

Aarhus Convention and Nuclear Round Table on Radioactive Waste Management 13-15 January 2021

SUMMARY OF DISCUSSION

SESSION 3 Recent developments in civil society access to expertise and research

Chairs

- **Elena Righi-Steele, DG RTD D.4 Euratom research**
- **Domenico Rossetti di Valdalbero, DG RTD D.4 Euratom research**

Speakers

- **Roberto Passalacqua, DG RTD D.4**
- **Anne Bergmans, University of Antwerp**
- **Valéry Detilleux, Bel V**
- **Gilles Heriard Dubreuil, Mutadis**
- **Louise Théodon, ANDRA, EURAD coordinator**
- **Klaus Röhlig, TU Clausthal**

From the introduction to the conclusions of this session, around 30 comments, questions and remarks (in English, French and German) have been made. In complement to the oral answers given by the speakers during the session, the points below have been grouped, prioritized and focused on the scope of the session.

- The question of ‘trust’ in science, in expertise and in the authorities is particularly sensitive and has been debated. Is there any independent expertise in nuclear? The tensions between information and disinformation, knowledge and beliefs, as well as the use and sometimes abuse or misuse of expertise have been underlined. How to ‘re-inject’ trust and how to engage citizens in the scientific and technical debates in the field of nuclear and waste management? How to ensure that suitable geology for final disposal for HLW is searched in a science-based, transparent, participative and fair process? Several experiences have been shared by the speakers and the audience during the session.
- The need for a genuine participation, involvement and interaction of civil society (citizens, associations, non-governmental organisations) in public decision-making has been pointed out by the speakers and the participants. Different methods and techniques developed under research projects have been highlighted showing local, national and European examples like MODERN 2020, HONEST, SITEX and JOPRAD. Specific attention was devoted to the current EURAD European Joint Programme on radioactive waste management.

- Euratom Research programme supported and will continue to support technological and socio-economic activities in the next Multiannual Financial Framework (2021-2027).
- The semantic and the terminology have been debated: ‘Disposal’ is not ‘elimination’ of long term hazardous waste but entrusting nature with the management of waste that current technologies have not been able to carry out. Deep disposal is not so unusual in human society and is one of the promising way currently available, while research and innovation focuses on the developments of techniques to reduce or avoid the need for disposal.
- ‘Transparency’ largely relies on objective information provided by science. Both hard sciences and social sciences should provide facts, figures and evidence for better policy-making and citizen-informed decisions. The integration of social sciences and humanities in technological projects has been raised. How to face the challenge of civil society participation in R&D projects? What is the social acceptability and the socio-technical divide for e.g. the nuclear waste final repository? These points have been illustrated by several examples in the presentation of national and EU projects.
- How to ensure effective integration (‘double wing’) between scientific/technical experts on one side and social scientists/humanists on the other side? Does it work? How exchanges can be effective to modify perceptions/positions on issues like nuclear waste management? How to build mutual trust and recognition? By learning that all partners are making serious work and are driven by valid motivations.
- ‘Open Science’ is helping in this matter. It is becoming the standard EU method of working under its R&I funding programmes, Horizon 2020 and Horizon Europe. The Commission requires beneficiaries of R&I funding to make their publications and data available to everybody – scientists, citizens, stakeholders - in Open access (cf. online access to scientific information that is free of charge to the user).
- Other interventions were about how and by whom experts are identified and selected? How and by whom scientific expertise is paid? How to ensure collegial scientific and technical decisions in the field of nuclear? Is an ethical committee reviewing the practice of experts? How potential conflicts of interest are addressed? Is the expertise sufficiently multidisciplinary? Is civil society engaged in such expertise? How to ensure long-term/sustainable civil society expertise? What is the participation of the students? From what disciplines they are coming from (nuclear physics, chemistry, nuclear engineering, industrial constructions, nuclear medicine, social sciences)? Some speakers answered these questions by providing details on how the expertise and civil society can be associated in an innovative way.
- At the border line between hard and soft sciences is the issue of ‘Fast brain’ vs. ‘Slow brain’ decisions. Fast brain is useful when we are in danger and we need to take quick decisions. However, these decisions cannot be the best rational possible. Social networks reinforce a fast brain way of thinking while Agora-like environments promote slow brains exchange of opinions in a more pluralistic approach.

- The question of the scientific assessment of different energy technologies (e.g. nuclear and renewables) for contributing to the reduction of greenhouse gas emission reduction has been raised as well as the comparison of fatalities per energy technologies in case of accidents. For e.g. what are the deaths caused by the Tsunami and what are the effects of radiation caused by Fukushima? What are the risks from different energy systems? What are the number of accidents, sicknesses and (premature) deaths coming from the use of different energy technologies? The scientific studies results differ according to the methodology used. Both speakers and audience provided different references from the scientific literature.