



# European Council for an Energy Efficient Economy

## Europe & Energy Efficiency

Realizing the Potential of Energy Efficiency: Overcoming Barriers

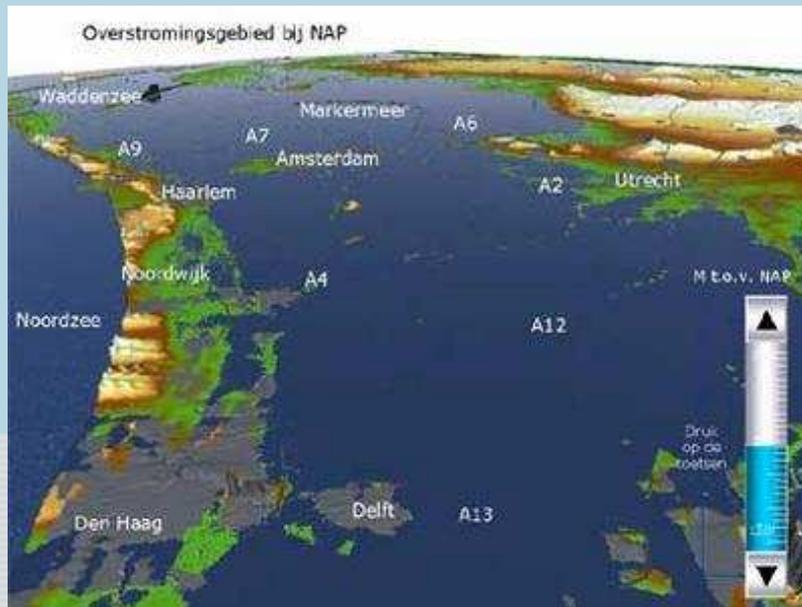
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Vice Chair ECEEE

Manager International Sustainable Development SenterNovem

# This presentation

- ECEEE
- EU
  - Climate- en energy targets
  - Recent EU-energy policy
- Overcoming Barriers?



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# • We generate and spread knowledge on Energy Efficiency by:

- Summer studies
- Policy briefs
- Cooperation
- Participation in EU projects
- Electronic Newsflashes
- Conferences
- etc.....

## EU

“Energy efficiency: Past the tipping point?”

Columnist Hans Nilsson

ECEEE UPDATES

Europe more optimistic than ever on Kyoto target. EU-15 can meet their ...

EU to push for sector-specific climate agreements. EU industry ...

Final IPCC report hailed as "most powerful yet". UN ...

European Directives: Dedicated pages and policy briefs

Iran at the ... and other new product life cycle of so-called implementation performance standards

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Award 2008

Conference

Energy

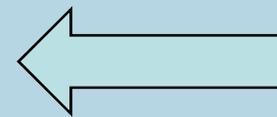
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America:  
y offers  
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# How do we get there.. in the EU

- Experiment
  - Framework programmes, IEE (Intelligent Energy for Europe)
- Negotiate & Legislate
- Implement
  - Translate
  - Enforce National Implementation
- Monitor & Evaluate
- Improve & Enforce



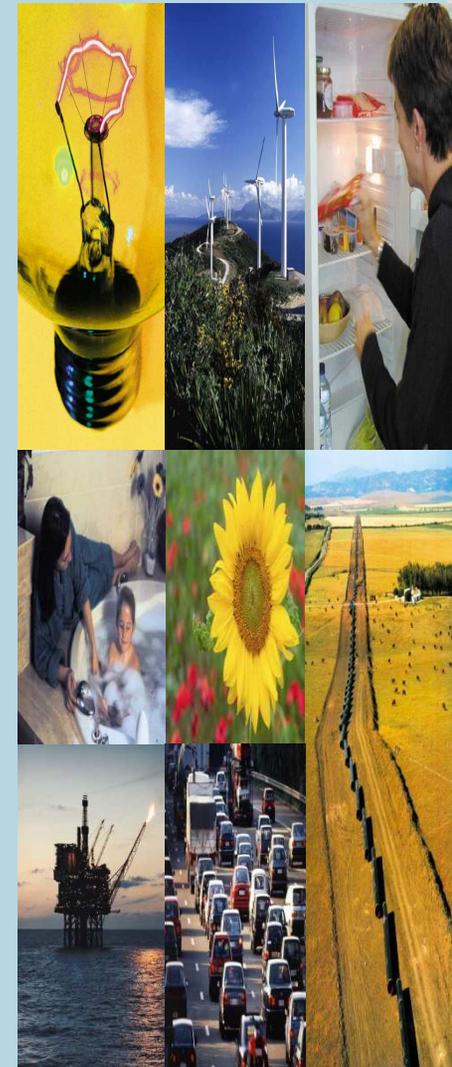
# EU: Energy policy trends

Before 1990:

- Energy policy on national level
- Security of supply on OECD (IEA) level
- European R&D programmes

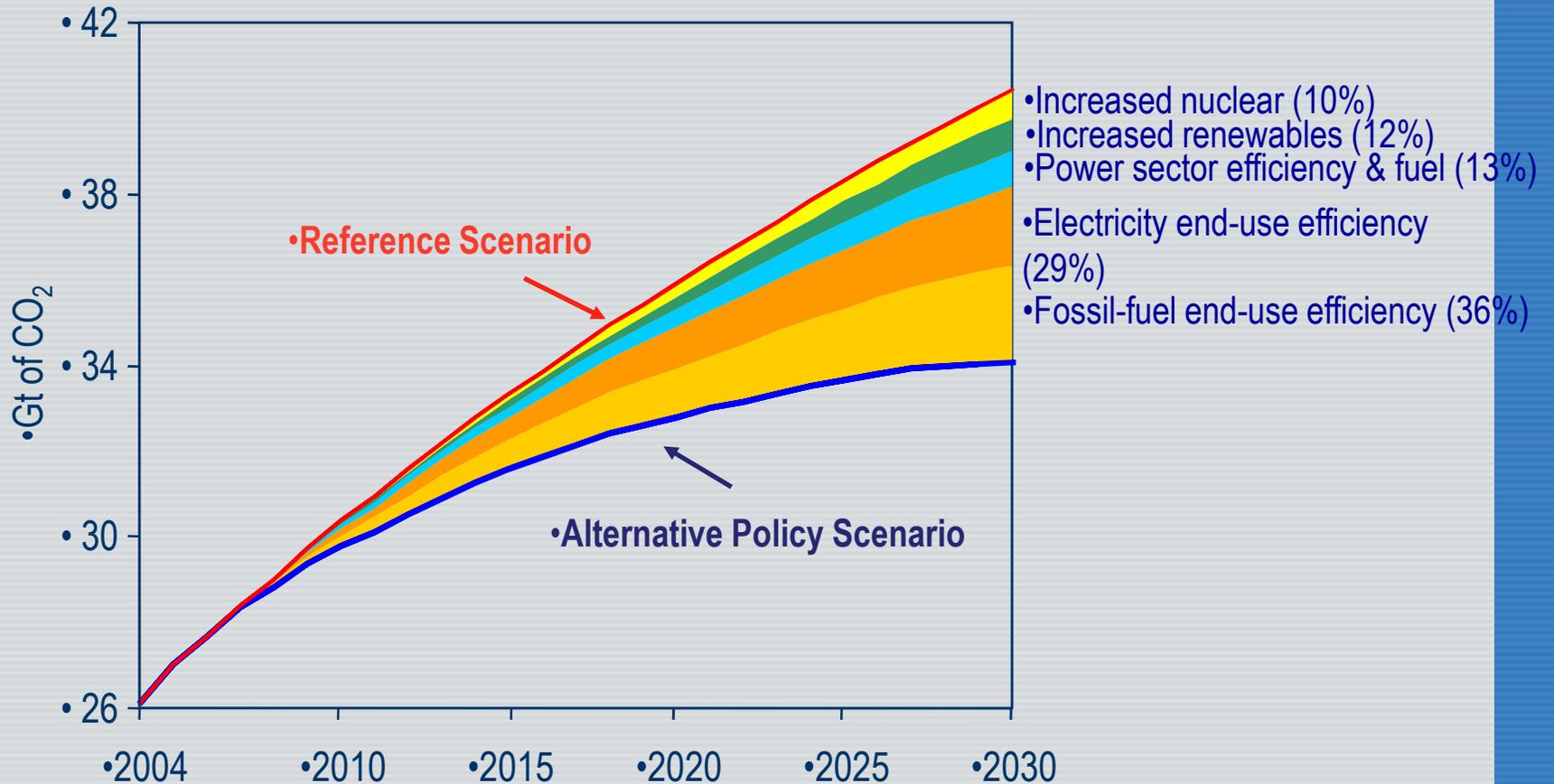
After 1990 (liberalisation, Climate policy):

- Liberalisation energy market
- Goals on RE / EE
- Programme's on sustainability & efficiency
- Participation in UNFCCC
- Frontrunner in international climate policy
- Frontrunner on emission trading





# IEA Alternative Policy Scenario: Global Savings in Energy-Related CO<sub>2</sub> Emissions



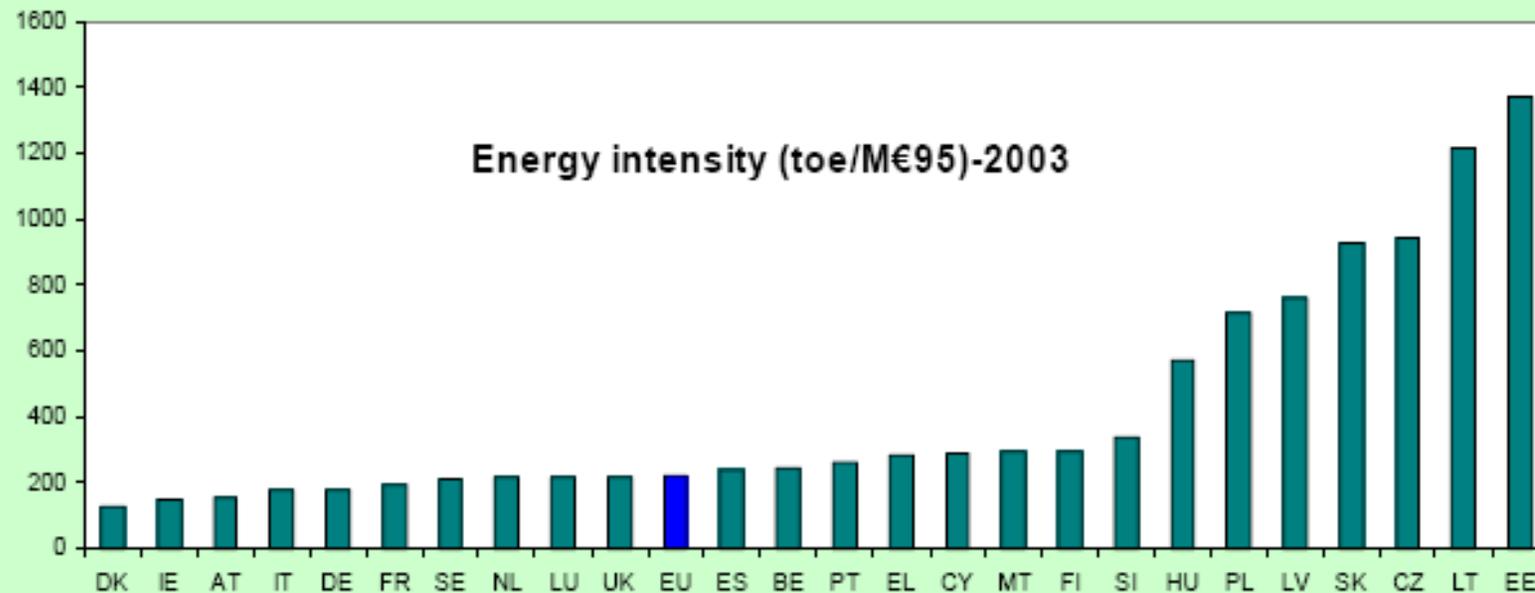
**• Improved end-use efficiency of electricity & fossil fuels accounts for two-thirds of avoided emissions in 2030**



# The EU is working on it...

## ➤ EXAMPLES of possible savings

|   |         |
|---|---------|
| Electricity production and cogeneration | 70 Mtoe |
| Extension of buildings Directive        | 30 Mtoe |
| Eco-design                              | 30 Mtoe |
| Transport                               | 45 Mtoe |





# The EU is working on it...

- April 2006: Energy Service directive (ESD)
- October 2006: Action Plan for Energy Efficiency: realising the Potential
- January 2007: Communication “Towards a European Strategic Energy Technology Plan”
- March 2007: European Council Action Plan (2007-2009) - Energy Policy for Europe
- June 2007: National Energy Efficiency Action Plans





# EU Action plan EE - 10 priorities

- Minimum efficiency standards appliances
- Improve Energy Performance Buildings Directive
- Energy production & distribution more efficient.
- Emission standards for new cars
- Financial support ESCO's & SME's
- Energy efficiency support for new Member States.
- Change energy tax directive
- Raise Public Awareness EE
- Covenant with majors– Exchange best practices
- International EE agreement



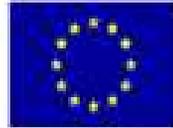
# EU targets vs. Dutch targets

| EU targets   | Dutch targets   |
|--|---|
| 20% Energy Efficiency in 2020 (= 390 Mtoe)   | Energy Efficiency increase 1% to 2% per annum   |
| 20% Sustainable Energy in 2020   | 20% Sustainable Energy in 2020, based on cost effectiveness and realized potential  |
| 20% less CO <sub>2</sub> -emissions in 2020 (30% in 2020 by international agreement) | Reduction emission greenhouse gasses with 30% (2020, 1990 base year)  |
| 10% bio fuels in 2020  | 10% bio fuels in 2020 if: <ul style="list-style-type: none"><li>- sustainable</li><li>- cost effective</li><li>- 2nd generation bio fuels available</li></ul> |



# Overcoming barriers

SUSTAINABLE ENERGY EUROPE



Supported by the  
European Commission under the  
**Intelligent Energy - Europe**  
Programme



SEVENTH FRAMEWORK  
PROGRAMME

Energy Management Agency

Intelligent Energy



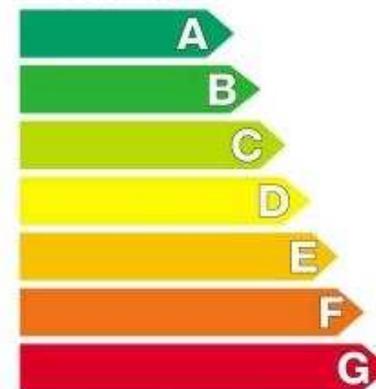
Europe

## Energy

Manufacturer  
Model

Fridge-Freezer

More efficient



Less efficient

Energy consumption kWh/year  
(Based on standard test results for 24h)

**325**

Actual consumption will  
depend on how the appliance is  
used and where it is located

Fresh food volume l  
Frozen food volume l

190  
126

**\*\*\***

Noise

(dB(A) re 1 pW)

Further information is contained in  
product brochures

Norm EN 153 May 1990  
Refrigerator Label Directive 84/2/EC





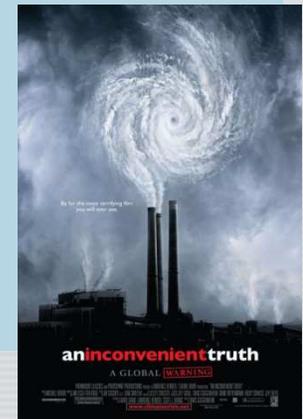
# Overcoming Barriers

- Start Now...Energy Services Directive (1)
  - Promote cost-effective energy efficiency in EU Member States through obligations and the removal of institutional, financial and legal barriers.
  - Promote the development of a sustainable market for energy efficiency and energy services.
  - Covers all energy end-use suppliers (Aviation fuels and maritime bunkers excluded).
  - Covers all providers of energy efficiency improvement measures.
  - Covers all energy end-use sectors (Emissions Trading sector excluded.)



# Overcoming Barriers

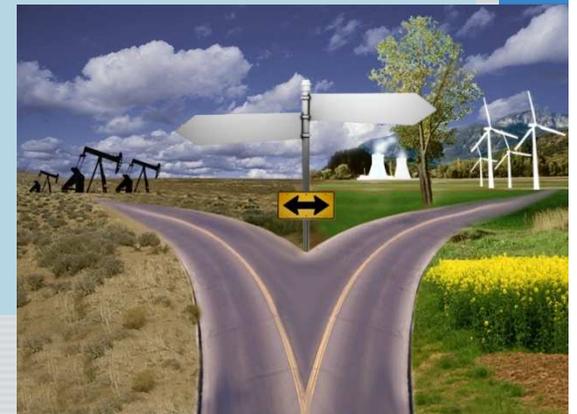
- Start Now...Energy Services Directive (2)
  - No binding EE targets
  - But a lot of obligations for governments, energy providers & public sector.
  - And consensus to work on binding targets, based on a common monitoring project (EMEES)
  - Start enforcement.
- Don't waste time to set targets if you can start without

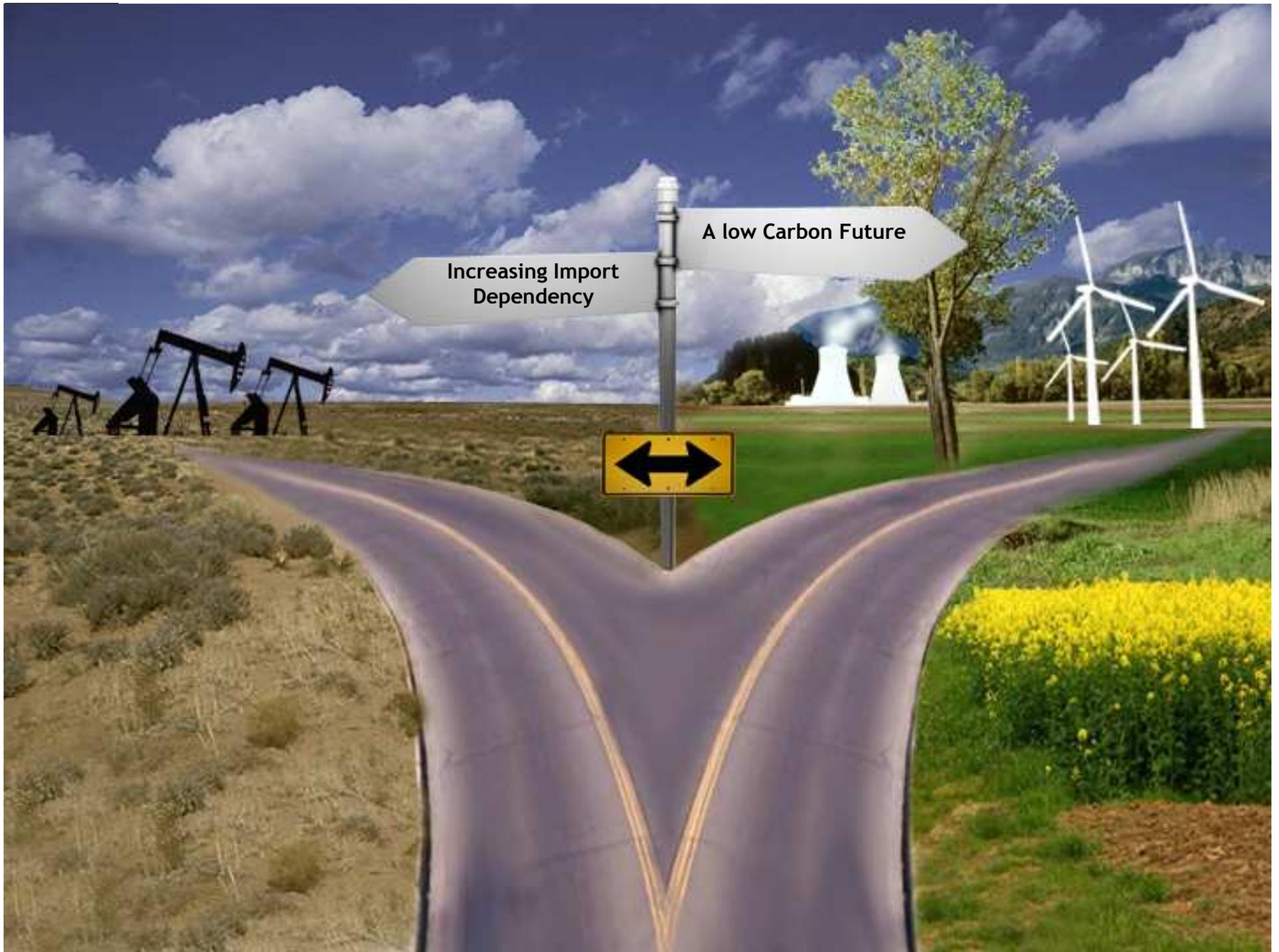




# Overcoming Barriers

- Promote good examples:
  - Corporation by municipalities & regions
  - Long term agreements in industry (15 years running on average 2% per annum)
  - Use of district heating, CHP
- Work on international corporation
  - Standards industry (level playing field)
  - Tackle Transportation problems
  - Enforcement
  - Explore behavioural change
  - Encourage (Asian) Entrepreneurs

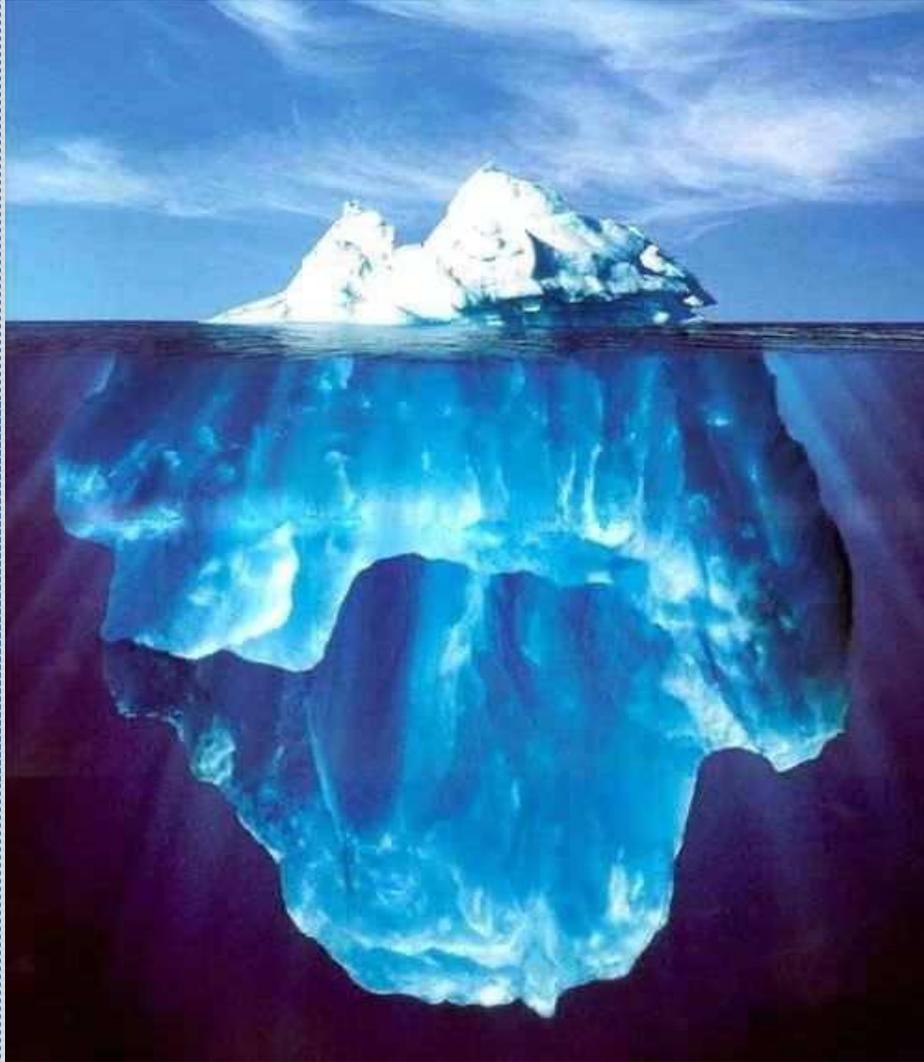




Increasing Import  
Dependency

A low Carbon Future





Thank you!

Q&A?

[www.eceee.org](http://www.eceee.org) / [www.senternovem.nl](http://www.senternovem.nl)



# Recent EU Energy Efficiency Policy

- European Actionplan
- ETS = Trading system industry

## Directives on

- Renewable Energy, including bio fuels
- Labelling
- Performance of Buildings
- Energy Services = Non ETS, non binding, 1% per annum
- Ecodesign = Standards Appliances
- CHP