



*The Abdus Salam
International Centre for Theoretical Physics*



1962-14

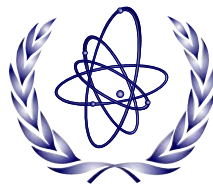
Joint ICTP-IAEA School of Nuclear Knowledge Management

1 - 5 September 2008

Introduction to INIS and INIS Demonstration

A. PRYAKHIN

*IAEA, Nuclear Power Engineering Section,
Wagramerstrasse 5, P.O. Box 100
A-1400 Vienna
AUSTRIA*



International Atomic Energy Agency

International Nuclear Information System

Andrey Pryakhin, Anatoli Tolstenkov

School of Nuclear Knowledge Management,
1-5 September 2008,
ICTP, Trieste, Italy





INIS: Presentation Outline

- ❖ 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



INIS: History

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

Exchange of nuclear information was a challenge



**Intergovernmental
Information System**

INIS: History



The world's leading nuclear information system

TODAY

Was
established
in 1970

The first
international
computerized
system on

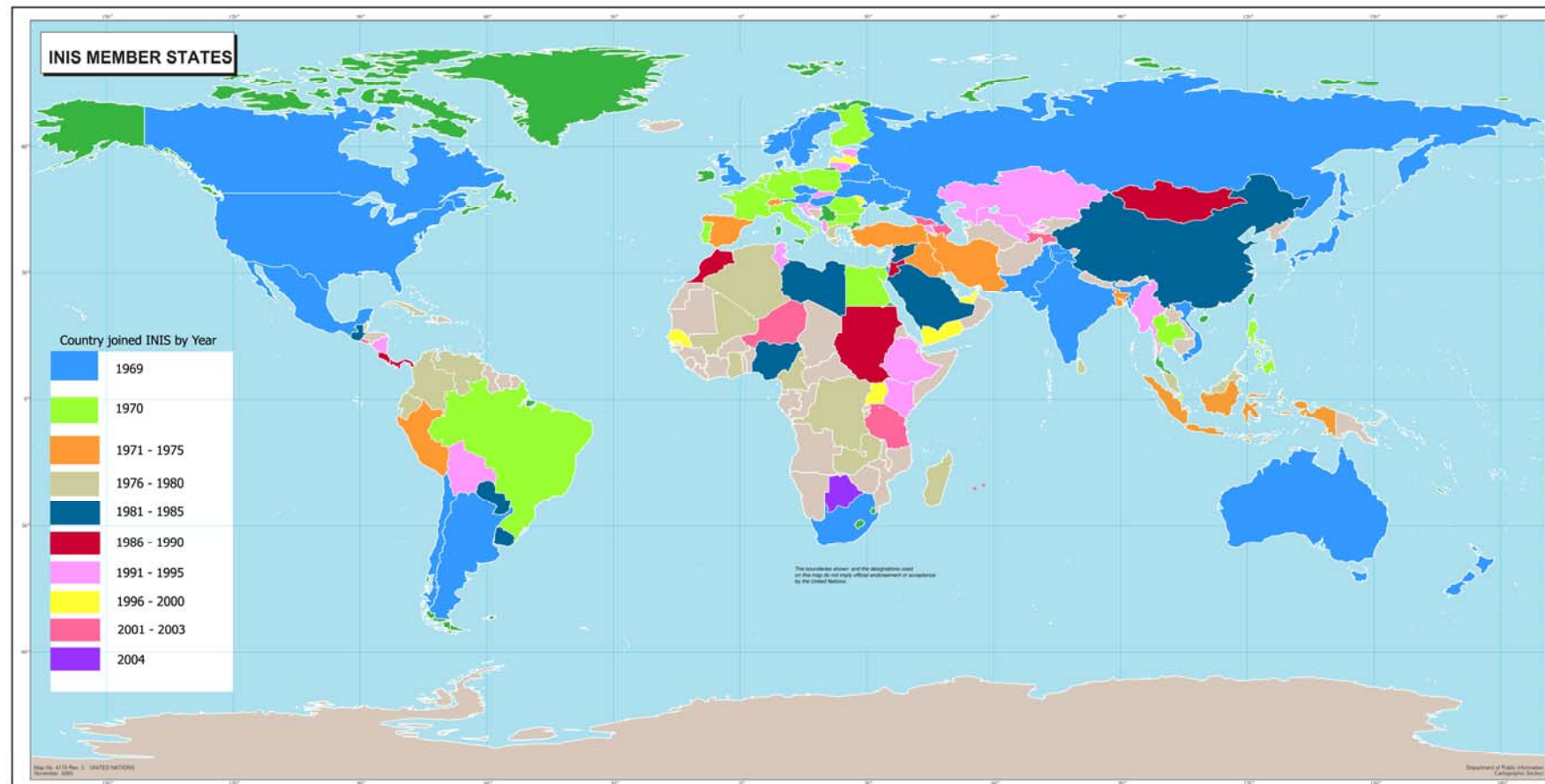
peaceful uses
of nuclear
science and
technology

a pioneer in
the area of
nuclear
knowledge
preservation



INIS: Membership

- ❖ 118 Member States
- ❖ 23 International Organizations





INIS: Philosophy

- ❖ International Co-operation
- ❖ Commitments of Member States
- ❖ Decentralized Responsibilities
 - National INIS Centres
 - Central Co-ordinator: **INIS Secretariat (IAEA)**



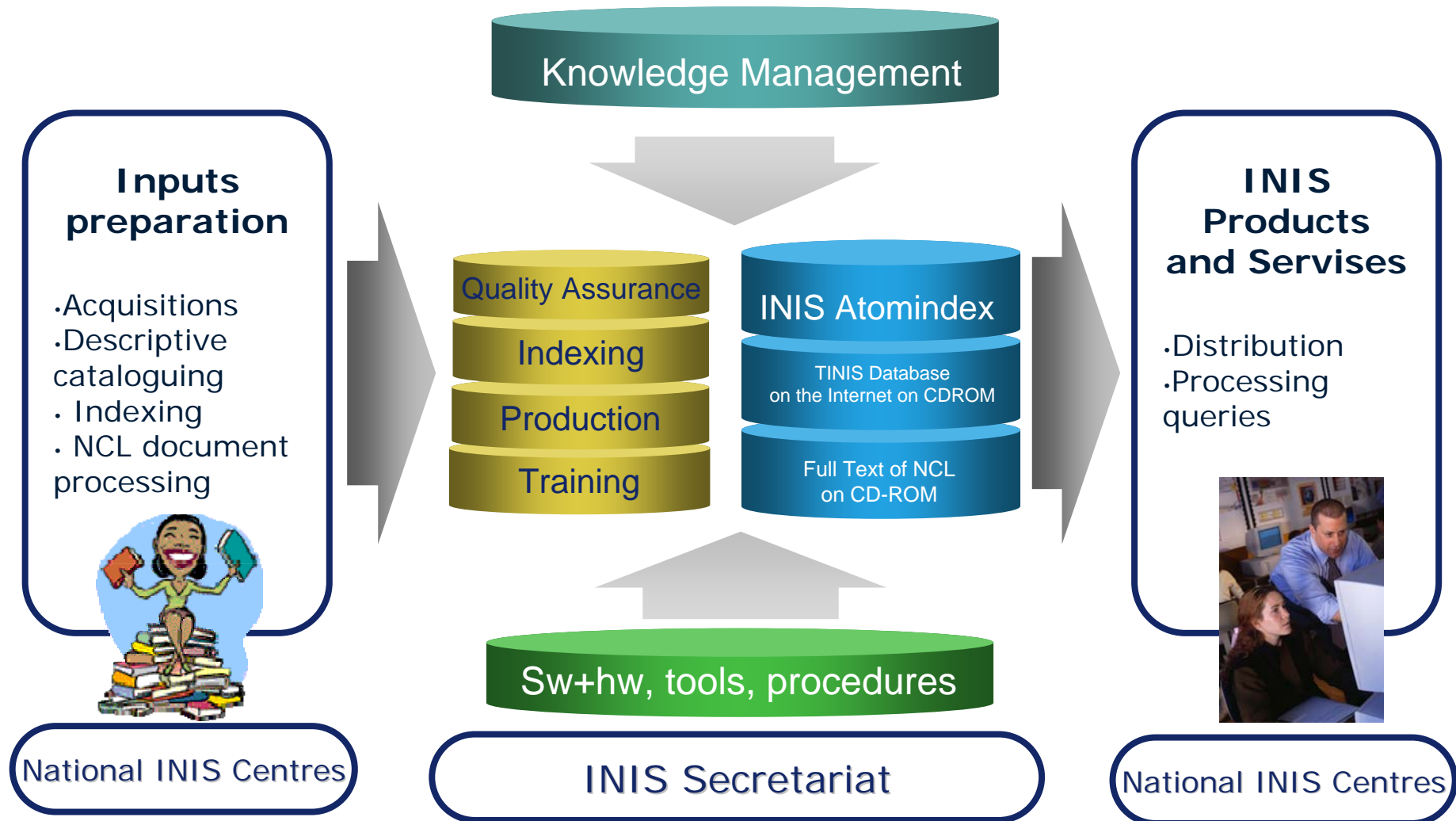


INIS: Mission

To produce (capture) and disseminate (share) nuclear knowledge in a sustainable manner among participating Member States:

- ❖ 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)

Overview of INIS Operation





Two Main INIS Products

❖ **INIS Bibliographic Database**

(Over 2.8 million indexed references)

❖ **INIS Full-Text Collection**

(Over 700,000 documents on 63 languages, many of them can't be found anywhere else)



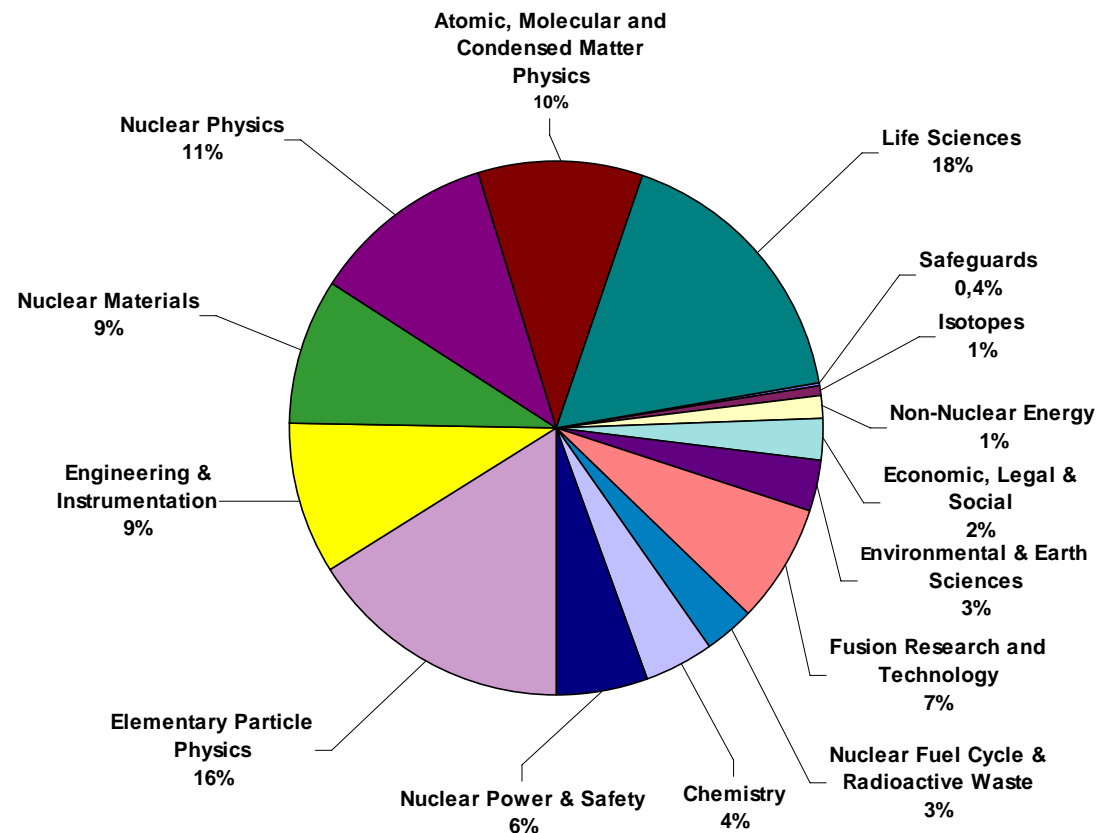
INIS Subject Scope

- ❖ **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**



INIS Subject Scope

❖ INIS reflects the IAEA activities and interests of the IAEA Member States





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%**

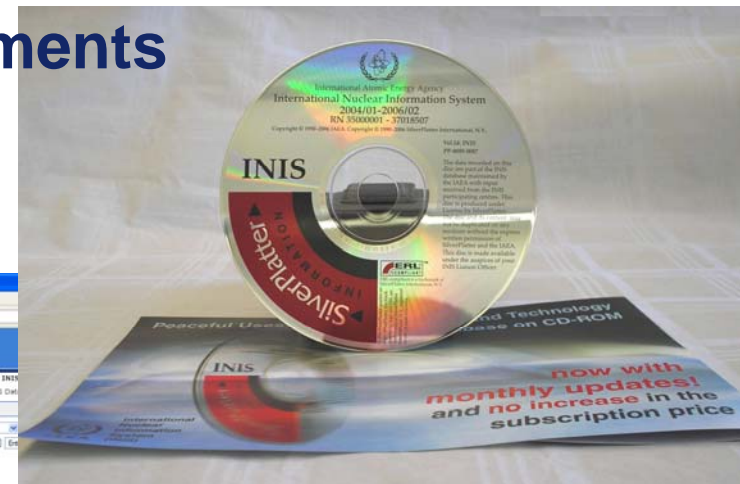


INIS Bibliographic Database

- ❖ From 1944 to the present
- ❖ Over 2.8 million indexed references
- ❖ English abstract
- ❖ “Direct links” to full-text documents

Available

- ❖ on CD-ROM
- and
- ❖ on the Internet



INIS DB on the Internet



IAEA.org
International Atomic Energy Agency

13 March 2007

About INIS | Products & Services | Member Contacts | INIS DB

You are in : Home » Data Center » International Nuclear Information System (INIS) » INIS Database (IP-range detected user)

> INIS Links

- Members' Area
- INIS DB Background
- Document Delivery
- NSA

> INIS Online Database

Search INIS

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- My Queries
- My Selection
- Help
- News
- Forum

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REGISTER

[forgot password?](#)

FEEDBACK

> Performance

Query: n/a
Download: n/a

[Disclaimer](#) | [E-mail](#)

[Release 1.4.0](#)

Query#1 [Combine queries](#)

Any field all

Limit to records with full text ☐ Entire database 10

New on the INIS Online Database

(9 October 2006) Based on the INIS Liaison Officer recommendation we are pleased to inform you that we have been working on the national INIS centre of the USA and they have developed the Nuclear Science Abstracts (NSA) search interface/view of the Energy Research Foundation. Access to this interface is now available directly from our INIS Database on the Internet by clicking on "NSA" on the left hand side.

The NSA view allows the user to search records from the NSA Database directly without having to search through the full ECD.

Currently the NSA interface/view contains over 829,000 items from the NSA printed volumes. Over 172,000 of these have digitized full text scanned electronically. These numbers will evolve over time.

Recent Statistics and Predefined Queries

The last update corresponds to volume and issue 38/10, was made on 07 March 2007 and includes 3620 records, of which 93 are NCL documents and 76 contain PDF full-text documents available for download.

Their main subject distribution is as follows:

862	PLASMA PHYSICS AND FUSION TECHNOLOGY
446	CLASSICAL AND QUANTUM MECHANICS, GENERAL PHYSICS
269	MATERIALS SCIENCE
242	PHYSICS OF ELEMENTARY PARTICLES AND FIELDS
230	PARTICLE ACCELERATORS
168	RADIOLOGY AND NUCLEAR MEDICINE

Introducing Full-text Search

With release 1.4.0 (19 September 2006) of the INIS Online Database, the search of full-text documents from PDF files is now possible. The field is called "Text" and can be used in Boolean searches. All new search results will be indexed on PDF content will be indexed on PDF files have not yet been processed.

The content of the PDF file will not be automatically added to the search results page. To read it, you will have to download the file. Remember that access to certain PDF files is not available on all occasions the PDF file will be available, but protected the file and disallowed its printing. The content of these files.

Atoms for Peace Plus Fifty
by Susan Eisenhower

...and allies, Great Britain and Canada, whose scientific genius made a...
...tremendous contribution to the original development of the atom...

...ower's most significant political legacies stemmed from his man-
...question. Five decades after Eisenhower's "Atoms for Peace"
...ed Nations, the nuclear dilemma persists but the world is a differ-
...t, a better place today than it might have been had that vision not
...proposals not advanced.

...e international atmosphere that existed in 1953 at the time of the
...error that was unleashed by the atomic carnage in Hiroshima and
...WWII were only heightened four years later when the Soviets
...on August of 1949. Great Britain, without help from the United
...October 3, 1952.

...still raging, only a month later, in November 1952, the world
...hydrogen bomb. This nuclear weapon tested by the United States
...o destroy. On its detonation it vaporized the test island, Elugelab,
...water crater 1,500 yards in diameter. The test demonstrated that if
...weapons a nuclear holocaust could occur.

...ter, on August 19, 1953, the Soviet Union announced that they had
...e United States' monopoly on the hydrogen weapon. The coun-
...stroyed during WWII, making it obvious that a nation's wealth
...for gaining nuclear knowledge and capability. It was clear that if
...ent path soon many others would be able to develop and acquire

...address the contradictions inherent in the atom? On the one hand
...could produce unthinkable destruction also, on the other hand,
...was central to our national security calculations. Furthermore,
...uclear field held out the promise that the atom could provide ide-
...power for energy and humanitarian purposes.

...speech had a number of objectives, but its overarching goal was

Dwight D. Eisenhower portrait by J. Anthony Willis

Susan Eisenhower



INIS NCL full-text collection



Contains over 700 000 documents
on microfiche and in electronic form (~40%)



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

The screenshot shows the IAEA.org website. The header includes the IAEA logo and the text "IAEA.org International Atomic Energy Agency". Below the header is a navigation bar with links: "About IAEA", "Our Work", "More about INIS..", "Tools..", and "Contact Us". To the right of the navigation bar is a "FONT SIZE" section with "A + A -" options. Below the navigation bar is a breadcrumb trail: "You are in : Home » Our Work » Technology » NE » INIS » Document Delivery Services". The main heading is "Document Delivery Services". Below this heading is a paragraph: "Full text documents in the INIS database identified as Non-Conventional Literature (NCL), usually reports, patents, theses, are noted as being available from INIS in the Availability Statement. Generally, all other full text documents are conventional literature (e.g., journal articles, books, etc.) and can be obtained from commercial services." Below this paragraph is a section titled "Online Ordering of Documents" with a paragraph: "Full text documents can be obtained from the following Document Delivery Services, which have been recommended by INIS Liaison Officers. INIS Liaison Officers who will offer NCL to users within their national boundaries should be consulted first." To the right of the main content is a "Country List" section with a list of countries: International Atomic Energy Agency, Argentina, Australia, Azerbaijan, Belarus, Brazil, Bulgaria, and Canada.

IAEA.org
International Atomic Energy Agency

[About IAEA](#) [Our Work](#) [More about INIS..](#) [Tools..](#) [Contact Us](#) FONT SIZE [A +](#) [A -](#)

You are in : [Home](#) » [Our Work](#) » [Technology](#) » [NE](#) » [INIS](#) » [Document Delivery Services](#)

Document Delivery Services

Full text documents in the INIS database identified as Non-Conventional Literature (NCL), usually reports, patents, theses, are noted as being available from INIS in the Availability Statement. Generally, all other full text documents are conventional literature (e.g., journal articles, books, etc.) and can be obtained from commercial services.

Online Ordering of Documents

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Country List
[International Atomic Energy Agency](#)
[Argentina](#)
[Australia](#)
[Azerbaijan](#)
[Belarus](#)
[Brazil](#)
[Bulgaria](#)
[Canada](#)



Where is INIS?

On the following online hosts:

- ❖ DIALOG
- ❖ STN International
- ❖ ETDE
- ❖ INIS DB Mirror (the Republic of Korea)



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

A-15 COMPOUNDS	a-15化合物
A-2 REACTOR (BOHUNICE)	a-2堆 (博胡尼斯)
A-2 REACTOR (CALDER HALL)	a-2堆 (卡德霍尔)
A2-1310 RESONANCES	a2-1310共振
A2-1320 MESONS	A2-1320介子
A2H-1320 RESONANCES	a2h-1320共振
A2L-1280 RESONANCES	a2l-1280共振
A3 RESONANCES	a3共振

ADP	تافس فل ا يئانث نيزوندا
ADRENAL GLANDS	ةيرظنك ددغ
ADRENAL HORMONES	ةيرظنك تان وجره
ADRENALECTOMY	رظنكل ا عطق
ADRENALINE	نيلان يردا
ADSORBENTS	تاازام
ADSORPTION	زازتم
ADSORPTION HEAT	زازتم ال ا قراح



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



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)



Knowledge Preservation Initiatives

- ❖ Digitization of the INIS NCL Microfiche Archive
- ❖ Digitization of the French CEA-R Microfiche Archive
- ❖ Digitization of INDC (Nuclear Data) documents
- ❖ Production of topical subsets (Chernobyl, FastReactors, ...)

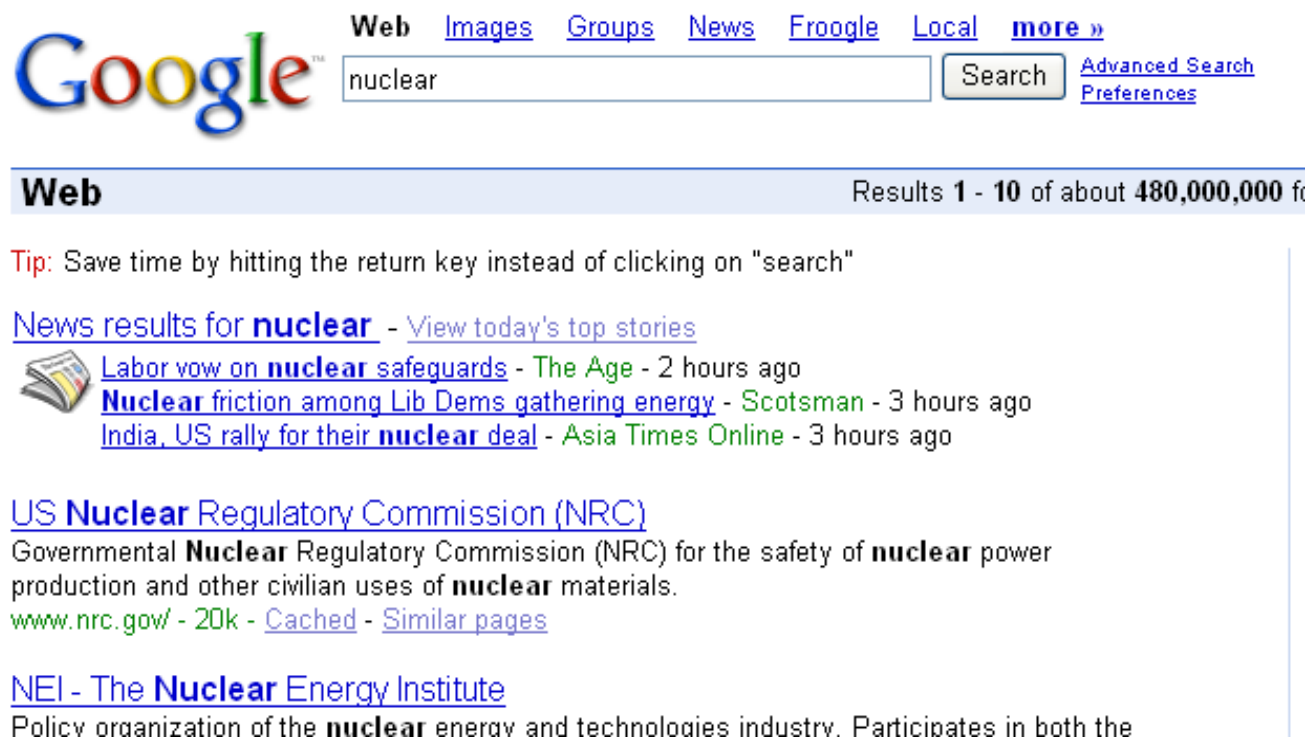
- ❖ Digitization of older IAEA publications and NCL documents that are not in INIS scope:
 - Documents of the IAEA Board of Governors (1957 – 1996)
 - IAEA Technical Reports Series
 - IAEA Bulletin
 - IAEA Conference Proceedings
 - INDC (Nuclear Data) documents
 - IAEA General Conference (since 1956)



Future Directions

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

Expand INIS scope to multimedia and Web-based Information




The screenshot shows a Google search interface. At the top, the Google logo is on the left, and navigation links for Web, Images, Groups, News, Froogle, Local, and more are on the right. Below these is a search bar containing the word 'nuclear' and a 'Search' button. To the right of the search bar are links for 'Advanced Search' and 'Preferences'. A large red arrow points from the right side of the slide towards the search bar. Below the search bar, the results are categorized under 'Web', showing 'Results 1 - 10 of about 480,000,000 for nuclear'. A tip suggests hitting the return key instead of clicking 'search'. The first result is 'News results for nuclear' with a link to 'View today's top stories'. Below this are three news snippets: 'Labor vow on nuclear safeguards' from The Age (2 hours ago), 'Nuclear friction among Lib Dems gathering energy' from Scotsman (3 hours ago), and 'India, US rally for their nuclear deal' from Asia Times Online (3 hours ago). The second result is 'US Nuclear Regulatory Commission (NRC)', described as the governmental body for the safety of nuclear power production and other civilian uses of nuclear materials, with a link to www.nrc.gov/ and 20k cached pages. The third result is 'NEI - The Nuclear Energy Institute', described as a policy organization of the nuclear energy and technologies industry.

Google Web Images Groups News Froogle Local more »
nuclear Search Advanced Search Preferences

Web Results 1 - 10 of about 480,000,000 for nuclear

Tip: Save time by hitting the return key instead of clicking on "search"

News results for **nuclear** - View today's top stories


 Labor vow on **nuclear** safeguards - The Age - 2 hours ago
Nuclear friction among Lib Dems gathering energy - Scotsman - 3 hours ago
India, US rally for their **nuclear** deal - Asia Times Online - 3 hours ago

US **Nuclear** Regulatory Commission (NRC)
Governmental **Nuclear** Regulatory Commission (NRC) for the safety of **nuclear** power production and other civilian uses of **nuclear** materials.
www.nrc.gov/ - 20k - [Cached](#) - [Similar pages](#)

NEI - The **Nuclear** Energy Institute
Policy organization of the **nuclear** energy and technologies industry. Participates in both the



INIS Web Services: Directory of Nuclear Resources


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 International Atomic Energy Agency

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IAEA Data Centre

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- Programme Sites

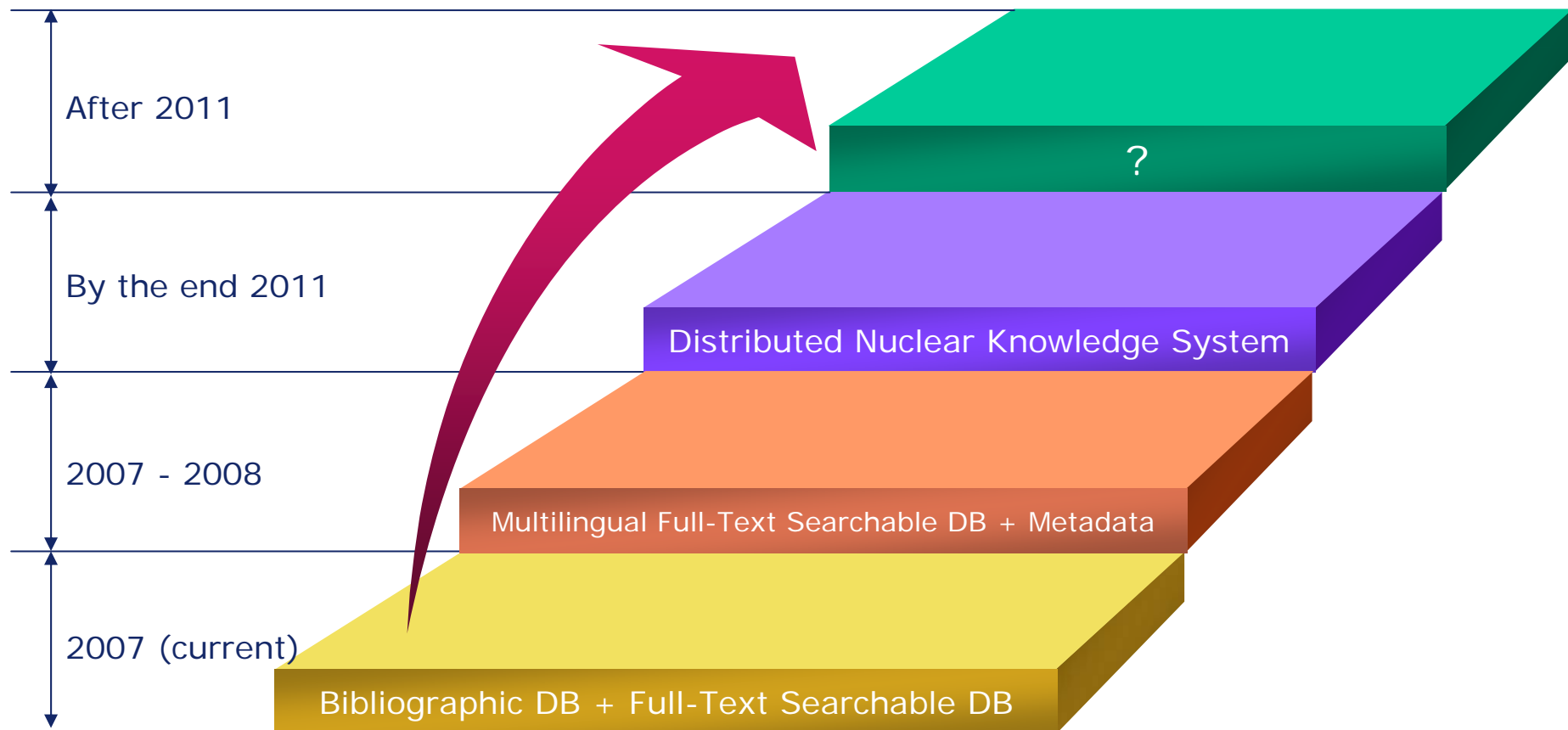
Internet Directory of Nuclear Resources

Main Subject Index

This collection of data contains entries which are freely available to the general public, as well as links to commercially or otherwise restricted data. Please use this index to browse our data base of nuclear related Internet web sites by subject category [or by country](#).

- 100 Bibliographic Databases and Online Journals, Reports, Pre-prints
 - Bibliographies
 - Library Catalogues
 - Bibliographic Data Vendors
 - Document Supply Services
 - Online Journals, Reports, Pre-prints
 - Publications by International Organizations
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 - Knowledge Management
 - Knowledge Preservation Initiatives
 - Information Technology and Configuration Management
 - Co-operation Initiatives
- 400 Research Institutes and Laboratories
 - Nuclear Research Institutes
 - High Energy Research Institutes
 - Nuclear Fusion and Plasma Physics
 - Application of Isotopes and Ionizing Radiation
- 500 Universities
 - University Home Pages
 - University Departments

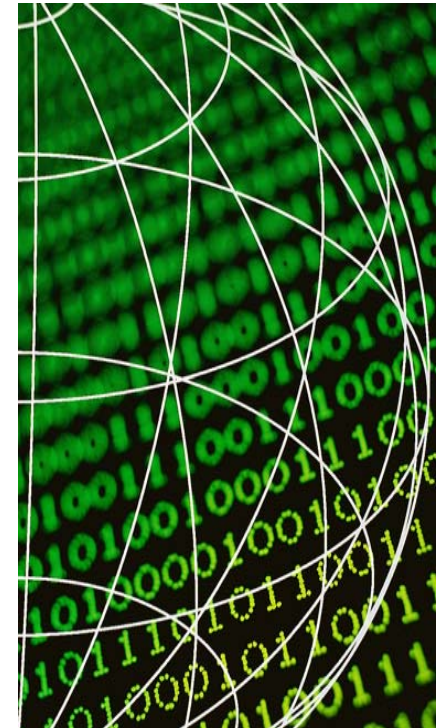
Future Directions





International Nuclear Information System

- ❖ 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

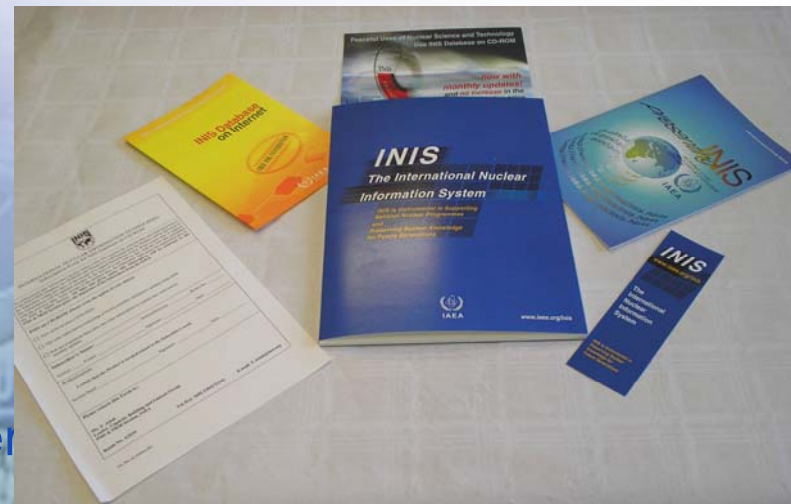


**INIS address the needs of both
developing and developed countries**

Thank You
very much for your kind attention!



<http://www.iaea.org/inisnkm/>



www.ther