

# ETDE – Request for Extension

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(Primary delegate from the Netherlands, Energy research Centre of the Netherlands,

ECN Policy Studies)

## Documents prepared for Extension

- End of Term (EOT) report
- EOT includes strategic plan for 2003-2008 term
- Self-Assessment from OA, ExCo
- Draft strategic plan for new term, 2008-2013
- PowerPoint presentations for EUWP, CERT

## What can you expect?

- The Value of ETDE
- The ETDE Model
- Current Term Achievements
- Strategic Directions
- Challenges
- Conclusion, Questions/Feedback

# Advances in energy technology depend on the diffusion of knowledge



$$F_g = G \frac{m_1 m_2}{r^2}$$

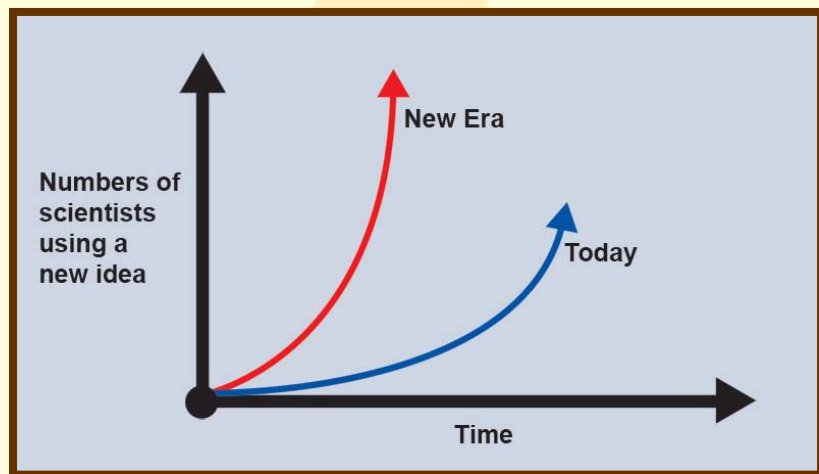
Isaac Newton expressed this thought most eloquently in 1676, when he wrote:

*“If I have seen further than others, it is by standing on the shoulders of giants.”*



**ETDE is a catalyst that can help energy breakthroughs happen**

**Integral role in 'New Era of Innovation'**



**Accelerating the sharing of knowledge means science progresses faster, compressing decades to years, years to months, and months to days.**

## ETDE's value

- Breakthroughs are exciting, and are vital to meet today's energy crises. But ETDE serves many purposes. Its database and tools are the largest and most comprehensive resource for energy RTD-related information. ETDE can help:
  - *Increase awareness and understanding of energy science and technology*
  - *Foster technology transfer*
  - *Help avoid unnecessary duplication of R&D/learn from expected and unexpected results*
  - *Support policy decisions and analyses*

## ETDE's value (cont.)

- ETDE's system serves as a vehicle for communicating the energy RTD results among members and to the developing world. ETDE can help:
  - *Jump-start research based on previous findings*
  - *Identify which countries and people are involved in particular research areas/promote international co-operation*
  - *Meet national and international dissemination requirements*
  - *Find an historical perspective on energy issues*

## ETDE Model

- The Beginning
- Mission and Vision
- Objectives and Membership Obligations
- Members and Non-members
- Cooperation / Coordination
- The Works
- IEA ↔ ETDE

## ETDE's Beginning – A Brief History

- Cross-cutting IA begun in 1987 with 11 countries
- No separate annexes over its history, just the main IA
- Same Operating Agent since the beginning (DOE's Office of Scientific and Technical Information (OSTI))
- Among first IAs to have a website, <http://www.etde.org>
- Current leadership:
  - *Brian Hitson, U.S., Chair*
  - *Jaime Pontigo, Mexico, General Vice-Chair*
  - *Silke Rehme, Germany, Technical Vice-Chair, Chair, Technical Working Group*

## ETDE's Mission and Vision

- *To provide governments, industry, and the research community in the member countries with access to the widest range of information on energy RTD and to increase dissemination of this information to developing countries.*
- *The first place the world thinks of when it needs key information to answer energy RTD questions.*

## ETDE's Objectives

- To compile and maintain a shared database on information related to energy RTD
- To disseminate information related to energy RTD
- To explore, and where appropriate, develop other ways of collecting and disseminating information related to energy RTD
- To support the work of the International Energy Agency

## Membership obligations

### ➤ Cost-sharing

- *Funds to cover activities of the Operating Agent, including database input and full text processing, ETDEWEB, authorities, marketing, and management (meetings, budget, metrics, daily activities)*

### ➤ Task-sharing

- *Acquisition and preparation of database input in required format, submission of full text or links; actively participate in meetings, and in subgroups and other electronic forms between meetings*

## Countries and Industry

- Membership +/- in last term: + Portugal, South Africa, - Italy, France
- Active interest: India, Romania, and renewed interest by France, Italy
- Industry benefits from database access and contributes indirectly to database contents – but no direct IA participation

# Current ETDE Member Countries



Brazil



Canada



Denmark



Finland



Germany



Korea, Rep. of



Mexico



The Netherlands



Norway



Portugal



Spain



Sweden



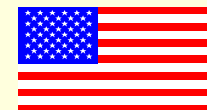
South Africa\*



Switzerland



United Kingdom



United States

\*Awaiting Cabinet Approval

## Non-member Countries

- ETDE has a history of non-OECD country participation
- Has had interest in membership from other non-OECD countries
- Major policy change in 2004: extended database access to over 50+ developing countries
- 2007: Criteria for decision-making on non-member access made consistent
- Also looking at using sponsors, regional partnerships, and/or reduced obligations to get greater involvement among non-OECD countries

## Coordination with Other Bodies

- MOU with IEA Clean Coal Centre
- MOU with International Atomic Energy Agency's International Nuclear Information System (IAEA/INIS)
- Interactions in current term with:
  - *World Energy Council (WEC), Energy Charter Secretariat, European Commission, International Centre for Scientific and Technical Information (ICSTI), Online Access to Research in the Environment (OARE), CrossRef, Elsevier (some with positive results)*

## Programme of Work

- Database building: government reports, journal articles, conference papers, books, theses, key websites
- Subjects: RTD results from the renewable areas; hydrogen, fuel cells & storage; nuclear & fossil fuels; basic research results in physics, materials & chemistry; energy conservation & efficiency findings; environmental & economic aspects of energy production & use; energy policy & regulation/legislation-related publications & more.
- Publication sources: from member countries, from international partners and international publishers; world-wide coverage in many areas
- Full text and hyperlinks, plus DOI links provided
- Added value: English abstracts, subject indexing, indexed electronic full text, distributed search, alerts service

## Within the IEA

- Benefit from exceptional desk officer for ETDE (Carrie Pottinger)
- Active involvement in NEET initiative
- Good ties to IEA legal staff and OPEN bulletin editor
- Improving ties with EUWP
- Strives to include IEA-produced information in the ETDE database

# Achievements

- ❖ ETDE's Evolution
- ❖ Database Sources, Subjects and Contents
- ❖ Features/Enhancements
- ❖ Achievement Summaries
- ❖ Recognition of Value



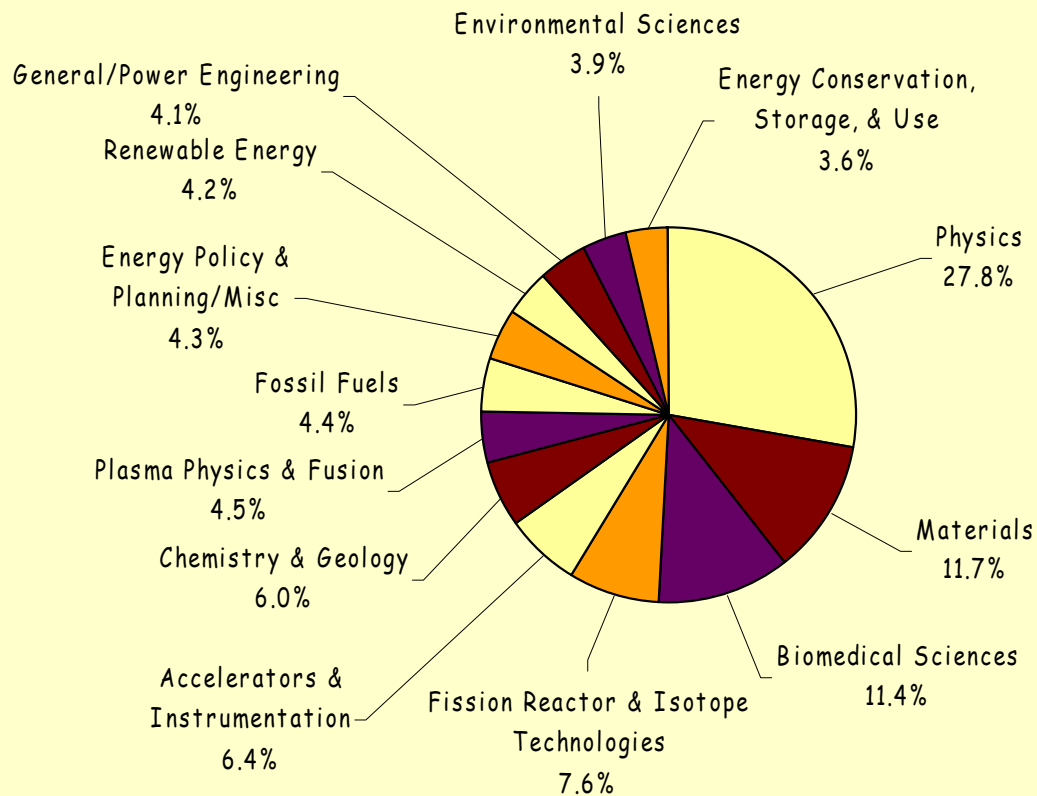
# Database Sources, 2003-2007

<b>Database entries received and disseminated 2003-2007</b>			
<b>Brazil</b>	<b>13,825</b>	<b>Korea</b>	<b>17,413</b>
<b>Canada</b>	<b>19,170</b>	<b>Mexico</b>	<b>2,589</b>
<b>Denmark</b>	<b>2,182</b>	<b>Netherlands</b>	<b>101,195</b>
<b>Finland</b>	<b>2,425</b>	<b>Norway</b>	<b>2,896</b>
<b>France</b>	<b>25,196</b>	<b>Portugal (part)</b>	<b>191</b>
<b>GCC Cov.*</b>	<b>955</b>	<b>Spain</b>	<b>2,886</b>
<b>Germany</b>	<b>72,328</b>	<b>Sweden</b>	<b>4,932</b>
<b>IEA CCC*</b>	<b>4,710</b>	<b>Switzerland</b>	<b>5,762</b>
<b>INIS*</b>	<b>172,853</b>	<b>United Kingdom</b>	<b>82,762</b>
<b>Italy (part)</b>	<b>911</b>	<b>United States</b>	<b>173,248</b>
<b>Japan (part)</b>	<b>5,393</b>		

\*From Non-ETDE members

# Subject Areas, 2003-2007

Input by Subject Scope (713,822 records): 2003 - 2007



## ETDEWEB Contents (as of Mar. 2008)

- 3.98 million citations
- 206,000 have electronic full text available for direct downloading from ETDE site
- 715,000 have Digital Object Identifier (DOI) links to publishers where document can be viewed/purchased
- Many hundreds of thousands more have hyperlinks to documents residing throughout the world

## Features/Enhancements

- Main site and *ETDEWEB* integrated, redesigned
- Access-related: reduced password requirements; domain recognition implementation just starting
- User-requested improvements: alerts; author searching tool; search term highlighting, search speed, and record display, navigation, and download format options
- Distributed Search with now 8 resources – combined, representing over 44 databases and 1700 websites
- Distributed Search software advanced version due in 2008

# ETDEWEB Distributed Search

ETDEWEB	Searches the full ETDEWEB database.
CORDIS	Search CORDIS, the Community Research & Development Information Service, an information space devoted to European research and development R&D and innovation activities.
Danish Energy R&D projects	Danish Energy R&D Projects contains descriptions of current and completed energy research, development and demonstration projects in Denmark.
Esp@cenet (new in 2008)	The European Patent Office provides this worldwide database which enables you to search for information about 60 million patents from over 80 different countries and regions.
IEA Energy Information Centre	Documents from the International Energy Agency, an intergovernmental body committed to advancing security of energy supply, economic growth and environmental sustainability through energy policy co-operation.
Institut Francais du petrole	Search IFP, a scientific research and industrial development, training, and information services center active in the fields of oil & natural gas, their use, in particular by vehicles, and new energy and environmental technologies.
Science.gov	Searches the U.S. Government's vast stores of scientific and technical information across databases and more than 1,700 science websites and currently accesses over 47 million pages of science information.
Science Conference Proceedings	Search Conference papers and proceedings in various fields of science and technology.

## Achievements

- Usage: customer 'transactions' for ETDE and *ETDEWEB* websites combined: 3,084,619 (2003-2007)
- Usage: Sessions in *ETDEWEB*: 159,000; Downloads: 58,000 (not including hyperlinks taken until 2007)
- Added: Over 710,000 database entries, 100,000 PDFs, and 715,000 DOIs
- Funding special project with Elsevier gaining 1000's of database entries from key energy journals (representing research results worldwide)
- Invited to participate in EC's Expert Group on Energy RTD Information Systems in Europe

## Achievements

- *ETDEWEB* user survey repeated: 98% Extremely Satisfied/Satisfied
- Gained new members: Portugal, South Africa (via NEET initiative), interest expressed by many others
- Outreach expanded to over 50 developing countries; dissemination to the developing world helps meet objectives of G8 Energy Ministers as well as the IEA response
- 20th anniversary in 2007; special conference titled *Advancing Energy Science and Technology through Multilateral Information Exchange* co-sponsored by INETI in Lisbon. A DVD of the presentations, including video, is available.
- Achieving all of this within a zero growth budget

## Recognition of value

- *With so much invested in energy research, ETDE provides that last crucial link bringing those research dollars to fruition by communicating research results easily and efficiently. For the public-sector research sponsors interested in making the most of their research investments, participating in ETDE is a critical link in the technical communications system that helps turn research into valuable implemented technology. U.S. ETDEWEB user, 2007*
- *ETDEWEB [the ETDE database] is clearly the information system of reference; many national websites on energy research, technology, and development link to ETDEWEB. European Commission Report, 2005*
- *2007 Mexico user survey asking respondents about their perceptions of the impact of information gathered from ETDEWEB:*
  - *Information can be found that other websites don't have. (7 different respondents)*
  - *I have been able to speed up my research, because of ETDEWEB information.*
  - *It helps to find experts as well as institutions.*
  - *Due to the existence of this database, people wanting access to specific information save not only their money, but also their time.*

A faint, light-colored world map is centered in the background of the slide, showing the continents of North America, South America, Europe, Africa, Asia, and Australia.

## Looking Back and Ahead

- The Value of ETDE
- The ETDE Model
- Current Term Achievements
- Strategic Directions
- Challenges

# Strategic Directions

1. **Objective: Build, either directly or indirectly, on the quality, types, and quantity of energy RTD information ETDE delivers to its patrons (users).**
  - a. Enhance comprehensiveness of ETDEWEB's coverage of high-quality information by providing both direct and indirect access, with an increasing emphasis on availability of full-text information.
  - b. Use sophisticated searching and relevance ranking algorithms to provide users with precise, high-quality results to their questions (queries), making their searching more productive and useful.
  - c. Build new and leverage existing partnerships to provide ETDEWEB users access to energy RTD information beyond the reach of member countries.
  - d. Adapt ETDEWEB to accommodate emerging information types (e.g., numeric data, audio, video)
  - e. Leverage emerging web technologies (Web 2.0 and 3.0 concepts) to move ETDE and ETDEWEB into two-way interaction with energy RTD communities, facilitating worldwide networking among scientists and engineers.

## Strategic Directions

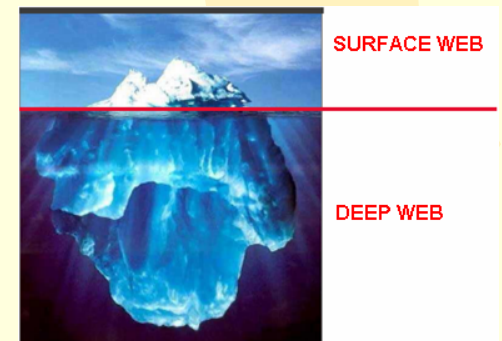
2. **Objective: Expand the global reach of ETDE's patron base to ensure that the knowledge in ETDEWEB (and its distributed sources) contributes to breakthroughs in energy research, technology, and development.**
  - a. Facilitate individual and organisational access to ETDEWEB with increased "referrals" from commercial search engines (e.g., Google, Yahoo!, MSN, etc.) and automated user authentication technology (domain recognition) .
  - b. Support G8 and other international goals to advance energy RTD in developing countries.
  - c. Focus on establishing formal relationships with the "plus-5" countries and the Russian Federation as well as re-engaging former ETDE member countries.
  - d. Establish partnerships and innovative relationships to expose ETDE to new users.
  - e. Use the proliferation of portals and federated searching technology to ETDE's advantage by allowing ETDEWEB to be searched by external search engines.
  - f. Serve the IEA, internally and externally, with ETDEWEB access as well as with more specialised information subsets and analysis in support of IEA goals and activities.

## Strategic Challenges

- Membership/financial aspects:
  - *ETDE needs more members and/or other sources of funding. This benefits the database contents and should result in less financial burden per member. Would help to partially mitigate double financial burden for countries with large R&D programs*
  - *Economics of producing bibliographic records (with indexing) limits options for improving coverage gaps*
  - *Coverage gaps exist in non-nuclear areas – especially from IEA/OECD members who are not ETDE members, plus large developing countries*
- How to further help the IEA achieve its communication goals and make best use of ETDE as a resource

# Challenges

- *The “Google” Perception – Everything is “there”*
- *Reality of surface web versus deep web - lack of understanding*
- *“Members Only” access/login requirements a barrier*
- *Proliferation of distributed portals – maintaining an identity*
- *Visibility: ETDE still unknown to many*
- *Multiplicity of languages/translation issues*



# Conclusion

ETDE requests EUWP to  
recommend Extension of the IA for  
an additional 5-year term

Questions/Feedback?

Contact:

Brian Hitson, ETDE Chair or Debbie Cutler,  
ETDE Operating Agent

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