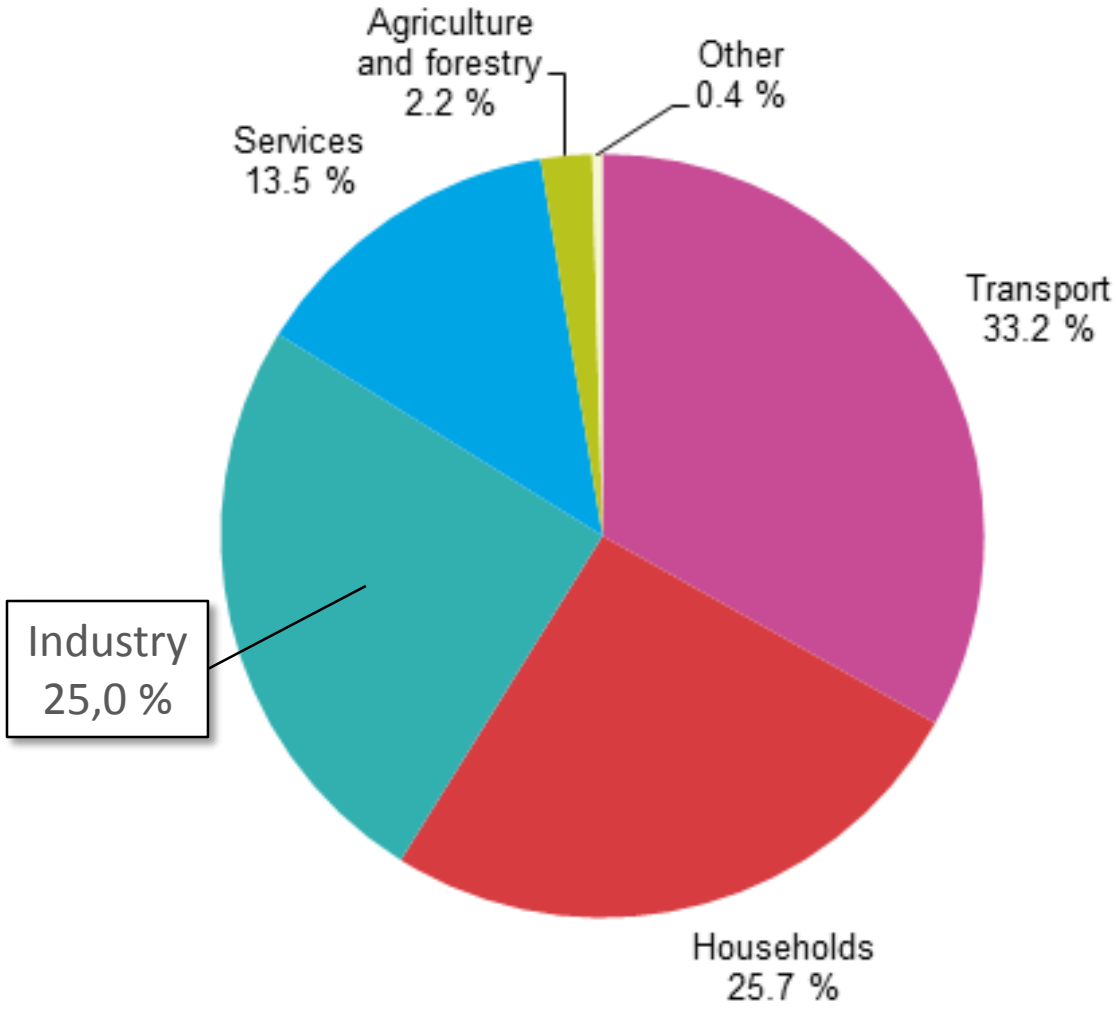
Energy Efficiency in Industry – EU Policies

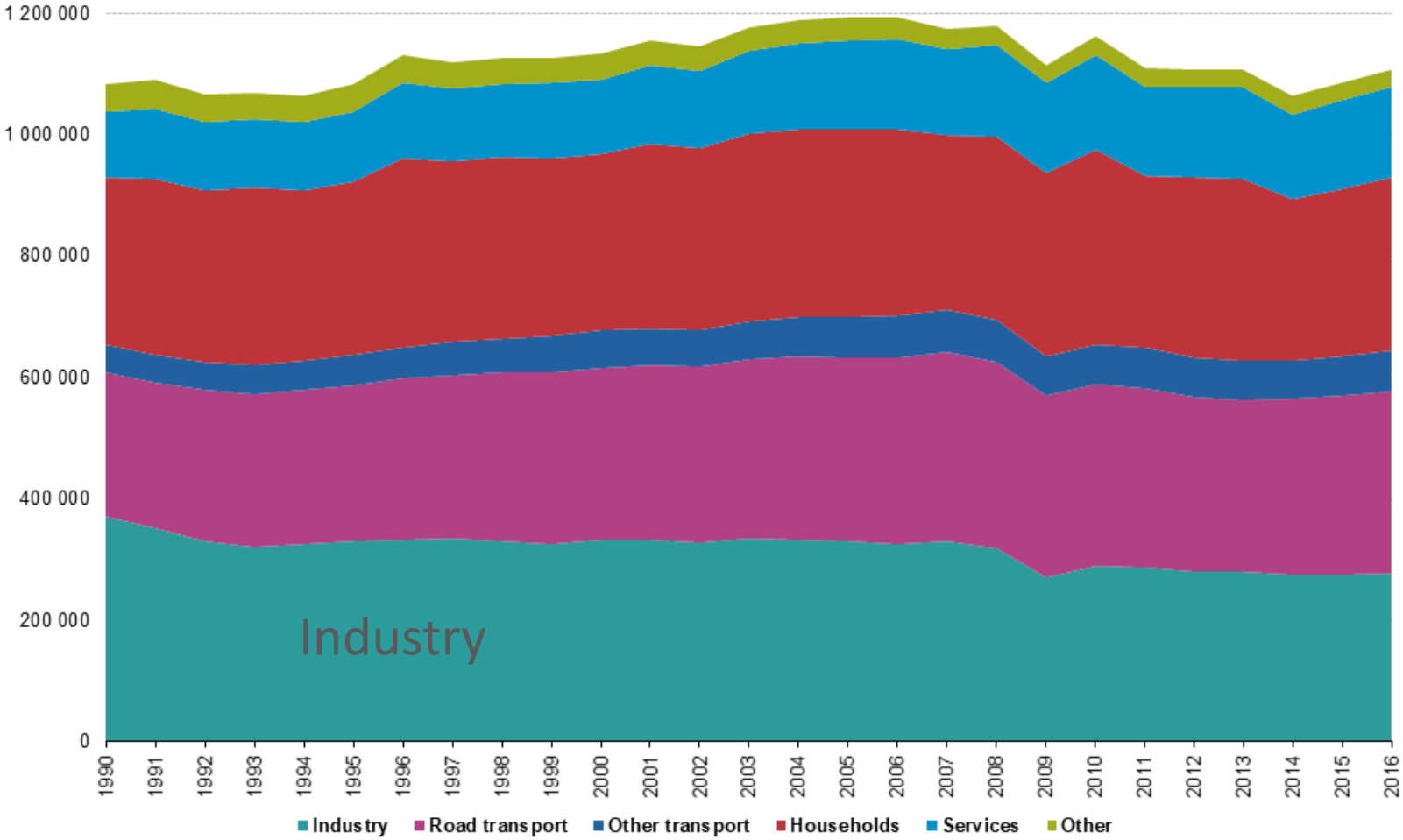
Birger Lauersen
Vice President

Final energy consumption by sector EU-28 - 2016



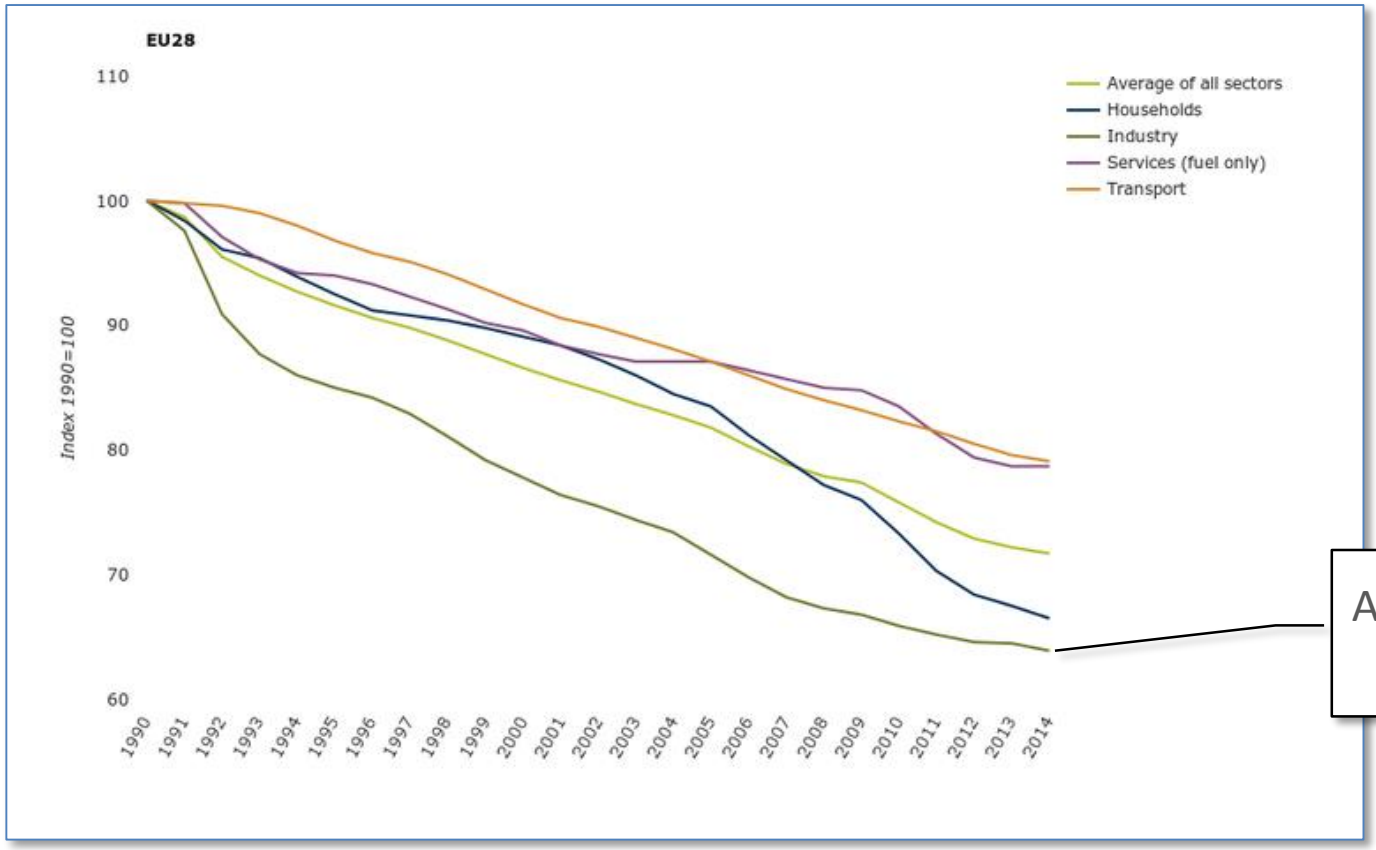
Source: Eurostat

Final energy consumption by sector, EU, 1990-2016 (ktoe)



Source: Eurostat

Odyssee energy efficiency index (ODEX)



Weighted average of sub-sectoral indices of energy efficiency progress

Annual increase in efficiency 1,8 %

Source: Energy Efficiency Trends and Policies in Industry, ODYSSEE and MURE) 2016

Trends in EU Industrial Energy Consumption

- 25 % of the energy used by final consumers, compared to 29 % in 2000.
- Industrial consumption in 2013 was 17 % below 2000
- Due to both energy efficiency & decrease in industrial activity:
  - 2000 to 2007: balance between the increase in industrial activity and energy savings.
  - Since 2007: more than half of the reduction in consumption due to decrease/change in industrial activity and only ¼ to energy savings
- Much slower energy efficiency progress since the recession (0.9%/year since 2007 compared to 1.9%/year before)
- Slower progress in most branches and even no more improvement for some others (e.g. steel, cement, machinery)

Source: Energy Efficiency Trends and Policies in Industry, ODYSSEE and MURE) 2016

EU- and national policies

1. EU-legislation (EU-directives)
   - EU-members states agree to achieve a particular result with national legislation without dictating the means of achieving that result
2. National legislation
   - EU-member states are free to design other national legislation
   - National legislation may not infringe on competition between markets and states

Energy efficiency in industry is subject to both types

Energy Efficiency Directive

1. The 2012 Energy Efficiency Directive (2012/27/EU) establishes a set of binding measures to help the EU reach its 2020 energy efficiency union target by 2020 at 20 % (2030: 32.5 %)
2. Under the Energy Efficiency Directive EU member states have agreed to:
   - Energy Savings Obligations - Achieving 1.5 %/year energy savings of final energy

     or –

     Achieve the same level of savings through other means, such taxation, economic incentives, voluntary agreements etc.
   - Provide incentives for SMEs to undergo energy audits
   - Ensure large companies do make audits of their energy consumption

Report on National Policies and Measures

1. Barriers: Information and knowledge deficits, several uncertainties, low priority fore energy efficiency investment or high transaction costs
2. Findings:
   - No clear correlation between the impact of the measures and measure type
   - Financial measures dominating measure type in almost all EU Member States
   - Only informative measures have relative low impact
   - Tailored programs needed to address SMEs
   - Multitude of measure may reinforce but could counteract each other

*** Source:** Energy Efficiency Trends and Policies in Industry, ODYSSEE and MURE 2016

Energy Efficient Products

Ecodesign, Energy Star	
• Air conditioners and comfort fans • Industrial fans • Air heating and cooling products • Lighting • Circulators • Computers and servers • Power transformers • Tyres	• Professional refrigerators • Vacuum cleaners • Ventilation units • Electric motors • Solid fuel boilers • Space and water heaters • Water pumps • Fridges and freezers • ….