



TRAINING AND MOBILITY IN EU PROJECTS EURAD AND PREDIS

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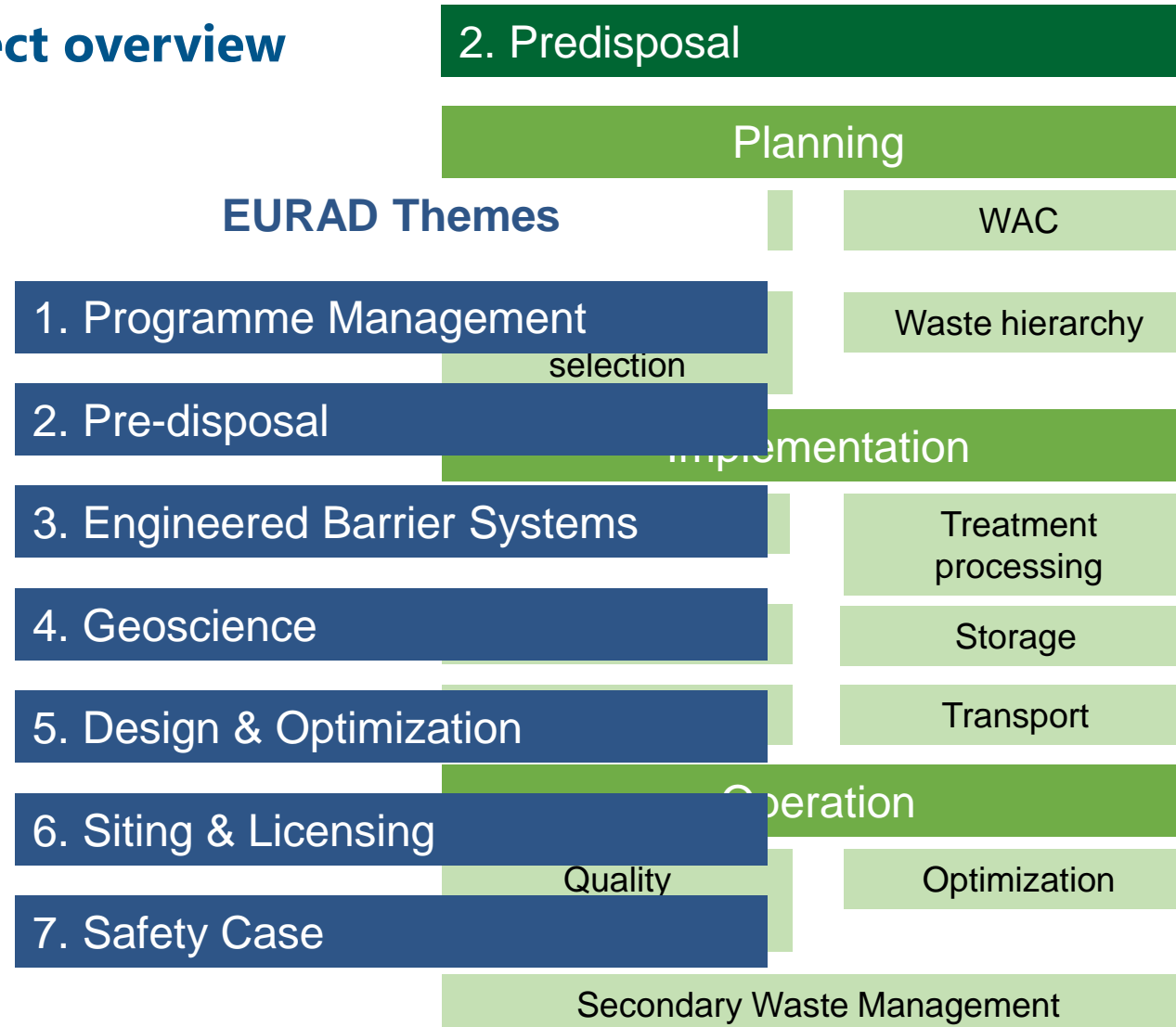


The project leading to this application has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement n° 847593.

Knowledge management (KM) is critical to ensure safe and efficient radioactive waste management over the whole life cycle.

KM is encouraged by the European Commission, through the Waste Directive, to improve the progress towards implementation of national radioactive waste disposal programmes.

EURAD and PREDIS project overview



What is knowledge management?

IAEA defines knowledge management (KM) as:

*“an integrated, systematic approach to identifying, acquiring, transforming, developing, disseminating, using, sharing and preserving knowledge, relevant to achieving specified objectives”**



Knowledge management in EURAD

Roadmap

A common framework to structure knowledge

State of Knowledge

What we know and why its important

Guidance

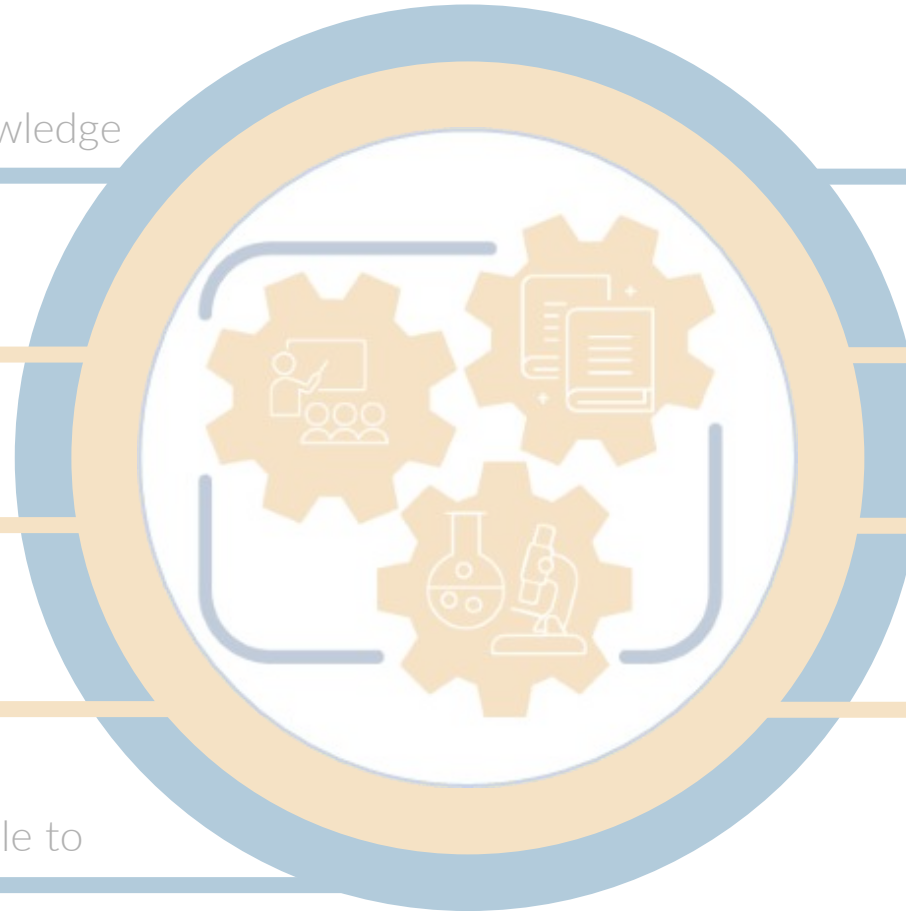
Best practice and lessons learned

Training & Mobility

Nuclear experience and know-how

Networking & Tools

Connecting people to people, and people to content



Knowledge management in PREDIS

Knowledge management programme
Develop a PREDIS Roadmap

State of Knowledge

What we know and why its important

Training

Nuclear experience and know-how

Mobility

Nuclear experience and know-how

EURAD-PREDIS Joint Statement on Knowledge Management

EURAD Training and Mobility Work Package

Work Package Lead:



Partner organizations:



PREDIS Knowledge Management Work Package

Work Package Lead:



Partner organizations:



Main objectives

Both project WPs aim to assist end-users in:

- “an integrated, systematic approach to **identifying, acquiring, transforming, developing, disseminating, using, sharing and preserving knowledge (and skills)**, relevant to achieving specified objectives”

To this end, they supports **competence (= knowledge, skills and attitudes) building** through:

- A portfolio of needs-driven (existing and newly developed) **training courses**
- Organization of **webinars** on broad and specific topics by subject-matter experts
- A dedicated **Mobility Programme**
- **Support** for their **PhD communities**

Training programme – Objectives and set up

- The School of RWM and PREDIS KM WP:
 - Act as **coordinating structures** for all training activities
 - Pay attention to the **best-fitted training format**
 - Guarantee **scientific state-of-the-art** (by enlisting subject matter experts as lecturers)
- End-users are
 - Professionals
 - Students
 - Next generation of experts
- Training portfolio linked to EURAD Roadmap
- No registration fee

Training programme - Courses

- All new training courses are **needs-driven**
 - **End-user feedback** was gathered: 80 and 33 respondents in EURAD and PREDIS, respectively
 - **Training needs** were identified
- Over 150 **existing courses** identified (September 2021)
- A **gap analysis** was performed
 - E.g. uncertainty management in radioactive waste management
- All new training courses are **quality-driven**
 - Quality criteria based on **IAEA's Systematic Approach to Training** developed in EURAD, ongoing in PREDIS
 - ➔ Ensure uniform quality in training courses

Training programme - Webinars

- Both projects organize webinars on **broad** and **specific** topics by subject-matter experts
- Aim is to **share knowledge** with the entire radioactive waste management community and beyond
- Registration is **free**
- Recorded in order to **preserve knowledge** and **facilitate dissemination**

Mobility Programme – Objectives

- The EURAD and PREDIS Mobility Programmes financially support:
 - Performing **internships**
 - Performing **technical visits**
 - Attending **training courses**
 - Attending **conferences**
- Focussed mostly on **implicit** and **tacit** knowledge
- Based on **learner needs**
 - Applicants can contact project partners directly with specific questions
 - List of infrastructures is available on School of RWM website: <https://euradschool.eu/infrastructures/>
- Project partners can offer internships

Mobility Programme – Organization

- Organized via **online platform** (*Evalato*)
 - Guidelines
 - Application information
 - Submission of applications
 - Evaluation
- Fixed lumps sums
- Mandatory mission reports
 - Important output and input for KM activities

Support the PhD community

- **Support their PhD communities by providing:**
 - Information on available/upcoming courses
 - The possibility to perform mobility actions
 - An overview of all PhD research performed in EURAD/PREDIS
 - A list of events of interest for PhD students
 - Involvement in events, meetings and workshops
- The aim is to **foster a community** between the PhD students and professionals
 - ➔ PhD students are the future key figures in radioactive waste management!

Achievements – Launch of website

Websites contain **comprehensive overview** of:

- Training courses and webinars
- Mobility
- PhD community (e.g. overview of students, available positions, list of publications)

In addition, the PREDIS webpage contains links to:

- KM overview
- Other KM resources (links to webpages of interest)

Achievements – Training courses

Four training courses have been organized:

- **Two in PREDIS**
 - “Overview of PREDIS”
 - “Management of LILW”
- **Two in EURAD**
 - “Multiphysical couplings in geomechanics”
 - “Introductory course to EURAD and Radioactive Waste Management”

Achievements – Webinars

Twenty-four webinars have been organized:

- **11** in PREDIS, for example:
 - “Digital Twins for Waste Management”
 - “Innovations in cemented waste package monitoring and storage”
 - “Metallic and organic waste characterization (in collaboration with CHANCE project)”
- **13** in EURAD, for example:
 - “Celebrating 20 years of the IGSC”
 - “Knowledge Management in Nuclear Organizations”
 - “The next-generation scientific research for the safe management of radioactive waste – EURADSCIENCE”

On average 115 persons attend a live webinar (average of all 24 webinars)

Achievements – Mobility Programme

As of the end of April 2022

Type of Mobility	N° accepted PREDIS	N° completed PREDIS	N° accepted EURAD	N° completed EURAD
Internal (AM, visits)	6	2	11	3
Cross WP	2		1	0
External	4	2	0	0
Ukrainian support	2	2 (ongoing)	4	4 (ongoing)

Achievements – Support PhD community

- **>130 students involved**
 - 34 PREDIS students (KPI: 15)
 - ~90 EURAD students
- **Master students, PhD students and postdocs**
- **Six student events:**
 - Three within PREDIS
 - Three within EURAD
- **Students presented through project newsletters**

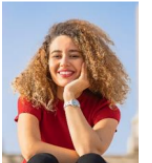


Newsletter #3

November 2021

From this newsletter going forward, two students will present themselves so that readers will get to know them and the work they will perform in the frame of PREDIS.

Yasmine HELAL is a chemical engineer specialized in material sciences, currently pursuing a master's in project and strategic management along working as project assistant on PREDIS project with Orano. She is working in WP7 on Innovations in cemented waste handling and pre-disposal storage mainly on task 6 (Demonstration and Implementation).



This journey has been highly fulfilling and enriching as it represents her first experience working on a European project involving numerous stakeholders, with a high environmental impact and a valuable innovation component. She believes that managing radioactive waste is extremely crucial especially with the increase of reliance on nuclear energy in Europe.

She is expecting that through this multi-partner initiative, there will be more collaborative opportunities in the future which results in a better access to knowledge. She is looking forward to seeing how the next chapters unfold.

PREDIS Newsletter #3

PHD CORNER

Dimitra Zerva : 2020-2023 – Paul Scherrer Institute WP FUTURE

Supervised by: Prof. Sergey Churakov, Dr. Martin Glaus

Title: Diffusion and retention of strongly sorbing radionuclides in compacted clay minerals



I graduated in 2016 from the Geological School of Aristotle University of Thessaloniki (Greece) and continued with my Master in Environmental Hydrogeology at the same university. In 2020 I started my PhD at the Paul Scherrer Institute and since then I conduct my experiments in the Hot Labor of the Nuclear Energy and Safety department.

The safe disposal of radioactive waste is of great importance to many societies and hopefully the results of my survey will contribute, will add a gravel to the environmental protection wall that we try to build during FUTURE project.

EURAD Newsletter #7

Summary

EURAD and PREDIS E&T WPs contribute greatly to the overall KM objectives through Training and Mobility activities:

- **24** webinars
- **30** mobility applications approved
- **7** completed mobility actions (6 ongoing)
- **4** training courses organized
- **3** training courses planned
- **>130** students actively involved
- **6** student-focused events organized

... and counting!



QUESTIONS?

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EURAD School of RWM – Achievements – Webinars

Title	Date	# attendees	# views (YouTube)*
Synergies of EURAD with the PREDIS project addressing pre-disposal waste treatment	28/10/2020	30	62
News from the German Site Selection Procedure	25/11/2020	19	77
Celebrating 20 years of the IGSC	27/01/2021	45	34
Knowledge Management in Nuclear Organizations	24/02/2021	22	23
The IGD-TP: European waste management organisations coordinating international R&D activities	31/03/2021	19	57
The next-generation scientific research for the safe management of radwaste - EURADSCIENCE	28/04/2021	75	9
Steps for Sharing (ERDO Association)	26/05/2021	44	18
The SITEX.Network	30/06/2021	53	16
EC-JRC activities on RWM and decommissioning	29/09/2021	51	11
US Nuclear Waste Management and Disposal Strategies	06/10/2021	107	17
News on the siting process in Italy	27/10/2021	57	10
Methods of information and knowledge transfer regarding final disposal of radwaste	23/02/2022	133	5

* As of March 2022



PREDIS WP3 – Achievements – Training courses and webinars

Title	Date	registrants	attendees*
Innovations in cemented waste package monitoring and storage	Jan, 2021	127	135
Innovations in metallic material treatment and conditioning.	Feb, 2021	138	106
Innovations in solid organic waste treatment and conditioning	Mar, 2021	168	113
Innovations in liquid organic waste treatment and conditioning.	Mar, 2021	205	124
Waste Acceptance Criteria (WAC) 1 –information and resources	Apr, 2021	208	177
Waste Acceptance Criteria (WAC) 2 – needs, challenges and opportunities	May, 2021	173	119
Gap Analysis and defining the baseline Strategic Research Agenda	Sep, 2021	>100	96
Metallic and organic waste characterization (together with CHANCE project)	Oct, 2021	120	106
Development of geopolymers for pre-disposal waste management	Oct, 2021	129	99
Knowledge Management	Nov, 2021	126	86
Digital Twins for Waste Management	Feb, 2022	150	147

* As of March 2022