



Carbon Sequestration Leadership Forum Policy Group Meeting

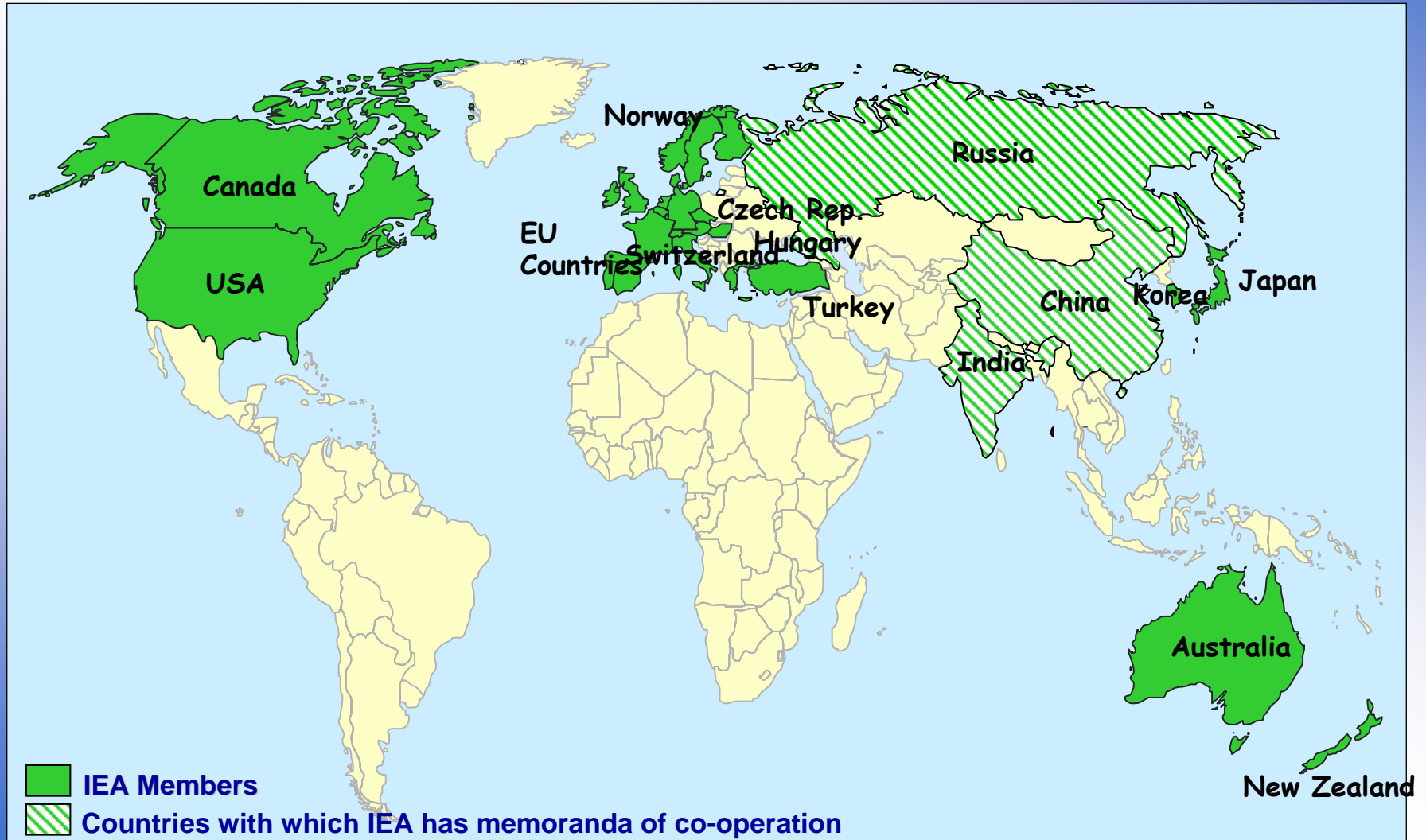
**Delhi, India
3 April, 2006**

Joint IEA/CSLF Activities

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International Energy Agency**



IEA Member Countries



INTERNATIONAL ENERGY AGENCY

AGENCE INTERNATIONALE DE L'ENERGIE



The IEA's role:

- Integral part of members' energy security
- Conducts policy analysis, compiles data
- Convenes expertise
- Publishes findings





IEA Energy Technology Collaboration (1)

- **Energy research and technology development, demonstration and deployment**
 - ◆ **Fossil Fuels**
 - ◆ **Renewable energy**
 - ◆ **Efficient End-Use**
 - ◆ **Nuclear Fusion**
 - ◆ **Information Centres / cross-cutting**
- **Programmes and networks bring together**
 - ◆ **Scientists and engineers**
 - ◆ **Policy makers**
 - ◆ **Industry experts and decision-makers**
- **More than 5000 participants from IEA member & non-member countries**



IEA Energy Technology Collaboration (2)

The only structure in the world that ...

- ◆ Has a 30 years time-tested structure for formalizing agreements**
- ◆ Links such a wide range of energy technologies**
- ◆ Facilitates in all fields exchange of technical and related policy expertise and information**

IEA Energy Ministers and G8 requested more policy advice from IEA technology network, building also on CSLF and other networks activities

The IEA Energy Technology Network

IEA GOVERNING BOARD

CERT - Committee on Energy Research and Technology





Implementing Agreements (1)

- 41 energy technology collaboration programmes (Implementing Agreements)
 - ◆ 434 agreements with contracting parties
 - 396 with IEA Members
 - 38 with Non IEA Members
 - ◆ 17 sponsors
 - ◆ 20 European Commission
- Demand driven
- Number of programmes rather constant, increasing participation

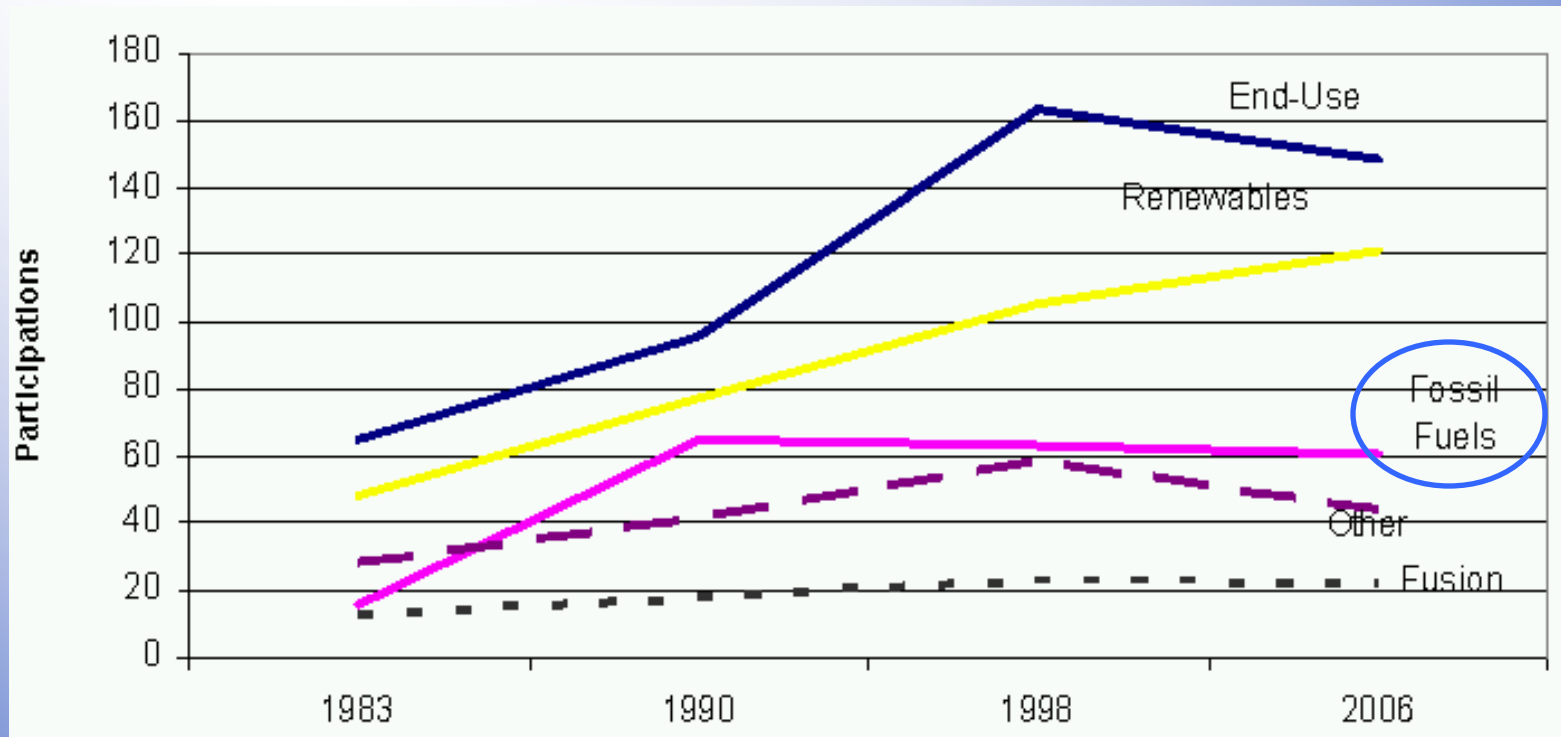


Implementing Agreements (2)

- **Participants in Implementing Agreements**
 - ◆ **Contracting Parties:** governments or entities nominated by them (OECD and non-OECD), international organizations
 - ◆ **Sponsors:** entities not designated by governments
- **Financing**
 - ◆ **Cost sharing**
 - ◆ **Task sharing**
- **Protection of intellectual property**



IEA Member Countries Participation in Implementing Agreements

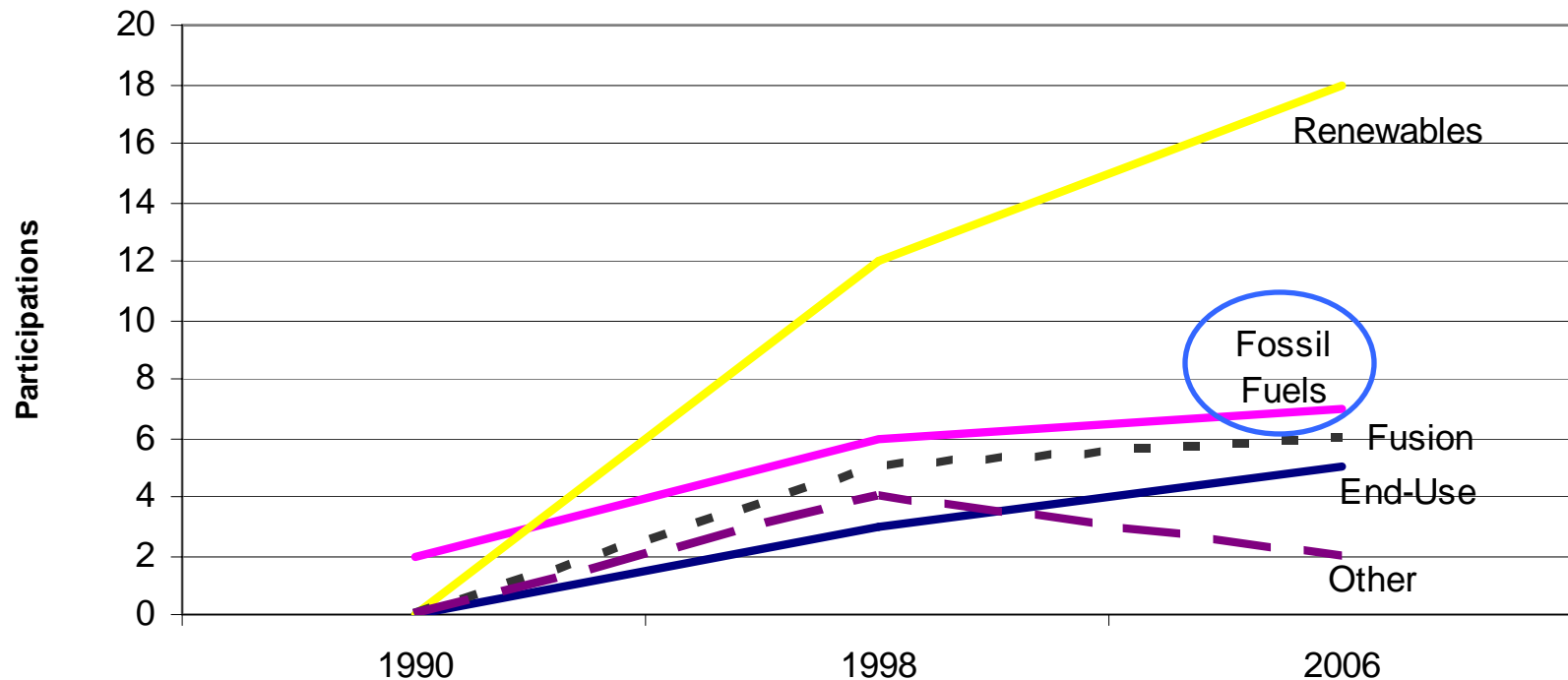


Participation grew from 297 in 1990 to 396 in 2006

Greatest interest in end-use technologies and renewable energies



Non Member Countries Participation in IEA Implementing Agreements



Participation grew from 2 in 1990 to 38 in 2006

Greatest interest in renewable energies



... more information

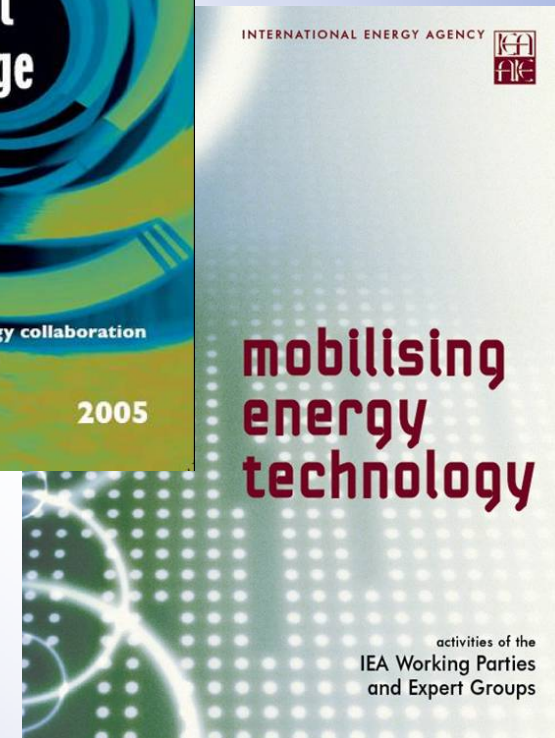
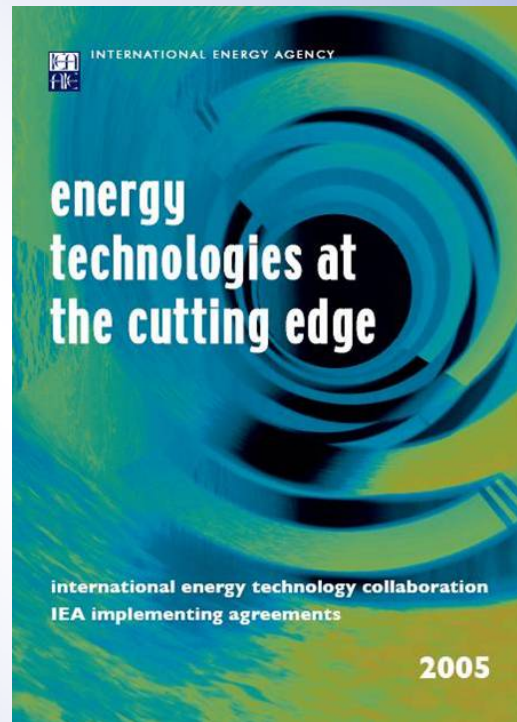
- **Contains**

- ◆ **Key actors**
- ◆ **Key challenges and findings**
- ◆ **Recent achievements**
- ◆ **Relevant conferences, workshops, seminars**

Downloadable free:

www.iea.org

(Publications + Online Bookshop)





Joint IEA/CSLF Activities

1st Workshop on Legal Aspects of Storing CO₂

Paris, 13 July 2004

2nd Workshop on Legal Aspects of Storing CO₂

Paris, 17 October 2006





G8 Communiqué 8 July 2005



- **2 Focuses**
 - ◆ “Climate Change, Energy and Sustainable Development”
 - ◆ “Africa”
- **Plan of Action assigned key role to IEA**



G8 Request

Gleneagles Summit, 7-8 July 2005

“(...) We will work to accelerate the development and commercialization of Carbon Capture and Storage technology by:

(a) (...)

(b) inviting the IEA to work with the **CSLF** (Carbon Sequestration Leadership Forum) to hold a **workshop on short term opportunities** for CCS in the fossil fuel sector, including from Enhanced Oil Recovery and CO₂ removal from natural gas production;

(c) inviting the IEA to work with the **CSLF** to study definitions, costs, and scope for ‘**capture ready**’ plant and consider economic incentives;” (...)



Workshops on Short-term Opportunities for CCS (1)

Coordination with the CSLF

Involvement of developing countries

**Goal: To accelerate the development and commercialization of
Carbon Dioxide Capture and Storage**

**Policy, technical and commercial issues – a report to the G8 with
specific recommendations**

Governments, private sector, NGOs, R&D organizations

Conference Committee

Steering Committee

International Organizing Committee



Workshops on Short-term Opportunities for CCS (2)

**Three events to be held in USA (2006), Norway (2007) and
Canada (2007):**

- Issues Workshop (San Francisco, 22-23 August 2006)**
 - Technical**
 - Commercial/Financial**
 - Legal and Regulatory**
 - Public Education and Outreach**
 - International**
- Assessment Workshop (Norway)**
- Recommendations Workshop (Canada)**



Study on capture ready plant (1)

- Engineering and cost study on capture ready plant (IEA GHG R&D Programme);
- Report on policy instruments and incentives for capture ready plant (IEA Secretariat);
- Coordination with the CSLF
- Involvement of developing countries
- Dissemination efforts



Study on capture ready plant (2)

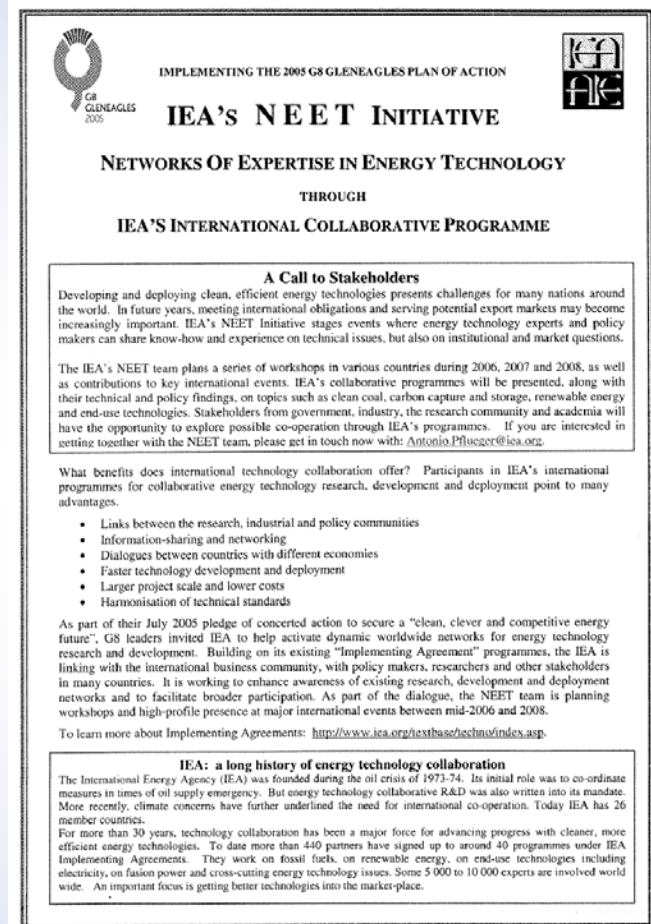
- Plant design to allow for CO₂ capture retrofit
- Scope of the “engineering” study
 - Power generation
 - NGCC (post combustion, pre-combustion)
 - PC steam cycles (post and oxy-combustion)
 - IGCC (pre-combustion)
 - H₂ plants
 - Fischer-Tropsch coal-to-liquids





IEA NEET Initiative

(Networks of Expertise in Energy Technology)

- Created NEET initiative launch at CSD, 3 May 2006, New York (part of G8 - Promoting Networks for R&D)
- Deliverables
 - ◆ 6 collaboration workshops
 - ◆ 7 – 10 international key events
 - ◆ Inventory of global collaborative energy efforts – IEA portal



IMPLEMENTING THE 2005 G8 GLENEAGLES PLAN OF ACTION

 **IEA'S NEET INITIATIVE** 

NETWORKS OF EXPERTISE IN ENERGY TECHNOLOGY

THROUGH

IEA'S INTERNATIONAL COLLABORATIVE PROGRAMME

A Call to Stakeholders

Developing and deploying clean, efficient energy technologies presents challenges for many nations around the world. In future years, meeting international obligations and serving potential export markets may become increasingly important. IEA's NEET Initiative stages events where energy technology experts and policy makers can share know-how and experience on technical issues, but also on institutional and market questions.

The IEA's NEET team plans a series of workshops in various countries during 2006, 2007 and 2008, as well as contributions to key international events. IEA's collaborative programmes will be presented, along with their technical and policy findings, on topics such as clean coal, carbon capture and storage, renewable energy and end-use technologies. Stakeholders from government, industry, the research community and academia will have the opportunity to explore possible co-operation through IEA's programmes. If you are interested in getting together with the NEET team, please get in touch now with: Antonio.Plueger@iea.org.

What benefits does international technology collaboration offer? Participants in IEA's international programmes for collaborative energy technology research, development and deployment point to many advantages.

- Links between the research, industrial and policy communities
- Information-sharing and networking
- Dialogues between countries with different economies
- Faster technology development and deployment
- Larger project scale and lower costs
- Harmonisation of technical standards

As part of their July 2005 pledge of concerted action to secure a "clean, clever and competitive energy future", G8 leaders invited IEA to help activate dynamic worldwide networks for energy technology research and development. Building on its existing "Implementing Agreement" programmes, the IEA is linking with the international business community, with policy makers, researchers and other stakeholders in many countries. It is working to enhance awareness of existing research, development and deployment networks and to facilitate broader participation. As part of the dialogue, the NEET team is planning workshops and high-profile presence at major international events between mid-2006 and 2008.

To learn more about Implementing Agreements: <http://www.iea.org/textbase/technof/index.asp>.

IEA: a long history of energy technology collaboration

The International Energy Agency (IEA) was founded during the oil crisis of 1973-74. Its initial role was to co-ordinate measures in times of oil supply emergency. But energy technology collaborative R&D was also written into its mandate. More recently, climate concerns have further underlined the need for international co-operation. Today IEA has 26 member countries.

For more than 30 years, technology collaboration has been a major force for advancing progress with cleaner, more efficient energy technologies. To date more than 440 partners have signed up to around 40 programmes under IEA Implementing Agreements. They work on fossil fuels, on renewable energy, on end-use technologies including electricity, on fusion power and cross-cutting energy technology issues. Some 5 000 to 10 000 experts are involved world wide. An important focus is getting better technologies into the market-place.



For more information

www.iea.org

See: “Technology Agreements”