



The European Technology Platform for Biofuels



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EC Biofuel Policy

Directive establishing a minimum level of biofuels as a proportion of fuels sold from 2005

- ✓ Minimum market share of bio-fuels in the EU: 2% by 2005 and 5.75% by 2010
- ✓ Member States to set up national goals consistent with the overall EU objectives
- ✓ Monitoring and review on EU level

Directive providing a new Community framework for the taxation of biofuels.

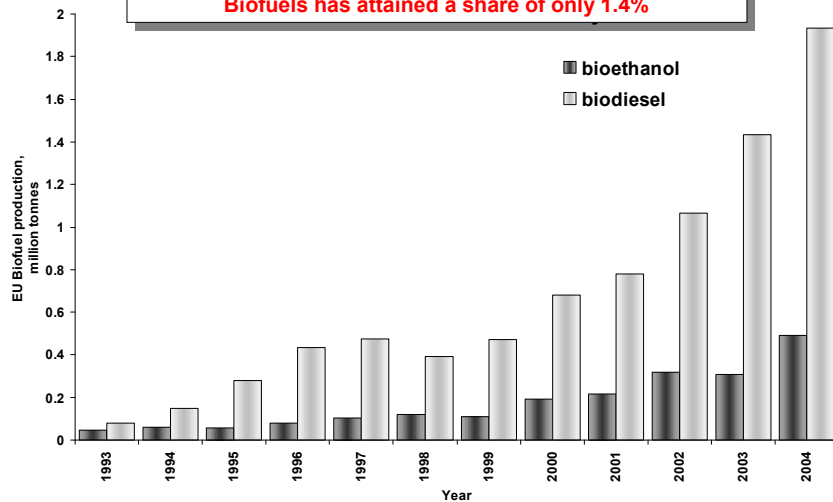
- ✓ Currently 9 Member States have partly or completely de-taxed biofuels

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Biofuels in the EU-15

The 2005 reference value of 2% has not been achieved
Biofuels has attained a share of only 1.4%



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Energy Strategy for Europe

- × **Biomass Action Plan - COM(2005) 628**
 - ✓ The BAP sets out measures to promote biomass in heating, electricity and transport, followed by cross-cutting measures affecting biomass supply, financing and research.
- × **EU Strategy for Biofuels - COM(2006) 34**
 - ✓ This Communication carries forward the biofuels component of the Biomass Action Plan and is accompanied by an Impact Assessment which presents different policy options.
- × **Possible revision of the biofuels directive:**
 - ✓ setting national targets for the share of biofuels
 - ✓ using biofuels obligations on fuel suppliers
 - ✓ giving favourable treatment to second-generation biofuels

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EU Research policy

- × Raising the spending on RTD to 3% of the EU GDP, of which 2% should come from the private sector (part of the Lisbon strategy)
- × The 7th Framework Programme (2007-2013) is the main instrument for the policy implementation, and its budget will be significantly higher than that of FP6
- × **Technology Platforms** will provide a means to foster effective public-private partnerships

The concept of Technology Platforms

- × 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

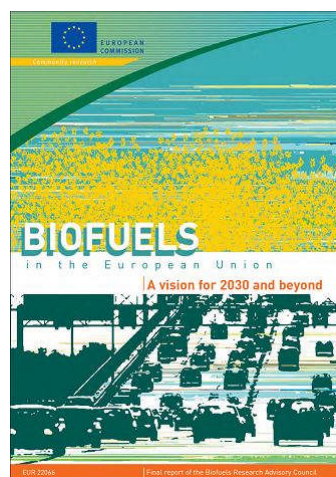


Biofuels Technology Platform: Preparation phase

- × Invitation of Advisory Council (BIOFRAC), 15 June 2005
- × Develop 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 the Advisory Council

- × 7 meetings between June 2005 and February 2006
- × Many different views
- × 50 hours of discussion
- × 50 litres of coffee
- × More than 500 e-mails



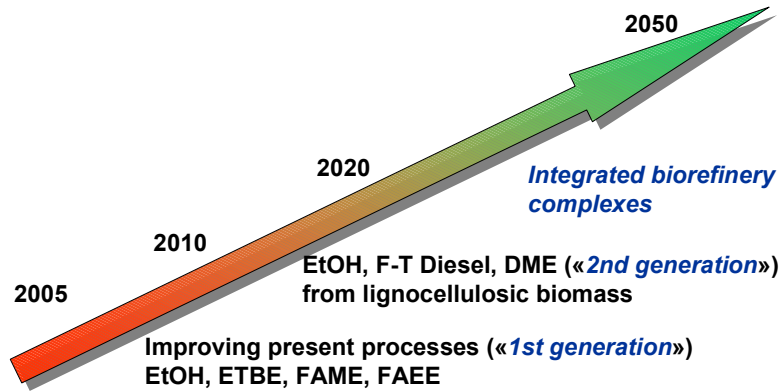
The vision

- × **By 2030, the European Union covers as much as one quarter of its road transport fuel needs by clean and CO₂-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; these create opportunities for biomass providers, biofuel producers and the automotive industry.**

Vision report Recommendations (1)

- × **Let technologies compete**
- × **Research is needed for further progress in conventional biofuels**
- × **Put efforts to advanced conversion technologies and biorefineries**
- × **Develop sustainable land strategies, dedicated crops, utilisation of biotechnology**
- × **Agree on quality and environmental standards for biofuels and biofuels blends**
- × **Interact with the development of advanced and efficient powertrains**
- × **Balance domestic production and imports**

Anticipated future roadmap



Vision report Recommendations (2)

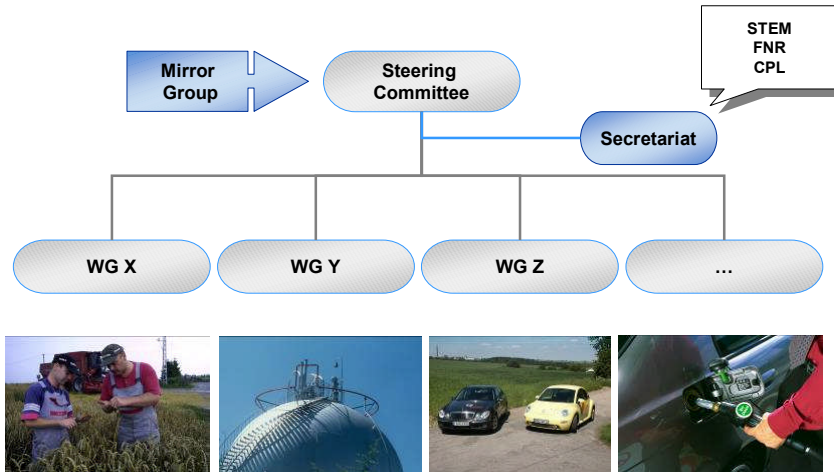
- × Establish a European Technology Platform for Biofuels
 - ✓ Assure optimal cooperation between stakeholders
 - ✓ Include air and water borne transport
 - ✓ Give priority to cost effectiveness and decrease environmental impact
 - ✓ Contribute to harmonisation of policy measures
 - ✓ Maintain close links with other relevant platforms
 - ✓ Develop and implement a strategic research agenda and deployment strategy

Biofuels Technology Platform: Implementation

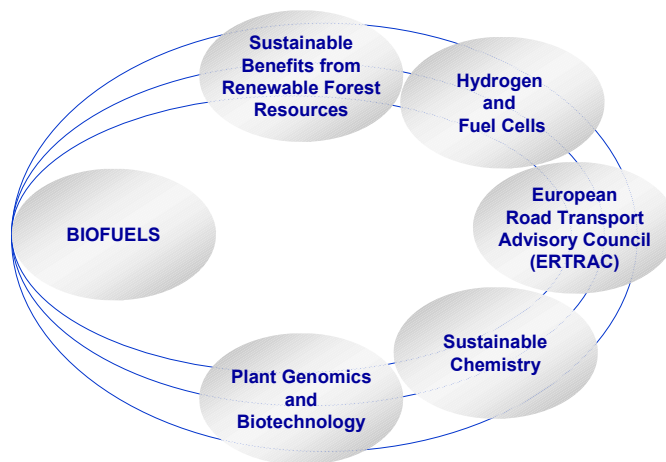
- × Launched on 8 June 2006 in Brussels
- × Mission: *“Contribute to the development of cost-competitive world-class biofuels technologies, to the creation of a healthy biofuels industry and to accelerate the deployment of biofuels in the European Union through a process of guidance, prioritisation and 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



Seventh Framework Programme

- × Duration: 7 years (2007-2013)
- × Budget: more than 54 Billion €
- × Structure: Specific Programmes
 - ✓ Ideas – Frontier research
 - ✓ Cooperation – Collaborative research themes
 - ✓ People – Human potential
 - ✓ Capacities – Research capacity
- ✓ (Euratom, JRC)



Co-operation Specific Programme Energy Theme

Hydrogen and fuel cells

CO2 capture and storage technologies for zero emission power generation

Renewable electricity generation

Clean coal technologies

Renewable fuel production

Smart energy networks

Renewables for heating and cooling

Energy savings and energy efficiency

Knowledge for energy policy making



Energy Theme

Renewable
fuel production

Improved conversion technologies for the sustainable production and supply chains of solid liquid and gaseous fuels from biomass, in particular **biofuels for transport**.

Emphasis on new types of biofuels and new production and distribution routes for existing biofuels, integrated production of energy and other added value products: **biorefinery**.

Research will focus on improving energy efficiency, enhancing technology integration and use of feedstock.

Framework Programme

EURATOM CAPACITIES
IDEAS SKILLS
COOPERATION

Renewable
fuel production

(examples of sub-areas under discussion)

First generation biofuels

Reducing the production cost of conventional biofuels, i.e. biodiesel, bioethanol from starch/sugar, biomethane. Improving energy balance and environmental performance.

Second generation biofuels

Developing conversion technologies for lignocellulosic ethanol, syngas-based fuels, pyrolysis-based biofuels. Expanding the biomass feedstock available for biofuels production, avoiding food/fuel competition for land use. System integration.

Framework Programme

EURATOM CAPACITIES
IDEAS SKILLS
COOPERATION

Renewable fuel production

(examples of sub-areas under discussion)

Biorefinery

Maximising the value derived from biomass feedstock by integral use of its components. Integrated production of energy (fuels, power, heat) and bioproducts (chemicals and/or materials) from biomass.

- × Advanced biorefinery concepts based on existing industrial processes
- × Developing new fractionation and conversion technologies

Biofuels use in transport

Accelerating market penetration of biofuels and reducing the cost associated to the implementation of new technologies.



Staying informed

Energy Research web site and Energy Helpdesk:
http://europa.eu.int/comm/research/energy/index_en.html
rtd-energy@cec.eu.int

Energy Policy
http://europa.eu.int/comm/energy/index_en.html

Towards Seventh Framework Programme
http://europa.eu.int/comm/research/future/index_en.html

Conferences, proceedings, Newsletter
http://europa.eu.int/comm/research/energy/gp/gp_events/action/article_2790_en.htm
<http://europa.eu.int/comm/research/energy/pdf/renews4.pdf>

Biomass Action Plan
http://europa.eu.int/comm/energy/res/biomass_action_plan/green_electricity_en.htm

EU Strategy for Biofuels
http://europa.eu.int/comm/agriculture/biomass/biofuel/index_en.htm

