



# **The G8 Industry Task**

## ***Indicators for Industrial Energy Efficiency and CO<sub>2</sub> Emissions***

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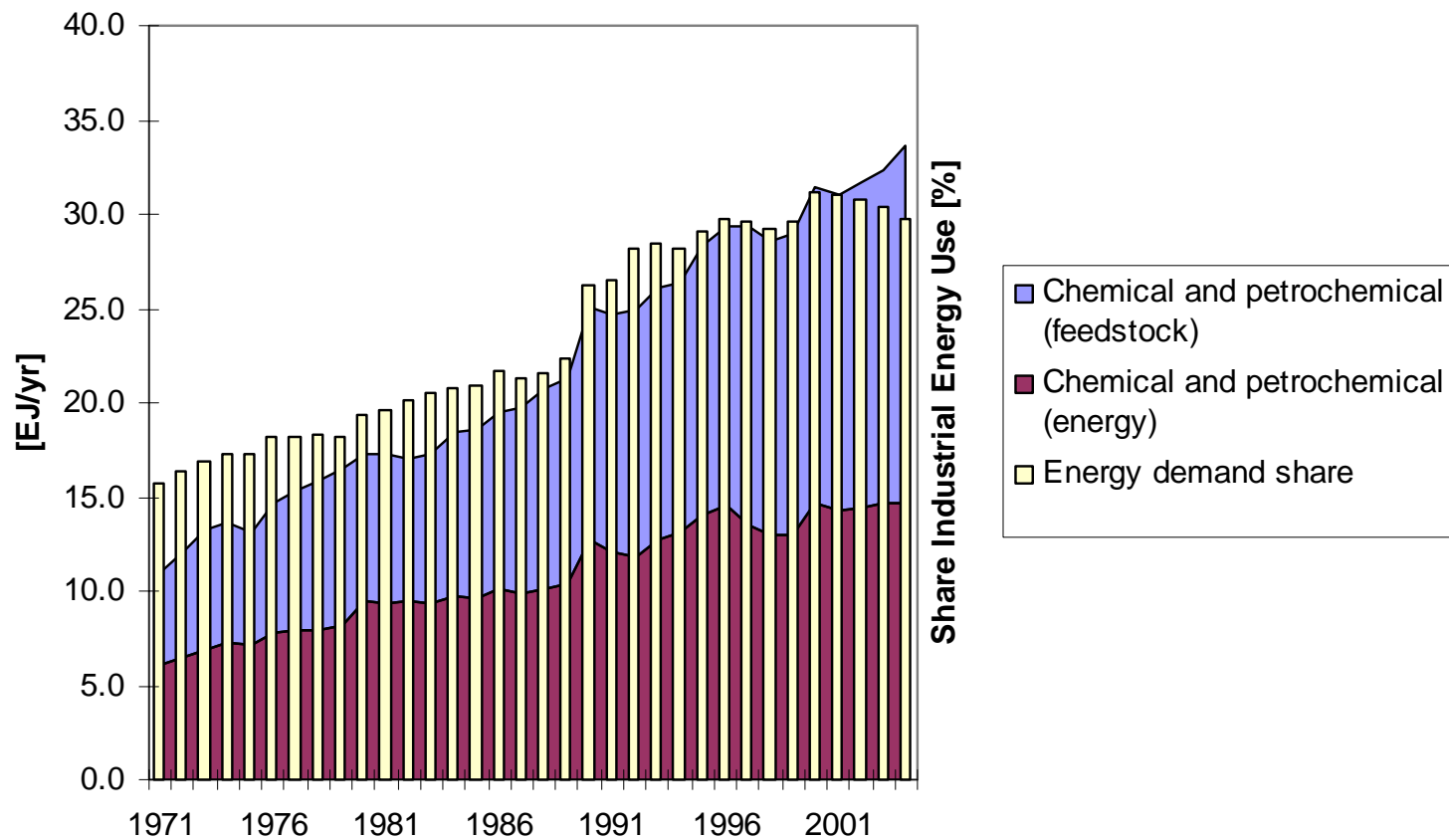


# Analysis Structure

- *Energy Technology Perspectives 2006* contains a detailed industry chapter & scenario analysis
- *Indicators for Industrial Energy Efficiency and CO2 Emissions* – April 2007
- Efficiency potential analysis (new technologies) – End 2007
- *Energy Technology Perspectives 2008* will contain more detailed scenario analysis results
- Section in the IEA progress reports for German (2007) + Japanese (2008) G8 summit



# World Chemical & Petrochemical Industry Energy Use According to IEA statistics



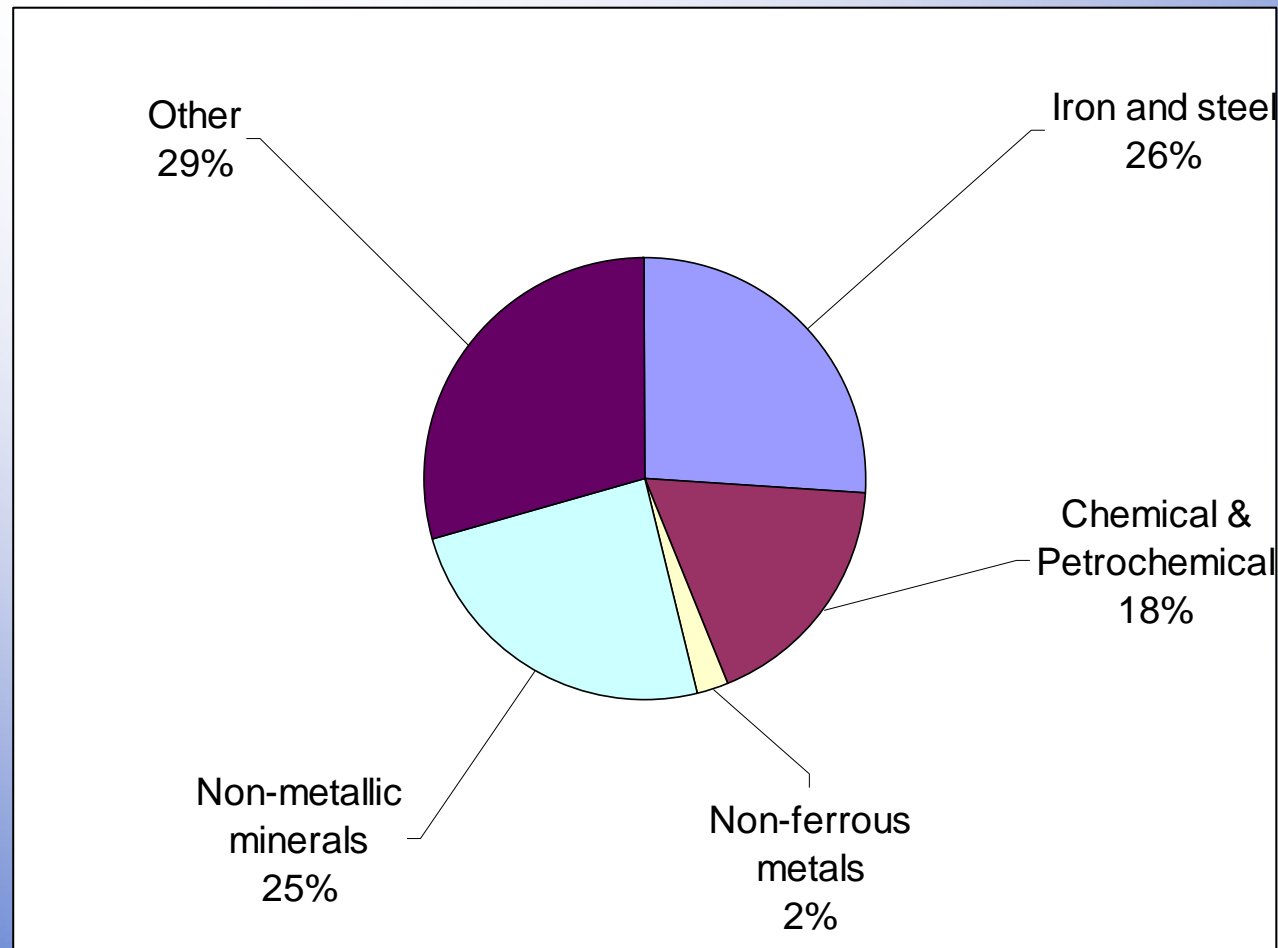


## **Special Issues for Petrochemicals**

- **The industry is oil & gas dependent**
- **This affects the industry prospects (location choice, profitability)**
- **Environmental efforts, supply security efforts can have synergies**
- **Most carbon is stored in products: life cycle perspective needed**



# Industrial Direct CO<sub>2</sub> Emissions





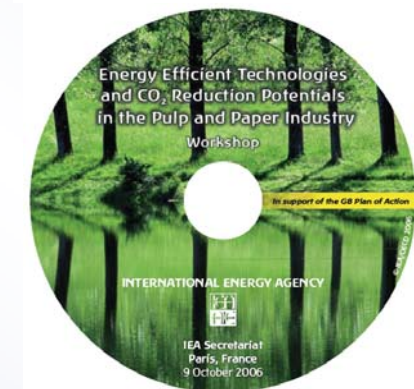
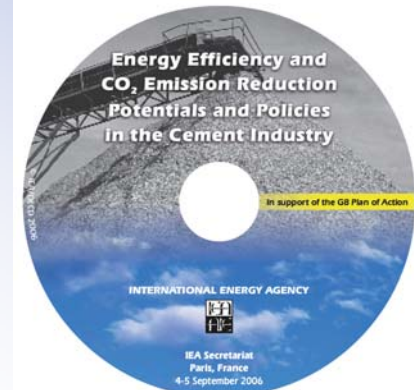
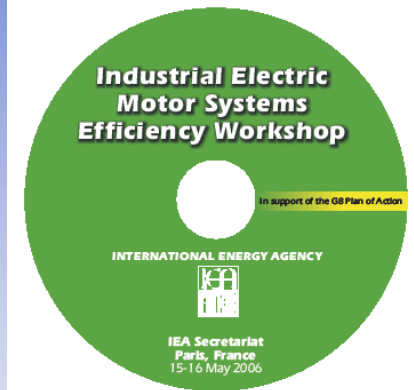
## Indicators Publication (April 2007)

- Focuses on key sectors
- Focuses on key countries
- Look at country trends
- Try to compare country efficiencies
- Does NOT cover materials comparison/substitution potentials
- Each sector needs a tailor-made approach
- Detailed approach needed
- Try to balance data availability, level of detail and acceptance
- Focus on iron & steel, cement, petrochemicals



# Dialogue Workshops with Industry

- Motor systems, 15-16 May
- Cement, 4-5 September
- Paper and Pulp:
  - ◆ Technical workshop, 9 October, Paris
  - ◆ International Seminar, 30-31 October, Rome
- Iron and Steel – 7 November
- Petrochemicals- 12-13 December
- Ammonia – 12-13 March 2007
- Aluminium – 2<sup>nd</sup>-3<sup>rd</sup> quarter 2007





# Proposed Cooperation Themes

- Energy efficiency & CO<sub>2</sub> emission indicators on a country level
  - ◆ Data & analysis validation
- Explanation of differences on a country level
  - ◆ Product categories
  - ◆ CHP diffusion rate
  - ◆ Recycling & energy recovery rates
  - ◆ Technological characteristics of the capital stock
- Advice on what can be done realistically
  - ◆ Cost & competitiveness
  - ◆ Time path
  - ◆ Technology & resource issues
- Advice on a transition path
  - ◆ Who should be involved
  - ◆ What is the role of various actors



# Workshop Goals

- 1<sup>st</sup> step in data collection & validation
- Agreement on viable efficiency indicators & data for chemicals and petrochemicals
- There will be a workshop statement, including:
  - ◆ Your data on efficiencies & emissions worldwide, and where to find missing data
  - ◆ Your feedback on suitable indicators
  - ◆ Your feedback on ETP scenario analysis & technology diffusion
  - ◆ Your advice on technology focus for energy efficiency & CO<sub>2</sub> reduction analysis
  - ◆ Your advice on cooperation & policy framework analysis
  - ◆ Your advice on G8 recommendations
- Starting point for a dialogue



# Industry task organisation

- Joint effort by the Energy Efficiency and Environment Division (Rick Bradley) and Energy Technology Policy Division (Bob Dixon)
- Coordinated by ETPD (Dolf Gielen)
- IEA Industry experts:
  - ◆ Kamel Bennaceur
  - ◆ Richard Baron
  - ◆ Tom Kerr
  - ◆ Julia Reinaud
  - ◆ Cecilia Tam
  - ◆ Kanako Tanaka
  - ◆ Michael Taylor
  - ◆ Peter Taylor
  - ◆ Paul Waide



**Thank you**

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