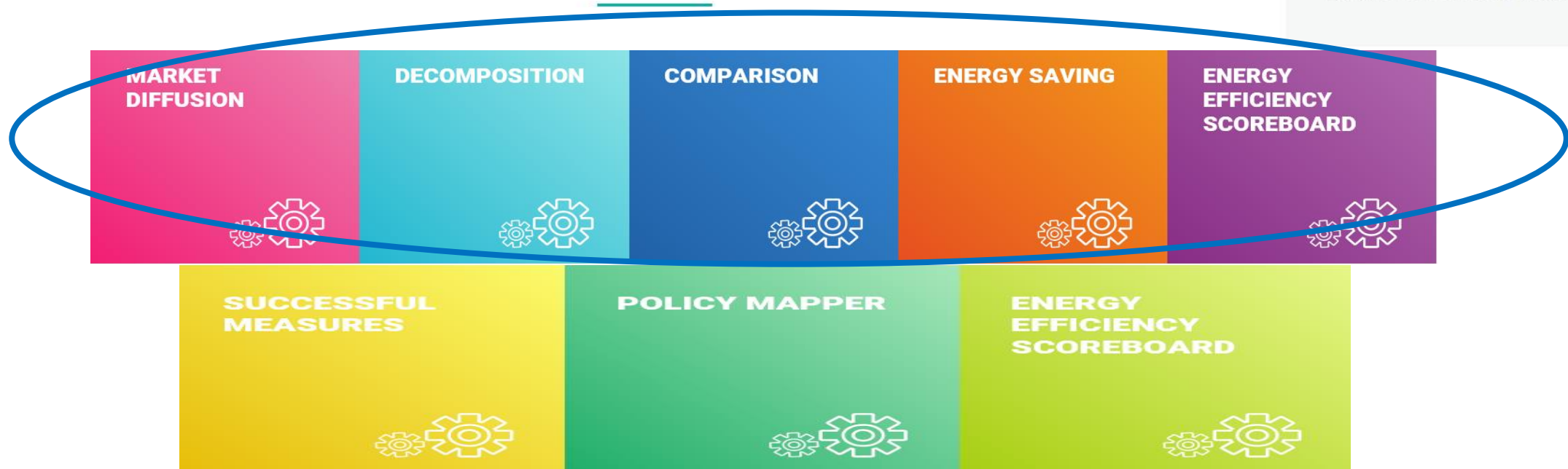
Database on energy efficiency policies and measures by country in industry, transport and buildings.

[Learn more](#)

LATEST NEWS

 24 APRIL 2023

The project is organising its first meeting in Zagreb on April 24-26 2023, followed by a training on energy efficiency indicators and impact evaluation of policies dedicated for new comers of the project.



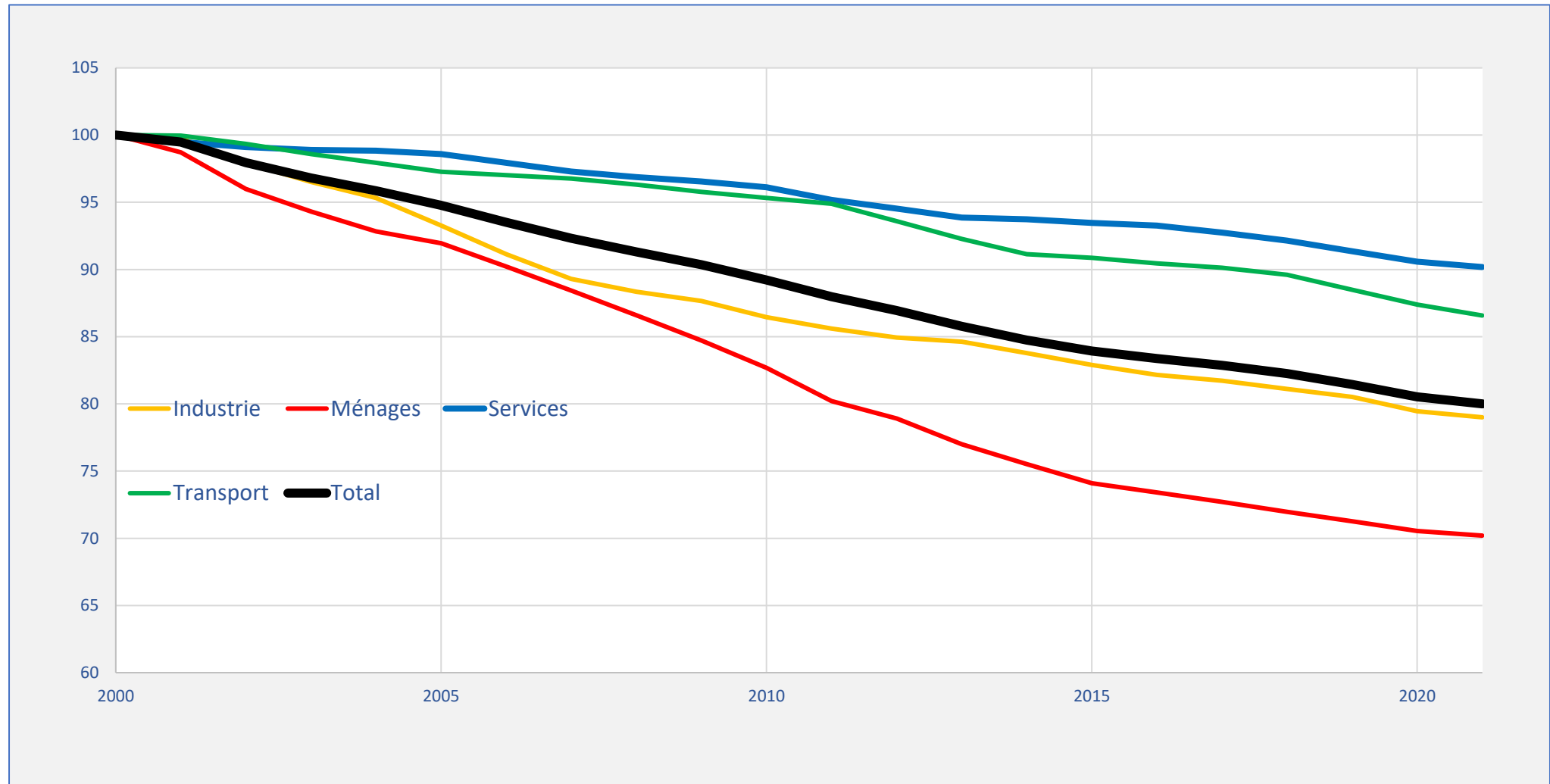
The energy efficiency index to assess the energy efficiency progress (ODEX)

- In ODYSSEE, an energy efficiency index is calculated at **sector** level (i.e. industry, transport, households) and for all final consumers to assess energy efficiency progress.
- The energy efficiency index by sector **combines** the trends observed in the various indicators of specific energy consumption by sub-sector or end-use, by **weighting** indices of specific consumption by sub-sector (or end-use) with the share of each sub-sector in the sector's energy consumption.
- Indices are used to enable to express specific consumption by sub-sector or end-use **in different physical units** so as to be as close as possible to energy efficiency evaluation (e.g. toe/ton, toe/IPI for industry, toe per pkm or tkm in transport, toe/m² or kWh/appliance for households).

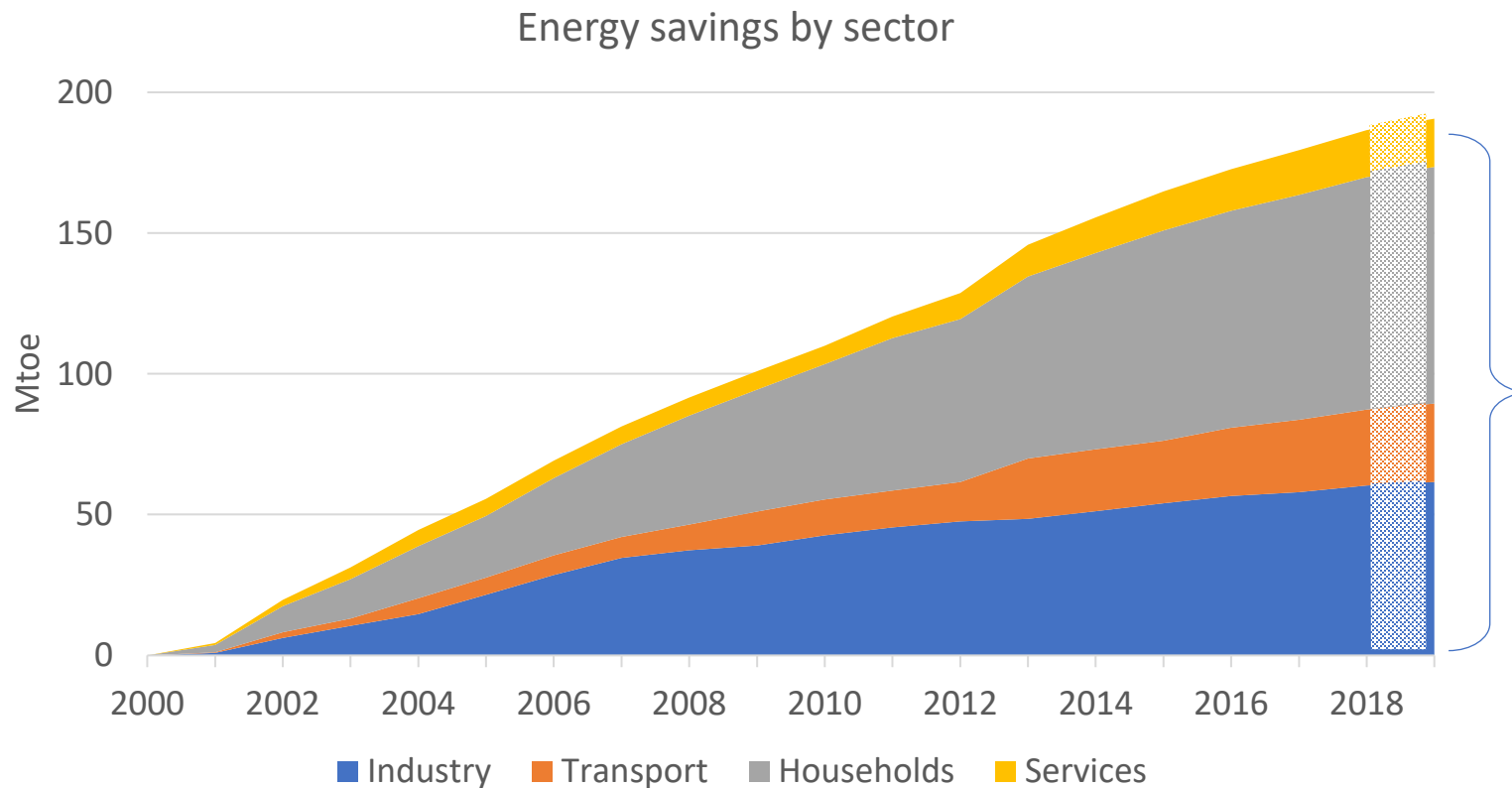
The energy efficiency ODEX (2000-2010)

Energy efficiency index (ODEX technical EU 2000-2021)

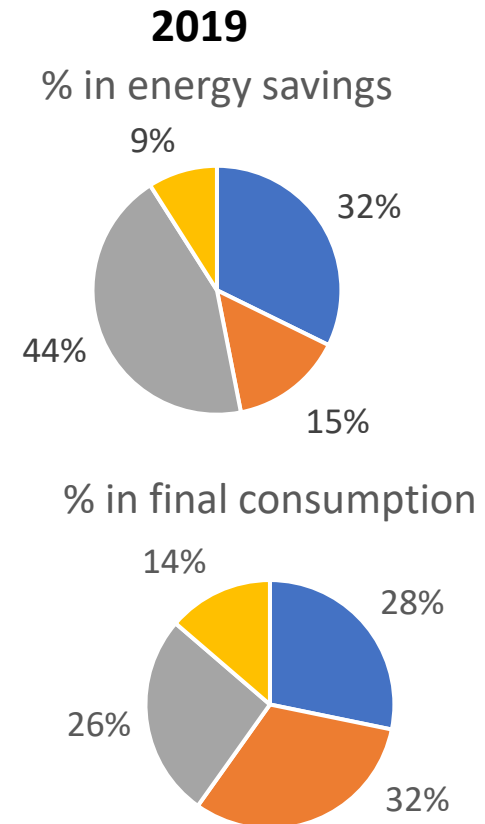
Scoop : 0,5% energy savings improvement in 2021 !!!!



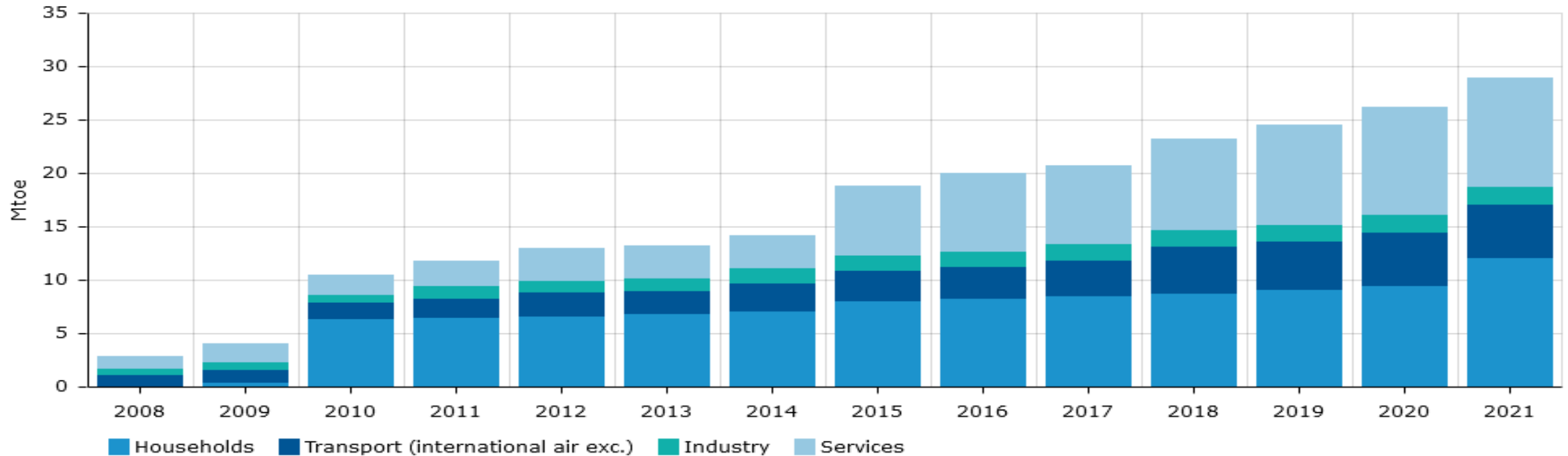
- In 2019, total final **energy savings** reached 190 Mtoe in EU27.
- The building sector provides half of the total energy savings
- The share of transport in these savings was only **15%**, a share **more than twice lower** than its share in consumption (32%), due to much slower energy efficiency progress than in other sectors.



Source: ODYSSEE



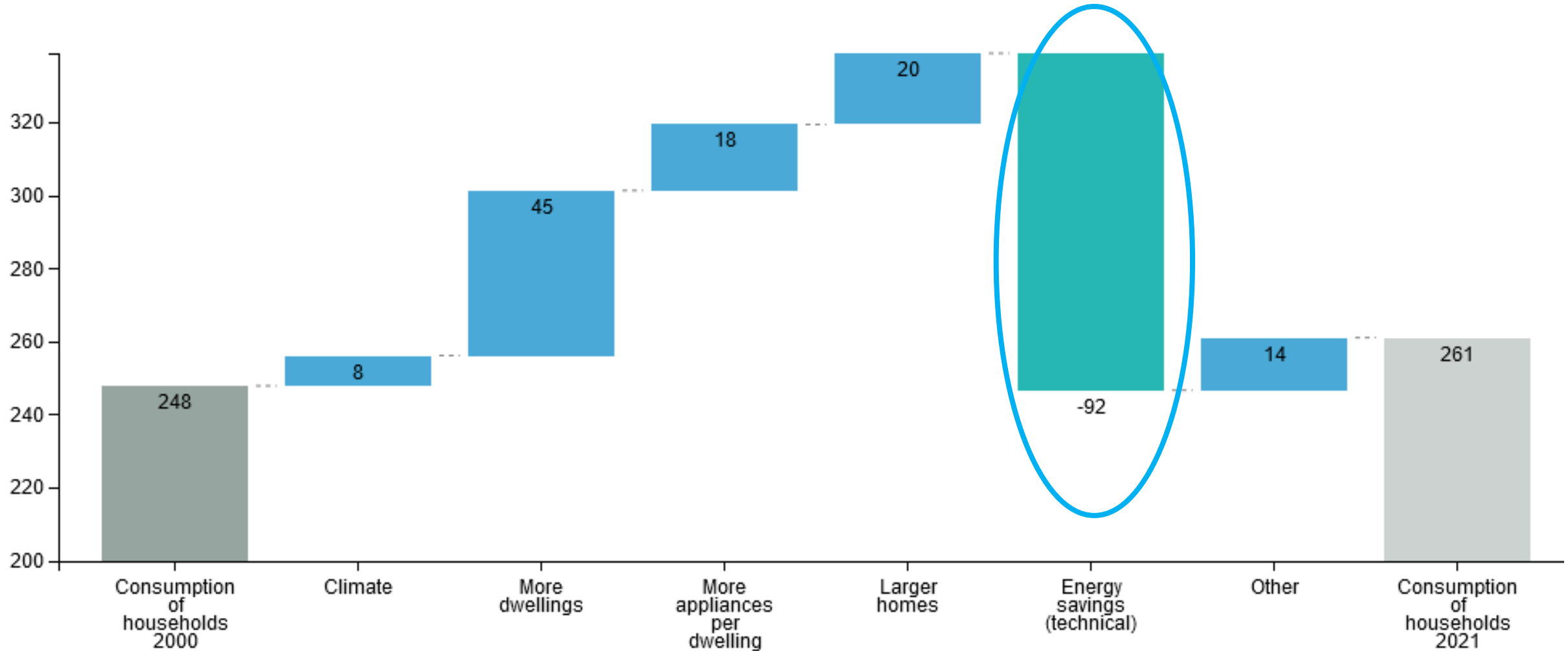
Cumulated annual final savings (Germany, 2008-2021)



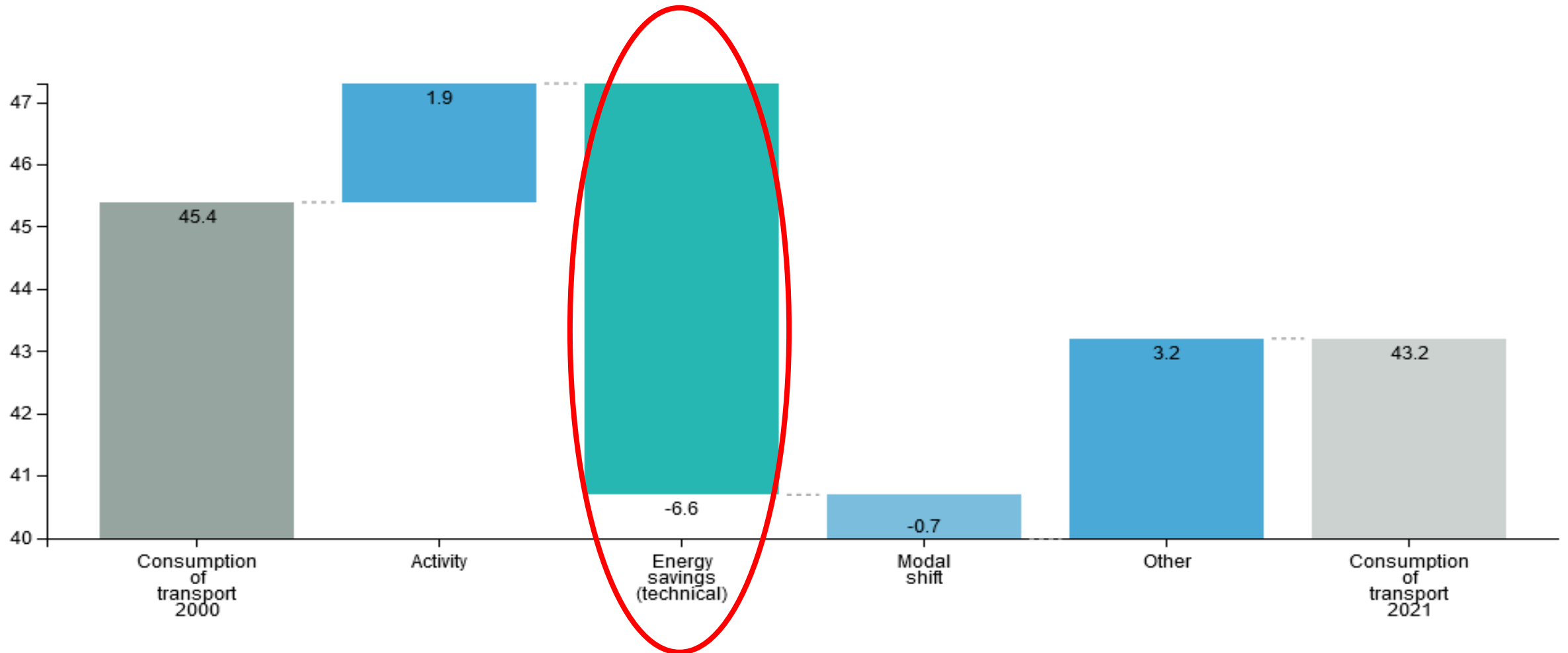
GLOSSARY

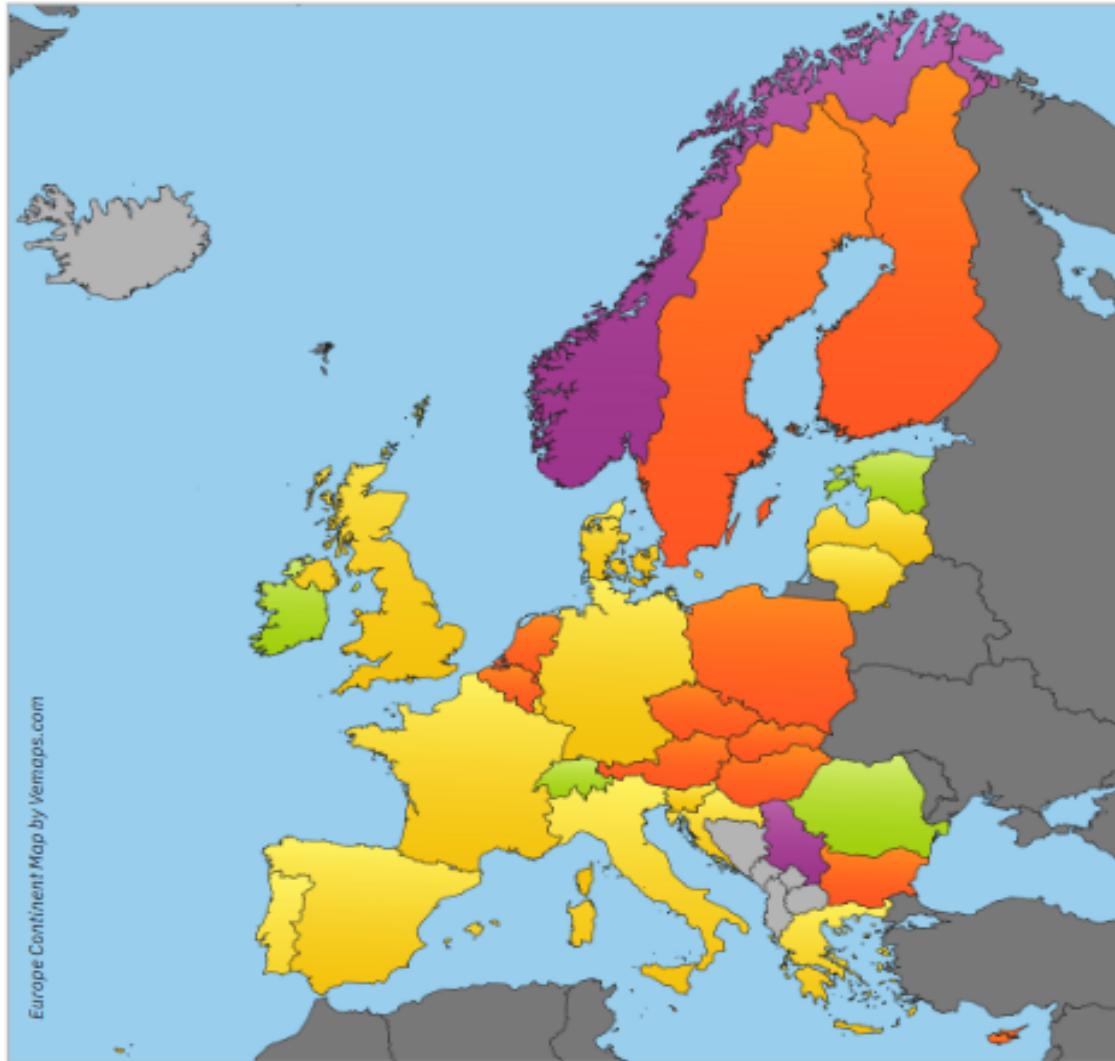
- ODYSSEE savings:** In ODYSSEE, energy savings represent the effect of a reduction in unit consumption at the level of up to 30 sub-sectors or end-use. They are calculated year by year in reference to the previous year (“annual new savings”). The savings shown in the graph represent the annual savings cumulated over a period (“cumulative new energy savings”). They correspond to “technical energy savings” and are derived from the technical ODEX, an indicator that measures the energy efficiency progress by sector. Negative savings, mainly due to a deterioration of energy efficiency in periods of recession when factories and trucks do not operate at full capacity, are excluded. More information about [ODEX](#).

Drivers of the energy demand variation in households (EU 2000-2021)



Drivers of the energy demand variation in transport (France, 2000-2021)





The Scoreboard covers 31 countries: EU, Norway, the UK, Serbia and Switzerland

- Upper value**
Score above 0.70 [4 countries, 2021]
- Middle value**
Score in the range 0.41–0.69
[13 countries]
- Lower value**
Score below 0.40
[14 countries including Norway and Serbia
with incomplete data]



Overall

Level

1: Lithuania

2: Spain

3: Denmark

Trend

1: Greece

2: Luxembourg

3: Romania

Policies

1: Estonia

2: France

3: Ireland

Combined

1: Ireland

2: Estonia

3: Romania

Households

Level

1: Finland

2: Netherlands

3: Bulgaria

Trend

1: Netherlands

2: Croatia

3: Luxembourg

Policies

1: Estonia

2: France

3: Germany

Combined

1: Finland

2: France

3: Ireland

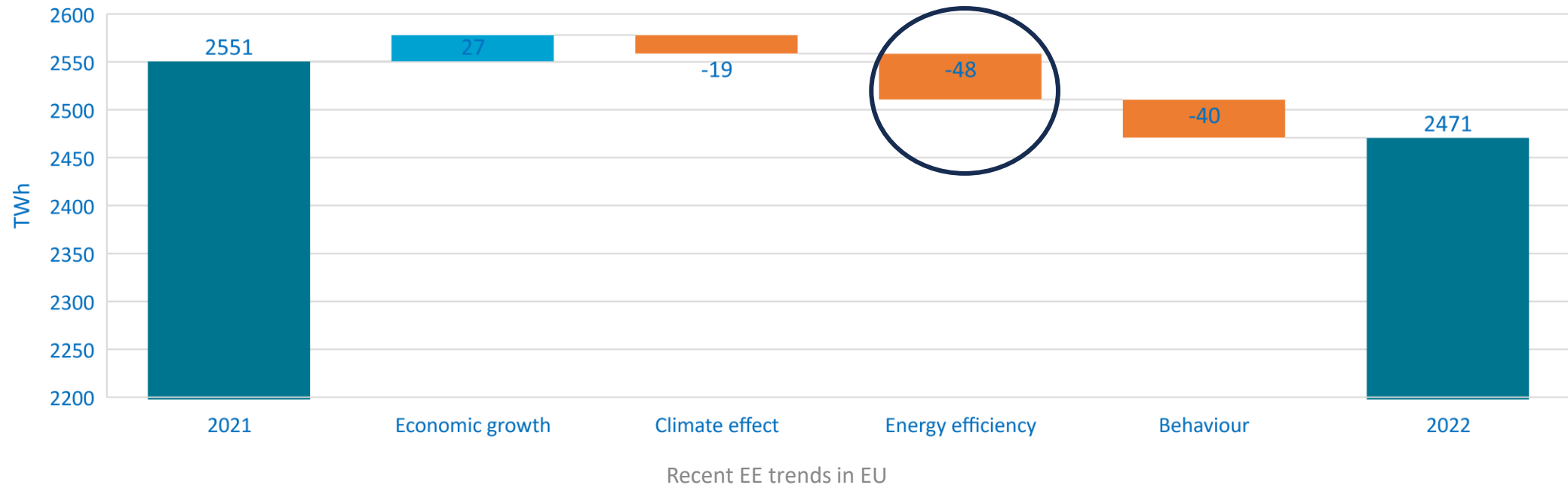
SCOREBOARD



Short term indicators: Electricity consumption variation at EU level in 2022

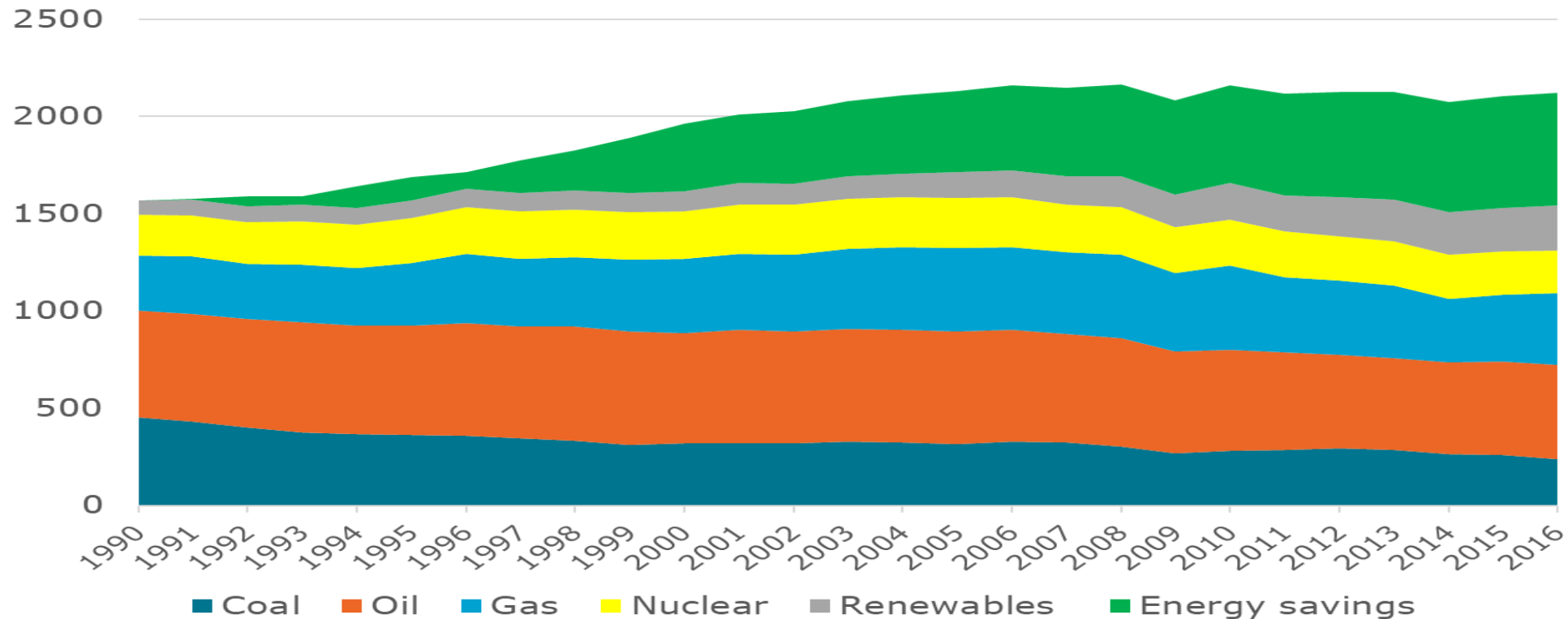
Final electricity consumption **decreased by 3%** in 2022 in EU:

- **Warmer winter** has lowered electricity consumption by **19 TWh**.
- **Energy efficiency** improvements have saved around **48 TWh**.
- These savings have been **partially offset by economic growth** contributing to increase electricity consumption by around **27 TWh**.
- Significant **behavioural changes** due to energy prices increase and sufficiency policies have reduced electricity consumption by **40 TWh**.



- ODYSSEE MURE is considered as the best practice in the EU to monitor energy efficiency trends in the EU. Its methodology is broadly applied worldwide (ISO 50049);
- To properly monitor energy efficiency in relation to energy efficiency policies, a **detailed data collection** on energy demand and its related drivers should be performed. Relying only on « pure official data» **limits** the analysis and provides results less connected to the actual energy efficiency improvements.“
- Since **30 years**, the ODYSSEE-MURE network supported by the EC and through a **collaborative process** (data collection performed by national teams) provides a set of 200 **harmonised, comparable and updated energy efficiency indicators** (ODEX, Energy savings, decomposition, short term indicators etc.) .
- Many efforts and channels have been devoted to communicate and disseminate this **analysis** (ex : Country and sectoral profiles, national reports, end-use facilities, policy briefs and related webinars, scoreboard etc.)

- Considering the previous argumentaire, the following figure can be considered as reliable and the best practice in EU. It can also be displayed on the basis of the final energy anl consumption. The level of « avoided consumption » depends on the reference year (here 1990)
- Adding short term evaluation of energy savings (n-1) based on the ODYSSEE-methodology allows to publish useful information to the decisions makers about a « full updated energy consumption balance ».



Thank you for your attention
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