UNFCCC SECRETARIAT TECHNOLOGY INFORMATION SYSTEM

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Sustainable Development Programme

Technology Sub-programme

UNFCCC

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OVERVIEW

- Technology Information Mandate
- Technology Transfer Clearinghouse
  - Objective
  - Design Criteria
  - Main Components
  - Implementation
- Recent work
  - Inventory of technology cooperation projects
  - Links to relevant information available on the Internet
  - Inventory of methods/models/tools
  - Search engine
  - Others
- Possible Next Steps

TECHNOLOGY INFORMATION - MANDATE

- **The need to enhance the access of the developing countries, within the UNFCCC process, to information on state of the art environmentally sound technologies (ESTs) was recognized since the first Conference of the Parties (COP).**

- Decision 13/CP.1 ➔ **inventory and assessment of environmentally sound and economically viable technologies.**

- Decision 7/CP.2 ➔ **one-stop database relating to-state-of - the-art ESTs.**

- Decision 9/CP.3 ➔ **international technology information centre and national and regional centres**.

- Decision 4/CP.7 ➔ **information system and clearinghouse.**

RECENT MANDATE - SBSTA 15th

The secretariat was requested to:

- **Continue its work on the technology information system, drawing on links between its work and the work of existing institutions and networks, in particular, information relating to adaptation technologies.**

- **Explore the feasibility of including information on:**
  - **Examples of success stories and case studies on technology transfer.**
  - **Joint research and development programs.**
  - **Private and publicly-owned technologies.**

- **Summarize the submissions from Parties, including feedback on their experience in using the system.**

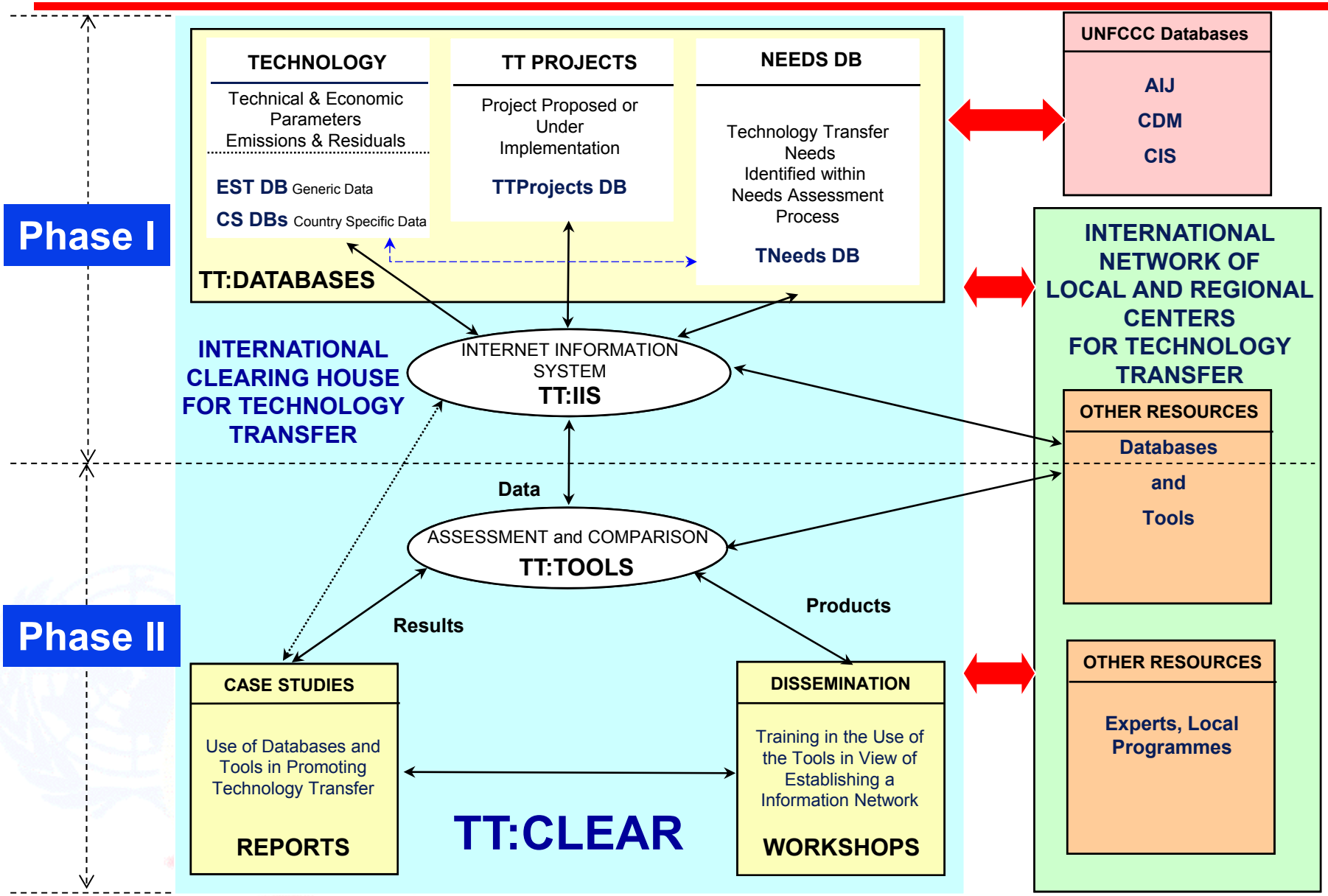
CLEARING HOUSE - OBJECTIVE

- The main objective of the proposed project, tentatively called TT:CLEAR, is to improve the flow of, access to and quality of the information relating to the development and transfer of environmentally sound technologies under the Article 4.5 of the Convention and contribute to a more efficient use of the available resources by providing a synergy with other ongoing efforts.

DESIGN CRITERIA

- **Build on, and connect to existing information, databases and tools:**
  - UNFCCC search engine
  - UNFCCC database of links to existing Internet sites
- **Modular structure:**
  - The modular structure proposed would allow many governments and organizations to contribute.
  - Would also allow for a better use of the existing resources.
- **Incremental implementation:**
  - A review of the project after each phase and extensive consultations with the Parties.
  - Would permit a better management of the new resources.
- **Flexible decentralized system:**
  - Part of a network.
- **Efficient data gathering using modern techniques:**
  - Only information not available in external databases.
  - Through Internet.

TECHNOLOGY INFORMATION CLEARING HOUSE - MAIN COMPONENTS



IMPEMENTATION

- Prepared a technical paper on “Technology transfer clearing house and international information network – Proposal for activities”. The paper includes a plan for implementing the system and provides some technical details.

- Developed a prototype system which is up-and-running for testing by Parties since September 2001 (some 160 registered users).

- Feedback from Parties (FCCC/SBSTS/2002/ Misc.12) and other users.

ORGANIZED TWO CONSULTANCIES

Objective:

- **Provide support to enhance and update the inventory of technology cooperation projects.**
- **Review and update the database of mitigation technologies and to provide support to establish a database of adaptation technologies.**
- **Identify information gaps and potential sources of information and/or co-operative mechanisms for completing the databases.**
- **Assist in preparation of expert meetings on technology information.**

INVENTORY OF TECHNOLOGY COOPERATION PROJECTS

- **Updated using the prototype version of the UNFCCC technology information system.**
  - **The cooperation projects were reviewed, updated and completed.**
  - **At present some 1,650 projects stored in the database. More than 450 projects added since COP7.**
  - **Review and update relevant AIJ projects stored in TT:CLEAR.**
  - **Added projects included in national communications.**

NATIONAL COMUNICATIONS OF ANNEX I PARTIES

- Relevant information from the National Communications of Annex I parties was collected and entered into the databases:
  - Projects cited in 3rd National Communications of Annex I Parties.
  - A “quick link” was added on first page to access this information.
- Parties shall, where feasible, report activities related to technology transfer, including success and failure stories... Parties shall also report their activities for financing access by developing countries to "hard" or "soft" environmentally-sound technologies (UNFCCC guidelines on reporting and review - FCCC/CP5/1999/7):
  - The software was modified to accommodate the recommended reporting format.

GUIDELINES ON REPORTING

DESCRIPTION OF SELECTED PROJECTS OR PROGRAMMES THAT PROMOTED PRACTICABLE STEPS TO FACILITATE AND/OR FINANCE THE TRANSFER OF, OR ACCESS TO, ENVIRONMENTALLY-SOUND TECHNOLOGIES

Project / programme title:			
Purpose:			
Recipient country	**Sector**	**Total funding**	**Years in operation**
Description:			
Indicate factors which led to project's success:			
Technology transferred:			
Impact on greenhouse gas emissions/sinks (optional):			

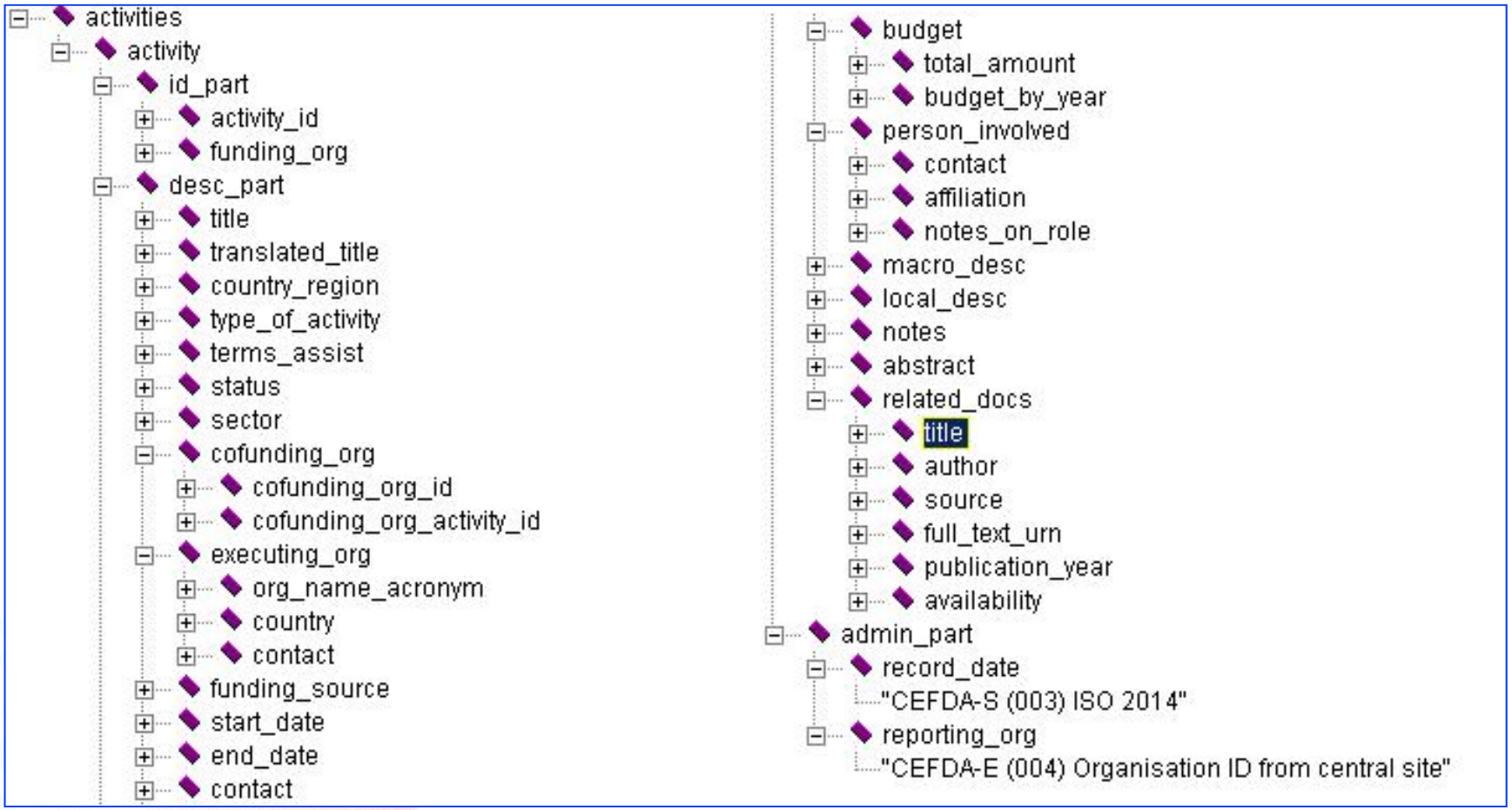
NATIONAL COMUNICATIONS OF NON ANNEX I PARTIES

- Compiled information, including on technology needs and capacity building as reported by non-Annex I Parties in their national communications and/or other national reports:
  - Some 100 projects cited in Initial National Communications of non Annex I Parties were added.
- Selected issues:
  - Some of the Initial National Communications of non Annex I Parties are not available in English or are available only in hard copy.
  - Lack of details in some of the project proposals (e.g., duration of the project, total cost, expected founding, contact persons and/or organizations).

INVENTORY OF TECHNOLOGY COOPERATION PROJECTS

- Updated the projects related to China (104):
  - Data on contacts, organizations, and links to additional project information related to China.
- Revised the structure of projects database to follow IDML and the CEFDA standard proposals:
  - Sectors
  - Types of Assistance (adopt CEFDA standard): Grant, Load, Credit, Equity investment, Donation, Other, Multiple
- Updated relevant web pages.

INTERNATIONAL DEVELOPMENT MARKUP LANGUAGE



CASE STUDIES AND SUCCESS STORIES

- **A number of success stories and/or case studies on technology transfer were added:**
  - **38 case studies were added from *Methodological an Technological issues in Technology Transfer - IPCC SR* and *Technologies without Borders - Case Studies of Successful Technology Transfer, IEA-CTI, 2001*.**
  - **All case studies were made available through the search engine.**

LINKS TO OTHER WEB SITES

- Updated and completed with new data (some 600 links included):
  - Added national links provided by Parties in their submissions (Misc.12).
  - Appended 100+ relevant links data submitted by Germany from the GATE project.
  - "Quick links" to national sites.
- The links are classified in different categories and can be searched using the search engine.
- Revised the structure of links database (one link can have several categories).
- Enhanced the search mechanism and updated the relevant web pages.

CONTACTS AND ORGANIZATIONS

- Updated and completed, new contacts were added. Some 550 contacts are available in the database.
- Contact details updated to include its projects, models, case studies, etc.
- Revised the structure of the organizations database (consistency).
- Enhanced data entering and management capabilities using the Internet pages.

INFORMATION SOURCES

- The information sources database was updated and completed.
- New information sources were added (e.g. National Communications).
- At present the datable includes 66 sources of information.
- Short description and URL's of the information sources are provided.

MITIGATION AND ADAPTATION METHODS/MODELS/TOOLS

- Developed an electronic form to collect information on existing methods/models/tools (mitigation and adaptation).
- The form was integrated in TT:CLEAR and facilitates on-line updating and reporting.
- A database of mitigation and adaptation methods/models/tools was developed.

MITIGATION AND ADAPTATION METHODS/MODELS/TOOLS

- Short write-ups were prepared for 14 mitigation methods/models/tools (RETSCREEN was added as suggested by Parties).
- A number of 32 methods/models/tools presently available on the UNFCCC web site were added to adaptation database.
- The models can be searched by type (mitigation, adaptation) and sector (e.g, energy, transport, forestry, agriculture, industry, etc.).

DATABASE OF MITIGATION AND ADAPTATION TECHNOLOGIES

- Further developed the classification of adaptation technologies and designed the adaptation technology database.
- Modified relevant web pages.
- Populated the database with some mitigation technologies and coastal adaptation technologies from technical paper - *Coastal Adaptation Technologies.*

TECHNOLOGY CLASSIFICATION

- A complete set of criteria was created to allow an efficient searching and reporting :
  - Mitigation/Adaptation/Combined

Mitigation technologies
- Energy generation and supply
  - Renewable
  - Fossil fuels
  - Nuclear
- Energy transmission and distribution
  - Engines and transmissions
  - Energy distribution
- Energy end-use
  - Transportation sector
  - Industrial technologies
  - Energy management
  - Building technologies
  - Manufacturing technologies
- Transport
- Forestry
- Agriculture
- Waste management
- Industry

Adaptation Technologies
- Capacity building
- Coastal zone management
- Agriculture
- Human health
- Forestry
- Natural resources management
- River base management
- Other vulnerability assessments

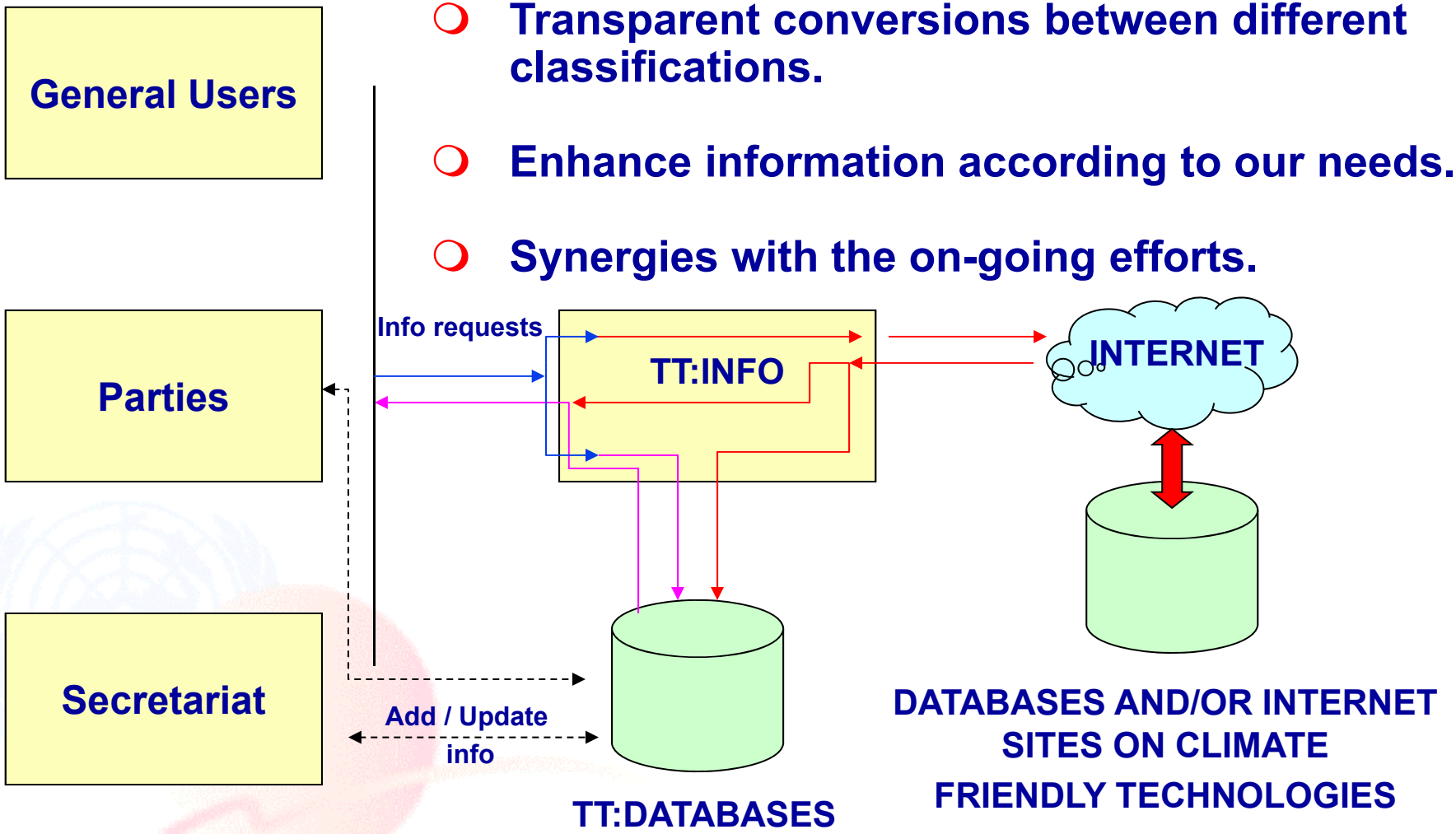
Combined

- Hard/Soft
- Publicly owned/Privately owned

All the technologies and their levels are available on web site

NEW SEARCH ENGINE TO ACESS TECHNOLOGY DATA

- Access to reliable and up-to-date information.
- Transparent conversions between different classifications.
- Enhance information according to our needs.
- Synergies with the on-going efforts.



NEW SEARCH ENGINE TO ACESS TECHNOLOGY DATA

- Modified search engine interfaces to access information from the redesigned CADDET and GREENTIE web sites
  - Projects – CADDET EE & RE (by sectors)
  - Techno – CADDET EE & RE (by sectors and technologies)
  - Organization – GREENTIE (by sectors and technologies)
- Modified the structure of local database for CADDET and GREENTIE
- Updated relevant web pages

TRANSFER SOFTWARE TO NATIONAL/REGINAL CENTER

- Tested feasibility of localization (e.g. Chinese version). Software transfer and platform installation and configuration.
- Analyzed options for establishing a technology transfer network (e.g. communication between the distributed centers in the network)
- Developed a program for distributed projects search based on a peer-to-peer approach (JXTA/JXTASearch)

WORK TO DO AND POSSIBLE NEXT STEPS

- **Recommendations to be provided by this workshop and the expert group on technology transfer. They may include:**
  - **Further use the system for data gathering, reporting and synthesis.**
  - **Agree which modules should be given priority, depending on availability of resources.**
  - **Extend the database of models and add new interfaces to the search engine to access outside information.**
  - **Request Parties to submit lists of national web sites which can provide useful information about technology transfer programmes and projects.**
  - **Feedback from contact person(s) and/or organizations of the technology transfer projects should be requested (e.g. technology info centers, coastal zone).**
  - **Urges Parties to review more often the information submitted and stored in database and update if necessary.**

WORK TO DO AND POSSIBLE NEXT STEPS

- **Based on recommendations submitted by the parties:**
  - **To engage the private sector**
  - **To disseminate the existing information**
  - **Consider user's feedback and improve the system**
  - **Link and/or access other existing resources of information and tools**
  - **Emphasize the actual transfer of technology**
  - **Agencies and Parties should be encouraged to provide more information to be linked to the web site**
  - **Relevant international organizations should be involved**

ADDITIONAL SUGGESTIONS AND RECOMMENDATIONS BY CONSULTANTS

- Address issues related to exchange information between existing websites:
  - XML based solution (e.g. IDML, SOAP)
  - Is it possible to reach a agreement?
- How to make the information distributed in internet usable:
  - Peer to peer computing (e.g. JXTA / JXTASearch).
- It should be a stakeholder network rather than information network:
  - Attract more users from different kinds of stakeholder.
  - Is an Operating Entity needed?

ADDITIONAL SUGGESTIONS AND RECOMMENDATIONS BY CONSULTANTS

- Further develop the mitigation and adaptation technologies database.
- Automatic validation mechanism by email.
- Review and update the relations between projects, technologies, organizations, contacts, and etc.
- User interface enhancement.

BETA VERSION DEMONSTRATION

- **Click the button below to start the demonstration (http:/ttclear.unfccc.com/ttclear/Jsp)**

Local server

Internet

Thank you!