



Consultants' Meeting on the Development of GNSSN and RegNet

07 – 10 June 2010

Vienna, Austria

Summary Report

Executive Summary

1. The consultancy was held after the GNSSN/RegNet – WebSite has been commissioned and content developed on the GRS Server and now has been migrated to the IAEA Server. The migration meets the expected requirements from both the IT and technical perspectives. Project performance by NS and MTIT from the IAEA side and BMU and GRS from the German side was characterized as a very successful example for effective and efficient collaboration. A Joint Cooperation Team is now established for further developing structure and content of GNSSN/RegNet as well as addressing IT issues.
2. Progress with the GNSSN/RegNet concept and content has been presented and discussed at the CapeTown Conference on Effective Nuclear Regulatory Systems in December 2009 [x]. In his summary and conclusion the conference president [?] stated:
“Regulatory portals and thematic regulatory networks, such as the Regulatory Network (RegNet), are considered to be useful tools for international regulatory cooperation. Regulator should continue working together to harmonize requirements and approaches between countries. Regulators should consider establishing dedicated forums to exchange information on safety and radiation control matters. Global and regional networks should be established and maintained, where possible, to include regulators, operating organizations, vendors and other stakeholders.. There is a need to strengthen regional and global regulatory forums and networks to improve regional cooperation and knowledge management, to share the results of regulatory self-assessments and peer reviews, and to disseminate lessons learned to create better opportunities for improving the regulatory performance. Regional networks have been successfully established in Asia, Europe, Ibero-America and Africa to strengthen the Global Nuclear Safety and Security Regime.”
3. The current developments of the GNSSN/RegNet, including the multilevel Portal approach, the access policy, the Pilot Country Contributors Site, the Pilot Country Nuclear Regulatory Profile as well as the IAEA Contributor Site have been presented and the future needs were identified. The efforts and achievements in establishing GNSSN/RegNet were acknowledged by all parties involved.
4. A short- and mid-term strategy plan for the future development of GNSSN/RegNet was prepared, discussed and agreed.
5. The work plan was adapted to the findings of the consultancy. The detailed work plan and time schedule for the next steps have been specified for the period from July 2010 to January 2011.
6. A Technical Meeting shall be held 06.-10.12.2010. The concept for the TM and key items for discussions were developed. The TM shall be announced by the IAEA in July 2010.
7. Terms of Reference for the RegNet Steering Committee were drafted for further discussions with interested parties. The constitutional meeting of the RegNet Steering Committee shall be held early in 2011.

List of Contents

1	WORK PLAN AND MILESTONES FOR PROGRAMME IMPLEMENTATION	4
1.1	Overall Work plan.....	4
1.2	Workplan and Schedule	5
2	REGNET TASKS	5
2.1	Objectives, principle, rules, strategy plan	7
2.2	Structure and Content of RegNet	7
2.3	Contributor's Areas and Country Nuclear Regulatory Profiles	8
2.4	Reviews & Appraisals and Regulatory Knowledge Base	9
2.4.1	Reviews & Appraisals, especially IRRS	9
2.4.2	Regulatory knowledge base	9
2.5	OEF/OPEX Platform and Generic Safety Issues (GSI)	10
2.5.1	OEF/OPEX Platform.....	10
2.5.2	Generic Safety Issues	10
2.6	IT infrastructure, networks and requirements	11
2.7	Inventory of regulatory networks and resources	11

1 WORK PLAN AND MILESTONES FOR PROGRAMME IMPLEMENTATION

1.1 Overall Work plan

The project continues to be based on the milestones established at the previous Technical Meetings and Consultancies.

Milestone 1: Support from Member States to start RegNet

At the second International Conference on Effective Nuclear Regulatory Systems - Further Enhancing the Global Nuclear Safety and Security Regime, Cape Town Conference progress with RegNet Concept and IT implementation was reported to MS and international organisations setting targets for the next three years [].

Resources from the IAEA, the European Commission under the INSC, from regional regulatory networks and from some Member States are available to achieve further progress.

Key events in 2010 to promote GNSSN/RegNet will be:

21.06.2010	Regulatory Co-operation Forum (RCF), Vienna
21.09.2010	Roundtable discussion at the IAEA General Conference, Vienna
25.-29.10.2010	International Conference on Challenges Faced by Technical and Scientific Support Organizations (TSO) in Enhancing Nuclear Safety and Security, Tokyo, Japan
06.-10.12.2010	Technical Committee Meeting on the Realisation of GNSSN and RegNet

For these events a summary description of objectives, principles and rules, draft ToR for RegNet and a draft ToR for the RegNet Steering Committee need to be developed and informally discussed with interested countries and organisations.

The top level WebSites of the GNSSN shall be made accessible before the IAEA General Conference. This can include access to pilot examples for more detailed content.

Depending on further progress and the outcome of the TM Member Countries and international organisations shall be invited to join the RegNet Steering Committee and to participate in and contribute to the further development of the network and the provision of content.

Milestone 2: Country Nuclear Regulatory Profiles (CNRP) and IRRS Information Platforms

In co-operation between IAEA-NS, BMU/GRS and IAEA-MTIT draft SharePoint websites and templates as proposed in 2009 have been realized and transferred to the new GNSSN WebSite at the IAEA:

- the established prototype for an IRRS platform and for other reviews and appraisals can now be filled with content to test operability and usability;
- further pilot solutions for country contributors site and country nuclear regulatory profiles have been initiated based on the nearly completed German example.
- OEF/OPEX and GSI Platforms have been prepared and needs further support
- additional content can be assigned to the regulatory knowledge base for countries and organisations

Milestone 3: Development of the other components of the network

The overall structure and multilevel concept for GNSSN/RegNet has been further elaborated. Additional content can be assigned to the appropriate levels and linked to respective resources. For these components the definition of rules for different users of the network, the access policy, the administration of rights and the data security issues can be managed.

Using SharePoint made it possible to establish pilot “country contributor sites” in parallel to the pilot examples for the country nuclear regulatory profiles. Now the SharePoint features and technical means enables direct elaboration, testing and implementation of further RegNet components such as teamsites for co-operation of several groups, committees, forums, websites on topical areas, a regulatory knowledge portal and information on conferences or meetings by interested users.

Documents will be developed by the JCT to guide the further development of structure, content and administrative matters. Guidance documents shall be discussed at the TM for presentation to the SC.

Milestone 4: Validation and extension of operation of the entire network

Based on the accomplishment of the three steps mentioned above, the whole system can be extended to more sophisticated applications such as collaboration on certain documents or projects. The additional features and interactions with other networks and collaboration platforms shall be presented to the TM.

Milestone 5: Maintenance and implementation of the network

When the basic functions of the network and practical examples for the “cost and benefits” for operating such a system, i.e. after completion of milestones 1-4, continuous operation and improvement has to be established. A Steering Committee shall be established at the IAEA. for overall steering and monitoring of RegNet.

1.2 Strategy plan and Schedule

Following several presentations on the strategy to develop the network further a short- und mid-term strategy plan was discussed and agreed.

Short-Term Strategy Plan

A. Organisational Matters

1. Creation of the Joint Cooperation Team
2. Preparation of the next TM
3. Establishment of Steering Committee
4. Preparation of guidance documents
 - a) Detailed **procedures for the management** of GNSSN/RegNet (including creation of new components)
 - b) Detailed **procedures for the modification and upgrading** of the technical content of GNSSN/RegNet

- c) Detailed **guidelines for** the registration and **authorization of users** including the user categories
- d) **Security policies for the access** of the different levels of data and documents
- 5. Define **Phases to open the GNSSN/RegNet** to users starting from the public site
- 6. Address open Sharepoint IT Issues on the New GNSSN hosted at IAEA

B. Content Development

- 1. **Further improvement of GNSSN sites**, to **assure that all the sites and interfaces are consistent with each other**
- 2. **Further improvement of RegNet sites: Country Contributor's Site and IAEA Contributor Site**
 - a) Completion of Pilot project for Country Contributors Site (CCS) by German Team
 - b) Improved efforts to complete Pilot projects at least for IRRS Site and the Main IAEA Contributors site
- 3. Integration other **new components** into RegNet: Regulatory Cooperation Forum (RCF) and TSO-Networks

C. Realize Phases to open the GNSSN/RegNet

- 1. Open the Level 0 (GNSSN) and Level 1 (Main Page of RegNet)
- 2. Ongoing commitment of G8 and Senior Regulators to the management of information and knowledge as a resource for effective regulatory systems
- 3. **Future cooperation** with German support team and other supporting countries (G8 countries) and international organizations (EC)

Mid-Term Strategy Plan

- 1. Modification and completion of whole components of RegNet, in particular the IAEA site
- 2. Development of the work programme
- 3. Development more CNRPs for IAEA member states
- 4. Implementation of SC for RegNet
- 5. Creation of IT Support Group (ITSG) and thematic Topical Groups (TGs)
- 6. Open the whole site to the member states
- 7. Further Commitments and Support from IAEA member states
- 8. Further Integration of **new components** into RegNet to support practically the international regulatory cooperation by using:
 - a. structures for collaboration
 - b. enhanced access to meeting schedules and documentation, standards and reports
 - c. global nuclear safety and security directory

2 REGNET TASKS

2.1 Objectives, principle, rules, strategy plan

Review of proposed solution

The proposed principles, solutions and their implementation prior to installing a Steering Committee are still valid. Sufficient material has been compiled to prepare a “RegNet Reference Document” (RegNet ToR) and more detailed/specific guidance documents.

Experience from applications made by German Experts since several years can be used.

Further development of the proposed solution

Before installing the Steering Committee, further progress of RegNet should be achieved. The practical use and benefit must be demonstrated for future users. All actors involved in RegNet concept and development should continue to use conferences, meetings and personal contacts to promote RegNet and gain support for the RegNet.

After the successful migration of the GNSSN/RegNet from a German to the IAEA Server a Joint Coordination Team (JRT) established to further develop the GNSSN/RegNet.

Next steps towards implementation, including responsibilities and schedules

Further activities to develop the content of the network and to prepare the TM and the SC shall be organised and controlled by this JCT. This includes:

- the preparation of proposals for further content development
- the design for navigation, content presentation as well as access to content of process owners
- the effective IT - support

Products of the JCT activities shall be e.g.:

- RegNet Reference Document” (or RegNet ToR)
- Specific Guidance documents
- ToR for RegNet SC

2.2 Structure and Content of RegNet

Review of proposed solution

The proposed solution for the RegNet Homepage (as the entrance to the main RegNet Portal) and of subordinate websites as well as other respective contributors Websites remains unchanged.

Further development of the proposed solution

The RegNet Homepages has been implemented as well as some related subordinated websites and a Pilot Country Contributors Site. Content has been provided for some pilot applications such as for Country Nuclear Regulatory Profiles and IRRS. The functionality has been tested.

Next steps towards implementation, including responsibilities and schedules

- 1 More detailed description of the multilevel approach will be given in the RegNet Reference Document
- 2 Concept for and administration of rights has to be developed including general principles to be followed, e.g. Single Sign On Principle.

- 3 Amendment of further content such as other safety and security review and appraisal services with related templates and interface pages.

2.3 Contributor's Areas and Country Nuclear Regulatory Profiles

Review of proposed solution

In the RegNet, all contributing IAEA members' states as well as international organisations should be represented by their specific profiles following an agreed format. This basic approach and the related material and guidance are still appropriate.

Further development of proposed solution

For the proposed content of the Country Contributor Site (CCS) and Country Nuclear Regulatory Profiles (CNRP) pilot developments have been performed for Germany. These nearly completed examples will be used for similar approaches for some other countries.

The concept shall as closely as possible follow an international agreed format using for example the revised IAEA safety standard GSR-1. The structure should be designed with the objective to support different needs such as reporting under the nuclear conventions, regular reporting for international organisations, the provision of preparatory material for reviews and appraisals. Respective structures for national reports under nuclear conventions, IAEA databases with country specific contents such as INPP, INIS, IRS, PRIS, NEWMDB shall be taken into account.

The first Page of CCS as a Homepage for the National Portal to RegNet together with the respective sub-websites including the CNRP are the official country's interface. They will be hosted by the IAEA and maintained under responsibility of authorized liaison officers for the respective member states or international organisations/bodies.

For those countries, which do not have sufficient IT-resources, the agency will host in addition to the CCSs and the respective sub-websites such as CNRPs also webspace that can be used by member states to upload, maintained and ensure the quality of their contents.

So far the work on contributor sites was focussed in the last period on countries while the work on contribution from international organisations has to be accelerated in close interaction with the respective organisations.

Next steps towards implementation

The following activities should be realized in a short term:

1. Completion of the German pilot for the CCS and CNRP as discussed after presenting the today status of the German Pilot.
2. Continue the cooperation between Germany and UKR, RF and Belarus to prepare their draft national CCS based on the layout prepared by Germany and the German Pilot.
 - for each of the 3 countries should be nominated a liaison officer or temporarily contact person
 - the access to the respective sub-website with adequate rights should be given to the nominated expert teams
 - 1-2 additional Meetings with the expert teams will be held in Germany

3. For 2-4 INSC beneficiaries (emerging countries: Egypt, Jordan, Vietnam, Philippines) the preparation of a first draft CCS will be organized in the short time
 - German experts will prepare the subsequent websites with the agreed layout
 - a fellowship at the IAEA will collect the available data and prepare a first draft
 - the draft will be discussed with experts of the respective country
4. With the Country Coordinators of the RAMG will be checked the possibility to prepare draft national CCS for Armenia, Georgia and Kazakhstan
5. The German pilot CCS and the lessons learned from the draft national CCS prepared in the meantime will be presented at the TM in November

2.4 Reviews & Appraisals and Regulatory Knowledge Base

2.4.1 Reviews & Appraisals, especially IRRS

Review of proposed solution

The proposed solution for the IRRS proved to be mature.

Progress made with the IRRS website can be also applied to other safety services and appraisals as well as to security missions, such as EPREV, INSServ, IPPAS, OSART, that are provided by the IAEA at the request of Member States.

By the proposed solution RegNet can provide more specific information e.g. regarding already performed services or information for interested countries and bodies.

Further development of the proposed solution

The choosing layout for the IRRS websites could be improved. The SC proposes to use much more the presented German experience for collaboration teamsites with due consideration of data security needs.

The interconnection between the IAEA site for IRRS and the CCS should be developed using as example the German CCS.

Next steps towards implementation

1. Completion of the Review & Appraisal “Pilot” for IRRS.
2. Continue the cooperation between Germany and IAEA to use much the experience for collaboration teamsites.
3. Application of the established “Pilot” to EPREV, INSServ, IPPAS etc. with due consideration of additional data security needs
4. Develop the interconnection between the IAEA site for IRRS and the German CCS

2.4.2 Regulatory knowledge base

Review of proposed solution

The proposed solution was confirmed in many cases and should be implemented as soon as possible. Currently the download of the IAEA safety standards and other series of documents

(e.g. INSAG) has to be done document by document. The nomenclature is not self explaining and not related to the numbering system of the safety standards or the series of documents.

Further development of the proposed solution

For the series of IAEA publications an organisation of the related documents in structured files is proposed. The document names shall be in accordance with the respective numbering system. A download facility shall be made available, so that (authorized) Member state representatives can download such series for offline use within their own IT systems.

It is suggested to provide the information also in a fixed table format (e.g. csv-format) which can be downloaded and filtered for specific purpose.

Other sources for regulatory knowledge, especially tacit knowledge has to be properly included at the later stage.

Next steps towards implementation, including responsibilities and schedules

1. Review and comparison of technical solutions for organising and downloading regulatory knowledge base documents
2. Tests of preferred solutions
3. Implementation of the selected solutions

2.5 OEF/OPEX Platform and Generic Safety Issues (GSI)

The solution proposed by the TM in 2008 was to integrate OEF/OPEX with GSI. Due to differences in the proposed structures for websites two separated websites are proposed.

2.5.1 OEF/OPEX Platform

Review of proposed solution

The proposed solution is still valid and can be implemented. The content ongoing work at the OECD-NEA (NOEF – report) can be used. Most of the discussion of OEF/OPEX was focussed on nuclear facilities especially nuclear power plants. This approach has to be broadened for the OEF Homepage within RegNet, the IAEA interface page as well as for the national interface pages.

Further development of the proposed solution

An OEF/OPEX Homepage at the IAEA contributors area within RegNet is available. A recent OECD NEA report can be used for national input on OEF systems.

Next steps towards implementation, including responsibilities and schedules

1. Template for OEF country contributor page
2. Implementation of content (tbd)

2.5.2 Generic Safety Issues

Review of proposed solution

The proposed solution for the Generic Safety Issues (GSI) part proved to be mature and has been used for design and content of the GSI Homepage at the IAEA contributors area within RegNet.

Further development of the proposed solution

Implementation of content from the IAEA, Germany and the US. Invitation to other potential contributors to participate.

Next steps towards implementation

1. Migration of the IAEA databanks for LWR, HWR to Sharepoint (LG, BON, ...)
2. Implementation of content and test of functionality
3. Completion and quality assurance of a template for the country specific GSI interface page
4. Test for input from Germany
5. Request to other countries to complete an interface page for their specific GSI activities
6. IT Infrastructure and Services

2.6 IT infrastructure, networks and requirements**Review of proposed solution**

Decision for SharePoint ..

Further development of the proposed solution

Joint Cooperation Team

Next steps towards implementation, including responsibilities and schedules**2.7 Inventory of regulatory networks and resources****Review of proposed solution**

This issue was discussed mainly in the context of the GNSN. Solutions to comply with the specific needs of RegNet have to be developed. Reference has been made to the existing “energy handbook” and compilations prepared for earlier meetings on networks and resources (G8 NSSG Consultancy Meeting in August 2007).

Further development of the proposed solution

An overall directory of RegNet networks and resources shall be developed starting from existing databases and mechanisms.

Next steps towards implementation, including responsibilities and schedules

1. Determination of required data such as name of the resource, subject area, purpose, contact, website, access: open/restricted)
2. Process description for collecting and updating data (IAEA staff, INIS officers, contributors liaison officer)