



# EURADWASTE'22

30 May - 3 June 2022  
Lyon, France

## EuradScience – the scientific basis underlying the responsible and safe management of radioactive waste

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10<sup>th</sup> European Commission Conference on EURATOM Research and Training in Radioactive Waste Management  
30 May - 3 June 2022 | Lyon, France

### The EuradScience network

- Initiated against the background of the first European Joint Programme on Radioactive Waste Management (EURAD), by means of an inaugural meeting held in Berlin in December 2019.
- International network of research organisations, currently about 40 Members, from 14 countries
  - National research centres, universities, SMEs
  - Good overlap with EURAD RE College (but we still want to grow and improve representativeness, also towards LTPs)
- No formal governance; Executive group facilitating discussions promoting further development, and a chairperson



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# EuradScience goes further...!

- Final draft phase of a Terms of Reference

**Establishing EURADSCIENCE as a sustainable network for research organisations in radioactive waste management**

**ORIGIN**  
EURADSCIENCE was initiated against the background of the EURATOM Joint Programme on Radioactive Waste Management (EURAD) by means of an inaugural meeting held in Berlin in December 2018. It is a network of research organisations, currently about 40 Member States, 13 countries. It is a formal governance structure, currently about 40 Member States, 13 countries. It is a formal governance structure, currently about 40 Member States, 13 countries.

**CURRENT and FUTURE SITUATION**  
EURADSCIENCE aims to formally establish the network by means of a Terms of Reference. Overarching aims to provide, further develop, design and improve the science underpinning responsible and safe management of radioactive waste from cradle to grave.

**EURADSCIENCE objectives**

1. Advance and define the state of the art and engineering knowledge in radioactive waste management and technological development for waste operation.
2. Apply and further develop non-routine support of implementation.
3. Identify, develop, promote and sustain and disseminate scientific and technical expertise and skills potential, based on current state of the art.
4. Identify and define additional scientific disciplines and fields potential, based on current state of the art.
5. Maintain and develop competence in the concerned field including implementation of innovative learning.
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7. Add additional topics as identified and agreed upon within the network.

**EURADSCIENCE activities include**

1. Managing and continuously developing the joint R&D activities, projects and common interests.
2. Promoting the R&D activities of implementation in operational programmes.
3. Jointly developing and implementing scientific projects.
4. Strengthening communication between the Member States, ensuring the cross-fertilisation of knowledge, expertise and skills to be shared in international programmes.
5. Maintaining national and international networks in support of the overall aims of EURADSCIENCE.
6. Identifying and jointly implementing methods for training and knowledge transfer.
7. Identifying and implementing methods for increasing the attractiveness of the field to next generation of experts.
8. Seeking to increase interest in the concerned domain.

**EURADSCIENCE governance**

**Chair**  
Chair elected by the General Assembly for a 2-year period. Represents the network and reports to the General Assembly.

**General Assembly**  
General governing body. Consists of all members. Meets at least once a year. Membership implies payment of a fixed subscription fee. No separate legal entity.

**Secretariat**  
Appointed for a 2-year period. Represents the network. Supports the General Assembly and reports to it. Coordinates and manages the network's activities. Organized around specific topics as identified in the Terms of Reference.

**Working Groups**  
Launched by decision of the General Assembly. Organized around specific topics as identified in the Terms of Reference. Oversight by the Steering Committee.

- Setting up a formal collaboration mode
- Ensuring the continuity of the network
- Definition of working rules and principles
- Providing the proper support to the functioning of the RE College
- All research organisations welcome!



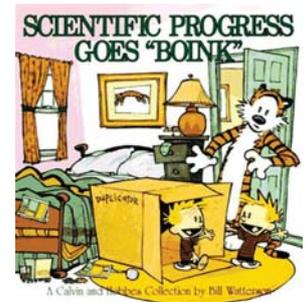
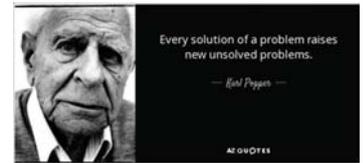
# EuradScience vision and ambition

- To maintain a **holistic view** of relevant scientific disciplines, to provide **scientific excellence** to advance the progress of national radioactive waste management programmes, and to assure **scientific credibility and leadership** and by this contribute to **societal acceptability** of waste management concepts.
- EuradScience carries the ambition to provide scientific and technical expertise and excellence in the light of the ever-advancing state of knowledge over the many tens of years of project operation until repository closure. We foster innovation and novel solutions, in view of optimisation, improved durability and sustainability.



## EuradScience connection to EURAD

- Within the frame of EURAD, research organisations are invited to reflect on an interesting dilemma: **“The science is settled”** (allowing to move forward when implementing solutions) vs **“The intrinsic progressive nature of science”** (the quest for new knowledge, more insights, reduced uncertainties)
- EuradScience fosters efforts to promote integration of scientific results into larger framework of radioactive waste management & disposal



## EuradScience – a KM leadership network

- EURADSCIENCE emphasises that research organisations have specific (statutory) missions, capabilities and competencies, including exercise of leadership on knowledge management:
  - Unique infrastructures including URLs and specialized nuclear facilities allowing to work on highly radioactive substances.
    - Such facilities should remain available, accessible and well maintained. We encourage discussions of how EURAD can support these unique infrastructures to help them remain sustainable in the long term. Such infrastructures should be a fully integrated component of the EURAD training and mobility work packages.
  - Research organisations are generally recognized as national or international centres of expertise, providing specialized training for all actors within radioactive waste management



## EuradScience – a KM leadership network

- EURADSCIENCE emphasises that research organisations have specific missions, capabilities and competencies, including exercise of leadership on knowledge management:
  - Research organizations function and progress in a spirit of peer review, which has so far proven to be the most important, durable and robust form of transfer and advancement of knowledge.
    - We encourage that important output documents (like SOTA documents) follow the peer review process and are published in scientific publication format
  - Research organisations are prime players in training the next generation of radioactive waste management experts through contributing to PhD and MSc programmes.
    - EURAD is a unique platform for PhD students to take stock of the overall spectrum and framework of radwaste mgmt activities



## EuradScience – Conclusions

- Research organisations play central role within radioactive waste management knowledge and competence preservation, transfer and further development.
- The unique facilities the EuradScience community is operating should be maximally exploited, while initiatives taken to maintain, update and modernize these facilities should be explored.
- Young researchers should be actively supported – they will be the driving force for future implementation of optimized waste management solutions. We welcome also WMO and TSO input during training of these young researchers.
- Numerous (key) experts potentially supporting EURAD's KM programme are accessible through EuradScience, but we should be more active in engaging them – explaining benefits (personal and for the organization).



- Thank you very much for your attention!
- Keep supporting EuradScience!

