GNSSN IT Developments

12th GNSSN Steering Committee Meeting
16th – 17th April 2018
IAEA, Vienna

KUNJEER Sameer
Office of Safety and Security Coordination
Department of Nuclear Safety and Security
Presentation Outline

- Introduction to GNSSN IT Platform
- Key encompassing elements
- Governance
- Recent Developments
- Way ahead…
Introduction to GNSSN IT Platform

- GNSSN IT Platform (primarily RegNet and National Platforms) was hosted and maintained within the GRS infrastructure since inception. In 2009, migrated to IAEA server infrastructure.

Current GNSSN technology stack: Microsoft SharePoint 2013 (on-premises)

GNSSN integrated within the IAEA’s central system, namely NUCLEUS

- GNSSN constitutes of 2 parts:
  - Public area
  - Protected area (collaboration spaces)

https://gnssn.iaea.org/main

https://gnssn.iaea.org/sites/auth/RegNet
Introduction to GNSSN IT Platform

GNSSN IT Platform objectives:

- Sharing of knowledge, best practices and lessons learned (Technical Publications, Regional Workshops and Training Courses meeting content, Fact Sheets, Highlights, etc.)

- Supporting 4 pillars of Capacity Building
  - Education and Training (GETR, etc.)
  - Human Resources Development
  - Knowledge Management (National Platforms, Nuclear Safety Knowledge Base, etc.)
  - Knowledge Networks (Global Networks, Regional Networks, Thematic Networks)

- Promotion of upcoming events.

- Collaboration spaces for experts from various technical areas (Communities of Practice CoPs, etc.)
Key encompassing elements

- **Global Networks**
- **Regional Networks**
- **National Platforms**
- **Thematic Networks**
## Key encompassing elements

### GNSSN Elements (Dec 2017)

#### Global Networks and Fora

<table>
<thead>
<tr>
<th>Network/Forum</th>
<th>URL</th>
</tr>
</thead>
<tbody>
<tr>
<td>International Regulatory Network (RegNet)</td>
<td></td>
</tr>
<tr>
<td>WWER Regulators’ Forum</td>
<td><a href="https://gnssn.iaea.org/regnet/Pages/CANDU.aspx">https://gnssn.iaea.org/regnet/Pages/CANDU.aspx</a></td>
</tr>
<tr>
<td>Forum for Senior Regulators of CANDU Reactors</td>
<td><a href="https://gnssn.iaea.org/regnet/Pages/WWER-Forum.aspx">https://gnssn.iaea.org/regnet/Pages/WWER-Forum.aspx</a></td>
</tr>
<tr>
<td>Regulatory Peer Review Services online space (IRRS, OSART, ARTEMIS, etc..)</td>
<td></td>
</tr>
<tr>
<td>Control of Sources Network (CSN)</td>
<td><a href="https://gnssn.iaea.org/CSN/default.aspx">https://gnssn.iaea.org/CSN/default.aspx</a></td>
</tr>
<tr>
<td>Education and Training Network in Nuclear Waste and Radiation Safety</td>
<td></td>
</tr>
<tr>
<td>Nuclear Security Information Portal (NUSEC)</td>
<td><a href="https://nusec.iaea.org/portal">https://nusec.iaea.org/portal</a></td>
</tr>
<tr>
<td>Emergency Preparedness and Response Network (EPnet)</td>
<td><a href="https://gnssn.iaea.org/regnet/Pages/EPNet.aspx">https://gnssn.iaea.org/regnet/Pages/EPNet.aspx</a></td>
</tr>
<tr>
<td>Global Safety Assessment Network (GSAN)</td>
<td><a href="https://nucleus.iaea.org/sites/gsan/Pages/default.aspx">https://nucleus.iaea.org/sites/gsan/Pages/default.aspx</a></td>
</tr>
<tr>
<td>Transport Safety Networks (MedNet)</td>
<td><a href="https://gnssn.iaea.org/main/Med-net/Pages/default.aspx">https://gnssn.iaea.org/main/Med-net/Pages/default.aspx</a></td>
</tr>
<tr>
<td>Safety and Security Communication Network (GNSSCOM)</td>
<td><a href="https://gnssn.iaea.org/gnsscom/Pages/default.aspx">https://gnssn.iaea.org/gnsscom/Pages/default.aspx</a></td>
</tr>
</tbody>
</table>

#### Regional Safety Networks

<table>
<thead>
<tr>
<th>Network/Network Forum</th>
<th>URL</th>
</tr>
</thead>
<tbody>
<tr>
<td>Arab Network of Nuclear Regulators (ANNuR)</td>
<td><a href="https://gnssn.iaea.org/main/annur">https://gnssn.iaea.org/main/annur</a></td>
</tr>
<tr>
<td>Asian Nuclear Safety Network (ANSN)</td>
<td><a href="https://ansn.iaea.org">https://ansn.iaea.org</a></td>
</tr>
<tr>
<td>Forum of Nuclear Regulatory Bodies in Africa (FNRBA)</td>
<td><a href="https://gnssn.iaea.org/main/fnrba">https://gnssn.iaea.org/main/fnrba</a></td>
</tr>
<tr>
<td>European and Central Asian Safety Network (EuCAS)</td>
<td><a href="https://gnssn.iaea.org/main/eucas">https://gnssn.iaea.org/main/eucas</a></td>
</tr>
<tr>
<td>[Liaison with regional networks external to the IAEA (e.g. the European Nuclear Safety Regulators Group (ENSREG), Western European Nuclear Regulators Association (WENRA)]</td>
<td></td>
</tr>
</tbody>
</table>

#### National Level

Each Member State has its own National Nuclear Safety Knowledge Platform serving as an interface to the national web-based knowledge platforms.
Governance

GNSSN Governance Plan drafted in 2013 and made available at the GNSSN website.

GNSSN Governance Board constitutes of the following IT entities:

- **GNSSN IT Assistant**
A GNSSN IT Assistant is an IAEA staff member or a Member State representative, who is expected to work closely with the GNSSN Executive, the Coordinators and the Moderators in the administration, site development, and maintenance of content of assigned element(s) of the GNSSN platform.

- **GNSSN IT Administration Support Group**
The GNSSN Platform Administration Support Group is a team of IAEA staff members and dedicated Member State representatives with a thorough knowledge and experience of SharePoint technologies and SharePoint server administration. (Staff from the IAEA Division of Information Technology and GNSSN IT Assistants.)

![Figure 4. Roles and Responsibilities for GNSSN Governance](image)
Recent IT Developments

- ARTEMIS Review Missions

The IT platform provides restricted collaboration spaces for various ARTEMIS missions, wherein the participating experts and involved parties can systematically organise the advance reference material, official correspondence, preparatory meetings documents as well as the mission report. (https://gnssn.iaea.org/main/artemis)

- General information

- Collaboration spaces for recently conducted missions Poland, France and Italy (SOGIN); accessible by mission experts, IAEA Technical Officers and selective participants from respective member states.
Recent IT Developments

- Global Education and Training Resources (GETR)
  The IT platform for GETR provides an easy-to-access knowledge base that displays Nuclear Safety training and education resources being organized by regulatory authorities, technical organizations, research institutions and universities around the world. (https://gnssn.iaea.org/main/getr)
  - Altogether details for 360 training resources from following providers made available:
    - EC
    - IAEA
    - KINS, Korea
    - U.S.A. IRDP
    - U.S. NRC
    - WNS
  - Training resources from PNRA, Pakistan and GRS, Germany to be made available soon.
  - eLearning content (altogether 23 modules) catering to following topics made available:
Recent IT Developments

- Nuclear Safety Knowledge Base (NSKB)

The objective of the Nuclear Safety Knowledge Base is to organize all relevant technical documents, publications, member state experiences and lessons learned, across various regional networks/forum and thematic areas, in an easy-to-access interface with appropriate search criteria.

- To be made available to general public
- Implementation initiated in December 2017
- Technical areas for classification of knowledge base adopted from IAEA Safety Standards topical areas
- Other search criteria include regional/thematic network contributing the content, target audience, etc.
- Almost 3000+ documents to be made available in the knowledge base.
Way ahead…

- Promotion of GNSSN IT Platform among a wider audience
  - IAEA Secretariat to disseminate news, announcements for events, publications, annual reports to registered GNSSN users (7000+), leveraging IAEA’s Mail Chimp emailing service.

- Content management of GNSSN IT Platform and its encompassing elements
  - Ensure updated content across various elements of GNSSN IT Platform
  - Consultancy meeting to review the GNSSN Governance Plan (including IT Governance) to be conducted.

- Structure and layout of GNSSN IT Platform (public area)
  - Responsive design (accommodate various available devices such as laptops, mobiles, etc.)
  - Migration to open source technologies (Drupal) to be considered.

- Structure and layout of GNSSN IT Platform (restricted area)
  - Harmonisation in terms of layout of various collaboration spaces, using a template based approach.
  - Adopting Cloud Computing to host collaboration spaces

- GNSSN National Nuclear Safety Knowledge Platforms
  - Access to general public should be made available

- Migration of eLearning content within GETR to CLP4NET

- Harmonisation of Transport Safety Regional Networks IT platforms (in line with the structure and layout of MedNet)

- Harmonisation of the Operational Safety Networks (OSART, IGALL, IRS) within the GNSSN

- Providing technical assistance to implement an IT platform for the PGEC.
Thank you!