

Regional Energy Outlook

EUROPE

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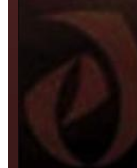
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ETH sustainability

Eidgenössische Technische Hochschule Zürich
Swiss Federal Institute of Technology Zurich



ACADEMIA ENGELBERG

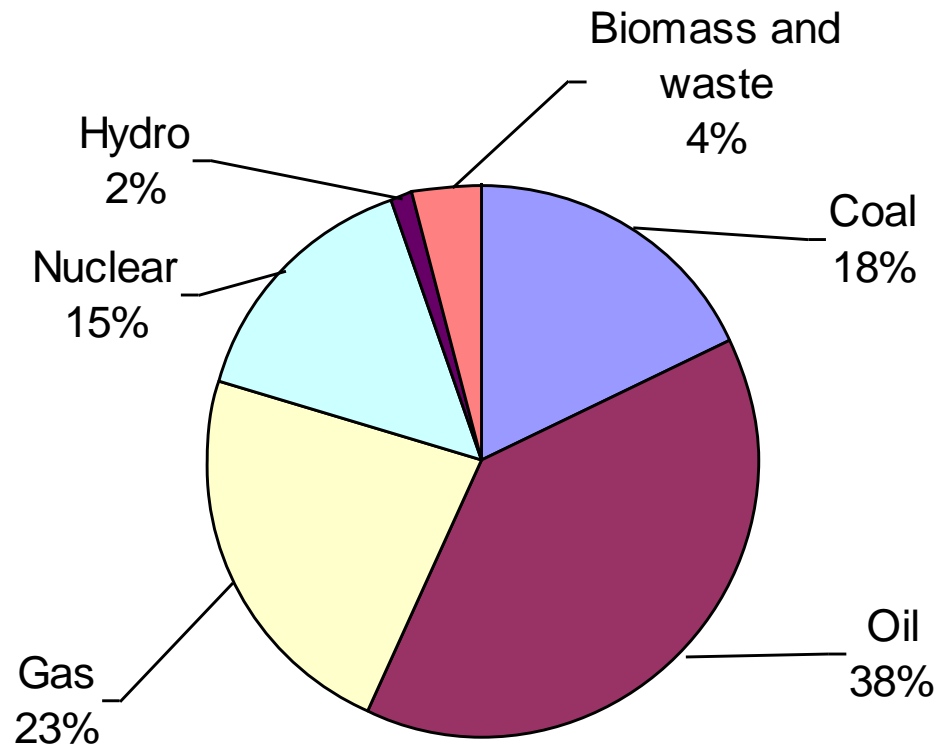


- Energy development in Europe
- The need of sustainable energy development
- Importance of sustainable (energy) consumption

Current Situation



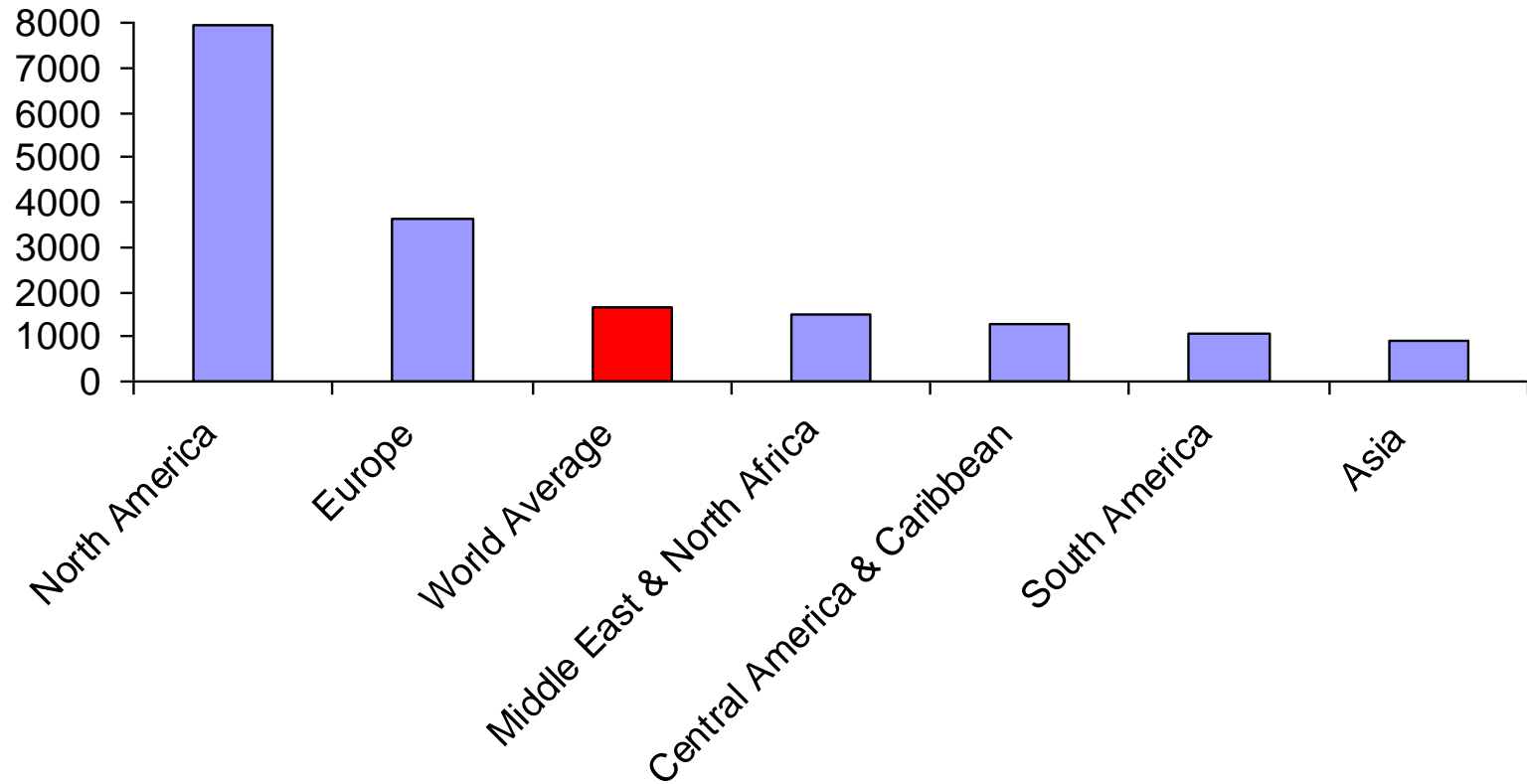
Primary energy demand EU



Current Situation



Energy Demand per Capita per year [kgoe]

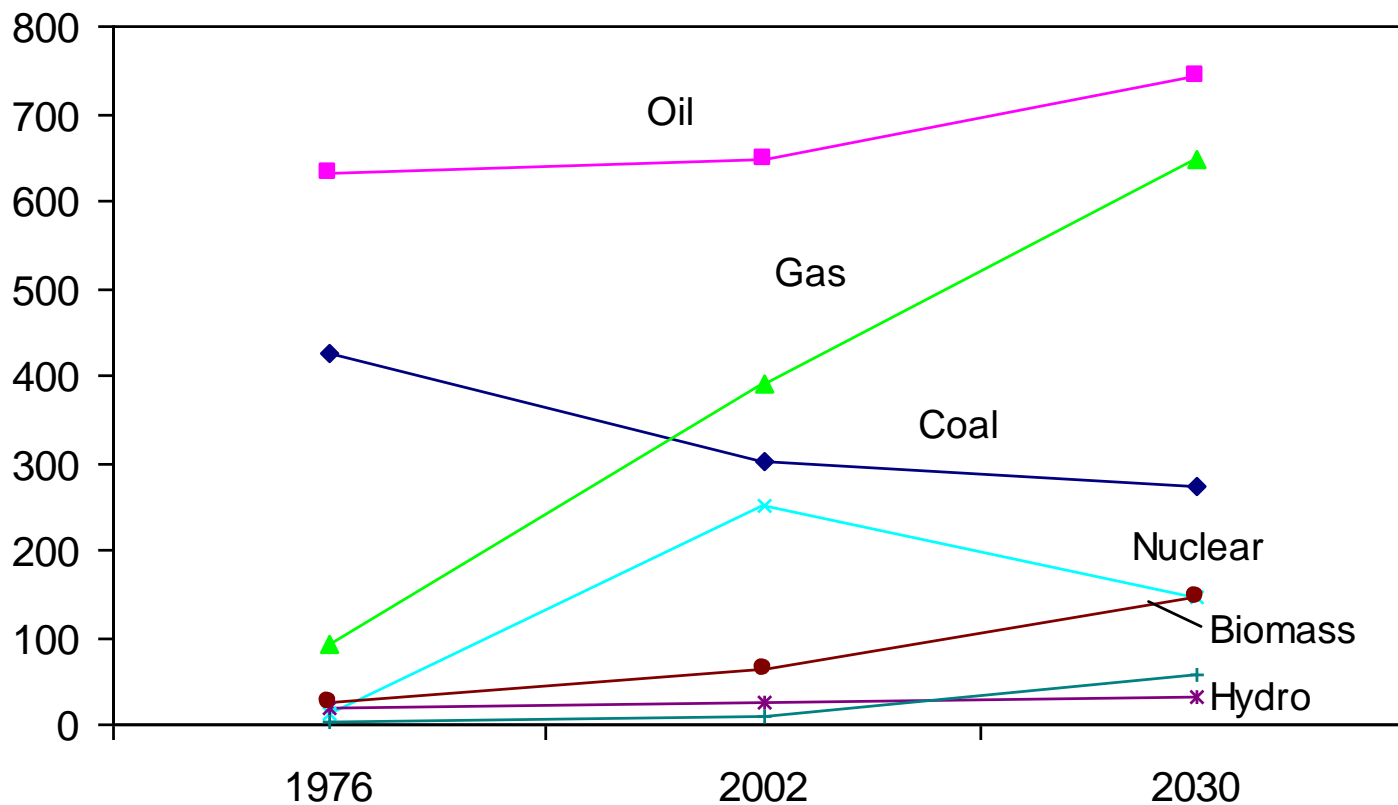


[International Energy Agency (IEA), 2004 as cited in EarthTrends]

Current Development Situation



Primary Energy Demand EU [Mtoe]



Current Development Situation



Scenario 2030:

- In a volatile market environment, Europe will rely more on fossil fuels imports than ever
- CO₂ emissions will go on growing

→ EU has to rethink its approach to energy production and consumption

[„Reference Scenario“, IEA, World Energy Outlook, 2004]

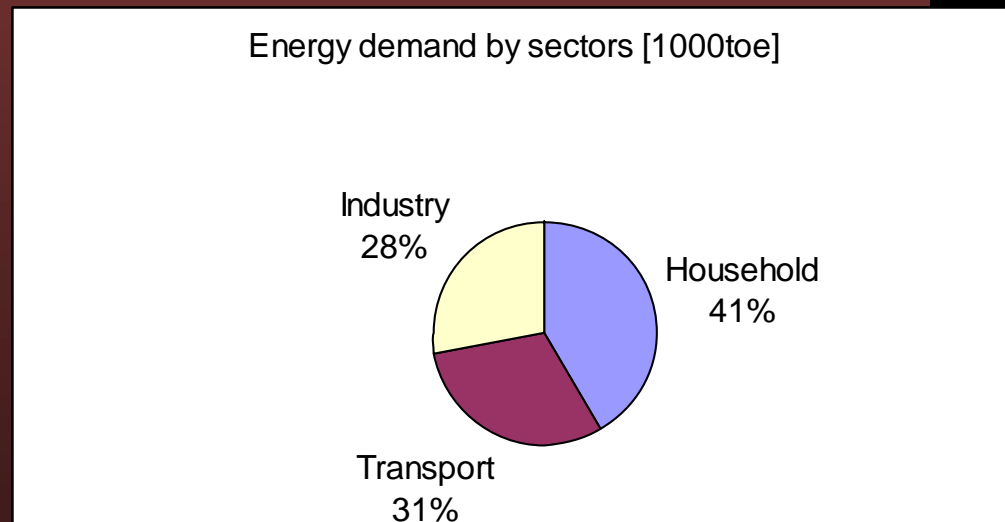
Current Situation



Energy consumption by sectors:

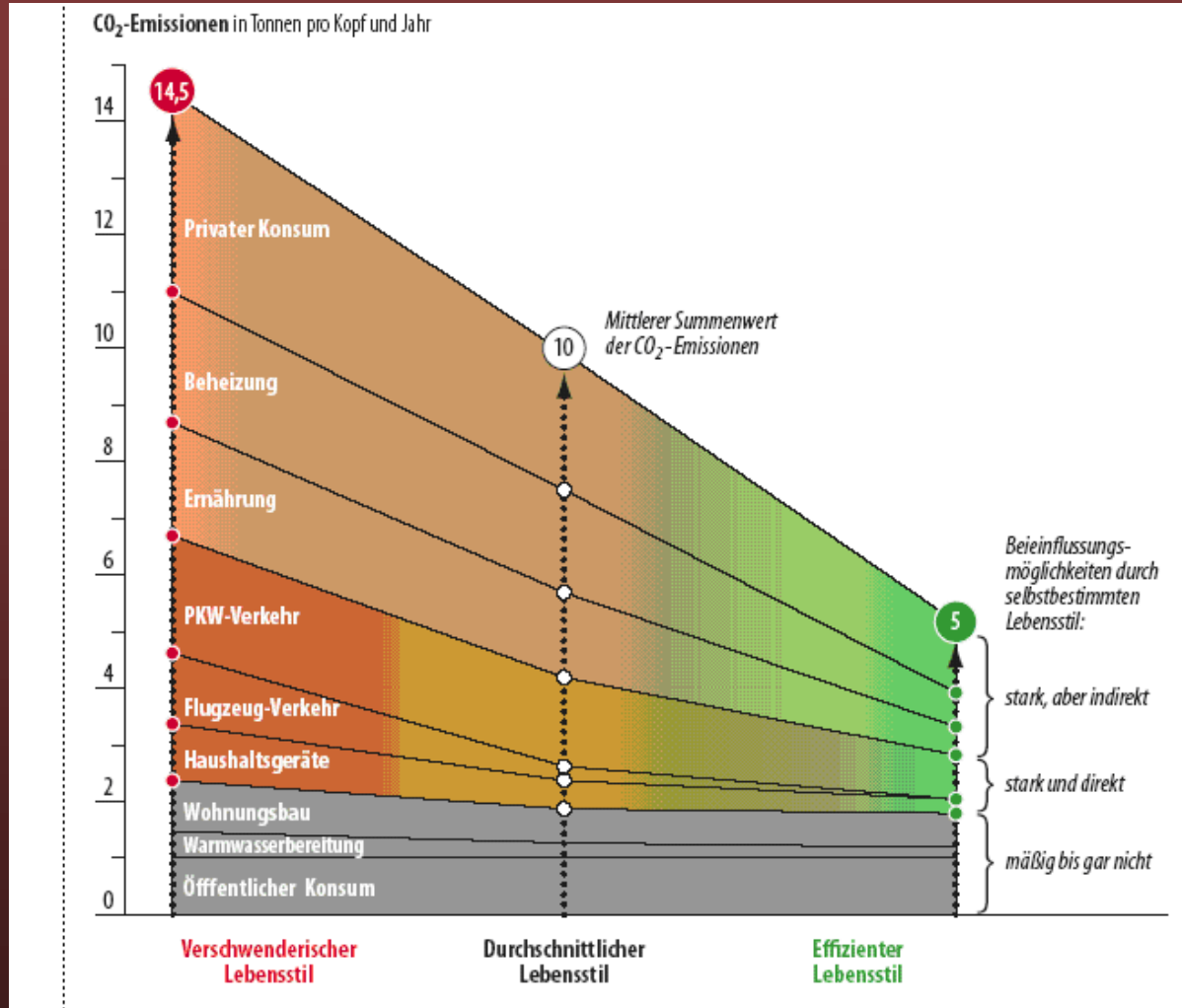
Within the EU:

1. Private household and services sector
2. Transportation
3. Industry

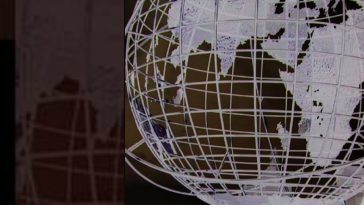


According to data from [Eurostat]

Responsibilities of households



Political Challenges and Opportunities



- Initiatives in favour of energy efficiency on EU and national levels
- Controversies over national energy independence

-> Consumption issues can be tackled particularly well on local and small-scale levels

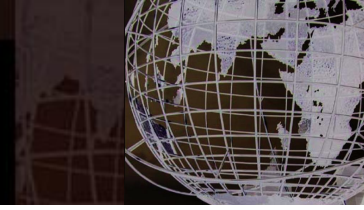
Economic Challenges and Opportunities



- Importance of low energy prices for European competitiveness
- Growth and employment concerns

→ Generation of new jobs by decentralisation of both energy and product supply

Social Challenges and Opportunities



- “Real” responsibilities of consumers - change at individual, local, regional level
 - Reduced (energy) consumption should not offset growth of wealth
- „Side effects“ of neighbourhood initiatives

Sustainable Development



→ Energy consumption is directly and indirectly linked to
ALL consumption decisions

Technology plays an important role - both driver and result of
socio-economic change

Sustainable Development



- BUT better energy efficiency in production and consumption means costly investments for both producers and consumers
- NEED OF change of desires and lifestyles for European consumers
- HOW can this change be brought about?

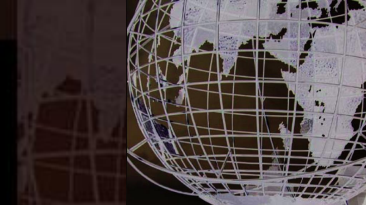


Thank you for your attention!

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References



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