Supplement of Saf. Nucl. Waste Disposal, 1, 247–248, 2021
https://doi.org/10.5194/sand-1-247-2021-supplement
© Author(s) 2021. CC BY 4.0 License.

SaND
Safety of Nuclear Waste Disposal
Open Access

Supplement of

Including Civil Society in R&D Projects on Radioactive Waste Management: interactions with Civil Society (ICS) in EURAD

Julien Dewoghelaere et al.

Correspondence to: Julien Dewoghelaere (julien.dewo@mutadis.fr)

The copyright of individual parts of the supplement might differ from the article licence.

INCLUDING CIVIL SOCIETY IN R&D PROJECTS ON RADIOACTIVE WASTE MANAGEMENT: INTERACTIONS WITH CIVIL SOCIETY (ICS) IN EURAD

BASE Interdisciplinary Research Symposium, Session 4B

10 November 2021 • Julien Dewoghelaere

The project leading to this application has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement n° 847593.

EURAD KNOWLEDGE MANAGEMENT & NETWORKING PROGRAMME

1 Roadmap

A common framework to structure knowledge

2 State of Knowledge

What we know and why its important

3 Guidance

Best practice and lessons learned

4 Training & Mobility

Nuclear experience and know-how

5 Networking & Tools

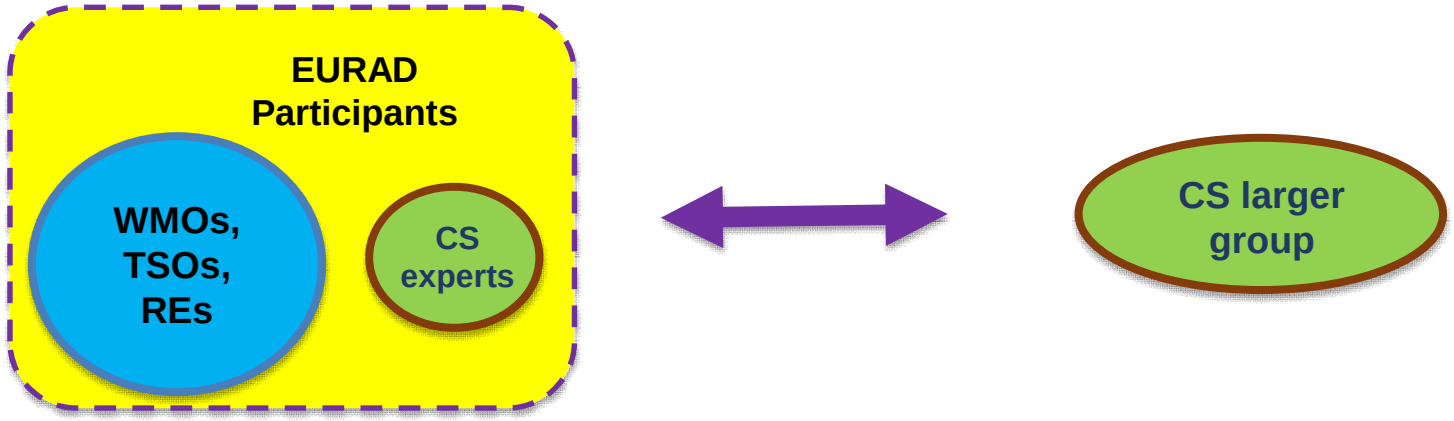
Connecting people to people, and people to content

INTERACTIONS WITH CIVIL SOCIETY : WHY ?

- **Civil Society participants have specific concern on RWM safety, they are not research partners**
- **They are involved in the perspective of Aarhus Convention implementation**
- **One objective of EURAD is to allow interactions between all categories of actors : WMOs, TSOs, REs and Civil Society (“3+1 Dialogue”)**
- **Such interactions aim at improving mutual understanding of how and to what extent RD&D activities on RWM make sense and contribute improving decisions**
- **It shall also contribute to developing ideas, propositions and methodologies on**
  - how to interact with Civil Society on scientific and technical result
  - how to deal with uncertainties
  - how to interact with Civil Society in order to promote mutual benefit of available knowledge

ICS ACTIVITIES : HOW ? - DOUBLE WING MODEL

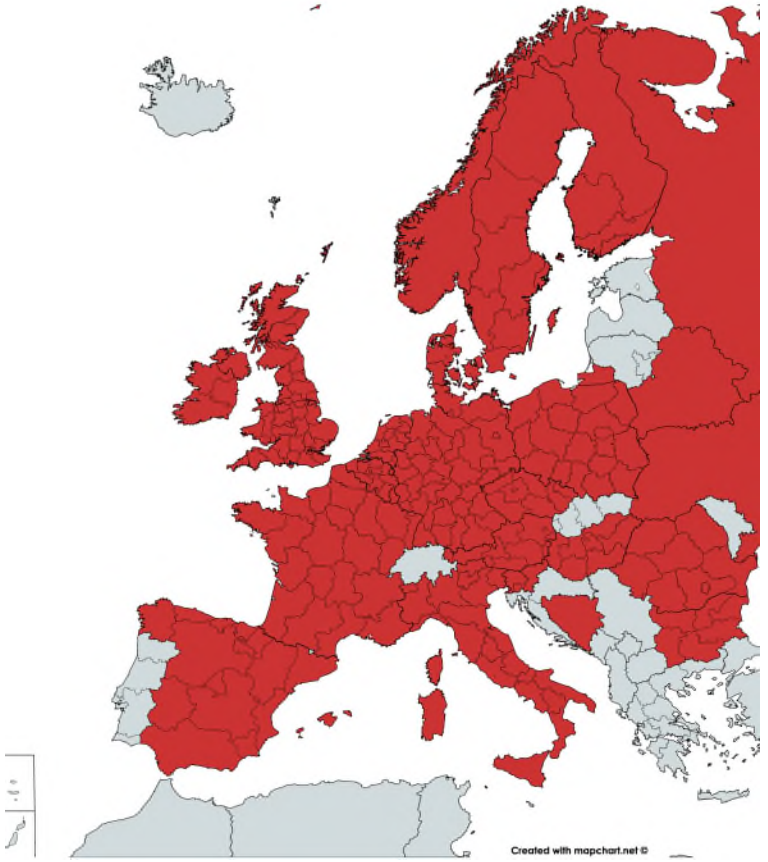
- **Model of pluralistic interactions developed and tested in previous projects (SITEX-II, JOPRAD)**
  - CS experts with technical and socio-technical background or/and experience on the involvement of CS in scientific and technical issues,
  - involved in EURAD activities through NTW, translating scientific/technical results for exchanging with
  - A larger group of CS representatives (CSOs, representatives of local communities, individual experts)



CS Experts from Austria, Denmark Finland, France, Hungary, Netherland, Slovenia, Sweden, United Kingdom

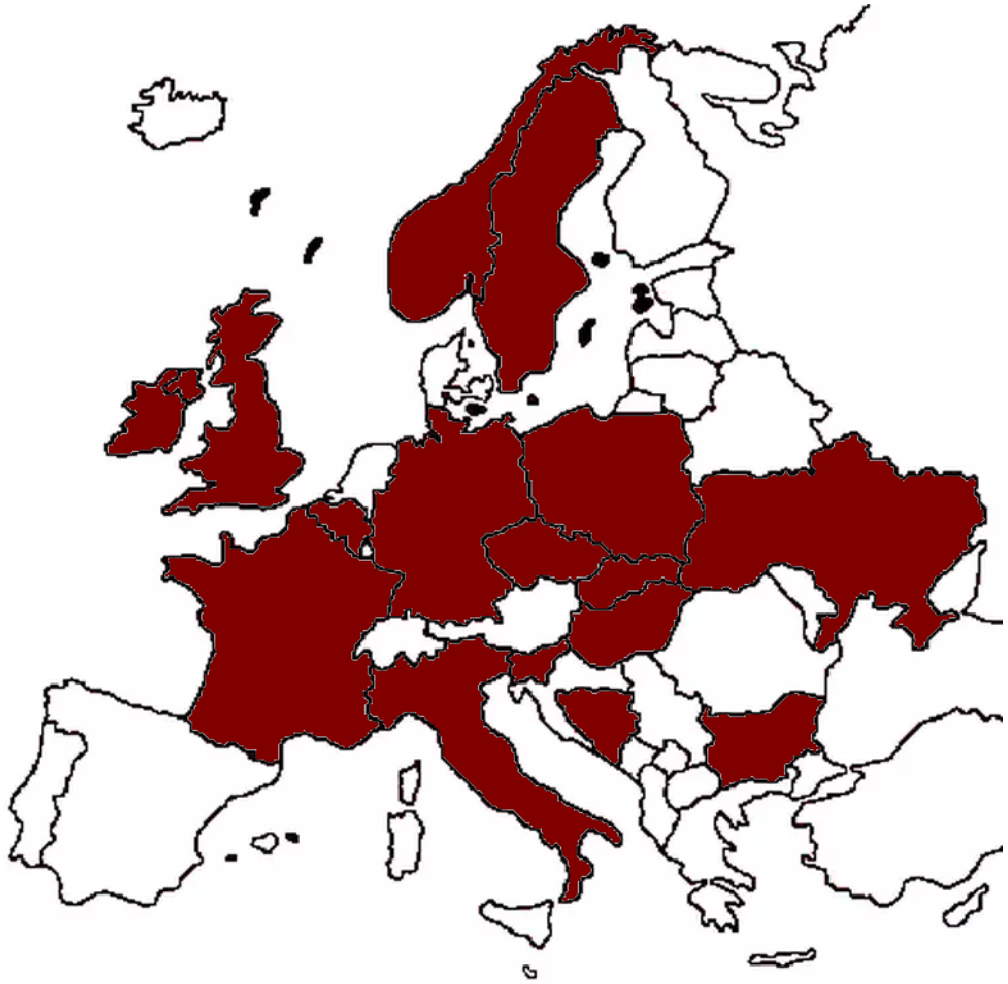
CS LARGER GROUP – COMPOSITION

- **Identification of potential members: 61 potential identified candidates coming from 25 countries**
- **Several categories of participants**
  - 2 categories of actors and organisations:
    - European and national associations
    - local stakeholders (individuals and representatives of local communities, partnerships, local associations)
  - 22 members (according to the available resources to cover the physical participation) – group finalized in March 2020

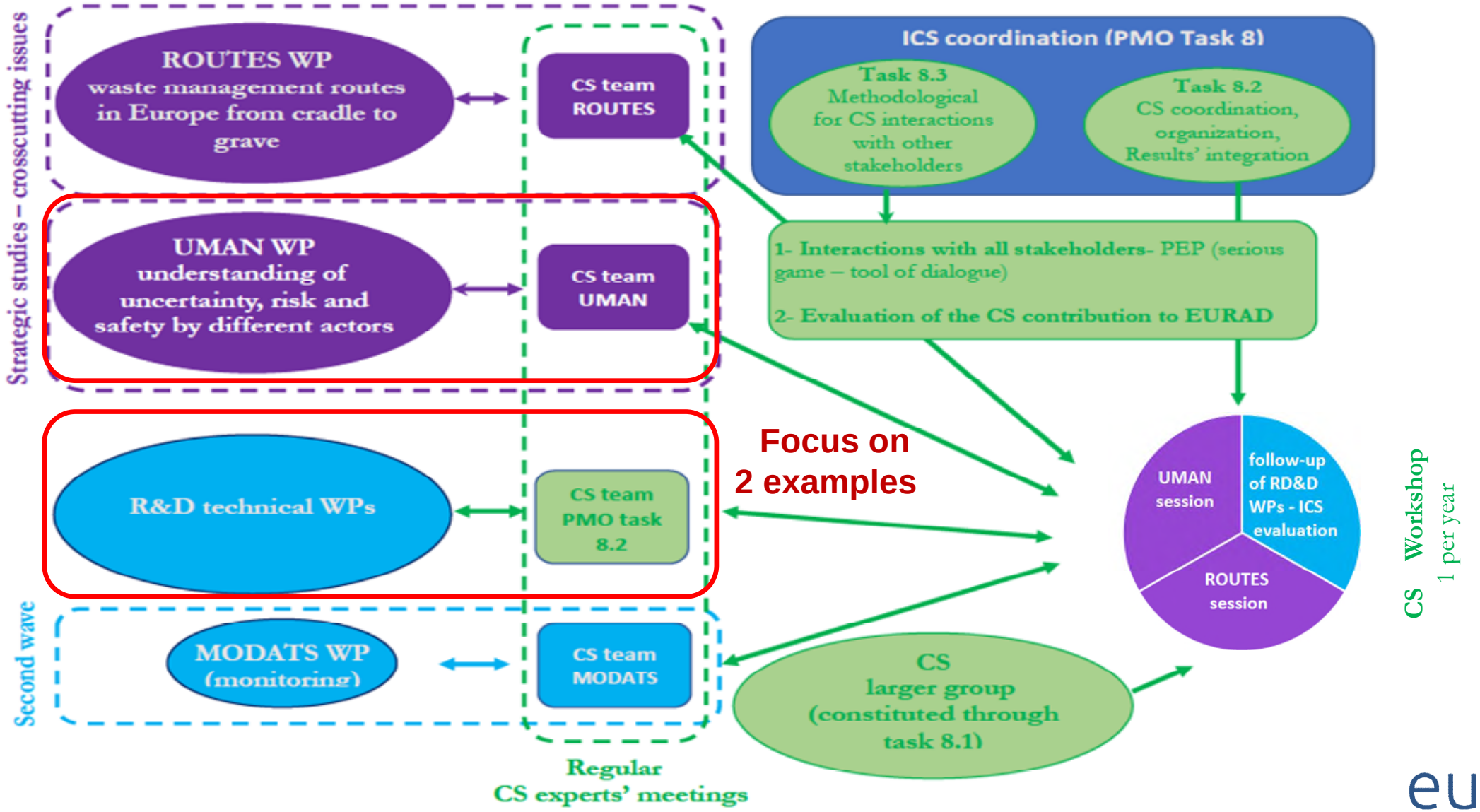


CS LARGER GROUP – REPRESENTATIVENESS

- **A well-balanced group:**
  - Equilibrium between Western and Eastern countries
  - Quite well-balanced gender representativity (9 Women and 13 Men)
  - Good repartition between the categories of involved stakeholders (12 individual or/and local stakeholders and 10 national or/and European associations)
  - 15 countries are represented in the CS larger group: Belgium, France, Germany, Italy, Norway, Sweden, United Kingdom, Bosnia and Herzegovina, Bulgaria, Czech Republic, Hungary, Poland, Slovakia, Slovenia, Ukraine



STRUCTURE OF ICS ACTIVITIES IN EURAD



UMAN PROJECT OBJECTIVES

1- Develop a **mutual understanding** or at least to **share different viewpoints** among the different categories of actors on**:**

- uncertainty management and how it relates to risk & safety
- whether and why a safety case is robust vis-à-vis uncertainties

2- Identify **methods for organising a regular (intergenerational) and pluralistic dialogue on uncertainties** during the development and review of the safety case

ICS ACTIVITIES IN UMAN

- During yearly seminars, **discussion of UMAN results with a pluralistic stakeholder group** including EURAD researchers, Civil Society actors, regulators and international organisations (FSC of NEA)
- **Integrative process** - each seminar constitutes one step of a process of integration of UMAN results:
  - Seminar 1: What uncertainty management involves for each type of actors?
  - Seminar 2: Focus on Site and Geosphere related uncertainties
  - Seminar 3: Focus on Human Aspects related uncertainties
  - Seminar 4: Methods that can be used for discussing and organising pluralistic assessments of uncertainties throughout a disposal programme

METHODOLOGY FOR ELABORATING THE UMAN SEMINARS

- **Pluralistic teams for organising the seminars-** inclusion of different views in the elaboration of seminars' frame
- Material for discussions is based on results achieved by UMAN in other tasks (on uncertainties characterisation, management options, etc)
  - Elaboration of Keynotes presenting views of different types of actors (seminar 1)
  - Selection of three topics of interest for pluralistic discussion related to Site of Geosphere (seminar 2)
- **CS experts involved in UMAN work:**
  - review of the work performed by UMAN partners
  - elaboration and administration of a questionnaire to CS larger group on uncertainties
  - Identification of key CS priorities regarding the contribution to UMAN
  - Discussion with CS larger group during UMAN session of the ICS workshops
- **« Scenarios » & « Key questions » are used as starting points** to initiate exchanges & views based on concrete cases

ICS ACTIVITIES IN UMAN - PRELIMINARY RESULTS

- **Seminar 1 (October 2020)**:
  - "Unknown unknowns" : how to address them? How to live with them? **How to be prepared to the unexpected**?
  - **Independence of expertise :** what does-it mean ? How it can be done in practice ?
  - Importance to consider uncertainty related to the process (governance issue), lot of **ignored knowns factors** to explore
  - At the general level, **agreement on the importance of uncertainty management in Safety Case**, differences will appear in concrete implementation (according to cultural contexts, role of the actors in the process, risk appetite)

ICS ACTIVITIES IN UMAN - PRELIMINARY RESULTS

- **Seminar 2 (October 2021):**
  - A **stepwise, transparent & flexible decision-making « process »** is needed to manage Site and Geosphere uncertainties. It involves decisions regarding the selection and use of **complementary measures at different programme phases**:
    - to avoid/reduce safety-significant uncertainties
    - to mitigate residual uncertainties and manage « surprises » that could occur e.g. during construction & through monitoring (even if very unlikely)
  - CS should have the possibility and the means (i.e. access to independent expertise, legal provisions,…) to be involved early in this process and monitor the situation now & in the future (several generations involved)
    - Can it be addressed by the « Rolling stewardship » concept ?

INTERACTIONS BETWEEN UMAN, CORI AND CS - CONTEXT

- EURAD aims at **enabling exchanges of results between actors and between projects**
- **CORI project (R&D) objective** is to improve the knowledge on the organic release issues which can influence the radionuclide behaviour in geological repositories for nuclear waste
- Interactions between UMAN & CORI are foreseen in EURAD activities
- In this context, there is an on-going process to associate civil society in CORI-UMAN exchanges

INTERACTIONS BETWEEN UMAN, CORI AND CS – OBJECTIVES AND METHODOLOGY

- **What is the objective of fruitful interactions with civil society in Eurad ?**
  - not a “technical cathedral”
  - not reviewing every scientific report
  - but having discussions with WMOs, TSOs and REs (3+1 dialogue)
  - and giving some meanings to the results, by establishing links to the stakes of CS (safety of GD)
  - towards “safety culture” (INSAG-4 & SITEX-II) : intergenerational links
- **Therefore, another way of working** : focusing on uncertainties, and the linkage of it in technical WP as CORI.
- **Idea- organisation of a workshop with crosscutting questions**
  - For example : how CORI results could change/challenge the uncertainties treatment developed in UMAN ?

QUESTIONS?

Julien Dewoghelaere (julien.dewo@mutadis.fr)

The project leading to this application has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement n° 847593.