

**Carl-Peter Forster**  
President General Motors Europe

# Alpbacher Technologiegelgespräche

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# Demand for Personal Transportation Will Increase

- World population is expected to surpass 8 billion by 2030
- Number of vehicles in developed and developing countries will increase



# Expected Development in Vehicle Ownership

- Today, only 12 percent of the world's population owns automobiles
- By 2030, this number will reach 17 percent
- The global vehicle park is expected to double in the same period to 1.5 billion vehicles



# Sustainable Mobility

All well-to-wheel studies confirm GM's strategy:

Fuel cell vehicles powered by hydrogen from renewable energy sources offer the best solution for sustainable mobility



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# GM Fuel Cell Activities

- Investment of more than one billion dollars in the development of hydrogen fuel cell vehicles
- Development centers in the USA, Japan and Germany with 600 employees totally



# Development Vehicle HydroGen3

- Based on the Opel Zafira
- Worldwide practical testing



# Concept Car Sequel

- Specifically designed for hydrogen fuel cell propulsion
- Reaches operating range of 480 kilometers
- Drivable version to be presented next year



# Goals for Development of Fuel Cell Technology

- By 2010, GM wants to have designed and validated a fuel cell propulsion system that is competitive with current ICEs and that can ultimately be built affordably in high volume
- Cost target: 50 Dollars per kW of propulsion power



# Public Support

● The public sector has a key role to play in:

- Funding basic and pre-competitive research
- Support of demonstration programs
- Development of a global approach to safety, codes and standards
- Incentives for customers
- Support for hydrogen infrastructure build-up



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# Goals of the European Union

- 20 percent of all motor vehicle fuels should be replaced by alternative fuels in 2020
- Target can only be reached:
  - when we have a common and clear roadmap
  - when we provide the necessary financial resources
  - and when we rapidly work on lighthouse projects



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# Economy and Sustainability

- Competition grows steadily
- Future success of European car industry depends on innovations like fuel cell and hydrogen technology
- Build-up of a hydrogen and fuel cell economy will have positive impact on sustainable growth of national economies



# Perspectives of Fuel Cell Technology in Europe

Fuel cells will come – if they don't come from Europe, they will come to Europe



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