



EUCAR

EUROPEAN COUNCIL FOR AUTOMOTIVE R&D

R&D Priorities for the Greening of Vehicles and Road Transport

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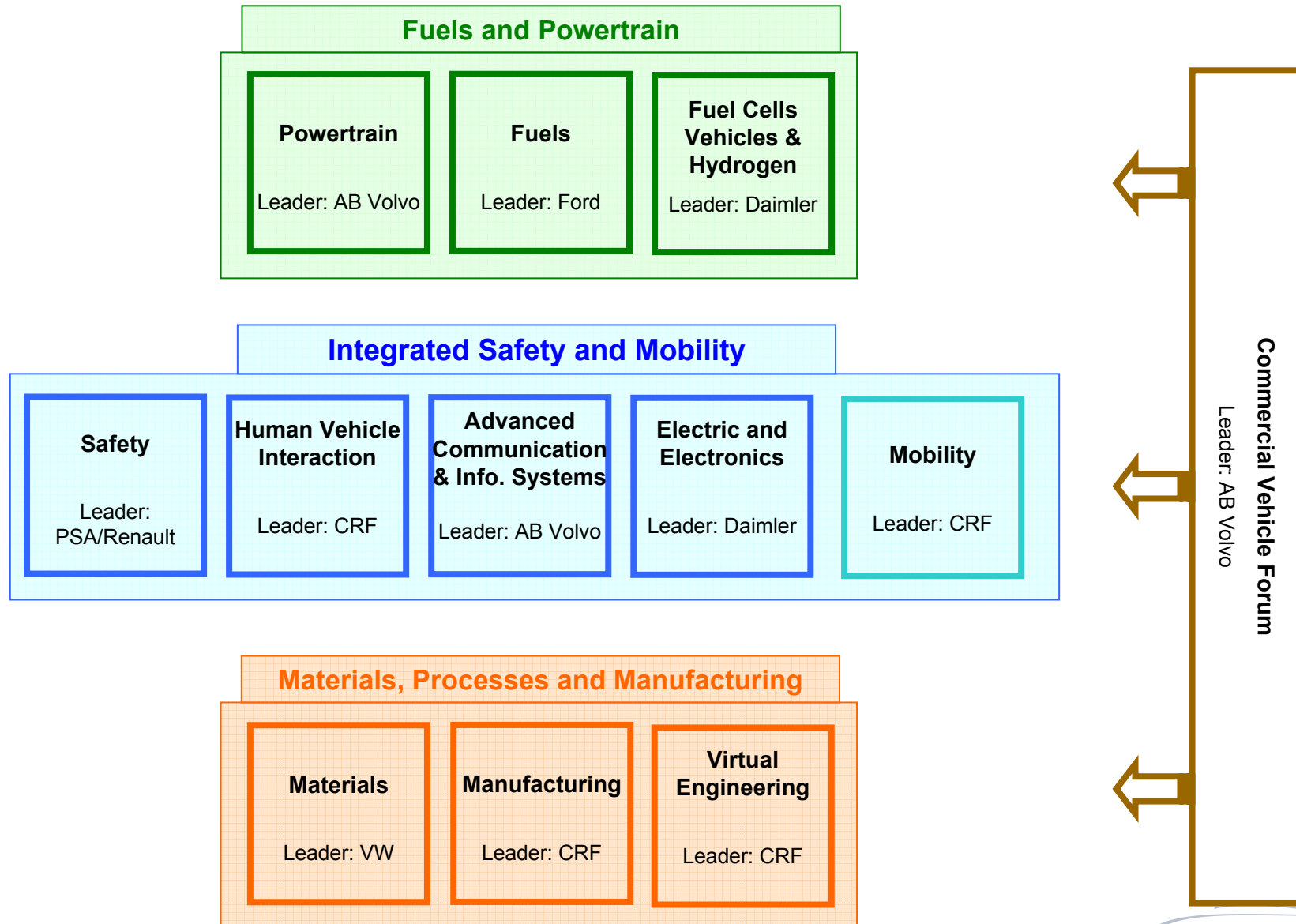
CLEPA

EUCAR Members

The 12 Major European Automotive Manufacturers



EUCAR Working Groups



EUCAR Mission

“Strengthen the Competitiveness of the European Automotive Manufacturers through Strategic Collaborative R&D”

This will be done by the activities:

- ❑ Identifying, formulating and prioritising the common R&D needs
- ❑ Interacting with the European Commission, national bodies and other key stakeholders in order to represent, promote and communicate these common R&D needs
- ❑ Initiating, supporting and monitoring impact studies, projects and programmes

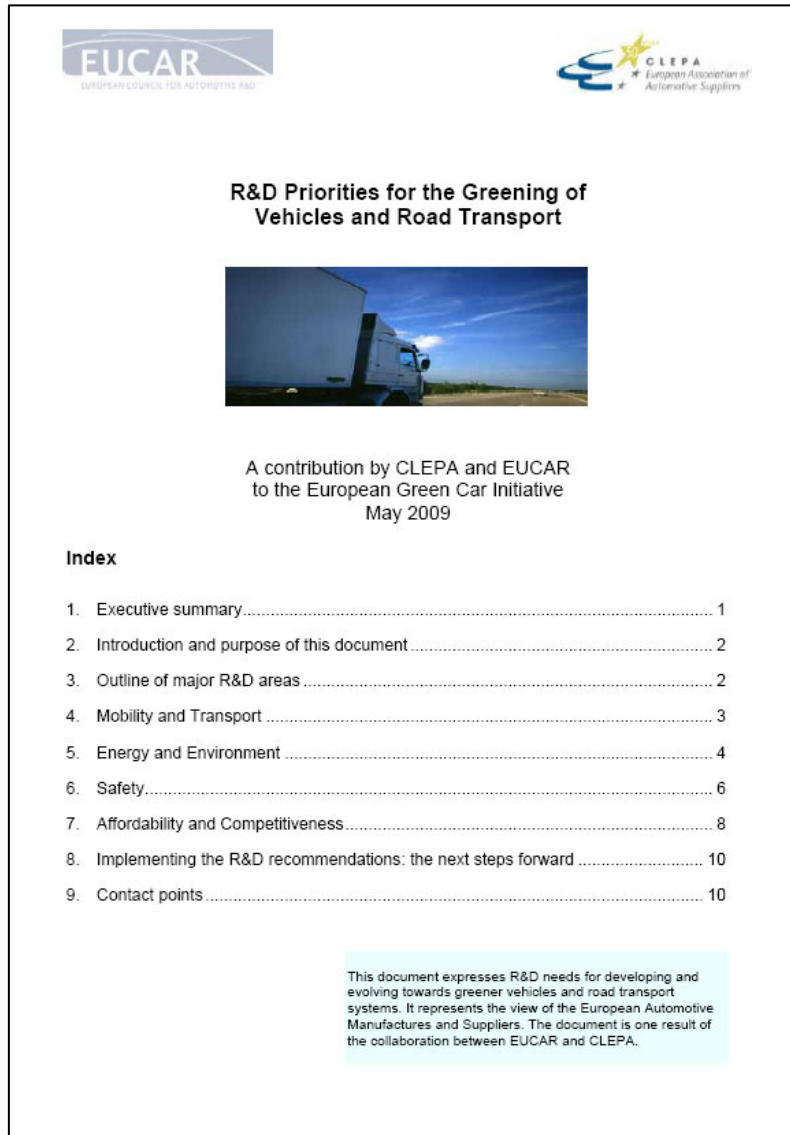
EUCAR Message



Collaborative automotive R&D
for safe, energy-efficient
and affordable mobility of
people and goods
on European roads

November 2008

EUCAR - CLEPA cooperation



Industry contribution to the
European Green Car Initiative

May 2009

R&D domain: four major areas

Transport system that provides **efficient** mobility and transport of **people and goods**, consumes **energy and resources** in a responsible way, improves **safety and security**, and is accessible, attractive and **affordable** for the ordinary citizen

- ❑ Mobility and Transport
- ❑ Energy and Environment
- ❑ Safety
- ❑ Affordability and Competitiveness

R&D domain: Mobility and Transport

- ❑ Efficient traffic management and reliable real-time traffic information
- ❑ Energy efficient transport of goods, freight distribution and improved logistics
- ❑ New mobility concepts for a safe, sustainable and convenient individual and collective transport of people
- ❑ Assisted and partially autonomous driving improving the efficiency of vehicles: different vehicle types and topologies
- ❑ The Green Vehicle in the Transport System: interfacing modes or types of clean vehicles; demand management



R&D domain: Energy and Environment

Electrification of the vehicle

- ❑ Energy storage systems: improvement of Lithium Ion-based battery cell chemistry and technology, Lithium-ion battery cells
- ❑ New vehicle concepts required for electric propulsion technologies
- ❑ Vehicle integration issues: energy/thermal management, long lifetime of components
- ❑ Key components for hybrid, electrical drive and fuel cell systems: advanced electric motors, brakes, suspensions and recuperation technologies



R&D domain: Energy and Environment

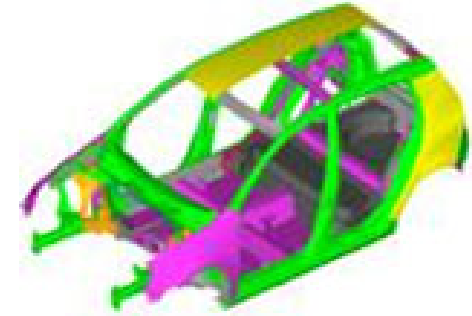
Renewable/alternative fuels and drivetrain

- ❑ Development of CO₂-neutral fuels from renewable materials
- ❑ Assessment of climate and energy impact: Well-to-wheel analysis for various fuel options and drive trains
- ❑ Optimisation of powertrains for alternative fuels
- ❑ Technological innovations of the internal combustion engine and exhaust systems for fuel savings



R&D domain: Affordability and Competitiveness

- ❑ Green manufacturing for green vehicles: decreased energy consumption during the complete supply chain starting from raw material till the end of the vehicle's life
- ❑ Affordable manufacturing for green vehicles: processes effective in cost, time and quality by means of standard modularisation of powertrain components and flexible assembly
- ❑ Specific attention to electric vehicles and the constituent components and sub-systems including batteries
- ❑ Digital manufacturing for integration of product and process development



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