2023-12-20

Summary of ICRP-SSM Webinar, 13th June 2023

Introduction
The purpose of this webinar was to explore the future role of ICRP in shaping radiation protection practices around the world. By including the perspectives of regulators, operators and science, the webinar was aiming for a broad discussion on what ICRP's mission for the future could look like.

After an introductory presentation by Carl Magnus Larsson, ICRP/DSA, describing how ICRP has evolved over almost a century, three speakers representing different stakeholder communities gave their views and expectations on the role of ICRP. FORO was invited to present a regulatory perspective, UKHSA a scientific perspective and WNA an operators' perspective. The last part of the webinar consisted of a round table discussion, including participants from ICRP and IAEA in addition to the speakers.

Presentations
Christophe Badie, ICRP/UKHSA, discussed the role of science in ICRP and the relation between ICRP and the scientific sector. He believes it is important that science remains central to what ICRP does, and that multidisciplinary scientific information must be the basis of the system of radiological protection. Understandability of the recommendations is necessary and clear reasoning in the presentation. Any change in the current system must be aligned with scientific developments and evidence. Such evidence will always be accompanied by uncertainties, therefore a pragmatic approach is essential. A final remark was to encourage the RP community, in particular scientists, to engage with ICRP in their activities, to ensure that the review of the system is informed by contemporary science.

Marina Di Giorgio, FORO, gave a regulator's perspective, including the application of ICRP's recommendations. She pointed to three main areas which need to be developed further: radiation risk assessment, dosimetry and application/implementation of the system. UNSCEAR should provide evidence-based conclusions on the effects of ionizing radiation and ICRP should use these findings in their recommendations. The IAEA, as well as other bodies setting standards, then lay the foundation for regulations and need to ensure compliance with the recommendations of the ICRP. FORO believes that the role played by each part in this collaboration is well recognized and established. Marina Di Giorgio also highlighted the importance of investing in transfer of knowledge of the foundations on which radiological protection rests to new generations.

Sameh Melhem, WNA, presented an operators' view on ICRP's role. He noted that the nuclear industry has good records in controlling and reducing occupational and public exposure, and proposed to give greater emphasis to natural background exposure and its variability, both in general decision-making and in public communication. He also recommended taking an all-hazards approach into account in the future system of radiological protection and to implement a more realistic graded approach.

Panel discussion
Anna Clark, IAEA, and Werner Rühm, ICRP, opened the discussion and presented their reflections on the role of ICRP and its stakeholders in the future.

Anna Clark, like Marina Di Giorgio, pointed to the flow of data and facts between organisations, with ICRP developing principles and recommendations (the System) and organisations such as IAEA formulating standards. Collaboration is key to this and with an increasing number of organisations involved, collaboration is more important than ever in order to be more efficient, avoid duplication, ensure consist messages and avoid contradictions. Anna Clark also emphasized that it is vital that experiences from applying the system of radiological protection are fed into the recommendations to bridge the gap between theory and practice. A third aspect raised was the need to incorporate other expertise and fields of science in the future, for instance non-radioactive hazards, environmental factors and social science.

Werner Rühm mentioned the request of stakeholders for interactions with ICRP and echoed Anna Clark with regard to the growing importance of effective collaboration. The need for interaction was frequently mentioned at the ICRP Work Shop in October 2021 discussing the ICRP Fit-for-purpose paper (Clement et al. 2021) and in the following collection of views on the paper (Rühm et al. 2022). Another issue raised by many was the need to enhance education and training. That resulted in the 2022 Vancouver call for action to strengthen expertise in radiological protection (Rühm et al. 2023). A third issue of importance is openness, accessibility and transparency. Werner Rühm also stressed that ICRP work is based on voluntary contributions by experts who do not represent a country or an employer, thus making ICRP a unique and independent organisation.

The following discussion, taking into account questions from the audience and moderated by Carl-Magnus Larsson, could be divided in five sections:

- What are the possibilities for young scientists to participate and contribute to ICRP work? Here the ICRP Mentorship Programme was mentioned (www.icrp.org)

- How to reconcile the contradiction between the request for simplification of the system and the request for reliance on solid and up to date science? Views expressed were, for instance, that changes in science must be addressed albeit keeping the balance between science and applicability. It was also noted that if the system can't be made more simple it should at least not be confusing.

- Radiological protection is health based, but how to make use of social science and broader health science? Should well-being and social health be incorporated in the concept of health and integrated in the system of radiological protection? Werner Rühm expressed the view that this is well worth looking into and pointed at a new ICRP task group on detriment where one task is to consider if ICRP should go beyond the present concept of health and if other metrics could be used. Another aspect noted in the discussion was that radiation-related health effects and radiation risks should be well communicated to the public, using the context of natural background.

- Is there a need for a holistic view on risks: Proportionality between radiation and other hazards? Different aspects such as introducing an all hazards approach in optimisation or how regulators apply the system or the need to put risks into comparison with natural background were addressed. The fact that there are scientific projects looking into synergies between radiation and other hazards was also mentioned. Again, the difficulty of balancing between the need for specificity in certain areas and the need to reduce complexity or achieve more clarity in communication with users was noted.

In order to wrap up the discussion, Carl-Magnus Larsson invited panellists to comment on how they see the ICRP interaction with stakeholders in the future. In response, the importance of transparency and openness was mentioned along with the need for a multidisciplinary approach and collaboration of ICRP with stakeholders. It was also stressed that flexibility does not imply that accuracy is not wanted, safety is the main goal. ICRP should also be encouraged to continue their approach to communication and to invite practitioners. Werner Rühm ended by emphasizing that it is impossible for ICRP to accommodate all stakeholders' wishes but ICRP can assure that views are listened to and taken into account to the extent possible.

Conclusions from the webinar, in brief

- Important to maintain the strong link between ICRP and the scientific community and to broaden the scientific basis to include other sectors, for instance social science and non-radiological hazards. Maybe also consider a wider definition of health.
- Complexity versus simplicity – seek ways to solve this contradiction. Necessary to engage with users of the System to strive for simplification as it will help in communicating the system.

- Important to maintain and strengthen the transparency and consultative approach, connecting with stakeholders.
- Important that ICRP, to the extent resources allow, continues its activities to enhance the understanding of the System.
- Acknowledge the role of each organisation/stakeholder and keep collaborating.

Abbreviations:
DSA, Norwegian Radiation and Nuclear Safety Authority
FORO, Ibero-American Forum of Radiation and Nuclear Safety Regulatory Agencies
IAEA, International Atomic Energy Agency
UKHSA, United Kingdom Health Security Agency
UNSCEAR, United Nations Scientific Committee on the Effects of Atomic Radiation
WNA, World Nuclear Association