

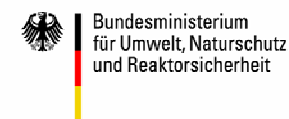


Projektträger Jülich
Forschungszentrum Jülich GmbH

Carbon Sequestration Leadership Forum

Hanns-Joachim Neef
Projektträger Jülich (PtJ)
h.j.neef@fz-juelich.de

COORETEC-Veranstaltung des BMWA auf der ENERTEC 2005
Leipzig, 10.-11. März 2005



Outline

- **Why CSLF?**
- **The different paths to sustainability**

- **CSLF – how it is organised**
- **CSLF – achievements and goals**

- **CSLF Projects (J.-F. Hake)**

Why CSLF?

Global Climate Protection

- **World CO₂ emission will increase by more than 100% over the next five decades – if we don't do better :**
an increase from 25 Gt CO₂ in 2000
to 55 Gt CO₂ in 2030
- **To achieve a sufficiently low level of 550 ppm CO₂ by 2050, CO₂ emissions should decrease and not increase**
- **CO₂ capture and storage could contribute significantly to emission reduction of more than 30 Mt CO₂ per year**

Why CSLF?

Energy supply security and non-industrial countries

- **CO₂ capture and storage would result in sustainable use of coal**
- **If coal remains a viable energy option, energy supply security would be increased**
- **This is of importance for countries like China: however, if CO₂ policies are limited to industrialized countries, the role of CO₂ capture and storage is significantly reduced on a global scale**

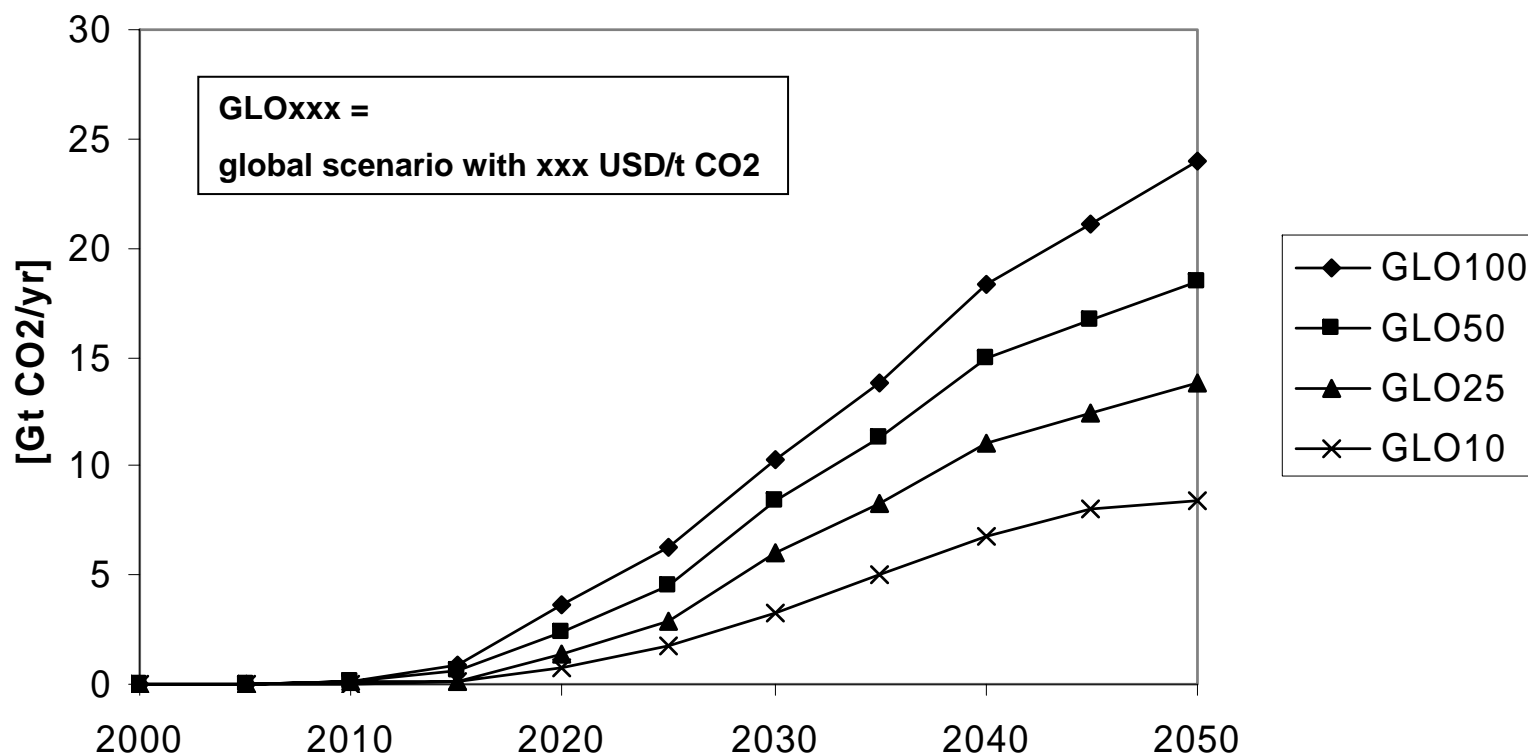
Why CSLF?

- **CO₂ emission reduction is necessary on a world wide scale**
- **Energy supply security is an additional driving force**
- **Technology transfer is essential – and should start immediately**
- **Policy harmonisation is essential – not yet clear when and how**

The **MISSION** of CSLF is technology oriented:

The CSLF is a framework for international co-operation in research and development for the separation, capture, transportation and storage of CO₂

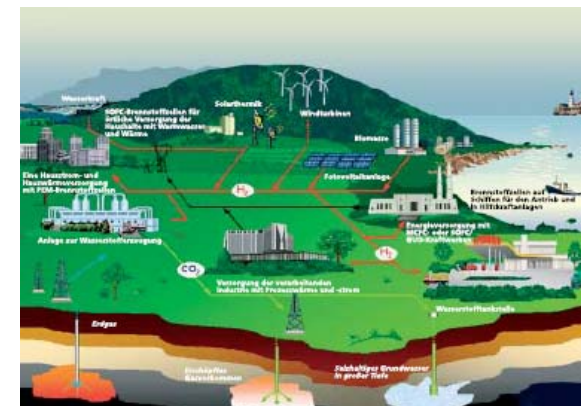
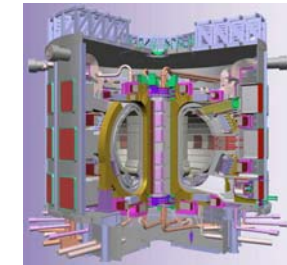
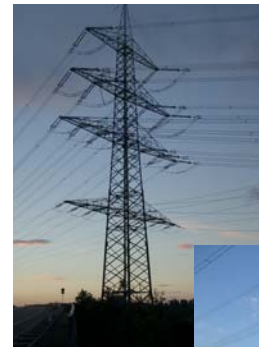
CO2 capture at various policy incentive levels



From: Prospects for CO2 Capture and Storage; IEA 2004

Sustainable Development

- **What we need is:**
- **Political incentives** for an additional reduction of CO₂-emissions
- **A portfolio of technologies** to avoid giga-tons of CO₂:
 - Energy savings; efficient conversion and end-use technologies
 - Renewable energies
 - CO₂ capture and storage
 - Hydrogen technologies
 - Advanced transmission and distribution technologies for all energy carriers
 - **Advanced nuclear reactors, Fusion**
 - New ideas and basic research



PROJEKTRÄGER FÜR DAS
 Bundesministerium
 für Bildung
 und Forschung



Bundesministerium
 für Wirtschaft und Arbeit



Bundesministerium
 für Umwelt, Naturschutz
 und Reaktorsicherheit



Presse- und Informationsamt
der Bundesregierung

Material für die Presse

HAUSANSCHRIFT Dorotheenstr. 84, 10117 Berlin
POSTANSCHRIFT 11044 Berlin

TEL +49 (0)1888 272-2030
FAX +49 (0)1888 272-3152
INTERNET www.bundesregierung.de
www.bundeskanzler.de
E-MAIL cvd@bpa.bund.de

DATUM 23. Februar 2005

**U.S.-GERMAN JOINT ACTIONS ON CLEANER AND MORE EFFICIENT ENERGY,
DEVELOPMENT AND CLIMATE CHANGE**

the
White House
President George W. Bush

For Immediate Release
Office of the Press Secretary
February 23, 2005

U.S.-German Joint Actions on Cleaner and More Efficient Energy, Development and Climate Change

3) Modernization of domestic power generation

Efficient and cleaner production of heat and power from coal and natural gas are advanced by German-U.S. cooperation in the Carbon Sequestration Leadership Forum (CSLF), FUTUREGEN, and CORETECH. These three initiatives will help dramatically advance cleaner heat and power production from coal and natural gas via focused research and development efforts. In the private sector, clean and modern heat and power production systems are developed, tested and marketed worldwide.



PROJEKTRÄGER FÜR DAS
Bundesministerium
für Bildung
und Forschung



Bundesministerium
für Wirtschaft und Arbeit

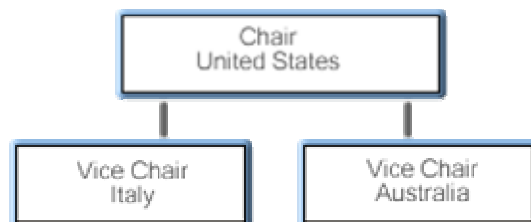


Bundesministerium
für Umwelt, Naturschutz
und Reaktorsicherheit

CSLF Organisation

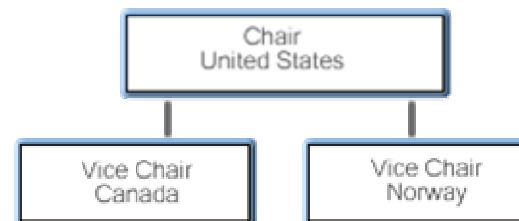
- The activities of the CSLF are conducted by a **Policy Group**, which governs the overall framework and policies of the CSLF, and a **Technical Group**, which reviews the progress of collaborative projects and makes recommendations to the Policy Group. Collaborative projects include:
 - Information exchange and networking,
 - Planning and road-mapping,
 - Facilitation of collaboration,
 - Research and development,
 - Demonstrations,
 - Public perception and outreach,
 - Economic and market studies,
 - Institutional, regulatory, and legal constraints and issues,
 - Support to policy formulation, or
 - other issues as authorized by the Policy Group.

CSLF Policy Group



- Identify key legal, regulatory, financial, public perception, institutional-related or other issues associated with the achievement of improved technological capacity.
- Identify potential issues relating to the treatment of intellectual property.
- Establish guidelines for the collaborations and reporting of results.
- Assess regularly the progress of collaborative projects and, following reports from the Technical Group, make recommendations on the direction of such projects.
- Ensure that CSLF activities complement ongoing international cooperation in this area.

CSLF Technical Group



- Identify key technical, economic, environmental and other issues related to the achievement of improved technological capacity.
- Identify potential areas of multilateral collaboration.
- Foster collaborative (RD&D) projects reflecting Members' priorities.
- Assess regularly the progress of collaborative projects and make recommendations to the Policy Group on the direction of such projects.
- Establish and regularly assess an inventory of the potential areas of needed research.
- Facilitate technical collaboration with all sectors of the international research community, academia, industry, government and non-governmental organizations.

CSLF - achievements and goals



- **CSLF Charter signed by 17 partners**



CSLF - achievements and goals



- **CSLF Terms of References and Procedures**
- **Stakeholder involvement**
- **Technical Roadmap**
- **Ten CSLF projects**
- **Reports on Legal and Regulatory Issues**
- **Ministerial Meeting (September 2004): Communiqué**
- **CSLF website: <http://www.csforum.org> with members area (*delegates* and *cslf2004* as user ID and password)**

CSLF - achievements and goals



- **Policy and Technical Group mandate and work programme**
- **Stakeholder Register**
- **Economic Modelling: technology cost and performance evaluation**
- **Public Awareness and Outreach**
- **Identification of Sources and Sinks in Developing Countries**
- **Standards for storage capacity estimates**
- **Taskforces on Project Financing and Capacity Building in Developing Countries**

CSLF - achievements and goals



- **Project Recognition Procedure and Project Initiation and Review Panel to evaluate CSLF project proposals (several proposals were already made)**
- **Intellectual property in CSLF projects (as required)**
- **Check list to establish sequestration projects**
- **Two Task Forces to identify key technology gaps:**
 - **CO2 capture and transport**
 - **CO2 monitoring and verification of storage**
- **Technical Roadmap updating (as required)**
- **CSLF website improvements**