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WEBINAR October 09th 2024

***Energy Efficiency Indicators of Heating and
Cooling Sector***

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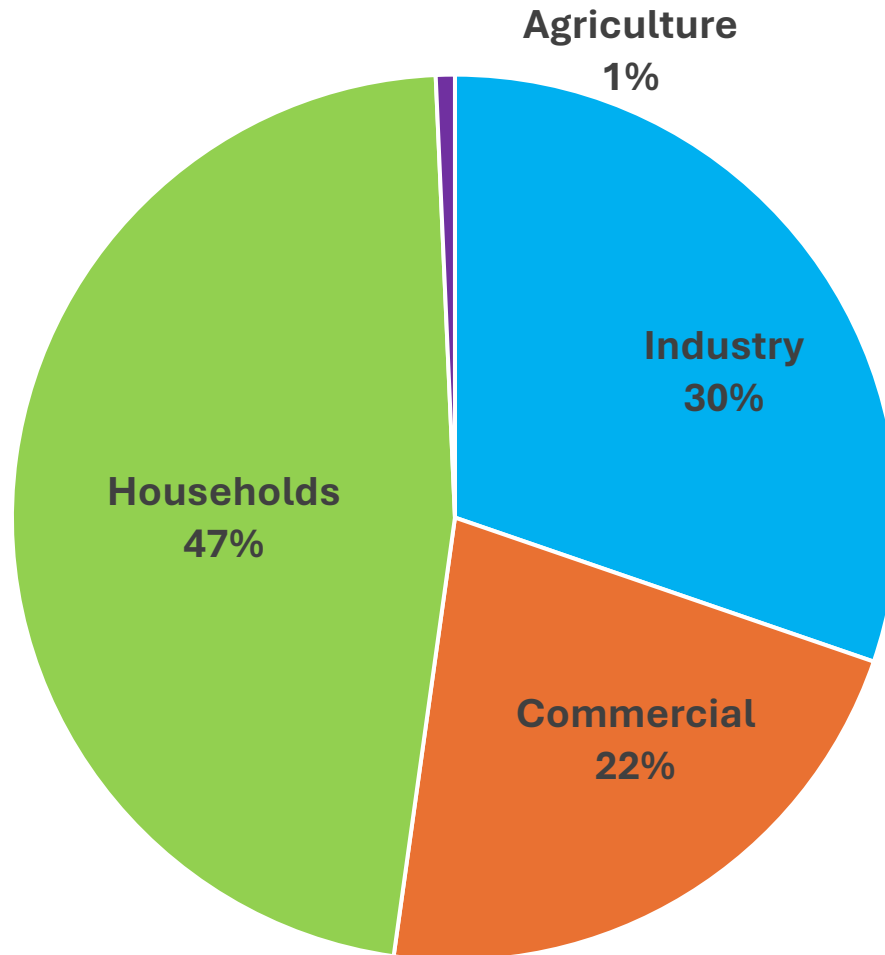


Content of the presentation

- Heat consumption trends by end-use sectors.
- Trends of the heat consumption main indicators
 - heat consumption per capita
 - heat consumption per GDP
 - households sector heat consumption per m²
- Main drivers of household energy consumption at EU level



Heat consumption by end-use sectors in EU27



In 2022, the most heat in EU27 is consumed in households 47%, followed by industry (30%) and the business and public sector (22%). Heat consumption in the agricultural sector is marginal (ca. 1%).

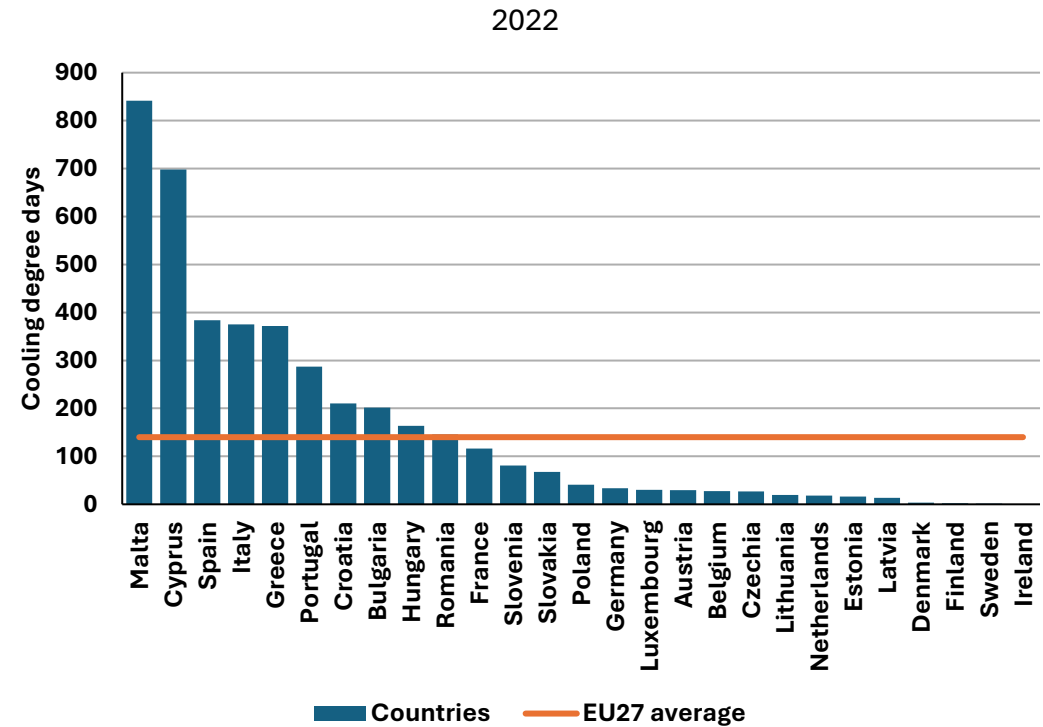
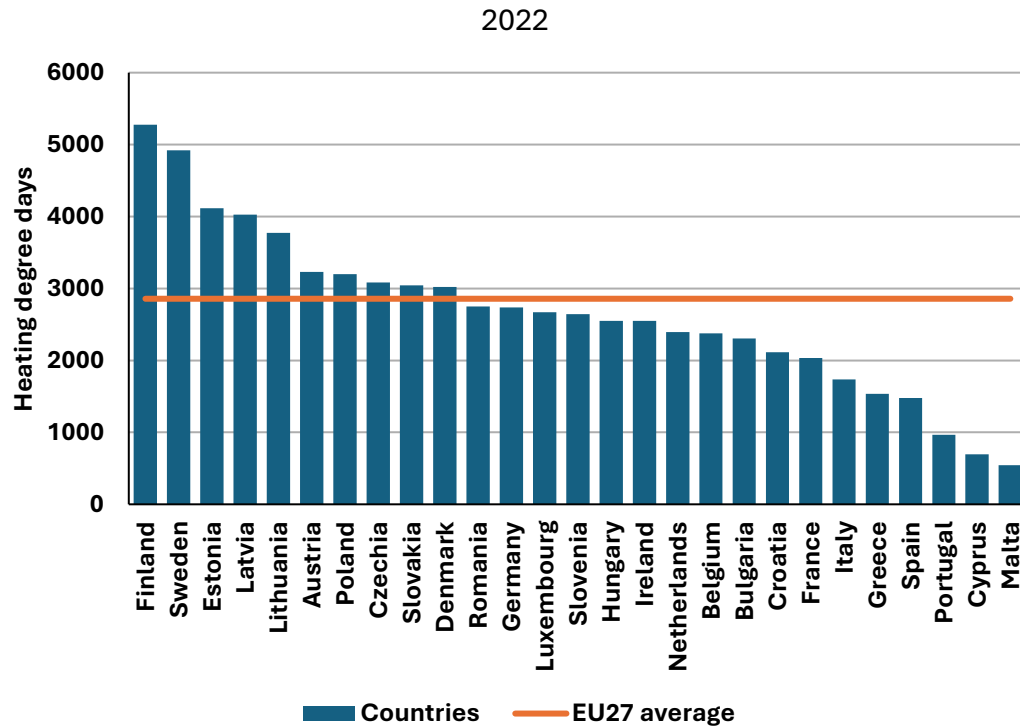
Source: Eurostat



Heating and cooling degree days

Malta, Cyprus and Portugal have the lowest number of heating degree days. The number of **heating** degree days is **highest in Finland, Sweden, Estonia and Latvia**.

Malta, Cyprus, Spain and Italy have the most **cooling degree days** and the least in Ireland, Sweden, Finland and Denmark. (Source: Eurostat)

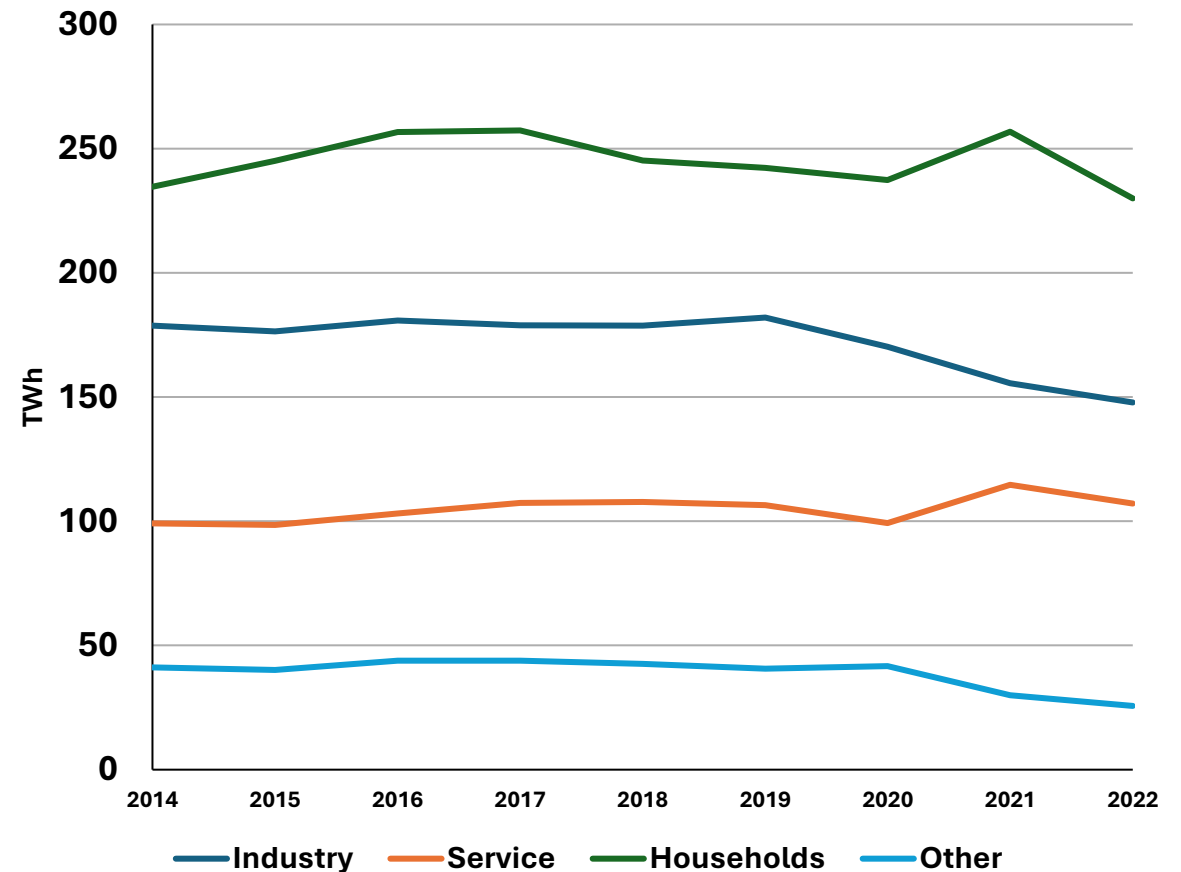




Heat consumption trends in EU level

- The total final consumption of heat in the European Union has been fairly stable in the last nine years.
- Difference in consumption by sectors:
 - in industry ↓ 22 %
 - in households ↑ 2 %
 - in the business and service sector ↑ 8 %
- Heat consumption in households has been fairly stable :
 - 2/3 for space heating
 - 1/3 for domestic hot water.

Source: Odyssee database





Households heat consumption trends per capita

The average heat consumption of EU27 countries in the household sector was in 2014, **0.530** and in 2022, **0.515** MWh per capita.

If the EU average indicator has decreased by only 2.8 % .

The consumption of heat in the household sector has decreased:

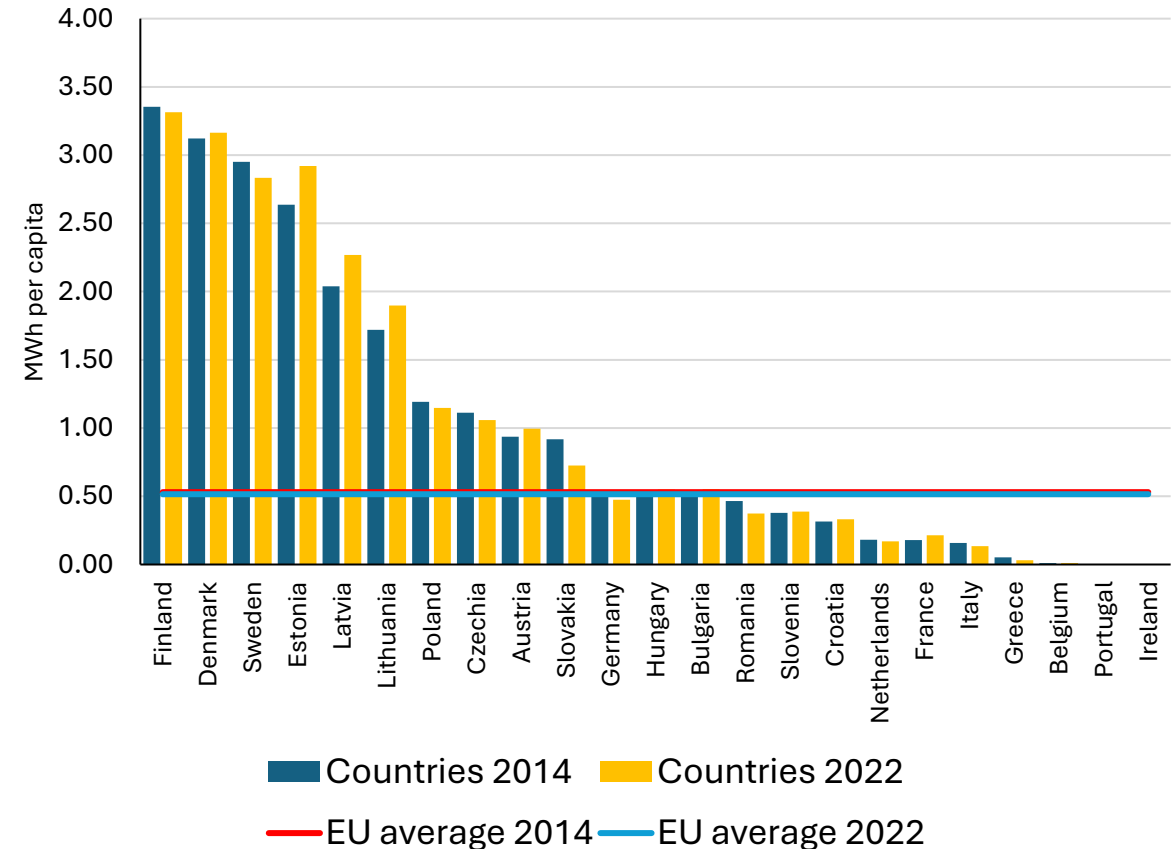
- in Greece ↓ 42%;
- in Portugal ↓ 34%;
- in Slovakia ↓ 21%
- in Italy ↓ 14%

The consumption of heat in the household sector has increased:

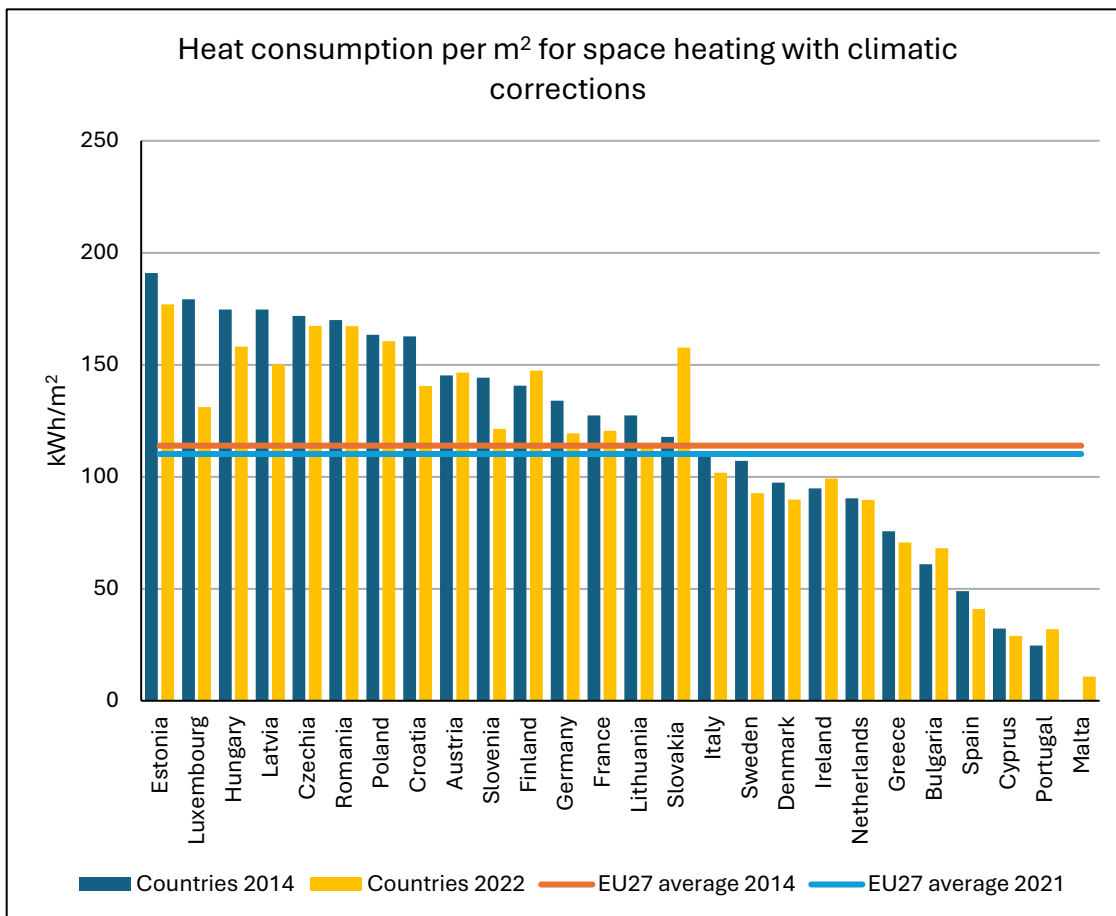
- in France ↑ 19%
- in Belgium ↑ 17%
- in Estonia and in Latvia ↑ 11%
- in Lithuania ↑ 10 %.

Source: Odyssee database

Households heat consumption per capita



Heat consumption per m² for space heating



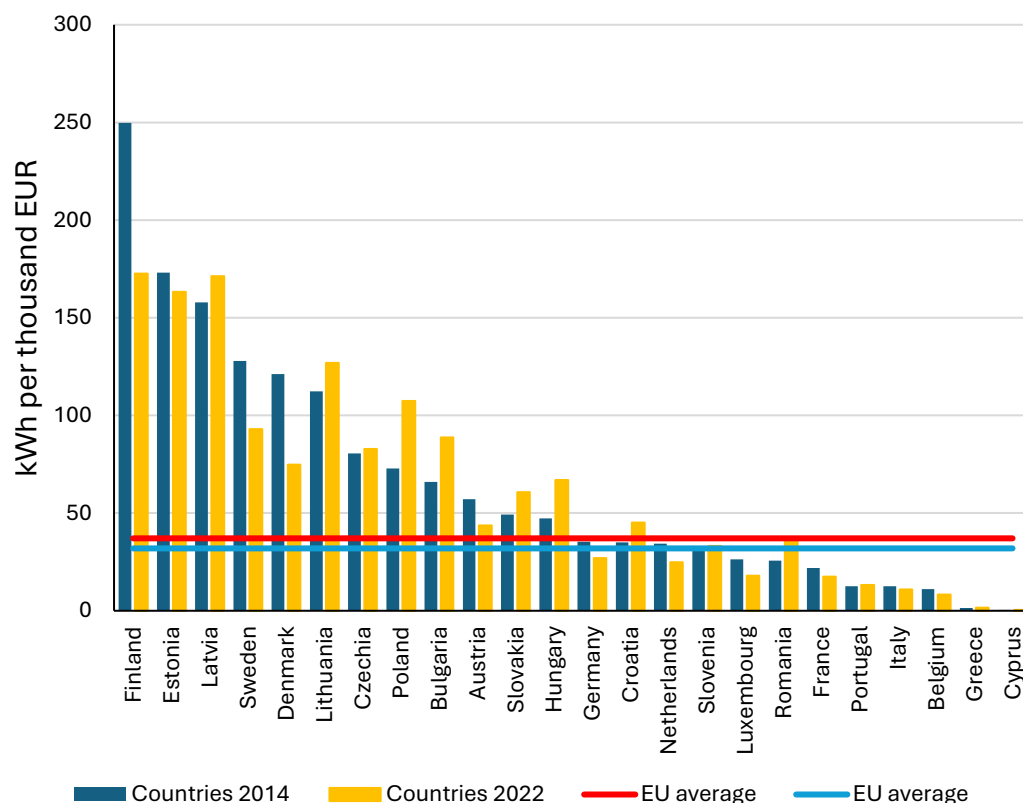
The EU27 average heat consumption per m² in the household sector was **110.2 kWh/m²** in 2022. Compared to 2014 (**113.9 kWh/m²**), this indicator has decreased by **3.3 %**.

The unit consumption of heat has decreased in the period 2014-2021 in almost all member states except for **Slovakia, Portugal** and **Bulgaria**.

Source: Eurostat

Consumption of heat per unit of GDP

Final consumption of heat per GDP (%P)

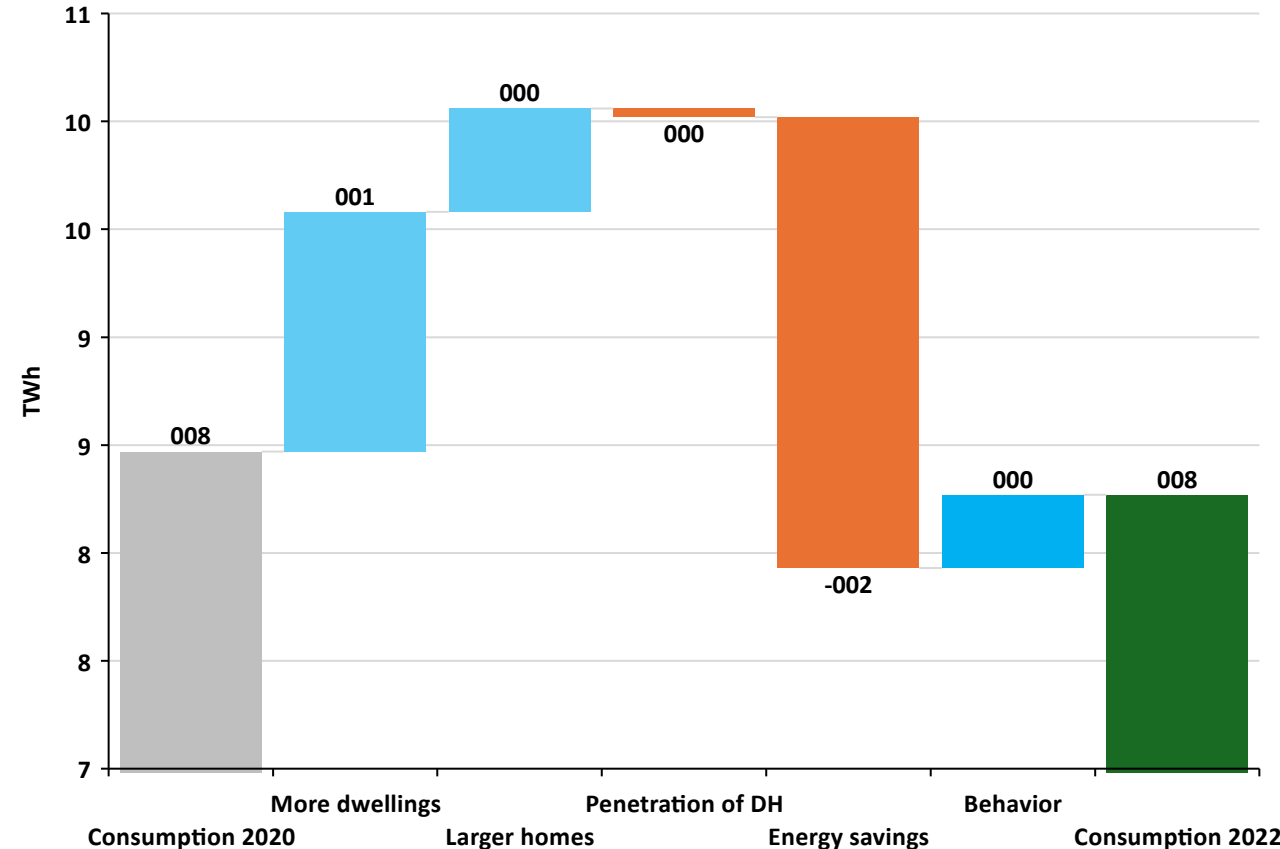


- Heat consumption per unit of GDP (using purchasing power standards) in the EU in 2022 was **31.9 kWh** per 1 000 euro. Compared to 2014, when the EU average indicator was **37.1 kWh** per 1 000 euro, this indicator has decreased by approx. **14 %** by 2022.
- The EU Member States with the lowest heat consumption per unit of GDP in 2022 were **Cyprus, Greece, Belgium** and **Italy**. The highest rates of heat in **Finland, Estonia, Latvia** and **Sweden**. consumption per unit of GDP were registered
- In the period 2014-2022, this indicator has increased the most in **Poland** (47 %), **Hungary** (42 %), **Romania** (41 %), and **Bulgaria** (38 %), while it has decreased in **Denmark** (38 %), Finland (32%), the **Netherlands** (28 %), **Sweden** (27 %) and in **Belgium** (25 %).

Source: Eurostat

Main drivers of household energy consumption at EU level

- Between 2020 and 2022, the household sector heat consumption for space heating has decreased by 0.2 TWh, which is approximately 2.4%.
- The growth of the housing stock, larger living spaces in both apartments and individual houses, and changing consumption patterns have contributed to the increase in heat consumption by approximately 1.15 TWh.
- Energy savings and the increase in the share of district heating in residential heating this increase, reducing consumption by 2.13 TWh.



Source: *Odyssee database*



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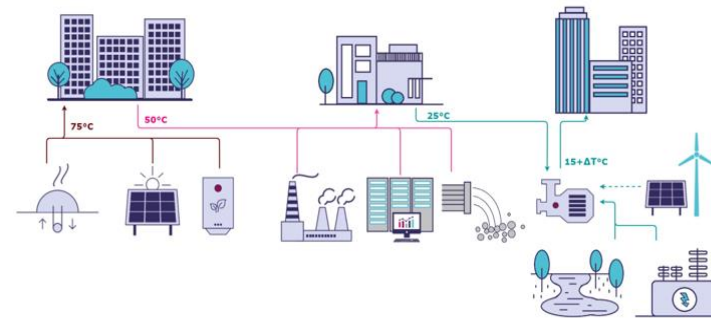
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Energy Efficiency Indicators of Heating and Cooling Sector

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