THE GLOBAL NUCLEAR SAFETY AND SECURITY NETWORK-GNSSN

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Safety Knowledge Networks
Safety And Security Coordination Section
Department of Nuclear Safety and Security
» 1956- IAEA Statute (Article II, III and VIII)
» 2002- ANSN creation
» 2007- INSAG 21-Global Nuclear Safety Regime
» 2008- G8 Resolution on networking under the Global Partnership for Nuclear Safety and Security
» 2010- INSC contract with EC
» 2011- Nuclear Safety Action Plan
» 2012 & 2013- GC resolutions supporting networking for Nuclear Safety and Security
» 2014- Strategic approach on GNSSN
The GNSSN is supporting the IAEA’s Nuclear Safety and Security Programme (Major Programme 3) which covers one of the IAEA’s essential statutory functions. In line with the IAEA Action Plan on Nuclear Safety, the GNSSN, as a knowledge network, is part of an integrated IAEA methodology for capacity building and contributes to enhancing international cooperation and dialogue in the field of nuclear safety and security.
Nuclear Safety Knowledge Management
- Knowledge, experience and lessons learned related to nuclear safety and security are managed and shared for the benefit of Member States

Facilitate multilateral cooperation and coordination
- Enabling and supporting collaboration and interaction between organizations and subject matter experts

Building Capacity
- Establish a capacity building framework to support the national nuclear safety and security infrastructure
Comprehensive and robust framework for coordination and harmonization of global strategies and policies pertaining to nuclear safety and security

Building strategic partnerships and linkages between governmental entities

Promoting and implementing the Global Nuclear Safety and Security Framework
Support the development of regional platforms for sharing and managing technical knowledge and enhancing competence in nuclear safety and security

Implement activities to build capacity and competence in nuclear safety and security

Support the development of IT platforms for efficient collaboration in nuclear safety and security
GNSSN NATIONAL APPROACH

- Facilitate the development of National Nuclear Safety knowledge Management Platforms “Safety Platforms”
- Harmonize national approaches to Nuclear Safety knowledge management using the National Nuclear Regulatory Portals
- Facilitate stakeholders involvement and cooperation
GNSSN is considered as the means to sustain the implementation of the international legal framework and focuses on assisting Member States to meet their national responsibilities as well as their international obligations.

THE GLOBAL NUCLEAR SAFETY AND SECURITY FRAMEWORK
GNSSN-CAPACITY BUILDING

- **Government:**
  - National strategies
  - Strategic partnership
  - Framework for Coordination
  - Governance

- **Organization:**
  - Planning
  - Management
  - Training Programme
  - Technical partnership

- **Individual:**
  - Competency
  - Knowledge
  - Training
ENHANCING SELF-ASSESSMENT 
CAPABILITIES

- Education and Training
  - ETRES & SARCoN
- National Infrastructure for Safety
  - IRIS : Integrated Review of Infrastructure for Safety
- Capacity Building
  - CB self-assessment for Safety
- Emergency Preparedness and response
  - EPR-Self-assessment

- Enhancing Member States self-assessment capabilities
- Exploring partnership
- Implementation of Capacity building activities and programmes
- Responding to MS needs

Nuclear Safety Knowledge Management
- Development of national and regional action plans
- Regional peer reviews and exercises
- Regional and National capacity building centres
- Inventory of capacity building resources
- Advisory and expert missions

RESPONDING TO MS NEEDS
IMPLEMENTATION OF CAPACITY BUILDING ACTIVITIES

- Technical assistance through the implementation of training and workshops
- Coordination and collaboration with national stakeholders for efficient delivery of the programmes
- Facilitate joint actions within and outside the networks
- Priorities and timelines are set according to the national or regional priorities
- Decision support system for approval and enrolment
- Repositories and document libraries for all Capacity Building activities
- One Stop Shop for Nuclear Safety knowledge
- Communities of practice
- Harmonized project management practices
- Sharing of best practices and lessons learned

NUCLEAR SAFETY KNOWLEDGE MANAGEMENT
PARTNERSHIP

> **Technical**: Joint and complementary actions with partner organizations avoiding overlap and duplication of programmes

> **Financial**: Ensuring short and medium term viability, and prioritizing and aligning extra-budgetary funds to the GNSSN strategic goals

> **Strategic**: to engage partners and increase the efficiency, effectiveness and transparency of the IAEA Major Programme 3 delivery
CAPACITY BUILDING SUPPORTING MS SAFETY INFRASTRUCTURE

Competency -output
Organizations
Individuasl

Performance -Outcome
Organizations
Individuals

Sustainability

Enhanced National Nuclear Safety and Security Infrastructure

National Nuclear Safety Knowledge Management Platform

Partners
“Development efforts at the national level need to be supported by an enabling national and international environment that complements national actions and strategies” UN Resolution, A/RES/65/1

- The national nuclear safety platforms is an important component of National approach to manage nuclear safety
- The mean to sustain the national capacity building programme
- Connect individual national stakeholders
- Connect, as appropriate needed, individual corporate KM systems
- Building on the national platforms to address the regional need

STARTING POINT : NATIONAL NUCLEAR SAFETY KNOWLEDGE MANAGEMENT PLATFORMS
Improves coordination, collaboration, and accountability.
Improves the ability to analyse Capacity Building programme effectiveness.
Promotes standardized data-collection methodology.
Facilitates timely feedback and generates useable reports.
Streamlines process and decision making support systems.
Identifies National training needs.
Integrated Nuclear Safety Capacity Building Plan- INSCBP

NATIONAL SAFETY PLATFORMS
GENERAL BENEFITS
The objective of this tool is to enable Member States to monitor, in an integrated manner, the planned CB activities and programmes. Avoid duplications and overlapping with other projects. Overall monitoring and management of the nuclear safety CB activities. Based on the twenty elements of SSG-16. Assist in the identification of training needs. Help International Organizations and donors to identify target areas.
Regional Networks

- Regional networks are Capacity Building and Infrastructure Development Platforms
- Effective in identifying national priorities, needs and gaps
- Efficient in complementing IAEA Technical cooperation activities and responding on timely manner to shifts in national priorities or urgent issues
- Integrating or linking all national safety centres / national nuclear safety knowledge management platforms
The Asian Nuclear Safety Network (ANSN) was launched in 2002

Vision: A strong human and IT network for achieving high level of nuclear safety in Asia

ANSN has conducted more than 458 national and regional activities since 2004

Membership:

- Participating Country: PRC, Indonesia, Japan, ROK, Malaysia, Philippines, Thailand, Vietnam, Singapore, Bangladesh, Kazakhstan, Russia
- Supporting Country and Organization: France, Germany, USA, Australia, EC
- Associated Country: Pakistan

http://ansn.iaea.org
ENSTTI and WENRA are potential supporting organization of ANSN.

Establishment of New Guidelines for Self-Assessment

Migration of ANSN Website to SharePoint 2013

Key achievements are:

- Implementation of Regional peer review services
- Updating the ANSN regional nuclear safety self-assessment
- The development of the Integrated Nuclear Safety Capacity Building Plan

http://ansn.iaea.org
Created in 2010

Ensure that safety, security and knowledge, experience, and lessons learned are made visible and available

To enable and support interaction and collaboration between thematic competent people and organizations relevant to nuclear regulation

22 Member States, 8 thematic areas, over 40 Regional workshop implemented

May 2014, ANNuR and IAEA signed a practical agreement on cooperation in the area of strengthening the nuclear safety and security frameworks
In March 2009, the entire leadership of nuclear regulatory bodies in the continent of Africa converged in Pretoria, South Africa to launch the Forum of Nuclear Regulatory Bodies in Africa (FNRBA).

- 33 Member States, 10 Thematic Areas
- Practical Arrangements signed in 2013 to support the enhancement and strengthening of the radiation protection, nuclear safety and security, and regulatory infrastructure in MS which are members of FNRBA.
- Plenary meeting in Egypt April 2015—Amendment of the Charter
GLOBAL NETWORKS

- International Regulatory Network (RegNet)
  - Forum for embarking countries
  - Regulatory cooperation forum
  - WWER cooperation forum
  - CANDU senior regulator forum
- Emergency Preparedness Network (EPnet)
- Global Safety Assessment Network (GSAN)
- Nuclear Security Information Portal (NUSEC)
- Technical and scientific support organization forum (TSOF)
- Global transport networks
- Control of sources network
- Capacity building forum
- Global Nuclear Safety Education network
- Global Nuclear Safety and Security Communication network
- SMR Regulators Forum
- European Nuclear Safety Network
October 2014: TSO Conference in Beijing, China - About 250 participants from 42 Member States and 5 organizations.


March 2015: 7th TSOF SC meeting in Vienna – 25 participants from 15 Member States and the European Commission. In addition, 9 experts from the Agency provided. Adoption of an action plan.
- **September 2014**: CS where senior communication practitioners from the Members States and experts from the IAEA worked together on the development of the structure and reference concepts for this network and proposed draft Terms of Reference (rational, scope, objective, membership, structure, processes...)

- **GNSCOM’s identity**: a global information network for communication practitioners of national RBs, their TSOs and other relevant organizations to exchange knowledge, lessons learned and good practices for safety and security communication in non-emergency situations.

- **July 2015**: TM to Establish Steering Committee of GNSCOM in Vienna.
February 2015 – 1st CS to inform and gather opinions of safety experts in the region (Armenia, Belarus, Bosnia and Herzegovina, Kazakhstan, Norway and the Russian Federation). They supported the development of the network and provided guidance on key aspects.

- Interest expressed by some Member States currently not included in GNSSN Regional Safety Network
- Initially focused on “Eastern” Europe, decision to expand the scope to EU and Central Asian countries

May 2015 – 2nd CS to inform and gather opinions of a new batch of safety experts in the region (Chair of WENRA/Switzerland, European Commission, Serbia, Romania, Bulgaria, Poland, Azerbaijan, France).

GLOBAL NETWORK - FOCUS ON PROJECT OF EUROPE AND CENTRAL ASIA SAFETY NETWORK
May 2015 – ORPNET joined the GNSSN

ORPNET is a web-based network with an ultimate goal to promote optimization of the occupational radiation protection.

It acts as a focal point for the occupational radiation protection knowledge providing comprehensive information about worldwide, regional and national networks and systems in radiation protection of workers. In addition, the user can find information about the upcoming meetings, latest publications, joint projects, posters, and news related to this area.

ORPNET spreads good practices, facilitates ALARA implementation, supports experience exchange, and aims to prevent avoiding any overlap of activities at the national and international level.
May 2015 – Decision to develop ARTEMIS Review Service within the GNSSN portal.

- ARTEMIS is the integrated review service for radioactive waste management that covers:
  - radioactive waste and spent fuel management,
  - control of the nuclear discharges to the environment,
  - decommissioning of nuclear facilities, and
  - environmental remediation of radiologically contaminated sites

- ARTEMIS workspace will be developed on the model of IRRS Workspace (RegNet).

GLOBAL NETWORK - FOCUS ON FUTURE “ARTEMIS” WORKSPACE
18 Networks
17 Thematic Area
120 Member States
Over 70,000 documents
Over 30,000 pages viewed per month
Over 2,000 registered members
Since 2011, over 300 regional and national activities
Since 2011, ~3,500 experts involved in the GNSSN activities
MORE ABOUT GNSSN

- GNSSN Terms of Reference
- GNSSN Governance Plan
- GNSN Technical Brochure
- GNSSN Information Brochure
- GNSSN Highlights

http://gnssn.iaea.org
The Highlight covered these Topics:

- Plenary Meeting
- TSO Conference
- EP-net
- Communication Network
- ANSN
- ANNuR
- FNRBA
- National Nuclear Regulatory Portals
- Upcoming Highlights July 2015

THE GNSSN HIGHLIGHTS
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Thank you for your attention…