

# **VOLVO**

## ***- Vision for 2030 and Beyond - The European Biofuels Platform***

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## Background

- Society both scientific and political, has largely recognized that the ***increasing greenhouse effect*** is due to human activities and that ***CO<sub>2</sub> from burning of fossil fuels*** is the dominant source.
- ***More than 97% of all the energy that is used for transport comes from crude oil.***
- ***Crude oil is a finite resource.*** Some oil field areas have already passed its peak production and are on the way “downhill”. Global crude oil production will peak within a decade or so. Then the time of cheap and abundant crude oil will be over!
- The overwhelming ***majority of known crude oil reserves are located in a few and politically instable parts of the world.*** The largest countries and areas in the world are all depending on import of oil. This is a supply risk!

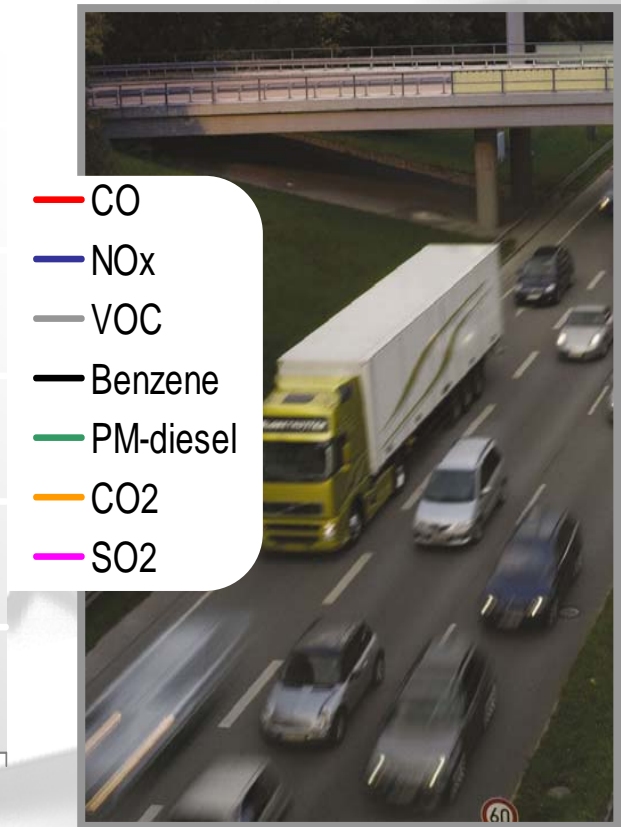
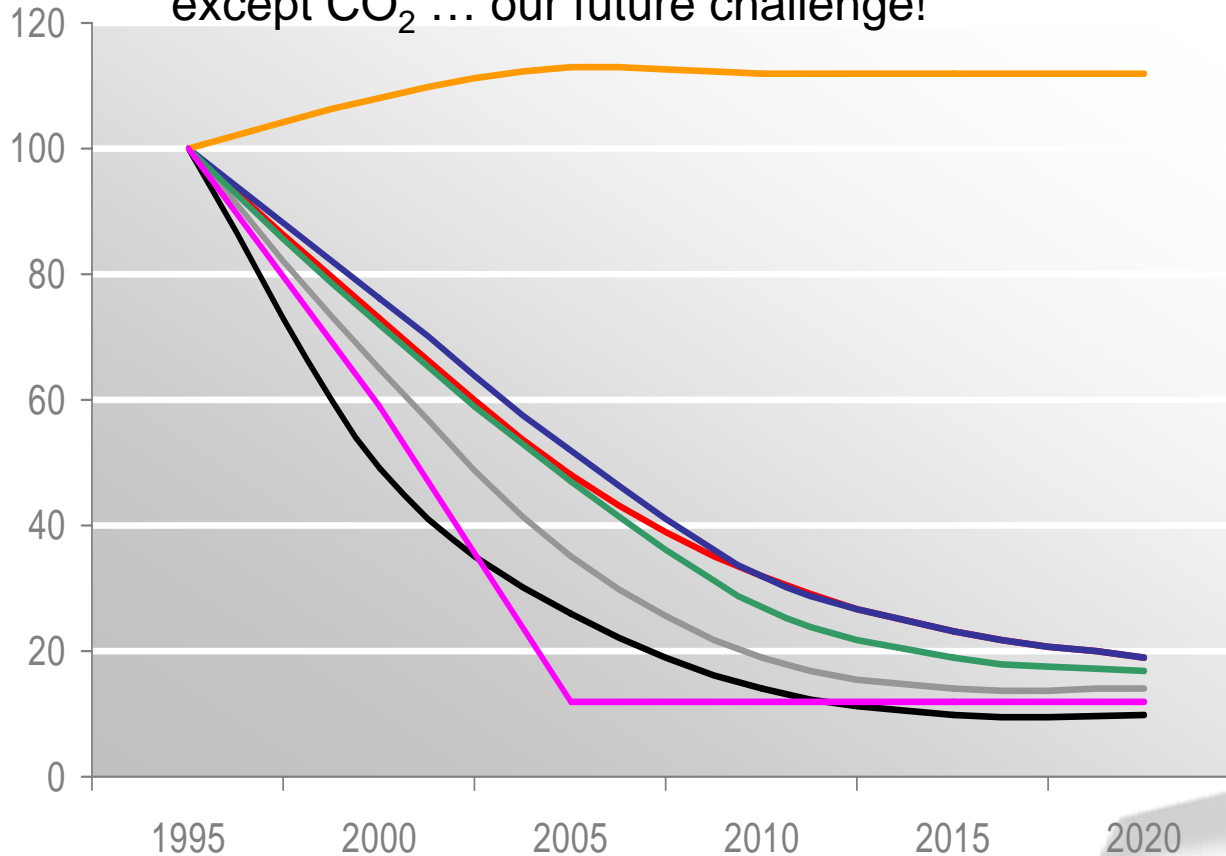
# Fuels for the Future

## Drivers for change

- Climate change - greenhouse gas emissions
- Availability of energy resources and projected increasing demand
- Security of supply
- Emissions, regulated and unregulated
- Urbanisation, congestion and noise

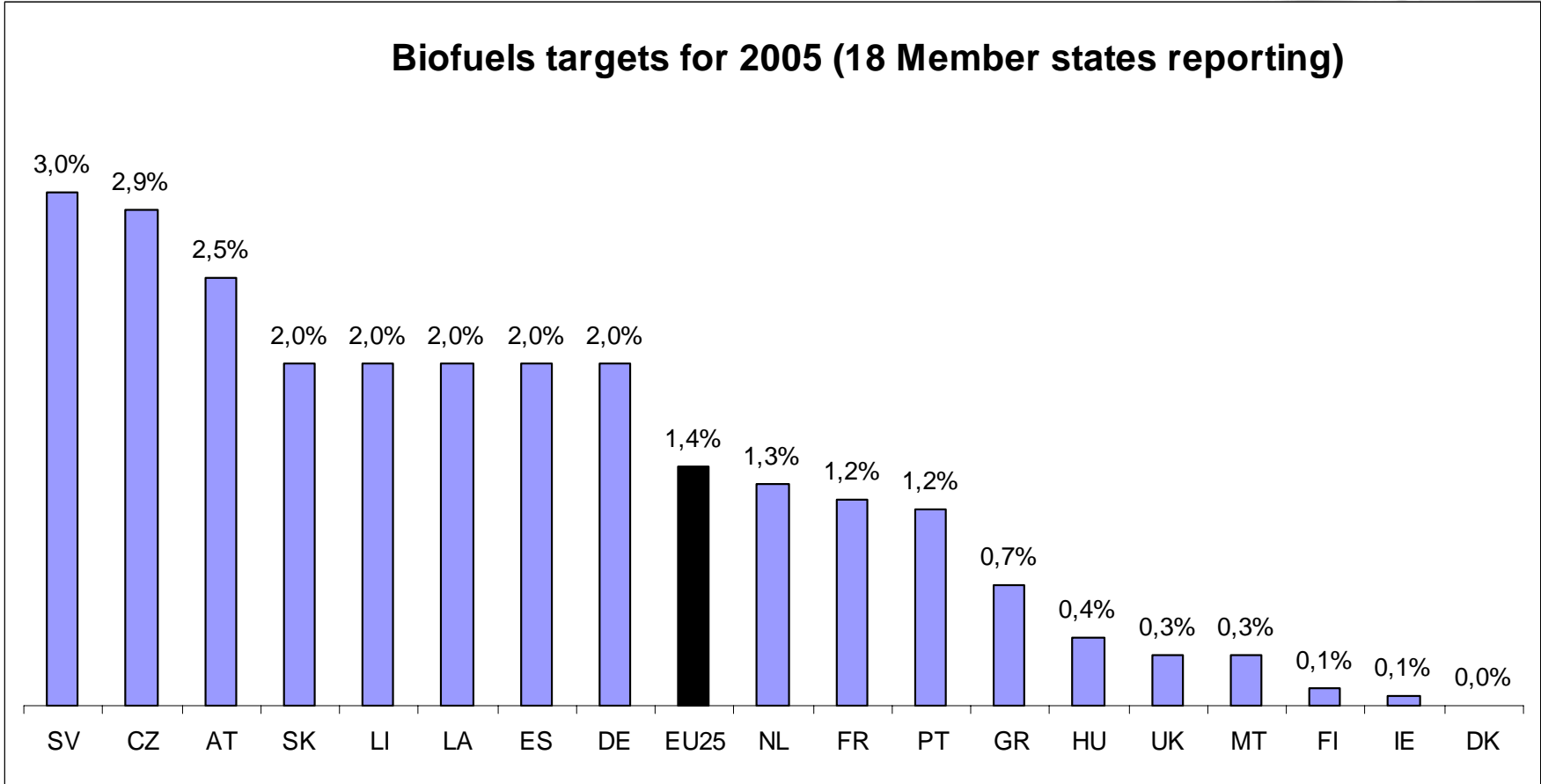
# Air Quality Modelling for Europe (Auto-Oil II)

All gaseous emission components will soon reach “sustainable” levels except CO<sub>2</sub> ... our future challenge!



# The EU Biofuels Directive 2003/30/EC

*Present target: 2% by 2005; 5.75% by 2010*



# Fuels for the future

## How should the alternatives be evaluated?

- Sustainable *availability*
- Well-to-wheel *energy efficiency* and *CO2 emissions*
- Well-to-wheel *regulated and unregulated emissions*
- *Economy* & infrastructure
- Other considerations
  - ✓ energy density
  - ✓ safety and health (fuel handling)
  - ✓ specific issues/concerns related to the different driveline applications (trucks, buses, marine, stationary)
  - ✓ political environment
  - ✓ customer perceptions

# Well-to-Wheels analysis of future automotive fuels and powertrains in the European context

concaawe



WTW



A joint study by

**EUCAR / JRC / CONCAWE**

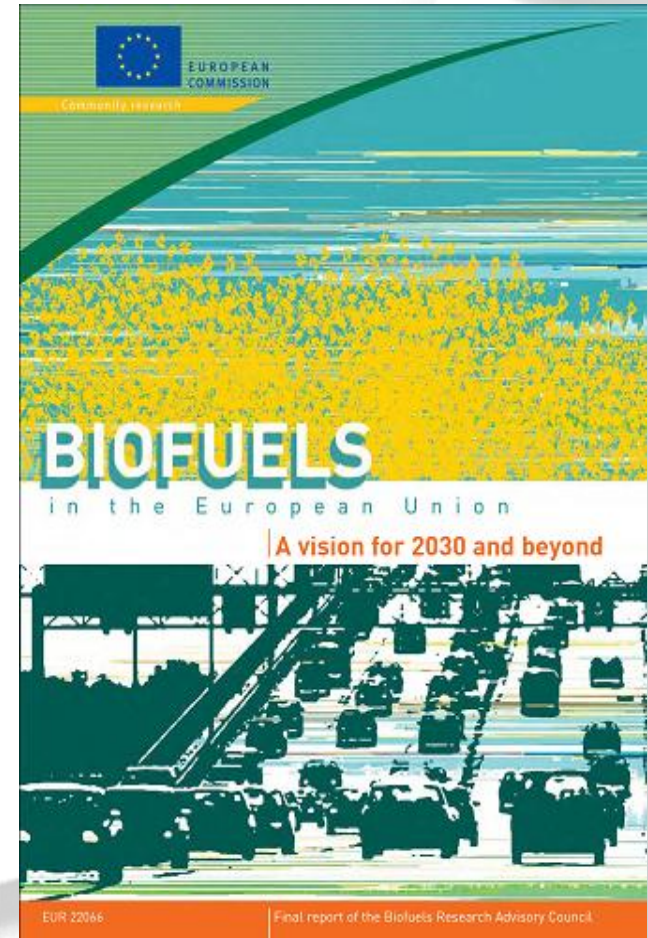
# Biofuels Research Advisory Council (BIOFRAC)

## Preparation phase for the Biofuels Platform

- Invitation of Advisory Council (BIOFRAC) spring 2005
- Task: to develop a *“vision report for biofuels technology up to 2030 and beyond”*
- Address all relevant issues to ensure a breakthrough for biofuels and enhance their deployment in EU
- Emphasis on *research, development and demonstration* to overcome technical and non-technical barriers
- The vision report is intended to *become a guidance tool for all stake-holders*, including policy makers and should *support development of FP7*
- Lay the foundation for a *Strategic Research Agenda (SRA)*

# The work of BIOFRAC

- Seven meetings between June 2005 and February 2006
- More than *20 stakeholders* = interesting discussions...many different views....
- *Draft Vision Report* released for public comments in *April 2006*
- *Final report* presented at launching conference in Brussels on *June 8, 2006*

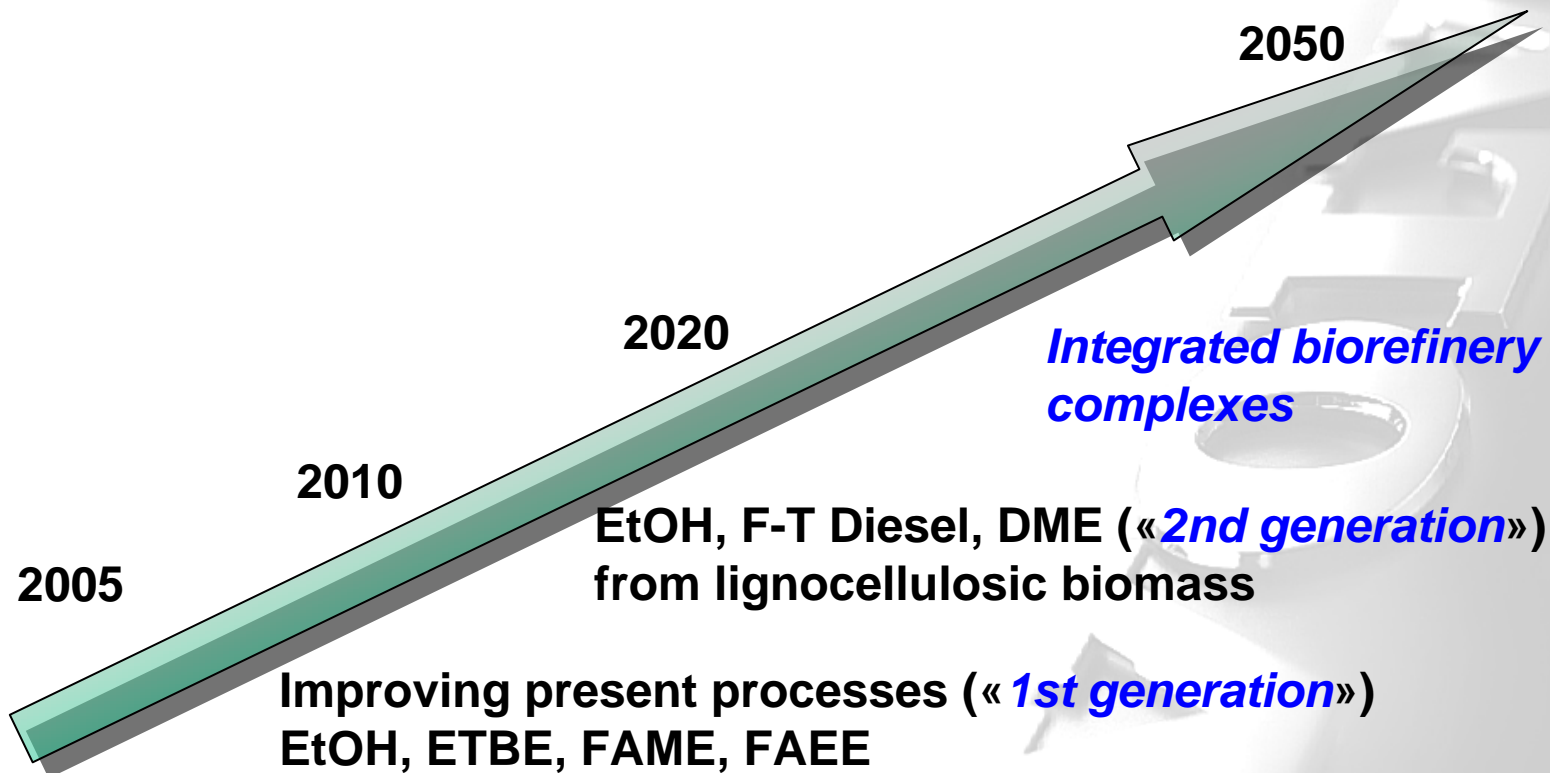


”Biofuels in the EU – A Vision for 2030 and Beyond”

## The Vision

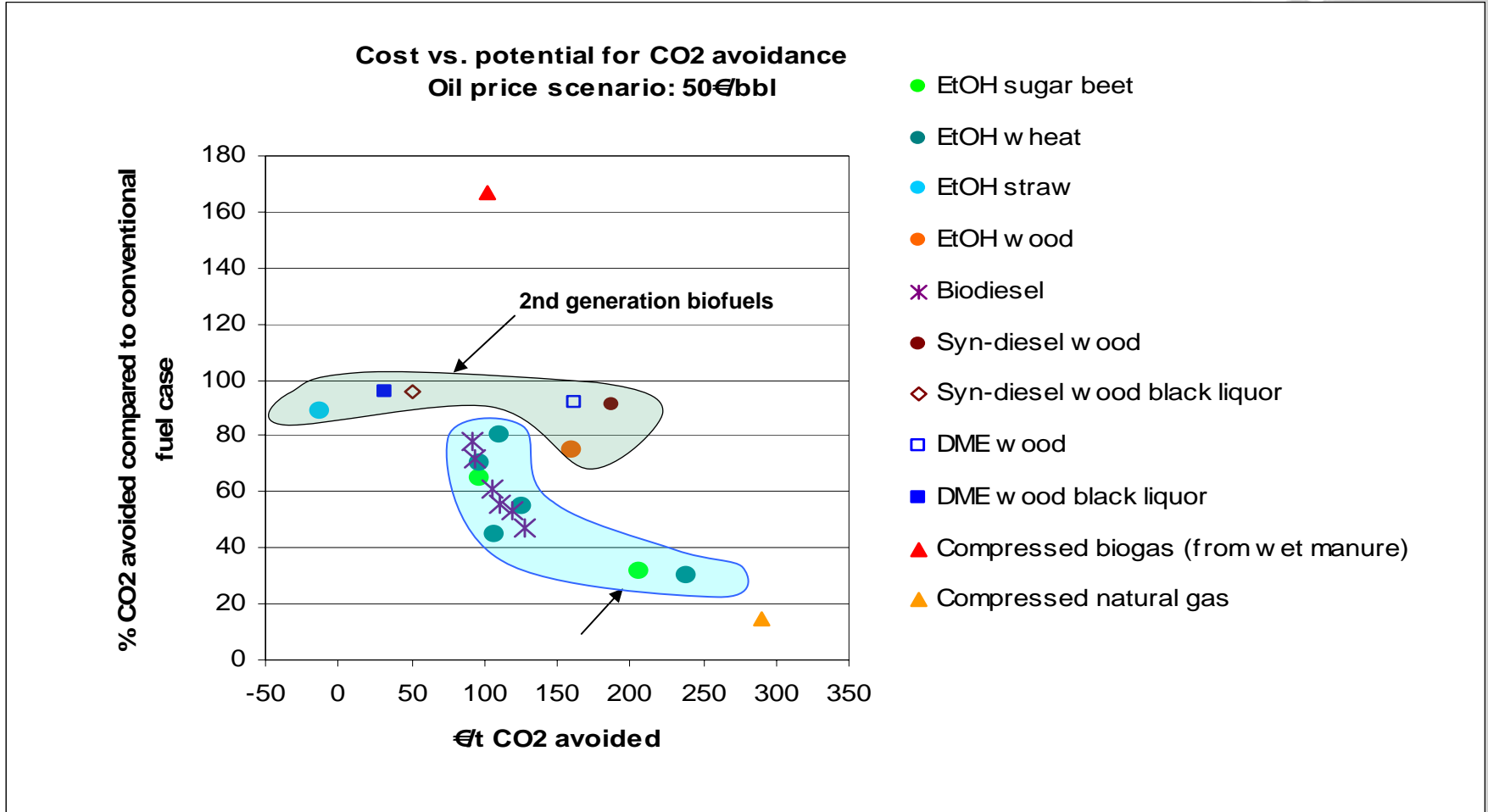
- By 2030, the European Union covers ***up to one fourth*** of its road transport fuel needs by clean and CO<sub>2</sub>-efficient biofuels.
- A ***substantial part is provided by a competitive European industry***. This significantly decreases the EU fossil fuel import dependence.
- Biofuels are produced using ***sustainable and innovative technologies***, creating opportunities for biomass providers, biofuel producers and the automotive industry

# Anticipated future roadmap



# Cost of CO2 avoided (euro/ton)

(graph: Biofuels Vision Report)



# Technology Platforms

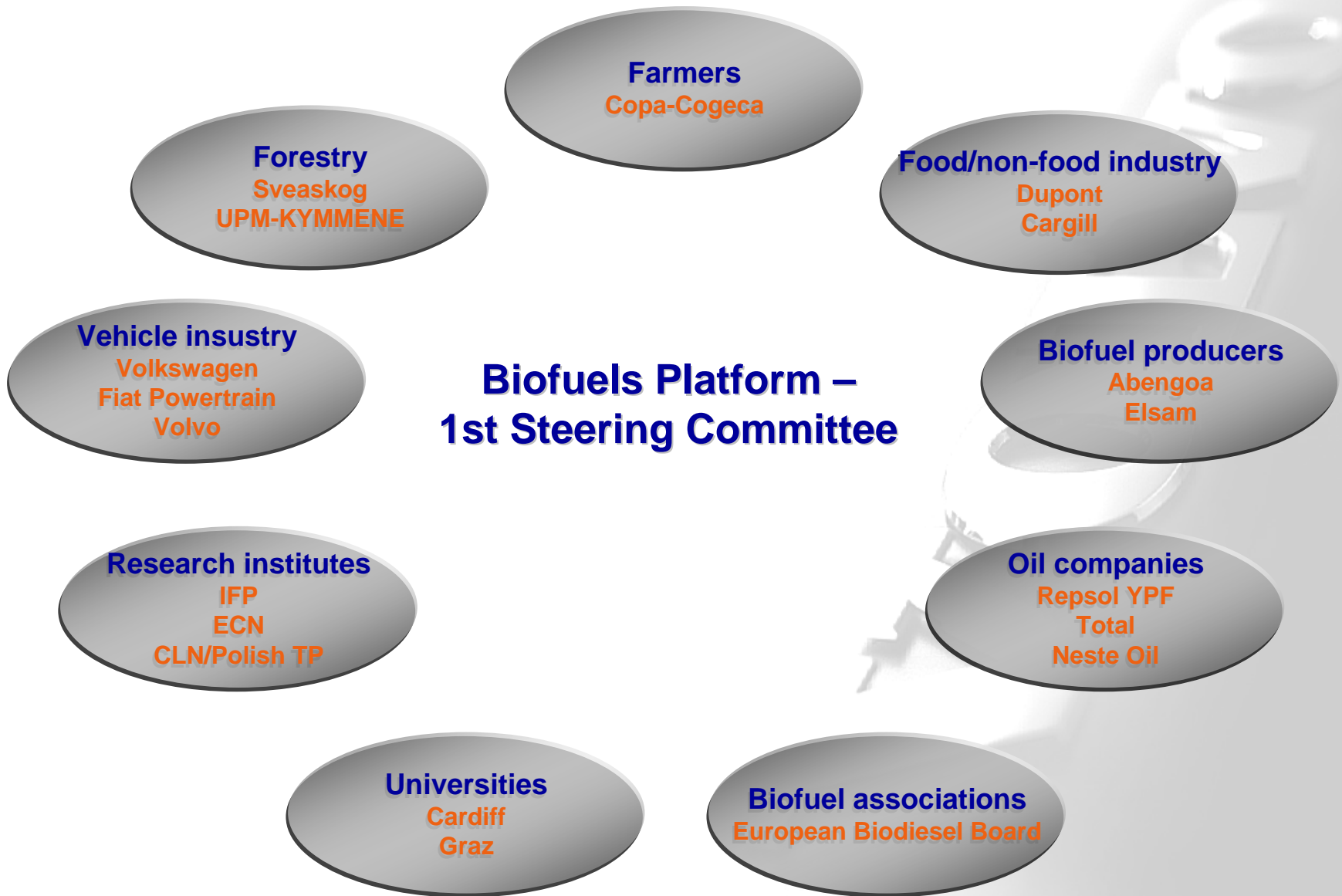
## The Concept

- In essence, a Technology Platform is a mechanism to bring together all interested stakeholders, particularly from the private sector, to develop a long-term vision addressing a specific challenge, create a strategy to achieve that vision, and steer its implementation.
- The strategic research agenda is (in most cases) implemented using Framework Programme instruments

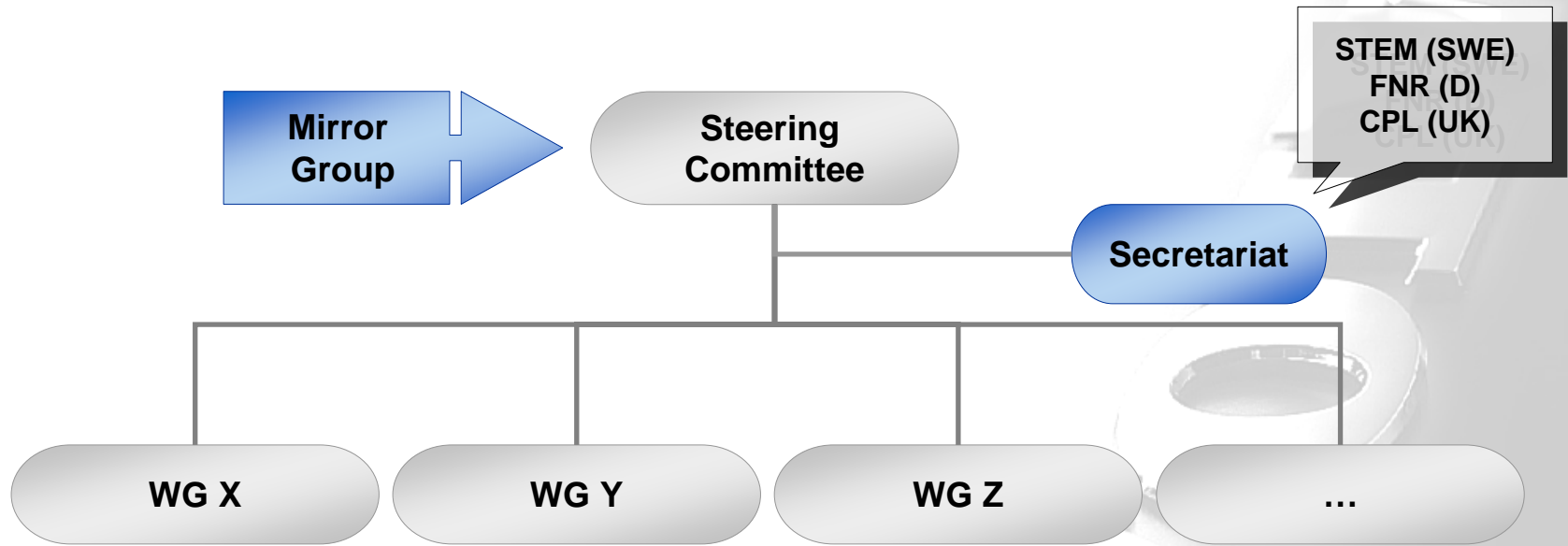


# Biofuels Technology Platform Implementation

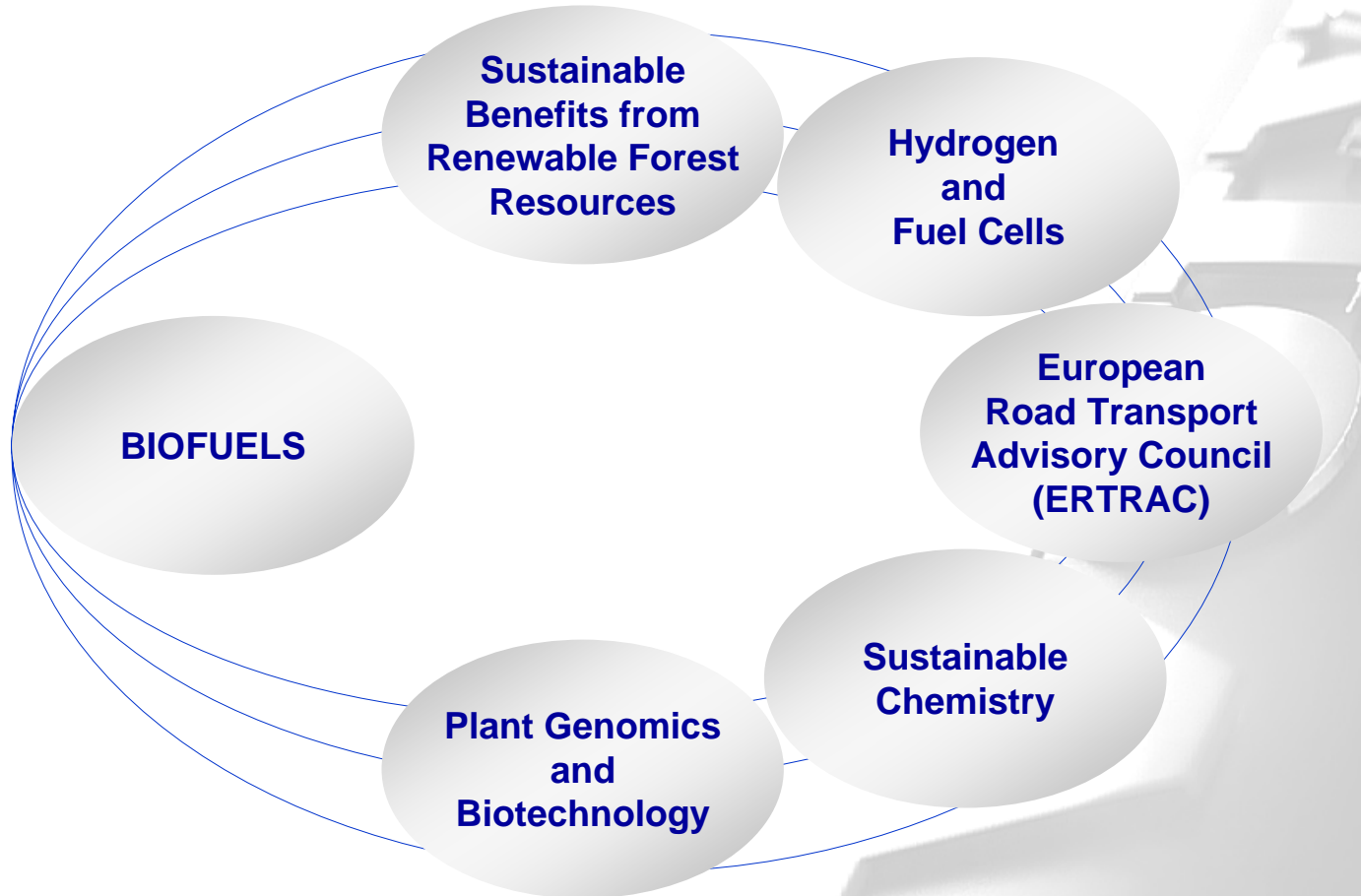
- Launched on 8 June 2006 in Brussels
- Mission: ***“Contribute to the development of cost-competitive world-class biofuels technologies, to the creation of a healthy biofuels industry and to accelerate the deployment of biofuels in the European Union through a process of guidance, prioritisation and promotion of research, development and demonstration.”***
- Involvement of many different stakeholders
- Clear ***focus on biomass conversion to transport fuels***



# Biofuels Technology Platform: Structure



# Interaction with other Technology Platforms



To ensure success:  
**Integrated Approach is Necessary**



***Thank You For Your Attention !***

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