



REPORT

First European Workshop on the Ethical Dimensions of the Radiological Protection System

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1. Introduction

The system of radiological protection developed gradually integrating advances in knowledge about the effects of radiation, the feedback from its practical implementation in all relevant domains, as well as the evolution of the ethical and social values that shape community life in modern societies. Although there is a long tradition of ICRP to consider such values in the development of its recommendations, there is a need to make them explicit. This should facilitate the understanding of the system for specialists and non-specialists in radiological protection and allow a renewed dialogue on its foundations, its objectives and rationality. It should also encourage the emergence of informed behaviours in society vis-à-vis radiations.

In this perspective, ICRP has initiated a recent reflection on the ethical dimensions of the system of radiological protection. This reflection has highlighted the links between the fundamental principles of radiation protection (justification, optimization, limitation) and the theories of normative ethics. The recommendations of the Commission are designed to respect individual rights (e.g. through deontological ethics), to promote the collective interest (e.g. through utilitarian ethics) and favour vigilance and equity (e.g. through virtue ethics). This reflection also has identified an interest in the analysis of the system of radiological protection with respect to: the ethical values defining the standards by which action should be taken; the ethical procedures for integrating these values in decision making; the implementation of decisions; and, the ethical behaviour corresponding to the values that are supposed to guide the conduct of the various actors. Because the system of radiological protection is intended to be international, the reflection also emphasized the importance of promoting through the recommendations, values common to different cultures such as autonomy, non-maleficence, beneficence and justice.

The objective of this first European Workshop was to explore further the ethical values underlying the system of radiological protection but also to shed some light on different aspects of the practical implementation of the system that raise ethical questions and value judgments, such as: scientific uncertainty; rationale of the dose limits; stakeholder engagement; and, sustainable development.

The workshop has been organized around lectures in plenary sessions, while the discussion activities have been developed within three working groups involving all the participants discussing two questions: - what issues of radiation protection refer to ethics; and what are the ethical values (explicit and implicit) that underlie the system of radiological protection?

The present report presents some of the essential points that emerged from the lectures and from the discussion developed around them. It also presents a summary of the main subjects discussed in the working groups, and the main points addressed during the general discussion.

2. Introduction to the Ethical Foundations of the Radiation Protection System (Jacques Lochard)

Jacques Lochard reminded participants about the long tradition of the system of radiological protection to combine science and values. He also reminded the background of the ICRP initiative on ethics, from the establishment of a Working Party in 2009 to the recent creation of Task Group (TG 94) through the workshop in Daejeon, Korea, in August 2013. The objective of ICRP TG 94 is to develop a publication referring to the ethical foundations of the system of radiological protection recommended by the Commission. The presentation went on by presenting the importance of value judgements in the structuration of the scientific basis on the system and how models, default options and expert judgments are necessary to cope with the various uncertainties associated with radiological risk. Among the structuring values, the old ethical virtue of prudence is playing a key role by allowing the system to drive affectively the daily activities in radiation protection in the absence of a full knowledge of the risk associated to radiation. Benevolence, justice and equity were also presented as ethical and social values underlying the system of protection and a special attention was given on the value of dignity, as an attribute of the human condition, with autonomy as a corollary. Autonomy, in turn, implies freedom and the ability to deliberate, decide and act. Even if the word dignity is not present in ICRP Recommendations, the radiological protection system is promoting dignity through a set of requirements like the duty of informing stakeholders, the right to know and informed consent principles or the encouragement of self-help protection actions. These elements of the system are, closely related to the process of stakeholder engagement to promote their empowerment and autonomy, maintain their vigilance and finally contributing to the development of the radiation protection culture within the society. Overall the presentation emphasises the importance of making explicit the value judgements underlying the system of highlighting the value of dignity in relation to the different types of exposure situations and of generalizing the right to know principle to promote autonomy, vigilance and fairness in controlling radiation risk.

3. The Ethics of Radiological Protection: A Focus on Values and Objectives (Christopher Clement)

Christopher Clement emphasised how the RP system is based on science, values and experience and that ethics focuses on values, normative statements, while facts as descriptive statements, are more a question of science. Even full and complete knowledge is not sufficient to decide what ought to be since it is not possible to derive statements of values (what ought to be) from statements of facts (what is). In the case of radiation effects where knowledge is far from complete, value judgements are necessary. Different types of values include aesthetics with beauty and harmony, and ethics with good and right, as values. The RP system relates to human conduct, which is about action and focus on right and wrong actions. The presentation briefly reviewed different schools of ethical thought (Aristotle, Bentham and Kant) and theories of normative ethics in particular consequentialism /utilitarianism and deontology. These approaches are elegant, but have flaws. A more complex approach was

presented on the basis of Ross indicating that obligations must be balanced depending on each circumstance, where ethical decisions are a matter of balancing potentially conflicting responsibilities or values. A pragmatic approach was proposed, seeking a set of values relevant to the RP system, commonly acceptable to the widest possible range of cultures. The challenge with this approach rests in clarifying the values (responsibilities/duties/obligations) related to the system of radiological protection and at the same time in clarifying the objectives in the protection of people and of the environment. A list of thoughts was proposed, in the final part of the presentation, concerning the objective of providing a reasonable level of protection to all people in medical exposures, occupational and public exposures, which includes: the recognition of the special status of children, acceptable to all, but not necessarily equal for all and a separate treatment for the very small segments of society suffering from specific and rare medical conditions.

4. Discussion on the First Session

At the end of the introductory session, the participants acknowledged the list of values proposed for discussion and noted the introduction of the value of dignity as a specific topic to be further investigated. They also recognised the interest to address separately the ethical values themselves, the ethical procedures to implement these values in practice and the ethical behaviours of those involved in order to clearly discuss the practical application of the ethical values rather than focussing only on the theoretical meaning of these values. In addition, one participant questioned the current list of ICRP principles and proposed to also consider the “democratic principle”. In that sense, it was mentioned that the ethical and social values have to be deliberated with society. Finally, participants highlighted the need to set up stakeholder engagement processes as soon as possible in the application of the system of radiological protection in order to address pragmatically the expectation and concerns of society.

5. Summary of the 1st Asian Workshop on the Ethical Dimensions of the Radiological Protection System (Kun-Woo Cho)

Kun-Woo Cho gave a panorama of the 1st Asian Workshop held in Daejeon on 27-28 August 2013 and he focused mainly on the results of the discussions carried out within the three Working Groups. In each group the discussion initially addressed on two questions: What issues of radiation protection refer to ethics? What are the ethical values (explicit and implicit), which underlie the system of radiological protection? WG 1 focused on the fact that the RP system includes judgments that refer to ethical values, but they are implicitly and unclearly presented in the ICRP recommendations; on the dialogues about the foundation, objectives and rationality of RP system, which should be pushed to facilitate the understanding of the system for RP specialists and stakeholders; and on RP culture and wise behaviours vis-à-vis radiation, which should be promoted in the society. WG 2 discussed the need of ethical consideration in the system of radiological protection; the need to revisit whether individual rights to happiness or justice had been respected; the need to provide more rationales to support important judgments in the RP system, and the need to refine the term

“members of the public” to distinguish informed individuals with certain benefit in return. WG 3 noted that strong parallels between bioethics and RP ethics exist. It has also agreed that simplicity, education and communication efforts are required in the RP system to overcome public misunderstanding and to enhance acceptability. With respect to the values of RP ethics attention was given to tolerance of people’s views, human dignity, justice, respect for persons, beneficence, prudence, understanding/simplicity and wellbeing. The presentation reported a view of the conclusions obtained from the 1st Asian Workshop focused on communication, well-being, tolerability and acceptability of risk as the main issues addressed.

6. Ecological Ethics (Deborah Oughton)

Deborah Oughton started with a view of the work in progress by the ICRP TG 94 on ethics, from the historical context and the principles-based ethics in RP, to continue with an overview of the ethical theories and with the main area of elaboration which concerns the common values, to conclude with considerations about the implementation in different area such as biomedicine, nuclear safety and workers, ecological aspects, and environmental health and society. By reading again the ICRP and IAEA publications on the ethical aspects in the protection of environment from the effects of ionizing radiation, the presentation covers the various and different cultures within the history of environmental ethics, the perception of Nature and the theories of environmental ethics, in particular by focusing on anthropocentrism, biocentrism and ecocentrism, as philosophical worldwide views, and on conservation, biodiversity, sustainability, environmental justice and human dignity, as primary principles of environmental protection. The influence of western Christianity, with a view of man dominating over every creeping thing on earth, and of the non-western ideas, the human perception of Nature has been analyzed and discussed to conclude that, in reality then, the anthropocentrism, biocentrism and ecocentrism, as reflected in many cultures and religions, they all support the need to protect the environment and to recognise and preserve the diversity. Three challenges were then discussed in the presentation: the ecosystem approach and ecological economics, for example in the case of Fukushima by asking what is the economic cost of marine contamination; the ecosystem changes with attention to what harms, as in the case of the environment in the contaminated areas around Chernobyl; and the environmental consequences of remediation, which can be considered a source of controversy for environmental ethics and policy.

7. A Framework for Ethics in Radiological Protection? Considerations from Elsewhere (Giovanni Boniolo)

The lecturer started by presenting the principles of biomedical ethics of autonomy, justice, non-maleficence and beneficence and the Ethical theories, taking into consideration the Ethics of Conduct (what sort of actions should be performed) by incorporating consequentialism and deontology and the Ethics of Character (what sort of people should we be?) which converges into Aristotelianism. Together with justification, optimization and limitation, another important aspect is the informed consent, in its three constituents of information, voluntarism

and decisional capacity. The participation pact, with the ethical counselling, is suggested in view of a real patient empowerment, putting the patient at the heart of services. The presentation introduced the ACCE model process (*Analytical validity, Clinical validity, Clinical utility, Ethical, legal and social implication*), used for evaluating genetic tests and structured with a standard set of 44 targeted questions which address disorder, testing and clinical scenario, as well as associated ethical, legal and social issues, since an important “by-product” of this model is the identification of gaps in knowledge, which may help to define future agendas. As “Innovation happens elsewhere” is often a reality and in any case a good point of reflection and view, a scheme similar to ACCE is tentatively proposed for RP, in biomedicine, by discussing the aspects of Analytical validity, Clinical validity, Clinical utility and Empowerment of the patient, together with the suggestion to address targeted questions concerning the aspects of importance in RP.

8. Radiation Ethics in a Globalized World (Friedo Zölzer)

The presentation focused on implications to the ethics in RP, in a world more and more globalized and it challenges the present status of the moral philosophy underlying the ICRP recommendations, which appears to be preferentially based on western ethics. After presenting evident data showing that the center of gravity for existing and new nuclear plants is more and more toward far east populated countries, Friedo Zolzer asked himself if there is something like a “common morality” to approach moral questions from very different cultural perspectives. Reference was made to the studies of Beauchamp and Childress with their identification of four principles and their claim that “all persons committed to morality” would agree with their four principles. Common morality, for the author, cannot be defined via a “Universal poll”, but by studying cultures and religions practiced by the different populations in the past ages. He stated the need to develop common morality into “cross cultural ethics” and the presentation went on by finding a relationship between the three RP principles (Justification, Optimization, Limitation) with the four principles of biomedical ethics (as part of the common morality). The lecturer then asked himself if the common morality can be of help in cases where the three RP principles are not directly applicable and after discussing three different cases, he concluded that common morality can provide us with additional criteria for certain problems not covered by the main RP principles. This approach, open to new different cultural backgrounds, seems to give a fresh inside to some problems, which cannot be addressed only on the basis of the current mix of utilitarian and deontological approaches in RP.

9. Discussion on the Second Session

The question of individual choice and influence/decision of the family was debated related to the case of medical decision. The issue of transplantation was mentioned: Friedo Zölzer explained that in Christianity, it is good to help someone and thus it is good to give organs, while in Asian cultures, it is a prime importance to respect the integrity of the dead body. Then the question of prudence beyond the medical field was addressed, notably to challenge

the model proposed by Beauchamp and Childress. Once again, it was pointed out the importance of giving people the possibility to discuss and to come together to decide on the key issues.

It was also noted that the system of radiological protection is now well developed and rather complex. It was considered necessary to avoid the introduction of new rationale but rather useful to base the reflection on a common and understandable approach. In this perspective, the quest for universal values has been recognised as a significant step.

10. Ethical Components in Radiological Protection Communication: First Feedbacks from Switzerland. (François Bochud)

The presentation started by underlying that moral philosophy relates to deontology, virtues and utilitarianism: deontology defines the way an actor is acting; an actor is judged based on the virtues of his actions and the actions are judged by their consequences (Utilitarianism). The presentation then moves on by talking about ethical history in medicine and focusing the attention on the three basic principles of bioethics: Autonomy (deontology), Beneficence or non-maleficence (utilitarianism) and Justice (deontology). The three principles of radiation protection: justification, optimization and limitation were then framed within the ICRP publications 103 and 105 and discussed with reference to the bioethics basic of deontology, virtue and utilitarianism. For a practical application of these principles, the lecturer used different examples to demonstrate the difficulties encountered in applying them and the degree of flexibility needed in doing so. Examples were related to: back scattering images (airplane boarding); annual effective dose related to the decision to leave the house; person genetically more radiosensitive (risk of leukaemia) and people tobacco smoking. The scheme to present the examples is the same in three steps: 1. First answers to a question involving moral or ethical elements; 2. Rephrasing the same question with an ethical perspective; 3. Second answers to the rephrased question. Finally the first and second answers are compared and commented. After the discussion around these examples, the following conclusions can be drawn: Ethical principles are enshrined in radiation protection and in medicine; Ethical decisions need to be taken with the help of different schools of moral philosophy and Ethics and radiation protection are dynamic (Now and here versus tomorrow and there).

11. Ethical Consideration of Radiological Protection: Learning from Fukushima (Chieko Kurihara-Saio)

Chieko Kurihara suggested the bioethics principles of autonomy, beneficence and justice as related and linked to those ones of radiological protection, justification, optimization and dose limit, by giving the bases for an introductory discussion around them and the RP system. The second part of the presentation focused on ethical considerations about actual issues which happened in Fukushima, by analyzing and studying them from different perspectives and points of view: logistics, communication, evacuation-return processes, aspects such as compensation, conflict of interests and future perspectives. For example a lack of logistic in

repairing the facilities, evacuation and elimination of contaminated land contributed in the distrustfulness of public; lay-experts, learning from anti-nuke experts have been communicating about radiation risk; mandatory evacuation was criticized by considering other types of impact resulting from the evacuation itself. Also decision-making about returning is always difficult in view of the protection of vulnerable groups such as of elderly, children and fetus while hot discussions were opened on the basis of to which extent damage resulting from radiation exposure should be compensated and the level of epidemiological survey. A significant part of criticisms started about the conflict of interest among NPP related companies, government, students with great attention of the public. Within the conclusions it was highlighted the need to make RP system working well and properly, especially in emergency situations and this could be improved if the RP system, well before emergency situations, is understood at least by politicians and stakeholders and implemented in governmental policies and regulations, with ethical justifications.

12. Discussion on the Third Session

At the end of this session, the topics of the evolution of science and the evolution of ethical values were discussed. It was acknowledged that while the system of radiological protection has been largely influenced since the beginning by the evolution of science, there is no real evolution to be considered for ethical values, which could be considered as a-temporal. Nevertheless, although the ethical values have not really changed overtime, new situations have emerged, which were not considered in the past. Therefore, it was suggested that adjustments have to be made to cope with modern life.

13. Reports of the Working Groups

1. Working Group 1

Marie Barnes summarized Working Group 1's discussion. The first working group recognized that the ICRP system is ethically founded. The participants mentioned that the key ethical values founding this system are: dignity, prudence, beneficence and justice. It was acknowledged that the system has evolved to take into account the evolution of the concerns and values of the society, among them stakeholder involvement, protection of the environment, focus on the protection of the individuals.

For an effective application of the system, the participants considered that the distinction between ethical values, procedural ethics (i.e. transparency, stakeholder involvement...) and behavioural ethics (i.e. honesty, open-mindedness...) is essential. They also insisted on the need to apply the overall framework in a case specific fashion (notably considering the application of the optimisation principle).

Then the group focussed on the issue of dignity as an emerging value in the field of radiation protection following the Fukushima accident. Although the concept of dignity is not introduced as such into the system, some participants considered that “dignity is already in the system and is applied day-to-day in the optimisation process”. They analysed the application of the dignity concept in the three ICRP different exposure situations (planned, emergency and existing) and they considered that this concept is playing the same role in each situation but the process for applying the principles varies. Associated with the concept of dignity, they underlined the importance of further considering the following concepts and processes: autonomy, respect, equity, solidarity, shared vigilance, proximity, transparency and stakeholder engagement.

In conclusion, the group recognized that dignity is a central value of the system to reconcile science and society and they considered that there is more need to explain the existing values used in the system than searching for new ones. They mentioned that the system should be at the service of society, recognizing the dignity of stakeholders and addressing their concerns with humility. In this perspective, they considered that professionals have the duty to put in place the right procedures and to behave according the spirit of the values.

To conclude, they recommended that the ICRP Task Group on ethics addresses all these issues in plain language.

2. Working Group 2

The second working group, presented by John Takala, focused the discussion on the list of what the members considered as key values, then their application, and opened discussion on the ethical considerations associated with the justification principle and the scientific uncertainty.

Concerning the list of values, the participants listed 5 main values: 1) dignity and autonomy, 2) beneficence and non-maleficence, 3) justice, 4) prudence and precaution, 5) transparency and accountability. For each of them they associated the reference to the values developed in the classical Confucianism. They suggested to refer to: 1) courtesy for dignity and autonomy, 2) benevolence for beneficence and non-maleficence, 3) no other concept for justice, 4) wisdom for prudence and precaution, 5) and trust for transparency and accountability.

As mentioned by the working group 1, they recognized that the application of values is quite diverse according to the type of exposure situations while the values remain the same.

They pointed out that when applying the ethical considerations to the justification principle, the common theme is that trust is critical to the process whatever the situation considered. In addition, they considered that most of the values apply for the application of the justification

principle, but proposed to revisit the value of dignity and autonomy to identify a “social equivalent” in this case.

Finally, for scientific uncertainty, they reminded that it has a crucial influence in the decision-making processes. In this context, the group insisted on the necessity to favour transparency in the communication and to introduce reflexivity in science and communications to cope with scientific uncertainty. The group concluded by reminding that trust is built on truth and that it is necessary to have trust to be successful in applying the system.

3. Working Group 3

The third working group, presented by Roger Coates, also started with the list of what the members considered as key values. They identified 6 main values: 1) Prudence in a wide view, 2) Dignity in the sense of respect for individuals and ensuring engagement, 3) Justice mainly to cope with intergenerational issues and less advantaged individuals, 4) Transparency also linked to honesty and leading to trust, 5) Beneficence in order to maximise benefits and minimise harm, 6) Wellbeing in reference to the WHO concept.

For the application of the values, the participants discussed the importance of balancing the values in the societal context. In addition, they considered that deliberation is an important process to be referred to in the system. They also insisted on the need to develop mechanism(s) to ensure ethical conduct in application of the values by the profession (this refers to professional excellence).

Then they discussed the application of the values in different contexts. First, in the medical field, it was mentioned that they play a key role in the application of the justification and optimisation principles. They noted that this is a real challenge for the practice: links to professional standards and professional excellence have to be reinforced. Knowledge has also been mentioned as an issue both within the profession and with regard to effective communication/engagement with the patients. They considered it as an ethical requirement.

In emergency and post-accident situations, the participants considered that the key issue is the ability of the system to take a broader view of societal issues. They discussed the need to develop processes to support and respect dignity and wellbeing in such situations and quoted the need to further investigate the specific issue of vulnerable groups (e.g. children, elderly). They recognised that the protection of vulnerable groups is a difficult issue of balancing values and that developing a completely individualised system of protection for specific groups would be increasingly complex. The ethical bases of the system to cope with vulnerable groups would need further consideration.

They also discussed the rationale of dose limits. They noted that value judgements drive this rationale although they are not well explained. In this context, they proposed to re-visit and clarify the overall judgements. Then they discussed the protection of the environment: some

participants considered that it should be regarded as a value and called for better explication concerning the articulation with the whole system of radiological protection.

In conclusion, they considered that transparency was central to most of the discussions of the working group. They also insisted that radiation protection practitioners have a duty to enhance public communication including the right to know, improving wellbeing, maximising options for beneficial uses. Deliberation with stakeholders was also emphasised. And finally, although the concept of prudence was not largely discussed, they quoted it as a key issue to be considered carefully when applying the system (e.g. including risks of not using radiation).

14. General Discussion

This section summarises the main points addressed during the general discussion. It has to be noted that the points of view are different and sometimes contradict one another since they are reflecting the different opinions of the various participants.

Dignity

The value of dignity has been largely discussed and some participants were questioning its introduction into the system considering that it could become more complex. Notably, it was mentioned that in some cases, dignity and autonomy could be in conflict with equity and justice. Although it was reminded that the objective is not to introduce new principles neither new values, it was also acknowledged that dignity is a crucial issue to cope with the implementation of system of radiological protection in specific situation (notably in case of protection of people living in contaminated areas). Therefore, the participants agreed that the crucial challenge for ICRP in this domain is to explicit the key values which are already driving the system rather than developing new concepts.

From the ethical point of view Justification (J), Optimization (O) and Limitation (L) are seen in the sense of Beneficence, Autonomy and Justice. In addition, during this workshop, dignity was introduced referring to other questions more general with respect to JOL. This concept is not yet fully and well understood, but it is important to do better and improve and to talk more about RP implementations.

Ethical values in implementing the system

The participants called for further developments in the implementation of the ethical values within the system of radiological protection. They underpinned that there is a sort of convergence between procedural ethics and behavioral ethics, with transparency and accountability related to procedure, while honesty and humility related to behavior. They also linked the efforts on transparency and accountability with trust. They mentioned that trust is not an ethical value as such, but is a mean for living together.

Vigilance

Vigilance could be linked with attitude to risk and to the scale of dose ICRP is giving. ICRP Publication 103 is structured around the scale of dose and dose criteria for the implementation of its system. Vigilance is crucial in life: we can see a shared vigilance in some cases, for example in the range of exposure from 1-20 mSv, beyond there is an urgent need to react. In that sense, it was considered that the driving point for vigilance is a bridge from science to ethics.

Justification

As mentioned in discussions during the workshop, the issue of justification was identified as a crucial point by several participants for which ethical considerations have to play a role. Notably, it was quoted that ethics in relation to the system of radiological protection is also about considering and recognizing the limits of the system of radiological protection when it comes to providing a rationale for societal justification of a radiation risk. Given that the RP system, in its concern for providing guidance for decision making, relies on science but also and essentially wants to take into account human and societal values, the bigger systems that need to be questioned are those of knowledge production (research, advice) and decision making. So even taking into account ethical dimensions, the system of radiological protection cannot and should not be stretched to provide the full rationale for societal justification, but it can and should generate critical considerations on how our general methods of knowledge generation and decision making should foster autonomy and involvement of potentially affected persons and promote vigilance and fairness in justifying radiation risks.

Deliberation and democratic process

Procedural values for the implementation of the system are to be considered carefully: for example, it was mentioned that the rationale of limits is not only in science and also referred notably to prudence. Prudence is related to uncertainty at low dose exposure and, if there is no clear evidence, deliberation is needed with stakeholder involvement. It has been mentioned that the paternalistic view is disappearing.

15. Main Outcomes from the Workshop

Most of the participants recognized at the end of the workshop that the discussions were very fruitful for a better understanding and use of the ethical values in the system of radiological protection and moreover they called for further development in the implementation of these values. While the ICRP system is largely based on scientific knowledge and facts, the interest to take into account the social values and moreover the interest to better explain the ethical considerations and to consider the ethical values for its application, has been pointed out as a crucial challenge. Up to six main values have been identified in the discussions within the three 3 working groups and it was recognized that, according to the type of exposure situations, the application of values can be diverse, while the values remain the same. Notably, it was considered essential to link the decisions to an ethical background.

It has been reiterated the interest to address the values, the procedures and the behavioural aspects, with the final target and scope to discuss and to better understand the application of the ethical values, rather than focussing the discussion/work mainly around the theoretical meaning of these values.

The participants called for the identification and diffusion of a limited number of key values, which are considered essential also for non specialists. It has been recognized the need to make them explicit to better address the basis of the system of radiological protection and the need to make them clearly understandable and understood. In this perspective, the participants quoted the need to diffuse the key ethical values together with the considerations on their implementation to the radiation protection professionals for their day-to-day practice. The need to develop a publication, addressing all these points and issues in plain language, has been openly and clearly requested.

It has been also underlined that the system is broader than ICRP, since it includes IRPA, WHO, IAEA... In this perspective, the efforts devoted to the preparation of the ICRP Publication on ethical dimension of RP System although being focused on ICRP Recommendations, would have to be debated within a broader community. Notably the cooperation with IRPA and other international organizations was largely appreciated by the participants.

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