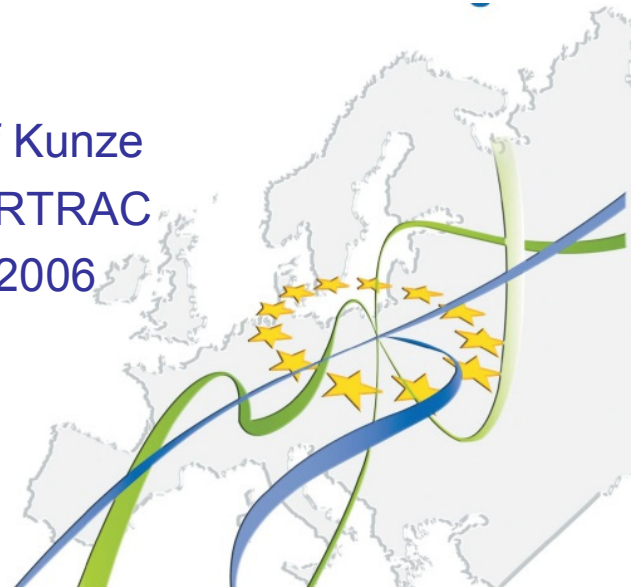




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# BIOFRAC A Road Transport Perspective (ERTRAC)

Prof. Rudolf Kunze  
Chairman ERTRAC  
08. June 2006





# The European Road Transport System

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- European road transport provides:
  - 20% GDP contribution,
  - 9% workforce
- Significant future growth of goods and people transport
- Industry faces strong global competition
- A highly complex system
- Many different stakeholders



# The European Road Transport System is not sustainable

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- Insufficient progress on greenhouse gases
- Urban airquality issues not fully understood
- Road Safety road map off-track
- Congestion
- Over-regulated sector
- Competitiveness issues

- Increase in goods & people transport
- Urgency for atmospheric stabilisation
- Growing health concerns
- Growing energy dependancy

**Business as usual not good enough !**



## ...Why ERTRAC

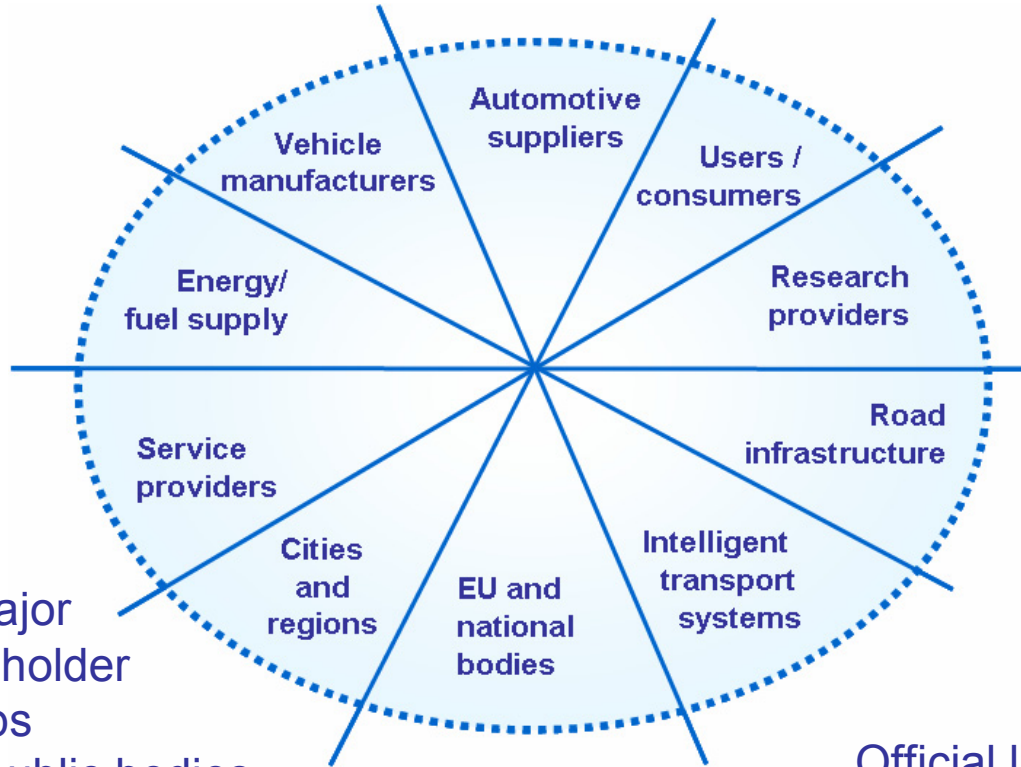
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- Challenges are very complex
- Many different stakeholders
- Need for a forum with a “total system” view, all stakeholders involved
- Need open and transparent process
- Need consensus on the way forward
- Need to align European research activities
  - Public/ private and European/ national
- Innovation, policies, standards to go hand-in-hand



# ERTRAC Members

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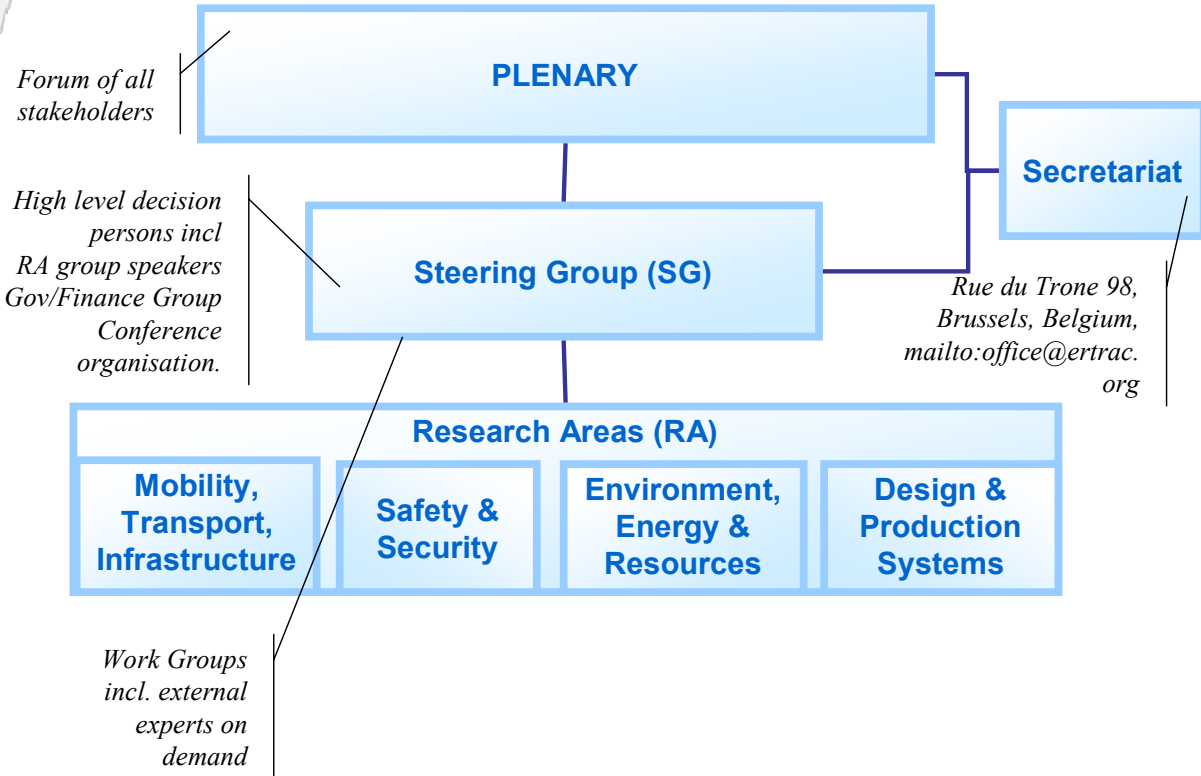
All major stakeholder groups and public bodies represented

Official launch  
June 2003



# ERTRAC Structure

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# The ERTRAC Process

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June  
2004



April  
2006



# ERTRAC Research Framework Content

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- Research targets
- Options (technology and policy)
- Future research needs
  - Mobility, Transport, Infrastructure
  - Environment, Energy and Resources
  - Safety & Security
  - Design & Production Systems
- Research impact and effectiveness
- FP7 priorities
- Cross-stakeholder topics (in progress)



# BIOFRAC Vision 2030

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2030-2030

## BIOFRAC vision (draft !)

- *By 2030, the European Union covers one fourth 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, creating opportunities for biomass providers, biofuel producers and the automotive industry*

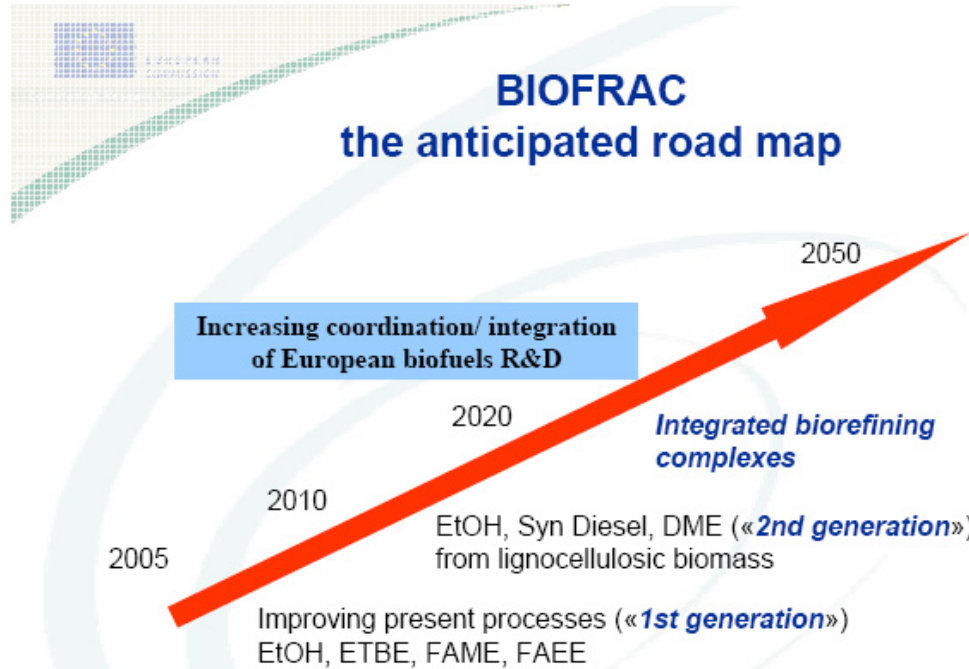


**Fully aligned with and supported by ERTRAC**



# Biofrac Strategic Research Agenda

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Fully aligned with and supported by ERTRAC



## ERTRAC Research Framework

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- ... **costs of biofuels production and efficiencies** in GHG reduction and energy savings.
- **Second generation of bio fuels** pathways will build on the **well-to-wheels studies**
- ... a **systems approach will be adopted** including engine, transmission, aftertreatment and optimised fuel formulations.
- ...More details are covered by the **BIOFRAC** technology platform



## EUCAR Input to FP7

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- **Improving engine technologies** and in particular the advanced combustion and exhaust aftertreatment systems **for biofuels**, the fuel handling and the storage technologies
- Enhancing the overall system **demonstrating the complete biofuel chain**: from energy raw material to use in engines/vehicles
- Implementing the “**Integrated System Approach**” **regarding: new advanced combustion processes with dedicated transmission and integrated aftertreatment operating with tailored synthetic and bio-fuels / bio-blend fuels as a whole system**

Figure A.11: Products roadmap for transportation

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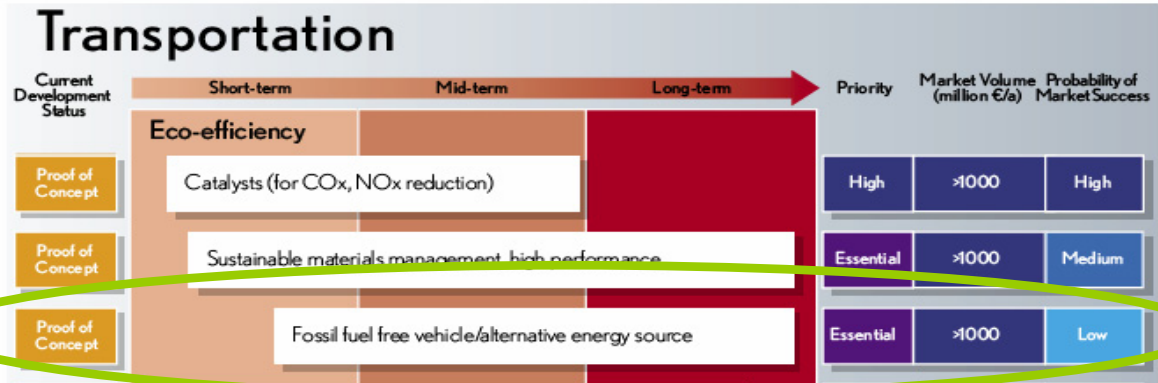
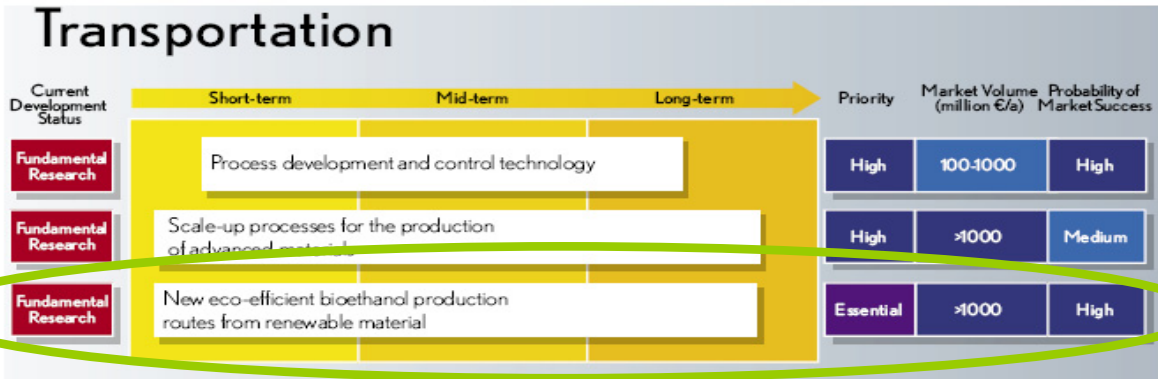







Figure A.12: Technology development roadmap for transportation





# ERTRAC Recommendation

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-  **ERTRAC welcomes and supports BIOFRAC**
-  **Visions and SRAs largely aligned**
-  **Systems approach is important**
-  **Inclusiveness of stakeholders to be ensured**
-  **BIOFRAC recommended as strategic center for bio fuels topics**



## Biofrac Strategic Research Agenda

- ... should **establish and maintain close links to other relevant Technology Platforms** such as ERTRAC (road transport), Forest-based Sector, Plants for the Future (“green” biotechnology) and Sustainable Chemistry (including “white” or industrial biotechnology).
- The **Platform should also take into consideration the development of advanced and efficient powertrains ...**



**Leadership / worksplits should be agreed**



## Biofrac Strategic Research Agenda

- ... replacing diesel and petrol to the level of **5.75% by 2010 ... accompanied by detaxation of biofuels** (within Directive 2003/96/EC)
- ... biodiesel (B100) in Germany enjoys a **100% fuel-tax exemption...**
- The Biofuels Technology Platform also will provide the scenarios and **strategic guidance for decision makers to set up the proper policy framework.**



**Germany stops exemption**



**Harmonisation needed to minimise infrastructure complexity**



**Agricultural policies to be aligned**



# Biofrac Strategic Research Agenda

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- ... alternating between biofuels, conventional fuels and blends should be possible
  - ...**High quality of the fuel** is an important enabler to comply with stringent emission regulations
  - **Agreed quality standards for biofuels and biofuel blends are mandatory**
-  **Integrated process for ICE / fuel specification / aftertreatment technologies needed**



# Biofrac Strategic Research Agenda

- Improve the acceptability of the biomass sector by strengthening the communication channels among the relevant stakeholders, especially the farming and forestry sectors with the respective fuel and energy sectors



**Citizen's acceptance to be improved**

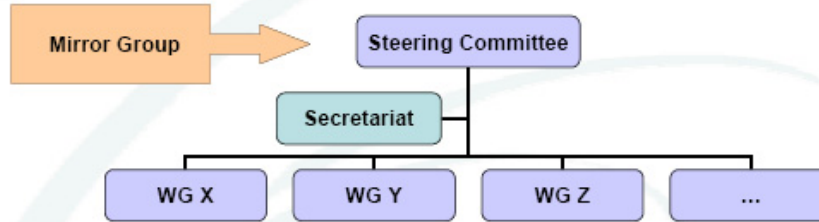


**Academia, green parties, NGOs should  
consent**



The Next Step

## Creation of Biofuels Technology Platform



- ✓ Call for *expressions of interest* for the Steering Committee and Working Groups
- ✓ Selection of the members of the first Steering Committee
- ✓ *Formation of structure* for the Biofuels Technology Platform, including the *Working Groups* and the appointment of the *Secretariat*
- ✓ Constitution of the *Mirror Groups*



**Should aim for maximum MS presence in Steering Committee for maximum harmonisation**



# ERTRAC's inventory of national RTD activities

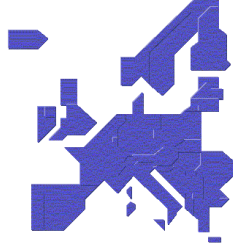
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## Mapping of national road research activities in Europe

based on information from

ERA-NET Transport,  
EXTR@WEB and  
national ERTRAC representatives



Draft version 03,  
2. February 2006

## Content:

- The Country
- Transport infrastructure
- Transport industries
- Transport policies
- Transport research & funding system
- Selected RTD programmes of the past 5 years



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European Road Transport  
Research Advisory Council



## News Brief #6

October 2005

### Activities in July, August and September:

- **Strategic Research Recommendations:** The four Research Areas have been working on the Strategic Research Recommendations (SRR) over summer. Meetings have been organised for Environment, Energy & Resources (1 July, 23 August), Safety & Security (30 August), Mobility Transport & Infrastructure (7 September) and Design & Production Systems (6 September). The intermediate results were presented to the Plenary meeting on 29 September. The SRR will need to be further developed and aligned among each other in the coming months.
- The inventory of **national road research activities** now contains information about activities in 15 States. The Plenary discussed during its last meeting a procedure for detecting gaps between ERTRAC and the EU activities.
- The Finance & Governance Group has worked out a **membership application procedure**, including criteria, during meetings on 13 July and 12 September. This process was presented to the Plenary and approved.
- The ERTRAC **website** has recently been updated, in order to reflect the latest changes in organisation. A more profound restructuring of the website is foreseen for the coming months.
- On 1 September, the **ERTRAC 2 proposal** was submitted to the European Commission. If accepted, it will foresee in the continuation and enhancement of the ERTRAC organisation. In particular, it is planned to set-up a permanent ERTRAC secretariat, located in Brussels, beginning of 2006.

### Documents:

All ERTRAC publications are available on-line on the ERTRAC web site ([www.ertrac.org](http://www.ertrac.org)).

If you need copies of the printed SRA Overview brochure or the complete SRA of CD-ROM, please contact:

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e-mail: [clara.horvath@avl.com](mailto:clara.horvath@avl.com)  
Phone: +43 316 787 489  
Fax: +43 316 787 657

### Upcoming Activities:

- The date for the next Plenary Meeting is 1 February 2006
- The date for the next Steering Group meeting is 18 January 2006
- Additional meetings are planned on 30 May 2006 (Steering Group) and on 12 June 2006 (Plenary, at TRA conference in Gothenburg, Sweden)

### TRA Conference:

<http://www.traconference.com/>

Further Information:  
[www.ertrac.org](http://www.ertrac.org)

For general inquiries:  
[office@ertrac.org](mailto:office@ertrac.org)

