



The European and Central Asia Safety Network (EuCAS)

Annual Report 2023



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## II. Summary

The region of Europe and Central Asia has significant experience, resources, technologies, and knowledge in the field of nuclear and radiation safety, with facilities and activities ranging from the use of a limited number of radiation sources to the operation of a large nuclear power programs. It gathers countries with extensive safety expertise as well as countries needing to strengthen their safety infrastructure.

The Europe and Central Asia Safety Network, or EuCAS Network, was created with the aim to support the strengthening of nuclear and radiation safety infrastructure, in line with the International Atomic Energy Agency (IAEA) Safety Standards, at a regional level, through facilitating:

- Exchange of information, experience, expertise and good practices;
- Coordination and the development of activities including capacity building;
- Cooperation on issues of specific interest and building of a common understanding.

The EuCAS Network enables professionals to share knowledge and expertise, form sustainable professional relationships and build capacity, learn from peer reviews and experts in related fields, and have easy access to good practices and information on emerging trends in the field.

EuCAS is a regional network and is part of the IAEA's Global Nuclear Safety and Security Network (GNSSN) and Peaceful Uses Initiatives (PUI) program "Enhancing nuclear safety and security infrastructure through establishment of nuclear safety knowledge management program (2016-PUI-NSOC-12-NMPS)". All GNSSN networks help Member States connect, collaborate and communicate on radiation and nuclear safety and security.

EuCAS members focus particularly on regulatory infrastructure, various relevant aspects of radioactive waste management, environmental remediation and nuclear and radiological legacy sites and installations, as well as education and training in nuclear safety related issues.

This annual report intends to provide an update on EuCAS activities and progress 2023. This is highlighted in this report.

The report is comprised of six parts:

- i) Introduction,
- ii) Governance and Strategic Management,
- iii) Achievements,
- iv) Planned Activities,
- v) Challenges
- vi) Summary

## I. Introduction

Networking provides the most widely accessible and collaborative activity that professionals can engage in to share knowledge and expertise, build enduring professional relationships and develop their own capacity. Networking provides its members with the opportunity to learn from their peers as well as from experts with diverse skill sets; it also provides access to widely shared best practices and knowledge of emerging trends in the field.

The International Atomic Energy Agency (IAEA) supports professional networking through its **Global Nuclear Safety and Security Network (GNSSN)** portal, comprising some 18 different networks to help Member States connect, collaborate and communicate.

One such network under the GNSSN umbrella is that of **Europe and Central Asia Safety (EuCAS)**. This supports networking among Member States on radiation and nuclear safety and security matters with a specific focus on radioactive waste management, supervision of nuclear legacy sites and installations, and infrastructure of regulatory bodies. This is in line with the IAEA safety standards, at a regional level, through facilitating:

- exchange of information, experience, expertise and good practices;
- coordination and the development of activities including capacity building; and,
- cooperation on issues of specific interest and building of a common understanding.

EuCAS' steering committee (SC) held its first meeting in 2016 to formally adopt the network's terms of reference. Ms Malgorzata Sneve (Norway) and Mr Ilhom Mirsaidzoda (Tajikistan) were designated, respectively, as chairperson and vice-chairperson with three working groups formed. In 2018, an additional vice-chair was elected, Mr Nikolay Grozev (Bulgaria). At the same time on the initiative of the Russian Federation, a fourth working group was created. The working groups are currently:

- WG1 – Regulatory Infrastructure;
- WG2 – Safety of Radioactive Waste Management and SF Management;
- WG3 – Environmental Remediation and Decommissioning;
- WG4 – Education and Training.

EuCAS is also part of the Peaceful Uses Initiatives (PUI) program "Enhancing nuclear safety and security infrastructure through establishment of nuclear safety knowledge management program (2016-PUI-NSOC-12-NMPS)".

### **Strategic goals of EuCAS**

The strategic goals of EuCAS are to:

- Promote and strengthen sustainable cooperation in the field of nuclear and radiation safety, between countries and throughout the region;
- Improve nuclear and radiation safety capabilities and infrastructure of EuCAS members' countries;
- Develop and coordinate capacity building activities within the region gathering EuCAS members;
- Share information on relevant initiatives and major activities in the region (such as other specialized or sub-regional networks);

- Contribute to the identification of regional priorities in the field of nuclear and radiation safety for the regional support programmes (e.g. IAEA's technical cooperation (TC) programme, European Bank for Reconstruction and Development (EBRD), and European Union (EU) and other initiatives).

### EuCAS Objectives

The objectives of EuCAS are to develop coordination and possible bilateral and multilateral partnerships among countries in Europe and Central Asia and in other regions, through provision of:

- a platform to develop common approaches to build and maintain a high level of safety in line with the IAEA safety standards;
- easy access to workshops and training on EuCAS focus areas; and
- a forum to strengthen the partnerships in the region and beyond.

## II. Governance and Strategic Management

To ensure effective governance, EuCAS is governed by a Steering Committee with working groups and secretariat as shown in Fig 1.

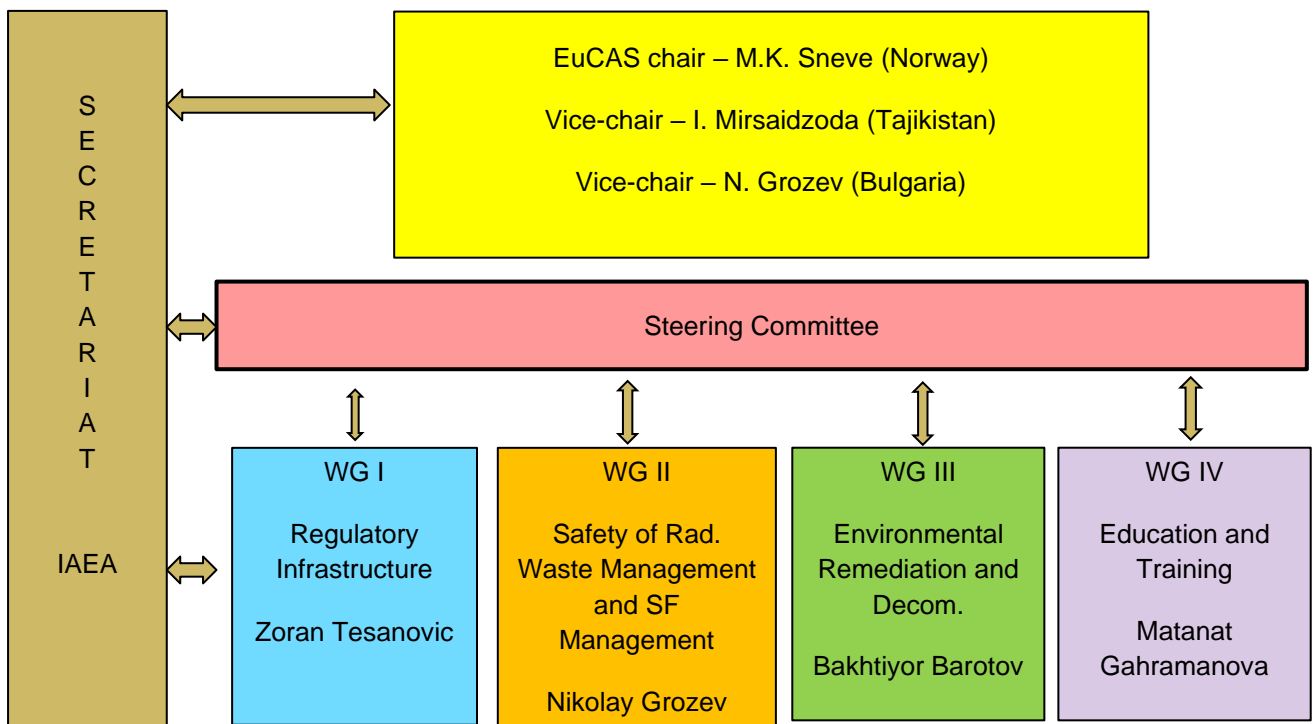


Fig. 1: Roles and Responsibilities for EuCAS Governance.

## **EuCAS Member Countries**

EuCAS member countries comprise Armenia, Azerbaijan, Belarus, Belgium, Bosnia and Herzegovina, Bulgaria, Czech Republic, Estonia, France, Georgia, Germany, Greece, Kazakhstan, Kyrgyzstan, Lithuania, Malta, Moldova, Norway, Romania, Russian Federation, Serbia, Slovakia, and Tajikistan.

## **EuCAS Partnership**

EuCAS collaborates with partner organizations from: the European Commission, Norway, France, Japan, the Republic of Korea and the United States Nuclear Regulatory Commission (U.S. NRC).

## **Strategic Management**

EuCAS, as a network, is dependent on the active participation and engagement of all members. It has therefore been necessary to organize thematic workshops and SC meetings jointly and operate in a flexible and inclusive way.

Challenges that EuCAS has to face include the fact that it is still a relatively new network with many new member countries. In these different member countries, there are different levels of complexity in terms of problems and regulatory infrastructure. There are also different types of focus, levels of capacity and communication challenges associated with multiple different languages.

Potential future activities aim for the development of clear regional connections and interests, the identification of common interests and subsequent establishment of thematic workshops and building opportunities to share knowledge and experience.

A collaboration with other networks from the GNSSN will support the activities of EuCAS.

## **III. Achievements in 2023**

The EuCAS network started in 2023 with a new energy and with the great hope to re-establish activities and networking as they were before COVID-19. Unfortunately, some countries have struggled to reactivate their efforts for the network for various reasons, including changes to the responsibilities of dedicated persons. Nevertheless, in-person meetings and thematic workshops generated great interest and engagement between EuCAS members.

EuCAS organized two steering committee meetings, two workshops, one webinar and one consultancy meeting in 2023:

1. The **10<sup>th</sup> meeting of the Steering Committee (SC)** of the European and Central Asia Safety Network (EuCAS) was held in hybrid mode 08.-10. February 2023 in Vienna.
2. The **11<sup>th</sup> Steering Committee meeting** of the European and Central Asia Safety Network (EuCAS) was held in hybrid mode 31.Nov.- 01.Dec. 2023 in Vienna.
3. Regional Workshop on **“Establishment and Operation of Technical Support Organizations”** – joint activity by DSA, TSO Forum and EuCAS – Oslo, Norway, 27-29 June 2023.
4. Regional Workshop on the **Technical and Scientific Support Organizations Providing Support to Regulatory Bodies: Challenges with their Establishment and Operation** - Dushanbe, Tajikistan – 18–21 July 2023.
5. Introductory Webinar on the IAEA Safety Standards: **“Remediation Strategy and Process for Areas Affected by Past Activities or Events”** and **“Leadership, Management and Culture for Safety in Radioactive Waste Management”** – virtual, 08 March 2023
6. **Consultancy meeting**, 27-29 November 2023 in Vienna

## 10<sup>th</sup> Steering Committee meeting 08-10 February 2023

The 10<sup>th</sup> meeting of the Steering Committee (SC) of the European and Central Asia Safety Network (EuCAS) was held in hybrid mode 08-10 February 2023 and gathered 14 participants from 12 Member States (MS). In addition, 5 technical experts and the secretariat from the IAEA participated.



Mr. S. Mallick, Director NSOC, IAEA, welcomed the EuCAS members of the 10<sup>th</sup> Steering Committee meeting with the special thanks to those participants who were joining the meeting in person and expressed gratitude to all members for their continuous support and valuable contribution to this relatively young regional network. Mr Mallick emphasized the importance of enhancing cooperation with other networks to contribute effectively and efficiently to sharing of knowledge, experiences, and expertise e.g., the Technical and Scientific Support Organization Forum (TSOF) and urged that members of EuCAS seek active collaboration with the GNSSN and other networks to learn and gain experience from more mature regional networks.

Mr Mallick expressed his gratitude to all donors (Norway, France, Germany, U.S.A., Japan, South Korea) for their contribution to the EuCAS network and Ms S. Sneve for her continuous efforts to achieve the high-level objectives of the EuCAS network.

Ms M. Sneve (DSA, Norway), Chairman of EuCAS thanked Mr S. Mallick for his introduction, welcomed the participants and opened the meeting. She briefly overviewed the status of the EuCAS network since the 9th Steering Committee meeting organized in Vienna in hybrid mode 11-12th August 2022.

## Topics discussed during the 10<sup>th</sup> SC meeting

### Update on national representatives

All participating member states, with the exception of Germany, nominated members for the EuCAS SC for the period 2021 to 2023 and all member states will be requested by the IAEA secretariat to designate SC members for the next 3-year term from 2023 to 2026.

The chairs requested that participants join the working groups.

### Summary of activities in 2022

The activities of EuCAS and its WGs in 2022 were reported briefly by the chairperson. Activities included the 8th and 9th SC meetings, participation in three GNSSN meetings, revision of the Terms of References for the working groups, and two regional workshops (“Systematic Assessment of Regulatory Competence Needs (SARCON)”, and “Public Information and Communication: Standards, Mechanisms and Challenges for Regulatory Bodies for Nuclear Safety and Security”).



EuCAS was invited to attend a FNRBA meeting, to join a training course, and to participate at a GNSSN Survey.

## **Annual Report 2022**

The Annual Report 2022 was sent for comment and all comments have been implemented. The Report was to be distributed again for a further round of comments with further comments being returned by 1<sup>st</sup> March.

## **Action plan for EuCAS for 2023**

The action plan for 2023 included various meetings, webinars, and workshops, with a focus on safety standards, regional workshops, consultancy meetings, and coordination with other IAEA programs and networks. The action plan for 2023 included:

- The 10th SC meeting of the EuCAS (8-10 Feb.)
- A webinar on the Safety Standards GSG-15 and GSG-16 (8 March).
- The 11th SC meeting of the EuCAS (31 Nov.- 01 Dec).
- A workshop on TSO establishment, to be organized jointly by TSO and DSA in Norway (27-29. June). This was an initiative from Norway jointly with the TSO network.
- A regional Workshop on TSO establishment was scheduled to be held in Tajikistan (18-21 July).
- A Regional Workshop on the “Regulation and Management of Existing Facilities for the Predisposal of Radioactive Waste” (to be determined).
- A webinar “Joint Convention” (Gerard Bruno) (to be determined).
- A webinar “Technical Report 1002 on Notification, Authorization, Inspection and Enforcement for the Safety and Security of Radiation Sources” (Ronald Pacheco Jimenez) (to be determined).
- A webinar on “decommissioning”(to be determined).
- Consultancy meetings for each working group.

It was also noted that a future SC meeting might be held in Baku, Azerbaijan, organized back-to-back with a workshop and a site visit in 2024. A Regional Workshop on Emergency Preparedness and Response (EP&R) could also be held in Norway in 2024.

It was agreed that organizing two workshops per year was feasible. In addition, webinars could be organized on a regular schedule in collaboration with other networks with relatively short notice. Possible topics (in addition to those detailed above) include environmental monitoring, E-learning, ENVIRONET, IAEA safety standards, and the Coordination Group for Uranium Legacy Sites (CGULS).

## **ToR of EuCAS Network**

The terms of references were approved by the SC meeting participants with one minor editorial change.

## **Activities of working groups**

### *Working Group 1: Regulatory Infrastructure*

An overview of WG1 “Regulatory Infrastructure” activities was presented by Z. Tesanovic. This included outcomes from WG1 and WG4 regional workshops on “Capacity Building and Competence Assessment” in Vienna September 2022 and “Public Information and Communication” in Belgrade in October 2022. A virtual WG1 meeting was held on 31<sup>st</sup> January and a previously postponed regional workshop on TSO topics was planned for July 2023 in Tajikistan. Proposals for future activities,

including workshops and webinars were discussed, including a workshop on “Regulatory Bodies: Role, Functions and Responsibilities” which received support from multiple member states.

#### *Working Group 2: Safety of Radioactive Waste Management and Spent Fuel Management*

An update on WG2 “Safety of Radioactive Waste Management and Spent Fuel Management” activities was given by N. Grozev on behalf of V. Stanchev. N. Grozev also presented an update on "Licensing and Supervision of Sites," providing insights into Bulgaria's organizations, regulatory framework, nuclear sites, and NORM-related activities.

Progress in WG2 has been slow due recent events and personnel changes. Deeper cooperation on the safety of radioactive waste and spent fuel management is being pursued, with the importance of effective communication emphasized. Relocation of a planned workshop on predisposal of radioactive waste in Moldova to alternative locations such as Georgia, Latvia, or Kyrgyzstan in 2024 is being considered and workshops on "Licensing and Control of RAW Treatment Facilities" and "NORM" have been proposed, with Azerbaijan and Tajikistan expressing interest in hosting. These workshops will address strategic issues in radioactive waste management. Webinars on the Joint Convention for exchange of experience and feedback, as well as on the clearance and release of radioactive materials from regulatory control, are also under consideration. WG2 members are planning to participate in the TSO workshop in Tajikistan in July 2023.

#### *Working Group 3: Environmental Remediation and Decommissioning*

An overview of WG3 “Environmental Remediation and Decommissioning” activities was presented by B. Barotov. A virtual meeting was held in January and proposed activities for 2023 and 2024 include several webinars and workshops on topics related to decommissioning and environmental remediation, stakeholder involvement, drafting regulations, and public communication. Preparatory meetings are planned to facilitate these activities. Information was also shared about the Annual School for Regulators, covering topics such as radiation protection during environmental remediation and regulatory aspects of environmental remediation projects. Collaboration with the IAEA's Technical Cooperation (TC) and the potential for support from other IAEA departments are being explored.

WG3 will actively participate in the regional workshop on TSO topics in Tajikistan that is being jointly organized with WG1.

#### *Working Group 4: Education and Training*

No specific overview of activities was provided for WG4 “Education and Training”. Ms. Matanat Gahramanova (Azerbaijan) was proposed as the coordinator, and this proposal received support from all participants.

### **Information on IAEA activities**

V. Ignatiuk informed on activities of the “International Working Forum on Regulatory Supervision of Legacy sites (RSLs)” and of the “Coordination Group for Uranium Legacy Sites”. More information can be found, after registering, at <https://nucleus.iaea.org/sites/connect/SitePages/Home.aspx>. A presentation on “Capacity Building – GNSSN and its associated regional and thematic networks” was given by G. Bracke. The presentation is available on the EuCAS website.

Two IAEA events of interest for EuCAS members were identified:

- International Conference on Nuclear Decommissioning: Addressing the Past and Ensuring the Future, 15–19 May 2023, Vienna, Austria.
- International Conference on the Safety of Radioactive Waste Management, Decommissioning, Environmental Protection and Remediation: Ensuring Safety and Enabling Sustainability, 6–10 November 2023, Vienna, Austria.

## **Webinar on “An Introduction to the IAEA Safety Standards (GSG-15 and GSG-16)”, 8 March 2023**

A webinar was held on 8th March 2023, introducing the IAEA Safety Standards SGS-15 “Remediation Strategy and Process for Areas Affected by Past Activities or Events” and SGS-16 “Leadership Management and Culture for Safety in Radioactive Waste Management”. The webinar involved informative presentations on each of the safety standards by J. Brown (IAEA) and D. Bennet (IAEA), respectively, followed by questions and answers and quiz sessions.

## **Regional Workshop on “Setting up a National Technical Support Organization for Nuclear Safety and Security”, Oslo, Norway, 27-29 June 2023**

The workshop on “Setting up a National Technical Support Organization for Nuclear Safety and Security” was organized jointly by DSA, Norway, and the IAEA TSOF and EuCAS. The workshop was held 27-29 June 2023 in Oslo, Norway and gathered together representatives from different regulatory bodies, operators, TSO’s, and academic organizations, as well as experts with relevant experience from TSOF and the EuCAS Network, from 16 countries.



The primary objective of the workshop was to share experience in setting up national TSOs, including experience within the TSOF and EuCAS. Particular focus areas included:

- sharing experience with respect to TSOs and their establishment;
- updating understanding of needs for national TSOs and setting out their roles and responsibilities alongside other organizations;
- identifying and documenting challenges with the establishment and operation of TSOs;
- identification of the scope for saving of technical and other resources through sharing (e.g. regional TSOs); and,
- providing corresponding recommendations to TSOF members.



### **Setting the Scene for a TSO in the Regulatory System**

Session 1 provided background, context and drivers for setting up of Technical and Scientific Support Organizations (TSO's) and provided information on the IAEA TSOF. TSOF was established in 2010 to support the development of national (and regional) TSO's and promote cooperation between Member States on TSO's.

### **The TOSCA methodology**

Session 2 provided opportunity for presentation and discussion around the TSO Self-Capability Assessment (TOSCA) methodology. The methodology, which is structured around a series of pillars, was demonstrated, illustrating how the current scientific and technical capabilities are evaluated and gaps identified (and prioritized) with respect to the national context and goals.

### **Experiences and Case Studies from TSOF Members**

Twelve countries presented experience and case studies relating to establishing and maintaining TSO's, reflecting the individual circumstances of each country. Examples and case studies were presented from seven EuCAS Member States: Belgium, Bosnia & Herzegovina, Czech Republic, France, Germany, Norway and Tajikistan.



Perspectives from both large and small countries, and from countries with very different levels of nuclear programs (i.e., those with a well-established nuclear program, those that are newly embarking, and others with no nuclear program at all) were presented. The examples demonstrated that TSOs could have a significant role even in where there is no national nuclear program, due to the wide-scale use of sources of ionizing radiation in medicine, research and industry as well as processes and procedures involving NORM. The range of activities undertaken by TSOs reflects the national circumstances.

### **Technical and Scientific Challenges**

The technical and scientific challenges associated with establishing and maintaining TSO's were explored through both presentations describing examples and case studies and a structured discussion session.

It was clear from discussions that there is no single organizational model for a TSO that fits all situations; the roles and responsibilities of a TSO and lines of communication between the TSO and the regulatory body and operators will depend on national circumstances. Several key challenges were identified with respect to establishing and maintaining TSOs. Including:

- identifying and prioritizing the competencies and capacities required to ensure that the necessary skills and knowledge are aligned with national policies and nationally relevant current and future needs;
- developing required competencies through recruitment and/or training whilst balancing immediate priorities and long-term interests as well as costs;
- ensuring sufficient flexibility to allow adaptation in light of changing circumstances; and
- avoiding conflicts of interest arising.

Many of the challenges identified are particularly relevant to smaller countries and those with less developed programs where there may be limited expertise available to support both regulators and operators. The establishment of regional TSOs was suggested as a means of addressing issues faced with respect to limited resources and expertise within countries.

### **Conclusions and Recommendations from the Workshop**

Presentations and discussions during the workshop were very useful in providing international perspectives on TSOs for regulatory bodies. The wide range of presentations, combined with the open and in-depth discussion, fully addressed the workshop objectives and the information shared will be

very useful to countries looking to develop TSO's, providing experience and lessons learned that can guide development and may help to avoid pitfalls.

Cooperation between EuCAS and the TSOF during the workshop was recognized as very fruitful and the recommendation was made to further develop such cooperation through, for example, joint international and regional workshops and/or technical contributions to working or core groups. Continued cooperation would also help in establishing national TSO's throughout Central Asia. Alternatively, the identification of competency requirements at a regional level could support the establishment of a Central Asia regional TSO. Discussions would be needed between the regulatory bodies within the region to take the concept of a regional TSO forward, with EuCAS identified as an ideal platform for starting such discussions.

### **WG1: Regional workshop on “Technical and Scientific Support Organizations Providing Support to Regulatory Bodies: Challenges with their Establishment and Operation”, Tajikistan, 18-21 July 2023**

The Workshop on “Technical and Scientific Support Organizations Providing Support to Regulatory Bodies: Challenges with their Establishment and Operation” was hosted by the Chemical, Biological, Radiological and Nuclear Safety and Security Agency (CBRN) of Tajikistan in Dushanbe, Tajikistan from 18-21 July. The workshop gathered 17 participants from nuclear and radiation safety authorities and TSO's from 7 IAEA Member States and from the IAEA.

The primary goal of the workshop was to share experiences among the participants on the establishment and operation of TSO's that provide support to regulatory bodies. The workshop was therefore focussed around national presentations, to allow national knowledge and experience in establishing and operating TSO's to be shared, and informative presentations on IAEA guidance and requirements with respect to TSO's, the TSOF and the TSO Self-Capability Assessment (TOSCA) tool, and EuCAS. Structured discussion groups were also organized. Participants also visited the Tajikistan TSO, CBRN, and its laboratories.

The workshop was chaired by Mr. Zoran Tešanović, Coordinator of WG1 of the EuCAS network together with Mr. Guido Bracke, Program Management Officer (IAEA). Both of them welcomed the participants and thanked the representatives of the host organisation CBRN on the behalf of IAEA and the EuCAS network. Mr. Tešanović provided an overview of the Workshop and highlighted the importance of the TSOs as organizations providing expertise and services as it is defined by the TECDOC 1835 for a regulatory body in order to strengthen the nuclear and radiation safety according to respective IAEA General Safety Requirements.

Mr Ilhom Mirsaidzoda (Director of CBRN) welcomed the participants on behalf of the host organisation. He assessed the EuCAS activities as very productive and valuable to EuCAS member states and emphasized the importance of the workshop as an excellent opportunity for exchanging views, experience and expertise on TSO topics between countries. The workshop was also timely as CBRN is currently in the process of being established as the TSO for the regulatory body. Mr. Mirsaidzoda also expressed his expectation that the meeting would contribute to closer cooperation between the EuCAS member states.

On behalf of Chairwoman Ms. M. Sneve, Mr Mirsaidzoda delivered a presentation on EuCAS, explaining the most important aspects of the network and informing participants of previous recent activities and planned activities for 2023. Mr. Mirsaidzoda also emphasized the importance of cooperation for regional networks.



### **IAEA and TSOF Presentations**

The GNSSN, which has a main aim to sustain the implementation of the international legal and regulatory framework, and to assist MS to meet their own national responsibilities as well as their international obligations, was presented by Mr Bracke (IAEA). He emphasized that GNSSN is a platform for information sharing among experts in order to achieve a higher level of safety and security around the world and provided a detailed overview of GNSSN activities, and the different types of networking within its members.

Ms. Vasiliki Kamenopoulou (IAEA) provided an overview of IAEA documents related to TSO's and provisions relating to the technical and scientific services (or TSOs) within the IAEA safety standards and described the types of TSO that may be available to support the national radiation safety infrastructure. Ms. Kamenopoulou also presented some examples of TSOs for safety as well as for Security and Emergency Preparedness and Response.

Ms. Carla Eibl-Schwaeger (GRS and TSOF member) explained the IAEA documents providing key requirements and guidance for assessing the technical and scientific capabilities and for TSO establishment, with a key focus on IAEA TECDOC-1835. The TSOF, an important IAEA forum for discussion around TSOs that also promotes and supports developing countries in building and improving TSOs, was introduced and the TOSCA methodology for self-evaluation of scientific and technical capabilities was presented, including a demonstration of the online TOSCA database. The IAEA TSOF and other IAEA tools to assist member states to establish and use the TSOs in their respective countries according to IAEA safety standards were emphasized and the procedure for MS to request a TOSCA self-assessment from the IAEA presented. Mr Bracke (IAEA) then presented a case study from Norway, illustrating the steps in the TOSCA self-assessment process.

Mr Tešanović, on behalf of Ms. Sneve, presented results from the regional workshop on "Setting up a National Technical Support Organization for Nuclear Safety and Security" organized jointly by DSA (Norway) and the IAEA TSOF and EuCAS in Oslo in June.

Information on the IAEA Radiation Safety Technical Services Unit (RSTSU) and laboratories located in the Vienna International Center was presented virtually by Ms. Alisson Wilding (IAEA).

### **National Presentations from EuCAS MS**

National presentations began with a presentation from Tajikistan as the host country. Mr Barotov introduced the legal and regulatory framework for safety in Tajikistan and described the recent establishment of the TSO and plans for its sustainability. Several challenges faced in the country were described, including remediation of sites contaminated as a result of past nuclear testing.

Mr. Akbar Guliyev, representative and EuCAS Steering Committee member on behalf of Azerbaijan, presented the radiation and nuclear infrastructure for safety and informed about main uses of radiation and nuclear applications in Azerbaijan and current activities to improve radiation and nuclear safety and security. Azerbaijan does not currently have a TSO.

Ms. Arlova Alina from the TSO in Belarus – Centre for Nuclear and Radiation Safety in the Republic of Belarus (BCNRS) – gave an overview of its organisation and the main tasks relating to the needs of both the regulatory body and operators. The main principles and approaches for improving the TSOs position within the national system of radiation and nuclear safety and security were described.

Ms. Eibl-Schwäger from the German TSO Global Research for Safety (GRS) provided a general overview of GRS as the main TSO in nuclear safety for the German Federal Government. A particular strength of GRS noted was the consistent linkage of research and development with safety assessments by authorized experts.

Mr. Zoran Tešanović, delivered a presentation about radiation and nuclear safety and security in Bosnia and Herzegovina (BiH), with special emphasis on legislation and different challenges faced, including with respect to radioactive waste management. There is no TSO currently established in BiH and the option of establishing a regional TSO was raised as a topic for discussion with other countries and the IAEA.

For the Russian Federation, Ms Nataliya Fedotova provided information on the Russian TSO and its organisation and functions. Ms Mariia Astakhova then provided information on the legal and regulatory framework for radiation and nuclear safety in Russia.

Ms. Katarina Žarković gave a comprehensive presentation about the current situation regarding radiation and nuclear safety and security in the Republic of Serbia, including the legal infrastructure, the radiation and nuclear activities and applications in the country, and key challenges faced. Several TSOs exist in the country, providing support to the regulatory body and operators, and there is support for discussions with other countries and the IAEA around the idea of establishing a regional TSO.

## **Discussions**

In order to have better understanding of the meaning and importance of TSOs for radiation and nuclear safety, topical discussions were organized. Participants were organized into two groups to discuss the following topics:

1. TSOs not dedicated to the Regulatory Bodies: particularities, conflict of interest, independence, etc.
2. Regional TSOs.
3. Recognition of TSOs (providing support and services to the regulatory body and/or to interested parties).

A quiz was also organized relating to the workshop.

## **Workshop Conclusions, Proposals and Next Steps**

The following conclusions and proposals were agreed by all participants:

1. Participants unanimously asked EuCAS SC to further enhance its activities in subjects like TSO establishment and operation, safety culture, and leadership and management for safety.
2. From discussions it was concluded that, in establishing a TSO, there is no one solution, which fits for all. Each country should therefore choose the most appropriate TSO model and consider its particularities within the regulatory framework for nuclear and radiation safety.
3. Participants assessed the methodology of the TOSCA self-capability assessment as very important for further strengthening safety infrastructure and expressed their expectation for



TSOF to make available the methodology for self-capability assessment and the web-based TOSCA tool to IAEA Member States for in-depth information and direct use.

4. Based on the interest expressed by participants towards the regional TSOs, participants expressed interest in the IAEA and Member States further investigating the possibility of establishment and operation of regional TSOs (e.g., Western Balkan, Central Asia, Scandinavian countries) and to make them operational with respect to the common interests of respective Member States.
5. Representatives from participating Member States (such as Bosnia and Herzegovina, Serbia, Azerbaijan, Tajikistan) proposed to seek IAEA's support through its funding mechanisms (e.g., TC Regional Projects) for the establishment of regional TSOs and the application of the methodology for TSO self-capability assessment using the TOSCA tool.
6. Participants agreed that the establishment of (internal, external or regional) TSOs needs to be further discussed within IAEA and other fora (e.g., via additional regional and international workshops).

Link to the meeting materials: [Regional Workshop on TSOs providing support to regulatory bodies- Challenges with their establishment and operation, Dushanbe, Tajikistan, 18-21 July 2023 \(iaea.org\)](https://www.iaea.org/NewsandMedia/PressReleases/2023/230718)

## **Consultancy Meeting on Preparatory Meeting on Working Groups' Activities 27-29 November 2023**

The consultancy meeting on **Preparatory Meeting on the Working Groups' Activities** for the European and Central Asian Safety Network (EuCAS) was in person 27-29 November and gathered the coordinators from the working groups, technical experts, and the Secretariat from the Agency. The meeting was leading by Mr Z. Tesanovic and the PMO K. Pavlova.

The initial discussion on the **Consultancy meeting on Preparatory Meeting on the Working Groups' Activities** was very intense and fruitful. It was agreed that the meeting with all IAEA technical officers closer became in touch with all working groups to identify the priorities and future actions, Strategy and Objective, which are specific for each working group. Updates of the WGs' members is still in progress.

A close discussion was held between IAEA officer from NSRW and TC with EuCAS Working Group chairs on working group activities and meeting plans for 2024-2025. Each working group was assigned a technical officer from the IAEA that will support the working group with events and activities.

### *Working Group 1: Regulatory Infrastructure*

During the consultancy meeting the coordinator of WG1 Mr. Zoran Tesanovic delivered the results of previous discussions on areas of interest coming from member states. The proposed activities were discussed with IAEA technical officers and a revised and finalized plan of activities was prepared to be presented to the SC EuCAS.

### *Working Group 2: Safety of Radioactive Waste Management and Spent Fuel Management*

During the consultancy meeting the Chairman of WG2 Mr. Nikolay Grozev gave a presentation in which he reported what has been achieved so far. Highlighted that the completion of the Terms of Reference of the working group had been successfully completed. Current efforts of the working group are directed towards RAW Management. The proposed activities were discussed with IAEA technical officers and a revised and finalized plan of activities was prepared to be presented to the SC EuCAS.

### *Working Group 3: Environmental Remediation and Decommissioning*

During the consultancy meeting the coordinator of WG3 Mr. Bakhtiyor Barotov delivered a presentation regarding two summer schools on remediation. Presentations were given by IAEA technical officers and subsequent discussions about proposed working group activities were held. A revised and finalized plan of events and activities was prepared to be presented to the SC EuCAS.

### *Working Group 4: Education and Training*

During the consultancy meeting the coordinator of WG3 Ms Matanat Gahramanova led discussion with IAEA technical officers regarding education and training activities. A revised and finalized plan of events and activities was prepared to be presented to the SC EuCAS.

As a result of the consultancy meeting were presented and discussed during the EuCAS Steering Committee meeting.

## **11<sup>th</sup> Steering Committee meeting Hybrid**

The 11<sup>th</sup> meeting of the SC of EuCAS Network (EuCAS) was held in hybrid mode 30 November – 01. December 2023 in Vienna at IAEA and gathered 20 participants from 19 Member States, from partner organizations and from the GNSSN Steering committee. In addition, 6 technical experts and the Secretariats from the IAEA participated. The link to the meeting materials can be accessed: [11th Steering Committee Meeting \(Hybrid\) 30 Nov - 1 Dec 2023 \(iaea.org\)](https://www.iaea.org/news-and-events/press-releases/2023/11/30-12-2023-eucas-steering-committee-meeting-hybrid)



Mr. S. Mallick (Director NSOC, IAEA) warmly welcomed the EuCAS members of the 11th Steering Committee meeting with the thanks to the participants joining virtually. He welcomed and expressed the gratitude to all members for their continuous support and valuable contribution to this relatively young regional network.

He commended EuCAS' working groups as they have successfully organised regional workshops, introductory webinars on IAEA safety standards and other events to develop and enhance coordination as well as worked towards possible bilateral and multilateral partnerships between Europe and Central Asia in recent years. He highlighted the good collaboration from the TSOE and EuCAS networks.

He expressed his gratitude to all donors (Norway, Kazakhstan, Germany, U.S.A, and others) for their contributions to the EuCAS network either in kind or financially. He thanked M. Sneve and Z. Tesanovic for their continuous efforts to achieve the high-level objectives of the EuCAS network.

Ms M. Sneve (DSA, Norway), Chairman of EuCAS thanked Mr S. Mallick for his introduction, welcomed the participants and opened the meeting. She briefly overviewed the status of the EuCAS network since the 10th Steering Committee meeting organized in Vienna in hybrid mode 08-11th February 2023.

### **Topics discussed during the 11<sup>th</sup> SC meeting:**

Topics discussed were the activities of the working group and prioritization of actions according to discussion with IAEA technical officers.

#### **Update on national representatives**

Newly designated SC members and incumbent reappointed members discussed/presented and proposed the needs of their Member States and organizations.

The chairs requested the participants to join the working groups and designate representatives from their Member State to participate in working group as members. The current members are:

WG 1 (Regulatory Infrastructure): Armenia, Azerbaijan, Belgium, Bosnia and Herzegovina, Germany, Greece, Lithuania, Norway, Russian Federation, Serbia, Slovakia, Tajikistan

WG 2 (Safety of Rad. Waste and Spent Fuel): Azerbaijan, Belarus, Bosnia and Herzegovina, Bulgaria, Lithuania, Moldova, Norway, Russian Federation, Serbia, Tajikistan

WG 3 (Environmental Remediation and Decommissioning): Azerbaijan, Belgium, Bosnia and Herzegovina, Estonia, Georgia, Greece, Lithuania, Norway, Russian Federation, Serbia, Slovakia, Tajikistan

WG 4 (Education and Training): Azerbaijan, Belarus, Bosnia and Herzegovina, Lithuania, Moldova, Norway, Russian Federation, Serbia, Slovakia, Tajikistan

The list of members of the working groups will continue to be updated. A representative of Estonia, Mr. Teet Kojary, also took part in the meeting and expressed his willingness to nominate experts in the currently active four working groups.

#### **Summary of activities in 2023**

The activities of EuCAS and its WGs in 2023 were reported briefly by the chairperson and working group chairs. Activities included the 10th and 11th SC meetings, participation in the 10th GNSSN Plenary meeting as well as the FNRBA meeting held during the GC67 and the TSO SC meeting in October 2023, two regional workshops (“Regional Workshop on the Technical and Scientific Support Organizations Providing Support to Regulatory Bodies: Challenges with their Establishment and Operation” was held in Dushanbe, Tajikistan in July 2023, and “Regional Workshop on Establishment and Operation of Technical Support Organizations was held jointly with the DSA, TSO Forum, and EuCAS in Oslo, Norway in June 2023).

## **Annual Report 2023**

The Annual Report 2023 was sent for comments. All comments were implemented. The Annual Report was presented shortly and will be sent out again for any further comments until 10 December 2023 to be published by the end of 2023.

## **Update on collaboration with other networks and briefing from IAEA Secretariat**

Collaboration with other networks will include exchange of experiences on regulatory needs, education / training, peer review services, regulatory documents, knowledge management.

A Regional Workshop on Establishment and Operation of Technical Support Organizations was held jointly with the DSA, TSO Forum, and EuCAS in Oslo, Norway in June 2023. The TSO Forum invited EuCAS SC members to actively participate in the TSO Conference to be held at IAEA Headquarters' in Vienna, Austria in 2024.

During the SCM the results of the webinar Women in Nuclear were presented to SC members and a discussion was held on how to best collaborate with the GNSSCOM network to facilitate the upcoming Women in Nuclear webinar as a joint event. Joint event with GNSSCOM on EPR 2024/2025 to be organized.

Joint activities within GNSSN on the NORM and Uranium legacy sites and remediation are to be organized. The Chair proposed to organize a committee under GNSSN in order to encourage collaboration between the GNSSN and its associated networks. To identify areas of potential collaboration a survey will be prepared and conducted with the support of NSRW.

Presentations were given by Mr L. Guo and Ms K. Pavlova providing updates from the IAEA on the GNSSN and its associated networks. An active discussion was held during a consultancy meeting held prior to the Steering Committees and IAEA technical officers and assigned technical officers to working groups and related activities. This was presented during the Steering Committee.

A presentation was given by Ms N. Jayarajan, IEC, IAEA on the risks of misinformation and disinformation during a nuclear or radiological emergency.

The EuCAS new SC members were updated on the EuCAS webpage. The content of the EuCAS webpage will be continuously updated in accordance with EuCAS activities. Topics of interest of EuCAS can be promoted through the GNSSN, newsletters, publications, and other outreach materials.

## **Action plan for 2024/2025**

An action plan for 2024/2025 was discussed and updated by the SC members in line with the recommendations from the Consultancy meeting and presentations given by the IAEA Secretariat. Technical officers from the IAEA Secretariat were appointed to working groups to help support the activities of EuCAS.

#### IV. Planned Activities and next steps in 2024

	Topic	Type	Date	Venue	WG
1.	Consultancy meeting with working group to discuss upcoming planned Activities	Technical	Q1 2024	Virtual	WG1
2.	Webinar/Workshop on Capacity Building in EPR	Technical	2024	TBD	WG1/ ALL WG
3.	Webinar on Establishment of country TSO and Sustainability of Regional TSO	Technical	2024	TBD	WG1
4.	Webinar/Workshop on EPR, Communication during emergency jointly with GNSSCOM	Technical	Q4 2024	Austria, VIC	ALL WG
5.	Workshop on Regulatory Bodies for Safety: Role, Functions and Responsibilities	Technical	2025	Serbia	WG1
6.	Workshop on Experience in Implementation of IAEA Standards in the national legislation	Technical	2025	TBD	WG 1
1.	Consultancy meeting with working group to discuss upcoming planned Activities	Technical	Q1 2024	Virtual	WG2
2.	Workshop on treatment and storage of low- and intermediate RAW (Radon facility)	Technical	2024	Azerbaijan	WG2/ALL WG
3.	Webinar on Joint Convention	Open Event	Q2 2024	TBD	WG2
4.	Webinar on experience and feedback from ARTEMIS mission whit cooperation of NSRW/IAEA department (Bruno as Technical Officer)	Technical	Q1/Q2 2024	TBD	WG2
5.	Webinar on practices of clearance and releases (French, Spanish approaches...)	Technical	TBD	TBD	WG2
1.	Consultancy meeting with working group to discuss upcoming planned Activities	Technical	Q1 2024	virtual	WG3
2.	Survey to update country situations and to identify challenges in regulating remediation	Open Event	Q2 2024	virtual	WG3
3.	Webinar on drafting regulation based on survey results	Open Event	Q2 2024	virtual	WG3
4.	Workshop on “Challenges of stakeholder involvement in decommissioning and environmental remediation” (Could be combined with workshop on “Public communication for decommissioning and environmental remediation projects”) Supported by the TC and NSRW	Technical	2024/2025	Tajikistan	WG3

5.	Webinar on Decommission of small facilities (model regulation on decommissioning) 2024-2025 Supported by NSRW	Technical	2024/2025	TBD	WG3
6.	Training course on regulatory supervision of remediation projects with TC	Technical	Q2 2025	Tajikistan	WG3
1.	Consultancy meeting with working group to discuss upcoming planned Activities	Technical	Q1 2024	Virtual	WG4
2.	Regional Training Course on Safety Review and Assessment for Regulatory Bodies“	Technical	TBD	TBD	WG4
3.	EduTA (Appraisal service) for Azerbaijan-National	Technical	Q4 2024	Azerbaijan	WG4
4.	Webinar on RASIMS TSA6 supported by NSRW	Technical	Q2 2024	Virtual	WG4
5.	Online meeting on ‘Establishing a sustainable infrastructure to build competence in radiation protection and safety’ supported by NSRW	Technical	Q1 2025	Virtual	WG4
6.	Specialized Training in the interests of MS (online) - based on the results of the survey and Matrix	Technical	TBD	Virtual	WG4
1.	Women in Nuclear joint webinar with GNSSCOM	Open to all	November 2024	Austria, VIC	ALL WG
2.	12th Meeting of the Steering Committee of EuCAS	Technical	Q2 2024	Azerbaijan/Bulgaria	ALL WG
3.	Interregional Project with GNSSN -Workshop on NORM	Technical	TBD	TBD	ALL WG

## V. Challenges

EuCAS is, when compared with other networks under GSSN, relatively young and at same time quite large with 23 member countries. Member countries include western European states and Central Asia with post-Soviet republics and they have different levels of development of regulatory systems, including regulatory bodies. Member countries of EuCAS represent a large bandwidth of regulatory systems and regulatory bodies starting from very well-developed countries with large nuclear programs, countries with moderate activities with small programs and countries who are trying to build modern regulatory systems and increase the competence of regulatory bodies. This creates a great value for discussions and the possibility to share different views on the regulatory process and allowing consideration of different aspects from various perspectives. At the same time, different levels of development demonstrate differences in possibilities and needs. The challenge for the EuCAS network is to share the knowledge and have discussions about the regulatory needs. It is a real advantage for some members to learn from others and gain experience from those more developed. It has become more challenging to attract the interest of members who are representing well developed countries.

EuCAS activities were strongly affected by the Covid-19 pandemic situation. Working systems in each of the member countries evolved and more attention was focussed on national issues. EuCAS activities before Covid-19 were organized and performed in a way to attract all members through workshops and study visits in different countries. Very committed participants with a strong focus on needs and further activities allowed EuCAS to have very good and dynamic impact in general.

During the pandemic, several virtual meetings and webinars were organized. These did not allow for personal interactions, which are very important in networking. However, virtual events allowed for wider audiences and reduced the needs for travel and other financial support.

Discussions about the challenges related to virtual networking were discussed on several occasions and ideas on how EuCAS can be more efficient were introduced. Here are some examples which could be used also in more normal circumstances:

- Exchange information with other networks about plans for activities such as thematic webinars and topics for specific discussion at webinars facilitated by IAEA.
- Share experience and outcomes from earlier activities of joint interests on:
  - development and improvement of regulatory framework and infrastructure; and,
  - how to effectively approach knowledge management and training.
- Exchange of experience on how to improve regulatory infrastructure through networking, dialog and cooperation in the region and between countries with political tensions.
- Exchange of experience on how to assess regulatory needs related to management of safety aspects of nuclear and radiological facilities (including RWM, decommissioning, training, education national infrastructures, regulations).
- Exchange of experience on how to customize education / training courses developed by IAEA for regulatory bodies, to the needs of different countries in the regions.
- Exchange of experience from different peer review services (IRRS, ARTEMIS).
- Exchange of regulatory documents and other materials (language and geographical regions).
- Share information on what was working and what was not so good (thematic workshops with site visits – effective exchange of information and knowledge).

It is necessary to have in person meetings for efficient network building. However, virtual activities could be related to training courses and to support capacity building. More specific suggestions for EuCAS include:

- organization of IAEA annual summer schools on topics such as remediation and drafting regulations;
- sharing of news and information by members via platforms such as WhatsApp, group emails or other channels;
- greater focus on opportunities for enhancing cooperation between regional and thematic networks, to exchange of information on current and planned activities, holding joint workshops, training courses, meetings on interesting topics; and
- More interactions between regional technical cooperation projects and activities and networks to share experience on how to gain synergy and effectiveness efficiently.

## VI. Summary of Actions

A summary of actions is provided in Table 1.

Table 1: List of outstanding actions for the next Steering Committee of EuCAS

	Action	Date	Status
1.	Twelfth Meeting of the Steering Committee of the European and Central Asian Safety Network		
2.	Preparation for a proposal for establishment of a new working group on EP&R including the ToR for consideration for the agenda at the next SC meeting.		
3.	Preparatory Meeting on the Safety Infrastructure Working Group Activities, including workshops “Regulator (Role, function, responsibilities)”, and “Experiences and lessons learnt from application of IAEA safety standards in the national regulatory framework”.	tbd	WG1 need to discuss working plan and decide the dates
4.	Preparatory Meeting on the Safety of Radioactive Waste Management and Spent Fuel Management	tbd	WG2 need to discuss working plan and decide the dates
5.	Preparatory Meeting on the Environmental Remediation and Decommissioning Group Activities	tbd	WG3 need to discuss working plan and decide the dates
6.	Preparatory Meeting on the Education and Training Working Group Activities	tbd	WG4 need to discuss working plan and decide the dates
7.	Regional Workshop to Discuss Emergency Preparedness in Member States of the European and Central Asian Safety Network	tbd	Planned within WG1 tentatively in Norway
8.	Regional Workshop on the Regulation and Management of Existing Facilities for the Predisposal of Radioactive Waste	tbd	Planned workshop within WG2 for some time to be in Moldova
9.	Regional Workshop on Public communication during decommissioning and environmental remediation.	tbd	Planned workshop within WG3
10.	Thirteenth Meeting of the Steering Committee of the European and Central Asian Safety Network		
11.	Webinar “Joint Convention”		
12.	Webinar “Technical Report 1002 on Notification, Authorization, Inspection and Enforcement for the Safety and Security of Radiation Sources”		
13.	Webinar on “decommissioning”		
14.	Workshop/Training “Supervision on environmental remediation”	2024	
15.	Summer school “Drafting Regulations for environmental remediation”	2025	



