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INIS – Challenges Ahead

Throughout human history, each generation has had its own information needs, satisfying those needs with the technology available to them. Each information technology breakthrough – the printing press, the computer, the Internet – has brought a cultural change in how people communicate and share information.

Today's information landscape is marked by three major shifts:

- From print to digital information
- From mediated access (through bibliographic records) to unmediated access (to full text)
- From information silos to interoperable systems

These changes entail modifications in user expectations. Today's information consumer expects:

- Direct access to full text information
- The opportunity to contribute to the content
- The ability to search across a critical mass of information

To remain relevant for future generations, INIS will have to adjust to these changes.

Three areas for immediate attention were identified by the 12th INIS/ETDE Joint Technical Committee Meeting (JTC): Adherence to internationally accepted standards, visibility on the Internet and alertness to new web developments.

Standardization

XML (Extensible Markup Language)

Already in 2002, INIS started discussions on XML implementation. As of today, XML has been implemented for INIS output products such as AtomIndex distribution. However, TTF and ISO2709 are still used for data input, quality control and production processes, entailing cumbersome format conversion procedures from TTF and ISO2709 to XML. The 12th JTC Meeting supported the introduction of XML in all phases of the INIS production process.

Unicode

INIS processing and output products

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To our Readers

As we reach the end of 2009, adapting to a rapidly changing environment and the future direction of INIS are uppermost in our minds.

In this issue, we focus on INIS' future and the challenges and achievements ahead, anticipating what the new year may bring.

Looking forward to seeing you in 2010 at the INIS Liaison Officer Meeting.

I hope you have a stimulating read.

Ruth Hahn-Weinert

use a very narrow character set represented by ASCII codes. INIS content however, uses a multitude of characters. When INIS input is being prepared, all special characters are downgraded to the INIS character set.

To address the issue, the 12th JTC Meeting discussed eventually making all INIS IT applications Unicode compatible.

Visibility

Owning content is not enough: A database is only of use if it is accessible and searchable. Hiding content behind a subscription wall is one of the biggest obstacles to accessing and sharing information. Making INIS freely available on the Internet was a step in the right direction. Additional ways to foster INIS visibility on the web should be explored in 2010.

Staying attuned to new web developments

The Internet has already profoundly changed our economic and social world. As it extends its reach and serves an ever growing population of users, new services are introduced, turning the “net” into a tool for connecting people.

INIS cannot ignore these developments. Whilst we do not need to be at the forefront of new trends, it is im-

perative that we stay attuned to new developments.

Each information technology breakthrough has brought a cultural change in how people share information.

In the longer term, we have to prepare the future INIS, adhering to internationally accepted standards and developing capabilities for sharing, searching and delivering new-media content.

From support mode to strategic mode

The 34th INIS Liaison Officer Meeting in 2008 and the 12th JTC Meeting shifted gears from merely maintaining the status quo into making strategic recommendations to position INIS as a player in the 21st century's

nuclear information landscape.

Valuable input has been received during both meetings and I invite all INIS members to join us in ensuring that INIS fully benefits from the opportunities ahead.

As we end 2009, I would like to thank all INIS members for their joint efforts to provide trusted nuclear information, documents, training, networking and support.

As we start 2010, I trust that the New Year will bring you and those close to you the blessings of peace, prosperity and good health.

Ms. Ruth Hahn-Weinert



12th JTC Meeting
(Photo: T. Kalapurackal/IAEA)

INIS - Looking to the Future

The state of the world's economy today and fast paced, continual changes are forcing organizations to examine what they do and how they do it. In order to maintain their relevance and their role in these tough times, many organizations have found the need to reinvent and even reposition themselves.

Common wisdom tells us to learn from the past, to work hard today and to plan for tomorrow. Still, we often stand perplexed before the complexity of the task ahead of us.

To maintain their relevance and role in tough times, many organizations reinvent and reposition themselves.

How do we find our organization's inner self and define its goals? How do we plan for the future and what should we take into consideration?

Here are four elements

that can help us define the future direction of organizations, including the future of INIS.

Simple questions require simple solutions since complex explanations only hide the obvious. This simplicity can hardly be achieved by looking only at spreadsheets and available data. Instead, it should be reached by examining the **purpose of the organization** and figuring out what the organization stands for, keeping in mind that the purpose of the organization should be more than just its products.

Our existing business model defines the way we carry out our business and often delineates that crucial difference between *us* and *them*. Organizations that perform under financial and other constraints try to redefine and reinvent their **business model** instead of seriously committing to their existing one.

The purpose of an organization, as well as its business

INIS focuses on quality growth achievable through the continuous use of reliable nuclear information

model, often remain the same, but the **tools and means** used for achieving those business goals, making products or delivering special services, constantly change.

It has been proven that companies that grow for the sake of **growth** rarely survive downturn and difficult times. Therefore, sustainable growth should be driven by quality, not quantity.

Although quite general in their nature, these four elements can help chart the future direction of INIS which should be defined by the following four directional pillars:

- INIS' purpose, which has to be larger than its products, is to provide the world with easy access to nuclear information for peaceful use.
- INIS' "business" model should remain a self-governed, not for profit, collaborative system of member states

and international organizations.

- INIS is inseparable from the information technology it uses and future tools and means have to be outside the ordinary. They have to be creative and innovative in order to achieve the desired purpose.
- INIS should continue to accumulate world nuclear literature. However, its focus should be on quality growth achievable through the continuous use of reliable nuclear information provided by recognized sources, preferably as full texts.

The forty years of INIS' existence are proof of its usefulness to the world of nuclear science and technology. Current hard work and constant improvements are good signs of its sustainability but clear and distinct direction are the only guarantors of its future relevance and leading place in providing the world with reliable nuclear information for peaceful use.

Mr. Dobrica Savić

Building the Capacity of National INIS Centres

Access to **reliable, trustworthy nuclear information resources**, the need to ensure relevant nuclear information services to **end users in Member States**, and the need for **skilled and knowledgeable workers** in these fields are among the challenges that Member States face to ensure the smooth implementation of their national nuclear programmes and activities.

INIS, the world's most comprehensive and leading information source in the nuclear field, assists Member States by serving the **information needs of both developing and developed countries** in many subject areas, including:

Nuclear energy, including nuclear engineering; Nuclear instrumentation and the nuclear fuel cycle; Nuclear safety; Radioactive waste management; Fusion research and technology; Life sciences and environmental aspects; Safeguards, non-proliferation; Isotopes and nuclear applications in earth sciences; Agriculture; Biology; Medicine and industry; Radiation protection; Nuclear physics; Nuclear chemistry; Economic, legal and social aspects

INIS centres provide valuable information support to national nuclear programmes.

tional nuclear information and knowledge needed for the effective and safe use of nuclear energy and its applications for **future generations**.

Recent Success Stories

TC project enhances the national INIS Centre in Uzbekistan

The Centre is already providing relevant nuclear information services to researchers and engineers to support their country's participation in all nuclear science and technology activities. It has significantly increased the number of input to INIS information resources and national achievements in the nuclear field are being documented regularly to ensure easy access for future generations.

INIS Regional Training Course in Africa

A two-week Africa region training course on INIS, the first of its kind in the region, was hosted by the Nuclear Energy Corporation of South Africa (NECSA), Pretoria, South Africa on 15-26 June 2009.

Twenty three participants from twenty one African Member States attended this hands-on training on all aspects of INIS input preparation and the utilization of INIS products. Comprehensive information was provided on the INIS concept and INIS' role in supporting national nuclear activities and programmes. Member States' role, as well as the scope of the IAEA's contribution to establish new or reactivate existing national INIS Centres, was also at the heart of the training. The course addressed the im-

How does INIS assist Member States?

- **Building the capacity** of national and regional INIS Centres by **transferring knowledge** and know-how in information handling and processing, so that recipient INIS Centres become self-sufficient in providing relevant **information support to national nuclear programmes and activities**;
- Ensuring the **management and preservation** of na-

portant role of national INIS centres and the need to establish regional cooperation among African INIS centres, encouraging the valuable exchange of information between participants.

INIS raises the visibility of Member States' national literature and achievements worldwide.

knowledge in the field of peaceful uses of nuclear science and technology. It helps **foster research & development** in

Benefits to Member States

INIS provides numerous benefits to Member States. It enables them to be part of a reliable, well established, mechanism to **preserve their**

the nuclear field while raising the **visibility of Member States' national literature** and achievements worldwide. INIS also provides access to a **trusted nuclear information reservoir** now and in the future, helping preserve national nuclear competence for **future generations**.

INIS Member States are encouraged to use INIS and its services in support of their national nuclear activities and program. IAEA Member States that have not joined INIS are strongly encouraged to do so.

Ms. Taghrid Atieh

News from INIS & NKM

INIS Training Seminar 2009

Information specialists from national INIS centres of twenty Member States attended the INIS training Seminar, hosted by the INIS & NKM Section at the IAEA Headquarters in Vienna, Austria from 23 to 27 November 2009.

Delivered in the form of lectures, presentations, and practical sessions, the seminar encouraged the participants to exchange information among themselves and with INIS secretariat staff members at the IAEA.

The Seminar provided advanced training, covering all aspects of INIS input preparation and the usage of INIS products. Various sources of national literature were presented. Possible approaches to promote INIS to potential users, as well as to contributors, and INIS' role in supporting national nuclear activities and programmes were also among the topics actively discussed.

The participants were encouraged to join the International Nuclear Library Network (INLN) and to make use of the IAEA Library information resources that are open to IAEA Member States.

In an attempt to enhance greater future contribution to INIS, participants were encouraged to locate relevant open access literature for inclusion in INIS information re-



Participants at the INIS Training Seminar (Photo: T. Kalapurackal/IAEA)

sources. A recent success story from an INIS Member State on using open access publications as INIS information sources was presented and Member States were strongly encouraged to follow a similar approach.

The participants commended the training seminar and indicated their great satisfaction with the preparation and the topics covered. They also expressed the need for additional similar training events, particularly now as more countries are becoming interested in the nuclear option and the need for reliable nuclear information services, which INIS provides, is higher than ever.

Ms. Taghrid Atieh

INIS/ETDE Joint Technical Committee Meeting: Laying the Foundation for the Future

Representatives of 11 Member States, ETDE and INIS participated in the 12th INIS/ETDE Joint Technical Committee (JTC) Meeting at IAEA Headquarters in Vienna. Held from 21 to 22 October 2009, the meeting laid down solid foundations for future success, sustainability and relevance of both the INIS and the ETDE databases through its guidelines and recommendations. In a friendly and collaborative atmosphere, participants discussed many issues ranging from actions taken on previous recommendations and status of current projects, to very technical and detailed reviews of Metadata Extraction Tool (MET), Computer Aided Indexing (CAI), various character sets and Web 2.0 activities.

Over 20 years of cooperation has increased the efficiency and effectiveness of both organizations.

During the two years since the previous JTC meeting, many actions were taken and projects undertaken. Lengthy reviews of separate ETDE and INIS activities, as well as a review of joint activities, gave an excellent crosscut of issues and challenges facing these two organi-

zations which were both established to facilitate the sharing of information among their respective Member States.

Over 20 years of cooperation between ETDE and INIS has increased efficiency and effectiveness of database production and the provision of services of both organizations. Compatible sets of authorities and guidelines for Member States, a balanced and equitable sharing of work, and resource efficiency in the development of mutually beneficial new information technologies are some of the benefits of this cooperation.

George Bernard Shaw once said that “we are made wise not by the recollection of our past, but by the responsibility for our future”. Although this session of the JTC meeting took time to review the past, its main emphasis was on the future. The economic and financial constraints facing the world, the changing needs of today’s scientists, researchers and engineers, the pace of innovation and new developments in the area of information technology, and an ever increasing amount of available information, all have a tremendous impact on our daily activities and our working environments. The 12th INIS/ETDE JTC

Meeting made an attempt to lay the foundation for the future by addressing some of these issues of long-term importance, such as the issue of standardization. During the JTC Meeting, the orientation towards recognized world-wide standards such as XML and UNICODE was reconfirmed. It was emphasised that this should be followed by adjusting and updating all current information processing facilities, distribution mechanisms and retrieval tools to meet these standards. This focus on standards brings new opportunities but also begets the need for continual monitoring of new web developments and review of possible ways to use these new technologies to enhance information usage.

In view of current world challenges and the increasing role that information plays in the process of social, cultural, economic and technological democratization, as well as in overall development and prosperity, the JTC meeting commended INIS for providing free and open access to the INIS Database and non-conventional literature (NCL) on the Internet. At the same time, criteria for gaining access to the ETDE Database will be simplified bringing developing countries closer to that valuable information resource.



12th JTC Meeting participants (Photo: T. Kalapurackal/IAEA)

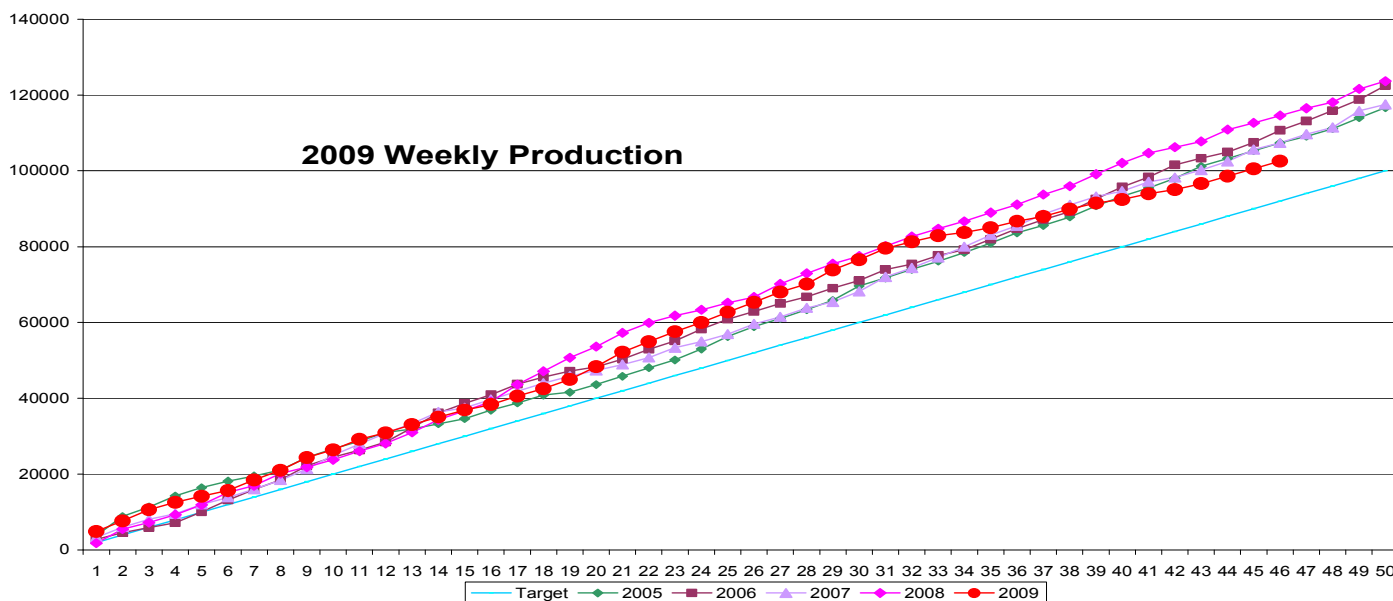
The meeting also recognized financial constraints that many Member States and international organizations, including INIS and ETDE, are facing. It recommended that efforts be made to keep purchasing and processing bibliographic records at least for core scientific and technical journals so that scientists, researchers, developers,

and students may continue to have access to the most important and influential literature published around the world.

Actions taken to increase usage and popularity of the INIS and ETDE databases, including becoming part of World Wide Science and Google Scholar were also encouraged. These and other actions could bring increased use of already available information collections. To measure the database’s usefulness, a special Task Force was set up to define such metrics for future use.

Mr. Dobrica Savić

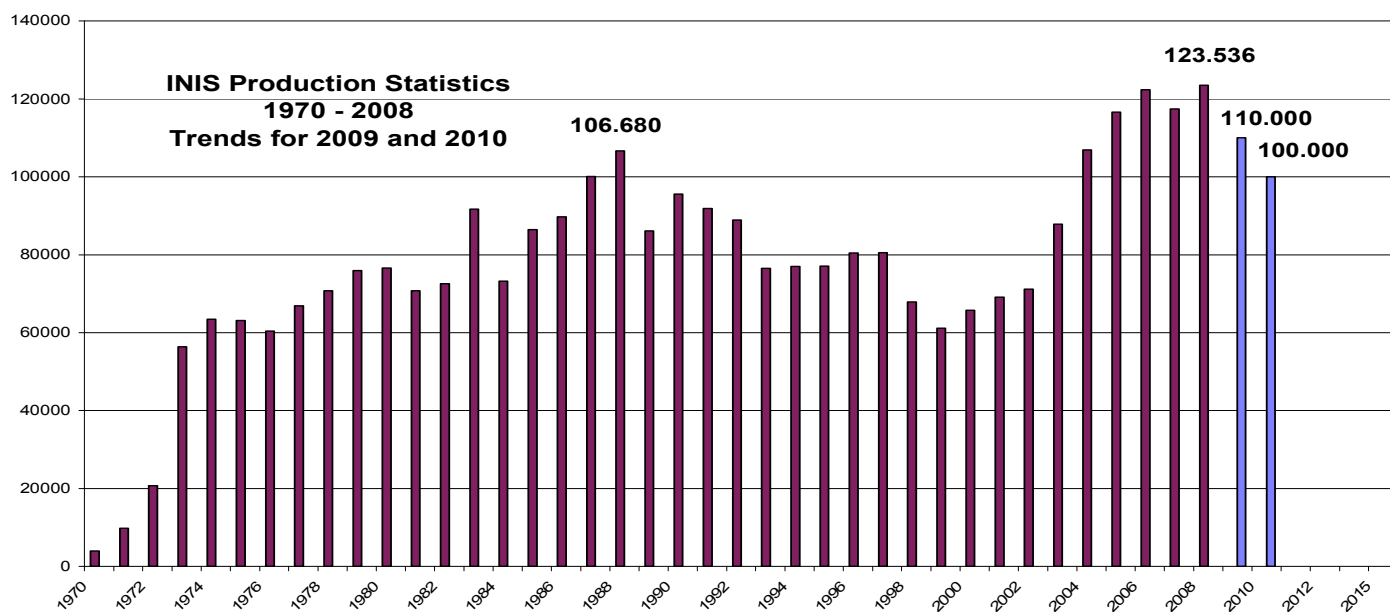
Expected 2009 Production and Trends for 2010



Expected production in 2009 will be lower than in previous years. During the first half of 2009, weekly production values were in the same range as in the last 2-3 years, reaching 62 759 records by the middle of the year; however, the second half of this year shows a significant weekly production value decrease. This decrease is attributable to limited resources available for purchasing electronic records from publishers, as well as to a reduced indexing capacity due to the departure of one subject specialist. By mid November 2009, production was at 102 553 records and it can be expected that, by the end of the year, it will reach around 110 000 records. Despite being 12% below the production values of 2008 and 2006, and 7% below 2007 values, 2009 results will still be higher than any INIS annual production before 2005.

In 2010, similar conditions are expected to influence INIS database production. Namely limited resources entailing the purchase of electronic records from core journals only, and a lengthy recruitment process that may lead to delays in replacing retired staff. Assuming that the reduced indexing capacity can be balanced by external experts and that the input preparations by Member States continue at a level of around 60 000 records per year (as in previous years), a production of around 100 000 records in year 2010 can be expected.

Mr. Alexander Nevyjel



2010 Meetings

Meeting Title	Date	Location	Country	Scientific Secretary
International Conference on Human Resource Development for Introducing and Expanding Nuclear Power Programmes	14 - 18 March 2010	Abu Dhabi	UAE	T. Mazour Y. Yanev
Technical Meeting on Standardizing Curricula for Nuclear Power and Non-power applications to Support Human Resources Development (HRD) Programmes in Nuclear Science and Technology	26 - 29 April 2010	IAEA, Vienna	Austria	M. Saidy Y. Yanev
School of Nuclear Knowledge Management	23 - 27 August 2010	ICTP, Trieste	Italy	M. Saidy Y. Yanev
Meeting of International Community of Practice in nuclear knowledge management (ICP NKM)	11-14 October 2010	IAEA, Vienna	Austria	Z. Pasztory A. Pryakhin
INIS Liaison Officer Meeting	27-28 October 2010	IAEA, Vienna	Austria	D. Savić
Regional meeting of ANENT Countries for education and training in nuclear science and technology	4th Quarter 2010	TBD	TBD	K. Hanamitsu Y. Yanev
School of Nuclear Energy Management	8 - 26 November 2010	ICTP, Trieste	Italy	M. Saidy Y. Yanev