

Indicatori de eficiență energetică pentru ROMANIA

baza de date ODYSSEE



Proiectul Odyssee Mure se bazează pe două baze de date pe internet, complementare și bine stabilite.



Baze de date

ODYSSEE

<http://www.odyssee-indicators.org/>

Indicatori de
eficiența energetică și CO_2
Date necesare pentru
calcularea acestora

MURE

<http://www.isisrome.com/mure/index.htm>

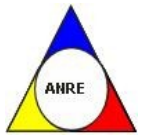
Măsurile de creștere a eficienței
energetice și evaluarea impactului
implementării acestora

- Elaborarea de politici și strategii în domeniul eficienței energetice
- Evaluarea realizării obiectivelor strategiilor și programelor în domeniu, la nivel național și european
- Elaborarea prognozelor privind cererea de energie
- Planificarea acțiunilor, inclusiv a programelor de CD



Clasificarea indicatorilor ODYSSEE: ~180 indicatori împărțiți în 9 tipuri diferite

TIP	NIVEL
• Intensități energetice	pe sector și sub sector
• Intensități ajustate	final și pe industrie
• Consum specific de energie	pe sub sector și utilizator final
Țintele consumului specific de energie	oțel, ciment, hârtie, încălzire
• Indicii eficienței energetice (ODEX)	final și pe sector
• Energia economisită	final, pe sector și sub sector
• Indicatori de difuzie	pe sector
• Intensități CO ₂	pe sector și sub sector
• Emisii specifice de CO ₂	pe sub sector și utilizator final



Categorii de indicatori în baza de date ODYSSEE

- **Macroindicatori** definiți la nivel macroeconomic
- **Indicatori la nivel de sector:** industrie, transporturi, rezidențial, servicii, agricultură
- **Indicatori la nivel de subsector**
(proces industrial, mod de transport, utilizare energetică finală)



Indicatori pentru realizarea de comparații inter-țări privind eficiența energetică

Indicatori de ajustare-pentru cuantificarea diferențelor între țări:

- diferențe de preț (pentru intensități)
- diferențe structurale (la nivel de economie/industrie)
- diferențe climatice

Indicatori de benchmarking sau indicatori țintă:

- indică potențialul de creștere a eficienței energetice pe o perioadă de timp



Categorii de indicatori în baza de date ODYSSEE

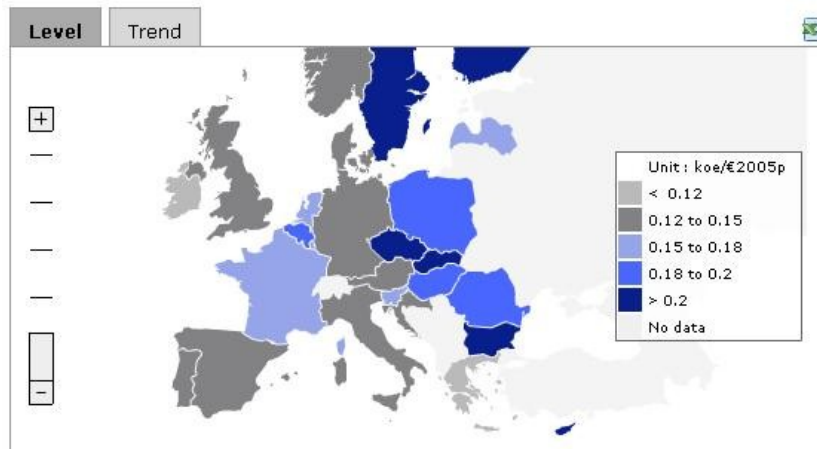
- **Indicatori de monitorizare** a evoluției eficienței energetice și a emisiilor de CO_2
- **Indicatori pentru compararea** performanțelor de eficiență energetică obținute la nivel național cu cele înregistrate în alte țări UE
- **Indicatori de difuzie** pentru evaluarea penetrării tehnologiilor și practicilor eficiente energetic



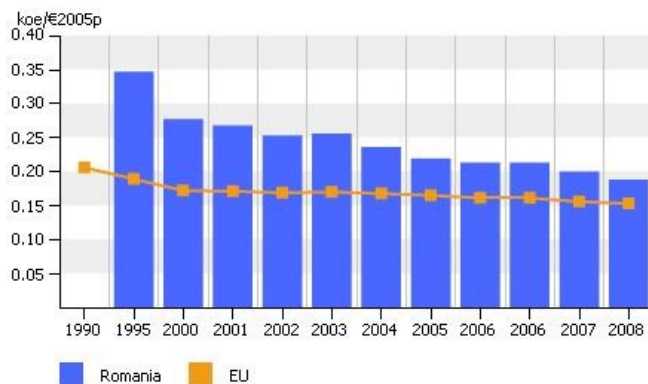
Nivel Macro

Total energy consumption per unit of GDP (at ppp)

Year : 2008

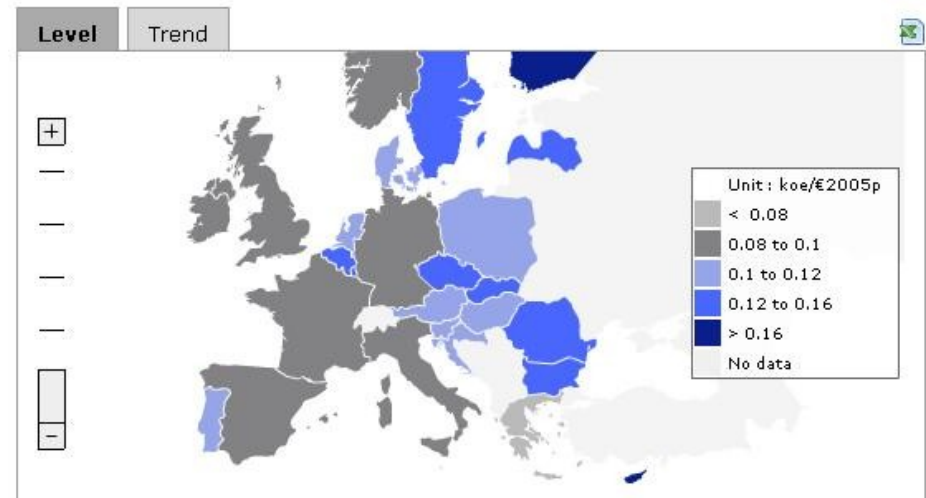


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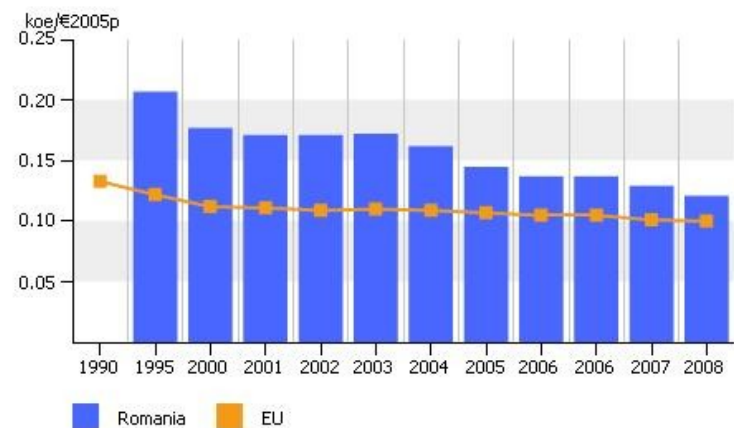


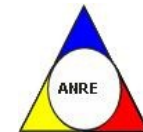
Final energy consumption per unit of GDP (at ppp)

Year : 2008



Romania





Indicatori de eficiență energetică în INDUSTRIE

Sursa date: INS, Eurostat,,
Institute de Cercetare, ANRE

Metodologii de calcul
ODYSSEE

Date de consum
energetic/CO2

Date tehnico-
economice

Indicatori de
eficienta energetica

- consumul de energie finală *total, pe forme de energie*
- emisiile de CO2
- 18 ramuri industriale
+ produse energointensive

- Valoarea adăugată și indici de producție pe sectoare
- Producția de produse energointensive: ciment, clinker, oțel, sticlă

- intensitatea energiei
- intensitatea energiei electrice
- intensitatea CO2
- consumul unitar de energie



Indicatori de monitorizare a eficienței energetice/CO₂

➤ Intensitățile energetice/CO₂:

$$\frac{\text{consumul de energie } [J, tep] \text{ sau emisii } CO_2 [kg]}{\text{activitate (PIB, VA) [Euro, Euro2000]}}$$

➤ Consumurile energetice unitare, emisii unitare de CO₂:

$$\frac{\text{consumul de energie sau emisii } CO_2}{\text{activitate in unitati fizice}} [l / 100km], [tep / t], [kWh / frigider]$$

➤ Indecși ai evoluției eficienței energetice (ODEX) [%]

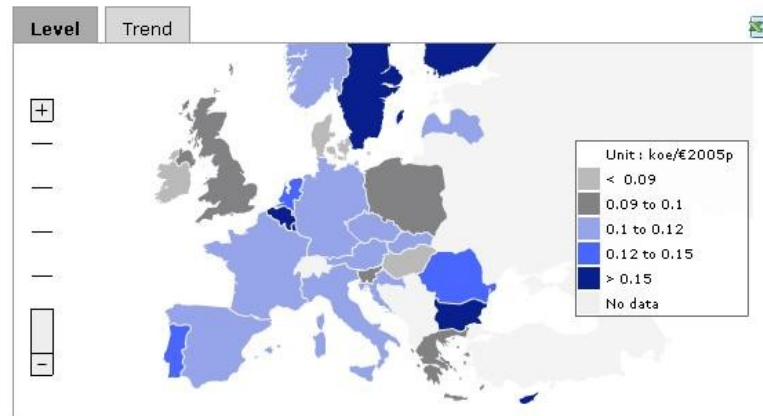
➤ Economii de energie/CO₂ [Mtep], [Mt]



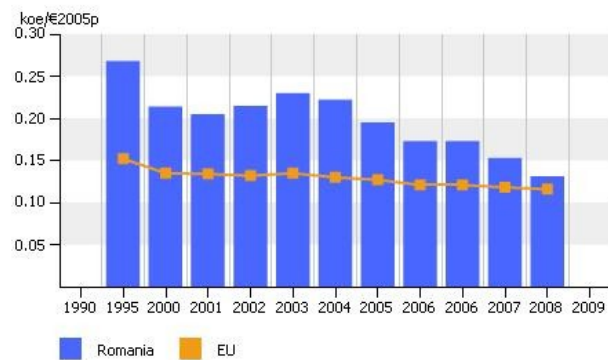
Industrie

Consumption of industry per unit of value added (at ppp)

Year : 2008

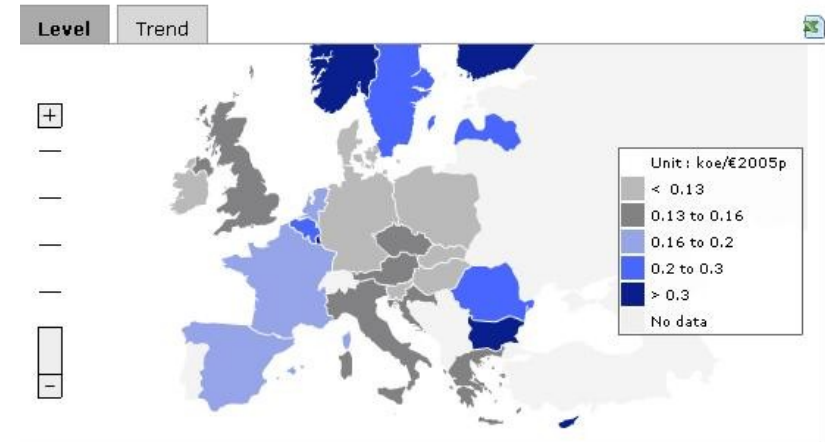


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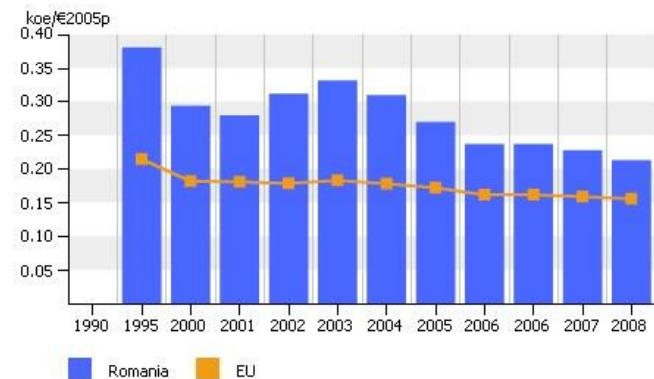


Consumption of manufacturing per unit of value added (at ppp)

Year : 2008



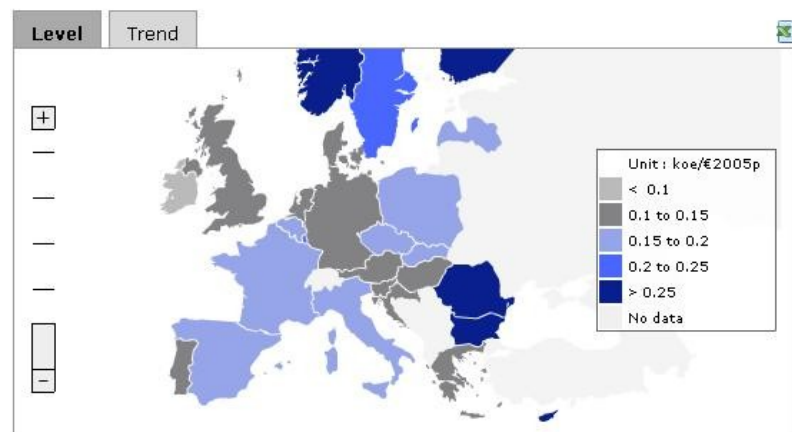
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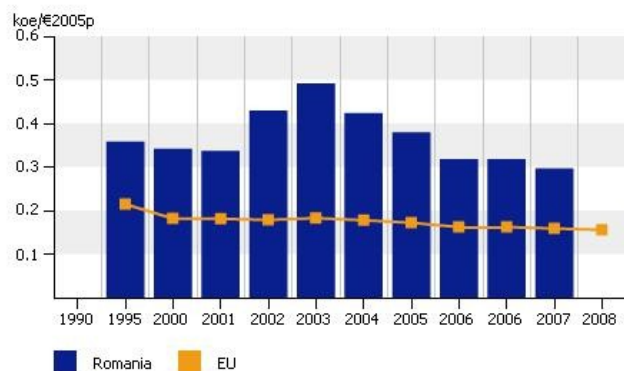


Consumption of manufacturing per unit of value added at EU structure (at ppp)

Year : 2008

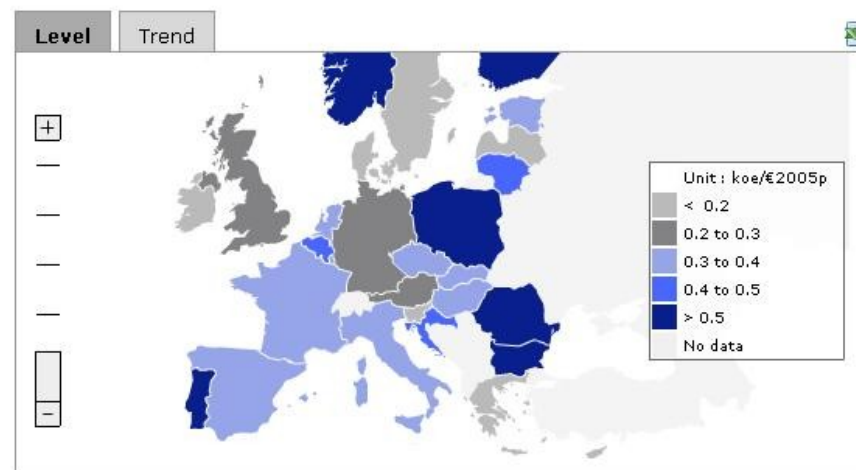


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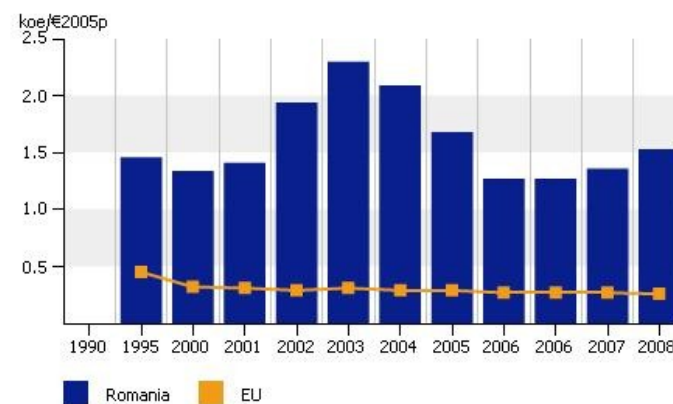


Energy consumption of chemicals per unit of value added (at ppp)

Year : 2008



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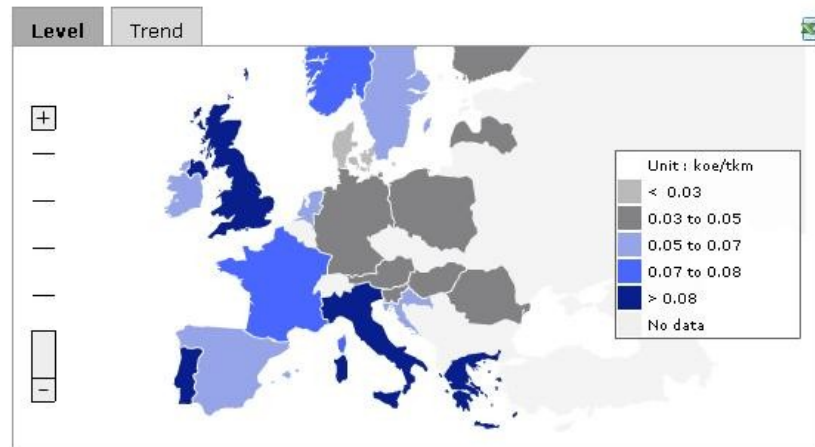




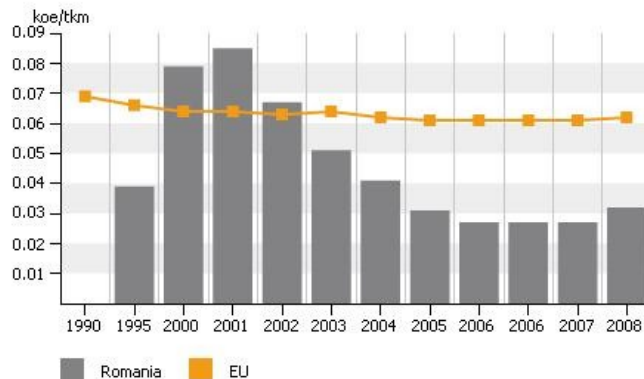
Transport

Consumption of road transport of goods per tonne-km

Year : 2008

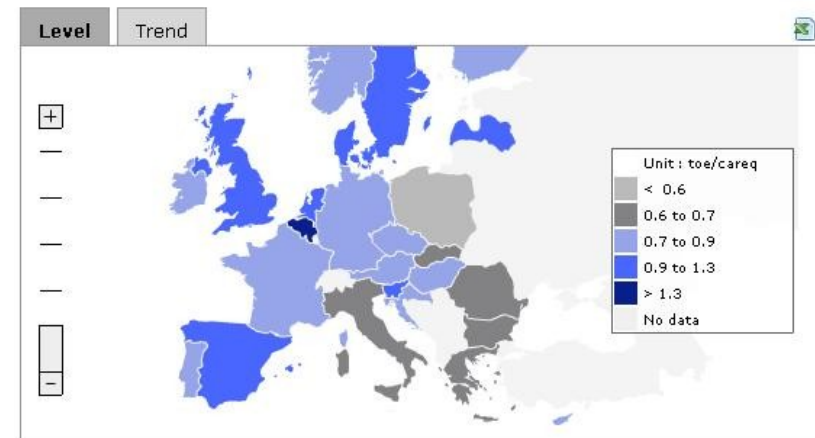


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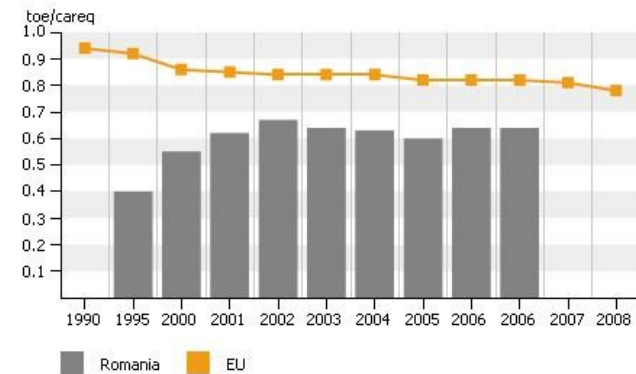


Energy consumption of road transport per equivalent car

Year : 2008



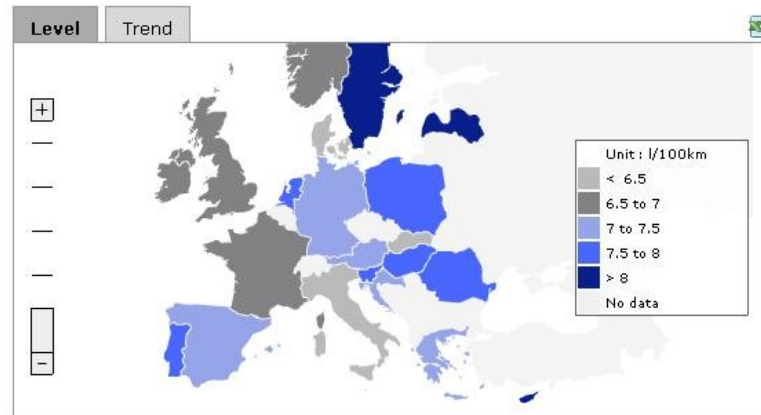
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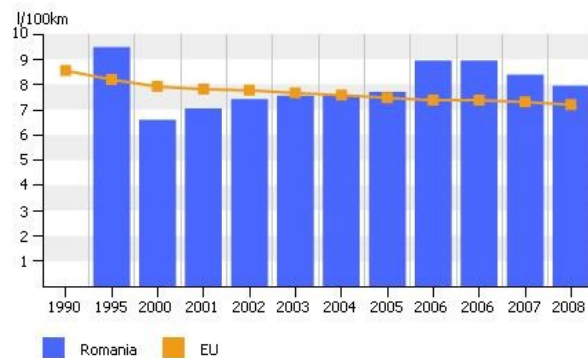


Specific consumption of cars

Year : 2008

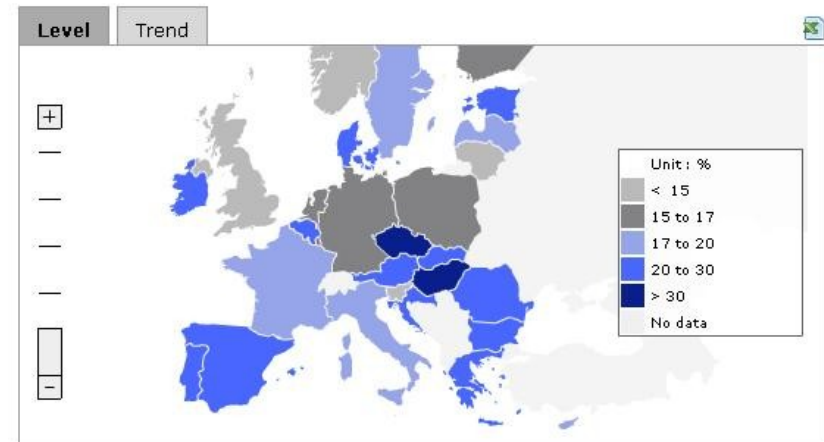


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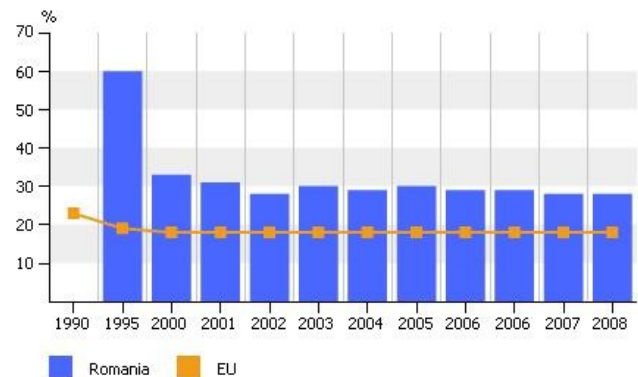


Share of public transport in total land passenger transport

Year : 2008



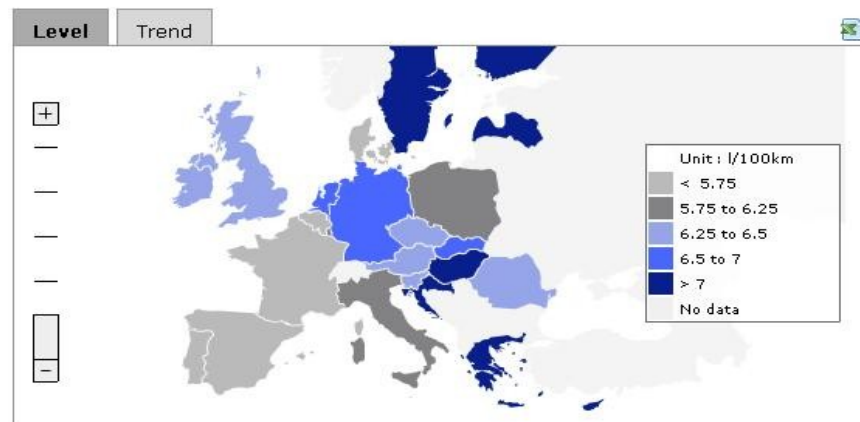
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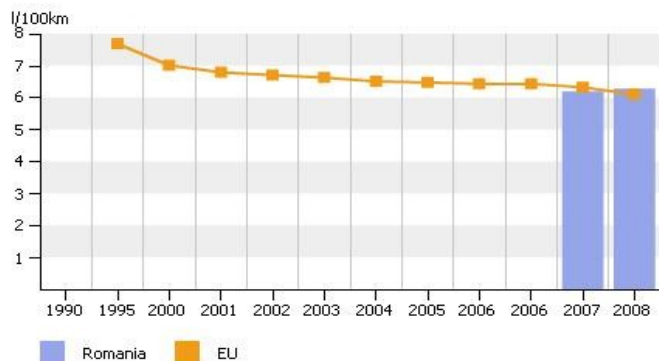


Specific consumption of new cars (test)

Year : 2008

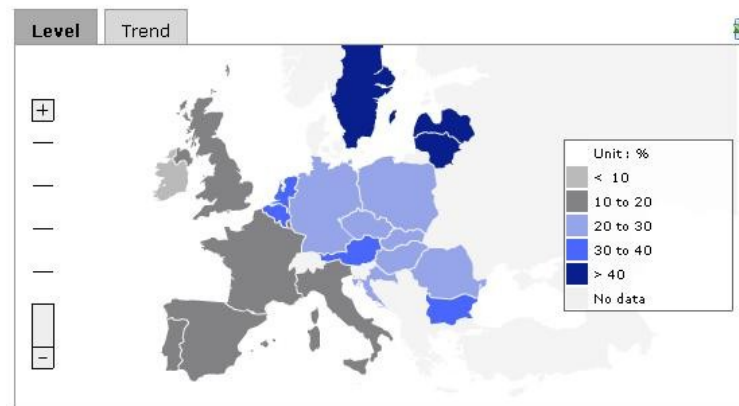


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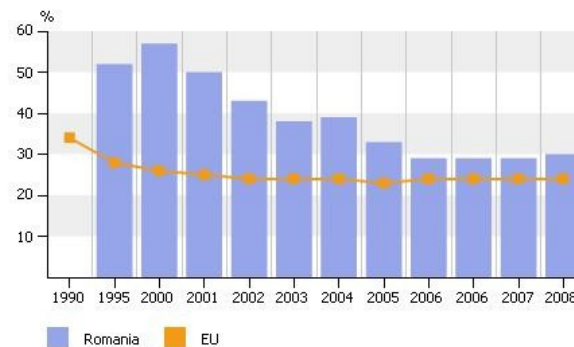


Share of rail and inland waterways freight transport in total freight transport

Year : 2008



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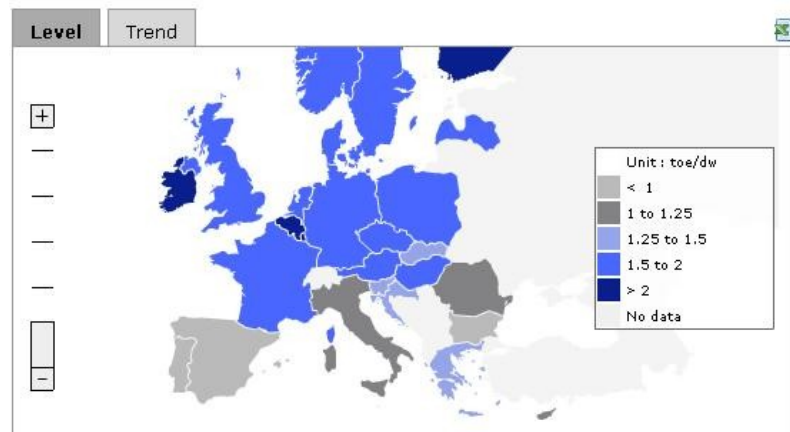




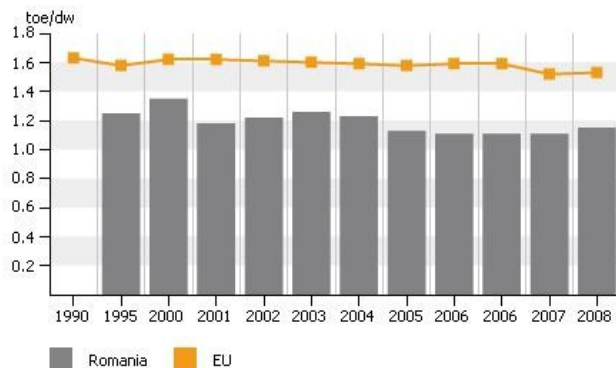
Sectorul casnic

Consumption per dwelling

Year : 2008

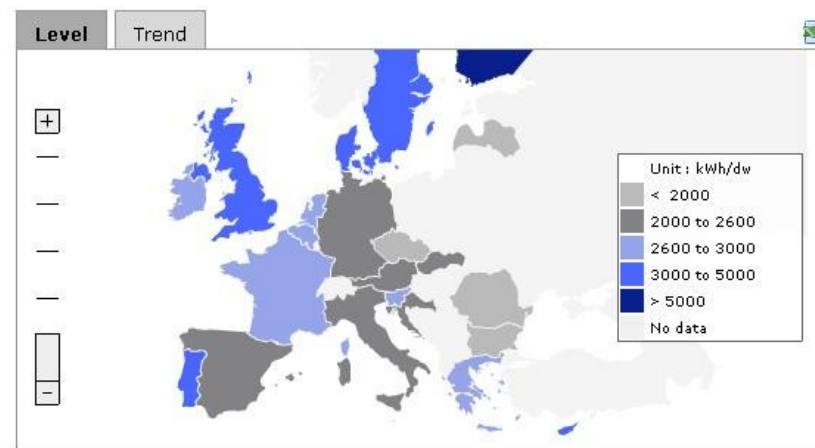


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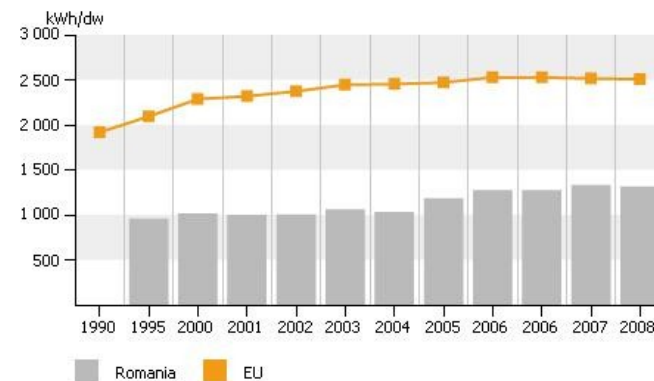


Consumption per dwelling for lighting & electrical appliances

Year : 2008



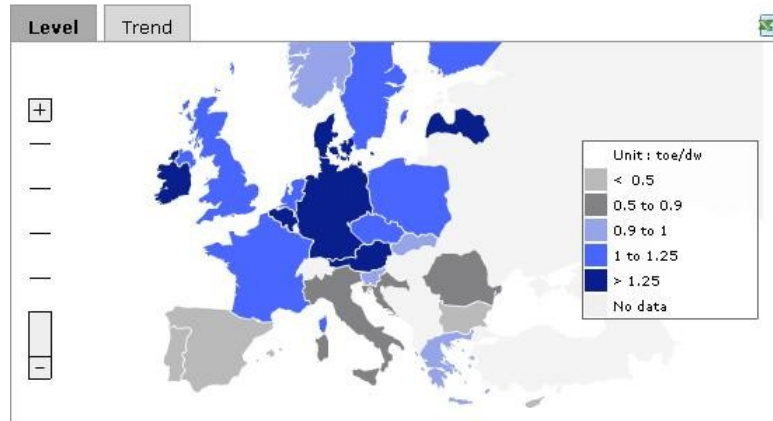
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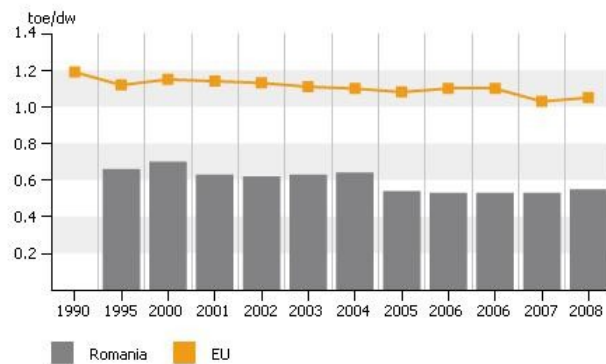


Consumption per dwelling for space heating

Year : 2008

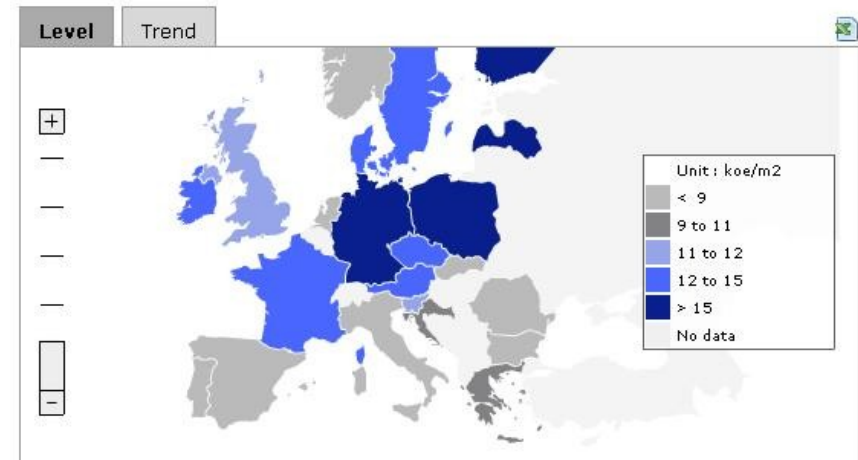


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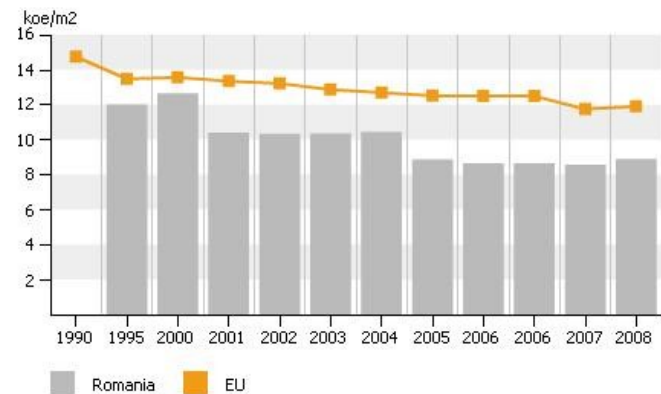


Consumption of household per m² for space heating

Year : 2008



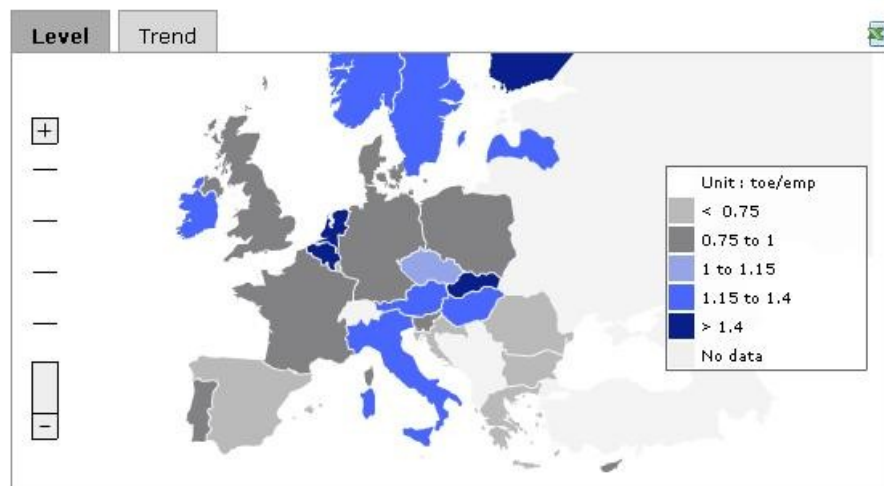
Romania



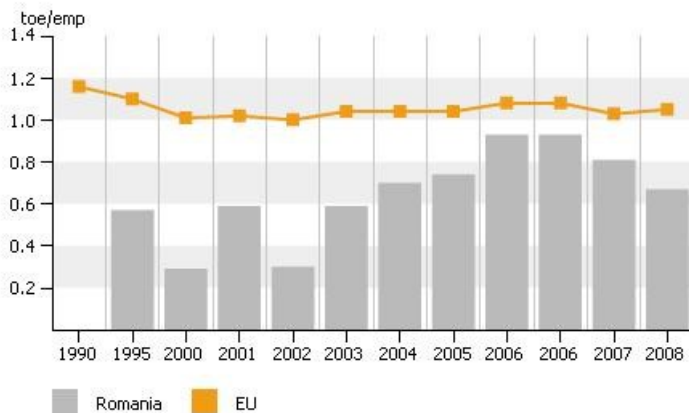


Consumption of services sector per employee

Year : 2008

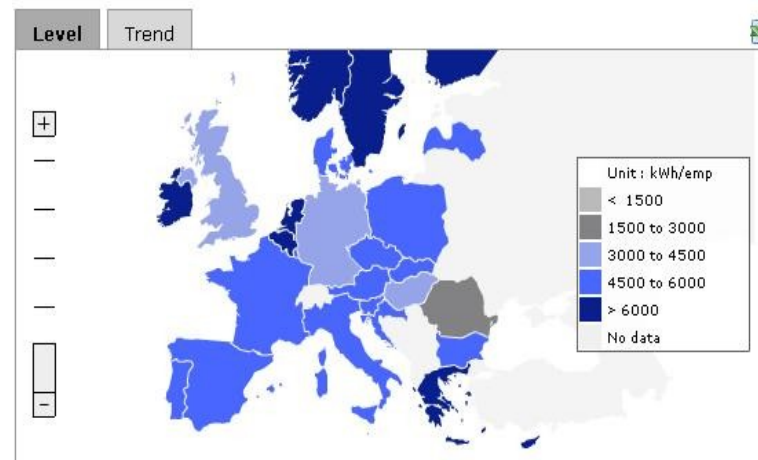


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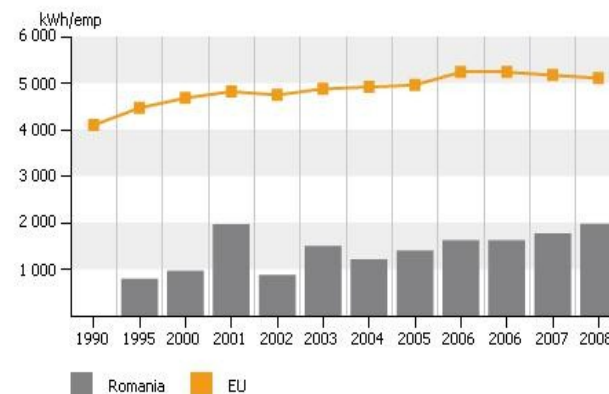


Electricity consumption of services sector per employee

Year : 2008

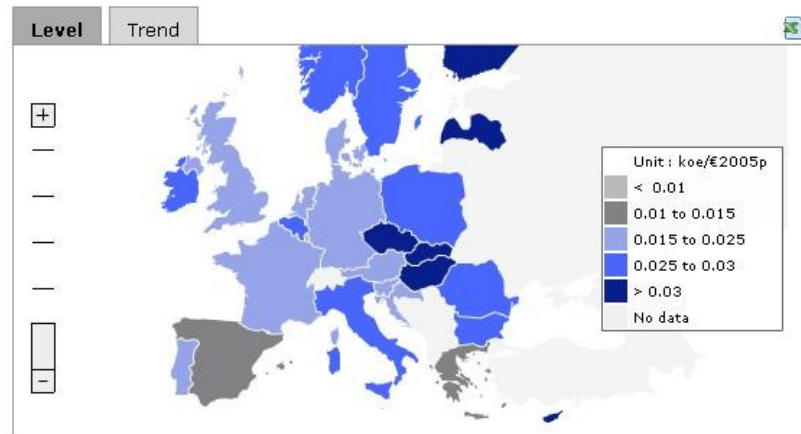


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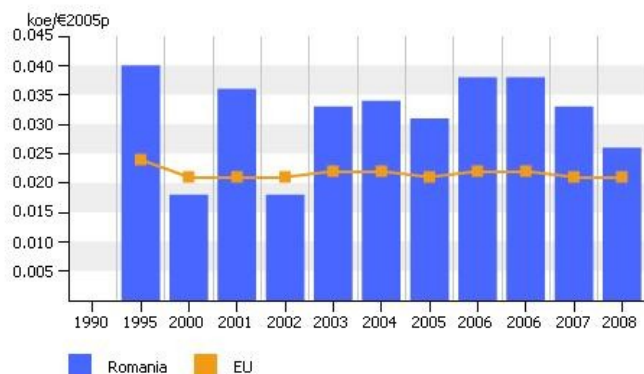


Consumption of services per unit of value added

Year : 2008

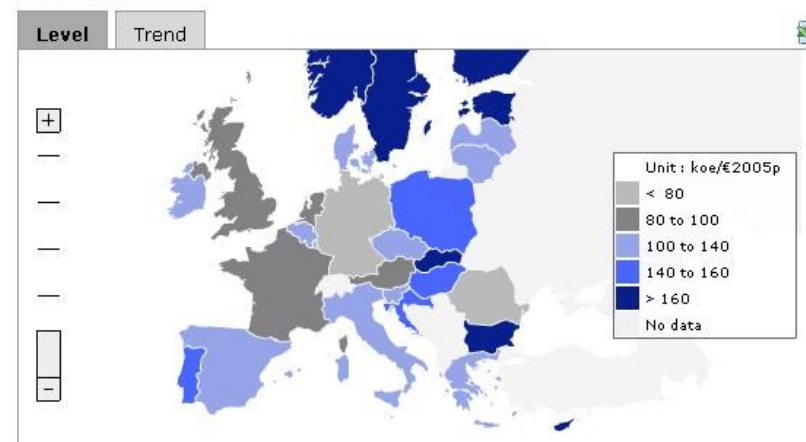


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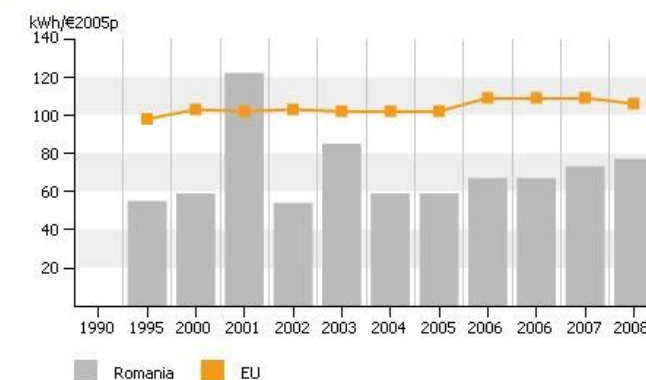


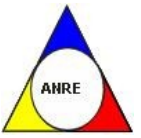
Electricity consumption of services per unit of value added

Year : 2008



Romania





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www.anre.ro

