SCHOOL OF NUCLEAR KNOWLEDGE MANAGEMENT

18-22 September 2006

Introduction to INIS

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International Nuclear Information System

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INIS & Nuclear Knowledge Management Section

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International Nuclear Information System

- Historical aspects of the establishment of INIS
- INIS philosophy, main principles and policy
- INIS products and services
- INIS as a tool of Nuclear Knowledge Preservation
- INIS development plan

International Nuclear Information System

- The IAEA has the statutory obligation to foster the exchange of nuclear information amongst its Members

- The main owners of nuclear information in 1960's were national nuclear authorities

Intergovernmental Information System

International Nuclear Information System

Was established in 1970

The first international computerized system on peaceful uses of nuclear science and technology, a pioneer in the area of nuclear knowledge preservation
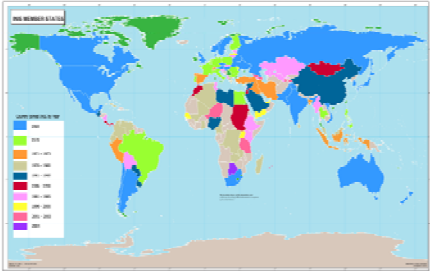
**Became
The world's leading nuclear information system**

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International Nuclear Information System

International Nuclear Information System

INIS Membership: 116 Member States
22 International Organizations

International Nuclear Information System

Philosophy
- **International Co-operation**
- **Decentralized Responsibilities**
  - **National INIS Centres**
  - **Central Co-ordinator: INIS Secretariat (IAEA)**

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INIS Mission
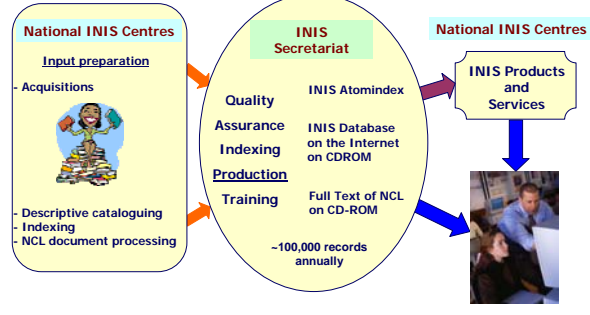
To produce and disseminate:

- **A bibliographic database of the world's nuclear literature, and**

- **Full text of non-conventional literature** (NCL, Grey Literature - literature not normally available through commercial distribution channels)

International Nuclear Information System

Overview of INIS Operation

National INIS Centres
Input preparation
- Acquisitions

- Descriptive cataloguing
- Indexing
- NCL document processing

INIS Secretariat
Quality Assurance
Indexing
Production
Training

INIS Atomindex
INIS Database on the Internet on CDROM
Full Text of NCL on CD-ROM
~100,000 records annually

National INIS Centres
INIS Products and Services

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International Nuclear Information System

Two Main INIS Products:

1. **INIS Bibliographic Database**
   (Over 2.6 million indexed references)

2. **INIS Full-Text Collection**
   (Over 620,000 documents on 63 languages,
   many of them can't be found anywhere else)

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International Nuclear Information System

Subject Scope

INIS announces the literature published worldwide on all aspects of the peaceful applications of nuclear science and technology,

and starting from 1992, its scope includes the economical and environmental aspects of all energy sources

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International Nuclear Information System

Subject Scope   **reflects the IAEA activities and interests of the IAEA Member States**

Atomic, Molecular and Condensed Matter Physics 10%
Nuclear Physics 11%
Nuclear Materials 9%
Engineering & Instrumentation 9%
Elementary Particle Physics 16%
Nuclear Power & Safety 6%
Chemistry 4%
Nuclear Fuel Cycle & Radioactive Waste 3%
Fusion Research and Technology 7%
Environmental & Earth Sciences 3%
Economic, Legal & Social 2%
Non-Nuclear Energy 1%
Isotopes 1%
Safeguards 0.4%
Life Sciences 18%

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What does INIS contain?

Bibliographic references of:

- **Journal articles – 49%**
- **Technical reports (full text) – 17%**
- **Conference papers (full text) – 11%**
- **Books – 12%**
- **Patents (full text) – 2%**
- **Laws, regulations, dissertations and other published material (full text) – 9%**

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INIS Bibliographic Database

- From 1944 to the present
- Over 2.6 million indexed references
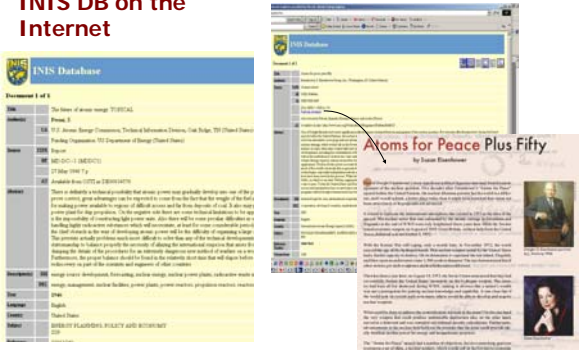- English abstract
- "Direct links" to full-text documents

Available

on CD-ROM

and

on the Internet

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INIS DB on the Internet

Atoms for Peace Plus Fifty
by Susan Eisenhower

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INIS NCL full-text collection

**Contains over 620 000 documents
on microfiche and in electronic form (~40%)**

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International Nuclear Information System

**INIS NCL Full Text Documents can be accessed
directly from the INIS Database or via
INIS Document Delivery Network**

- **58 National INIS Centres**
- **Over 30,000 ad hoc requests annually**

Document Delivery Services

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Where is INIS?

On the following online hosts:

- DIALOG

- STN International

- ETDE

✦ INIS DB Mirror (the Republic of Korea)

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INIS Multilingual Thesaurus (~30,000 Terms)

Arabic – Chinese – English - French – German –Russian – Spanish

Dictionary, Semantic relationships (hierarchical and associative, Synonyms and Scope Notes

SOLUTIONS
BT1 homogenous mixtures
  BT2 mixtures
   BT3 dispersions
NT1 aqueous solutions
NT1 hypertonic solutions
NT1 isotonic solutions
RT   solubility
RT   solvents

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INIS Multilingual Thesaurus

controlled and dynamic vocabulary of semantically and generically related terms which covers a specific domain of knowledge

- **Tool for document indexing**
- **Tool to describe knowledge/information in structured form**
- **Communication language between user and computer**
- **Tool for multilingual and semantic search**

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International Partnership Initiatives:

- **Energy Technology Data Exchange (ETDE)**
  (INIS-ETDE Thesaurus, access to ETDE DB for in-house users)

- **Nuclear Energy Agency (NEA) Databank**
  (access to NEA Computer Codes Services for in-house users and INIS Members)

- **International Centre of Scientific and Technical Information (ICSTI)**
  (access to ICSTI information resources is being established)

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Knowledge Preservation Initiatives:

- Digitization of the INIS NCL Microfiche Archive
- Digitization of the French CEA-R Microfiche Archive
- Production of topical subsets (Chernobyl, FastReactors, ...)
- Digitization of older IAEA publications and NCL documents that are not in INIS scope:
  - Documents of the IAEA Board of Governors (1957 – 1996)
  - IAEA Technical Reports Series
  - IAEA Bulletin
  - IAEA Conference Proceedings
  - INDC (Nuclear Data) documents

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Future Directions:

- **More high quality information**
- **Multilingual full-text search**
- **Better access to information**
- **More involvements into IAEA Nuclear Knowledge Preservation activities**

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Future Directions:

- **Expand INIS scope to multimedia and Web-based Information**

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INIS Web Services

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Future Directions:

Bibliographic DB + Full-Text Archive
(current)

▽

Full-Text Searchable DB + Metadata
(2006 - 2007)

▽

Distributed Nuclear Knowledge System
(our future)

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International Nuclear Information System

INIS is:

- Comprehensive source of scientific and technical information in nuclear area

- Effective mechanism of selecting, capturing, distributing and exchanging nuclear information

- Source of tools, methods, standards and procedures of managing information

- Effective tool for Nuclear Knowledge Preservation

INIS address the needs of both developing and developed countries

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Thank you very much
for your attention!

http://www.iaea.org/inis/

http://www.iaea.org/km/

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