

The International Conference on Challenges Faced by Technical and Scientific Support Organizations (TSOs) in Enhancing Nuclear Safety and Security

Brussels, Belgium, 15-19 October 2018

Summary, recommendations and conclusions

Highlights:

- **290 registered participants**
- **from both TSOs and regulatory bodies**
- **from 54 Member States and 5 international organizations**

- **62 posters**
- **6 topical sessions**
- **47 presentations**
- **Conf App for Q/A**

6 Topical Sessions

Session 1 — Roles of the TSOs supporting regulatory functions

Session 2.1 — Safety assessment

Session 2.2 — Radiation and waste management safety

Session 2.3 — International cooperation

Session 3 — Role of the TSOs in emergency preparedness and response

Session 4 — Other challenges of TSOs

Session 5 — Key components to develop and maintain the technical and scientific expertise

Session 6 — How to build your technical and scientific capability

Session 1 — Roles of the TSOs supporting regulatory functions

- **REC 1.1**: The Conference recommended that the IAEA consider continuing a forum for promoting cooperation among TSOs with special emphasis on the needs of embarking countries seeking international cooperation to strengthen regulator and domestic TSO capabilities.
- **REC 1.2**: Member States are encouraged to look for opportunities to increase the dialogue between civil society and technical experts so as to contribute to the trust and confidence in the technical basis supporting regulatory decisions.

Session 2.1 — Safety assessment

Session 2.2 — Radiation and waste management safety

Session 2.3 — International cooperation

REC 2.1 : The IAEA should consider continuing to promote awareness on TSO contributions in support of the regulatory bodies, and encouraging embarking countries to participate in networks involving TSOs.

Session 3 — Role of the TSOs in emergency preparedness and response

- **REC 3.1**: Embarking countries are encouraged to define the role of TSOs in the context of national emergency preparedness and response approaches, taking into account the roles of all involved stakeholders as appropriate.
- **REC 3.2**: The IAEA should consider facilitating the sharing of experience at regional (e.g. ETSON, ASEAN) and international levels, as well as on a bilateral basis. In particular, experience gained through involvement in emergency drills and exercises could be shared at the level of the TSO Forum in a dedicated working group.
- **REC 3.3**: The IAEA should consider developing guidance on the role of TSOs in emergency preparedness and response.
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Session 4 — Other challenges of TSOs

- **REC 4.1**: The need for clarification of the role of TSOs in these other areas: transparency versus security, and safety and security interfaces;
- **REC 4.2**: The useful role of TSO expertise in stakeholder involvement in regulatory body activities, noting that the openness and transparency of the TSO safety expertise may enhance regulatory effectiveness;
- **REC 4.3**: That IAEA international cooperation mechanisms (e.g. TSO Forum, Regulatory Cooperation Forum, Global Safety and Security Network) have proven to be very effective platforms and should be continued to address those challenges.

Session 5 — Key components to develop and maintain the technical and scientific expertise

- It was discussed and recognized that there is a need to develop and maintain core competencies.
- Examples of key components discussed at the Conference include training, tutoring and strategic planning of workload as necessary guidance for meeting future demands for technical and scientific expertise. Training and tutoring programmes may be internal to TSOs or offered by different qualified national or international providers.
- Strong partnership with academia (research and higher education), although not elaborated further during the Conference, may in some circumstances add to the long term preservation and improvement of the expertise.

Session 6 — How to build your technical and scientific capability



- **REC 6.1**: It was stressed that a national TSO capacity building strategy should:
 - Be adapted to the institutional landscape of the country.
 - Take into account a realistic evaluation of needs in terms of priorities and time frames.
 - Include an open approach to the communication needed to link together stakeholders with different cultures (e.g. mission, language, work practice). These stakeholders include suppliers, the regulator, academia, TSOs, etc.
 - Make the best use of available possibilities for international cooperation, including through the IAEA, in order to optimize their TSO development decisions in terms of organization, funding system, technical and scientific priorities, staffing and training methods.
- **REC 6.2**: IAEA Member States are encouraged to make the best use of the IAEA TSO Initiative to help design their national strategy for TSO capacity building, and to contribute to the ongoing activities of the TSO Forum.

Conclusion 1

The Conference acknowledges the results of the developments undertaken under the auspices of the IAEA TSO Forum on the basis of past TSO Conference conclusions, notably the TSO Initiative, and encourages further progress on them in the following directions:

- (a) Based on TECDOC 1835, existing IAEA advisory services (including Integrated Regulatory Review Service missions) could be implemented in such a way as to encompass with appropriate in depth analysis the contribution of TSOs to the challenges faced by the national regulatory system.
- (b) The finalization and field test of the draft TSO self-assessment tool should enable Member States to practically perform an assessment of their national TSO strategy in reference to TECDOC 1835.
- (c) A test of the “national TSO workshop” approach as recommended by the TSO Forum should be carried out in the near future in cooperation with a candidate Member State.

Conclusion 2

The Conference encourages Member States to support the TSO Initiative and to take advantage of the specialized advice on strategic issues relevant to TSOs, in order to contribute to setting up a suitable TSO capability at national level.

Conclusion 3

The Conference recommends that the TSO Forum further address the following aspects of potential TSO contribution to the independence and sustainable effectiveness of the national regulatory system:

- (a) The role of TSOs in activities of regulatory bodies communicating with stakeholders, noting that the openness and transparency of the safety expertise may enhance nuclear safety.
- (b) The role of TSO expertise in providing independent advice or recommendations to the regulatory bodies about state of the art safety assessment tools and methodologies, and technical and staff capabilities.

Conclusion 4

The Conference highlighted TSOs' need for effective and sustainable research, education and training, and knowledge management to feed and sustain expertise in the long term, to better support regulatory systems. The TSO Forum could consider how to encourage embarking countries to address the above mentioned priorities in the development of strategic plans and roadmaps for building up an independent and sustainable TSO in the long term.



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Thank you!

