



## The INTERNATIONAL ENERGY AGENCY

The **International Energy Agency (IEA)** is an autonomous body that was established in November 1974 within the framework of the Organisation for Economic Co-operation and Development (OECD) to implement an international energy programme.

It carries out a comprehensive programme of energy co-operation among twenty-six of the OECD's thirty member countries. The basic aims of the IEA are:

- To maintain and improve systems for coping with oil supply disruptions.
- To promote rational energy policies in a global context through co-operative relations with non-member countries, industry and international organisations.
- To operate a permanent information system on the international oil market.
- To improve the world's energy supply and demand structure by developing alternative energy sources and increasing the efficiency of energy use.
- To assist in the integration of environmental and energy policies.

## Why Transport related programmes of the IEA ?

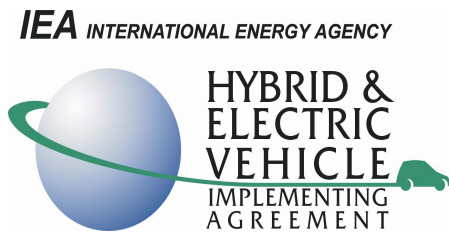
- The IEA mandate is to provide credible, balanced objective information on energy issues and technologies to its member countries. The IEA does not seek to advocate particular technologies, only to report objectively on them.
- A recent overview of the IEA's „Energy Technology: Facing the Climate Change“ shows that transport's share in oil use is likely to account for virtually all growth in oil consumption in OECD countries between 2000 and 2030. Energy use in transport is likely to increase by 50% over that period, and so are CO<sub>2</sub> emissions.
- There are 6 transport related programmes (Implementing Agreements) working under the umbrella of the International Energy Agency:
  - Hybrid and Electric Vehicles
  - Advanced Motor Fuels
  - Advanced Fuel Cells
  - Advanced Materials for Transportation
  - Bio-energy
  - Hydrogen

## The Implementing Agreement for Hybrid and Electric Vehicles

The Implementing Agreement for Hybrid and Electric Vehicles started in 1993 with the aim to produce and disseminate balanced, objective information about advanced vehicle technologies including electric, hybrid and fuel cell vehicles. It is a working group of Governments and research organizations of member countries of the International Energy Agency. Currently Austria, Belgium, Canada, Denmark, Finland, France, Italy, the Netherlands, Sweden, Switzerland, Turkey, United Kingdom and the United States are participating and active in this Agreement.

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## **STRATEGIES FOR THE FUTURE FRAMEWORK**

### **The four main energy and environmental goals for the transportation sector are**

- Improve urban air quality by reducing noxious vehicle emissions
- Reduce greenhouse gas emissions from the transportation sector
- Reduce dependency on fossil fuels
- Increase the overall energy efficiency of the transportation sector

### **The following assumptions can be made for the mid term future of the transportation sector**

- Vehicles powered entirely or partially by an electric traction motor can be highly energy efficient, can recover their braking energy, and have major environmental advantages. For these reasons, hybrid and fuel cell vehicles are very promising technologies. Battery electric vehicles might also take a certain market share if the cost of advanced batteries can be reduced.
- With the introduction of these advanced drive train technologies, the automotive market is likely to undergo major changes. This will have major economic, environmental, and energy implications for all countries, whether they have an automobile industry or not.
- Now that battery and hybrid electric vehicles have entered the market, some Governments are expanding the scope of their programmes from technology development and demonstration fleets to include issues of market introduction and market penetration, and to encourage the use of these vehicles. This includes topics such as large scale Governmental procurement of advanced technology vehicles, and mandates such as the California mandate.
- The introduction of hybrid and fuel cell vehicles can also change the world's energy supply in terms of primary energy used and the delivery of a fuel, a gas or electricity to the vehicle.
- All countries will require information about advanced vehicle developments in other countries, including on the „state-of-the-art“ of specific technologies, on exploratory research, on experience and lessons learned with Governmental programmes, on advanced vehicle data, on driving patterns and driver behaviour, etc.

### **Participating organizations and target groups can expect the following benefits from collaboration in this Agreement**

- Objective information on international technical development of hybrid, electric, and fuel cell vehicles (knowledge transfer).
- Objective information on Government programmes and experiences with the market introduction of advanced vehicles (transition towards sustainable mobility).
- Sharing of the costs of collecting and analyzing of the information by the participating countries.
- Advantages resulting from having a network of contacts in the major „hybrid and electric vehicle countries“, including the possibility of working on joint projects, and of obtaining first hand information on a personal basis which is not available in published reports.
- Can have all the possible benefits of the research done by the leading research institutes in the world.