

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

Strengthening Cooperation and Improving Capabilities

27–31 October 2014
Beijing, China



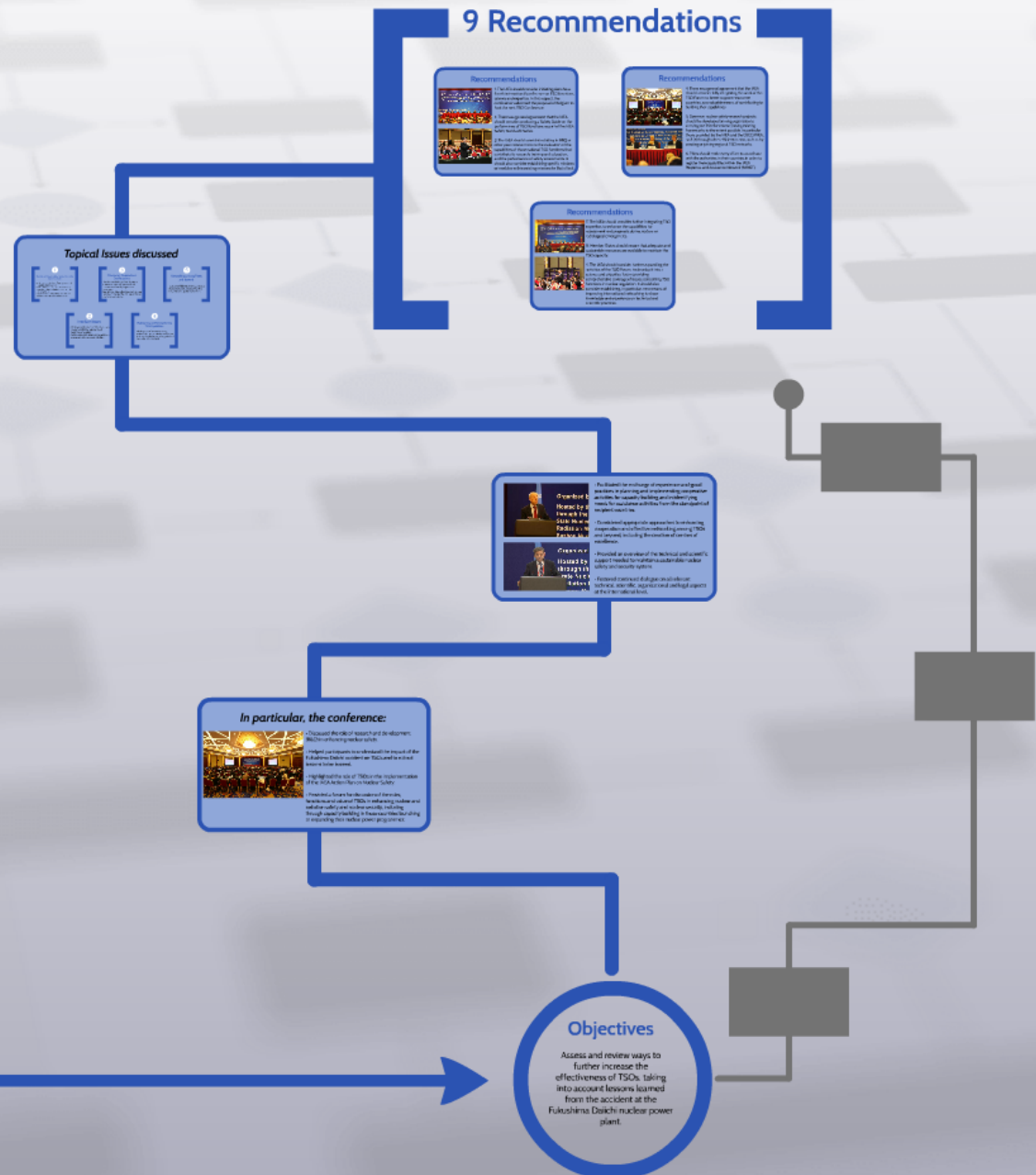
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through the
Nuclear and Radiation Safety Centre of the National Nuclear Safety
Administration
State Nuclear Security Technology Center, China Atomic Energy Authority
Radiation Monitoring Technical Center of Ministry of Environmental Protection
Suzhou Nuclear Safety Center, Suzhou Nuclear Power Research Institute
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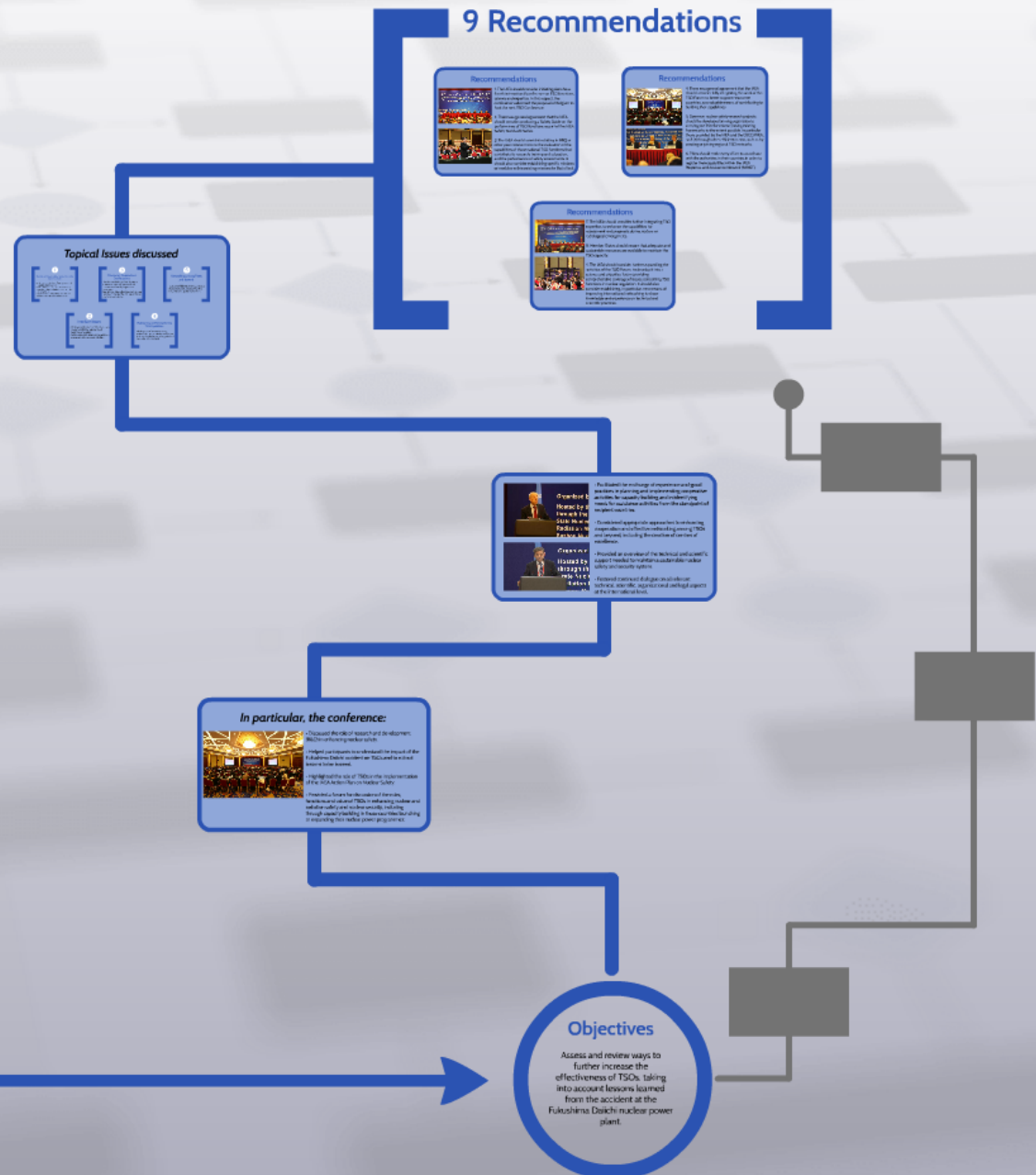
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Objectives

Assess and review ways to further increase the effectiveness of TSOs, taking into account lessons learned from the accident at the Fukushima Daiichi nuclear power plant.

In particular, the conference:



- Discussed the role of research and development (R&D) in enhancing nuclear safety.
- Helped participants to understand the impact of the Fukushima Daiichi accident on TSOs and to extract lessons to be learned.
- Highlighted the role of TSOs in the implementation of the IAEA Action Plan on Nuclear Safety.
- Provided a forum for discussion of the roles, functions and value of TSOs in enhancing nuclear and radiation safety and nuclear security, including through capacity building in those countries launching or expanding their nuclear power programmes.



- Facilitated the exchange of experience and good practices in planning and implementing cooperative activities for capacity building and in identifying needs for assistance activities from the standpoint of recipient countries.



- Considered appropriate approaches to enhancing cooperation and effective networking among TSOs and beyond, including the creation of centres of excellence.
- Provided an overview of the technical and scientific support needed to maintain a sustainable nuclear safety and security system.
- Fostered continued dialogue on all relevant technical, scientific, organizational and legal aspects at the international level.

Topical Issues discussed

1

The Role of TSOs in relation to the Fukushima Daiichi Accident

- Challenges and solutions in TSO responses to the Fukushima Daiichi accident.
- TSO involvement in the implementation of stress tests, formulation and implementation of nuclear safety regulations.
- Responses to the IAEA Action Plan on Nuclear Safety and work in post-accident recovery.

3

Emergency Preparedness and Response

- The roles and challenges faced by TSOs in terms of emergency preparedness and response, assessment, prognosis and monitoring.
- Regulatory and legislative frameworks in some countries that protect the TSO experts during an emergency response.

5

Networking among TSOs and beyond

Issues and challenges that TSOs face, as well as the benefits they derive, when networking in a global environment.

2

Interface Issues

- Challenges and issues that TSOs face when interacting with the regulatory body, industry and the public.
- Safety and security issues, during both non-emergency and emergency situations.

4

Maintaining and Strengthening TSO Capabilities

Challenges TSOs face in maintaining professional expertise, building capacity, and understanding the human and organizational factors that can affect both.

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9 Recommendations

Recommendations



1. The IAEA should consider initiating plans for a fourth international conference on TSO functions, science and expertise. In this respect, the conference welcomed the proposal of Belgium to host the next TSO Conference.
2. There was general agreement that the IAEA should consider producing a Safety Guide on the performance of TSO functions as part of the IAEA Safety Standards Series.
3. The IAEA should consider including in IRRS or other peer review missions the evaluation of the capabilities of those national TSO functions that contribute to research, training and education, and the performance of safety assessments. It should also consider establishing specific missions or modules within existing missions to that effect.

Recommendations



4. There was general agreement that the IAEA should consider fully integrating the work of the TSO Forum to better support newcomer countries, as a valuable means of contributing to building their capabilities.
5. Common nuclear safety research projects should be developed among organizations carrying out TSO functions (1) using existing frameworks to the extent possible, in particular those provided by the IAEA and the OECD/NEA, and (2) through other efficient means, such as by creating or joining regional TSO networks.
6. TSOs should make every effort to coordinate with the authorities in their countries in order to register their capabilities within the IAEA Response and Assistance Network (RANET).

Recommendations



7. The IAEA should consider further integrating TSO expertise, to enhance the capabilities for assessment and prognosis during nuclear or radiological emergencies.
8. Member States should ensure that adequate and sustainable resources are available to maintain the TSO capacity.
9. The IAEA should consider further expanding the activities of the TSO Forum, to develop it into a science and expertise forum providing comprehensive coverage of issues concerning TSO functions in nuclear regulation. It should also consider establishing, in particular, new means of improving international networking to share knowledge and experience on technical and scientific practices.

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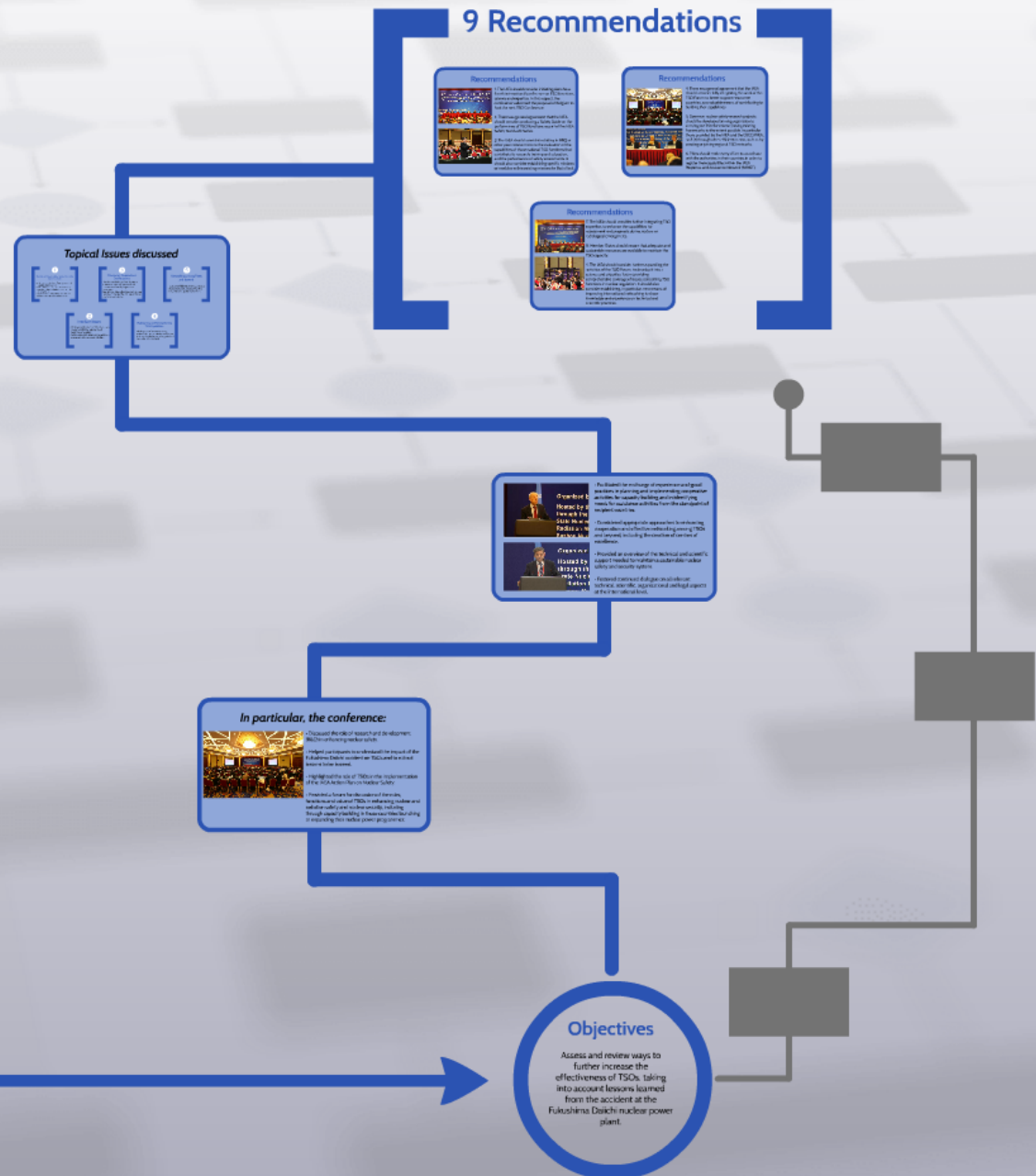
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