

# **EURAD Program – an Overview**

Steps to Sharing workshop, Vienna

25th-26th September 2019

Marja Vuorio & Ole Kastbjerg Nielsen

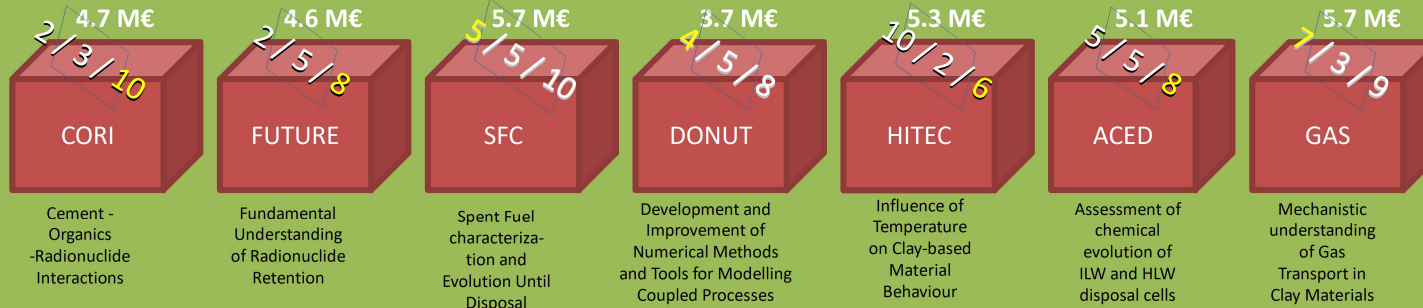


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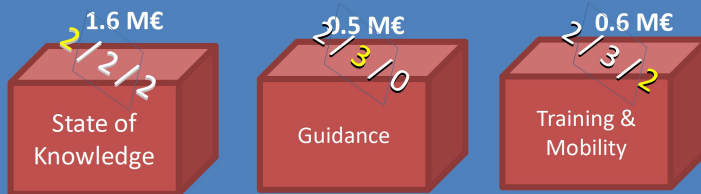
# First implementation phase (2019-2024) – EURAD-1

Programme Management office (2.5 M€)

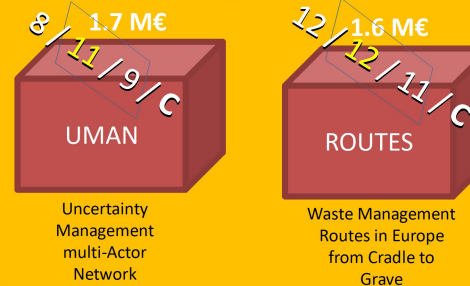
## Collaborative RD&D



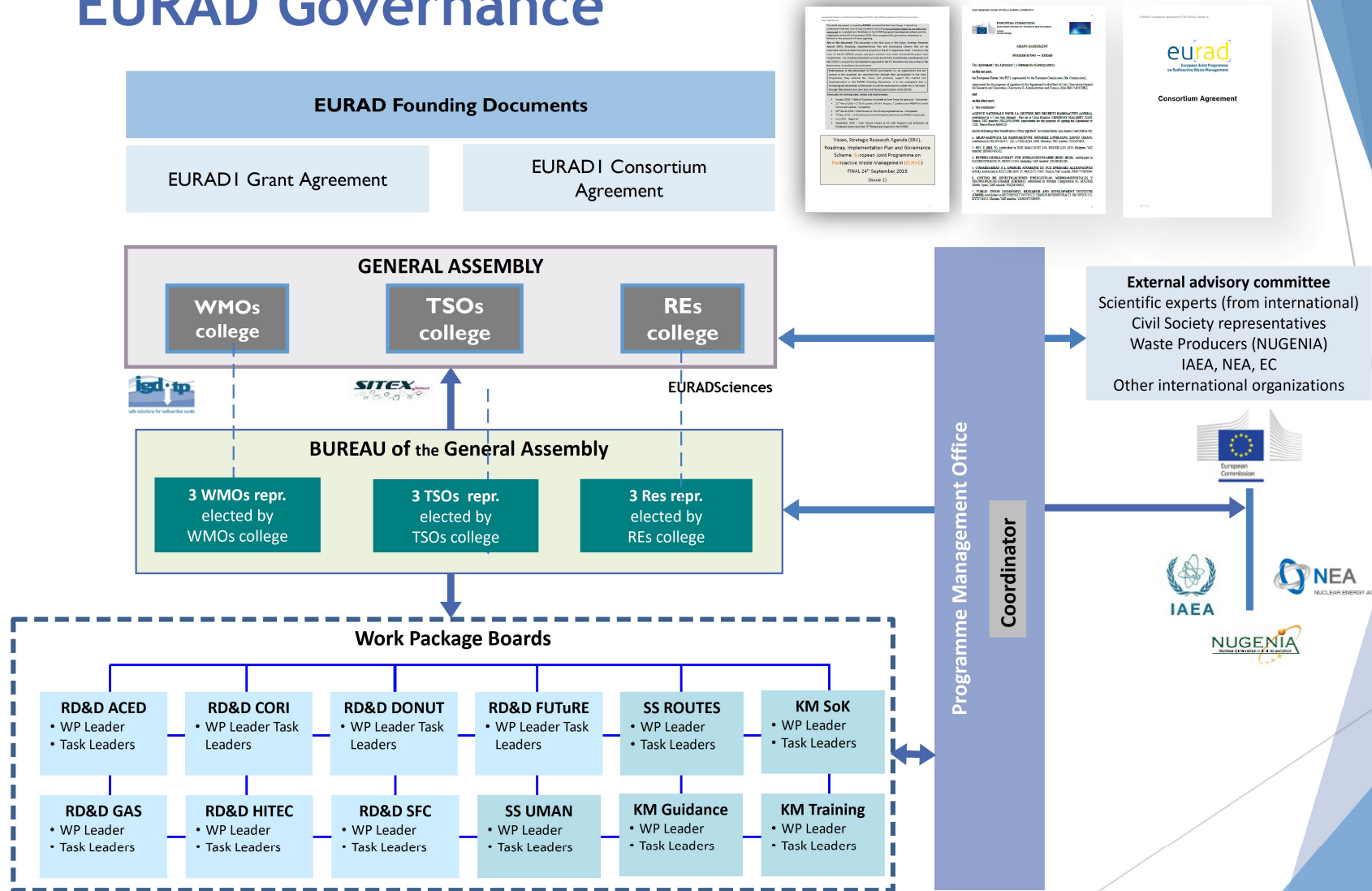
## Knowledge Management



## Strategic Studies



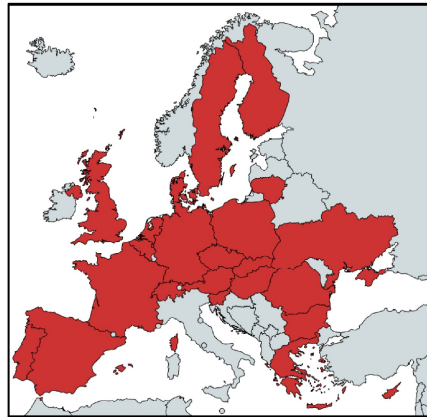
# EURAD Governance



# EURAD General Assembly - Organisations



19 Waste Management Organisations Whose mission covers the management and disposal of radioactive waste



19 nationally funded Research Entities Working on the RWM challenges under the responsibility of MS



13 regulatory Technical Support Organisations Providing S/T basis for supporting regulators' decisions



# EURAD Bureau Representatives

- Bureau = accompanying body to the GA on **prospective aspects**
- It shall:
  - Assist the GA in the elaboration of proposals, notably for:
    - Update of EURAD Strategic Research Agenda and Roadmap;
    - Definition of the second wave of RD&D and Strategic Studies;
    - Definition of the Knowledge Management Work Plan
- It shall also represent the 3 colleges in the **operational execution** of EURAD (typically in case of a significant change/ deviation in the scientific/technical action).
- Acts in close collaboration with the PMO.
- Composition:
  - For each college, 3 representatives nominated by their respective College (including one representative from a country with early stage and/or small RWM programme)
  - Bureau shall designate a **Chairperson** among its members
- Meetings: 4 per year

EURAD GA1 - September 2019

The 3 colleges appointed the following Bureau Representatives, from June 2019 until December 2021



Dirk  
Bosbach  
(RE)



Christophe Bruggeman  
(RE)



Crina Bucur  
(RE)



Valéry Dettileux  
(TSO)



Suvi Karvonen  
(TSO)



Ole Kastbjerg Nielsen  
(WMO)



Stéphan Schumacher  
(WMO)



Ferenc Takats  
(TSO)



Patrik Vidstrand  
(WMO)

# EURAD PMO composition

Marie GARCIA, EURAD Coordinator  
with support from  
Tara Beattie and Jacqueline Oltra



Piet ZUIDEMA,  
EURAD Chief Scientific Officer



Paul CARBOL, JRC



Bernd GRAMBOW, RE



Elisabeth SALAT, TSO



Rob WINSLEY, WMO



# Programme Management Office

- ▶ PMO = accompanying body to the GA for the overall planning, coordination and implementation of the Work Plan and the day-to-day management
  - It is under the responsibility of GA, acts in close collaboration with the Bureau
- ▶ PMO tasks are (described under WP1):
  - Management and coordination of the administrative, legal and financial aspects;
  - Contribute to overall operational scientific and technical coordination/ integration/ interfaces, for consistency and as facilitator;
  - Support the Bureau/General Assembly in the extension/update of SRA and Roadmap;
  - Internal communication and meetings of the Consortium, in closed link with the Bureau and the WPL;
    - Reports periodically to GA for operational development of EURAD activities, as needed and necessary
  - Contribute to dissemination, in close link with the WPL and the Bureau;
  - Coordination of the interfaces and interactions at international level, in closed link with the Bureau.

# WP 9 - ROUTES

## Strategic Study WP - Waste management routes in Europe from cradle to grave

Elisa Leoni

KoM 16 September 2019, IRSN, Fontenay-aux-Roses, France



*The project leading to this application has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No 847593.*

# WP 9 - ROUTES: Participants

Andra (FR, WMO)  
 ARAO (SL, WMO)  
 Bel V (BE, TSO)  
 CIEMAT (ES, TSO)  
 COVRA (NL, WMO)  
 DEKOM (DK, WMO)  
 EEAE (GR, WMO)  
 FTMC (LT, TSO)  
 FZJ (GER, RE)  
 GRS (GER, TSO)  
 IAE (LT, TSO)  
 INCT (PL, RE)  
 IRSN (FR, TSO)  
 IST-ID (PT, RE)  
 IST-LPST (PT, RE)  
 EIVM (SL, TSO) linked to JSI

LEI (LT, RE)  
 DMT (GER, RE) linked to NCSR  
 NES (AT, WMO)  
 NTW (CS) linked to IRSN  
 NJF (SK, TSO)  
 ONDRAF/NIRAS (BE, WMO)  
 Orano (FR) linked to CEA (FR, RE)  
 RWM (UK, WMO)  
 SCK-CEN (BE, RE)  
 SKB (SE, WMO)  
 SSTC NRS (UA, TSO)  
 STUBA (SK, RE)  
 SÚRAO (CZ, WMO)  
 SURO (CZ, TSO)  
 TS Enercom (HU, TSO)  
 TUS (BG, RE)  
 UCY (CY, RE)  
 GSL (UK) linked to VTT (FI, TSO)  
 VUJE (SK, TSO)



35 organisations

21 countries

Elisa Leoni



# WP 9 - ROUTES: What?

## ► Describe and compare the different approaches to waste characterisation, treatment, conditioning and long-term management routes

- Identifying **challenging waste** to be collaboratively tackled within EURAD
- Sharing experience, knowledge and comparing strategies for the management of challenging waste, with or without WAC, including **specific issues for small inventory Member States**
- A specific work on the comparison of radwaste **characterisation** approaches and methodologies with a focus on legacy, historical and small amount of waste
- Comparison of existing/preliminary **WAC** and approaches to set up WAC (methodology, licensing process, how compliance is verified...)
- Strong interaction with CSOs so to promote discussion and participation of CS and to facilitate the translation of ROUTES work

## ► Outputs

- ⇒ Identify the **safety-relevant issues** and **R&D needs** associated with the waste management routes (from cradle to grave)
- ⇒ Evaluate the feasibility and identify **opportunities for collaboration (shared technologies and facilities)** between MS

### Inputs from:

- Participants past and present EU projects (CHANCE, THERAMIN, SAPIERR, CORI, SFC, GAS ...)
- initiatives carried out at international level such as IAEA, NEA



# WP 9 - ROUTES: Overview of tasks

## T2 Identification of Challenging Waste to be collaboratively tackled within EURAD

- 2.1 Identify challenging wastes and map existing WM Routes (if any)
- 2.2 Compare knowledge and strategies for their management

## T3 Description and comparison of RW characterisation approaches

- 3.1 Radio-analytical characterisation of RW and waste with **complex/toxic properties**
- 3.2 Characterisation approaches of **historical and legacy waste**

## T4 Identification of WAC used in MS for different disposal alternatives

- 4.1 Current use of WAC
- 4.2 Sharing experience on WM with/or without WAC
- 4.3 R&D needs an opportunities of collaboration

## T6 Shared solutions in European countries

- 6.1 State of the art on shared developments/technologies/facilities
- 6.2 Case studies
- 6.3 Assess feasibility of developing shared solutions

## T5 RWM solutions for small amounts of waste

- 5.1 Knowledge about disposal options for SIMS
- 5.2 Define predisposal routes for disposal

## T7 Interaction with Civil Society

- 7.1 Scoping of Routes and action plan
- 7.2 Implementation of the action plan

## T1 Coordination

review & guidance  
Coordinate exchange with:  
NEA and IAEA and EU Projects  
Other WPs

Elisa Leoni



**Thank you!**  
**Questions?**

