



# The Global Nuclear Safety and Security Network



**Eighth Steering Committee Meeting**

*17–18 May 2016, Vienna, Austria*





## Opening Session

The Global Nuclear Safety and Security Network (GNSSN) Steering Committee's eighth meeting took place from 17 to 18 May 2016. Experts from twelve Member States and international organizations gathered at the International Atomic Energy Agency's (IAEA's) Headquarters in Vienna, Austria, to report on the progress achieved by the Network and to discuss the GNSSN Annual Report. The experts also discussed the outcomes of the Consultancy Meeting on National Nuclear Safety Knowledge Management held in March–April 2016, and reviewed the draft concept paper on nuclear safety knowledge management.

*“...The GNSSN provides a platform for all Member States to share information and expertise; it is especially important for those Member States planning to embark on nuclear energy, but also for those that need to develop, maintain, implement and strengthen their capacity building programmes for radiation protection (at all levels — national, regional and international), as well as to develop sufficient and competent human resources necessary to assume their responsibility for the safe, responsible and sustainable use of nuclear technologies. ...”*, Mr Gustavo Caruso, Director of the IAEA Office of Safety and Security Coordination, told the gathered experts. Mr Raoul Awad, GNSSN Chairman, highlighted the GNSSN's role as a central instrument of coordination between Member States and welcomed the new proposals for strengthening the global nuclear safety and security framework. He also emphasized that the recommendations made by the Advisory Group on Nuclear Security (AdSec) to the IAEA Director General addressed the GNSSN — inter alia, by recommending that the IAEA's nuclear security capacity building activities should be reflected on the GNSSN platform.

## Global Networks and Forums

During his presentation Mr Lingquan Guo of the IAEA Office of Safety and Security Coordination demonstrated the progress achieved by the GNSSN, in particular with regard to its capacity building framework. Mr Guo also pointed out to the gathered experts that the GNSSN had made a considerable contribution to several international meetings and conferences.

Mr Guo introduced the GNSSN Capacity Building Centre (CBC) project and stressed that the objective was to strengthen Member States' nuclear safety and security infrastructure through the establishment of CBCs. The project will recognize existing strengths of Member States, build on these to channel and deliver knowledge and best practices more efficiently and effectively, and further enhance the expertise of CBCs so as to promote the sustainable development of capabilities at the regional and international level.

Mr Guo pointed out that the national platforms recently developed under the GNSSN would contribute to the sustainability of capacity building activities and projects at the national and regional level. He also explained that the aim of the GNSSN is to support individuals and organizations in developing the necessary competencies and capabilities.



Finally, he stated that the IAEA would continue to provide and sustain a global platform for strengthening nuclear safety worldwide and to raise awareness of the need to improve nuclear safety nationally, regionally and globally.

## **International Regulatory Network**

Ms Adriana Nicić of the IAEA Division of Nuclear Installation Safety introduced the platforms and resources hosted by the International Regulatory Network (RegNet), such as the Embarking Countries Portal, the Integrated Regulatory Review Service, the Regulatory Cooperation Forum (RCF), the Small Modular Reactor (SMR) Regulators' Forum, the Regulatory Competence Management portal and the CANDU Senior Regulators Group. She highlighted the role of the SMR Regulators' Forum in identifying, understanding and addressing key regulatory challenges that may emerge in future SMR-related regulatory discussions. She also stressed that the Forum would capture good practices and methods and propose changes, if necessary, to requirements and regulatory practices.

Ms Nicić also presented the new projects developed within the RCF framework and emphasized the necessity to ensure the best possible coordination between all stakeholders. By way of conclusion, she underlined the financial difficulties in maintaining and further developing RegNet and requested extrabudgetary contributions to maintain the RegNet platform.

## **Transport Safety Networks**

Mr Stephen Whittingham of the IAEA Division of Radiation, Transport and Waste Safety explained that the core mandate of the Division's Transport Safety Unit is to assist Member States in implementing legislation, in developing knowledge networks and in tailoring training activities to the competent authorities' needs. He also stressed that the regional approach for the knowledge networks offered a viable solution to such challenges as insufficient resources in regulatory bodies, in particular with regard to regulatory oversight capacity. The objective of the regional transport networks is to enhance cooperation between trading and regional partners towards a coherent (harmonized) interpretation and implementation of the transport regulatory requirements for radioactive material. Mr Whittingham also observed that the IAEA Secretariat would continue to seek to establish close cooperation with regional entities and organizations in order to foster opportunities for collaboration on regulatory aspects and to ensure optimum coordination with the regional networks.



## **Global Nuclear Safety and Security Communicators Network**

Mr Jean-René Jubin of the IAEA Division of Nuclear Installation Safety introduced the background information and the rationale behind the establishment of the new Global Nuclear Safety and Security Communicators Network (GNSSCOM). Requirements 2 and 36 in *Governmental, Legal and Regulatory Framework for Safety* (IAEA Safety Standards Series No. GSR Part 1) call upon regulatory bodies to promote the establishment of appropriate means of informing and consulting interested parties and the public about the possible radiation risks associated with facilities and activities, and about the processes and decisions of the regulatory body. Mr Jubin highlighted that communication has been identified as a key element in the safety and security infrastructure and that it is important for the development and sustainability of strong nuclear and radiation safety and security programmes. GNSSCOM will (i) support IAEA Member States in effectively communicating safety and security information; (ii) support the development, implementation and evaluation of strategies and processes for effective communication and consultation with interested parties; and (iii) provide access to communication tools, materials, resources, knowledge databases and publications to further enhance competence.

## **European and Central Asian Safety Network**

The European and Central Asian Safety Network (EuCAS Network) was established by the IAEA in order to bring together countries from the region which do not currently participate in any regional safety networks. As Ms Julie Parlange of the IAEA Office of Safety and Security Coordination pointed out, the creation of this Network is also necessary to expand the scope of the topics addressed by the existing regional networks in the European and central Asian region. Ms Parlange highlighted that several meetings on the EuCAS Network had already taken place and that its terms of reference had been approved by the IAEA. The objectives of this network are to foster capacity building initiatives at the regional level (while avoiding any redundancy with existing projects) and to develop regional cooperation mechanisms, including possible joint projects. The first meeting of the EuCAS Network's Steering Committee is scheduled to take place in Vienna, Austria, from 7 to 9 December 2016.

## **Arab Network of Nuclear Regulators**

Mr Yassine Chaari of the IAEA Office of Safety and Security Coordination presented, on behalf of the Chairman of the Arab Network of Nuclear Regulators (ANNuR), the latest developments regarding the Network and highlighted the activities implemented through technical assistance programmes funded by different partner organizations. He pointed out that under the ANNuR Strategic Action Plan 2016–2020 the Network's programme was currently being guided by the "Arab Strategy for Peaceful Use of Atomic Energy up to 2020". He emphasized that it is essential for ANNuR member countries to have a clear policy and strategy as well as to provide



effective coordination for a sound capacity building programme and to allocate resources for its effective implementation. He also informed the gathered experts that the ANNuR member countries had elected a new Chairman, Mr Eyad Khayat from Saudi Arabia.

## **Forum of Nuclear Regulatory Bodies in Africa**

Mr Yassine Chaari of the IAEA Office of Safety and Security Coordination presented, on behalf of the Chairman of the Forum of Nuclear Regulatory Bodies in Africa (FNRBA), the Forum's major achievements and explained that the FNRBA represents a key asset for the Africa region to support the enhancement and strengthening of the radiation protection, nuclear safety and security and regulatory infrastructure. The objectives of the FNRBA Strategic Action Plan 2016–2021 are to implement capacity building activities, establish capacity building centres and enhance human resource development in the region. The plan will provide a framework for promoting sustainable regional cooperation, enhancing the awareness of policymakers, and coordinating activities with other regional forums and organizations to strengthen regulatory infrastructure and regional networking. In addition, the FNRBA Steering Committee members have agreed that a coordination meeting between the FNRBA management and the various donor organizations is necessary in order to discuss the modalities of implementation of the plan.

## **Canada's Support for the Convention on Nuclear Safety**

Mr Philip Webster, Director/Counsellor (Nuclear Safety), Canadian Nuclear Safety Commission, pointed out that Mr Ramzi Jammal, the designated President of the upcoming Seventh Review Meeting of the Contracting Parties to the Convention on Nuclear Safety (scheduled to take place in 2017), had written to the Contracting Parties requesting them to address:

- The principles enshrined in the Vienna Declaration on Nuclear Safety;
- Lessons learned the from Fukushima Daiichi accident;
- Findings from peer review missions;
- The five challenges identified by the Special Rapporteur at the Sixth Review Meeting of the Contracting Parties; and
- On-site spent fuel management.

Mr Jammal also wrote to those who hadn't fulfilled their obligations at the Sixth Review Meeting of the Contracting Parties (Vienna, Austria, 24 March–4 April 2014) and requested them to submit National Reports and to attend the upcoming Seventh Review Meeting. Mr Webster emphasized that Canada is offering assistance to the Contracting Parties in preparing and reviewing the drafts of National Reports. He also highlighted that this support needed to be channeled through the IAEA Secretariat.



## **Control of Sources Network**

Mr Teodros Hailu of the IAEA Division of Radiation, Transport and Waste Safety introduced the role of the Control of Sources Network (CSN) and emphasized that the platform is assisting Member States in developing a functional and sustainable national regulatory infrastructure for radiation safety, in accordance with the IAEA safety standards and the Code of Conduct on the Safety and Security of Radioactive Sources. The CSN serves as a ‘one-stop shop’ and collaboration platform for regulators of radiation sources. Relevant IAEA and Member State documents, training materials, meeting and conference materials, and important links are published and regularly updated on the platform. Mr Hailu also explained that the Network is targeted at individuals rather than organizations, and emphasized that there is a full synergy between the regional networks and the CSN.

## **Emergency Preparedness Network**

Mr Pascal Dumont from the IAEA’s Incident and Emergency Centre (IEC) informed the gathered experts that the Emergency Preparedness Network (EPnet) was launched during the 58th regular session of the IAEA General Conference in September 2014 and that there were now over 400 professionals working closely with the IEC through this platform. He also informed the participants that the migration to SharePoint 2013 was encouraging the Network’s members to make more use of EPnet’s features. He explained that the Network is mainly used to improve the synergy before, during and after such IEC activities as consultancy meetings, workshops and training courses. Mr Dumont highlighted that there is a need to improve the registration process for the GNSSN-hosted safety networks in general and to clarify a performance management strategy for EPnet in particular.

## **Global Education and Training Resource**

Mr Eric Beaupre of the IAEA Office of Safety and Security Coordination introduced the Global Education and Training Resource (GETR) to the experts as a project intended to facilitate the consolidation and exchange of information on global nuclear safety education and training resources. It will assist governments/organizations and individuals to establish and develop effective and efficient education and training systems or programmes. He reported that a consultancy meeting had taken place with representatives from Canada, France, the Republic of Korea and the United States of America. The experts who took part in that consultancy meeting had identified and developed a basic structure for GETR and agreed to share the results of their activities and upload them to the GETR website.



## Technical and Scientific Support Organization Forum

Ms Julie Parlange of the IAEA Office of Safety and Security Coordination explained that, under the aegis of the Technical and Scientific Support Organization (TSO) Forum, work on an IAEA Technical Document provisionally entitled *Technical and Scientific Support Organizations and Their Services Provided in Support of Regulatory Functions* has been ongoing since March 2015. She also reported that the TSO Forum is willing to develop capacity building activities and services such as:

- TSO expert missions for embarking countries intending to develop their TSO capabilities
- TSO-specific modules to be added to existing IAEA peer review services such as the Integrated Regulatory Review Service and the Integrated Nuclear Infrastructure Review service.

Ms Parlange also informed the participants that the TSO Forum would develop a list of technical areas for which TSOs could contribute experts when needed.

### Capacity Building – Education and Training Review Service

Ms María Moracho of the IAEA Office of Safety and Security Coordination introduced the capacity building methodology developed as part of the IAEA Action Plan on Nuclear Safety. She highlighted that the methodology consists of four pillars: education and training, human resource development (HRD), knowledge management, and knowledge networks. She also explained that the IAEA's Education and Training Review Service (ETRES) considers all areas of the integrated capacity building concept. She explained that the IAEA is currently reviewing the ETRES questionnaire to extend it to include safety knowledge management and activities and facilities involving radioactive sources.

Mr Yassine Chaari of the IAEA Office of Safety and Security Coordination explained that the GNSSN is willing to develop a full support programme for capacity building which would start with national self-assessment of capacity building (education and training, HRD, knowledge management, and knowledge networks) using questions for the governmental level and identifying issues and gaps at the national level.

Mr Chaari explained further that, based on the observations and comments of the peer review teams conducting missions to Member States, the IAEA Secretariat would prepare in each case a 'Capacity Building Programme Support Report' containing recommendations, suggestions and good practices to help governments to increase the efficiency of their national capacity building programmes. An action plan is recommended to be prepared by each Member State based on the IAEA Capacity Building Programme Support Report and to be included in its existing integrated work plan agreed with the IAEA.



## International Conference on Effective Nuclear Regulatory Systems

Mr Shahid Mallick of the IAEA Office of Safety and Security Coordination briefed the gathered experts on the outcomes of the International Conference on Effective Nuclear Regulatory Systems: Sustaining Improvements Globally, which took place in Vienna, Austria, from 11 to 15 April 2016. He explained that the five main sessions and the special panel touched upon a number of key issues, resulting in very active discussions and in the identification of a number of recommendations and issues for consideration by governments and regulatory bodies, as well as issues relevant to future international cooperation.

### Issues for consideration by governments:

- Ensure the independence of the regulatory body from agencies which promote the nuclear and radiological sectors;
- Provide the regulatory body with adequate authority, resources and competent staff;
- Develop a national policy to support high level radioactive waste management or disposition over the entire duration of the nuclear power programme;
- Give equal consideration and priority to nuclear safety, nuclear security and safeguards;
- Promote the ratification of international legal instruments in support of safety and security;
- Strengthen the management and control of the safety and security of radiation sources; and
- Strengthen cross-border harmonization for protective actions to protect the public after nuclear or radiological events.

### Issues for consideration by regulatory bodies

- To the extent possible, harmonize national regulatory requirements with IAEA safety standards;
  - Embarking countries should consider adopting the IAEA safety standards directly;
- Host peer review and advisory service missions, take actions in response to recommendations, host follow-up missions, and encourage operating organizations to also host peer reviews;
- Encourage research into ageing mechanisms and effects to support the licensing of long term operation and share results with the international community;
- Develop an integrated management system to promote safety culture within the regulatory body and to promote, assess and improve safety culture within authorized parties;



- Anticipate and avoid future accidents by learning from international regulatory operating experience;
- Build further capacity by outreach and knowledge transfer to future nuclear professionals;
- Improve transparency and communication with the public and other stakeholders to build trust; and
- Medical facilities, equipment and end users are likely to be regulated by several different authorities, and in some cases in different jurisdictions (e.g.: in countries with a federal system), so it is important that the radiation safety regulatory bodies interact among themselves.

#### **Issues for future international cooperation**

- Improve the interface between nuclear safety and nuclear security;
- Encourage Member States which are not Contracting Parties to the Convention on Nuclear Safety or the Joint Convention on the Safety of Spent Fuel Management and on the Safety of Radioactive Waste Management to join, and encourage Member States which have joined but not yet ratified to do so;
- Encourage those Member States which are Contracting Parties to the above-mentioned Conventions to fully comply with their obligations under the Conventions;
- Since all IAEA Member States use radiation sources, organize a conference devoted to their regulation;
- Noting that the introduction of new medical technologies can be challenging for regulators, identify specific areas for support in this regard;
- Explore the feasibility of developing a legally binding instrument covering radioactive sources;
- Strengthen the IAEA peer review services such that they challenge the host more and focus on weak points, the implementation of recommendations and follow-up

#### **Knowledge Portal on Lessons Learned from the Fukushima Daiichi Accident**

Mr Shahid Mallick of the IAEA Office of Safety and Security Coordination presented to the GNSSN Steering Committee the new project on sharing the lessons learned from the Fukushima Daiichi accident, identifying relevant best practices and ensuring that both the lessons learned and best practices are widely disseminated since it is necessary to incorporate them into the capacity building programmes of both embarking countries and countries with established nuclear power programmes. He also emphasized that the observations and lessons should be incorporated and shared through a strong knowledge base, and pointed in particular to the need



to develop a system that would allow tracking of the progress made in endeavours to achieve improved nuclear safety worldwide. He stressed that such a knowledge base would ensure that observations and lessons are captured, retained and disseminated in a structured and consistent manner.

## GNSSN Information Technology Updates

Mr Sameer Kunjeer of the IAEA Office of Safety and Security Coordination reported that the GNSSN public interface had been restructured in January 2015 and that there was now an urgent need to categorize the information resources which are to be made available to various audiences as a knowledge base. He also emphasized that it would be necessary to launch a new project for tagging the publications, meeting materials and other relevant resources pertaining to nuclear safety based on some predefined taxonomy. He also encouraged the Steering Committee to nominate members to establish the GNSSN Information Technology Support Group as defined in the GNSSN Governance Plan.

## Upcoming GNSSN Projects

Mr Yassine Chaari of the IAEA Office of Safety and Security Coordination introduced the new GNSSN projects, such as the GNSSN Learning Management System (LMS). The GNSSN LMS will ensure the establishment and implementation of a global training platform as a corporate solution for the IAEA Department of Nuclear Safety and Security that will enable the IAEA to manage and deliver capacity building related activities, including training, and that will also provide information technology support to Member States for the implementation of their programmes, including the identification of training needs, the conduct of training activities, and the monitoring and assessing of training results using the SARCoN ('Guidelines for Systematic Assessment of Regulatory Competence Needs') tool. The GNSSN LMS project will also ensure improved delivery of capacity building related activities, including training programmes (e-learning, online and face-to-face) and reporting.

Mr Chaari also explained the need to develop Capacity Building Centres (CBCs). A CBC:

- Serves as a focal point for education, training and knowledge transfer for activities promoted by the IAEA in the area of strengthening the global nuclear safety and security framework;
- Serves as focal point for networking activities in the different regions in close cooperation with the regional networks;
- Specializes in one or more areas of specialization;
- Helps organize training events and other events aimed at capacity building;
- Works closely with the IAEA to manage training and other capacity building activities; and



- Assists the IAEA in evaluating capacity building needs in the relevant area of specialization based on feedback from training events and meetings held at the CBC.

### **GNSSN Plenary Meeting**

The gathered experts agreed that the scope of the next GNSSN plenary meeting, scheduled to take place on 28 September 2016, should be expanded to provide feedback from Member States regarding the IAEA peer review services. Bulgaria and Canada agreed to provide feedback on the International Physical Protection Advisory Service and Integrated Regulatory Review Service missions that they have hosted. The plenary will, moreover, serve as an opportunity for the IAEA Secretariat to highlight the important role of networks in strengthening nuclear safety and security infrastructure globally. At the plenary, representatives of the Ibero-American Forum of Radiological and Nuclear Regulatory Agencies will also present the activities undertaken to improve safety at the nuclear installations in the Latin America and the Caribbean region. The IAEA Secretariat was requested to send out invitation letters as soon as possible and to inform all regional networks about the agenda of the plenary.

### **Conclusion and Recommendations**

- The Steering Committee fully supports the development of the Fukushima Daiichi accident knowledge portal.
- Member States are requesting the IAEA Secretariat to consider analysing/integrating capacity building elements into IAEA peer reviews and services and to further develop resources for capacity building self-assessment.
- Due to the limited resources in Member States, it was suggested to consider the possibility of consolidating network management activities and to analyse the options for conducting joint projects.
- The Steering Committee members suggested following up on the work done so far to define the structure of the global nuclear safety and security framework.

#### **Attachment:**

- **Agenda**



# Global Nuclear Safety and Security Network (GNSSN) Steering Committee Meeting

17–18 May 2016

Vienna International Centre, Room M3

## Agenda

**Tuesday, 17 May 2016**

09:30	Opening Session <ul style="list-style-type: none"><li>• <i>Welcome by Mr R. Awad, Chairman of the GNSSN</i></li><li>• <i>Welcome by Mr G. Caruso, Director, IAEA Office of Safety and Security Coordination</i></li><li>• <i>Introduction of participants</i></li><li>• <i>Group photograph</i></li></ul>
09:45–10:00	GNSSN Overview and Developments — Mr L. Guo
10:00–10:20	RegNet Development — Ms A. Nicic
10:20–10:40	Transport Safety Networks — Mr S. Whittingham/Mr C. Bajwa
10:40–11:00	GNSSCOM Developments — Mr J.-R. Jubin/Ms Dahlstrom
11:00–11:20	Coffee Break
11:20–11:40	Presentation of EuCAS Network — Ms J. Parlange
11:40–12:00	Briefing on ANNuR — Mr Y. Chaari
12:00–12:20	FNABA Overview and Development- Mr K. Ben Ouaghrem
12:20–14:00	Lunch Break
14:00–14:30	Canada's Support for the CNS — Mr P. Webster
14:30–14:50	Control of Sources Network — Mr T. Hailu
14:50–15:10	Electronic Safety Standards Platform — Mr D. Delattre
15:10–15:30	Emergency Preparedness Network — Mr P. Dumont
15:30–16:00	Coffee Break
16:00–16:15	Introduction to GETR — Mr E. Beaupre
16:15–16:35	TSO Forum Developments — Mr K. Ben Ouaghrem
17:30	Cocktail Reception — VIC Restaurant (Salons C&D)



**Wednesday, 18 May 2016**

09:30–11:00	Briefing on the Consultancy Meeting on Capacity Building and Knowledge Management Introduction of ETReS, the IAEA’s Capacity Building Service — Ms M. Moracho
11:00–11:30	Coffee Break
11:30–11:50	Regulatory Effectiveness Conference — Mr S. Mallick
11:50–12:15	GNSSN IT Updates — Mr S. Kunjeer
12:30–14:00	Lunch Break
14:00–14:30	Managing Nuclear Safety Knowledge — Approaches and National Experiences
14:30–15:00	Fukushima Daiichi Accident Lessons Learned Portal — Mr S. Mallick
15:00–15:15	Upcoming GNSSN Projects — Mr Y. Chaari
15:15–15:30	Coffee Break
15.30-15.45	Review of the GNSSN Action Plan
15:45–16:30	GNSSN Plenary Meeting Scope and Agenda — Mr Y. Chaari
16:30–16:45	AdSec Recommendations — Mr R. Awad, AdSec Chairman
16:45–17:00	Summary and Conclusions





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