Deliverable 13.7

Specification of the content, material and learning outcomes of mobility training

Work Package 13

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Authors	**Jitka Mikšová (SÚRO), Niels Belmans (SCK CEN), Radek Vašíček (CTU)**

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Disclaimer

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Executive Summary

This deliverable issued by EURAD Work Package (WP) 13 Task 5 (Implementation of Mobility Programme) aims to describe the establishment and implementation of the EURAD Mobility Programme. It introduces the content of the Mobility Programme together with main rules and principles of its management and information related to the assessment of the Mobility Programme. It is complemented by the Mobility Programme manual to be used by the potential applicants of the EURAD Mobility Programme when preparing their application submission and asking for a mobility grant.

WP13 'Survey on training initiatives' launched in 2020 in order to get an overview of the training needs and existing training courses in the field of Radioactive Waste Management gathered important information about research infrastructures which are available to Mobility Programme participants. The list of the infrastructures is included in this deliverable and also provided on EURAD School of Radioactive Waste Management website (https://euradschool.eu/infrastructures/).

The mobility measures were adapted with respect to the target group's needs, hosting organisations and types of facilities taking into account expected learning outcomes as the Mobility Programme aims to contribute to the practical skills improvement and professional growth, in particular of young scientists within radioactive waste management programmes. The Mobility Programme takes into account quality requirements for defining, monitoring and assessing the competences and skills acquired via learning outcomes, however, with respect to the budget available in the frame of EURAD.

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Glossary

CSO	Chief Scientific Officer
EC	European Commission
EJP	European Joint Programming
E&T	Education and training
EURAD	European Joint Programme on Radioactive Waste Management
GDPR	General Data Protection Regulation
IAEA	International Atomic Energy Agency
KM	Knowledge Management
LTP	Linked Third Party
OJT	On-the-job-training
PMO	Project Management Office
RD&D	Research, Development and Demonstration
RWM	Radioactive Waste Management
StrSt	Strategic Studies
URF	Underground Research Facility
WP	Work Package

1. Introduction

The EURAD Mobility Programme is established in the frame of the EURAD School of Radioactive Waste Management. The Mobility Programme aims to develop and share competences and knowledge beyond the academic pathways. The Mobility Programme contributes to transferring knowledge and skills related to infrastructures used and between radioactive waste management (RWM) national programmes. It allows scientists and technicians from early-stage RWM programmes to participate in experimental efforts in research infrastructures of more advanced programmes. The Mobility Programme targets both (junior and senior) professionals, to contribute to their continuous professional development in order to increase their competences in a certain domain, and postgraduate students who just enter the field of RWM.

The Mobility Programme primarily supports access to dedicated infrastructures associated with the EURAD community. Such infrastructures are mainly present at the premises of EURAD Beneficiaries, and include underground research facilities, surface laboratories, specific analytical facilities, or computational infrastructure, but research reactors are also available to be utilised in the mobility training. In addition to internships using experimental facilities and infrastructures, other kinds of mobility training actions can also be implemented to enable efficient direct knowledge transfer from one organisation to another, with envisaged mutual benefits. The Mobility Programme also allows participation to conferences and workshops organised outside of EURAD. All recent and up-to-date information concerning the Mobility Programme can be found on the School's website: euradschool.eu.

This deliverable aims to describe the establishment of the framework and associated tools together with transparent rules, convenient measures and necessary requirements and thus to contribute to the establishment and implementation of a sustainable EURAD Mobility Programme.

2. Establishment of the EURAD Mobility Programme

One of the main goals of EURAD WP13 is to support an exchange of knowledge and skills of junior and senior professionals, as well as PhD students or postdocs involved in RWM. One of the possible ways to allow scientific and/or technological knowledge exchange for these people comes through the EURAD Mobility Programme (https://euradschool.eu/).

The Mobility Programme is designed to set equal conditions for participation in the Mobility Programme and to ensure a unified approach and objective assessment of the Mobility Programme applications. The Mobility Programme participants preferably come from the EURAD Beneficiaries and their linked third party (LTP), independently whether they are involved in the EURAD RD&D, Strategic Studies or Knowledge Management WPs, representing all size and implementation phases of the existing national RWM programmes, i.e. large, small and/or at early stages or more advanced.

The Mobility Programme is built on an experience acquired by WP13 team in existing and/or former European Commission funded projects dealing with mobility programmes, also considering the best practices from the IAEA and the NEA mobility trainings.

The Mobility Programme builds on identified needs by the EURAD community and is aligned with the EURAD Roadmap [1] and the EURAD Knowledge Management and Networking programme [2].

The Mobility Programme is built as a complementary activity to the EURAD Training activities.

The Mobility Programme is intended to be applied to all types of proposed actions, such as technical visits, internships, exchange programmes, training courses, but also allows the participation to the RWM conferences and workshops, as identified in the EURAD Mobility Programme manual, see Appendix A.

At a later stage, the step-wise implemented Mobility Programme could be extended beyond the current EURAD frame.

3. Mobility Programme scenarios

Considering the duration of EURAD a detailed analysis was performed on how the EURAD Mobility Programme could evolve over time to meet EURAD objectives and to fulfil EURAD participants' needs and expectations on accessible mobility actions. These consist of several stages (I – IV) and proposed potential scenarios with respect to the intended type of mobility action.

The Mobility Programme is implemented in a step-wise fashion. Initially, the focus was on supporting technical visits and internships. In later steps, it will be extended to give support for attending training courses, conferences, etc. This will be done based on an internal review of the Mobility Programme by WP13 and PMO. The proposed scenarios of the Mobility Programme development can be found in the Appendix B.

4. Input from WP13 Survey

In the first year of EURAD, there was a survey on training initiatives organised by WP13 within the EURAD participants with aim to map their training needs in the field of RWM [3]. This survey also gathered important information about a large number of research infrastructures offered by the institutions engaged in EURAD. Based on this information, a list of infrastructures available to the Mobility training participants was created with respect to the scientific and technological knowledge learning targets of the EURAD community.

The priority list and schedule for upcoming training initiatives within EURAD, specified in the deliverable D13.4 [4] is considered to prioritize between the mobility applications. Furthermore, this prioritisation process is open for changes and can be updated based on the stage of the EURAD programme and/or according to the requested knowledge and skill needs.

Next to the information on demanded training topics, the respondents of the WP13 survey provided their view concerning expected mobility actions measures. Specific emphasis has put on the information about:

- Targeted group
- Hosting institution
- Infrastructure available
- Preferred kind/mode of mobility training
- Lengths of mobility action
- Mobility/learning outcomes (competence/skills)
- Kind of training – academic/other
- Training topics
- Prioritisation

The acquired information on above mentioned topics had been summarised, analysed and consequently reflected and incorporated into the Mobility Programme design and assessment.

5. Availability of research infrastructures

The research infrastructures identified within the WP13 survey play a fundamental role in the establishment of the Mobility Programme as research infrastructures enable an active involvement of mobility actions participants and in this way to contribute to an improvement of their practical skills through real experimental work in laboratories, codes utilization or research work in URFs, etc. The

growth of knowledge and practical skills of reserchers engaged in RWM is one of the main goals of the Mobility Programme.

Hosting institutions could be both EURAD Beneficiaries and/or their Link Third Parties. Most of infrastructures have been identified as laboratories (in particular from REs), while other actors are offering an access to their URFs (in particular WMOs) and/or research reactors (in particular REs or TSOs). Only a few institutions identified special equipment and codes for modelling (mainly TSOs). More details, including a short description of each infrastructure, can be found in Appendix C.

The full list of the accessible infrastructures is also provided on the EURAD School of RWM website (https://euradschool.eu/infrastructures/). It includes the following information: host organization name, type of infrastructure, contact information, type of organization providing this infrastructure and country where the infrastructure is located. When clicking on the infrastructure's name a short description appears together with a link to the official website (if it exists) and the relevant contact information. This list is updated when new infrastructure is announced.

6. Mobility application procedure

The EURAD Mobility Programme provides a financial support to those who would like to improve their knowledge and practical skills in the field of RWM, in particular in geological disposal or other topic related to the research in this field, and their application meets evaluation criteria. In this chapter the principal rules are described; more information about the whole process of the application for a mobility grant can be found in Appendix A (Mobility Programme manual) and Appendix D (Evaluation criteria).

There are following mobility actions which can be considered by applicant:

(i) Internal-WP actions when applicant asks for mobility grant to WP in which its institution is participating and applicants work is contributing to,
(ii) Cross-WP action when applicant asks for mobility grant to perform a mobility action at a partner from another EURAD WP,
(iii) External – conferences/workshops/training courses when applicant asks for a mobility grant to attend this mobility action in frame of her/his work in EURAD.

Mobility measures are designed to be open for further development or improvement and to comply with new or updated EURAD requests on training courses and the Mobility Programme. The type of mobility measures supported by EURAD can be extended but only based on the mobility actions that were taken and on an EURAD internal review of the Mobility Programme.

6.1 General rules

- The Mobility Programme applicants should be affiliated to the Beneficiaries and their LTP in the EURAD Programme, preferably junior and/or senior professionals, as well PhD students and postdocs.

- All calls for the Mobility Programme application will be announced on the website of the EURAD project website (https://www.ejp-eurad.eu/trainingmobility/) and also on the dedicated School of RWM website (https://euradschool.eu/) and remain open between April 2020 and April 30, 2024 or until funds are used up, the submission deadlines will be announced periodically every 2 months.

- Each applicant may only submit one application within one application deadline and only complete applications will be considered.

- Multiple applications for a specific mobility action per one organisation can be submitted.

- Multiple applications for a specific mobility action within one WP can be submitted.

- Following mobility actions will be supported:

  - to technical visit the infrastructures from EURAD partners (relevant for all Stages I-IV),
  - to undertake internships/exchange programmes between institutions within EURAD (relevant for all Stages I-IV),
  - to follow training and/or courses (life-long learning), this type was planned to be introduced in later stages of the Mobility Programme thus (relevant for Stages III-IV),
  - to attend conferences, workshops (relevant for Stages III-IV).

- In the specific case, the mobility action to the infrastructure offered by institution outside EURAD can be granted, e.g. if such institution outside EURAD offers to receive a trainee (involved in EURAD research) to its infrastructure and it is beneficial for both sides, such mobility action can also be made and supported through the EURAD Mobility Programme. This action is only possible if it contributes to meeting the EURAD objectives, resp. it benefits the execution of the relevant tasks within EURAD WPs.

- There is also possibility for mobility action when external applicant asks for mobility grant to relevant EURAD WP/WPs. This type of mobility action will be initiated in the later stage of Mobility Programme (Stage IV), if participation of external applicants will be approved by EURAD. Such applicant may apply for mobility grant in WP/WPs of her/his own choice under the condition that her/his work contributes to the fulfilment of EURAD goals.

- The applicant has to provide a reasonable budget in his/her application, based on an honest estimate, and the evaluators will check if it is a realistic budget.

- The EURAD mobility grants are intended exclusively to cover costs related to the mobility actions and will be provided as lump sums.

- The applicant has to provide a Mobility Mission Report within 30 days after the completion of the mobility action.

- Each recipient of the EURAD mobility grant is obliged to respect following rule, that all publications resulting from the mobility activities shall acknowledge the EURAD Mobility Programme by using the following sentence: “This work has been partially supported by the EURAD project that has received funding from H2020-EURATOM 1.2 under Grant Agreement ID 847593.”.

6.2 Procedure rules

- The applicant has to register in the online application tool, Evalato.

- The complete application has to be submitted via Evalato before the submission deadline.

- The application will be evaluated according to the evaluation criteria,
  - in case of Cross-EURAD WP by the Evaluation Committee
  - in case of Internal-EURAD WP mobility the application will be evaluated by corresponding WP leader assisted by two other WP members.
  - in case of external action (conferences, workshops and trainings) by the Evaluation Committee

- The decision about financial support will be made within 30 days after the latest application deadline.

- At the end of the mobility action, the participant will provide a detailed Mobility Mission Report in requested template (see Appendix E), signed by her/his mentor and send it to WP13 leader (euradwp13@sckcen.be) for review.

- The Mobility Mission Report will be evaluated by determined evaluators according to the criteria published in Appendix D.

6.3 Financial rules

- Expenses related to mobility action will cover:

  - travel expenses,
  - daily allowance,
  - accommodation,
  - access/registration fees (if introduced in later stages of Mobility Programme, Stages III-IV).

- Potential other costs related to the mobility action will be covered by the applicant.
- The maximum lump sum is determined depending on the type and duration of the mobility action.
- Lump sums will be granted to the WP budget of the applicant based on the Form C. Initially, the mobility action will be covered by the WP budget. After receipt and review of the Mobility Mission Report, WP13 will notify the Coordinator and PMO of the successful mobility action, after which the reimbursement based on Form C will be approved.

7. Mobility database and records

A mobility database was created in order to support a successful Mobility Programme running and to contribute to an increasing quality of mobility actions. It will be regularly updated after every call for mobility training will be closed and/or when mobility action is carried out. This approach enables objective and transparent evaluation of the mobility actions.

Mobility database is made up of two different modules: (i) Mobility matrix, (ii) Evalato platform.

The Mobility matrix consists of two parts:

(i) mobility management indicators,
(ii) mobility content indicators.

These indicators are supposed to build an important base for a summary output from the mobility activity. The Mobility matrix is based on the MS Excel.

The online Evalato platform is used in frame of the EURAD Mobility Programme to manage:

(i) the applicants,
(ii) applications and review, and
(iii) evaluations.

Evalato platform, hosted by SCK CEN, is accessible for all applicants interested in the mobility actions through the Application portal placed on the EURAD School of RWM website (https://pro.evalato.com/2185). In case of need, the export of the information stored in the Evalato platform is possible in electronic (Excel or PDF format) or/and in printed formats what ensure a sufficient mutual complementarity with the Mobility matrix.

Certain administrative, technical and scientific information related to the implementation of the Mobility Programme must be kept for the purposes of EURAD and the School of RWM/WP13. The following records are seen as significant and will be stored:

- Mobility training announcement/call
- Mobility programme applications
- Reports of application evaluation
- Evaluators' names
- Hosting institution
- Mobility reports
- Budget – expenses, invoices
- Targeted WP

All these records will be linked to the application ID and will comply with General Data Protection Regulation (GDPR) requests as identified in the EURAD Consortium Agreement Update (paragraph 11.10. Personal Data) [5].

The mobility database is used internally within School of RWM and allows WP13 to maintain, update, evaluate and store important data and information related to the EURAD Mobility Programme's performance in order to contribute to the Mobility Programme succesfull running and further improvement. The results of the evaluation based on data stored in the Mobility database will be published in D13.8 (Development of Mobility Programme).

8. Mobility Programme quality management

The EURAD Mobility Programme's establishment and implementation reflects the EURAD Quality Management Plan, D1.5 [6].

Every application for the Mobility Programme action is evaluated according to the established evaluation criteria. These criteria are described in the document "Evaluation criteria and form" (see Appendix D). This document has to be used by all evaluators - the members of the EURAD Mobility Programme Evaluation Committee in case of "Cross-WP" or "External" mobility actions or related WP leader and WP participants in case of the "Internal-WP" mobility action. The Evaluation Committee consists of the EURAD CSO, PMO, EC representative and WP13 Members, see Appendix F.

The Mobility Programme quality assessment is based on the identified mobility measures and will be regularly updated and evaluated. Every Mobility Programme beneficiary will provide feedback via the Mobility Mission Report, agreed by mentor from hosting institution and WP13 leader, in order to contribute to the mobility actions improvements and EURAD research and knowledge transfer goals fulfilment.

The Mobility Programme management supports transparent and objective implementation of the Mobility Programme and aims to ensure a sustainable system, which could serve also knowledge management within next stages of EURAD and independently of this suggestion to support the successful running of the EURAD School of Radioactive Waste Management.

9. Conclusion

This deliverable supports the implementation of the EURAD Mobility Programme, which is aimed at exchanging scientific knowledge in the field of RWM among the EURAD community, for example between participants representing more advanced RWM programmes and those representing early stage programmes. In order to support an improvement of practical skills of professionals, the Mobility Programme organises an access to dedicated research infrastructures associated mostly with the Beneficiaries and their Linked Third Parties within EURAD, in particular for partners' organisations where such an infrastructure is not available.

The Mobility Programme aims to support the highest possible level of infrastructures utilisation, efficient knowledge transfer and skills improvement beneficial for EURAD programme and also for trainees and hosting organisations. Additionally, the attendance at conferences and workshops can be also granted.

The mobility actions realised within the WP13 Mobility Programme, can be seen both as a complementary action after one or more training courses or as a part of continuous personal development of researchers involved in RWM to support a sustainability of the EU national RWM programmes.

References

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5. EURAD Consortium Agreement [09/02/2022].
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Appendix A. EURAD Mobility Programme Manual

The intention of the EURAD Mobility Programme is to financially support both junior and senior professionals, as well as PhD students from EURAD beneficiaries (= primary audience, but MSc students could be included at a later stage) to:

- **visit** infrastructures from EURAD partners and organizations which are active in radioactive waste management (but not necessarily involved in EURAD),
- **undertake internships/exchange programmes** between institutions within EURAD, but also between organizations which are active in radioactive waste management (but not necessarily involved in EURAD),
- **follow trainings and courses (life-long learning)** in the field of RWM.
- **attend conferences and workshops** in the field of RWM.

These activities should serve competence development for the trainee and collaboration between EURAD beneficiaries. They can be complementary to training courses and/or part of a Continuous Personal Development (CPD) programme.

By the following terms we mean:

- Visit = a short stay during which the visitor observes the activities performed at a certain institute or company
- Internship = a period of time during which a student or a professional participates to the local activities in a certain institute or company in order to increase knowledge and /or skills. In case of reciprocal internships (person A from institute B visiting institute C and person D from institute C visiting institute B dealing the same scientific/technical subject) we use the terminology “exchange programme”.
- Course/ training course = a set of classes or a plan of study on a particular subject, optionally with an asssment to measure the gained competences, leading to a qualification
- Conference = a scientific meeting, workshop, or any other organized event where people assemble to coordinate, exchange, or disseminate information or to explore or clarify a defined subject, problem, or area of knowledge
- Training = the totality of actions for developing or increasing the knowledge, skills and attitudes (= competences) of people to prepare them for doing a particular job, usually referring to specialized topical courses, mostly followed after the education phase by professionals

WHO SHOULD APPLY?

The EURAD Mobility Programme is intended for those who would like to improve their knowledge and skills in the field of **RWM, including deep geological disposal**.

Especially **PhD students, postdocs and junior/senior professionals/researchers** are eligible to receive financial support through the EURAD Mobility Programme. Applicants should be, in particular, affiliated to participants in the EURAD project. Eligibility is also linked to the stages of the Mobility Programme, which can be read in the Appendix B. The support is **only granted**:

- To applicants proposing activities related to the scope/themes of EURAD
- To applicant associated to EURAD WP partners, if agreed by EURAD it can be open also to applicants outside EURAD in later stages of Mobility Programme.
- For travel outside the country of residence, but within the EU.
- Once per person (no person can receive financial support twice).
- If the quality of the proposal/training/benefits/motivation/impact is found significant by the Evaluation Committee.
- If the activity is shorter than 2 years.

- If the activity starts within 9 months after the application deadline (***this guideline will not be applied to applications made during the COVID-19 pandemic***).

Only complete applications will be considered. To successful applicants, the EURAD Mobility Programme will provide mobility grants intended exclusively to cover mobility costs and will be provided as lump sums directly to the selected candidates.

WHICH COSTS ARE COVERED?

The EURAD Mobility Programme will cover expenses related to mobility action. These include:

- Travel
- Daily allowance (e.g. meal costs)
- Accommodation and,
- Access/registration fees (if this mobility grant will be introduced in later stages of Mobility Programme running).

Potential other costs related to the mobility action will be covered by the applicant.

HOW TO APPLY?

The call will be announced at the EURAD website and remains open (see 'Deadlines') between April 2020 and April 2024 or until funds are available.

Besides filling out an application form, applicants will be asked to submit additional documents:

- Curriculum Vitae
- Motivation letter
- Letter of support of the unit head (in case of exchange also from the receiving mentor)
- Detailed budget covering all expected costs
- Description of the proposed activity (if applicable)

LUMP SUMS

Following maximum lump sums are available:

- Travel (flight + local transport): €750
- Hotel costs: €100/night
- Daily allowance: €50/day
- Registration fee (non-EURAD courses/conferences, if this mobility grant will be introduced in later stages of Mobility Programme running): €500

Please note: There will be a maximum of €3000 per stay. In case of exceptional need for a longer mobility action that exceeds the maximum lump sum, a request can be put forward to the PMO and Bureau for approval.

Lump sums will be granted after receipt of a detailed mission report by the beneficiary.

DEADLINES

Upcoming submission deadline and decision deadline are regularly updated, dates are published on EURAD website.

Each applicant may only submit **one application within one application deadline**.

Applicants will be informed within 30 days after the decision deadline.

SUBMISSION AND EVALUATION

The decision about financial support will be made within 1 month after the nearest application deadline. The time of application in relation to the deadline has no influence on the evaluation outcome.

In case of Internal-EURAD WP mobility, the WP leader, assisted by two other WP members, will be responsible for the evaluation of the application.

In case of Cross-EURAD WP mobility or External mobility the applications will be evaluated by the Mobility Evaluation Committee consisting of members of the EURAD Training and Mobility Work Package (WP13) as well as members of the EURAD Project Management Office. A recommendation for funding will be based on simple majority, with at least three evaluators participating in the evaluation. The members of the Evaluation Committee are:

- Piet Zuidema (Chief Scientific Officer)
- Tara Beattie (PMO)
- Paul Carbol (PMO)
- Birgit Christiansen (JRC)
- Lubomir Sklenka (CTU)
- Claudia López del Pra (CIEMAT)
- Yuliia Yesypenko/Sergii Kondratiev (SSTC NRS)
- Jitka Miksova (SURO)
- Niels Belmans (SCK CEN)
- Radek Vašíček (CTU)

The following **criteria for evaluation of the applicant and of the proposed mobility action** and ranking will be applied:

- Scientific background: 1 (poor) – 4 (excellent)
- Motivation: 1 (poor) – 4 (excellent)
- Level of recommendation (by the mentor and by the host institute): 1 (poor) – 4 (excellent)
- Compliance of the proposal with the objectives of EURAD: 1 (poor) – 4 (excellent)
- Feasibility of the proposed work: 1 (poor) – 4 (excellent)
- Scientific quality (i.e. methodology, potential contribution to EURAD project, learning outcomes): 1 (poor) – 4 (excellent)
- Mobility action benefits to the applicant: 1 (poor) – 4 (excellent)

A threshold of 50% (based on at least three evaluations) will apply.

In case of internships/exchange programmes/visits the host institution can unilaterally decide to decline certain candidates, provided motivation.

The **mission report** (written by the beneficiary) should be conform to the provided template. The overall quality of the report will be assessed based on following criteria:

- Completeness (i.e. correct use of the template)
- Language
- Compliance with original project proposal as submitted by the applicant

Upon completion of this mission report, the beneficiary will send it to WP13 leader (euradwp13@sckcen.be) for review. These mission reports will be stored and will serve as valuable output to evaluate the EURAD Mobility Programme.

OBLIGATIONS OF THE BENEFICIARY OF THE EURAD MOBILITY GRANT

Successful applicants are obliged to submit a mission report not later than 30 days after completion of the activity. This report should be sent to euradWP13@sckcen.be. Failure to submit the mission report will require the applicant to return the entire received lump sum.

All publications resulting from the mobility activities shall acknowledge the EURAD Mobility Programme by using the following sentence:

This work has been partially supported by the EURAD project that has received funding from H2020-EURATOM 1.2 under grant agreement ID 847593.

Appendix B. EURAD Mobility Programme scenarios

SCHEMATIC VIEW OF SCENARIOS

Stage	Conferences / workshops	Trainings /Courses*	Visits (to EURAD infrastructures) **	Internships/ Exchange**
STAGE I			Who: Professionals and PhDs in EURAD Visits should be based on/linked to ongoing EURAD WPs Adapt to gap analysis from roadmap ➔will help identify priorities EURAD members post possibilities to visit their specific infrastructures online or learners can request a visit to EURAD infrastructures if it is linked to their work in EURAD RD&D WP and/or if it relevant to EURAD's objectives.	Who: Professionals and PhDs in EURAD Internships should be based on/linked to ongoing EURAD WPs Adapt to gap analysis from roadmap ➔will help identify priorities Projects made available online by EURAD partners and/or Professionals and PhDs can request internships/exchange with EURAD partners to receive a specific on-the-job-training/tutoring via online portal
STAGE II		Feasibility study	Continuation of STAGE I + Visits related to broader RWM topics (e.g. ongoing projects in RWM)	Continuation of STAGE I + Internships related to broader RWM topics (e.g. ongoing projects in RWM)
	Evaluation of Mobility Programme based on feedback of Stages I and II.			
STAGE III	Feasibility study	Who: Professionals and PhDs in EURAD Learners can apply for funding via online application	Continuation of STAGE II + Allowing MSc students to perform visits to EURAD partners	Continuation of STAGE II + Allowing MSc students to perform internships
STAGE IV	Inclusion of conferences/ workshops if feasibility study is positive.	Continuation of STAGE III + Adding MSc students	Continuation of STAGE III + Opening EURAD Mobility Programme to learners outside of EURAD who want to visit EURAD partner infrastructures in light of their profession/ training	Continuation of STAGE III + Opening EURAD Mobility Programme to learners outside of EURAD who want to perform internship/exchange at an EURAD partner

**: EURAD Mobility Programme is used for training; **: EURAD Mobility Programme is used for knowledge exchange (= primary goal)*

DETAILED DESCRIPTION EURAD MOBILITY PROGRAMME SCENARIOS

The EURAD Mobility Programme aims to financially support professionals (and later on also students) in performing scientific visits and internships and attending courses and/or conferences/workshops. The focus will be on junior/senior professionals in the field of Radioactive Waste Management, who are members of/affiliated in particular to EURAD partners, aiming to undertake education and training (E&T) activities. In addition, support will be provided for PhD students or other external applicants if introduced by EURAD in later stages of Mobility Programme. The Mobility Programme can eventually evolve to also include students (MSc and BSc) and support their mobility actions. Here, a detailed description is given on how the EURAD Mobility Programme could evolve through time, indicated by several stages (I – IV).

By the terms *visit*, *internship, course* and *training* we mean:

- Visit = a short stay during which the visitor observes the activities performed at a certain institute or company
- Internship = a period of time during which a student or a professional participates to the local activities in a certain institute or company in order to gain experience
- Course = a set of classes or a plan of study on a particular subject, optionally with an assessment to measure the gained knowledge and/or skills, leading to a qualification
- Conference = a scientific meeting, workshop, or any other organized event where people assemble to coordinate, exchange, or disseminate information or to explore or clarify a defined subject, problem, or area of knowledge
- Training: the totality of actions for developing or increasing the knowledge, skills and attitudes (= competences) of people to prepare them for doing a particular job, usually referring to specialized topical courses, mostly followed after the education phase by professionals

Stage I

In the initial stage (i.e. EURAD Year 1) of the EURAD Mobility Programme, the focus will be on **junior/senior professionals** and **PhD students** willing to perform training activities. To this end, the focus will be on two types of activity:

- Scientific **visits** to EURAD infrastructures
- **Internships/exchange** visit

In doing so, the EURAD Mobility Programme supports **knowledge exchange**.

For **visits**, EURAD members can post possibilities to visit (some of) their infrastructures online (listed on EURAD website). On the other hand, learners can request visits based on/linked to their work within EURAD RD&D and Strategic Studies WPs. The aim of these visits is to get acquainted with specific state-of-the-art technologies that are available at the host institute. Learners can apply via the website. These visits can be organized for groups (group size depends on the infrastructure and will therefore be determined by the host institute) or on an individual basis. The host institute together with the EURAD School Evaluation Committee (established by WP13) evaluates the application, decides upon acceptance and determines the timing and duration of these visits.

For **internships/exchange visits**, EURAD members can post specific projects online. Learners can apply for a specific project. Learners will also have the opportunity to request specific **internships/exchange** visits to EURAD partners based on their work within EURAD RD&D and Strategic Studies WPs. This allows them to search a specific on-the-job-training (OJT) at a specific EURAD institutes. This OJT depends on the available infrastructures and the know-how at the host institute. This mobility option will be arranged via an online portal. The EURAD School Evaluation Committee evaluates the requests and proposes and contacts the best suited host institute(s).

To this end, evaluation criteria should be defined to select the proper candidate(s). Ideally, there is a two-way exchange of professionals between two EURAD members so that both institutes can benefit from the exchange keeping in mind EURAD objectives and goals. Even if there is no two-way exchange

both institutes will benefit, since the receiving institute receives help in a running project, whereas the sending institute acquires additional benefit though the skills gained by the learner. The host institute appoints a mentor who evaluates the requests, decides upon acceptance and determines the timing and duration of these visits. Furthermore, the mentor needs to provide a letter of acceptance to the applicant.

The Mobility Programme will promote mobility actions that are identified as priorities through the gap analysis using the Roadmap.

The EURAD Mobility Programme will (partially) cover the following costs: a daily allowance, travel expenses and accommodation.

Stage II

After an initial time, depending on potential to make mobility, number of mobility applications and budget, Stage I of the EURAD Mobility Programme will be evaluated by WP13 and results will be discussed with PMO. If the evaluation is positive, Stage II can be implemented. In short, Stage II extends the activities from Stage I and also adds a feasibility study to investigate the possibility to apply for financial support for attending **trainings/courses** in the field of Radioactive Waste Management. Therefore, starting with Stage II, following mobility activities are eligible for support through the EURAD Mobility Programme:

- Scientific visits to EURAD infrastructures
- Internships/exchange visits
- Trainings/courses (small group for feasibility)

Concerning **visits** and **internships/exchange visits**, Stage II will continue with what was described for Stage I. In addition, these visits and internships can now be related to broader topics in the field of RWM, rather than being focused on specific EURAD RD&D and Strategic Studies WPs.

In addition to the extension of Stage I activities, Stage II also offers the possibility to ask for financial support to attend **trainings/courses** in the field of Radioactive Waste Management. At this point, this will be a small-scale feasibility study. In this stage, junior/senior professionals and PhD students are eligible. Learners can apply for funding via an online application (Evalato software). The EURAD Mobility Programme will (partially) cover the costs from these activities: meal costs, travel expenses, accommodation and registration fees.

Stage III

At the end of Stage II, mainly governed by number of mobility application and budget, the Mobility Programme will be evaluated based on the feedback from Stages I and II. From the start of EURAD Year 3, Stage III of the Mobility Programme can start if the evaluation is positive. Compared to Stage II, existing activities will be extended and a feasibility study will be set up to investigate the possibility to include grants for **conferences** in the field of RWM.

Trainings/courses will be included if the result from the feasibility study from Stage II is positive. Financial support for junior/senior professionals and PhD students who want to attend trainings/courses will be implemented. Learners can apply for funding online.

An addition will be made to the scientific **visits** to EURAD infrastructures. From Stage III on **MSc** and **BSc students** will also be able to partake in visits. Please note that these are visits that are offered by the EURAD institutes themselves. As with professionals and PhD students, they have to apply online for these visits.

Finally, **MSc students** will be allowed to apply for financial support from the EURAD Mobility Programme to perform **internships** at EURAD institutes in light of their education. Financial support for voluntary

internships is also possible. However, the students need to apply for topics published by EURAD members. Unlike professionals and PhD students, they cannot propose topics themselves.

Stage IV

In this final stage of EURAD, extensions of the training and knowledge exchange activities are proposed. Whereas Stages I to III focus solely on EURAD members, **non-EURAD members** that want to perform visits/internships in the field of Radioactive Waste Management are also eligible for the EURAD Mobility Programme from Stage IV onwards. However, if the demand outweighs the available places (or the available funds) we suggest that the priority should be to support EURAD members.

MSc students will also be eligible to request financial support to attend **trainings/courses** in the field of RWM. They will have to apply online.

Finally, after a positive evaluation of the feasibility study, learners can request financial support for attending **conferences** in the field of RWM. They will have to apply online via the submission and evaluation platform.

Appendix C. List of the infrastructures available

The infrastuctures are listed alphabetically by country.

Infrastructure name	Host organization	Type of infrastructure	Infrastructure description/contact details	Type of organisation	Country
Waste Management Plant	Nuclear Engineering Siebersdorf GmbH	Research laboratory	Nuclear Engineering Seibersdorf GmbH (NES) is Austria's central organization for the management of radioactive waste (RAW). It manages all RAW generated in Austria, especially waste from medicine, industry, research, decommissioning of nuclear (research) facilities, waste from historical applications (like Ra-226 bearing waste) and legacy waste. NES has complete infrastructure for collecting, sorting, treatment, conditioning and interim storage of low- and intermediate level waste LILW (no high-level waste or spent nuclear fuel). All buildings and equipment were modernized or completely new built in the period 2008-2020 and therefore represent the latest state of the art in treatment of LILW. The NES Waste Management Plant is available for technical visits. For more information, please contact the NES offices.	WMO	Austria

Infrastructure name	Host organization	Type of infrastructure	Infrastructure description/contact details	Type of organisation	Country
HADES Underground Research Laboratory	EURIDICE	Underground laboratory	The HADES underground research laboratory (URL) is located in Mol (Belgium) in the Boom Clay formation at a depth of 225 metres. HADES plays a central role in the Belgian research program into the safety and feasibility of geological disposal of radioactive waste. Experts use it to develop and test industrial technologies for building, operating and closing a waste repository in deep clay. Scientists conduct small and large-scale experiments under realistic conditions in the deep clay formation over a long period of time to assess the safety of geological disposal in poorly indurated clay. HADES is a licensed nuclear research facility, which means that scientists can use a wide range of radioactive tracers and sources. Since more than five years, the large-scale PRACLAY Heater test has been running to demonstrate the feasibility of geological disposal of high-level, heat producing waste in clay. HADES is the oldest underground laboratory in Europe built in a deep clay formation for the purpose of researching the possibility of geological disposal in clay. SCK CEN began the construction of the HADES URL in 1980. Since 1995 HADES has been operated by the Economic Interest Grouping EIG EURIDICE, a partnership between SCK CEN and the Belgian Agency for Radioactive Waste and Enriched Fissile Materials (ONDRAF/NIRAS). In Belgium, ONDRAF/NIRAS is responsible for radioactive waste management and coordinates the geological disposal RD&D programme. This URL is open to technical visits and guest researchers. You can find more information about HADES here, or by contacting Jan Rypens (EURIDICE) or Xian Ling Li (EURIDICE).	RE	Belgium
Laboratories for Waste and Disposal research	SCK CEN	Targeted Medium term Infrastructure (TAMI)	Various labs for the study of waste conditioning, conditioned waste forms and storage/disposal of conditioned waste. The labs are located both in radioactive and non-radioactive zones within SCK CEN, and are equipped with inert atmosphere glove boxes and other dedicated installations to study waste form and radionuclide behavior under dedicated conditions. The labs are also equipped with diverse analytical possibilities but can of course make use of the general analytical facilities of SCK CEN. Recently, a hot cell dedicated to study spent fuel dissolution has been put into use. In these laboratories we study following research themes:	RE	Belgium

Infrastructure name	Host organization	Type of infrastructure	Infrastructure description/contact details	Type of organisation	Country
			conditioning of liquid wastes and sludges by cementation or encapsulation into geopolymers; spent fuel, (doped) UO2 and glass characterization and dissolution behavior; bituminized and other organic waste problematics; cemented waste characterization, short- and long term behavior; radionuclide transport through the engineered barrier system and geosphere; THMCG behavior of clay host rock and engineered barrier materials. The contact person for these laboratories is Christophe Bruggeman (SCK CEN).		
Mobile Group	SURO	Research laboratory	Mobile group is dealing with equipment ensuring emergency preparedness and radioactive materials transport, incl. radioactive waste. Their infrastructures are available – on demand -for technical visits/internships and/or trainings. For more information, please consult the official website or contact Jitka Miksova or Irena Cespirova.	TSO	Czech Republic
Radon Laboratory	SURO	Research laboratory	The Radon Laboratory uses special infrastructure and devices for indoor outdoor radon measurement, building materials (^{40}K, ^{226}Ra, ^{228}Th) measurements, repositories and other facilities monitoring – human protection against natural radionuclides. This infrastructure is available – on demand – for technical visits/internships and/or trainings. For more information, please consult the official website or contact Jitka Miksova.	TSO	Czech Republic
Laboratory of Radiochemistry	SURO	Research laboratory	The Laboratory for Radiochemistry performs low background radiochemical analyses: ^{14}C, ^{3}H, TRU elements, ^{90}Sr, Cs isotopes. To this end, equipment related to the monitoring of the nuclear waste repository (indoor/neighborhood) is used. Measurement of artificial gamma activity in surface water, assessment of the properties of the artificial materials proposed for immobilization of nuclear waste, besides artificial radionuclides the laboratory perform the analyses of a large portfolio of natural radionuclides and NORM is performed. The research is targeted at radiation protection and RWM. This infrastructure is available – on demand – for technical visits/internships and/or trainings. For more information, please consult the official website or contact Jitka Miksova.	TSO	Czech Republic

Infrastructure name	Host organization	Type of infrastructure	Infrastructure description/contact details	Type of organisation	Country
Radiochemical Laboratories (CTU)	Czech Technical University	Research laboratory	The Radiochemical Laboratories of the Czech Technical University contains class I. and class II. radiochemical laboratories allowing work with open and sealed radioactive sources as well as fissile and dual use materials. Standard chemical and structural analyses equipment available on-site includes ICP-MS, HRMS, FT-IR, XRPD and other instruments. Radiochemical laboratories are equipped with multiple alpha and gamma spectroscopic detection systems including LSC and other counters. TRLFS system is also operated for radionuclide speciation analyses. For more information, please contact Jan Kozempel (CTU).	RE	Czech Republic
Training Reactor VR-1	Czech Technical University	Research reactor	The VR-1 training reactor is a light-water, zero power research reactor with enriched uranium providing education of students and training of qualified staff of nuclear industry. The reactor enables measurement of core characteristics, kinetic parameters, study of reactivity thermal feedbacks, and conduct of neutron activation analysis. For more information, please consult the official website, mail to cooperation@reactor-VR1.cz.	RE	Czech Republic
Josef Underground Laboratory	Czech Technical University	Underground laboratory	The Josef Underground Laboratory (UL) is located 60 km south from Prague in a belt of metamorphosed volcanic and volcano-sedimentary rocks (tuffs and tuffets mainly) that were later intruded by younger rock types (granodiorites). The Josef UL is operated by the Centre of Experimental Geotechnics of the Faculty of Civil Engineering, CTU in Prague and it is primary intended for education, training and R&D. Topics of experiments related to the geological deep repository (GDR) involve swelling clays behaviour and its long-term stability, hydraulic and gas permeability of rock massive, large scale in-situ tests (buffer, backfills, plug) and tracer tests. The Josef UL is accessible for all types of activities – training, internship, technical visits etc. For more information, please contact Jiri Stastka (CTU).	RE	Czech Republic

Infrastructure name	Host organization	Type of infrastructure	Infrastructure description/contact details	Type of organisation	Country
The Bukov Underground Research Facility	SURAO	Underground laboratory	The Bukov Underground Research Facility (URF) is located in the village of Bukov in the Žďár nad Sázavou district, Vysočina region, Czech Republic at a depth of 550 metres below the earth's surface. This facility serves as a test site for the Radioactive Waste Repository Authority with respect to the assessment of the behaviour of the rock environment and building materials at a depth corresponding to that anticipated for the future deep geological repository for spent nuclear fuel and radioactive waste. The Bukov URF is located in crystalline rocks, i.e. in a high-strength and low-permeability environment corresponding to that of the future deep geological repository. The underground facility consists of a system of newly-excavated underground galleries constructed in differing geological conditions according to the requirements of specific planned experiments. This URF is open for technical visits. For more information, please consult the official website or contact Jan Smutek (SURAO).	WMO	Czech Republic
Computing, cluster and software lab (Charon)	TUL	Modelling/simulations	TUL operates a computing cluster Charon. The cluster is involved in national virtual organization MetaCentrum providing support and a common task queuing system. It works on Linux OS (24 nodes, each with two 10-core Intel Xeon Silver 4114 2.2GHz, 96GB RAM and 480GB SSD). Software available is any provided by MetaCentrum and results of TUL development related to groundwater and THM simulation and pre/post-processing. In particular, Flow123d with contribution on development from EURAD DONUT WP can be run in parallel mode and new simulation schemes can be tested for computing efficiency. For more information, please contact Jan Březina.	RE	Czech Republic

Infrastructure name	Host organization	Type of infrastructure	Infrastructure description/contact details	Type of organisation	Country
Central Analytical Laboratory	UJV	Research laboratory	ÚJV Řež, a. s. main mission is to remain the key technical engineering body contributing to the development of long-term sustainable power supply in the Czech Republic and to be a significant part of the European Research Area in the field of nuclear energy. ÚJV manages approx. 95% of institutional radioactive wastes in the Czech Republic (65% of its own origin). ÚJV Řež is currently the only company in the Czech Republic able to cover the complete chain of RAW management from its generation to its safe storage/disposal (except the nuclear power plant fuel cycle). At the Central Analytical Laboratory radioanalytical analyses are performed. This research laboratory provided limited access for trainings and easy access technical visits. For more information, please consult the official website.	RE	Czech Republic
Fuel Cycle Chemistry Laboratory	UJV	Research laboratory	ÚJV Řež, a. s. main mission is to remain the key technical engineering body contributing to the development of long-term sustainable power supply in the Czech Republic and to be a significant part of the European Research Area in the field of nuclear energy. ÚJV manages approx. 95% of institutional radioactive wastes in the Czech Republic (65% of its own origin). ÚJV Řež is currently the only company in the Czech Republic able to cover the complete chain of RAW management from its generation to its safe storage/disposal (except the nuclear power plant fuel cycle). At the Fuel Cycle Chemistry Laboratory, research supporting radioactive waste disposal is performed. This research laboratory is open to trainings and technical visits. For more information, please contact Vaclava Havlova.	RE	Czech Republic

Infrastructure name	Host organization	Type of infrastructure	Infrastructure description/contact details	Type of organisation	Country
Centre for Waste Management	UJV	Research laboratory	ÚJV Řež, a. s. main mission is to remain the key technical engineering body contributing to the development of long-term sustainable power supply in the Czech Republic and to be a significant part of the European Research Area in the field of nuclear energy. ÚJV manages approx. 95% of institutional radioactive wastes in the Czech Republic (65% of its own origin). ÚJV Řež is currently the only company in the Czech Republic able to cover the complete chain of RAW management from its generation to its safe storage/disposal (except the nuclear power plant fuel cycle). At the Centre for Waste Management, research on the treatment and conditioning of low-level and intermediate-level waste is performed. This research laboratory is open to technical visits. For more information, please consult the official website.	RE	Czech Republic
Low Level Waste and Intermediate Level Waste Storage Facilities	Danish Decommissioning	Storage facility	LLW storage facility (building no. 244) The storage facility is a simple warehouse containing approx. 5000 drums of LLW. The drums are stacked and have to be moved by a small truck. As there is very limited climate control the facility is not suited for long-term storage and some of the drums show signs of corrosion. Danish Decommissioning plans to repackage the drums in containers and move them to a new, upgraded storage facility around 2025 after which building no. 244 will be decommissioned. ILW storage facility (building no. 249) The storage facility is a simple warehouse housing containers of ILW decommissioning waste. The containers are stacked and have to be moved by truck. As there is very limited climate control the facility is not suited for long-term storage. Danish Decommissioning plans to move the containers to a new, upgraded storage facility around 2025 after which building no. 249 will be decommissioned. These facilities are open to technical visits. For more information, please consult the official website or contact Lene Elmegaard (DEKOM).	WMO	Denmark

Infrastructure name	Host organization	Type of infrastructure	Infrastructure description/contact details	Type of organisation	Country
X-ray Tomography Laboratory	University of Jyvaskyla	Research laboratory	The primary research facility within the X-ray Tomography Laboratory at JyU includes three tomographic scanners; two microtomographs and a nanotomograph. Together, these devices are capable of non-intrusive three-dimensional imaging of the internal structure of heterogeneous materials with resolution ranging from 70 µm up to 50 nm. The laboratory is equipped with a comprehensive set of instruments for sample preparation and manipulation, and specific devices for measuring various mechanical and transport properties of materials. The entire facility has high utilization rate in basic and applied research related e.g. to development of novel organic materials, and to analysis of structural and transport properties of complex materials such as composites and bentonite clay. The laboratory is open to both scientific and industrially motivated research. For more information, please consult the official website.	RE	Finland
Chemistry and Environmental Laboratory (Bioruukki)	VTT	Research laboratory	The Chemistry and Environmental Laboratory (Bioruukki) is a piloting centre for new bio-based products and circular economy solutions with unique expertise, modelling and piloting capabilities under one roof. In our lab and pilot plant customers of any size can develop and scale-up innovations and processes and thus accelerate their product and process innovation cycles. This research laboratory is open for training, technical visits and guest researchers. For more information, please consult the official VTT website.	TSO	Finland
Robotics and Remote Handling Laboratory	VTT	Research laboratory	The Robotics and Remote Handling Laboratory performs research on machinery systems, also for deployment in radioactive waste management. Examples of such deployment include, but are not limited to: remote handling, deposition equipment like repository vehicles, decommissioning, dismantling/treatment, integrated VR/AR measurements, … For more information, please consult the official VTT website.	TSO	Finland

Infrastructure name	Host organization	Type of infrastructure	Infrastructure description/contact details	Type of organisation	Country
Monitoring/Metrology Laboratory (MIKES)	VTT	Research laboratory	The Monitoring/Metrology Laboratory (MIKES) is a metrology facility for SI unit realisations, high-accuracy measurements, measurement innovations and calibration technologies. It provides high-end measurement innovations, capabilities and tools for demonstrating quality of measurements, and worldwide recognised measurements and calibrations. This lab is open for trainings, technical visits and guest researchers. For more information on MIKES, please consult the official VTT website.	TSO	Finland
Senior Development (Micronova) laboratories	VTT	Research laboratory	The Senior Development (Micronova) labs focus on development of sensors (including wireless technologies), batteries, thin films (such as solar panels). Development is done within clean room facilities. Quantum computing. This laboratory is open to training, technical visits and guest researchers. For more information, please consult the official website.	TSO	Finland
Materials and Structural Research Laboratory	VTT	Research laboratory	Research at the Materials and Structural Research Laboratory focusses on building materials (traditional) – concrete, wood, steel, multi-scale testing. Structural testing and characterization (full-size demonstrations, elements. Includes labs for waste immobilization (including geopolymers) and chemistry issues associated with treatments/coatings with building materials. For more information, please consult the official website.	TSO	Finland
Centre for Nuclear Safety (CNS)	VTT	Research laboratory	The Centre for Nuclear Safety (CNS) is a new infrastructure, which was inaugurated in 2016, for ensuring safety and efficiency in nuclear power generation and radioactive waste management. It provides experimental and computational research, development and technical support services to customers internationally, to both the industry and regulators. Hot cells, material characterization to structural characterization various tools, bentonite labs, microscopy, aerosols – all for hot/radioactive materials are available. This infrastructure is open for training, technical visits and guest researchers. For more information, please visit CNS's website.	TSO	Finland

Infrastructure name	Host organization	Type of infrastructure	Infrastructure description/contact details	Type of organisation	Country
Meuse & Haute-Marne Centre (CMHM)	Andra	Underground laboratory	The Meuse & Haute-Marne Centre of Andra (CMHM) is dedicated to the Cigéo project, Industrial Centre for Geological Disposal that is the deep geological disposal facility for high level (vitrified) and intermediate level long-lived radioactive waste produced by France's current fleet of nuclear power plants during operation until dismantling and the reprocessing of spent fuel. Currently, until the Cigéo project is authorized, built and operating, the Meuse & Haute-Marne centre includes several facilities: the Bure Underground Research Laboratory (URL), the Environmental Specimen Bank (Ecothèque) and the Technological Exhibition Facility (ETe). * Since 2002, the Bure Underground Research Laboratory enables scientific and technological research for the Cigéo project to be carried out directly within the Callovo-Oxfordian host clay layer. Located at – 490 m depth, it now represents a 2,000-metre network of drifts, monitored by more than 11 000 sensors, where over 50 experiments and studies are conducted in real conditions. More than 1000 samples have been drilled for characterisation purposes. * The Environmental Specimen Bank is part of the Perennial Observatory of the Environment that aims to establish the initial state of the environment around the Cigéo project, then to monitor any changes to the environment throughout the construction and operating life of Cigéo project, in addition to regulatory environmental monitoring. The Ecothèque is designed for the long-term conservation of environmental specimen samples and will thus preserve the memory of the environment throughout the centennial operations of Cigéo. * The 4,000 m² Technological Exhibition Facility is an experimentation and public information centre built to present the Cigeo project through exhibitions, scale models and industrial prototypes of technological solutions that may be used in the future Cigéo project (disposal canisters, robot for emplacement and retrievability of disposal waste canister…). Visits are organized for the general public and technical visits can be organized on demand for professionals, academics or students. Moreover, collaborations can also be set up to provide training sessions or organize scientific seminars dedicated	WMO	France

Infrastructure name	Host organization	Type of infrastructure	Infrastructure description/contact details	Type of organisation	Country
			to waste management. At last, the Meuse and Haute-Marne Centre can also provide internships and "in-field" trainings. For more information, please consult the official website.		
Industrial facility for grouping, sorting and very-low level waste (VLLW) disposal (CIRES)	Andra	Disposal site	Near to the CSA, the CIRES hosts multiple activities. This disposal is dedicated to Very-Low Level Waste repository; it also hosts facilities for the management of non-electronuclear waste (produced outside of NPPs and large nuclear research facilities), such as grouping, sorting, and storage. Visits are organized for the general public and technical visits can be organized on demand for professionals, academics or students. For more information, please consult the official website.	WMO	France
Aube disposal facility (CSA)	Andra	Disposal site	The CSA is a surface disposal facility designed for low- and intermediate-level, short-lived radioactive waste (LILW-SL). Located in the Aube district, in north-eastern France and operated by Andra since 1992, it is the second surface waste disposal facility built in France. The CSA concept is based on gradual construction of linear disposal vaults in concrete, located above the water table with a well-identified single water outlet and for a given waste inventory; its flexible architecture and modular configuration allows integration of optimized design features into the reference concept. The CSA facilities include disposal zone (vaults under construction, vaults in operation and closed vaults); pre-disposal area (Waste Conditioning Workshop, quality monitoring of packages); a temporary storage for waste packages (transit building); and support facilities. A special feature of the CSA is the underground Gravitational Separation System (RSGE) similar to that in service at the CSM. Visits are organized for the general public and technical visits can be organized on demand for professionals, academics or students. For more information, please consult the official website.	WMO	France

Infrastructure name	Host organization	Type of infrastructure	Infrastructure description/contact details	Type of organisation	Country
Manche Disposal Facility	Andra	Disposal site	The Manche disposal facility (CSM) was the first radioactive waste repository ever operated and closed in France. The CSM has stayed in operation for 25 years; it received a total 527,225 m^3 of low- and intermediate-level waste, mainly containing short-lived radionuclides. The final cap covering the top of the disposal vaults was installed between 1991 and 1997. The CSM was closed in 1994, and the challenge now is to determine its final form, and especially concerning the final cover. The CSM is the first radioactive waste disposal facility in the world to enter the post-closure monitoring stage. The facility no longer receives waste packages, but various improvements and adaptations are still being regularly made with a view to the facility's final closure within the next fifty years. All information (monitoring data, adaptations, …) are currently being scrutinised and examined as a part of the ten-yearly safety review and the report on "dismantling, closure and monitoring", which Andra has to submit every 10 years. Visits are organized for the general public and technical visits can be organized on demand for professionals, academics or students. For more information, please consult the official website.	WMO	France
INE Beamline & ACT Laboratory	Karlsruhe Institute of Technology	Research laboratory	The INE Beamlines (INE-Beamline and the ACT station at the CAT-ACT Beamline) at the KIT-synchrotron are dedicated to actinice research with X-ray spectroscopic techniques. Research and development at INE are largely aimed at long term safety assessment of proposed deep geological repositories for high-level, heat producing nuclear waste (HAW) disposal. To ensure sound safety assessment, a molecular understanding of processes determinant in the fate of radionuclides, notably the actinides, and thermodynamic quantification is essential. Of central importance in such investigations is determination of actinide speciation (i.e., their chemical and physical form). X-ray spectroscopic methods have proved to be valuable tools for actinide speciation research. Investigations on non-fissile radioisotopes up to 106 times the legal exemption limit and fissile radioisotopes (Pu-239, U-235) up to 200mg, contained within two layers of protection, are possible. For more information, please consult the official website.	RE	Germany

Infrastructure name	Host organization	Type of infrastructure	Infrastructure description/contact details	Type of organisation	Country
Institute for Nuclear Waste Disposal	Karlsruhe Institute of Technology	Research laboratory	Laboratories and infrastructure for working with radioactive materials including alpha emitting nuclides e.g. hot cells, alpha box technology, boxes with inert gas atmosphere, isotope hoods. Instrumentation: alpha-, beta- and gamma-spectrometry, liquid scintillation counting (including low level), Element-and isotope analysis, AAS, ICP-AES, ICP-MS, HR-ICP-MS, XRF, ICP-MS combined with laser-ablation, Raman spectroscopy. SEM, ESCA-spectroscopy, AFM, powder XRD, Time resolved laser-fluorescence spectroscopy (TRLFS), laser induced breakdown spectroscopy (LIBD), In-situ-colloid detection. NMR instrumentation for radioactive samples. For more information, please consult the official website.	RE	Germany
Institute of Resource Ecology – Hot Cell Testing Facilities	Helmholtz-Zentrum Dresden-Rossendorf	Research laboratory	Investigation of activated and contaminated materials. Hot cells for material testing with wall thickness for shielding: 150 mm –> maximum activity of the specimen 5 · E12 Bq Co-60. Technological equipment for cutting, grinding, polishing, etching, thinning. Microscope with micro hardness measuring device. Furnace with inert gas annealing atmosphere. Servo-hydraulic testing system for static and dynamic testing. Impact testing. Electromechanical Universal testing machine Inspekt Desk with implemented Small Punch Test setup. Vickers hardness testing machine. For more information, please consult the official website.	RE	Germany
Institute of Resource Ecology	Helmholtz-Zentrum Dresden-Rossendorf	Research laboratory	Research activities in radioactive waste disposal are grouped in two themes: Long-lived radionuclides in disposal sites and Long-lived radionuclides in biosystems. A broad range of instruments are available in the institute e.g. FT-IRS, TRLFS, NMR spectrometers, SC-XRD, Positron Emission Tomography setup to visualize the transport of radionuclides through geological samples, GeoPET is combined with a newly acquired µ-CT device which allows characterization of fractures and pore spaces in a sample on the µm-scale, SANS, TEM, PAS, α-, β-and γ-spectrometry, Colloid characterization techniques. For more information, please consult the official website.	RE	Germany

Infrastructure name	Host organization	Type of infrastructure	Infrastructure description/contact details	Type of organisation	Country
Rossendorf Beamline	Helmholtz-Zentrum Dresden-Rossendorf	Research laboratory	The Rossendorf Beamline is located at the European Synchrotron Radiation Facility (ESRF) in Grenoble, France. Here, energy research benefits from Europe's most brilliant source of synchrotron X-ray light. Four experimental stations for radiochemical experiments are available. X-ray absorption spectroscopy in a dedicated hutch equipped as a controlled area for radioactive samples with activities up to 187 MBq. X-ray emission spectroscopy: a Johann-type spectrometer is currently under construction for high-resolution X-ray emission studies. Surface X-ray diffraction: a diffraction setup consisting of a Huber six-circle diffractometer, a PILATUS 100K diode array area detector, and the corresponding beamline components. X-ray diffraction: the diffractometer will also be suitable for Synchrotron Powder X-ray Diffraction, and equipped with the necessary detectors and components. For more information, please consult the official website.	RE	Germany
User facilities at the Ion Beam Centre	Helmholtz-Zentrum Dresden-Rossendorf	Research laboratory	The Ion Beam Center is an internationally leading center of competence for the application of ion beams in materials research. Plasma and ion sources generate ions of all species at energies between eV and 60 MeV. Amongst the services offered at the IBC are ion beam modification of materials by ion implantation and irradiation, surface processing by low-energy/ highly-charged ions (LEI/HCI) or focused ion beams (FIB), ion beam analysis (IBA), and accelerator mass spectrometry (AMS). Some of the IBC's highlights include IBA set-ups for in-situ (partly real-time) thin films studies, a double beamline, a PIXE camera and an ion microprobe for chemical imaging of large samples with adaptable spatial resolution, as well as an ion microscope (ORION Nanolab) for high-resolution imaging and nanofabrication. Users of the IBC can take advantage from add-on services comprising sample preparation and clean-room processing, surface and thin film metrology (electron microscopy and spectroscopy, X-ray scattering) and the availability of specific software for the simulation of ion-related processes or data evaluation. For more information, please consult the official website.	RE	Germany

Infrastructure name	Host organization	Type of infrastructure	Infrastructure description/contact details	Type of organisation	Country
Dresden High Magnetic Field Laboratory	Helmholtz-Zentrum Dresden-Rossendorf	Research laboratory	At the HLD, pulsed magnetic fields of more than 90 Tesla are generated in a bore of 16 millimeters – that's unique in the entire world. The HLD focuses on modern materials research in high magnetic fields. In particular, electronic properties of metallic, semiconducting, superconducting, and magnetic materials are investigated with the objective of developing innovative materials for the future. For more information, please consult the official website.	RE	Germany
High-power laser-particle acceleration	Helmholtz-Zentrum Dresden-Rossendorf	Research laboratory	Lasers with petawatt peak power enable the development of advanced ultra-compact particle accelerators and light sources. Dedicated target areas are optimized for the investigation and application of relativistic laser-plasma processes by in-house and external researchers. The petawatt laser DRACO (Dresden laser acceleration source) HZDR operates a state-of-the-art high-power ultra-short pulse laser system, dedicated and optimized for the investigation of relativistic laser plasma physics. Within the PENELOPE project (Petawatt ENergy-Efficient Laser for Optical Plasma Experiments) a High-peak power operation at the Petawatt level and High-average power performance at a repetition rate of 1 Hz are combined. For more information, please consult the official website.	RE	Germany
ELBE Centre for High-Power Radiation Sources	Helmholtz-Zentrum Dresden-Rossendorf	Research laboratory	The Radiation Source ELBE (Electron Linac for beams with high Brilliance and low Emittance) delivers multiple secondary beams, both electromagnetic radiation and particles. The characteristics of these beams make ELBE an outstanding research instrument for external users as well as scientists of the HZDR. The radiation source ELBE is based on a superconducting linear accelerator that can be operated in high average power mode (quasi continuous wave mode, cw), Design Parameters of the ELBE Linac is tabulated at https://www.hzdr.de/db/Cms?pNid=584. For more information, please consult the official website.	RE	Germany

Infrastructure name	Host organization	Type of infrastructure	Infrastructure description/contact details	Type of organisation	Country
The Minor Actinide Laboratory	JRC Karlsruhe	Research laboratory	The Minor Actinide Laboratory (MA-lab) of JRC is a unique facility for the fabrication of fuels and targets containing minor actinides such as americium and curium. It is of key importance for research on Partitioning and Transmutation (P&T) in Europe, as it is one of the only dedicated facilities for the fabrication of MA containing materials, either for property measurements or for the production of test pins for irradiation experiments. For more information, please consult the official website.	RE	Germany
Properties of Actinide Materials under Extreme Conditions (PAMEC)	JRC Karlsruhe	Research laboratory	State-of-the-art instruments for measuring spectroscopic, thermodynamic, magnetic, and electrical transport properties of radioactive materials, together with specialised facilities for the preparation of high-quality samples, from single crystals to organometallic complexes and epitaxial thin films. Available techniques include, among others, magic-angle-spinning nuclear magnetic resonance, photoemission and Mössbauer spectroscopy, SQUID magnetometry, Seebeck- and Hall-effect probes. By exploring materials properties in a wide range of temperature, pressure, and magnetic field, studies performed at the JRC are helping in bringing the actinide knowledge to a “material-by-design” level. For more information, please consult the official website, or contact Thomas Gouder (JRC).	RE	Germany
Fuels and Materials Research Laboratory	JRC Karlsruhe	Research laboratory	The main activities covered by the FMR laboratory involve the synthesis and characterisation of actinide-containing materials (including plutonium and minor actinides), their characterisation and the study of their thermodynamic and thermophysical properties from very low (liquid He) to very high (>4000 K) temperatures. For more information, please consult the official website.	RE	Germany
Hot Cell Laboratory	JRC Karlsruhe	Research laboratory	Laboratories for handling of highly radioactive materials. For more information, please consult the official website, or contact Vincenzo Rondinella (JRC).	RE	Germany

Infrastructure name	Host organization	Type of infrastructure	Infrastructure description/contact details	Type of organisation	Country
Budapest Neutron Centre	Centre for Energy Research	Research reactor	Budapest Neutron Centre (BNC) consortium was founded by three research institutes of the Hungarian Academy of Sciences to coordinate research activities associated with the Budapest Research Reactor (BRR). In 2005, a fourth institute joint the consortium. BNC is now a consortium of the Centre for Energy Research (CER) and the Wigner Research Centre for Physics (Wigner CRP). BNC is legally represented by the CER. BNC – aside from operating the reactor – coordinates the use of the reactor and provides scientific infrastructure for the international user community. Currently 16 experimental stations are offered in the user programme. BNC has participated in several EU-supported programmes. The Central European Training Schools (CETS) have been organized since 1992. The primary objective of the CETS neutron schools has been to provide actual hands-practices –following a short theoretical introduction to neutron scattering and to the various neutron based methods for studying structure and composition of matter. For more information, please consult the official website.	RE	Hungary
Radioactive Waste Treatment and Conditioning Plant	Institute for Nuclear Research (RATEN)	Research laboratory	The Radioactive Waste Treatment and Conditioning Plant (STDR) ensures collecting, treating and conditioning the radioactive waste resulted from TRIGA reactors, the Nuclear Fuel Factory (FCN), the Post-Irradiation Examination Laboratory (LEPI) and other nuclear installations within ICN and from the country, but also developing and implementing new equipment and technologies. Within this department there can be organized professional training with practical sessions in the areas of: • Characterization of radioactive waste; • Treatment and conditioning of radioactive waste in stable matrices. For more information, please consult the official website.	RE	Romania

Infrastructure name	Host organization	Type of infrastructure	Infrastructure description/contact details	Type of organisation	Country
The Post-Irradiation Examination Laboratory (PIEL)	Institute for Nuclear Research (RATEN)	Research laboratory	The Post Irradiation Examination Laboratory – PIEL was designed as support for the nuclear industry, especially as support for CANDU type power plants. PIEL is located adjacent to the TRIGA reactor and is interconnected to the TRIGA reactor pool through a water channel. Thanks to this design, it is possible to examine in the Hot Cells from PIEL samples of freshly irradiated fuel or structural materials from the reactor. The Post-Irradiation Examination Laboratory (PIEL) is equipped with facilities and equipment that allow testing, handling and examining the nuclear fuel and structural materials from nuclear power plants, manufacturing sealed sources of nuclear radiation. For more information, please consult the official website.	RE	Romania
Dual Core TRIGA Research Reactor (14MW-SSR, ACPR)	Institute for Nuclear Research (RATEN)	Research reactor	The TRIGA Research Reactor ensures the technical support for testing at irradiation the nuclear fuel intended for CANDU-type nuclear power plants, as well as for testing and qualification of structural materials intended for the CANDU nuclear power plant. The Reactor Department has unique domestic facilities which allow irradiation testing of nuclear fuel and structural materials for NPPs: • TRIGA SSR 14MW – steady-state LWR-type research reactor, max. power 14MW, max. thermal flux 2.6 x 10^{14} n/cm^2s, rectangular irradiation channels of max. 500 x 85 x 85 mm, reflector channels Ø 32 mm with thermal neutron flux of max. 8 x 10^{13} n/cm^2s. It is mainly used for long and medium duration irradiations of nuclear fuel, structural materials, isotope production, etc. • TRIGA ACPR – Annular core pulsed reactor, maximum pulse power 20,000 MW with FWHM ~ 4ms, dry central channel Ø 228 x 381 mm. Mainly used to obtain experimental data on cladding failure mechanisms and threshold during power pulse conditions and to clarify fuel safety limits; to investigate thermal and mechanical behavior of nuclear fuel in fast transient conditions. For more information, consult the official website.	RE	Romania

Infrastructure name	Host organization	Type of infrastructure	Infrastructure description/contact details	Type of organisation	Country
Jazbec and Borst disposal sites	ARAO	Disposal site	Jazbec and Borst disposal sites for mining and hydro-metallurgical tailings from the closed Zirovski Vrh Uranium mine. These sites are accessible for technical visits. For more information, please consult the official website.	WMO	Slovenia
Central Storage Facility for radioactive waste (CSF)	ARAO	Storage facility	Central Storage Facility for radioactive waste (CSF) is operated to store radioactive waste generated in industry, research and medicine (=small producers). This facility is accessible for technical visits. For more information, please consult the official website.	WMO	Slovenia
Hot Cell Facility	JSI	Research laboratory	Hot Cells Facility, (Objekt Vroča Celica OVC), is intended for characterisation, sorting and treatment of radioactive materials. The OVC comprises three rooms: A. Manipulation room B. Central preparatory room C. Radiological measurements room Room B room comprises two hot cells VC1 and VC2, and eight digestors. Between the hot cells there is a depository for solid radioactive materials with 32 positions (dimensions Φ 100 mm x 100-250 mm). VC1 and digestors (D1…D4) are intended to be used for work with radioactive sources from the manipulation room A. VC2 presently serves as a radioactive material storage. Otherwise it can be upgraded for work with radioactive sources from the radiological measurements room C. The remaining four digestors (D5…D8), located within the radiological measurements room C, are used for various measurements. All rooms are under continuous radiological surveillance. The hot cell facility of JSI is accessible for training and technical visits. For more information, please consult the official website.	TSO	Slovenia

Infrastructure name	Host organization	Type of infrastructure	Infrastructure description/contact details	Type of organisation	Country
Research Reactor TRIGA Mark II	JSI	Research reactor	The Slovenian 250 kW TRIGA Mark II reactor operated by the Jožef Stefan Institute (JSI) has continuously operated since 1966. Since its commissioning it has played an important role in developing nuclear technology and safety culture in Slovenia. During the years the reactor has been utilized for training, research and isotope production. Education and training activities comprise regular experimental exercises for graduate and postgraduate students from several universities, training of reactor operators, courses organized by the JSI Nuclear Training Center, as well as visits for general population. International collaborations include participation in the three networks coordinated by the International Atomic Energy agency (IAEA): the East European Research Reactor Initiative, the Mediterranean Research reactor Network and the Advisory Safety Committee for Research Reactors in Eastern Europe. In addition, the reactor staff acts as IAEA external experts and train IAEA fellows upon request. Neutron activation analysis has represented one of the most important utilization of the reactor since its commissioning. Other research applications comprise irradiation of various materials, neutron radiography, verification and validation of computer codes and nuclear data, and development of a digital reactivity meter. In the 1970s and 1980s the reactor was extensively used for the production of radioactive isotopes, particularly ^{99m}Tc and ^{18}F. Although the production of medical and industrial isotopes discontinued, there are still some short-lived isotopes produced for mostly on-site users. Although the reactor is over forty years old, it still significantly contributes to new scientific achievements in nuclear science and to preservation of knowledge in nuclear energy. The TRIGA Mark II reactor is open for training, technical visits and internships. For more information, please consult the official website.	TSO	Slovenia

Infrastructure name	Host organization	Type of infrastructure	Infrastructure description/contact details	Type of organisation	Country
Santa Maria de Garona Dismantling and Closure Project	Enresa	Research reactor	The NPP is located in the municipality of Santa María de Garoña, in Burgos. It began commercial operation in 1971 and ceased its activity in 2012. Complete dismantling and decommissioning in 2 phases have been selected. During the first phase (2021 – 2024) the pool still contains spent fuel, while in the second one (2024 – 2031) the SNF has been transferred to an interim dry storage facility. Technical visit will be available as soon as the dismantling project begins. For more information, please consult the official website.	WMO	Spain
Vandellós I NPP	Enresa	Research reactor	The Vandellós I NPP is located in the municipality of Vandellós i L'Hospitalet de l'Infant (Tarragona). It began commercial operation in 1972 and was shut down in 1989. Enresa carried out the Stage 2 of dismantling, consisted of the removal of all buildings, systems and equipment outside the concrete pressure vessel, between 1998 and 2003. The concrete pressure vessel containing irradiated graphite, has been sealed and will remain so for a period of 25 years. Currently the NPP is in latency period. After this period, total dismantling will take place. Vandellós I NPP has an Information Centre that provides information on Enresa's dismantling activities and show to the visitors the implemented technologies on dismantling nuclear facilities as well as its management in relation to radioactive waste generated. It is available for technical visits upon request. For more information, please consult the official website.	WMO	Spain

Infrastructure name	Host organization	Type of infrastructure	Infrastructure description/contact details	Type of organisation	Country
José Cabrera Nuclear Power Plant	Enresa	Research reactor	The José Cabrera NPP is located in the municipality of Almonacid de Zorita (Guadalajara). It began operation in 1968 and it was shut down in 2006. The dismantling and decommissioning project started in 2009. There is an Information centre at the NPP that was created to provide society with information on the various phases involved in the process, it will remain open for the whole duration of the project. The standard visit includes information on Enresa's experience in the dismantling process, the various phases involved in the process and the project's current status. The José Cabrera NPP is available for technical visits upon request. For more information, please consult the official website.	WMO	Spain
El Cabril - Disposal facility for VLLW and LILW	Enresa	Storage facility	El Cabril, a Disposal Facility for VLLW and LILW, is located in the municipality of Hornachuelos (Córdoba). El Cabril includes several technological capabilities, such as those for the characterization, treatment and conditioning of radioactive waste. El Cabril has an information centre where visitors will get a detailed, first-person view of how El Cabril works, from the reception of radioactive waste to its treatment and conditioning, including the radiological control and safety programs implemented at the facility. It is open for technical visits upon request. For more information, please consult the official website.	WMO	Spain
Interdepartmental Investigation Service (SIdI)	Universidad Autonoma de Madrid	Research laboratory	The Interdepartmental Investigation Service (SIdI) of the Universidad Autónoma de Madrid (Autonomous University of Madrid) encompasses a total of 18 laboratories whose mission is to provide scientific technical assistance and services to public and private organizations which request this. These laboratories are grouped in 8 units according with the basic principles and application fields, including Thermal Analysis, Flow Cytometry, Chromatography, Mass Spectrometry, Molecular Spectroscopy, Microscopy and X-Ray. For more information, please consult the official website.	RE	Spain

Infrastructure name	Host organization	Type of infrastructure	Infrastructure description/contact details	Type of organisation	Country
Long-Lived Radionuclide Separation Laboratory	CIEMAT	Research laboratory	In this laboratory, analyse of long-lived radionuclides extraction and novel extraction processes is investigated. Characterization of spent fuel stability in long-term storage conditions: precipitation, co-precipitation and species release and physico-chemical characterization of radioactive waste and barrier materials and stability of unirradiated fuel in dry-storage conditions are researched as well. For more information, please consult the official website.	TSO	Spain
R&D Laboratories of Characterization, Treatment and Conditioning of VLLW and L&ILW	CIEMAT	Research laboratory	The R&D Laboratories of Characterization, Treatment and Conditioning of VLLW and L&ILW consists of two main facilities: Medium and low activity radiochemistry laboratories and the Radiation measurement laboratory. The main research area is the radiological characterization of radioactive waste and materials. For more information, please consult the official website.	TSO	Spain
Physical Chemistry of Actinides and Fission Products Laboratories	CIEMAT	Research laboratory	The Physico-chemistry of Actinides and Fission Products Unit (PAFP-CIEMAT) actively participates in CORI and FUTURE WPs. We kindly offer our infrastructures to EURAD participants, in which the studies necessary to evaluate the migration of radionuclides in a repository can be carried out, from complete geochemical characterization of materials and porewaters, to fundamental and mechanistic analysis of radionuclide sorption in organics, oxides and minerals and to radionuclide diffusion and transport studies in different materials and scales. Likewise, the PAFP-CIEMAT Unit has qualified scientific and technical personnel to provide support and training on relevant mechanisms, experimentation and analytical techniques, as well as in modelling tasks. This unit is accessible for training, internships and technical visits. For more information, please consult the official website.	TSO	Spain

Infrastructure name	Host organization	Type of infrastructure	Infrastructure description/contact details	Type of organisation	Country
FEBEX Mock-up	CIEMAT	Mock-up	Large-scale mock-up test simulating the saturation of a bentonite barrier under thermal gradient, with two heaters mimicking the waste containers. Numerous sensors follow the evolution of thermo-hydro-mechanical variables. In operation since 1997. The FEBEX Mock-up is open for technical visits. For more information, please consult the official website.	TSO	Spain
Hotlab	PSI	Research laboratory	State-of-the-art radiochemical laboratories (type A and C) with infrastructure (inert gas glove boxes, integrated ultracentifuge, liquid scintillation counters, gamma counters, ion chromatograph, ion chromatograph coupled with a mass spectrometer, gas chromatograph coupled with a mass spectrometer, total organic carbon analyzer, voltammetry-system power pack automated, UV-VIS spectrometer, multipotentiostat for working under controlled redox conditions. For more information, please consult the official website.	RE	Switzerland
Grimsel Test Site	NAGRA	Underground laboratory	The Grimsel Test Site (GTS, Nagra's underground research laboratory) and hosting the Grimsel Training Centre (GTC). The main RD&D activities are related to almost all aspects of radioactive waste management issues and to fundamental geosciences. The lab is accessible for training, internships and/or technical visits. The Grimsel Training Centre (GTC) provides the opportunity to exchange knowledge and to provide training in the necessary skills for working underground and for the safe disposal of radioactive waste in general, Nagra established the Grimsel Training Centre (GTC) in 2017, as a permanent platform. The programme allows both tailor-made and established courses repeated every two or three years. Also, the combination of more theoretical lectures and hands-on training renders this programme very attractive for various levels of experience and expertise. High quality and relevance of the courses is achieved by involving lecturers from the GTS partner organisations. For more information, please consult the official website or contact Ingo Blechschmidt (Nagra).	WMO	Switzerland

Infrastructure name	Host organization	Type of infrastructure	Infrastructure description/contact details	Type of organisation	Country
Geoscience and Engineering Laboratory	TU Delft	Research laboratory	The Laboratory of Geoscience & Engineering is equipped with highly advanced instrumentations and set-ups to qualify and quantify chemical and physical processes in rocks and soils under deep and shallow in-situ conditions. We have a range of infrastructure to test soils and rock, with a focus on imagining before, during and after experimentation. For more information, please consult the official website, or contact the contact person from TU Delft.	RE	The Netherlands
Laboratory for Materials Ageing in LWR Environments	JRC Petten	Research laboratory	The AMALIA laboratory carries out research in the area of ageing of materials under the effect of environmentally assisted stress corrosion cracking. For more information, please consult the official website.	RE	The Netherlands
COVRA's Surface Storage Facilities	COVRA	Storage facility	The Central Organisation For Radioactive Waste (COVRA) is the sole company in the Netherlands tasked with collecting, processing and storing all radioactive waste. COVRA's premises holds dedicated storage facilities at the surface at which High Level Waste packages and Low and Intermediate Level waste packages are stored. These storage facilities are visited by people with a basic training but also students as part of their academic training. The facility that processes waste can also be visited but is more cumbersome and usually not done to save time. To monitor the quality of the waste forms and conditioning concrete, COVRA possesses laboratory equipment such as ICP-OES for chemical analysis and pressure banks to monitor the mechanical strength of fabricated cementitious materials. For more information, please consult the official website.	WMO	The Netherlands
State Scientific and Technical Center for Nuclear and Radiation Safety	SSTC NRS	Research laboratory	The State Scientific and Technical Center for Nuclear and Radiation Safety (SSTC NRS) is a TSO organization of the Ukrainian regulatory body State Nuclear Regulatory Inspectorate of Ukraine (SNRIU). SSTC NRS provides scientific, analytical, technical, informational, methodological, engineering, consultative, and expert support of activities and decision making of	TSO	Ukraine

Infrastructure name	Host organization	Type of infrastructure	Infrastructure description/contact details	Type of organisation	Country
			SNRIU at all stages of the life cycle of nuclear facilities, radioactive waste management facilities and other radiation sources. SSTC NRS performs: • development of draft regulations to establish regulatory criteria and requirements for safe management of radioactive waste and spent nuclear fuel; • research activities – conducting applied and analytical research using up-to-date computer codes to identify ways to address issues in safety regulation and implementation of advanced methodologies for analysis and safety assessment of radioactive waste and spent nuclear fuel management facilities (research in the fields of neutron-physical processes, thermal conditions, strength and seismic resistance, radiation protection, emergency processes, long-term storage/disposal safety); • professional training of specialists and experts in the areas of radioactive waste and spent nuclear fuel safe management and radiation monitoring; • radiological measurements, detection, and analysis of potential radiological and nuclear threats using RanidSONNI Radiation Reconnaissance Vehicle (Mobile Radiological Laboratory). The SSTC NRS infrastructures are available for trainings and internships. For more information, please consult the official website or contact Yuliia Yesipenko.		
LLRW Site	LLW Repository Ltd	Storage facility	LLWR is national facility for permanent disposal of low level radioactive waste, located near the village of Drigg in West Cumbria. For more information, please consult the official website.	WMO	United Kingdom

Appendix D. Evaluation criteria and form

This part describes the evaluation criteria to be used by the evaluators of the EURAD Mobility Programme.

SUBMISSION AND EVALUATION

The complete application should be submitted on-line via Evalato platform within requested application deadline. The decision about financial support will be made within 30 days after the nearest application deadline. The time of application in relation to the deadline has no influence on the evaluation outcome. The applications will be evaluated by the Evaluation Committee consisting of:

- For mobility actions **cross** EURAD WPs, **external** mobility and mobility outside of EURAD participants (valid for Stage IV):
  Members of the EURAD Training and Mobility Work Package as well as members of the EURAD Project Management Office.
- For mobility actions **internal** to EURAD WPs:
  The WP leader and at least two WP participants in which the mobility action will take place.

A recommendation for funding will be based on simple majority, with at least three evaluators participating in the evaluation.

The following **criteria for evaluation of the applicant and of the proposed mobility action** and ranking will be applied:

- Scientific background: 1 (poor) – 4 (excellent)
- Motivation: 1 (poor) – 4 (excellent)
- Level of recommendation: 1 (poor) – 4 (excellent)
- Compliance of the proposal with the objectives of EURAD: 1 (poor) – 4 (excellent)
- Feasibility of the proposed work: 1 (poor) – 4 (excellent)
- Scientific quality (i.e. methodology, potential contribution to EURAD project, learning outcomes): 1 (poor) – 4 (excellent)
- Mobility action benefits to the applicant: 1 (poor) – 4 (excellent)

A threshold of 50% (based on at least three evaluations) will apply.

The ensute the transparency of the evaluation processes the evaluation of the application is performed through on-line EVALATO application accessible to all dedicated evaluators.

Evaluation form template, accessible and implemented on-line via Evalato

Name of evaluator: Application: Applicant name: Title proposal: Type of mobility action: Start and end date of mobility:				
Is the application complete?				
☐ Yes	☐ No (if no, the applicant is not eligible)			
Evaluation of the applicant	**1 (poor)**	**2 (average)**	**3 (good)**	**4 (excellent)**
Scientific background (CV) (i.e. adequate education level, work experience)				
Applicant's motivation				
Recommendation: ▪ By own mentor ▪ By mentor host institute				
Evaluation of proposed mobility action	**1 (poor)**	**2 (average)**	**3 (good)**	**4 (excellent)**
Compliance to the EURAD scope/SRA				
Feasibility of the proposed work (can the proposed work be completed within the proposed time frame; are the set goals realistic?)				
Scientific quality				
Benefit to the applicant				
Decision				
☐ Accepted	☐ Declined			
Evaluator comments				

	Poor	Average	Good	Excellent
Scientific background of the applicant	The applicant is **lacking** the necessary background education and/or experience to benefit from this mobility action.	The applicant's background suggests some **basic knowledge and/or experience** related to the proposed mobility action.	The applicant's background suggests a **strong knowledge and/or experience** related to the proposed mobility action.	The applicant's background suggests an **expert knowledge and/or experience** related to the proposed mobility action.
Applicant's motivation				
Recommendation of the applicant	The applicant is **not recommended** in his/her reference letters.			The applicant is **highly recommended** in his/her reference letters.
Compliance to EURAD scope/SRA	The proposed mobility action has **no obvious link** to the EURAD SRA or Roadmap, therefore, it is not a priority.	The proposed mobility action is **linked** to the EURAD SRA or Roadmap.	The proposed mobility action has a **strong link** to the EURAD SRA and Roadmap.	The proposed mobility action has a **very strong link** to the EURAD SRA and Roadmap and answers to a **priority** identified in the Roadmap.
Feasibility of the proposed work	The proposed work is **not feasible** within the proposed time frame	The proposed work is **feasible**, but has limited benefits within EURAD.	The proposed work is feasible and the results could have an impact within EURAD.	The proposed work is feasible and a priority within EURAD and its results will have a beneficial impact within EURAD.
Scientific quality	The proposed methodology is not adequate and/or scientifically correct.	The proposed methodology is adequate and the results will be relevant for EURAD.	The proposed methodology is adequate. The results will greatly relate to the scope of RD&D and/or SS WPs. The proposed work could be considered state-of-the-art.	The proposed methodology is adequate. The results will highly relate to the scope of RD&D and/or SS WPs and could be considered innovative. The proposed work could be considered state-of-the-art.
Benefit to the applicant				

Appendix E. Mobility Mission Report template

Can be downloaded from the EURAD website: https://euradschool.eu/templates/

This report will be stored by WP13 in dedicated form and place and also published on EURAD School of RWM in the section: Previous mobility actions (https://euradschool.eu/previous-mobility-actions/).

Mission_Report_Template.docx

Appendix F. Evaluation Committee

Tasks evaluation committee in case of Internal-WP applicants:

For Internal-WP mobility actions, the WP leader, together with at least two WP participants who will be appointed by the WP leader, will perform the evaluation process.

Tasks evaluation committee in case of Cross-WP and/or External applicants:

The members of the Evaluation Committee will be tasked with reviewing applications for the EURAD Mobility Programme for Cross WP or External mobility actions. For each applicant, a minimum of three members should perform the application evaluation. Eleven members are proposed as to give the evaluators the opportunity to refrain from evaluating files (in case of conflict of interest, unavailability, etc.).

Members of the Evaluation Committee

- Piet Zuidema (Chief Scientific Officer)
- Tara Beattie (PMO)
- Paul Carbol (PMO)
- Birgit Christiansen (JRC)
- Lubomir Sklenka (CTU)
- Claudia López del Prá (CIEMAT)
- Yuliia Yesypenko/Sergii Kondratiev (SSTC NRS)
- Jitka Mikšová (SURO)
- Niels Belmans (SCK CEN)
- Radek Vašíček (CTU)