



IAEA

International Atomic Energy Agency

**15 Years of the
European Nuclear Education Network (ENEN)**
Academic Session

Knowledge Management and Networking Activities of IAEA

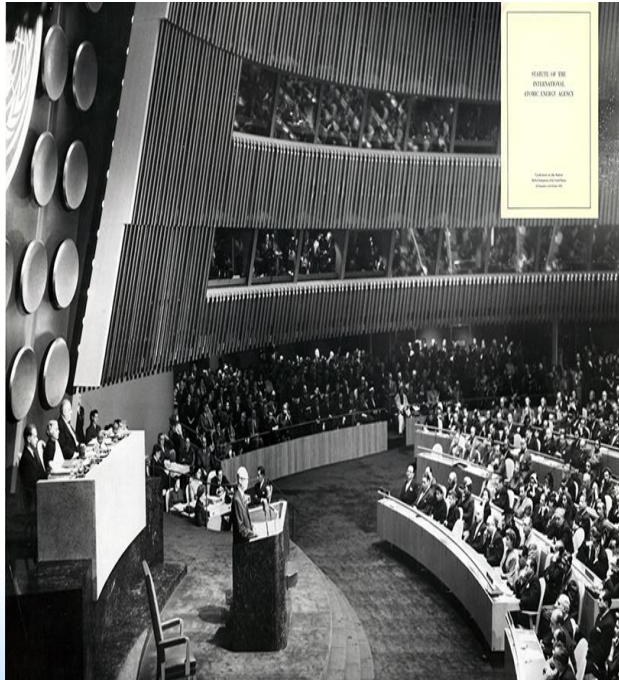
Huang Wei
Director, NEPIK, IAEA
March 1. 2018, Brussels

A Glimpse of IAEA



Inter-governmental
Organization within UN system,
established in 1957 by “Atom
For Peace”.

New motto of “Atom For Peace
and Development” since 2016



Headquarters in VIC, 1979-present

Mandate

“The Agency shall seek to accelerate and enlarge the contribution of atomic energy to peace, health and prosperity throughout the world. It shall ensure, so far as it is able, that assistance provided by it or at its request or under its supervision or control is not used in such a way as to further any military purpose”

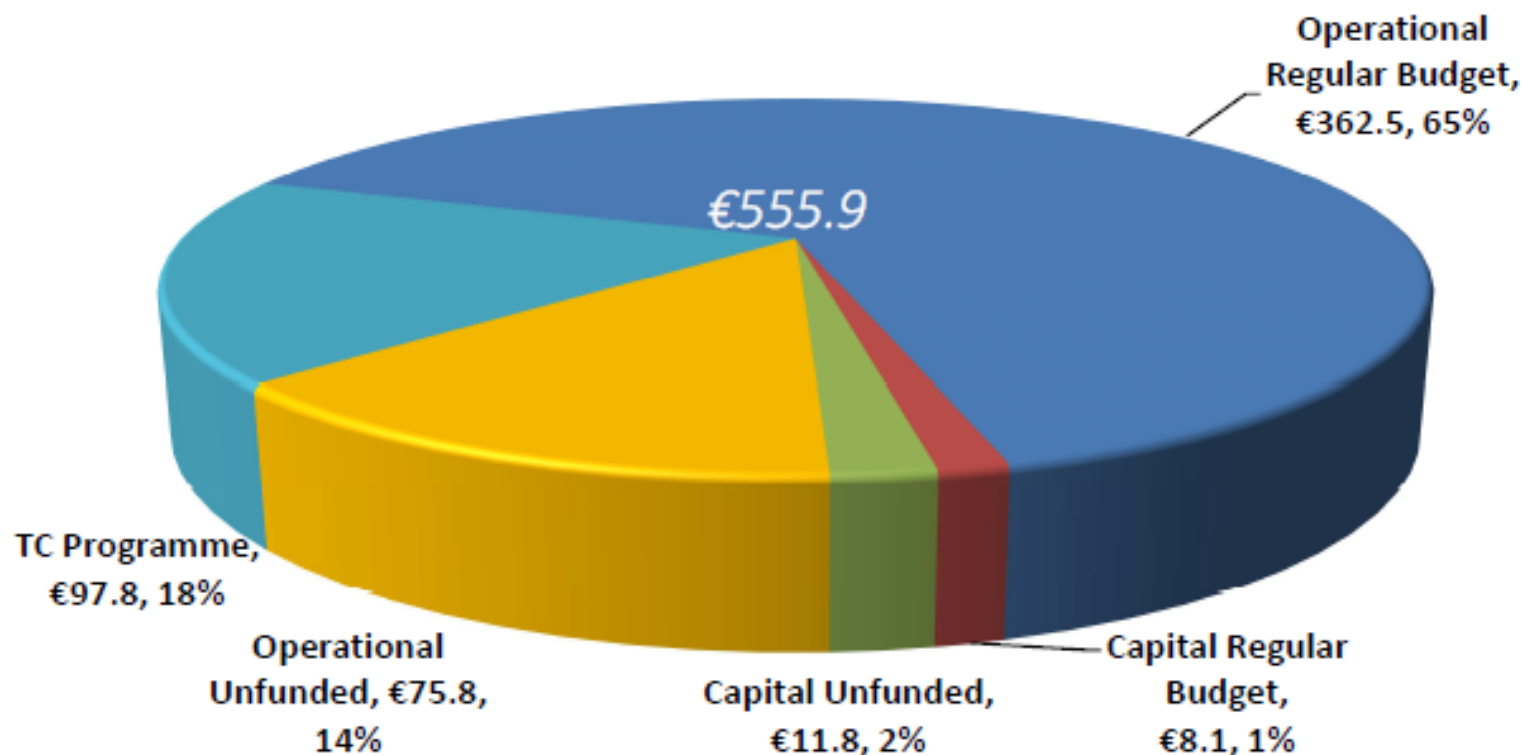


Budget at Glance

2018–2019 Programme and Budget at a Glance

2018 Total Resources at a Glance

(in million euros at 2018 prices)¹



Senior Management



**DDG NE
MP-1**



**DDG NA
MP-2**



**DDG NS
MP-3**



**DDG SG
MP-4**

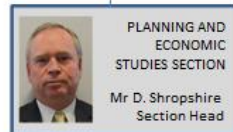
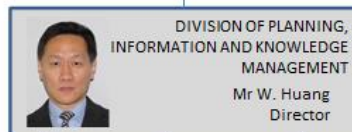
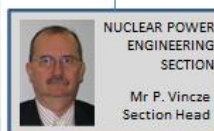
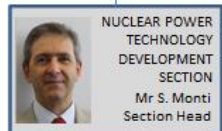
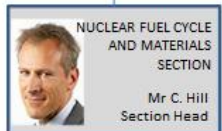
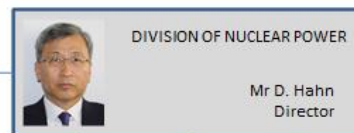
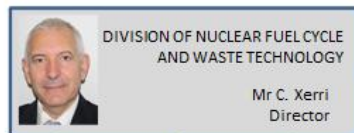
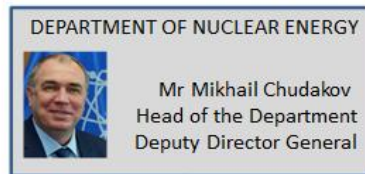


**DDG MT
MP-5**



**DDG TC
MP-6**

Major Program-1



Objectives:

- Provide scientific and technical support to Member States through provision of service, guidance and advice; facilitating discussion; and dissemination of data, information, and knowledge;
- Design and deliver training and help interested Member States to build capacity and to develop infrastructure necessary for managing a nuclear power and fuel cycle programme in a safe, secured and sustainable manner..

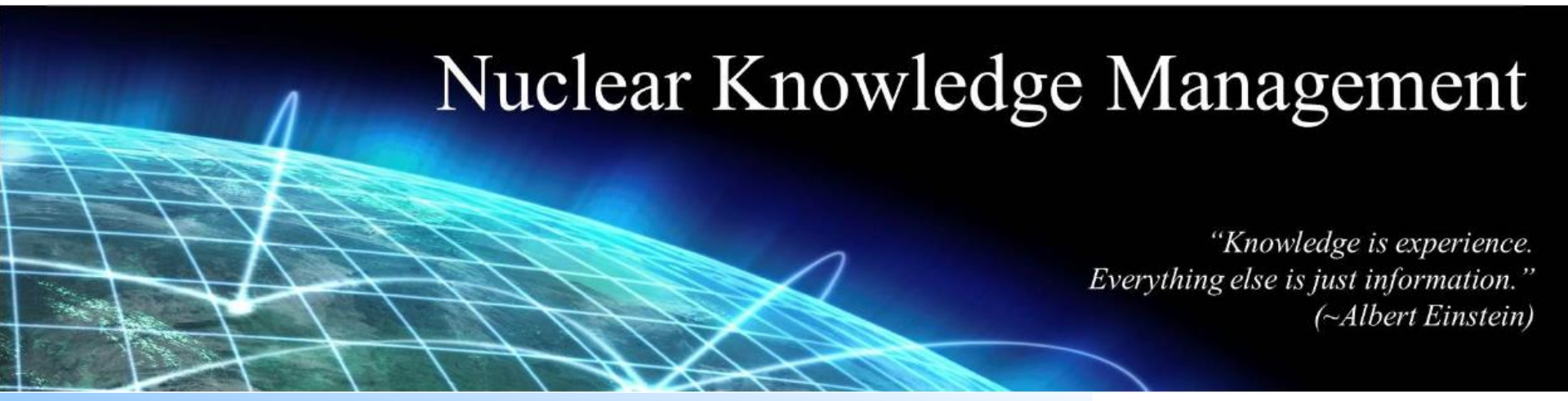
**NEPIK, MP 1.3 with 4 sub-programs;
Operational in March, 2016 after GC(58) resolution;
Capacity building and knowledge management;**

NKM Programmes



- Increased awareness and understanding of risks and challenges of KM in nuclear sector around 2000 ;
- Initiated by GC(44) resolution in 2000 and endorsed by GC(46) resolution in 2002;
- New sub-program added in 2002-2003 cycle(Maintenance of Knowledge in Nuclear Science and Technology);
- Cross-cutting nature recognized and embedded components in all major program;
- Activities focusing on guidance, education and training, and preservation of nuclear knowledge.

Nuclear Knowledge Management

A stylized image of a globe with glowing blue and green grid lines, representing a global network or data flow.

*"Knowledge is experience.
Everything else is just information."
(~Albert Einstein)*

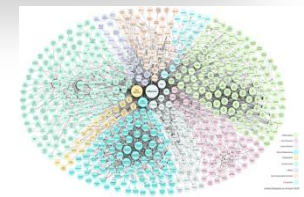
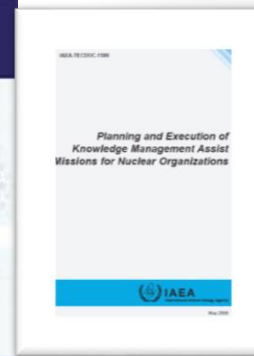
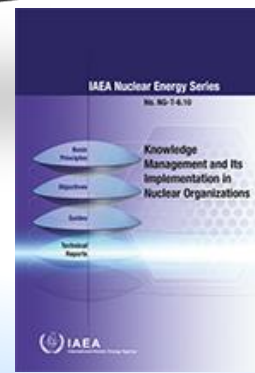
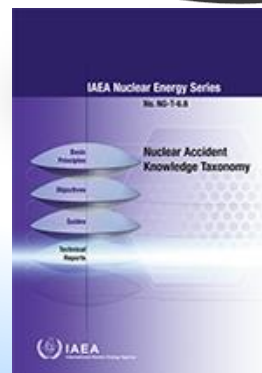
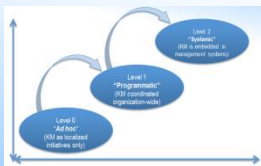
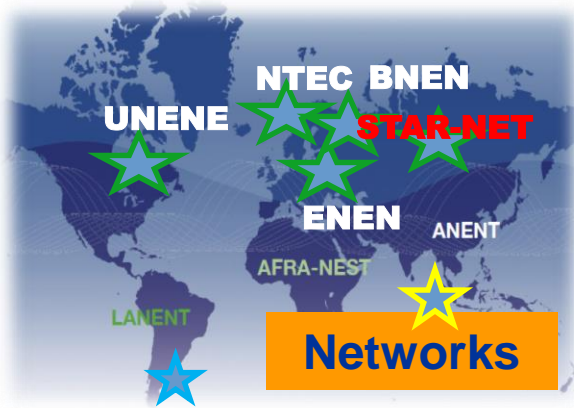
Priority of NKM

Six priority areas are recommended for immediate attention by the Agency:

- a. Integrating existing nuclear data and information bases (including those in Member States) in the form of an easily accessible “Nuclear Knowledge Portal”.
- b. Promoting networking of institutions for nuclear education and training in Member States in co-ordination with existing activities.
- c. Developing guidance documents on the preservation of nuclear knowledge.
- d. Implementing targeted preservation of knowledge projects.
- e. Designing and implementing outreach activities to improve the general knowledge in society of the benefits of nuclear science, technology and applications.
- f. Facilitating the development of curricula for internationally accepted higher university degrees on “nuclear technology”, e.g. by networking universities.



NKM Activities

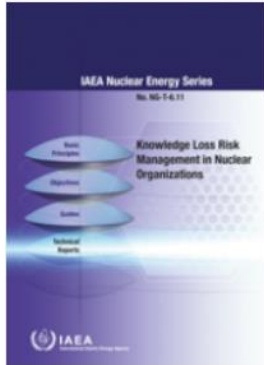


NKM Publication



Publications

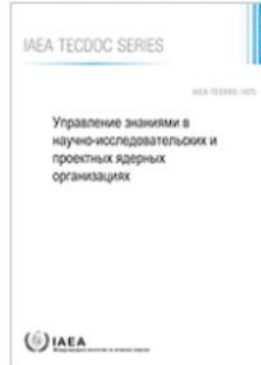
[More Publications →](#)



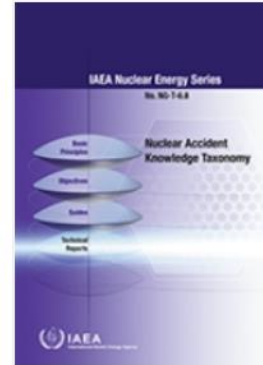
2017
Knowledge Loss Risk Management in Nuclear Organizations



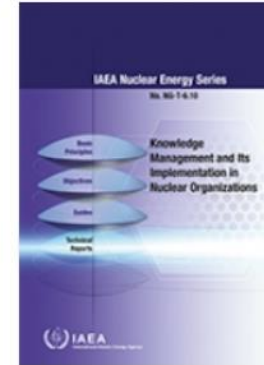
2016
Development of Knowledge Portals for Nuclear Power Plants



2016
Knowledge Management for Nuclear Research and Development Organizations



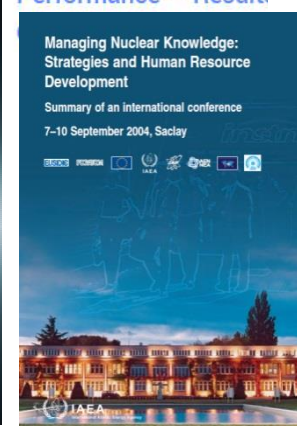
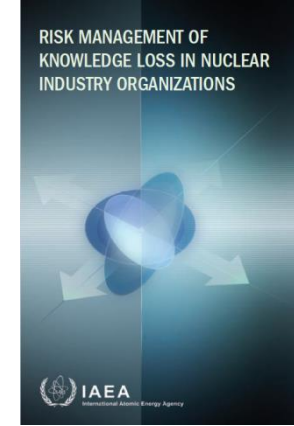
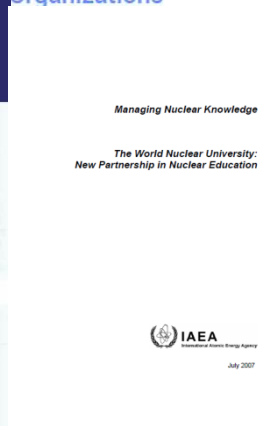
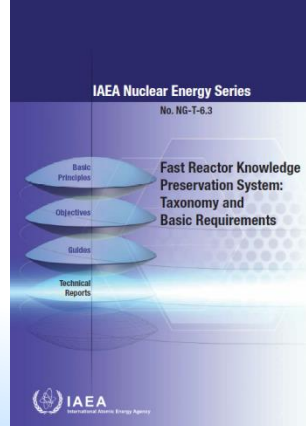
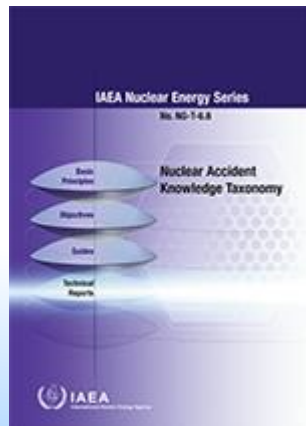
2016
Nuclear Accident Knowledge Taxonomy



2016
Knowledge Management and Its Implementation in Nuclear Organizations



2013
The Impact of Knowledge Management Practices on NPP Organizational Performance — Results





IAEA

CLP4NET

Cyber Learning Platform for Network Education and Training

HOME | ABOUT | RESOURCES



Communication. Collaboration. Knowledge.

Cyber Learning Platform for Network Education and Training (CLP4NET) is an online platform that allows users to find educational resources easily and contains a learning environment to support instructor-led courses and disseminate e-learning self-study resources to a wider audience. The use of the IAEA's platform is provided as a cost-free service to all of the IAEA and its cooperation partners.

Self-directed Learning Management System Instructor-led Learning Management System Integrated Database on Education and Training



Making self-learning materials available online to a wider audience



To support and enhance instructor-led training courses for closed groups of participants



Finding educational resources and opportunities easily, using an advanced search

Click the logos below to visit the websites of Nuclear Education Networks


<http://clp4net.iaea.org>


Cyber Learning Platform For Network Education and Training (CLP4NET)

Utilizing e-learning technologies and methods to make nuclear knowledge more broadly available in a modern, effective and efficient manner

as of January 2018



Education and Training

- **Deliver and assist in educational programmes**
 - **Nuclear Energy Management School**, 2-week program targeted at junior and mid-career professional in nuclear sector for future leadership;
 - **Nuclear Knowledge Management School**, one week certified course on specialized training in development and implementation of KM program in nuclear organization;
 - **INMA - International Nuclear Management Academy**, IAEA-facilitated masters programme in Nuclear Technology Management).



"Science for Development" and "Atoms for Peace"
On the basis of reciprocal cooperation in knowledge management
Nuclear Knowledge Management

Joint ICTP/IAEA School on
NUCLEAR KNOWLEDGE MANAGEMENT

2 - 9 September 2004
(ICTP, Trieste, Italy)



Managing
Nuclear Knowledge

Proceedings of a Workshop
Trieste, 20-24 August 2005

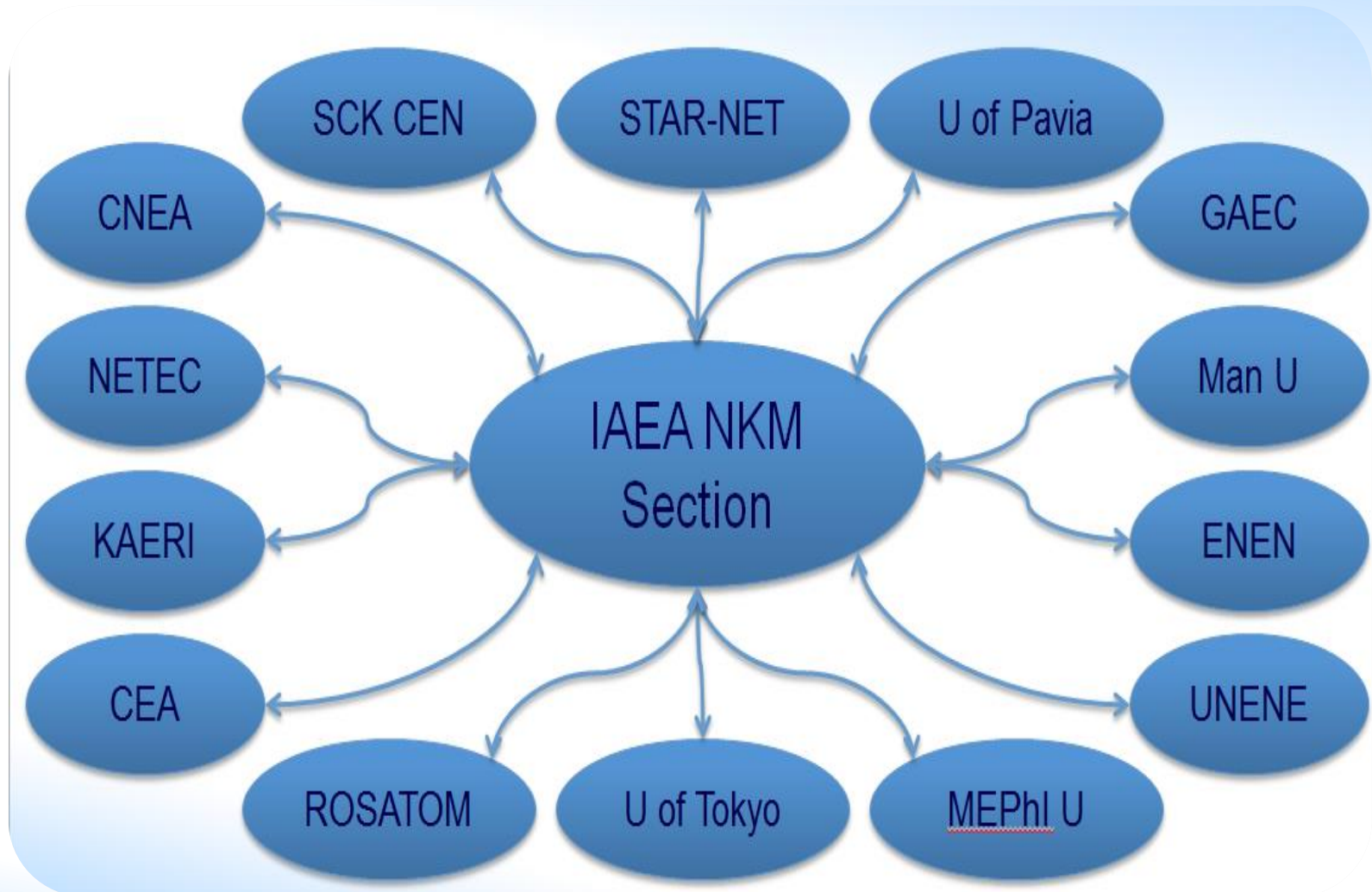


Since 1st NKM school in ICTP in 2004, 17 NKMs (ICTP and 3 MS) conducted, over 620 trainees.

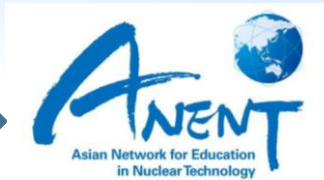
Since 1st NEM school in ICTP in 2010, 21 NEMs (ICTP and 5 MS) conducted, over 720 trainees.

INMA : 2 member; 6 peer review, 10 assist visit.

Partnership



IAEA-fostered Networking

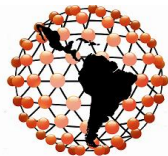


2009 PA

2004
ANENT



2013PA



2010
LANENT



2013
AFRA-NEST

2013
First
Collaboration
Agreement

2017
Renewed
Collaboration
Agreement



2015
STAR-NET



COLLABORATION AGREEMENT
AMONG REGIONAL NUCLEAR EDUCATIONAL NETWORKS:
AFRA-NEST, ANENT, ENEN, LANENT, STAR-NET

Moscow, United Kingdom, 2 March 2017

This Collaboration Agreement is made between the following Regional Networks for Education in Nuclear Technology (ENENT), the Latin American Network for Education in Nuclear Technology (LANENT), the African Network for Education in Nuclear Technology (AFRA-NEST), the European Nuclear Education Network Association (ENENA) and the Regional Network for Education and Training in Nuclear Technology (STAR-NET). This Agreement replaces the original Collaboration Agreement between the regional educational networks signed in 2012 and entered into force in 2017.

ANENT, LANENT, and AFRA-NEST are regional networks, founded with the objective to foster nuclear education and training and enhance opportunities in achieving high quality education and training up to global standards, as well as in maintaining capacities in teaching and creating expert knowledge in nuclear science and technology.

ENEN is a non-profit international organization under the French Law of 1901, aimed at the promotion and further development of science and its nuclear field by higher education and training.

STAR-NET is a non-profit association under the Russian Law of Association with international membership, aiming to promote, manage and preserve nuclear knowledge and to ensure the continued availability of talented and qualified human resources in the nuclear field.

The regional nuclear educational networks have identified broadly in working together, sharing good practices, resources and opportunities for capacity building and effective nuclear education. The collaboration of educational networks contributes to the promotion, management and preservation of nuclear knowledge, and helps to ensure that talented and qualified human resources are available for the safe and sustainable use of nuclear technology.

PA 2009

PRACTICAL ARRANGEMENTS BETWEEN THE INTERNATIONAL ATOMIC ENERGY AGENCY AND THE EUROPEAN NUCLEAR EDUCATION NETWORK ASSOCIATION TO SUPPORT THE ASIAN NETWORK FOR EDUCATION IN NUCLEAR TECHNOLOGY (ANENT)

These Practical Arrangements are made between the International Atomic Energy Agency (hereinafter referred to as the "IAEA") and the European Nuclear Education Network Association (hereinafter the "ENEN"), hereinafter referred to individually as "the Parties" or collectively as "the Parties".

The Asian Network for Education in Nuclear Technology (hereinafter referred to as the "ANENT") is a regional partnership for cooperation in capacity building and human resource development, including education and training in the peaceful use of nuclear technology, within the Asia and Pacific region. This initiative was launched by the IAEA in 2004 under the regular programme. The ANENT Member States have also been supported by the Technical Cooperation programme since 2007.

The ENEN is a non profit international organisation under Danish Law, aiming at the preservation and the further development of expertise in the nuclear field by higher education and training.

- In order to enhance the bilateral cooperation between the ENEN and the IAEA to support the ANENT in the field of research, education and training in nuclear science and technology (hereinafter "the Field"), the Parties have reached an understanding on the following modalities of cooperation:
 - to promote and to mutually support activities in the Field;
 - to help prevent diminishing capacities in teaching and retain knowledge in the Field;
 - to establish trans-national cooperation among universities and institutions in the Field, so as to achieve high quality education and training up to international standards.
- The specific nature of cooperation may include the following:
 - showing of information on any relevant activities in the Field among the Parties;
 - identifying specific fields of common interest;
 - establishing a platform to promote, discuss and coordinate activities and the results thereof;
 - organising joint meetings, symposia, workshops, summer schools and/or internships;
 - developing joint publications and materials;
 - promoting academic and scientific research;
 - advising Parties' activities among their members and partners including Parties' websites;
 - exchanging information and materials.

2009 PA



Forward Looking



- Knowledge manage is a key to ensure safe, secured and sustainable development of peaceful uses of nuclear energy;
- NKM issues and challenges are observed and should be addressed in a collective manner globally, including networking;
- More cooperative opportunities between IAEA and ENEN are foreseen and can be reflected in the process of PA renewal.

Nuclear Knowledge Management

*"Knowledge is experience.
Everything else is just information."
(~Albert Einstein)*



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Thank you!

