

ODYSSEE-MURE fit-4-55 (2022-2025)

L'évolution de l'efficacité énergétique en Europe Les 30 ans du projet ODYSSEE-MURE *ODYSSEE-MURE et CAEED*

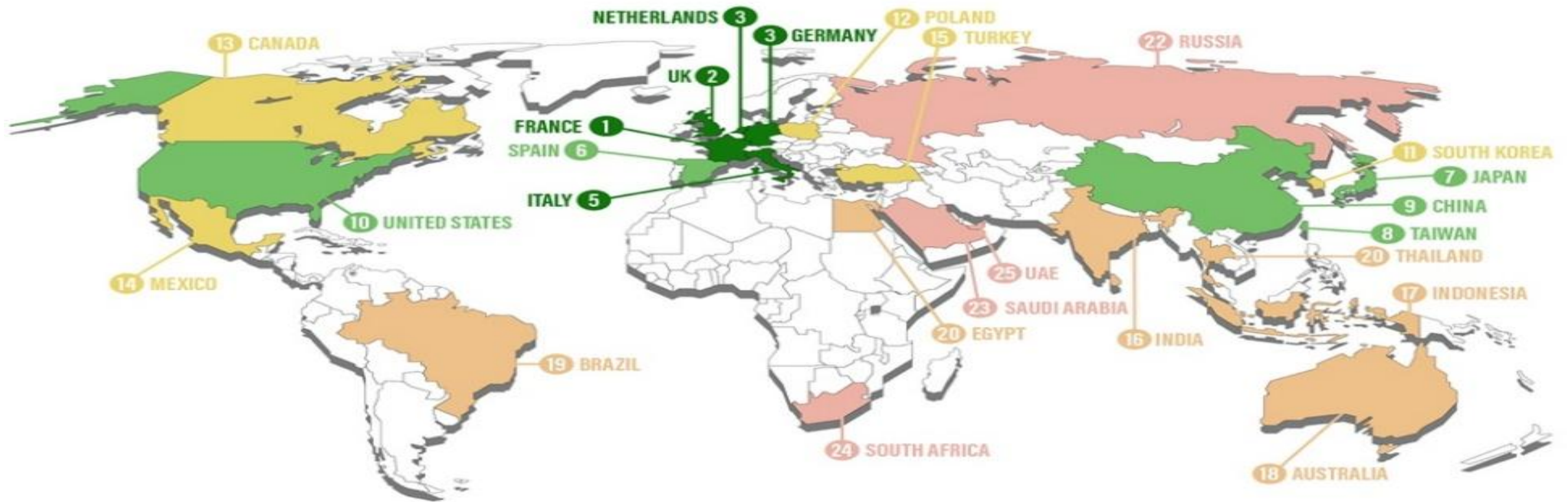
Didier Bosseboeuf (ADEME) : Coordinateur du projet ODYSSEE-MURE

Avec le participation d'Estelle Payan, Joseph Bon-Mardion (Enerdata, France) & de Wolfgang Eichhammer, Barbara Schlomann, (Fraunhofer ISI, Allemagne):

Le scoreboard mondial de l'efficacité énergétique (ACEEE-USA)

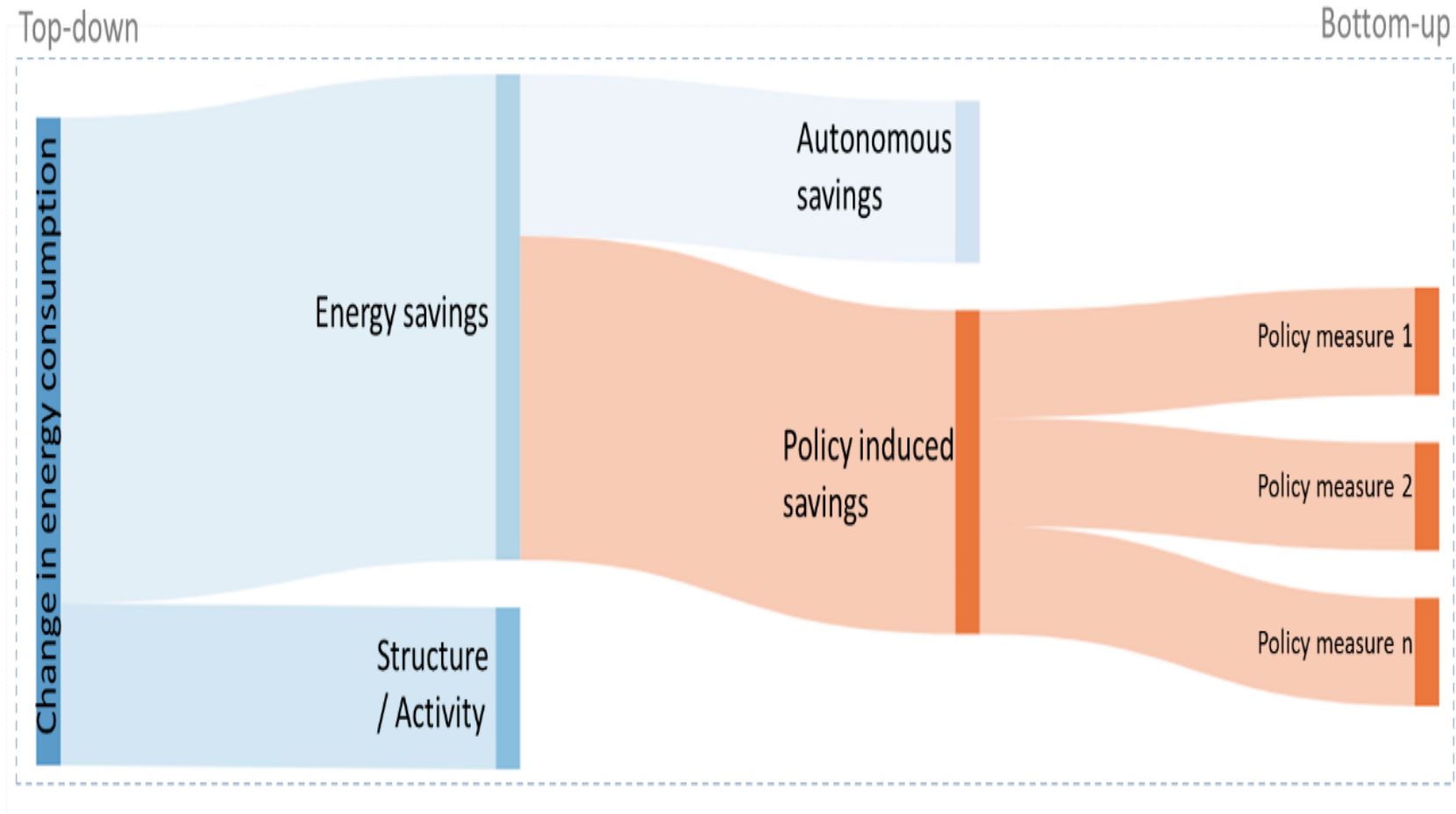
La France en tête des 25 plus grands pays industrialisés

THE 2022 INTERNATIONAL ENERGY EFFICIENCY SCORECARD



1-5	6-10	11-15	16-20	21-25
1. France	6. Spain	11. South Korea	16. India	22. Russia
2. UK	7. Japan	12. Poland	17. Indonesia	23. Saudi Arabia
3. Germany	8. Taiwan	13. Canada	18. Australia	24. South Africa
3. Netherlands	9. China	14. Mexico	19. Brazil	25. UAE
5. Italy	10. US	15. Turkey	20. Thailand	
			20. Egypt	

Combiner ODYSSEE-MURE pour évaluer les politiques d'efficacité énergétique



Les deux approches pour évaluer les impacts des P&Ms d'efficacité énergétique

Top-down versus Bottom

	Ex-Ante	Ex-Post
Top-Down	Long term energy demand models (end-use and econometric models (Medpro, Threeme))	200 energy efficiency indicators at macro-sectoral levels (ODYSSEE database)
Bottom-up	Deemed savings : 300 sheets for EE Obligation	(2900 P&Ms of which 1/3 have impact evaluation) (MURE Database)

ABOUT THE ODYSSEE-MURE PROJECT

Comprehensive monitoring of efficiency trends and policy evaluation in EU countries, Switzerland and Energy Community countries.

ODYSSEE AND MURE DATABASES

The project relies on two complementary internet databases, that are regularly updated by the network of national teams (once to twice a year):

- ▶ **Odyssee**, managed by Enerdata, that contains detailed energy efficiency and CO₂-indicators with data on energy consumption, their drivers (activity indicators) and their related CO₂-emissions.
- ▶ **Mure**, coordinated by Fraunhofer-ISI with the technical support of Enerdata, that contains a description, with their impact evaluation whenever available, of all energy efficiency measures implemented at EU or national level. Mure was initially developed by ISINNOVA.

PROJECT OBJECTIVES

The general objective of the project is to provide a comprehensive monitoring of energy consumption and efficiency trends as well as an evaluation of energy efficiency policy measures by sector for EU countries, Switzerland and Energy Community countries*:

- Evaluate and compare energy efficiency progress by sector, and relate this progress to the observed trends in energy consumption.
- Contribute to the evaluation of national energy efficiency policy measures and analyse their dynamics of implementation.

To provide results in an interactive and attractive way to decision makers and actors involved in energy efficiency, the project has developed specific data and policy tools. The originality of the project is to cover all sectors and end-uses with an homogeneous and harmonised approach and to provide an overall picture of the trends and measures by sector.

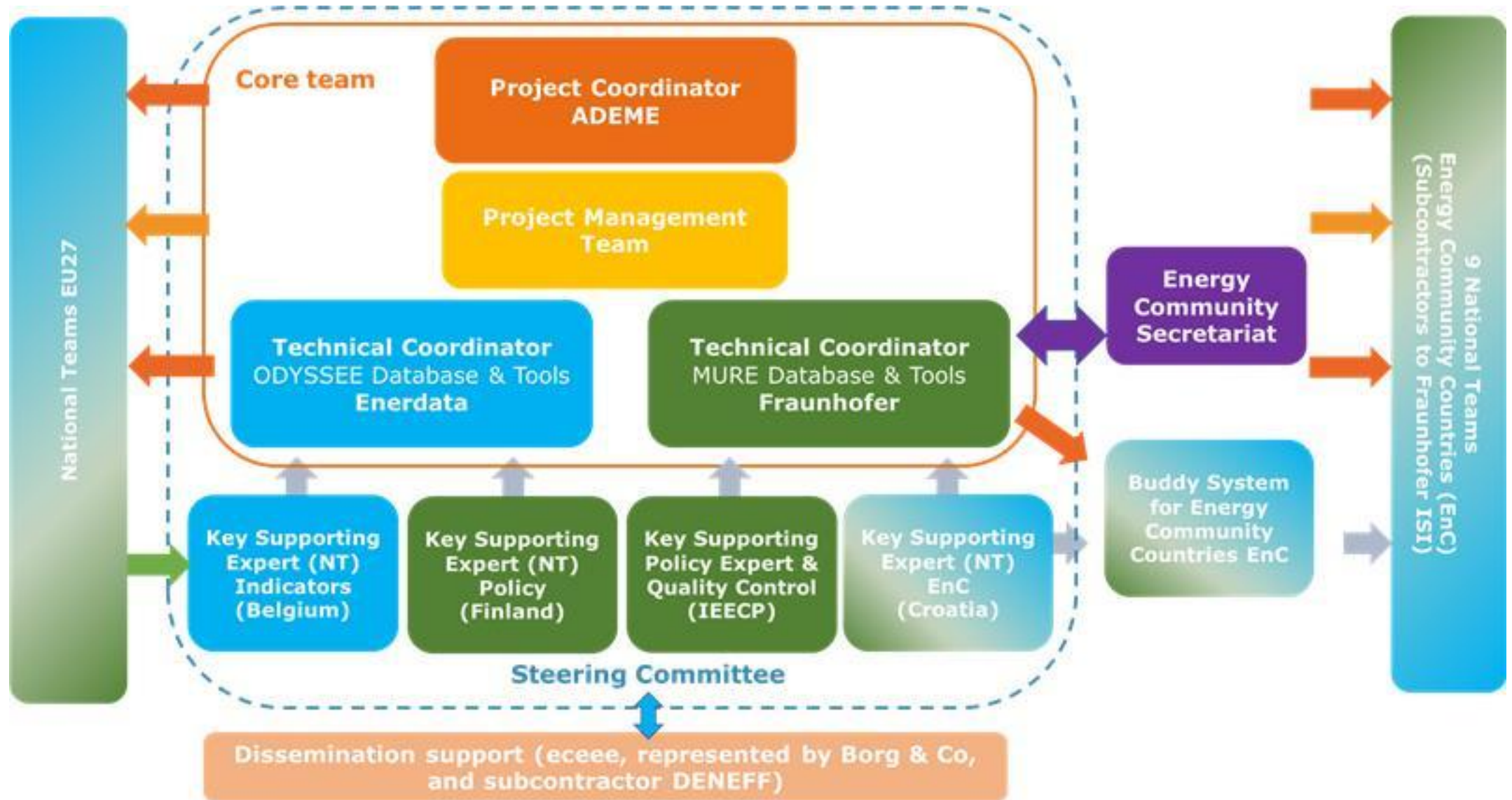
*Bosnia-Herzegovina, Montenegro, Georgia, Ukraine, Northern Macedonia, Albania, Moldova, Kosovo and Serbia

La nouvelle proposition ODYSSEE-MURE 2022-2025 en bref

- **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 EnCs parties, coordinated by ADEME, 30 letters of support including EnR club**
- Updates of ODYSSEE (3) and MURE databases (2) and related facilities
- Support in capacity building for EnCs by buddy 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

Un projet décentralisé (40 pays, 120 experts)



Le réseau ODYSSEE-MURE

40 Pays

120 experts

23 agences d'EE
énergétique

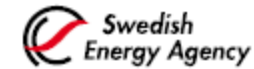
ADEME



AUSTRIAN ENERGY AGENCY



AGÊNCIA PARA A ENERGIA



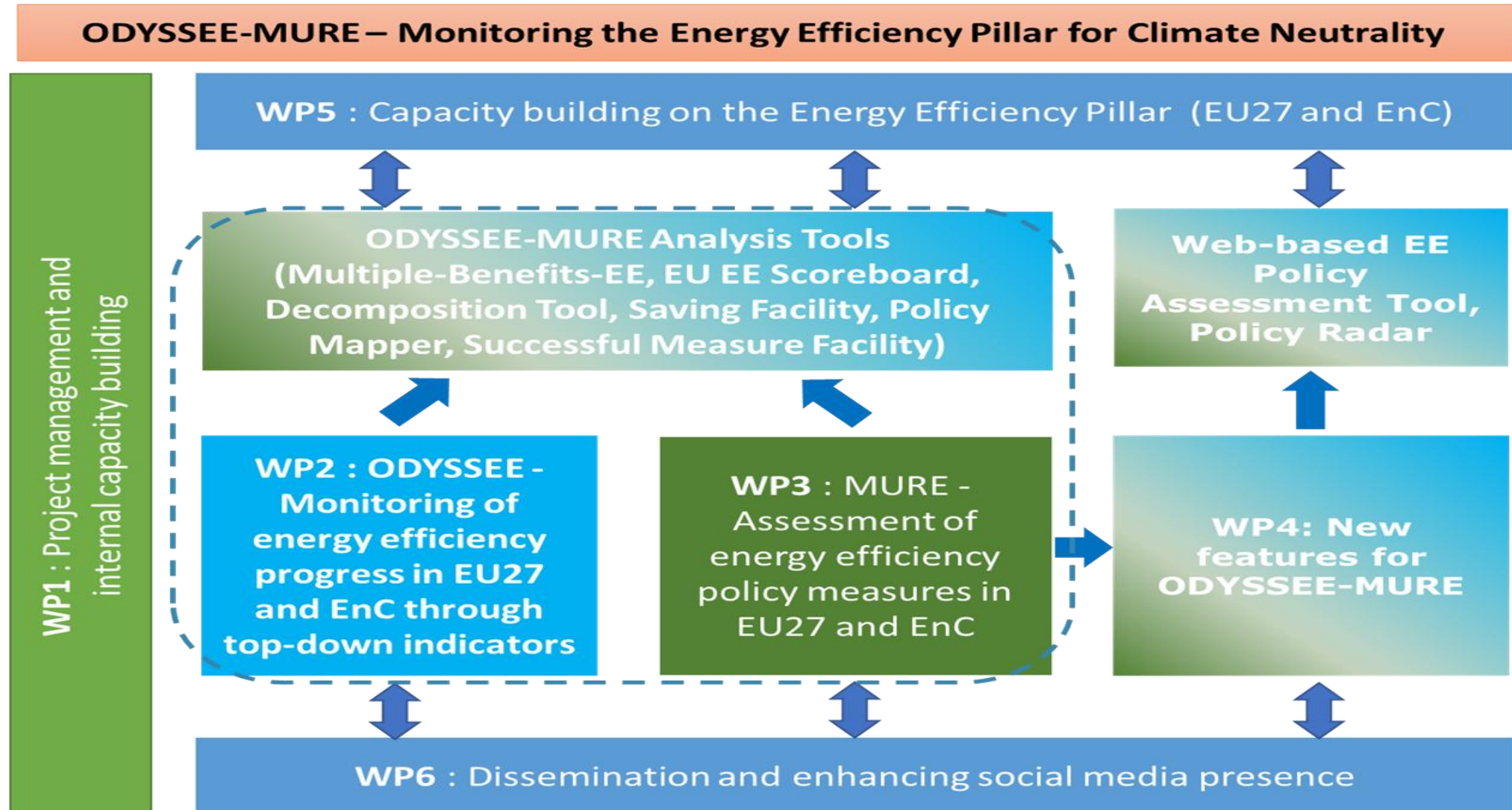
CYPRUS INSTITUTE
OF ENERGY



Energia Központ Kht.



The structure of the ODYSSEE-MURE work program 2022-2025





La base de données ODYSSEE sur les indicateurs d'Efficacité énergétique en Europe



ABOUT ODYSSEE

Database on energy efficiency indicators and energy consumption by end-use and their underlying drivers in industry, transport and buildings.

[Learn more](#)

MARKET
DIFFUSION



DECOMPOSITION



COMPARISON



ENERGY SAVING



ENERGY
EFFICIENCY
SCOREBOARD



Typologie des indicateurs d'efficacité énergétique ODYSSEE

Type	Niveau
1. Energy intensity	Final, by sector and industry
2. Adjusted energy intensity	Final and industry
3. Specific energy consumption	By branch (industry&services) and use-use
4. Specific energy consumption benchmark	Steel, cement, paper, etc.
5. Energy efficiency indices (ODEX)	Final and by sector
6. Energy savings	Final, by sector or industry
7. Dissemination indicators	By sector
8. Intensity CO ₂	By sector and industry
9. Specific CO ₂ émissions	By branch (industry&services) and use-use
10. Fuel poverty (New)	Residential and transport?
11. Sufficiency (New)	Residential and Transport

Les Indicateurs alternatifs d'efficacité énergétique :

Le cas des transports

	l/100 km or MJ/km	GJ or toe/car	MJ or goe/km
Pros	<ul style="list-style-type: none"> • Provides the most accurate measure of technical efficiency of cars • Also reflects the impact of driving behaviour (eco-driving, speed limit) and the shift to smaller cars. • MJ/km allows you to see the fuel changes (biofuel). 	<ul style="list-style-type: none"> • Indicates how efficient the use of vehicles is (at the technical level: reduction of consumption...) • Combined with the l/100km, this makes it possible to separate the technical savings from those linked to behaviour. 	<ul style="list-style-type: none"> • Indicates how efficient mobility by car is. • Reflects the growth of carpooling.
Cons	<ul style="list-style-type: none"> • Excludes part of the savings explained by behaviour (less car and more public transport in travel) 	<ul style="list-style-type: none"> • Do not separate technical and behavioural savings 	<ul style="list-style-type: none"> • Data in passenger-km uncertain.

L'interprétation des tendances de l'efficacité énergétique s'enrichie en comparant les tendances d'indicateurs différents

L'exemple du secteur résidentiel

End-use	Indicators to be compared	Interpretation of differences
Household heating	kWh per m ² and per dwelling*	Effect of change in dwelling size
Household heating	kWh/m ² (or dwelling) in final and useful energy	Effect of change in fuel mix
Refrigerator	kWh /appliance and kWh/litre	Effect of change in appliance size
Cooking	toe/household in useful and final energy	Effect of change in fuel mix
Electricity	kWh per household and kWh per electrified household	Effect of electrification

L'analyse de l'efficacité nécessite des données détaillées qui vont au-delà du bilan énergétique

Données et indicateurs ODYSSEE: Le cas du transport

- Stock and sales of vehicles by type and fuel
- Average distance per vehicle
- Passenger and goods traffic in pass-km & ton-km
- Energy consumption by mode and by type of road vehicles
- Specific consumption by vehicle (average, new)

Data

INDICATORS

- Energy consumption per capita;
- Intensity;
- Energy cons. of road transport per vehicle;
- Unit consumption per car equivalent;
- Unit consumption per vehicle;
- Consumption per unit of traffic;
- Mobility in public transport per capita;
- Share of public transport for passengers;
- Share of non-road for goods.

Vers une officialisation des données ODYSSEE: Nouveau L'utilisation maximale des données Eurostat (surtout pour l'énergie)

- The approach is to make maximum use of **Eurostat** data and other “horizontal” sources (**EEA, FAO, IISI...**) → about **2/3rd** of data are collected throughout these sources.
- As a consequence :
 - La part des données officielles et harmonisées augmente
 - Data collection for National teams is simplified
 - National teams can focus on complex data, or the ones bringing added value to the project
 - Enerdata gathers and controls more data, using harmonized process

ODYSSEE 2023 : Focus 2023 Le transport

Making use of outcomes from the working groups at last meeting in Zagreb :

2023

Transport

- ✓ *Done* - Estimation of the distribution of consumption between **trucks and light duty vehicles** for some countries that did not provide it
- ✓ *Done* - Improvement in the collection of **hybrid vehicle** inventories
- ✓ *Done* - Collection of new series on **soft mobility**
 - *Preliminary study* - Stock of vehicles by fuel (transversal sources)
 - *Early stage* - Specific consumption (l/100km)

Next steps **2024** (incl. 2022 update)

Households

- Average theoretical specific consumption of new buildings
- Equipment rates

Services

- Square meters by branch
- Energy consumption by branch

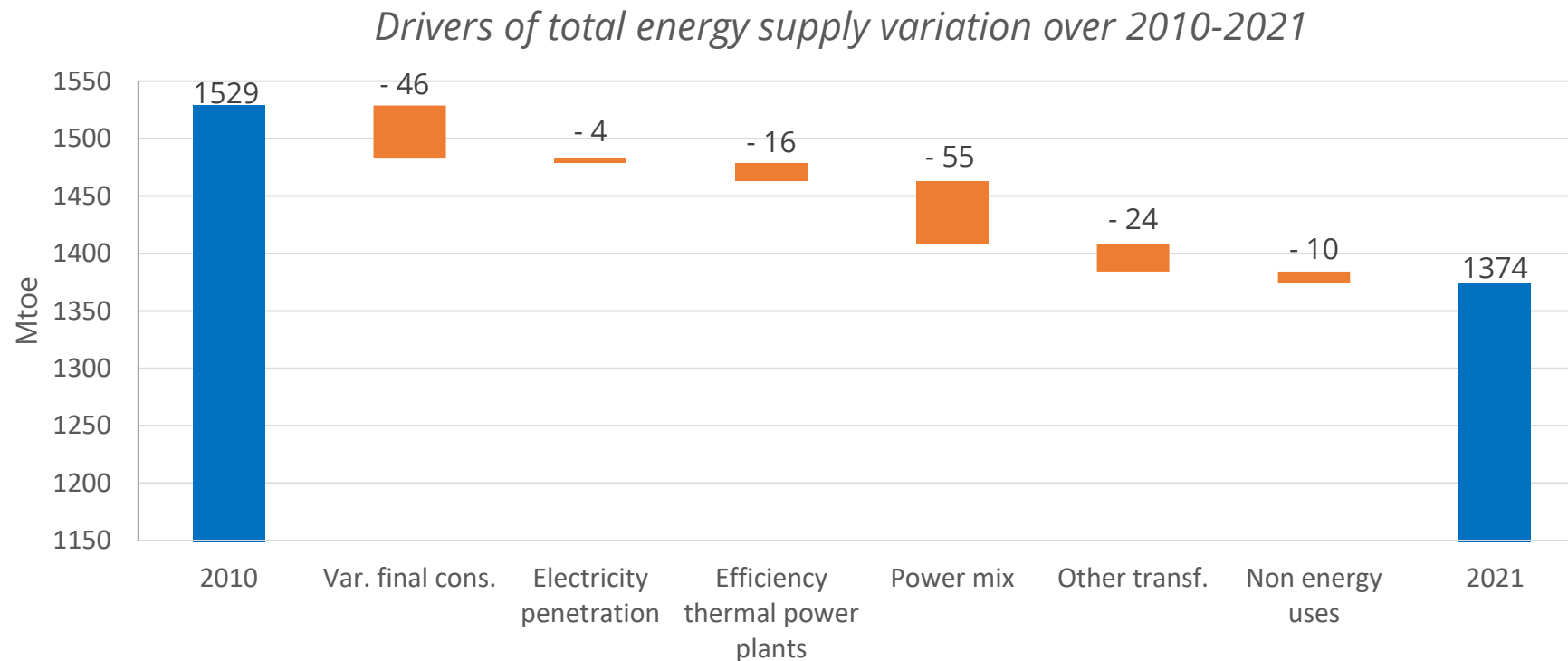
Drivers de la variation de la consommation d'énergie primaire (UE)

Between 2010 and 2021, **total supply decreased** 3 times more than **final** consumption: **-155 Mtoe** vs **-46 Mtoe**. Why?

1. Changes in the power mix, with:

- A **higher share of renewables** (+13 pts) and a lower share of nuclear (-4 pts) and thermal (-9 pts) that reduced total supply by 55 Mtoe.
- An **improved efficiency of thermal** generation (+2 pts) with a shift from coal to gas, which contributed to a reduction of 16 Mtoe.

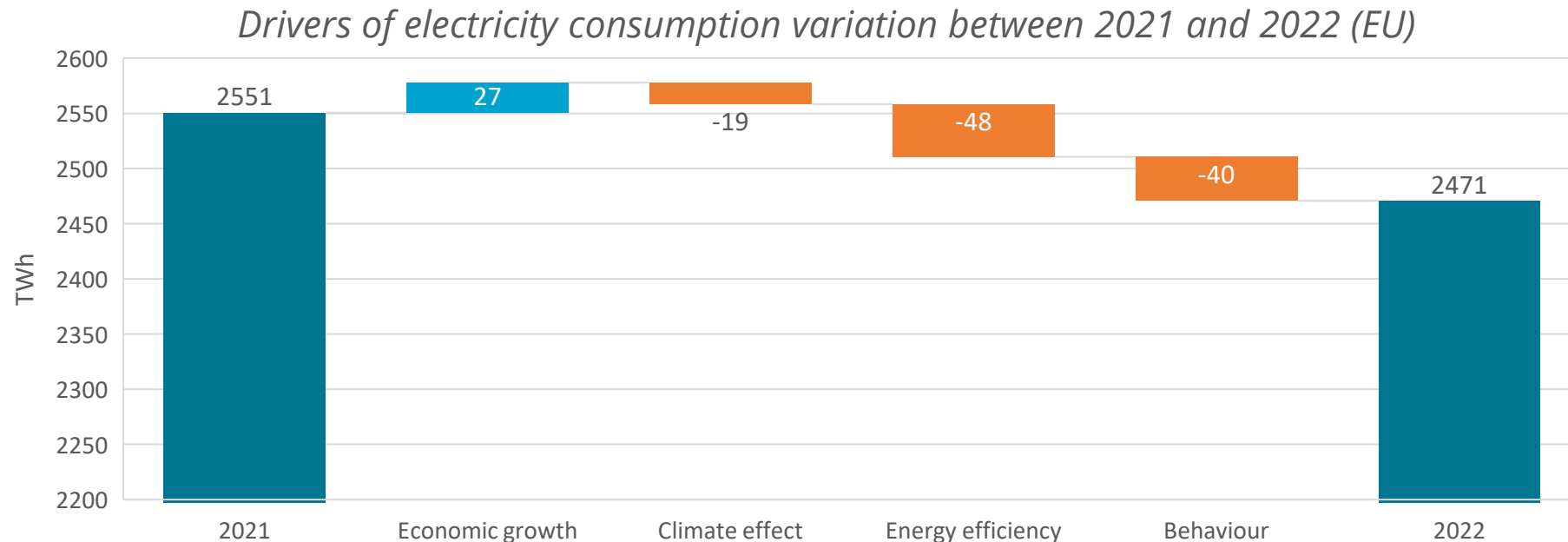
2. And a decrease in other transformations losses (-24 Mtoe).



Drivers de la variation de la consommation d'électricité (EU 2022)

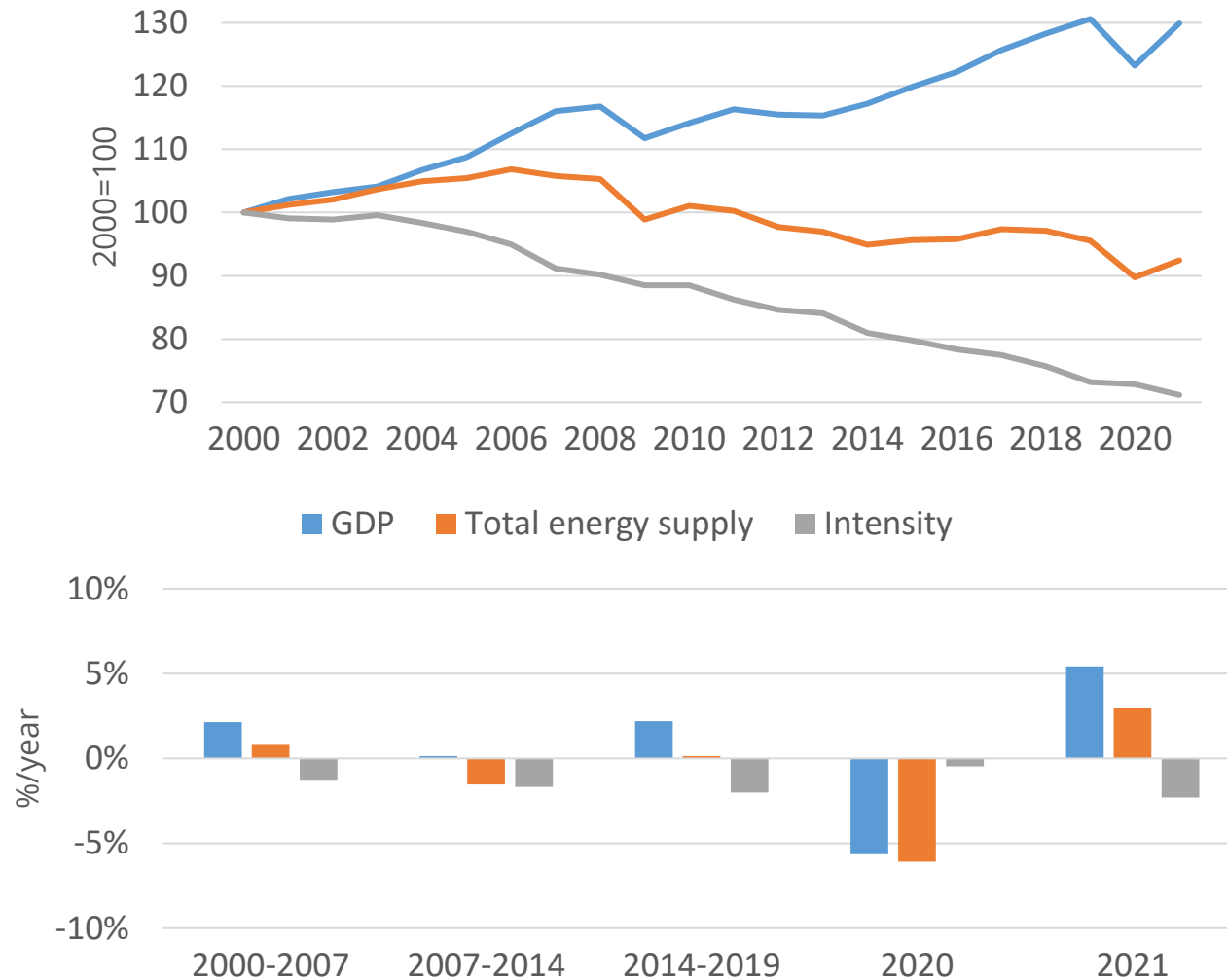
Final electricity consumption **decreased by 3%** in 2022 in EU:

- **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**.



Source: Enerdata calculations from Eurostat (yearly and monthly data)

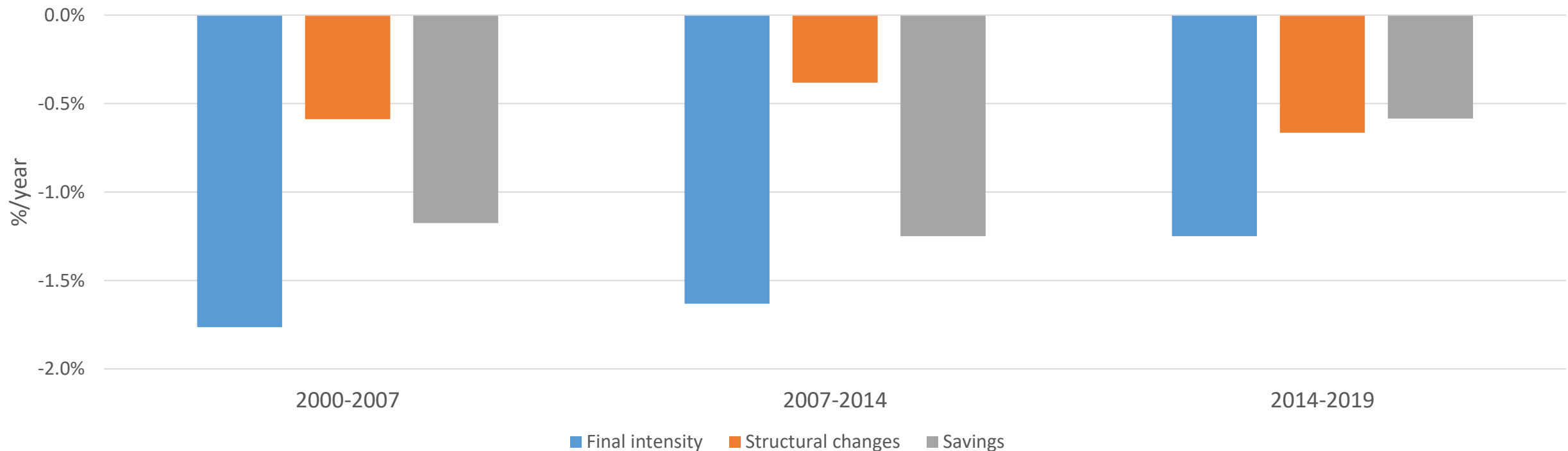
Malgré le COVID, l'intensité énergétique primaire a continué de s'améliorer en Europe



- Rebound of total energy supply by 3% in 2021 after a drop by 6% in 2020.
- Relative stability of EU total energy supply between 2014 and 2019, although GDP increased by 2.2%/year.
- In 2021, the primary energy intensity has returned to its pre-COVID trend (2014-2019) (-2%/yr).

L'intensité énergétique : Un indicateur simple mais n'étant qu'un proxy de l'efficacité énergétique

- Since 2014 energy efficiency only explains half of the final energy intensity reduction.
- Different types of structural changes (e.g. towards less energy intensive sectors (services) and industrial branches, saturation effects, higher value added products...) have contributed as much to the intensity reduction.
- Before 2014 most of the intensity decrease was due to energy efficiency improvements (around 80%).



Benchmarking au niveau sectoriel avec des indicateurs ajustés ODYSSEE

- The adjustments made in ODYSSEE take into the following quantifiable differences between countries:
 1. Climate
 2. Fuel mix
 3. Industry structure
 4. Economic structure

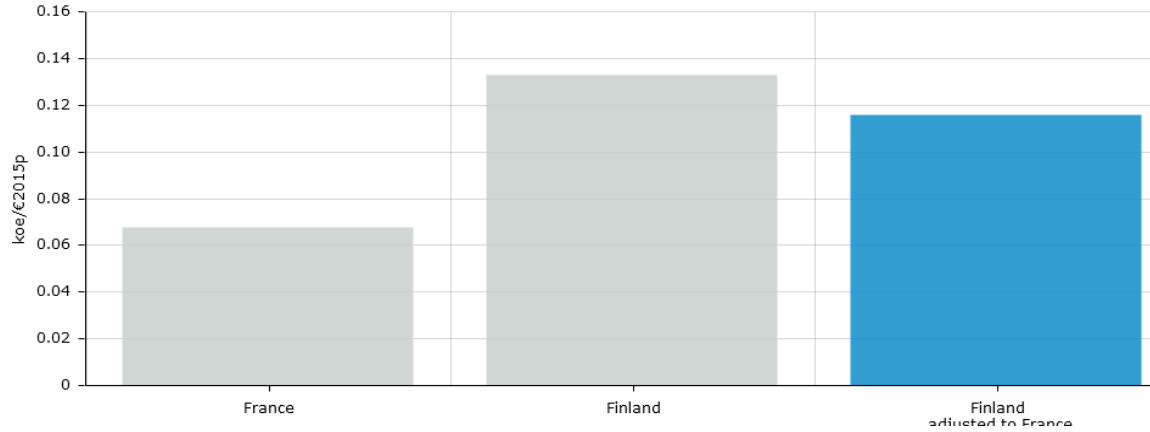
- All indicators in monetary terms are measured with purchasing power parities to adjust for differences in general price level.

- A data tool enables to benchmark the countries by doing these adjustments (“benchmarking tool”) and by showing the impact of each of them individually.

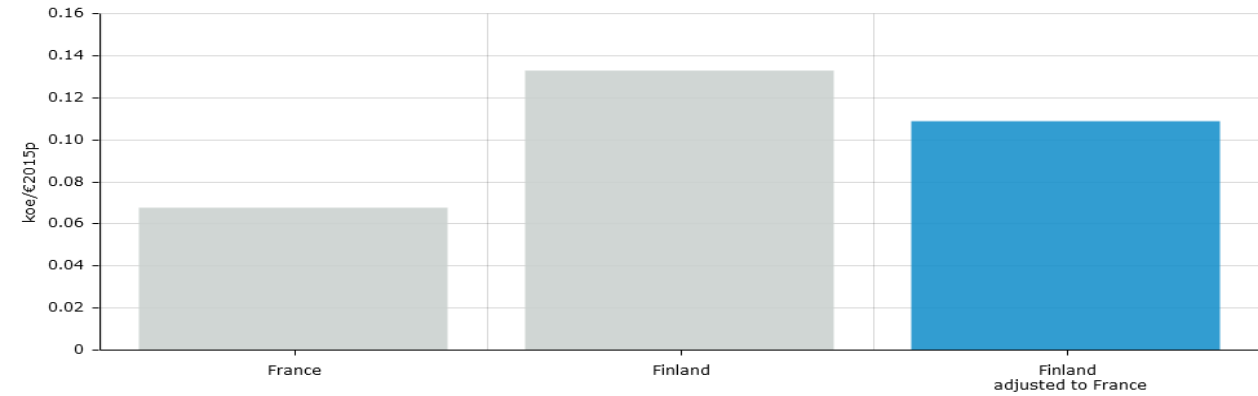
Benchmarking au niveau macro-sectoriel avec des indicateurs ajustés ODYSSEE

L'exemple des intensités énergétiques ajustées

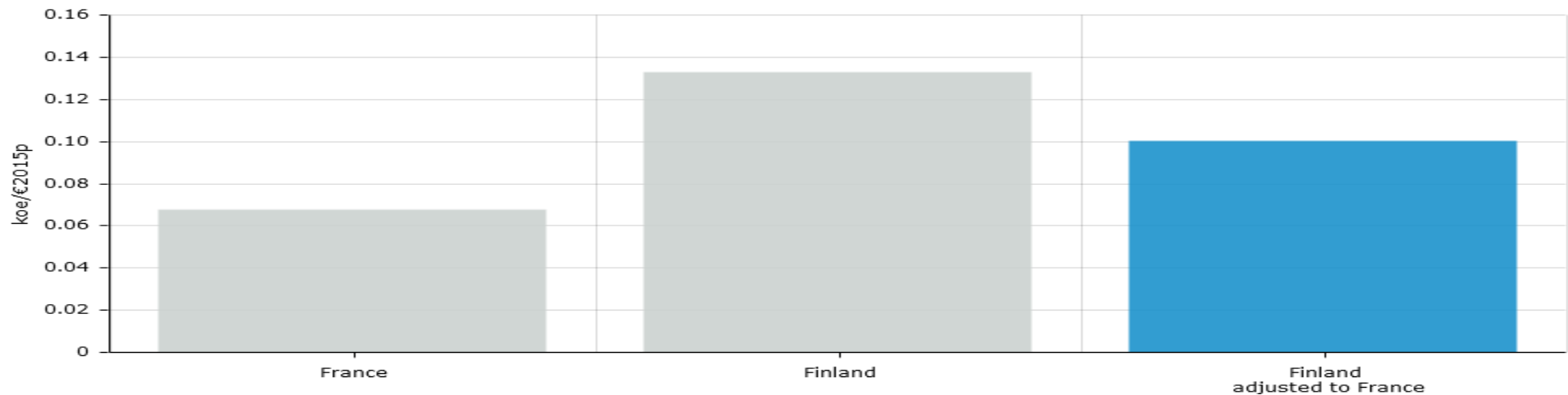
FINAL ENERGY INTENSITY ADJUSTED TO CLIMATE (2020)



FINAL ENERGY INTENSITY ADJUSTED TO GDP STRUCTURE (2020)



FINAL ENERGY INTENSITY ADJUSTED TO CLIMATE AND GDP STRUCTURE (2020)



Comment sont mesurés les progrès de l'efficacité énergétique par usages dans ODYSSEE ?

- Energy efficiency progress is measured by end-use or sub sector with various indicators of specific consumption measured in **physical units** selected to be as close to energy efficiency as possible :
 - For transport: l/100 km or koe/pkm for cars, l/100 km and koe/tkm for trucks, etc.
 - For households: toe/m² for heating, kWh/appliance for large appliances, toe/dwelling for cooking or water heating, etc.
 - For industry: toe/ton for energy intensive products (steel, cement, pulp and paper), toe/IPI for other branches.
- More indicators can be found in the **“key indicator tool”** at <https://www.indicators.odyssee-mure.eu/online-indicators.html>

Efficacité énergétique des voitures neuves thermiques (l/100 km)*

■ 2019-2021

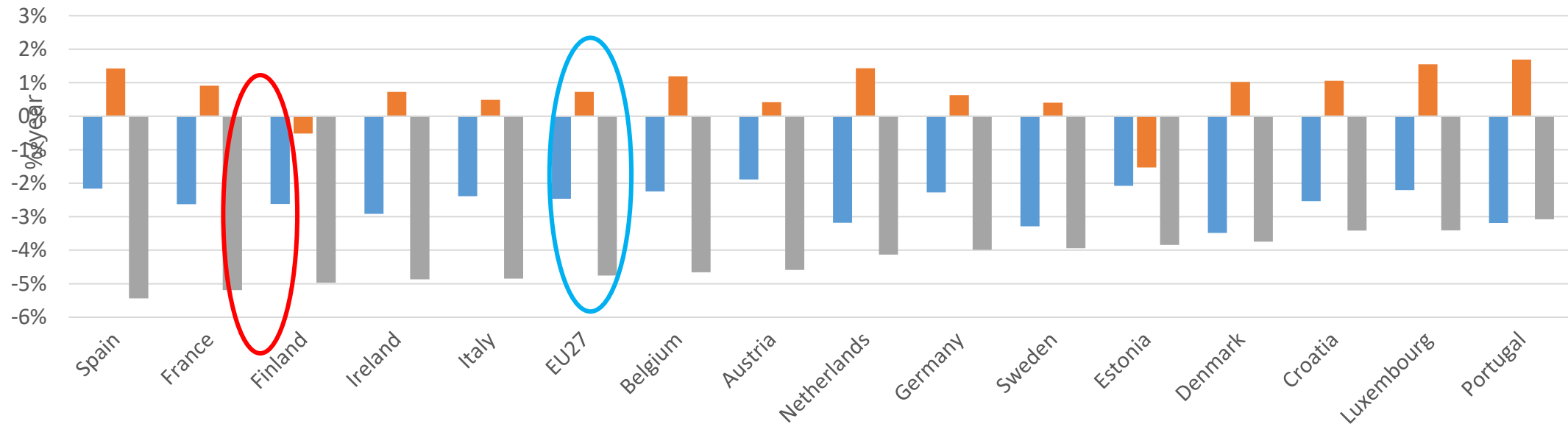
- The average specific consumption has **decreased** significantly. Mainly due to a high increase of the share of **hybrid thermal cars** (from 6 to 25% of new registrations at EU level) and energy efficiency improvements

■ 2014-2019

- A reverse trend observed in most countries, and a net slowdown in the others, due to two main factors: a **decrease in diesel** shares (from 56% in 2012 to 34% in 2019 at EU level) and a **growing share of SUV** (from 25 to ~40%)

■ 2000-2014

- The specific consumption of new diesel and gasoline cars has **decreased** everywhere

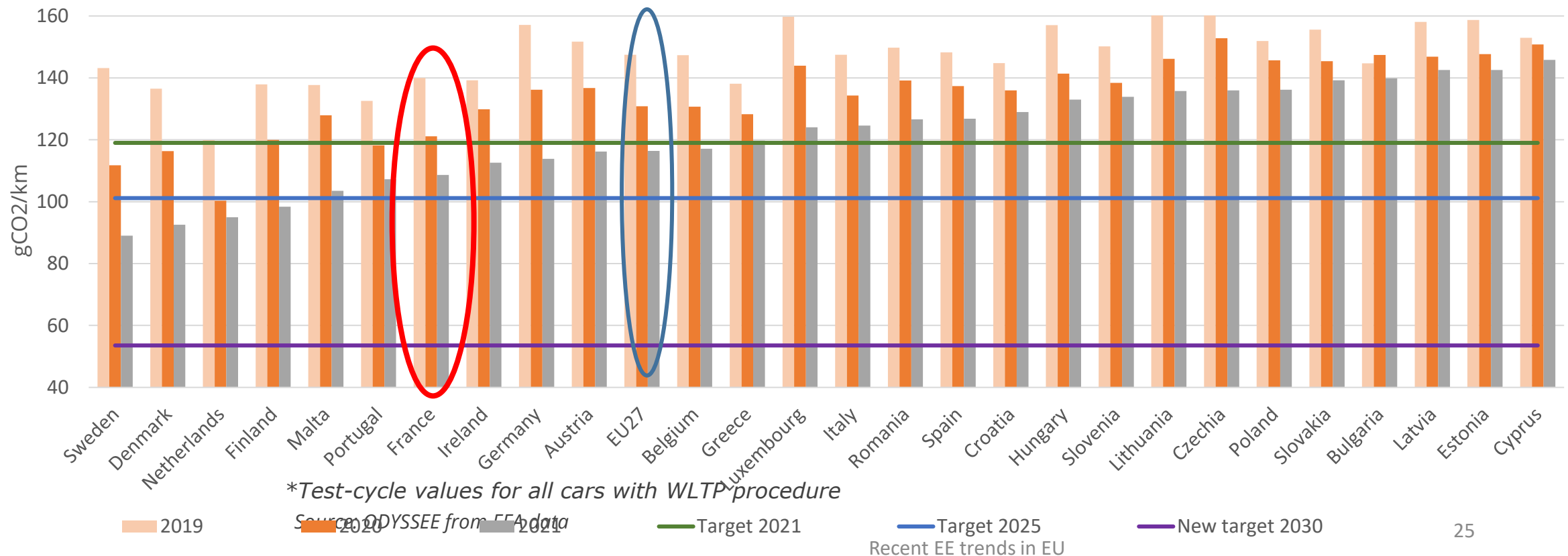


*Test-cycle values for diesel and gasoline cars; only shown countries with data since 2000

Source: ODYSSEE from EEA data

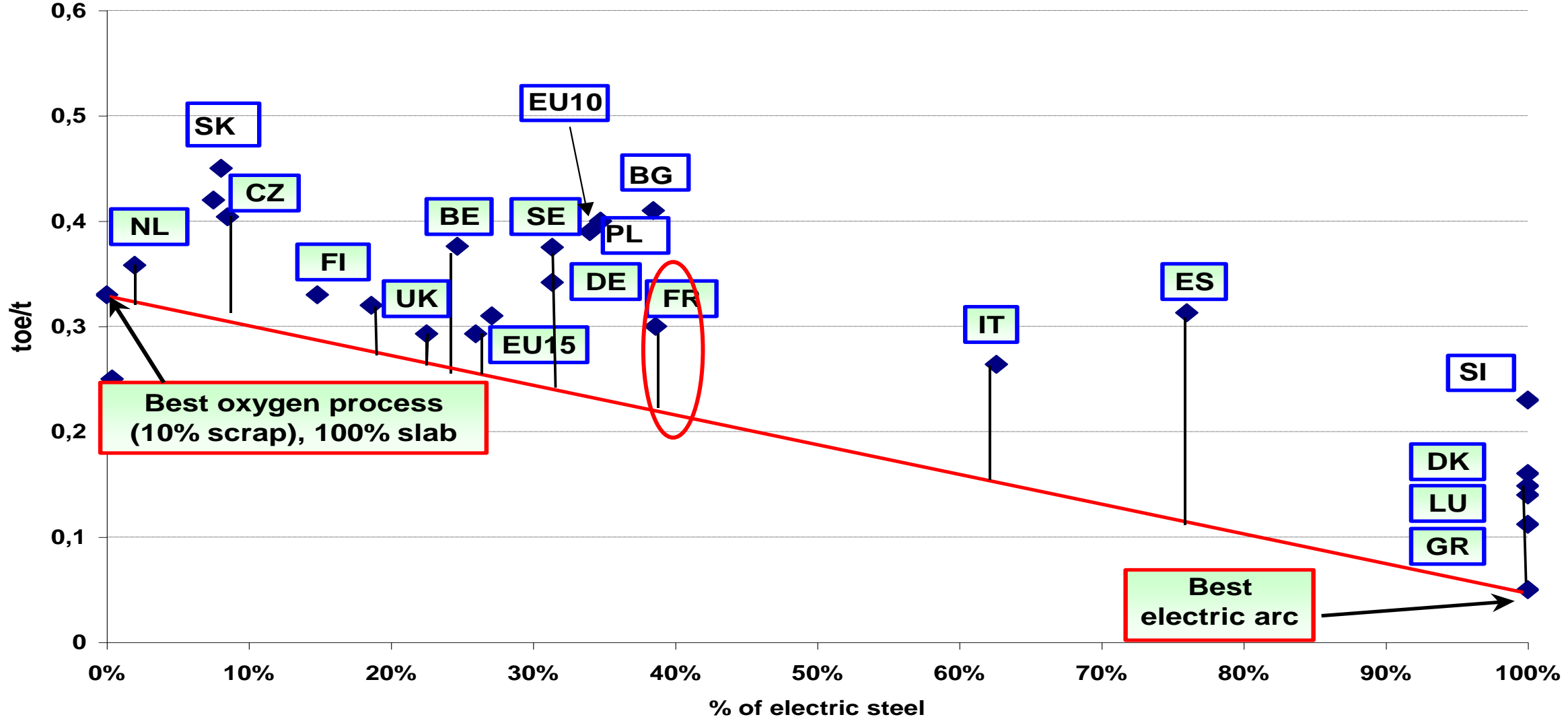
Emissions spécifiques de CO₂ des voitures neuves (L'indicateur wolswagen!!!) (gCO₂/km)*

- Specific CO₂ emissions of new cars have **decreased** significantly since 2019 (-11%/yr at EU level):
 - This is due to the **penetration of electric cars**: from 2 in 2019 to 9% in 2021 for BEV and from 1 to 9% for PHEV.
 - Moreover, all technologies saw declining CO₂ emissions thanks to **energy efficiency improvements**.
- The target for 2021 was met at EU level, however discrepancies can be observed among countries (both in terms of level and trend).



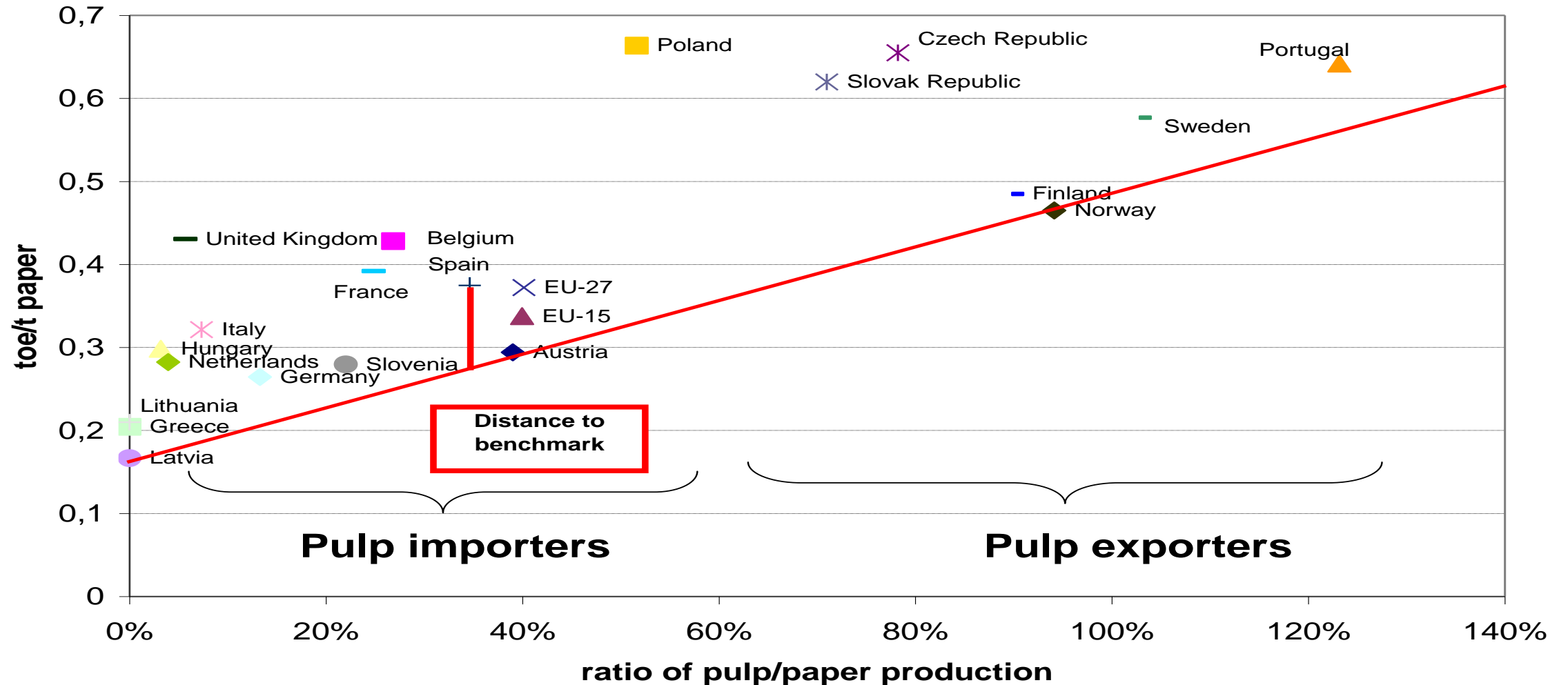
Benchmark des consommations unitaires d'énergie pour l'acier (EU)

Difference in specific consumption partly explained by differences in process mix;
distance to red line show possible potential of energy efficiency gains

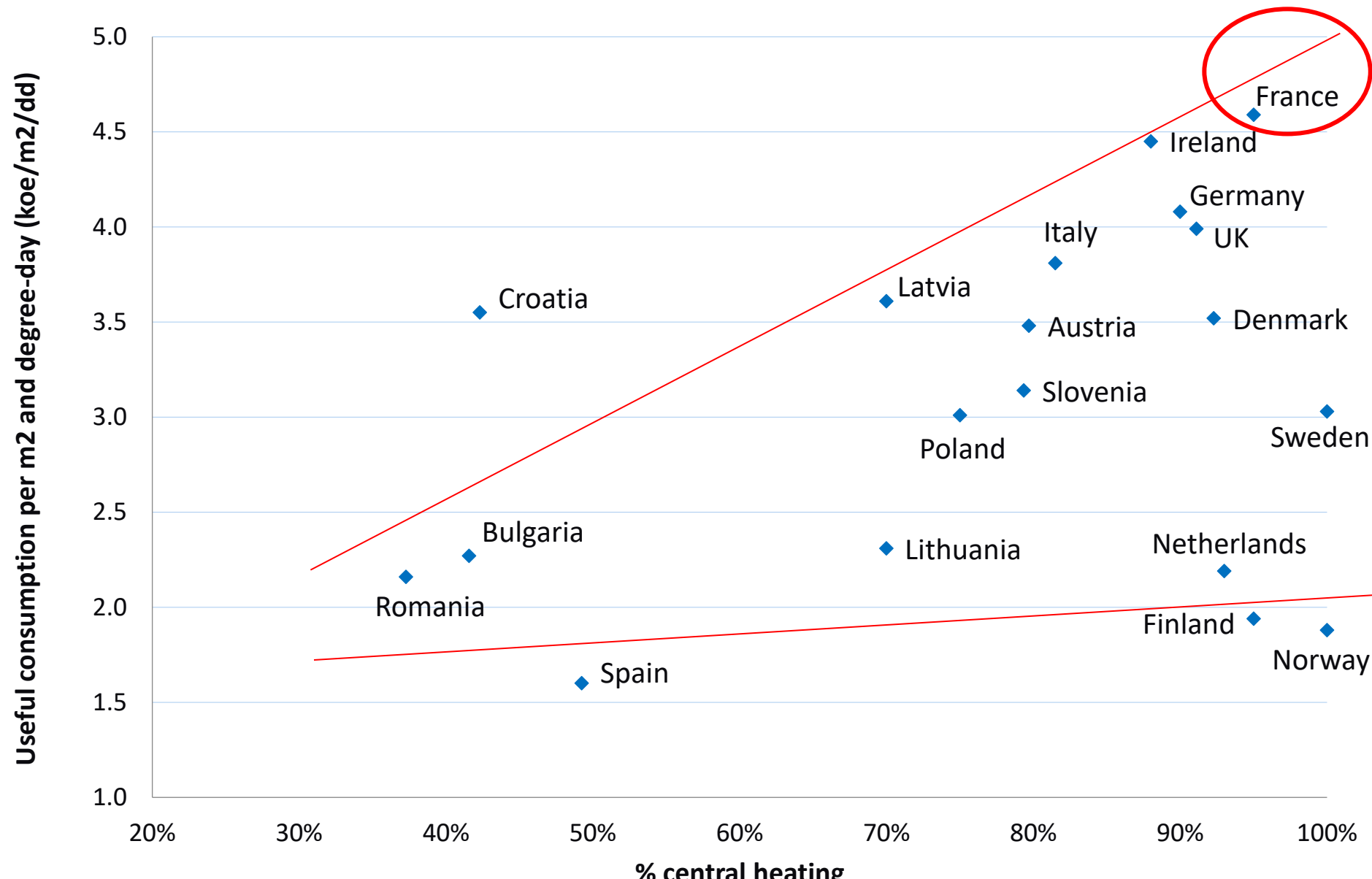


Benchmark des Consommation unitaire par tonne de papier (Tep/tonne (EU))

The energy performance of the paper industry is linked to the share of pulp produced in the country in relation to the paper production: the higher this ratio, the higher the unit consumption



Benchmark des consommations unitaires de chauffage dans l'UE (Kep (énergie utile) /M2/DJ)



Un index de l'efficacité énergétique pour mesurer les progrès de l'efficacité énergétique : L'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).

Principe de calcul de l'indice d'efficacité énergétique ODEX*

1. Specific consumption (Index by sub-sector)	2010	2011	2012	2013
Chemicals (toe/100) (index)	8.5 (100)	8.3 (98)	8.2 (96)	8.2 (96)
Steel (toe/tonne) (index)	0.30 (100)	0.29 (97)	0.26 (87)	0.25 (83)
2. Energy consumption (Weight)				
Chemicals (Mtoe) (%)	20 (50)	20 (48)	20 (44)	22 (46)
Steel (Mtoe) (%)	20 (50)	22 (52)	25 (56)	26 (54)
3. Sector index	100	97.4	90.9	88.6

$$IE_{2011} = IE_{2010} \times (98 \times 0.48 + 97 \times 0.52) = 97,4$$

$$IE_{2012} = IE_{2011} \times (96/98 \times 0.44 + 87/97 \times 0.56) = 90.9$$

$$IE_{2013} = IE_{2012} \times (96/96 \times 0.46 + 83/87 \times 0.54) = 88,6 \rightarrow \text{Energy efficiency improvement of 11.4\% between 2010 and 2013 (=100-88.6)}$$

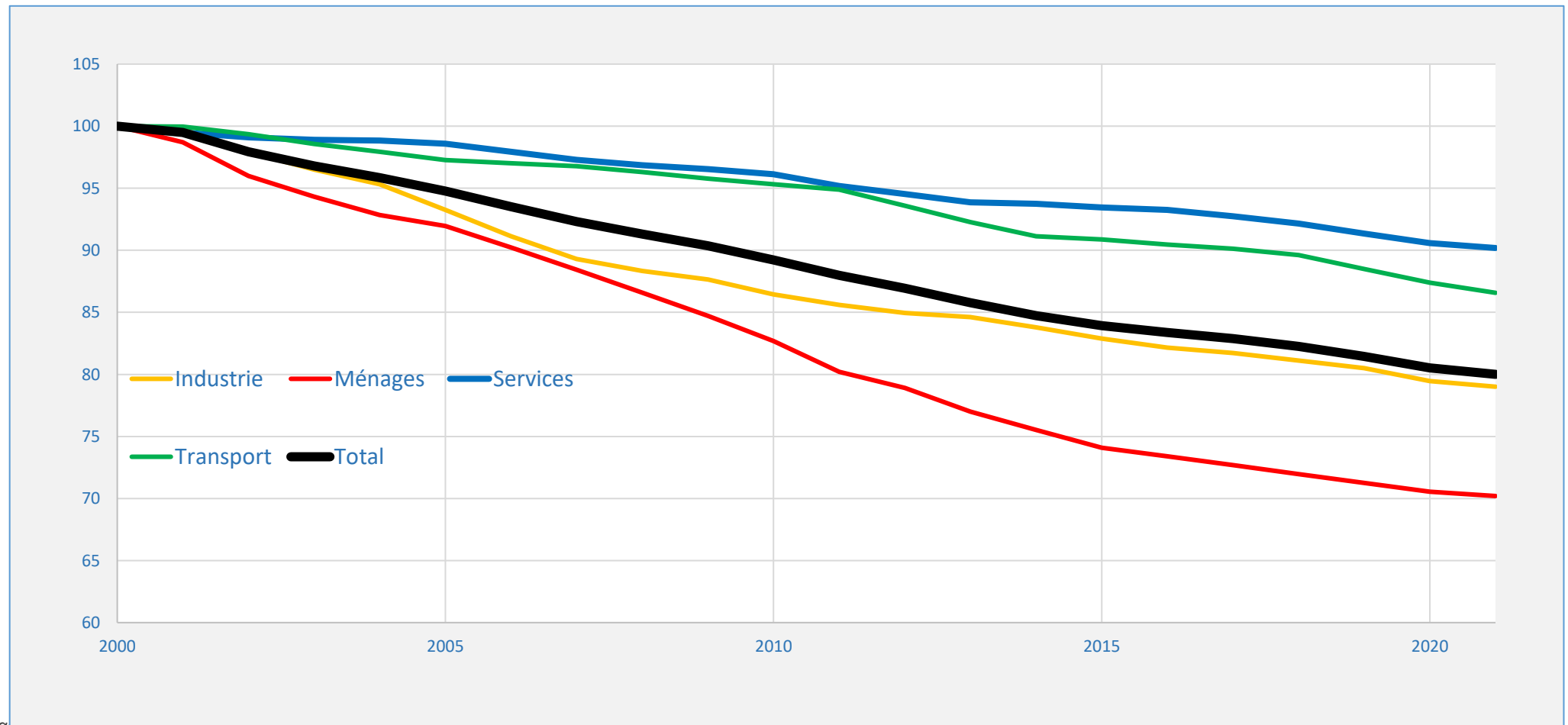
Indice d'efficacité énergétique (ODEX technique EU 2000-2020)

20% d'économies d'énergie en 20(1) ans

Les progrès de l'efficacité énergétique ralentissent depuis 2014

Malgré le COVID, il y a eu des économies d'énergies (0,5%) en 2021

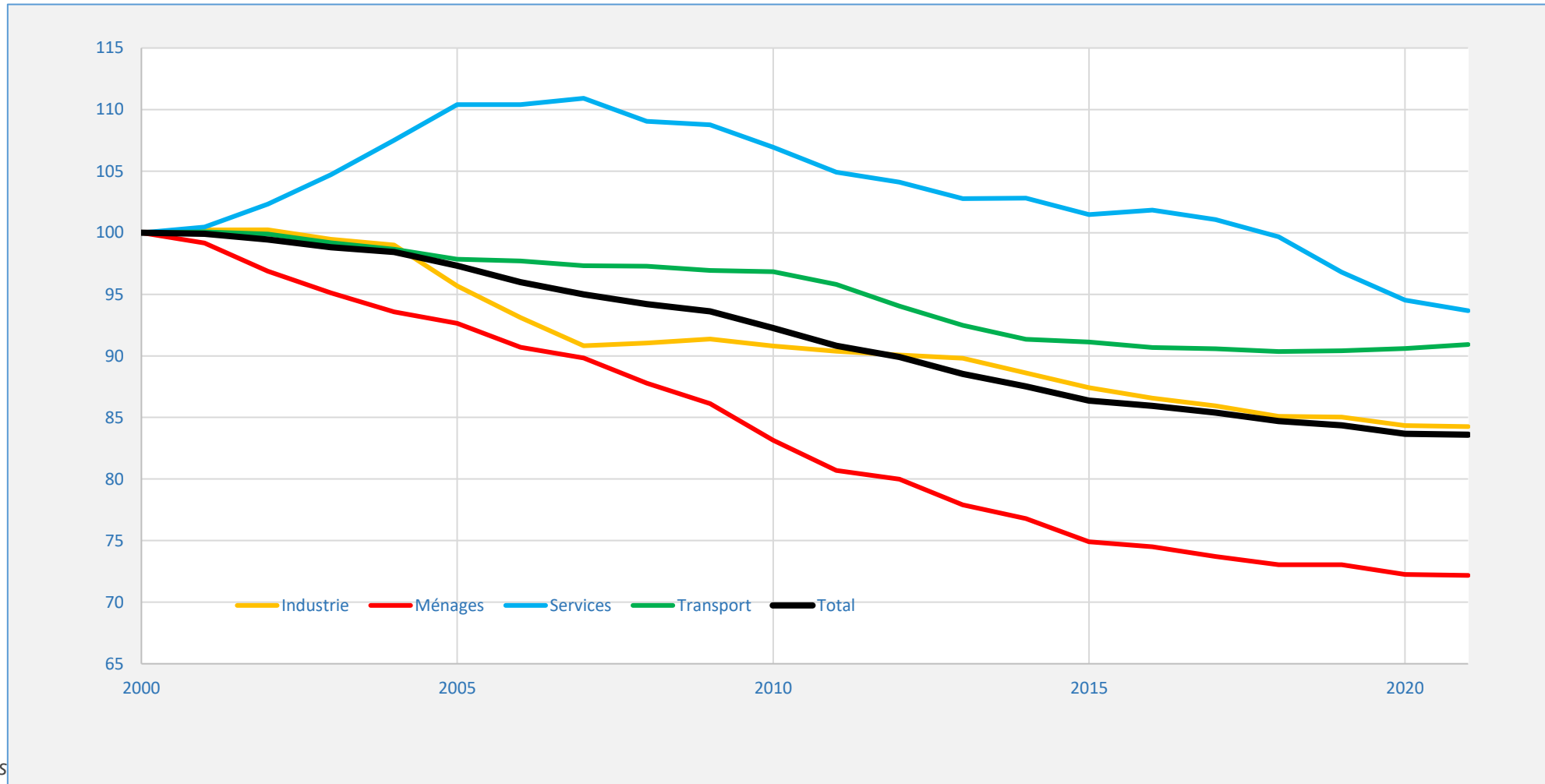
Scoop



Indice d'efficacité énergétique observé 2000-21 (ODEX global EU)

Les "déséconomies" de comportement sont de l'ordre de 5%

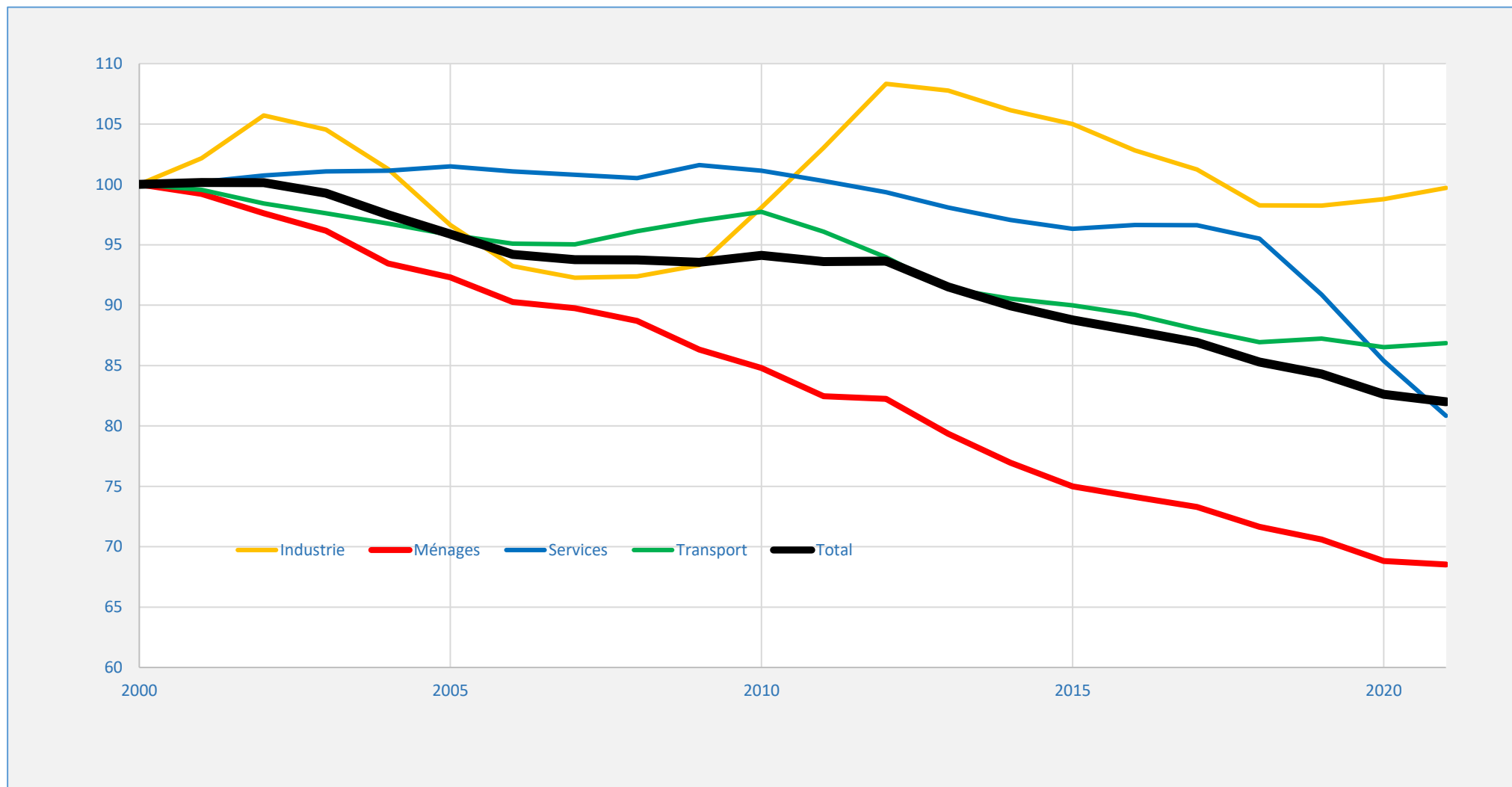
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Les progrès de l'efficacité énergétique globale (ODEX global France 2000-21)

Le contexte économique (y compris le COVID) affecte plus les économies d'énergie dans l'industrie et les services

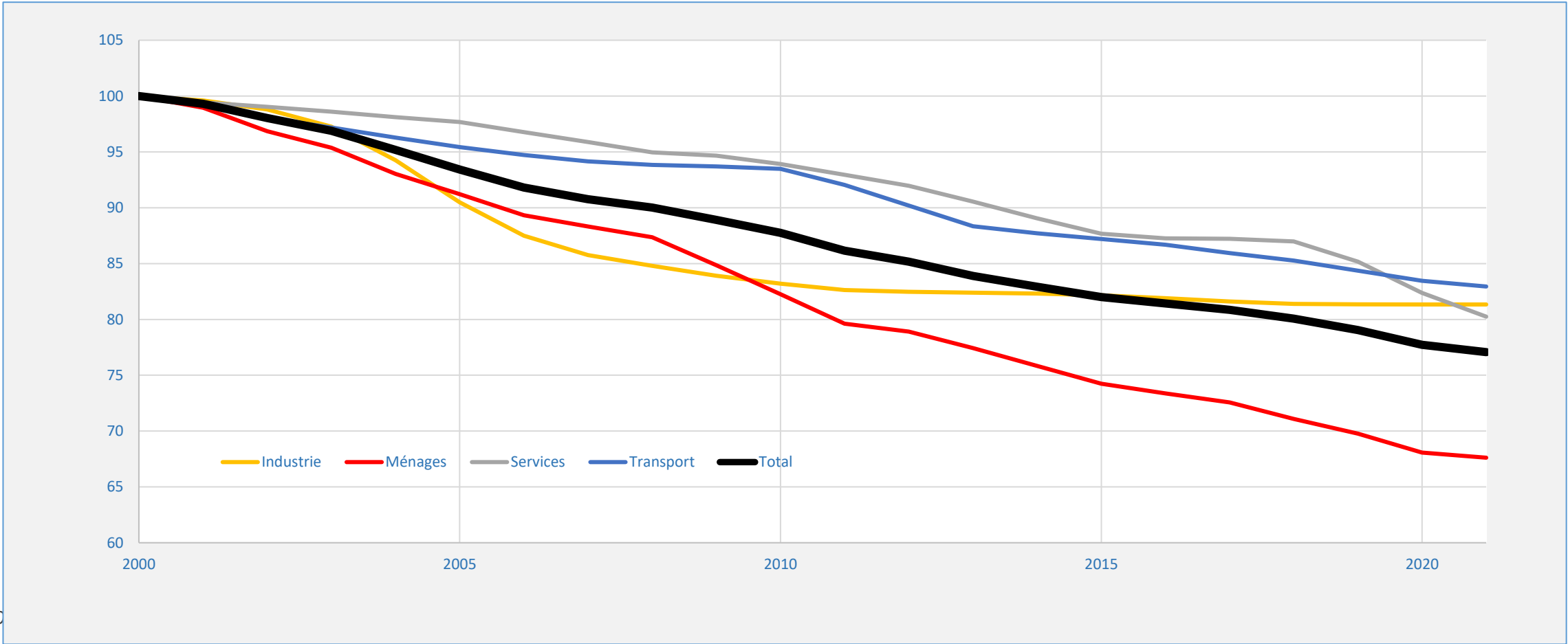
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Les progrès de l'efficacité énergétique technique (ODEX technique France 2000-21)

Les progrès techniques ont été plus plus rapides en France que dans l'UE Mais ils ralentissent également depuis 2014

Malgré le COVID, il y a eu des économies d'énergie techniques (0,5%)

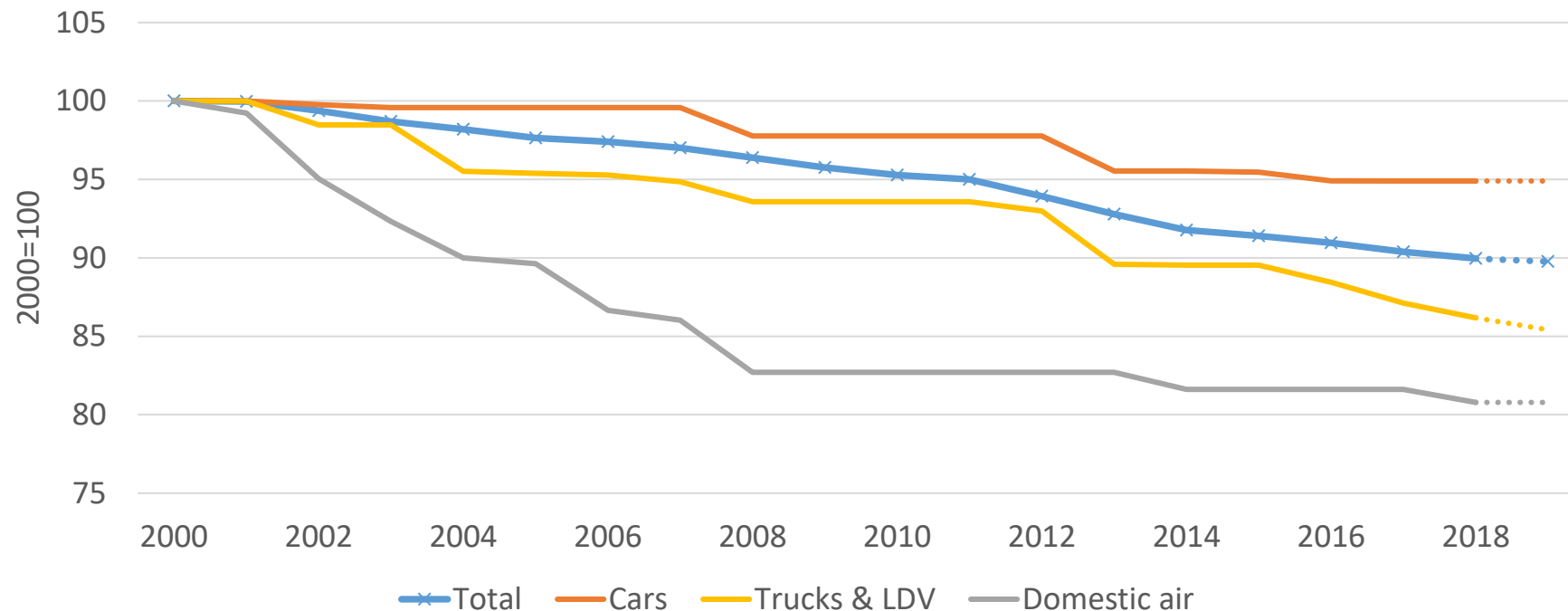


Source: C

Les tendances de l'efficacité énergétique technique

Le cas du transport en France

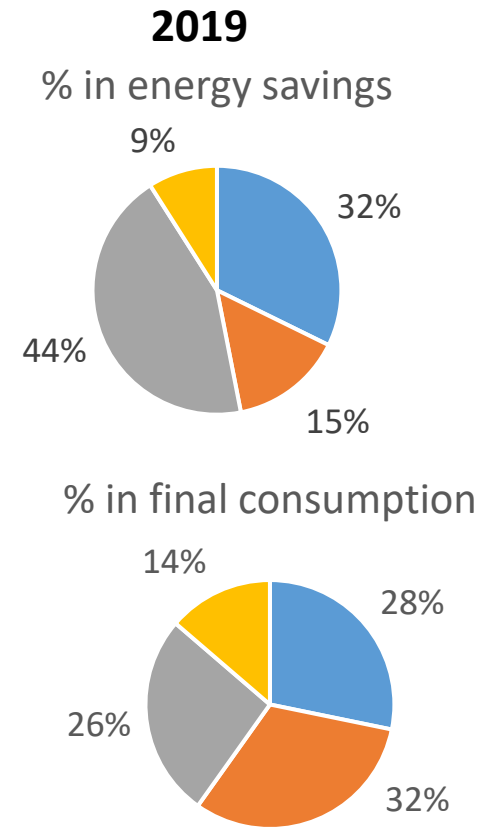
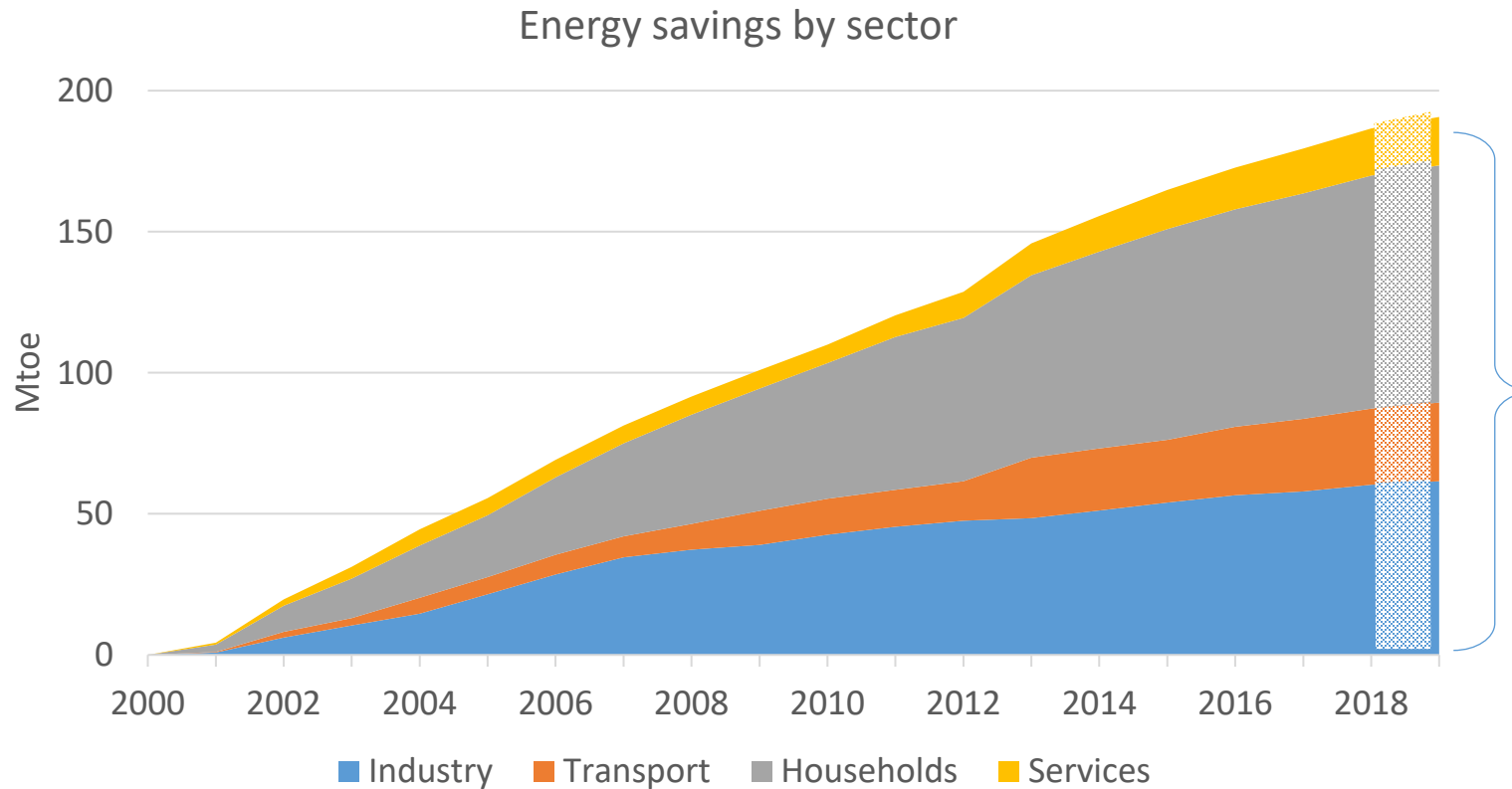
- The energy efficiency of transport improved by 0.6%/year in the EU since 2000 (10% compared to 2000 level).
- Greater progress was achieved for domestic air transport.
- Energy efficiency progress had stopped for trucks and light vehicles between 2008 and 2012 due to a less efficient operation of trucks (less loaded and empty running) following the financial crisis but is back again.
- There is **no more progress for cars** since 2013.



Source: ODYSSEE; only most important modes shown

Les économies d'énergie par secteurs (EU-2000-2019)

- 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.

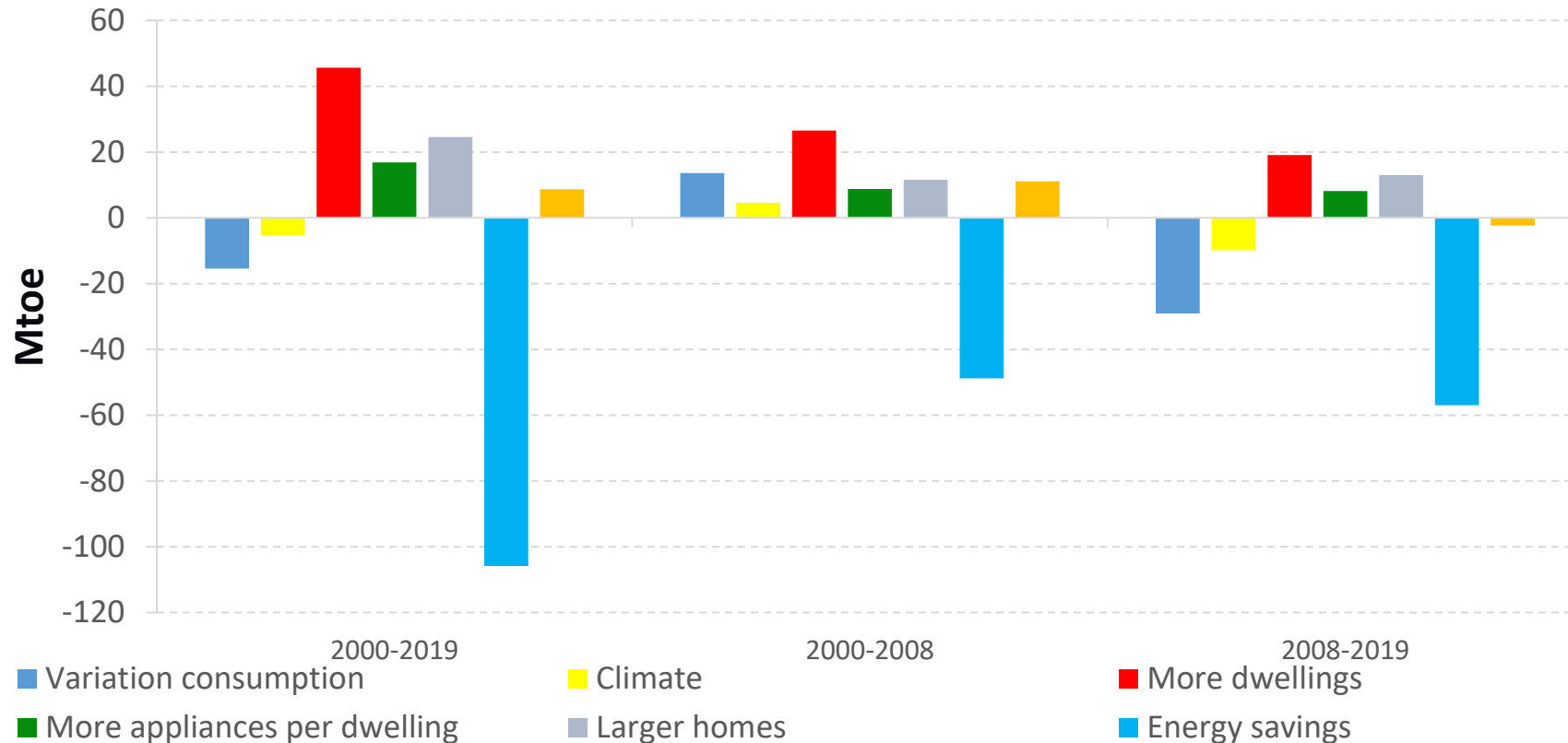


Source: ODYSSEE

Conclusion Housing sector

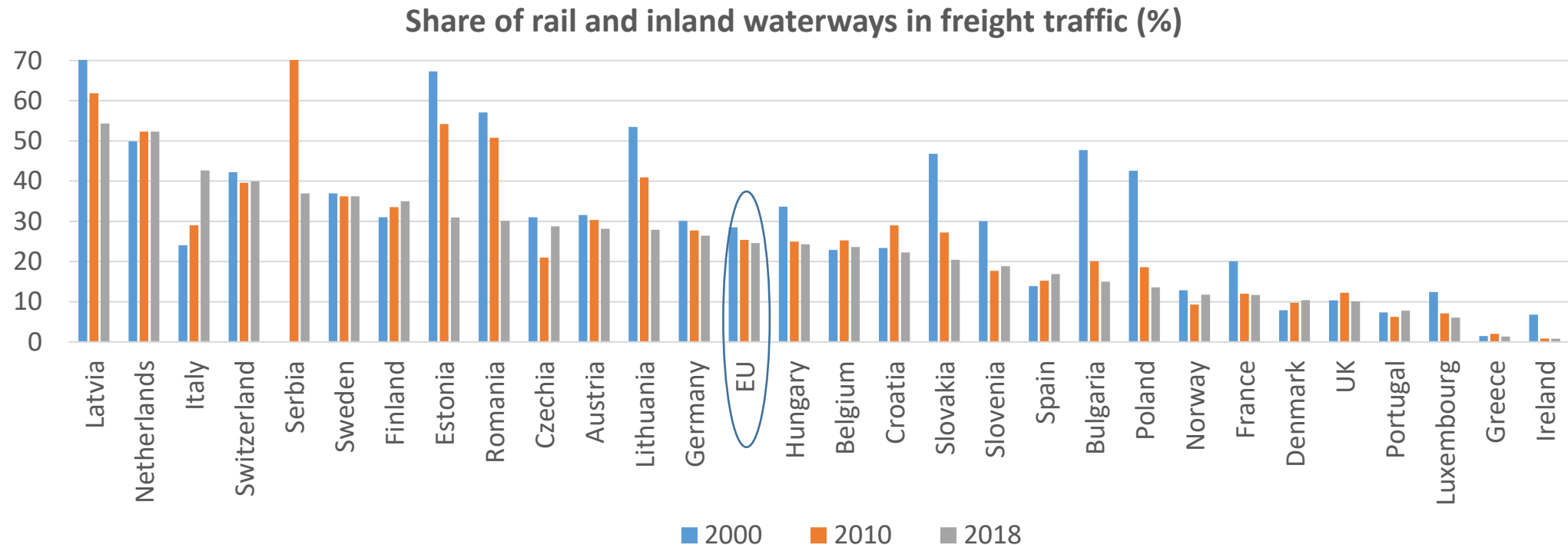
- Between 2000 and 2019, the activity (More dwellings) and behavioural effects (more appliances per dwelling, larger homes) contributed to raise the final consumption by 87 Mtoe.
- Energy savings offset more than this increase by reducing consumption by 105 Mtoe.

Drivers of energy consumption for households (EU)



Indicateurs de diffusion ex: Répartition modale Marchandises

- In 20 EU countries the **share of rail and inland waterways** has **decreased** since 2000; the trend is in general slower since 2010.
- At EU level, decrease by 4 pts since 2000 (only 1 pts since 2010).
- A few countries have experienced a rapid shift from road to rail & water since 2000, among which Italy (+19 pts; sea motorways), Finland, Spain and Denmark (+3-4 pts) and, since 2010, Czech Rep (+7 pts).
- **Latvia** and **the Netherlands** are leading in terms of level with a share > 50%, (good quality rail lines to seaports combined with high maritime traffic).



Les nouveaux indicateurs ODYSSEE

To address emerging issues, new indicators are being developed

Indicators under construction:

- Energy **poverty** (planned for October 2023)
- Energy **sufficiency** (2024)

Indicators to be included in the database (separate from the Key indicators tool)

Separate analysis (to be confirmed):

- Efficiency of new vehicles including **electric vehicles** (specific consumption of all new cars and light vehicles including electric vehicles and not only thermal vehicles)

Indicateurs nationaux pour suivre la précarité énergétique

Eurostat (EU-SILC, HBS) = **common basis**, but with **limitations**: does not capture national specificities

EC recommendation: *“National indicators can help complement these and refine the identification of energy poverty”*

Official national indicators on energy poverty, found in 6 countries (Belgium, France, Greece, Italy, Spain, UK)

Type of indicator	Countries
Similar to LIHC (Low Income High Costs)	5 countries: Belgium, France, Italy, Spain, UK (Scotland)
Restriction on the use of heating	4 countries: Belgium, Greece, Italy, Spain
Feeling cold	3 countries: Belgium, France, Spain
Threshold on ratio [energy expenses / disposable income]	2 countries: Greece, UK (Wales, Northern Ireland)
LILEE (Low Income Low Energy Efficiency)	1 country: UK (England)
Energy poverty gap	1 country: UK (England, Scotland)
Bill arrears	1 country: Spain

Specifications of the national indicators depending on the country (and data availability): scope of income, estimated/metered energy expenses, threshold values, ...



MURE: Base de données sur les politiques nationales d'efficacité énergétique et leur évaluation



ABOUT MURE

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

[Learn more](#)

SUCCESSFUL MEASURES



POLICY MAPPER

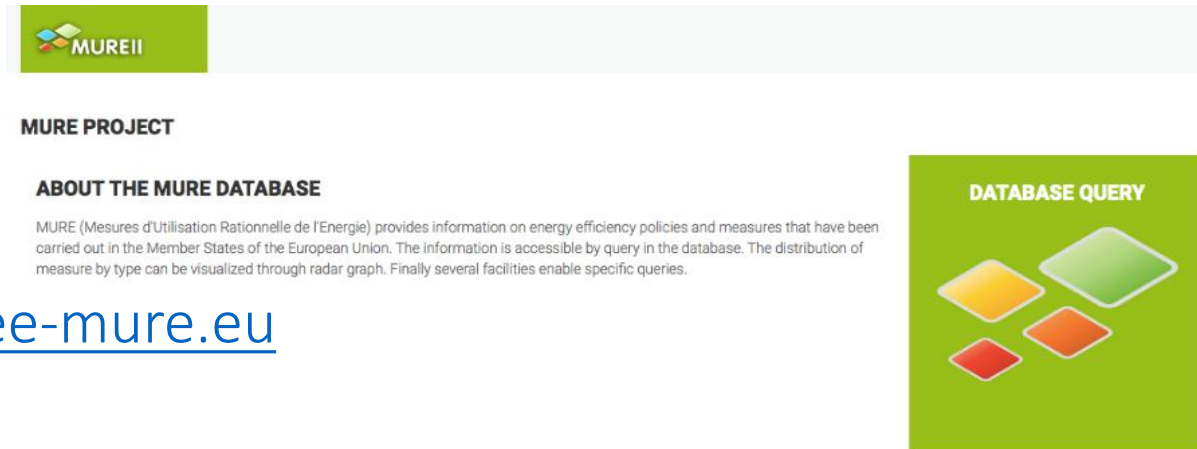


ENERGY EFFICIENCY SCOREBOARD



MURE Database on Energy Efficiency Policy Measures

- ✓ MURE: “Mesures d’Utilisation Rationnelle de l’Énergie” (Measures for the Rational Use of Energy)
- ✓ 28 EU Member States (UK included) + Norway, Serbia and Switzerland
- ✓ Database: around 2900 measures + Analysis Facilities



The screenshot shows the MURE project website. At the top left is the MURE logo. Below it is the heading "MURE PROJECT" and "ABOUT THE MURE DATABASE". A paragraph of text describes the database's scope and features. To the right is a "DATABASE QUERY" button with a graphic of four colored diamonds (yellow, green, orange, red).

MURE PROJECT

ABOUT THE MURE DATABASE

MURE (Mesures d’Utilisation Rationnelle de l’Énergie) 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

www.odyssee-mure.eu



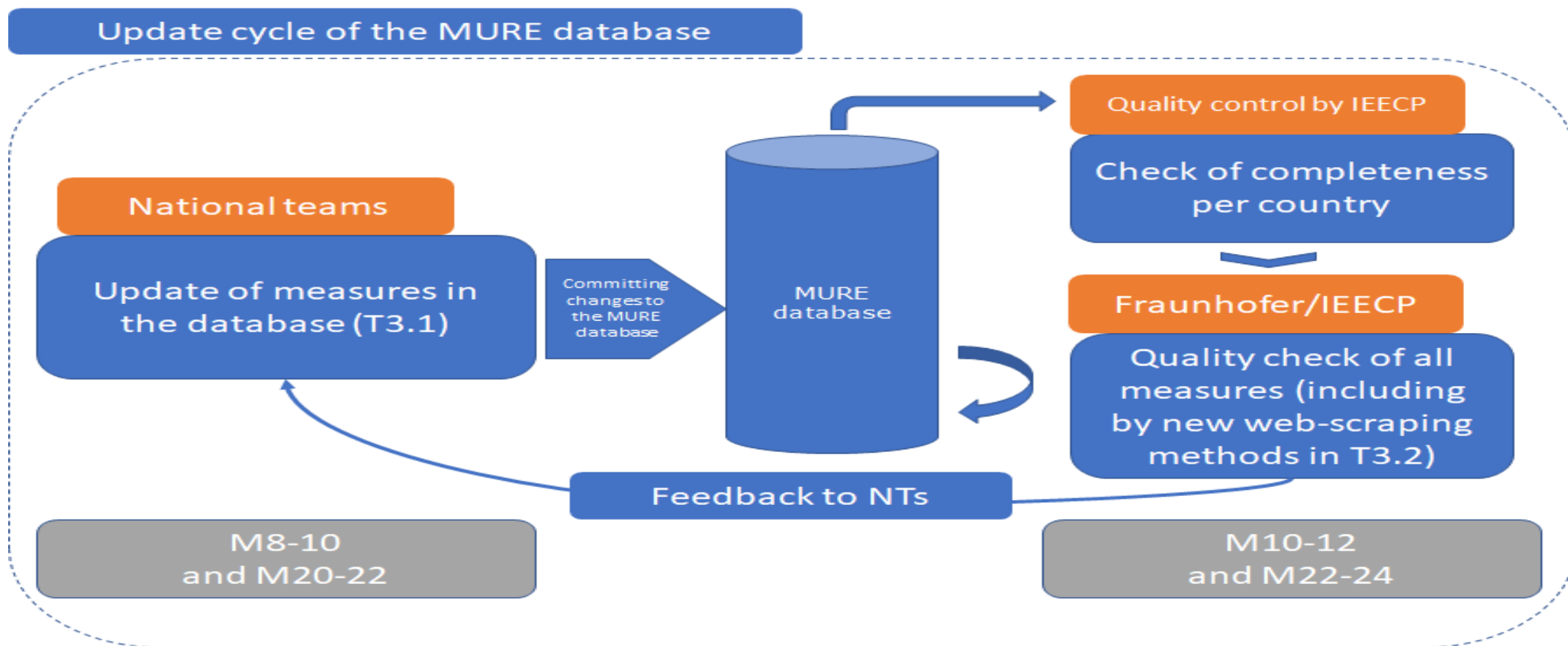
Three navigation buttons are shown at the bottom, each with a gear icon. The first is yellow and labeled "SUCCESSFUL MEASURES". The second is green and labeled "POLICY MAPPER". The third is light green and labeled "ENERGY EFFICIENCY SCOREBOARD".

SUCCESSFUL MEASURES

POLICY MAPPER

ENERGY EFFICIENCY SCOREBOARD

MURE : La procédure d'actualisation et de contrôle des données

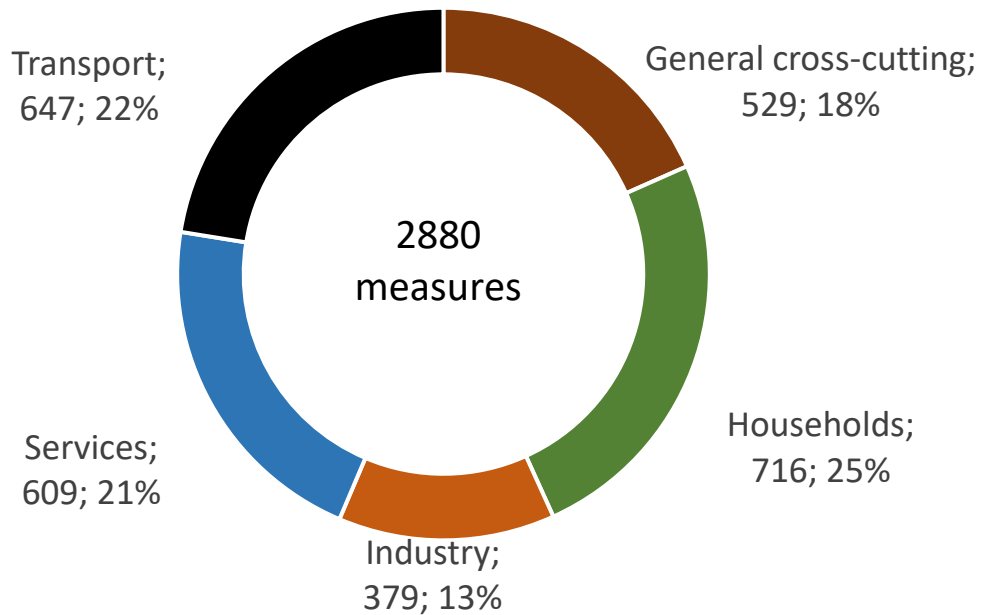


First update: March – October 2023
Second update: May – July 2024

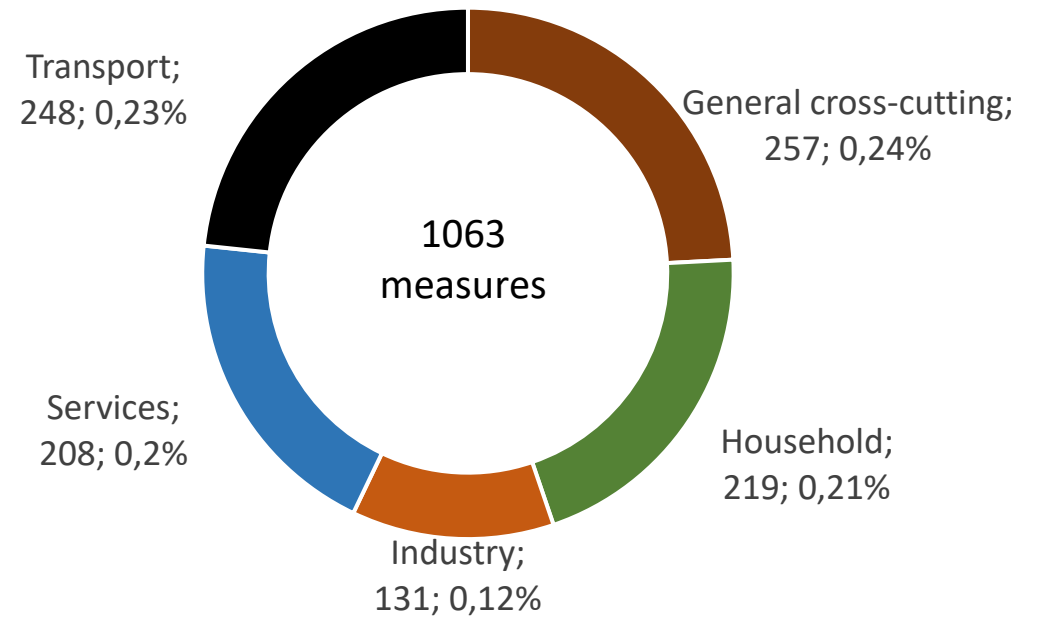
First round of quality control: September-November 2023
Second round of quality control: July – September 2024

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

All measures



Newly added or modified measures (since Oct. 2022)



MURE : Amélioration de la base de données et ses facilités

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

WP5: Capacity building on ODYSSEE-MURE

Work on MURE with EnC

Number of measures added to the **MURE** database (internal part):

	General	Household	Industry	Services	Transport	Total
Georgia	3	4	2	4	2	15
Montenegro	0	1	1	2	2	6
Kosovo	0	0	0	0	0	0
North Macedonia	0	2	0	0	0	2
Albania	0	1	0	0	0	1
Moldova	0	2	0	1	0	3
Ukraine	7	3	0	2	0	12
Bosnia-Herzegovina	0	0	0	0	0	0
Serbia	51	4	8	37	26	126

- Bilateral meetings with most of the EnC to help them to overcome the first hurdles
- Work started on MURE
- Support from two Ukrainian colleagues from Fraunhofer and University of Geneva with ODYSSEE and MURE
- Target: about 2 measures per sector for the first MURE update

Mesures nationales sur la précarité énergétique principalement ciblées sur la rénovation (MURE)

Centralised information on policy measures **still rare** (especially about outputs and results, on going in MURE)

Targeting = key issue (even more important in recovery plans → risk of increasing inequities)

Type of targeting	Countries (number of measures)
Measures dedicated to tackling energy poverty	6 countries (9 measures) : Belgium (1), France (2), Germany (1), Greece (1), Poland (1), UK (3)
Measures including social criteria (e.g., different grant rates)	5 countries (7 measures) : Belgium (2), France (1), Germany (1), Greece (2), Poland (1)
Measures without specific criterion but ensuring access for all	6 countries (9 measures) : Bulgaria (1), Italy (2), Poland (1), Romania (2) , Spain (1), UK (2)

Full list of the measures in the annex of the paper

Few measures found about **appliances**

Low-cost actions often included in local schemes

MURE – Le programme future (Jusqu'à mi- 2024)

- Finalization of MURE quality control until end of September 2023
- ODYSSEE-MURE Scoreboard 2023 (autumn 2023): based on updated ODYSSEE and MURE databases
- Update of the successful measure facility
- Some further improvements of the MURE guidelines and some adaptations on the MURE database based on the learnings from the first round of MURE update
- Deeper analysis of the energy poverty and sufficiency measures



ODYSSEE-MURE

ODYSSEE-MURE fit-4-55 (2022-2025)

Les nouveaux développements d'ODYSSEE-MURE

Développement et application d'un outil web "Policy Assessment Tool"

Develop and apply an EE Policy Assessment Tool in support of the analyses related to the **NECPs in EU MS** and EnC, as well as a Policy Radar which allows identifying upcoming policy topics and possible solutions in terms of policy measures in an early stage. The Policy Radar is experimental. The aim is to test for opportunities to use new methods such as **web scraping and artificial intelligence** in conjunction with the work on the ODYSSEE-MURE project.

- Create a web-based tool which allows to present the energy efficiency measures for a country in a scenario frame (linked to PRIMES scenarios, both reference and target scenarios)
- Take into account imperfect implementation of measures
- Allow for an analysis of potential gap filling measures by carrying out a ranking of existing/proposed measure in other member status (based on a set of criteria)
- Allow for the evaluation of Directives (notably EED and EPBD, by aggregating the corresponding measures.

Développement et application d'un outil web "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



Actualisation de la facilité Multiple Benefits de l'efficacité énergétique (MB:EE)

The MICATool

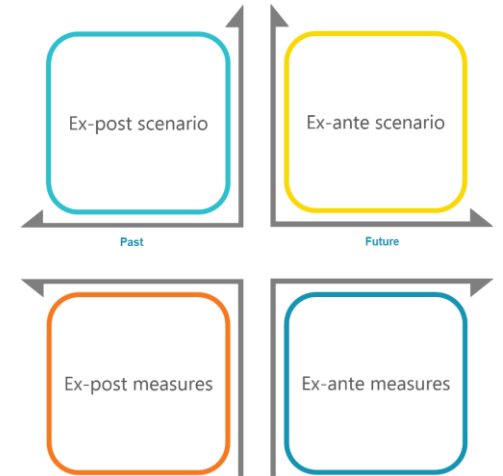
The MICATool aims to enable policy makers, practitioners, scientists, and many more to assess the multiple impacts of all kinds of interventions. Therefore, the tool works along two main axes, ex-post (in the past) and ex-ante (in the future) as well as covering single measures and complete scenarios. 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.



ODYSSEE-MURE

ODYSSEE-MURE fit-4-55 (2022-2025)

Dissemination et renforcement de la présence dans les réseaux sociaux

Didier Bosseboeuf (ADEME)

Les produits de dissémination et de renforcement de notre présence dans les réseaux sociaux

▪ Classical dissemination channels

- Policy briefs (26) and associated webinar (18). Under re-design see below)
- Sectoral profiles (3 updates)
- Newsletters (5)
- Country profiles (3 updates all), 1 for EnC countries
- National reports (15)
- National workshop or webinar (14)

▪ Social media presence

- Improve our training sessions with more interactive discussion, live case studies
- Advertise the project on LinkedIn, twitter, facebook
- A youtube channel with short pedagogical videos

▪ International dissemination

- DGEN, CAEED, EnR, ECEEE, IEA, ...

Les « Policy briefs” et les webinars

- Webinars will be organized with Leonardo Academy/Copper Institute
- Interaction with eceee
- **Idea to construct the webinars around important articles of the new EED from 2023** (=> alignment with partners going on, some topics might be adapted)
- Webinar series could also include external speakers
- Webinars and policy briefs shall be centred around the following EED topic bundles

The role of the Energy Efficiency First Principle (EE1) in the EED

Energy Efficiency Targets: are we on the path?

Exemplary role of public sector

Closing the gap to EED 2030 targets (Art 8-11)

Heating strategy in the EED

Energy poverty in the EED

Sufficiency: The "missing article" in the EED

Liste des policy briefs et webinars

Topic bundle Energy Efficiency Directive (EED)	Topic webinar	Speaker/Partner
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-TalTech
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

Dissemination : sectoral profiles, country profiles, newsletters

Sectoral profiles : Written and published by Enerdata : 3 updates (Enerdata)

- They could be complemented with additional analysis (new indicators (e.g. EVs), sufficiency and poverty topics).
- 3 updates:
 - Q3 2023 with 2020 data
 - Q4 2023 with 2021 data
 - Q4 2024 with 2022 data

Country profiles: Enerdata is in charge of this task (management with NTs, web publication, etc.).

- A **new extended version** of the country profiles has been proposed to NTs containing additional analysis
- For EU27 countries: 2 updates (Q4 2023 and Q4 2024)
- For EnCs: 1 profile in Q4 2024

Newsletters : 5 (2 per year) (Enerdata) distribution list more than 3000 readers)

- *Feb 2023: launch of the project, new data up to 2020, webinars, publications from countries*
- *Sept 2023: new data up to 2021, MURE update, webinars, publications from countries*
- Q1 2024
- Q3 2024
- Q1 2025: end of the project

Dissemination : Rapports nationaux et séminaires

National reports

- Production of 15 national 30-40 pages reports (English or/and national language)
- To report on energy efficiency trends and measures based on the ODYSSEE and MURE databases, with a focus on the latest trends and recent/innovative energy efficiency policies.
- Can be distributed during the national seminar since they are good tools for knowledge sharing at the level of each EU country.
- Down loaded in the ODYSSEE-MURE website
- **15 countries** (Austria, Croatia, Cyprus, Denmark, Estonia, **France**, Germany, Greece, Italy, Lithuania, Poland, Romania, Slovenia, Spain, Sweden) and EnC countries

National seminars

- To analyse energy efficiency indicators and policies in the country,
- To present the project results and to share experience about evaluation practices of energy efficiency policies.
- National teams will invite a wide audience (including specific actors of the country) and build the training content based on the material of regional trainings developed by the technical coordinators. National seminars will be organized in national impact of the training.
- **14 countries** (Bulgaria, Cyprus, Czech Republic, Finland, **France**, Germany, Greece, Italy, Latvia, The Netherlands, Poland, Romania, Slovenia, Sweden).

Le renforcement de notre présence dans les réseaux sociaux

Fraunhofer press departments, eceee (Borg&Co) and with **DENEFF** (participating as subcontractor to Fraunhofer ISI) will prepare a **social media plan** at the beginning of the project. This includes:

- Making frequent use of the appropriate social media channels such as Linked-in, Twitter or others used by Fraunhofer and eceee
- **Making 5 short videos** (2-3min) on project-related issues, e.g. on the project in general on indicators or policy evaluation etc. (with TC, but also with NT or users of ODYSSEE-MURE databases) .
- **Making 10 short didactical videos for tutorial purposes** (5-10min), which explain for example: decomposition methodologies and their use, the EU Energy Efficiency Scoreboard, the Multiple-Benefits of Energy Efficiency approach...
- Presenting in short videos short case studies on countries which are well-positioned in the EU Energy Efficiency Scoreboard

La présence de la méthodologie ODYSSEE-MURE à l'international

- **BIEE-ROSE project** : Monitoring the OSD7 UN objective in 15 Latin southern american countries : (UN-CEPAL-ADEME) (Funding ADEME, AFD) Ended, on going negotiation to transfer the data base managment to UN-CEPAL or OLADE
- **Meetmeedobserver**: Platform to monitor energy efficiency policies in 8 SMECs (Euroclima funding, AFD, ADEME funding) : On going
- **India (BEE)** : Implementaion of a monitoring system of EE in India (ADEME funding) ended, negotiation for phase 2 on data management system
- Several participations with ODYSSEE-MURE news in the frame of the Energy Efficiency Working Group organised by the EnC Secretariat

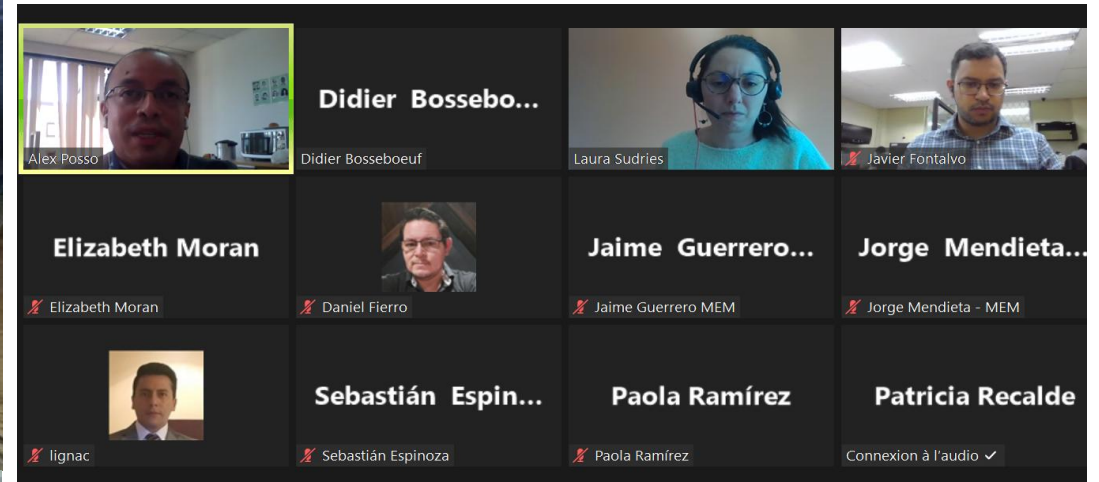
- **EUSEW** : Monitoring and tackling energy poverty at national and EU level (21th June 2023)
- **ECEEE**: dedicated session on ODYSSEE-MURE (June 2022)
- **Danube region transport days 2022**: How to monitor EE in transport sector

- **EPATEE**: presentation and mutual link on the respective web sites
- **MICAT** : Multi-benefit of EE Uses of the 2 data bases in MICAT project
- **REFERRE**: Participation to steering comittee and the final reporting (19th September)
- **ENSMOV** : Article 7 identification of P&Ms through MURE
- **COOL-LIFE** : policies for efficient Air conditioning Identification of Policies through MURE
- **EU-MORE** : Electric motors identification of measures through MURE

- **D6.2** – National dissemination : (**Not relevant at this stage**)

La dissemination internationale d'ODYSSEE-MURE (exemples)

- India (ADEME-BEE cooperation), ended March 2023
- In 8 SMECs (Medener and RCREEE through EC funding) : training in Jordan, COP 27, UFM (Barcelona), energy efficiency week (Morocco); Template
- In 15 LAC's with UN-CEPAL with AFD funding (regional meeting (Panama, December 2022, Mexico March 2023)



La dissemination internationale de la méthodologie ODYSSEE

L'exemple d el'Algérie (APRUE)

Algeria / Algérie

Données économiques
Economic data

Consommation finale par branche
Final consumption by branch

Contrôle des données
Data control

Principaux indicateurs
Main indicators

Graphiques
Graphs

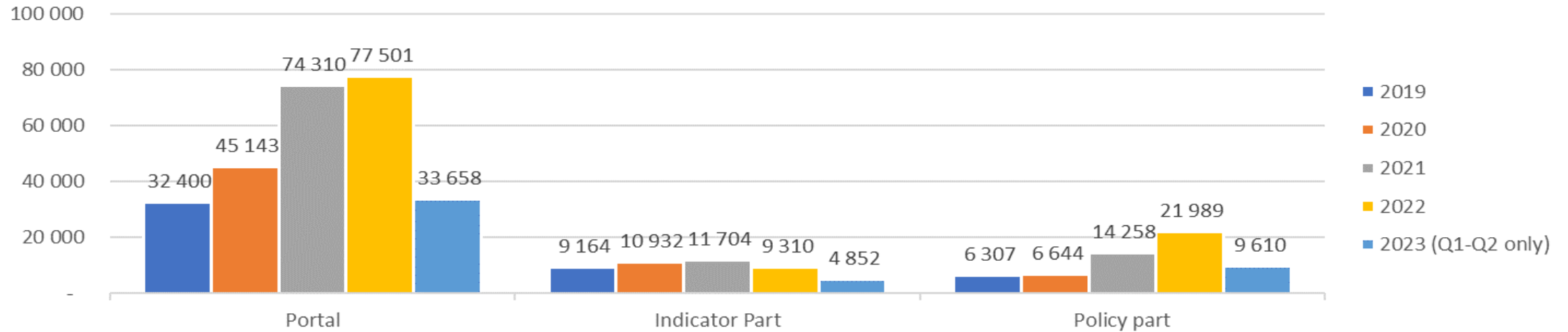
Code	Titre	Title	Pays/Country	Unité/Unit	2000	2001	2002	2003
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1. Données / 1. Data

1.1. Données économiques / 1.1. Economic data

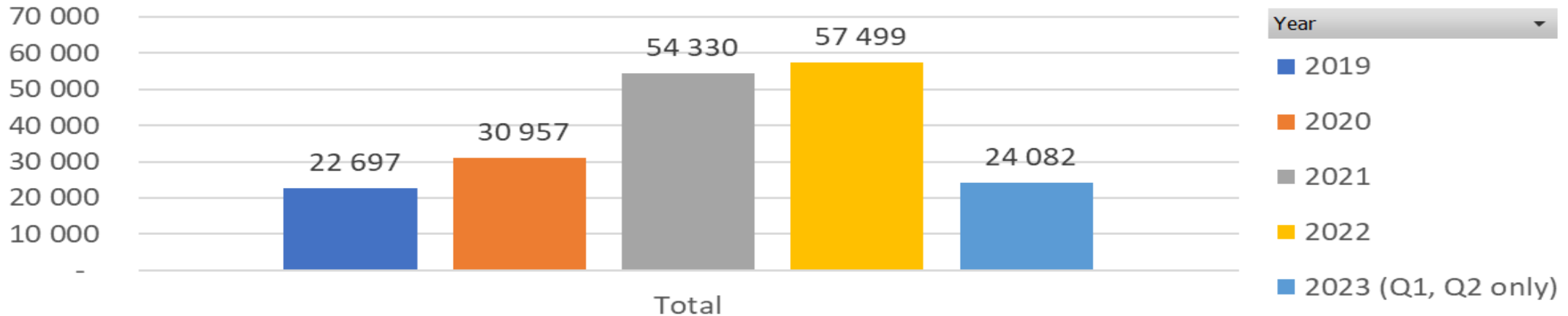
Valeurs ajoutées à prix courant		Value added at current prices						
Industrie manufacturière		Manufacturing industry						
VA des industries agro-alimentaires (ISIC 10-12)	VA of the agri-food industries (ISIC 10-12)	✓	dza	MDA	104 612	108 898	115 114	118 386
VA du textile, cuir (ISIC 13-15)	VA of the textile, leather industry (ISIC 13-15)	✓	dza	MDA	12 547	14 292	14 793	15 617
VA de l'industrie du bois (ISIC 16)	VA of the wood industry (ISIC 16)	✓	dza	MDA	3 074	3 374	4 000	4 136
VA de la branche papier, impression (ISIC 17-18)	VA of the paper and printing industry (ISIC 17-18)	✓	dza	MDA	7 173	7 872	9 334	9 650
VA du raffinage de pétrole (ISIC 19)	VA of oil refining (ISIC 19)	✓	dza	MDA	1 659 220	1 482 316	1 517 032	1 913 090
VA de la chimie et pétrole (ISIC 20-21)	VA of chemicals and petroli...	✓	dza	MDA	22 816	18 608	22 524	22 604

Nombre de visites

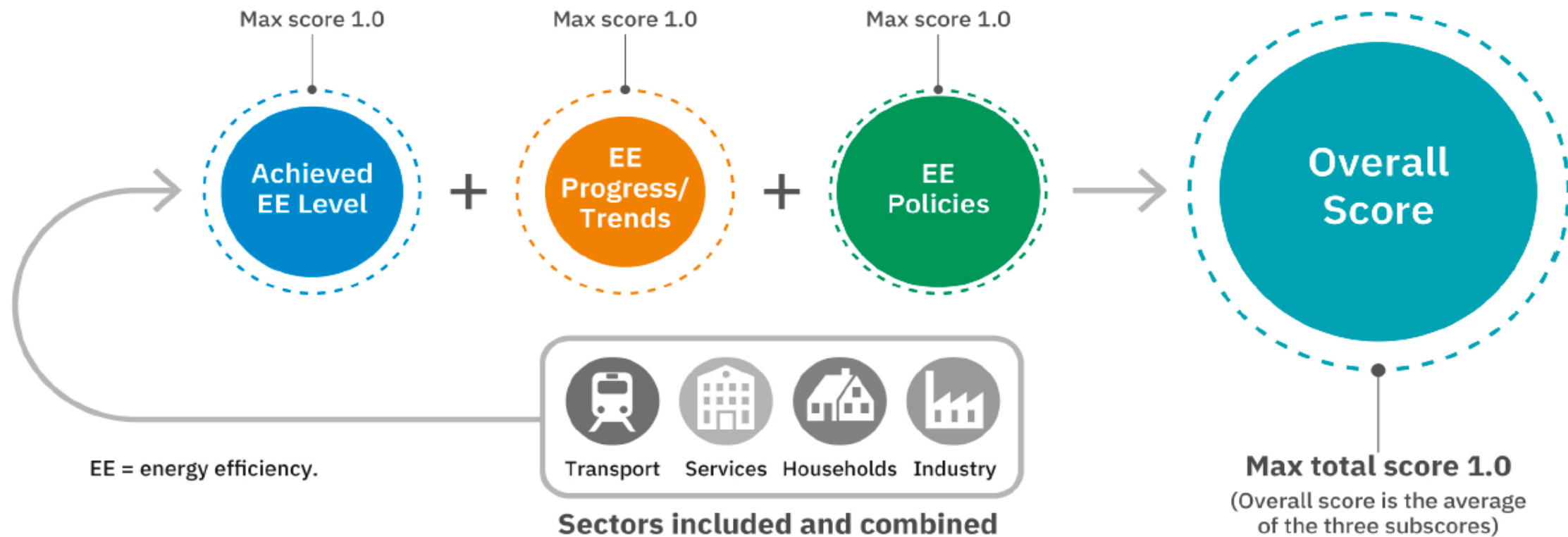


Number of users

ODYSSEE



How does the ODYSSEE-MURE scoring method work?





Score global

Les champions de l'efficacité énergétique en Europe ! Le scoreboard ODYSSEE-MURE La France en tête des grands pays européens



Allemagne: place 9

➔ Niveau – tous les secteurs

➔ Tendance – tous les secteurs

➔ Politique – tous les secteurs

Rang	Pays	Score
1	Lituanie	1.00
2	Espagne	0.85
3	Danmark	0.83
4	Irlande	0.81
5	Lettonie	0.77

Rang	Pays	Score
1	Grèce	1.00
2	Luxembourg	0.96
3	Roumanie	0.92
4	Croatie	0.81
5	Pays Bas	0.72

Rang	Pays	Score
1	Estonie	1.00
2	France	0.87
3	Irlande	0.81
4	Allemagne	0.68
5	Roumanie	0.68



Merci pour votre attention

Pour plus d'information

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