

GNSSN Strategic Plan

(Global Nuclear Safety and Security Network)



The GNSSN Strategic Plan was endorsed during the fourth GNSSN Steering Committee held from 30 June 2014 to 02 July 2014 in Vienna, Austria.

Introduction

As per the International Atomic Energy Agency (IAEA)'s Statute, one of the main functions of the Agency is *“To foster the exchange of scientific and technical information on peaceful uses of atomic energy”* (ARTICLE III, para. 3). ARTICLE VIII also states that the Agency *“shall take positive steps to encourage the exchange among its members of information relating to the nature and peaceful uses of atomic energy and shall serve as an intermediary among its members for this purpose”*. Therefore, the IAEA is committed to facilitating the exchange of information, experience and knowledge among its Member States. With the same objective the IAEA safety standard GS-R-3 requires that information and knowledge are managed as a resource.

The launching of the Global Nuclear Safety and Security Network (GNSSN) was formally announced at the International Conference on Effective Nuclear Regulatory Systems: Facing Safety and Security Challenges, held in Moscow, Russian Federation, in 2006. It was a step which took into consideration the recommendations contained in the International Nuclear Safety Group (INSAG) report *Strengthening the Global Nuclear Safety Regime* (INSAG Series No. 21, IAEA, Vienna, 2006). The initial development of the GNSSN was carried out jointly by IAEA and the G8 Nuclear Safety and Security Group in 2007 and since then it has evolved into a strong human and information technology (IT) platform combining global nuclear safety forums and networks, regional safety networks and national safety portals. In recent times, there has been more focus on nuclear security through the linkage between the GNSSN and the nuclear security information portal and with the addition of nuclear security as a thematic area in two of the regulators' networks. However the GNSSN remains predominantly safety focused with some elements of interface between safety and security. The GNSSN provides a gateway to nuclear security through the nuclear security information portal (NUSEC¹).

The GNSSN was established to promote and enhance the nuclear safety and security framework, by coordinating stakeholder activities of global safety and security networks, regional safety networks and national nuclear regulatory portals. The GNSSN is a “worldwide gateway” to sharing nuclear safety and security knowledge and services to facilitate capacity building among its Member States. It provides organizational and IT support to sharing of information related to initiatives in nuclear safety and security worldwide and encourages countries to take leadership and ownership in driving these forward. To ensure that the results of global initiatives are harmonized and implemented at the regional and national levels, the GNSSN coordinates activities among over 14 networks (and growing) global nuclear safety and security networks/forums, regional safety networks and national safety portals. In 2013/2014, the GNSSN networks gathered over 1200 meeting participants from 86 countries.

In September 2013, a resolution adopted during the 57th IAEA General Conference on Measures to strengthen international cooperation in nuclear, radiation, transport and waste safety² *“[welcomed] the establishment of regional safety forums and related networks, [requested] the Secretariat to continue assisting such forums and networks, and [encouraged] Member States to join”*. After a few years of operation, the number of networks and forums under the GNSSN appeared to be rapidly increasing (see current status in below figure 1), together with the activities they develop and the related content

¹ NUSEC is a protected collaborative platform designed to promote communication and information exchange in the field of nuclear security between the IAEA, its Member States and partner organisations

² http://www.iaea.org/About/Policy/GC/GC57/GC57Resolutions/English/gc57res-9_en.pdf

hosted on the GNSSN website. As maintaining a consistent management and keeping an overview became difficult, it appeared necessary to better communicate on GNSSN role and objectives. There is also a need to strengthen and clarify the principles and concepts governing the overall operation of the network, as well as to enhance communication on the GNSSN.

The Strategic framework outlines the fundamental vision and mission of the GNSSN and defines its overall structure. Based on the experience of the recent operation of the GNSSN, the Strategic Framework defines four strategic goals along with the guidance necessary to lead on future developments. It clarifies the GNSSN implementation mechanisms and operating principles. It also provides a basis for measuring and evaluating performance at both short (individual networks and specific program activities) and long term (global platform) levels.

Recognizing that each of the individual networks and forums hosted on the GNSSN platform may have different needs in terms of regional and thematic specificities and the different stages of development of the nuclear power programs, this Strategic Framework is building a common vision and understanding among all stakeholders towards the achievement of our ultimate and strategic outcomes.

GNSSN priorities for each strategic goal are attainable by enabling the delivery of simple, timely and measurable realistic activities performed at the programme activity and sub-activity levels supported by performance indicators. The strategic framework will be a valuable tool for ongoing and future assessment of the GNSSN achievements

1. Supporting the IAEA's Nuclear Safety and Security Programme

The IAEA's Nuclear Safety and Security Program (Major Programme 3), covers one of the IAEA's essential statutory functions, namely to establish standards of safety. It provides for the application of such standards as well as of guidance on nuclear security in order to achieve high levels of nuclear safety and security to protect people, society and the environment.

The IAEA assists Member States in building national capacities and competencies. In addition, it promotes, through dedicated knowledge networks, the transfer of knowledge from countries with mature nuclear energy programmes to countries which have only just started to embark on such programmes.

The GNSSN promotes a strong and sustainable global safety and security and represents a cornerstone of the Global Nuclear Safety and Security Framework (GNSSF). The strategic approach provides for the protection of people and the environment from the harmful effects of ionizing radiation, ensuring the minimization of the likelihood of accidents or malicious acts. In this respect, sharing knowledge, expertise and results at the national, regional and global level, is the key to enhancing global nuclear safety and security.

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.

2. GNSSN Vision and Mission

A network can be defined as a framework designed to facilitate the interconnection of organisations or individuals to support knowledge and information sharing as well as discussion and cooperation.

Networks have been recognized by the Member States of the IAEA as effective instruments for enhancing the exchange of knowledge and experience and well established channels for interaction at the international level (from INSAG 21).

The GNSSN is an inclusive system that links, complements and brings together all existing safety networks and initiatives (e.g. global thematic networks, topical forums, regional networks and national nuclear regulatory portals).

1.1. Vision

The GNSSN is the world gateway to sharing nuclear safety and security knowledge and services in order to facilitate capacity building among Member States.

1.2. Mission

To reach out to this vision, the GNSSN's mission is threefold:

- (1) **Sharing information and knowledge** – Ensuring that relevant knowledge, experience and lessons learned related to nuclear safety and security are managed and shared for the benefit of Member States.
- (2) **Facilitate multilateral cooperation and coordination** – Enabling and supporting collaboration and interaction between organizations and subject matter experts
- (3) **Building Capacity** – Establish a capacity building framework to support the national nuclear safety and security infrastructure in the Member States

The GNSSN ensures that up-to-date safety and security information, experience and lessons learned are made available, easily accessible and adequately used for the benefit of Member States (1). It also encourages Members States to disclose and share valuable information, such as operating experience feedback, among them and with the Agency with a view to enhancing global safety and security. It is essential to secure the continued access to updated scientific and technical literature in the field of nuclear safety and security as well as to avoid knowledge loss, which can be a threat to safety, at a global level.

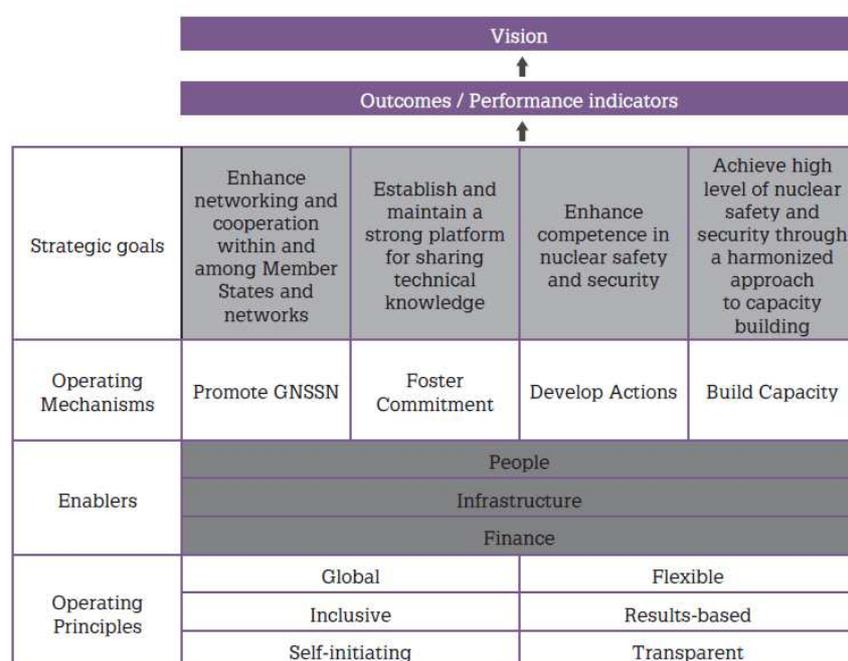
The GNSSN facilitates the interconnection between Member States, organisations or individuals which have an interest in or are working in the field of nuclear safety and security (2). It helps building strategic partnerships and linkages between governmental entities, such as regulatory bodies, ministries, and other nuclear safety and security related organizations. Discussion and cooperation help bringing mutual understanding and trust among national regulatory authorities (INSAG 21). Through the pooling, analysis and sharing of nuclear technical, safety and security knowledge and experiences at national, regional and international levels, the GNSSN helps the development of relations between organizations and specialists worldwide. These exchanges also contribute to strengthening a global safety culture and safety and security framework (GNSSF).

The GNSSN also helps increasing the wide application of safety practices within the Members States and therefore contributes to strengthening the global nuclear safety regime and nuclear security. The global safety regime promoted by the IAEA relies in part on various international legal instruments, conventions and codes of conduct. Within the GNSSN the use of the IAEA safety standards and security guidelines as well as of the IAEA safety review services and security missions are promoted to improve national and regional safety infrastructure.

Finally, many countries consider embarking on a nuclear power programme and need support for competence building (3). Building and maintaining nuclear expertise and competence, through education and training, is a critical aspect in which the GNSSN provide a significant support.

1.3. Realising the Vision

In order to fulfil the GNSSN vision and mission the following Strategic Framework is proposed



1.4 Anticipated Outcomes of Strategic Goals

At a practical level, the GNSSN will rely on a set of specific and measurable outcomes through key performance indicators. They include important **expected outcomes**, listed here below, to enable tracking the performance of GNSSN.

The indicative table below shows examples of outcomes that serve as milestones along the way to reaching the strategic goals, along with suggested activities and measurable performance indicators that will enable monitoring the success and effectiveness of the GNSSN. We anticipate that, over time, the performance indicators will be consolidated in light of the establishment of logic models (logical framework) at the program activity and sub-activity levels to form composite indicators reflective of the convergence of all programmes efforts towards the achievement of our ultimate goals and outcome. This will form the basis of our evaluation strategy by providing the steering committee and Senior Management with information and facts for reviewing activity reports, communicating about performance and reviewing project proposal or project evaluations.

Strategic Goals	Outcomes	Activities	Performance Indicators ³
<p>Strategic Goal 1:</p> <p>Enhanced networking and cooperation within and among Member States and networks</p>	<p>A. Effective networking I) within Member States II) among Member States III) within Regional Networks IV) among Regional Networks V) among other stakeholders (non-MS, NGOs, etc.)</p> <p>B. Active engagement I) within Member States II) among Member States III) within Regional Networks IV) among Regional Networks V) among other stakeholders (non-MS, NGOs, etc.)</p> <p>C. Increased cooperation I) within Member States II) among Member States III) within Regional Networks IV) among Regional Networks V) among other stakeholders (non-MS, NGOs, etc.)</p> <p>D. Development of appropriate partnerships which support the GNSSN Mission and which recognize its role in strengthening nuclear safety and security infrastructure</p> <p>E. Generation of adequate funding to sustain the GNSSN</p>	<p>a. Enable dialogue and interaction: i) within Member States ii) among Member States iii) within Regional Networks iv) among Regional Networks v) among other stakeholders (non-MS, NGOs, etc.)</p> <p>b. Facilitate meetings, working groups, technical discussions, consultancy meetings: i) within Member States ii) among Member States iii) within Regional Networks iv) among Regional Networks v) among other stakeholders (non-MS, NGOs, etc.)</p> <p>c. Enable and facilitate bilateral and multilateral forums: i) within Member States ii) among Member States iii) within Regional Networks iv) among Regional Networks v) among other stakeholders (non-MS, NGOs, etc.)</p> <p>d. Enable and promote partnerships which support the GNSSN Mission and recognize its role in strengthening nuclear safety and security infrastructure</p> <p>e. Encourage ongoing commitment and funding</p>	<p>- Number of forum discussion (ratio forum/activity) leading to consensus among member states participant regarding the collective development and validation of:</p> <p>(i) Activity content & structure</p> <p>(ii) Activity outcomes and follow-up action plan</p> <p>- Number of forum discussion (ratio forum/activity) generated in follow-up to specific networks activities and leading to broad-based discussion among MSs.</p> <p>- Use available web analytics to determine: number of countries, top searches, number of searches, number of requests for registered users, number of registered users, traffic sources, number of pages viewed per visit</p> <p>- Number of meetings sponsored by MS, IAEA, Regional Networks, etc.</p> <p>- Number of countries joining global/regional or interregional networks, meetings and other forums</p> <p>- Number of documents uploaded/downloaded on the website</p> <p>- Number of activities conducted by implementation mechanism</p>

³ These Performance Indicators are preliminary indicators as they will eventually further developed while implementing the Strategic approach

Strategic Goals	Outcomes	Activities	Performance Indicators ³
<p>Strategic Goal 2:</p> <p>Strong platform for the exchange of technical knowledge</p>	<p>A. Established, working platform for the exchange of technical knowledge and information using:</p> <p>I) standard technology and system for interfacing the stakeholder organizations</p> <p>II) User-oriented, flexible, menu-driven platform</p> <p>B. Populated platform</p> <p>C. Continued enhancement and upgrades to the GNSSN platform</p> <p>D. Continued enhancement and innovation for Member States and stakeholders through training (information technology, software web tools, etc.)</p>	<p>a. Identify a usable platform with wide acceptance of Member States</p> <p>i) Construct the GNSSN platform using widely available software</p> <p>ii) Develop web page templates for use by stakeholders and Member States</p> <p>b. Invite GNSSN stakeholders to populate the platform</p> <p>i) Train the GNSSN stakeholders on use and maintenance of the platform</p> <p>ii) Develop and post content on best practices and lessons learned (safety and security)</p> <p>c. Encourage commitment to, and investment in, the GNSSN platform</p> <p>d. Encourage Member States and stakeholders to add, update, and improve their contributions to the GNSSN platform</p>	<p>- Number of National Nuclear Regulatory Portals (NNRPs) developed and</p> <p>- Number of NNRPs updated</p> <p>- Trends (for all above) monitored by annual survey(s) to track progress</p> <p>Track the annual commitment(s) of the IAEA, MS and RNs to the GNSSN and/or their web portals</p>
<p>Strategic Goal 3:</p> <p>Enhanced competence in nuclear safety and security</p>	<p>a. Assessment and identification of gaps on required competencies</p> <p>b. Develop competence in nuclear safety and security</p> <p>c. Demonstrated competence in nuclear safety and security</p>	<p>Support strengthening of nuclear safety and security infrastructure in Member States by:</p> <p>- Encouraging a Communities of Practice (COP) among SMEs and Member States</p> <p>- Establishing centers of excellence (COE) where and as appropriate among SMEs and Member States</p> <p>- Establishing effective operational mechanisms through global, regional and national networks to facilitate knowledge and information sharing</p>	<p>- Number of training activities and participants in these</p> <p>- Number of topics addressed</p> <p>- Number of activities related to thematic working groups</p>

Strategic Goals	Outcomes	Activities	Performance Indicators ³
Strategic Goal 4: Achieve the highest level of nuclear safety and security through a harmonized [holistic] approach to capacity building.	a. Develop inventory of resources b. Establish centres of excellence c. Develop central repositories of information d. Develop inventories of learning opportunities e. Conduct peer reviews f. Establish knowledge management processes	- Identify the areas of need - Identify subject matter experts (SME) and their availability - Match up SMEs with the areas of need - Identify gaps between the areas of need and SME - Seek knowledge/SME from GNSSN to address the gap - Conduct activities that address each area of need - Enable the strengthening of Communities of Practice (COP) among SMEs and Member States - Establish centers of excellence (COE) where and as appropriate among SMEs and Member States - Establish effective operational mechanisms through global, regional and national networks to facilitate knowledge and information sharing	- Number of capacity building self-assessment and/or peer review missions conducted - Feedback provided by Member States through evaluation surveys conducted to assess networks' contribution to the national and regional nuclear safety infrastructure development

3. Strategic Goals

The GNSSN Steering Committee will lay the groundwork by building momentum among key players through the engagement of broad-based stakeholders, partners, and constituencies in a shared agenda and strategy.

In order to fulfil the vision and mission of the GNSSN, the following strategic goals have been identified:

- **Strategic Goal 1:** Enhance networking and cooperation within and among Member States and networks
- **Strategic Goal 2:** Establish and maintain a strong platform for sharing technical knowledge
- **Strategic Goal 3:** Enhance competence in nuclear safety and security
- **Strategic Goal 4:** Achieve high level of nuclear safety and security through a harmonized approach to capacity building.

Based on prior experience during the early development of GNSSN, these Strategic Goals were identified to help the GNSSN fulfil its missions by focusing on key aspects, essential to progress pragmatically towards enhanced capacity building, international cooperation and safety culture.

They represent ultimate targets that give direction on choices to be made at policy level but may remain beyond the reach of the GNSSN.

4. Implementation and Operation

In order to convert the Strategic approach into results, GNSSN will rely on 4 operating mechanism. These mechanisms will ensure that the strategic approach is translated into everyday execution that will ultimately produce the outcomes defined by the strategic approach.

4.1. GNSSN Operating Mechanisms

The GNSSN Operating Mechanisms of implementation provide a conceptual basis for developing, progressing and maintaining the GNSSN platform:

- **Promote the GNSSN**
Implement outreach activities in line with the GNSSN communication plan, with a focus on promoting awareness of the GNSSF and the GNSSN.
- **Foster Commitment**
Develop national, regional and global activities that incorporate Member States' and other stakeholders' interaction with the GNSSN management.
- **Develop Actions**
Develop focused activities with the purpose of developing actions towards nuclear safety and security capacity building.
- **Build Capacity**
Targeted development of individuals, organizations and participating Member States in disciplines needed to achieve a high level of nuclear safety and security infrastructure.



Figure 2. Strategic Goals and Operating Mechanisms

5. Enablers

The realisation of the GNSSN strategic goals is enabled by exceptional members, high-quality IT-infrastructure and financial sustainability.

5.1 People

The success in achieving GNSSN strategic goals depends on the outstanding performance and contribution of all GNSSN members. We aim to value, support, develop and utilise the full potential of GNSSN members, working with each other across our community to make GNSNS successful.

To meet our aim we will:

- Attract users, members and contributors and promote their work
- develop the knowledge, capabilities and skills of the members
- maintain a sustainable staffing profile in the secretariat
- be inclusive in the coordination and implementation of the GNSSN projects

We will achieve our objectives by:

- promoting the attractiveness of GNSSN
- rewarding excellence and success in a variety of ways
- motivating the nuclear safety and security community to be part of GNSNS by clearly linking individuals' objectives to those of the networks hosted under GNSSN
- fostering a culture of high aspiration and performance, drawing on excellent leadership and effective management
- promoting flexible interdisciplinary and team working environment
- Continue to develop constructive partnership between all GNSSN stakeholders.

5.2 IT infrastructure

High-quality IT infrastructure is key to enabling us to achieve the GNSSN strategic goals. We aim to provide a modern and efficient working and learning environment to sustain the GNSSN activities.

To meet our aim we will:

- pursue consistency and continuity in quality and experience across the GNSSN information technology (IT) and SharePoint environment
- optimise the GNSSN data management
- Ensure that that GNSSN environment is fitted to support learning, knowledge transfer, research and effective decision-making.

We will achieve our objectives by:

- adapting the IT infrastructure to meet the changing needs, approaches and working patterns of the networks hosted under GNSSN
- demonstrating agility in our approach to planning and delivery of national and regional projects
- developing and maintaining a knowledge base facilitating the access to information resources

- identifying future technological developments
- Taking a systematic approach to acquiring, creating, capturing, storing, presenting and managing the GNSSN information resources.

5.3 Financial resources

The GNSSN aims and objectives are dependent on the overall financial strength. We aim to maintain and enhance GNSSN financial strength in order to deliver the strategic goals

To meet our aim we will:

- secure long-term viability
- ensure short- and medium-term viability
- ensure high standards of accountability, probity and financial control
- deliver best value in all our activities
- Ensure good governance

We will achieve our objectives by:

- prioritising and aligning the extra budgetary resources to the GNSSN strategic goals by actively monitoring and objectively appraising the short and long-term financial implications of all major decisions
- regularly updating the short- and long-term financial forecasts, and using these to guide decision-making
- Further develop the GNSSN governance framework to enhance decision-making and accountability.
- Explores partnership opportunities to ensure sufficient extra budgetary contributions for the daily operations of GNSSN
- Explore possibilities of support through the IAEA regular budget

6. Operating Principles

The following operating principles underpin the way in which the GNSSN platform is implemented:

Global: The GNSSN plays an essential role by ensuring that the world's nuclear safety and security related knowledge resources are visible and available to those who need them, in a format they can access and use.

Flexible: The GNSSN accommodates the diversity and complexity of national nuclear safety and security infrastructures, as well as the factors determining their effectiveness.

Inclusive: Participation in the planning and implementation is open to all IAEA Member States.

Results-based: The GNSSN operation is practical and results-based. Lessons learned are documented in order to ensure continuous improvement.

Self-initiating: Effective planning and implementation of cooperative activities, especially those in the area of capacity building, are made on the basis of participating Member States' and other stakeholders' initiative.

Transparent: The GNSSN operation promotes trust among members, and shares information and knowledge in an open and transparent manner.