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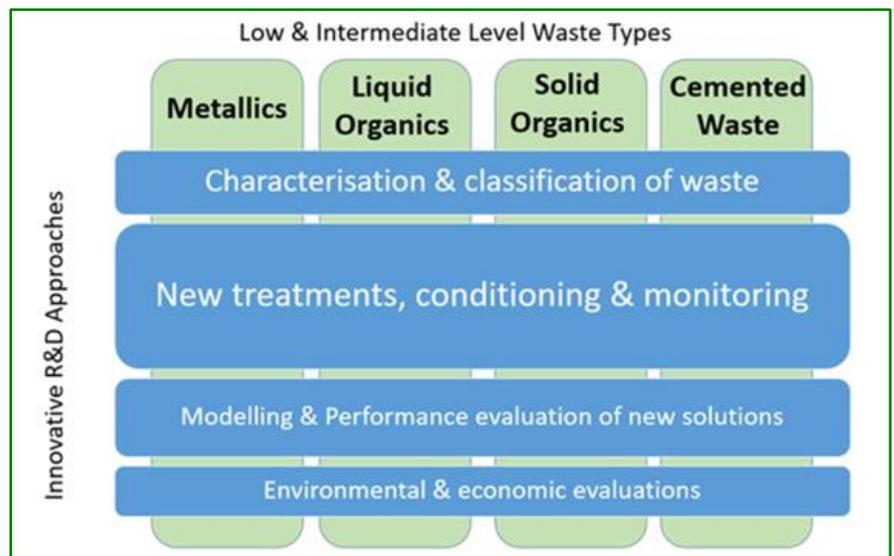
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## The PREDIS (Predisposal Management of Radioactive Waste)

project is a research and innovation action granted by the European Atomic Energy Community which targets the development and improvement of activities for the characterisation, processing, storage and acceptance of intermediate- and low-level (ILW/LLW) radioactive waste streams. This 4-year project, which kicked off in September 2020, is being carried out by a consortium of 47 partners from 17 countries and is coordinated by VTT Technical Research Centre of Finland. The total project budget is 23.7 M€ of which nearly 14 M€ is provided by co-funding from national and industry sources. The project scope was developed with industry feedback regarding priority needs aligned to waste streams, with tasks specific to innovations for conditioning, treatment and performance evaluation.

The PREDIS project targets innovation and break-through technologies for safer, more efficient, more economic, and more environmentally-friendly handling of ILW/LLW radioactive wastes. The focus is on conditioning of metallic materials, liquid organic wastes and solid organic wastes arising from nuclear plant operations, decommissioning and other industrial processes. The project also addresses digitalisation solutions for improvements in handling and assessing cemented-waste packages in extended interim surface storage.



This first newsletter intends to provide a general overview of the aims and structure of the PREDIS project and begins spotlighting project partners and achievements. Future newsletters will emphasise new R&D results, strategic assessments, knowledge management activities as well as continue to spotlight project partners. We hope that the PREDIS newsletters will encourage different stakeholders to follow the work performed within the project and contribute to productive interactions and exchange.

-Maria Oksa and Erika Holt (PREDIS Coordinators)

This project has received funding from the Euratom research and training programme 2014-2018 under grant agreement No 945098.



Connect with us:

[www.predis-h2020.eu](http://www.predis-h2020.eu)

[predis@vtt.fi](mailto:predis@vtt.fi)

## Project kick-off workshop (October 19 – 21, 2020)

The PREDIS project conducted its first internal workshop and open stakeholder session at the end of October in only the second month of the project. The workshop was held online and brought together an audience representing the project's 47 partner organisations from 17 countries. As the PREDIS Project Coordinator, VTT opened the workshop and provided operational details. European Commission Project Officer Roger Garbil shared some opening words of encouragement with the project consortium and paid tribute to the long career of Christophe Davies whose work was instrumental in creating not only the PREDIS project, but also in the success of EURATOM over six Framework Programmes since 1993. Work Packages 2 (Strategy) and 3 (Knowledge Management) discussed their plans and objectives with the entire project consortium, emphasising the need and expectation for contributions from the other, technical work packages and wider community.

On the second day of the workshop, each individual work package convened separately in their own meeting sessions for deeper discussions on task plans and schedules. The 15 approved members of the PREDIS external End User Group (EUG) participated in the technical Work Package sessions in order to discuss project targets in more detail and give valuable insight on industry challenges in predisposal activities. This dialogue with the EUG is critical to the success of the PREDIS project and will continue over its duration through surveys, webinars and annual workshops.



On the third day of the workshop a free public stakeholder session was conducted. The goal of this session was to provide a glimpse into the scope and objectives of the PREDIS project and to raise awareness of the diverse activities included in predisposal management of radioactive waste. The stakeholder session also featured several invited speakers from complimentary EU projects ([EJP EURAD](#), [SHARE](#), [MICADO](#), [CHANCE](#) and [THERAMIN](#)) as well as the International Atomic Energy Agency (IAEA) who shared views, information and potential opportunities for cooperation on the predisposal management of radioactive waste. All of these presentations can be found on the [PREDIS website](#).

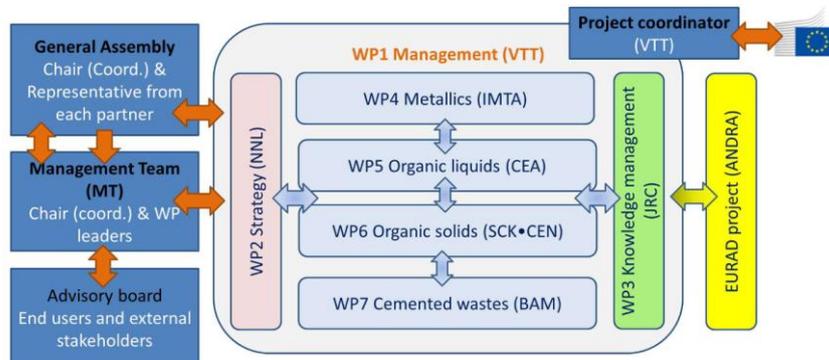


The final activity of the stakeholder session was a panel discussion of predisposal needs from waste owner, waste producer and waste management organisation points-of-view featuring Mark Dowson (Sellafield Ltd, UK), Abderrahim Al Mazoui (SNE-TP and EDF, France), Irina Gaus (IGD-TP and Nagra, Switzerland), Rebecca Robbins (IAEA, Austria) and Piet Zuidema (Chief Scientific Officer, EURAD project). This discussion, facilitated by Erika Holt (VTT), was very lively and fruitful. Some key takeaways included:

- ▶ Rebecca Robbins stated that every challenge tackled by PREDIS should be connected to an explicit end user need.
- ▶ Mark Dowson underlined the need to assess the full lifecycle of the radioactive material in predisposal management. He also mentioned that PREDIS can be a game changer by, e.g., delivering a consensus on geopolymers and developing innovative characterisation techniques.
- ▶ Irina Gaus made clear that WMOs greatly appreciate technologies that can be applied to high volume waste streams.
- ▶ Piet Zuidema explained that it is important to assure predisposal processes in their entirety with full documentation and good knowledge management.
- ▶ Abdou Al Mazoui concluded that the PREDIS project is already a success in that it lays a foundation for bringing forth solutions, increasing digitalisation in predisposal activities and attracting the next generation of experts.

## Project Organisation

PREDIS consists of four technical R&D work packages (WP4-7), a strategic work package (WP2) and a knowledge management work package (WP3). There will be significant information exchange between all the work packages. The project coordinator and Work Package 1 (Management and Dissemination) leader is VTT (Finland). The PREDIS project involves a consortium of 47 partner organisations from 13 EU member states, Norway, Switzerland, Ukraine and the UK.



## Cooperation

The PREDIS project will operate in close collaboration with other EU projects, especially EJP EURAD, and international organisations such as SNETP, IGD-TP, IAEA and NEA for mutual benefit and impact. Areas of cooperation include knowledge management, training, mapping of industrial technical and competence needs, future research agenda priorities and sharing information on the challenges and opportunities in pre-disposal related issues. It is the target to establish Memorandums of Understanding with various projects having complimentary topics. Initial cooperative discussions have already taken place with the [MICADO](#), [CHANCE](#), [SHARE](#), [THERAMIN](#) and [EJP EURAD](#) projects, including their involvement at the PREDIS Workshop in October 2020. PREDIS has also delivered a 30-minute lecture on pre-disposal issues at the [“Introductory course on EURAD and Radioactive Waste Management” \(September 2020\)](#) and a lecture for information sharing at a [EURAD lunch-and-learn session \(October 2020\)](#). For additional information, visit the [PREDIS](#) and [EURAD](#) web pages. Please [contact us](#) if you have suggestions for additional cooperation possibilities with other projects or groups.

## End User and Stakeholder Engagement

End users will play an important role in the PREDIS project by providing guidance on the research and innovation priorities of the project. We encourage and welcome utilities, plant/site operators, waste producers, waste owners and waste management organisations to [join our End User Group \(EUG\) via the link on the PREDIS website](#). Through contributing feedback to plans and reports, case study information and materials for investigation, End Users can directly benefit from project work which is oriented to their needs. In many cases, End Users also provide co-financing to the partners of this joint program. EUG members need to complete an application and sign a commitment letter covering confidentiality. There are currently 15 approved EUG members and another seven applications received to-date. We are targeting a group with over 30 members, so please apply!

The wider-reaching Stakeholder List includes members from research organisations, universities, technical support organisations, service and supply chain companies, regulators and the public, all of whom have an interest in following the project achievements and providing feedback.

To learn more, any interested parties are welcome to [join our EUG or Stakeholder List via our website](#). Registration ensures you will receive the PREDIS newsletters with updates of the project and information on upcoming events related to predisposal waste management.

## WP2: Strategic Implementation

The purpose of PREDIS Work Package 2 is to outline important research and development areas (both short and long-term), the objectives, the outcomes and desired impacts and the types of intervention and resources available by Member States regarding predisposal management of radioactive waste. These aims will be realised with extensive input from a wide range of stakeholders across member states and international bodies. Through identifying the organisations responsible for waste streams, who have an interest in improving predisposal waste management activities, and establishing a broad, inclusive predisposal ‘user community’ of actors (utilities, nuclear facility operators, decommissioners, waste management organisations), WP2 will provide an opportunity for networking on challenging issues of community-wide interest in order to define critical gaps, priorities and needs, progress drivers and barriers, key infrastructures/technologies and cross-border implementation opportunities. This work package has particularly close alignment with international groups aimed at fostering cooperation and driving innovation, such as SNETP (Nugenia), where the PREDIS project scope was initially developed during 2019.



*PREDIS project preparation at the Nugenia Forum 2019.*

WP2 will address strategic issues across all technical work packages, including waste acceptance criteria and life cycle assessments to establish the environmental and economic impacts associated with the innovative predisposal management solutions. The main deliverable of WP2 will be a Strategic Research Agenda which, drawing on the work performed in the PREDIS project itself, lays out a structured, forward-thinking assessment of the future predisposal landscape and provides an implementable roadmap and plan to get there.

WP2 lead: [Anthony BANFORD](#), [Matthew RANDALL](#) and [Samantha REE](#), National Nuclear Laboratory (NNL), UK



17 partners  
contributing 223  
person-months  
effort

## WP3: Knowledge Management

The main objective of WP3 is to develop and transfer knowledge and competence in predisposal management of radioactive waste across the national programmes of Member States and to ensure the preservation and transfer of this knowledge to coming generations. In order to achieve these aims, different actions are planned and will be organised in alignment with EURAD (European Joint Programme on Radioactive Waste Management) knowledge management activities to ensure coordination and optimisation of outcomes. Over 10% of the budget is dedicated to initiatives fostering the training of next generation experts, both through direct knowledge management actions (establishing procedures, formulating guidance documents, etc.) as well as integrated technical work package (WP4 to WP7) opportunities allocated to PhD students, Postdoctoral associates, internships and trainees.

Work package 3 will consider knowledge management aspects for all of the RD&D work packages included in the PREDIS project through three focus areas:

- Development of a **Knowledge Management Programme** aligned with EURAD
- **State-of-Knowledge (SoK)** collection and documentation
- Implementation of **Training and Mobility** programmes

The needs for knowledge management differ between the different PREDIS end-users and stakeholders. Alignment of the objectives of these groups with project outcomes is a key driver of this work package and will require substantial engagement.



WP3 leads: [Paul CARBOL](#), Joint Research Centre (JRC), DE, [Lara DURO](#), Amphos21, ES and [Vaclava HAVLOVA](#), UJV Rez, CZ



**8 partners**  
**contributing 78**  
**person-months**  
**effort**

## WP4: Innovations in metallic material treatment and conditioning

Large amounts of radioactive metallic wastes are generated by the nuclear industry. Much of this material can be cleared and recycled in accordance with the European Circular Economy strategy. Treatment and recycling of metallic wastes will serve to minimise overall environmental impacts by reducing waste volumes (and disposal facility footprints) and enhancing long-term safety by decreasing gas generation due to metal corrosion. Moreover, decreasing waste management costs will reinforce the competitiveness of nuclear energy.

Work Package 4 will formulate a comprehensive evaluation of the metallic waste inventory (both on hand and forecasted) industry-wide, including from decommissioning of nuclear facilities and accounting for the benefits of treatment schemes. Additionally, new characterisation methods and procedures which will allow improved (from an industrial context) classification of metals will be developed, decontamination processes to allow declassification of valuable materials such as nickel alloys and recycling of ferrous metals while controlling residual wastes in treatment effluents will be devised and, finally, innovative encapsulation process (see image) will be tested and optimised for reactive metallic materials which fulfil the safety requirements during geological disposal.



*Encapsulated metallic waste, courtesy ORANO.*

WP4 lead: [Bernd GRAMBOW](#) and [Abdesselam ABDELOUAS](#), Institut Mines Télécom Nantes Atlantique (IMT), FR

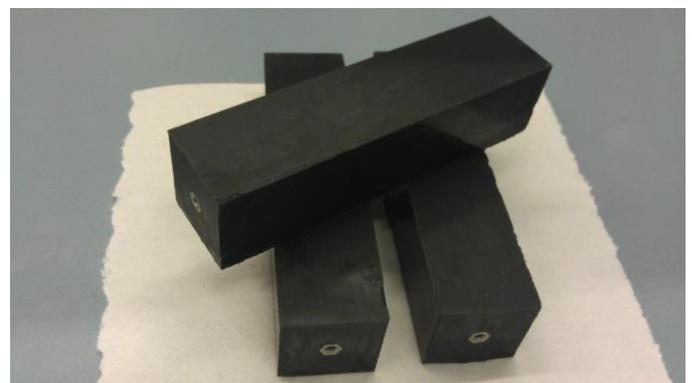


22 partners  
contributing 534  
person-months  
effort

## WP5: Innovations in liquid organic waste treatment and conditioning

Work Package 5 is dedicated to the complete development of direct conditioning solutions for radioactive liquid organic waste (RLOW), including validation tests using real wastes and large-scale feasibility evaluations. Formulations using innovative geopolymers and related alkali activated materials will be studied for encapsulating RLOW and the most promising solutions will be optimised in terms of waste loading rate and matrix performance. The scope of work will also include examining process robustness with regard to waste diversity and raw material variability, in order to find the largest technical and economic benefits for RLOW predisposal management. Ultimately WP5 will aim to produce final wasteforms showing characteristics compatible with waste acceptance criteria for (prolonged) storage and transport and final disposal.

Work Package 5 began with a necessary data collection step which includes taking an inventory of radioactive liquid organic wastes and the available conditioning solutions. Once this preliminary step is completed, the experimental stage of the project will begin with studies of direct conditioning processes (using inactive and active laboratory testing as well as inactive scale-up tests) and evaluations of resulting matrices, including durability testing under various conditions, behaviour under irradiation and fire exposure and leaching of radionuclides. Throughout the work package, dissemination of the results will be ensured by various communication and training opportunities.



*Geopolymer composite wasteforms incorporating 20 vol% industrial oil.*

WP5 lead: [Maxime FOURNIER](#) and [David LAMBERTIN](#), Commissariat à l'énergie atomique et aux énergies alternatives (CEA), FR



**19 partners  
contributing 617  
person-months  
effort**

## WP6: Innovations in solid organic waste treatment and conditioning

The aim of Work Package 6 is to provide defined, robust and industrially viable solutions for the management of Radioactive Solid Organic Wastes (RSOW). A variety of both conditioned and non-conditioned waste streams fall into this category. The physico-chemical characteristics of these wastes can be quite diverse and, due to stability and/or reactivity issues, long-term waste management solutions may not yet be available. Examples of RSOW include ion-exchange resins (used during normal operations in nuclear power plants) and other organic resins, common cemented wastes containing organic materials (e.g., consumables, wood) and conditioned organic waste forms such as polymerised and bituminised waste.

Five thermal treatment routes are currently being considered to treat RSOW. Some of these processes have already demonstrated their potential during the THERAMIN project but are not yet ready for industrial deployment. **Plasma Incineration** yields conditioned and immobilised wastes from a single reactor. **Incineration/Gasification** produces ash requiring further immobilisation and one objective is to determine the best binder between cementitious materials and novel materials such as geopolymers. These two matrices will also be used for the immobilisation of residues from **Molten Salt Oxidation**. This technology is currently used for the treatment of liquid wastes and will be adapted to solid wastes. A new process to be examined in PREDIS is **Wet Oxidation** where residues from chemical degradation will be reduced and immobilised by **Hot Isostatic Pressing (HIP)**. HIP technology (see image) can also be used for the reduction and immobilisation of other types of treated wastes as well. Whatever the processes used to treat the RSOW, the resulting end product waste forms (e.g., conventional cement encapsulants, alternative geopolymer encapsulants, glassy materials) will be tested to demonstrate their stability and long-term performance according to a set of uniform Waste Acceptance Criteria (WAC).



*Waste vessel before (left) and after (right) HIP processing, courtesy NNL*

WP6 lead: [Thierry MENNECART](#), Studiecentrum voor Kernenergie / Centre d'Etude de l'Energie Nucléaire (SCK CEN), BE













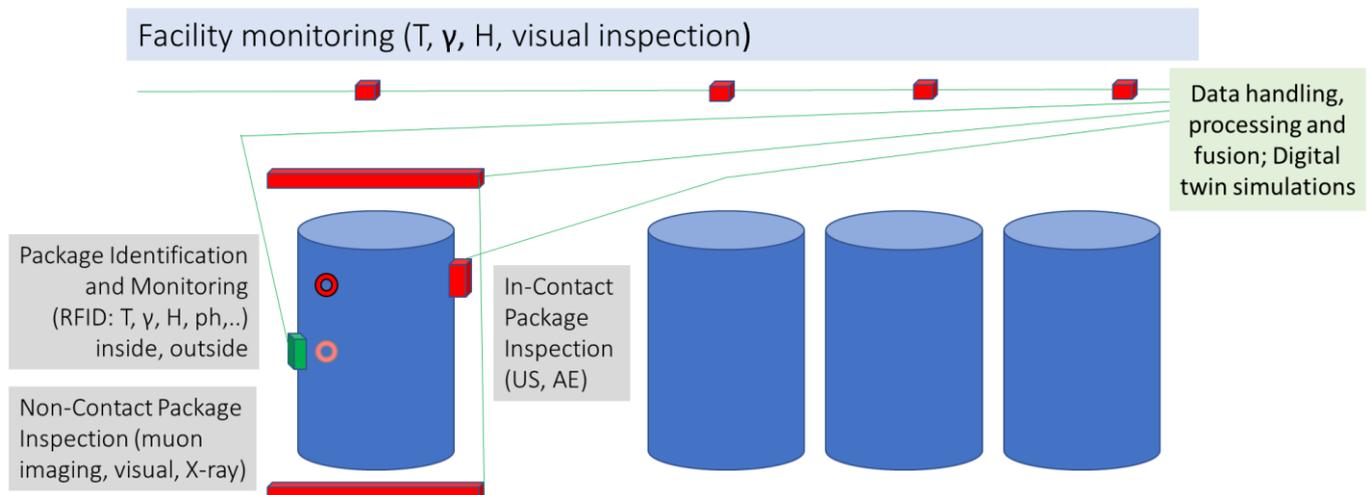



**14 partners  
contributing 509  
person-months  
effort**

## WP7: Innovations in cemented waste monitoring

Work Package 7 will initially map the state of the art of current methods and procedures for cemented waste management, with specific focus on monitoring/long-term storage, will be developed (task T7.2). Methods and procedures for waste package quality assurance, integrity and safe storage will be evaluated and assessed as a part of this process. Non-destructive evaluation (NDE) and monitoring technologies will be emphasised.

As the work progresses, relevant data will be recorded both directly from waste packages and within storage facilities to get a full picture of all conditions and parameters necessary to predict the long-term behaviour and to allow the development of a decision framework. This framework will be based on existing knowledge, measurement data and predictions from digital twins. Digital twins are simulations of radioactive waste packages built from digitised inventory data, characterisation data, chemical and radiological modelling data and monitoring data. Additionally, these simulations will incorporate the results of machine-learning algorithms trained on digital datasets to produce descriptions of the geochemical evolution and the geo- and thermo-mechanical integrity of radioactive waste packages during pre-disposal management steps.



The diagram above indicates the anticipated flow of data in WP7 through tasks T7.3 (Testing and Monitoring Techniques), T7.5 (Data Handling, Processing and Fusion) and T7.4 (Digital Twin). The goal of task T7.6 (Demonstration and Implementation) is to test a prototype cemented waste monitoring system in an operational, storage and handling facility environment.

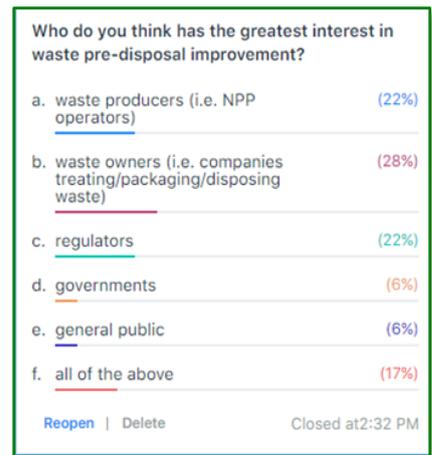
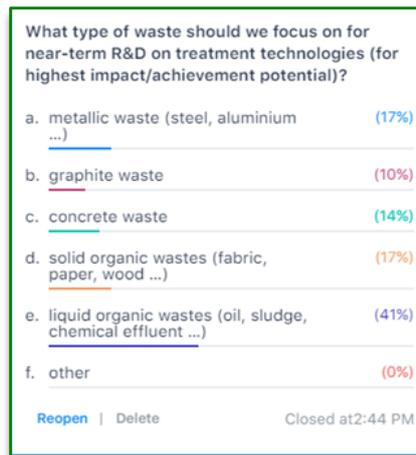
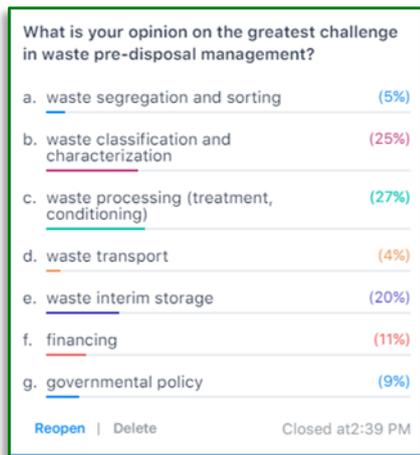
WP7 lead: [Ernst NIEDERLEITHINGER](#) and [Christian KÖPP](#), Bundesanstalt Für Materialforschung und Prüfung (BAM), DE



17 partners  
contributing 412  
person-months  
effort

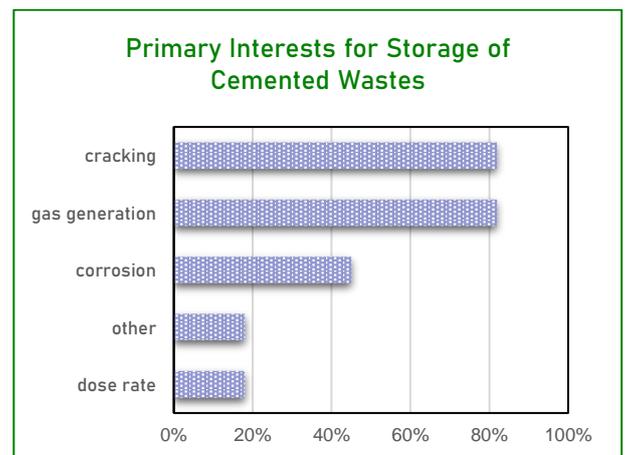
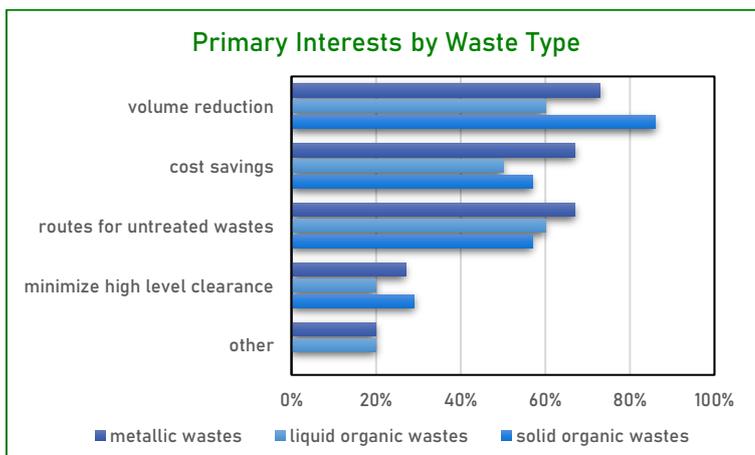
## End User and Stakeholder Feedback

Over the first 3 months of the project, valuable feedback has already been collected from End Users and Stakeholders. This new feedback builds upon that received from over 20 industrial companies during the initial proposal preparation (2019). Live polling was conducted in autumn 2020 during the PREDIS presentations at the EURAD “Introductory course on EURAD and Radioactive Waste Management” and the dedicated lunch-and-learn session (see page 3, Cooperation).



*Examples of PREDIS live polling from EURAD sessions.*

In October 2020 after the project kick-off workshop, PREDIS launched a short online survey targeted to our End User Group and partners with responsibilities for predisposal management of radioactive waste. Snapshots of some of the outcomes from this outreach effort are shown in the graphics below. We encourage End Users and Stakeholders to register via our [website](#) to ensure access to these and future surveys and feedback opportunities, so that your interests and priorities are taken into consideration when project aims are more fully developed and implemented, and the forthcoming strategic research agenda, which may influence future collaborative research.



*Selected results from online EUG survey. There is still time to participate!*

## Partner Spotlights

In this 1<sup>st</sup> newsletter we take a closer look at our partners from Germany and Finland. Future newsletters will highlight other partners and also End Users.

 **BAM** Bundesanstalt für Materialforschung und prüfung (BAM, Germany) is a scientific and technical institute, with responsibility to the Federal Ministry for Economic Affairs and Energy, staffed by more than 1,600 employees. As a large interdisciplinary research organisation, BAM has a wide range of scientific expertise, with departments devoted to analytical chemistry, testing of containment systems for dangerous goods, safety of structures and non-destructive testing, among others. The Non-Destructive Testing Methods for Civil Engineering Division of BAM promotes the practical application of non-destructive testing (NDT) methods for all areas of civil engineering, improves existing methods and develops new methods. Techniques such as acoustic testing, ground penetrating radar, laser-induced breakdown spectroscopy (LIBS), infrared thermography, fibre optic sensor measurements, computed tomography and other geophysical methods are used to assess conditions in concrete and other construction material components. Under the direction Dr. Ernst Niederleithinger (a specialist in NDT applications to civil engineering including geologic repositories), BAM is the Work Package 7 leader. Additionally, Katerina Krebber (Fiber Optics), Mathias Bartholmai (Sensor Technologies), Jörg Unger (Digital Twin) and others at BAM will form a strong and experienced contingent contributing to WP7 tasks regarding the state of the art of current methods and procedures for cemented waste management with specific focus on monitoring during preparation, handling and long-term storage, use of (mainly) NDT and monitoring technologies and digitalisation.



 **KIT** The Institute for Nuclear Waste Disposal at the Karlsruhe Institute of Technology (KIT-INE, Germany) participates in WP7. KIT is a Research University in the Helmholtz Association and one of eleven Universities of Excellence in Germany. With approximately 9000 employees and 25000 students, KIT combines university tradition and program-oriented research focusing in the areas of energy, mobility and information. Research and development work at KIT-INE is integrated in the Helmholtz programme "Nuclear Waste Management, Safety and Radiation Research" (NUSAFE), which includes issues related to the long-term safety of nuclear waste disposal and decommissioning of nuclear facilities. KIT-INE is involved in both national and international research activities. KIT-INE has coordinated/ coordinates a number of EU projects, e.g., CEBAMA (Cement-based materials, properties, evolution, barrier functions, within EURATOM) and CORI (Cement-organic-radionuclide interactions, within EURAD). KIT-INE regularly cooperates with the German Federal Company for Radioactive Waste Disposal (BGE), the Swedish Nuclear Fuel and Waste Management company (SKB) and the Belgian National Agency for Radioactive Waste (ONDRAF/NIRAS), among others. With respect to WP7 of the PREDIS project, KIT-INE (Xavier Gaona, Marcus Altmaier) will contribute to the adaptation and demonstration of digital twin technology. The use of advanced analytical techniques available at KIT-INE for the measurement of radioactive samples will be applied to the characterisation of cement-based waste packages, thus contributing to the calibration/validation of geochemical and mechanical models used in digital twin simulations.



**VTT**

**VTT Technical Research Centre of Finland Ltd** (VTT, Finland) is the PREDIS project coordinator. VTT is a public institute of 2100 persons, conducting research and innovation activities for the needs of industry and a knowledge-based society. In addition to coordination by Maria Oksa, VTT has roles in the project addressing strategic activities (WP2) in the development of research agendas, gap analysis, and stakeholder engagement led by Erika Holt. Additionally, Anumaija Leskinen leads VTT's WP4 work on developing and applying novel methods for analysis of difficult to measure radionuclides, Markku Leivo leads VTT's WP6 work on immobilisation of residual wastes from thermal treatment using geopolymers and verifying material performance and Edgar Bohner leads VTT's WP7 work on developing and demonstrating solutions for wireless data and energy transmission through waste package structures, providing improved data processing and interpretation based on machine learning and neural networks and creating tools for (semi)automated decision making for end users. VTT works closely with Finnish energy industry companies (and PREDIS project stakeholders) Teollisuuden Voima Oy (TVO), Fortum Power and Heat Oy, and Fennovoima Oy (decision-in-principle) who represent Finland's nuclear power plant operators with responsibility for predisposal radioactive waste management.



**The University of Helsinki** (UH, Finland) was established in 1640. It is the most versatile research university in Finland, with 11 faculties, ~ 31,000 students and ~ 7,800 employees. **The University's Radiochemistry Unit** participates in WP6 of PREDIS. The Unit is part of the Faculty of Science's Department of Chemistry. It is the largest University based radiochemistry research centre and education provider in Finland, with 40+ staff members and researchers. Gareth Law is the PREDIS

PI at UH, working alongside Post-Doctoral researcher Gianni Vettese and research technicians/engineers Kathleen Doig and Maximilian Leberl. Staff experience and infrastructure at UH is ideally suited to WP6 subtasks 6.6.1-6.6.3 where model conditioned wastes will be leached and characterised. Specifically, UH scientists will be able to provide data on the leaching kinetics of the wastes, the chemistry (radionuclide and bulk element speciation, colloidal fractions, etc.) of the leachates and the (reactive) surface and bulk properties of the wastes. In particular, our experience with spatially resolved X-ray spectroscopies and electron microscopy will be vital in understanding the surface chemistry of the wasteforms. UH works closely with VTT and Finnish industry partners.



## New Publications



This review article aims at summarising the main published results, and fostering further investigations into innovative uses of organic liquids incorporated into geopolymers for a wide range of applications.



“Incorporation of organic liquids into geopolymer materials – A review of processing, properties and applications”

by Charles Reeb, Christel Pierlot, Catherine Davy and David Lambertin at PREDIS partners Ecole Centrale de Lille and CEA

<https://doi.org/10.1016/j.ceramint.2020.11.239>

## Upcoming Events

*Please see our website for a full listing of PREDIS project events.*

### PREDIS Project Live Webinar Series (January 19 – March 30, 2021)

From January 19 to March 30, 2021, the PREDIS project will host a series of free technical webinars to share insights on technical innovation plans from the work packages, hear industry case studies and discuss industry needs, challenges and priorities. [Register here!](#)

- **January 19, 13-16 CET: Innovations in cemented waste package monitoring and storage**  
*Learn about the State-of-the-Art in wasteform/package/facility monitoring techniques (e.g., muon imaging) and how these applications can be improved and extended in the future.*
- **February 16, 13-16 CET: Innovations in metallic material treatment and conditioning**  
*Getting the most from optimised characterisation, efficient decontamination and advanced conditioning of both ferrous and more reactive metallic wastes.*
- **March 9, 13-16 CET: Innovations in solid organic waste treatment and conditioning**  
*How to provide long-term solutions for the management of radioactive solid organic wastes through thermal treatments and immobilisation with conventional or novel binders.*
- **March 30, 13-16 CET: Innovations in liquid organic waste treatment and conditioning**  
*Meeting the challenges of conditioning (and accepting) radioactive liquid organic wastes through stabilisation and solidification with geopolymers.*

### Stakeholder Detailed Survey #2 (January- March 2021), online

PREDIS requests that industry stakeholders please contribute to an upcoming, detailed survey which will serve to guide the technical focus areas. The EC has requested we perform a gap analysis, highlighting priority research needs to make predisposal waste management more efficient while maintaining safety. The survey results will directly impact the objectives of the tasks and contribute to the development of a strategic research agenda. Industry will benefit by having their interests addressed. The first End User Group survey was already distributed in October 2020 following the first workshop. A few of the key results obtained so far are shown above (see page 10, End User and Stakeholder Feedback). This next survey will go into a wider scope and target a wider community.

## SNETP Forum (February 2 - 4, 2021), online

SNETP's annual forum is the key opportunity for nuclear power plant operators to discuss R&D needs. A wide range of topics will be covered including discussions on proposals to the 2021 Euratom call. PREDIS partners will be chairing the Technical Area 6 half-day session addressing predisposal waste management and decommissioning. Guest speakers from industry will describe recent advances and upcoming plans; insights will be shared about visions for future cooperation in this domain. SNETP membership is required for participation.



## EURAD 1<sup>st</sup> Annual Event (March 16 - 18, 2021), online

The European Joint Program on Radioactive Waste Management (EURAD) will host its first public conference. PREDIS is a sister project to EURAD and we share common interest in many topics including state-of-knowledge documentation on predisposal issues, training, mobility, waste acceptance criteria, as well as more technical topics such as modelling material performance. The issues addressed in PREDIS are naturally linked to EURAD which focuses more on waste disposal, and ideally there should be a beneficial harmony between us. The PREDIS project will participate in this event and strive to provide ways to further motivate our end users to actively engage with EURAD.



## PREDIS 1<sup>st</sup> Annual Workshop (May 4-7, 2021)

The PREDIS 1<sup>st</sup> Annual (public) Workshop will be held in May 2021 and will be organised by VTT. The decision regarding whether the meeting will be held physically (in Helsinki, Finland) or virtually will be made in March based on the pandemic situation. The workshop will cover achievements of the first 9 months of the project and have sessions dedicated to industry stakeholders.



## Other

*Please see our website for events of interest to the PREDIS community.*

## Newsletter #2

Be on the lookout for PREDIS Newsletter #2 in spring 2021! Content will include summaries from the Gap Analysis work (webinar and survey results), information on training and mobility plans, continued partner spotlights, introductions from End User Group members and reports on work package achievements.