Deliverable 11.4: Procedures to Involve Knowledge Providers

Work Package 11 State-of-Knowledge

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Executive Summary

The EURAD Knowledge Management (KM) programme, in general and the work of Work Package 11 State-of-Knowledge (WP11 SoK) in particular, relies heavily on the participation of experts from different fields of radioactive waste management (RWM). These experts can take different roles, such as authors, reviewers or lecturers and are indispensable for the success of EURAD KM. Thus, the successful involvement of these experts is crucial, and consideration should be given to the procedures to involve these knowledge providers. This document describes the process used to involve experts for the production of Domain Insight (DI) and State-of-Knowledge (SoK) documents, as well as the experiences of applying these procedures and the derived lessons learnt. As such, this document can potentially deliver valuable input for further expert involvement activities for EURAD KM, beyond the mere scope of WP11 SoK.

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Glossary

Author

The expert responsible for writing the SoK or DI document. The author plays a vital role in the creation and development of these documents ensuring accuracy, clarity and relevance of the content.

Community of Practice (CoP)

A voluntary group of peer practitioners who share lessons learnt methods, and best practices in a given discipline or for specialised work. The term also refers to a network of people who work on similar processes or in similar disciplines, and who come together to develop and share their knowledge in that field for the benefit of both themselves and their and other organisation(s).

Domain

An area of activity, interest, or knowledge, especially one that a particular person, organisation etc. deals with. It represents the lowest level of the EURAD Roadmap Goals Breakdown Structure.

Domain Insights (DI) Documents

Context documents that provide direct links for each knowledge domain to safety and implementation goals related to RWM requirements.

End-users

Organisations, experts, newcomers who are potential users of DI, SoK documents and KMS in general – EURAD community (WMOs, TSOs, REs) and non-EURAD community, newcomers (somebody who started out in the field of RWM).

EURAD

The European Joint Programme on Radioactive Waste Management (EURAD). Also referred to as the 'Joint Programme'.

Expert

Someone widely recognised as a reliable source of knowledge, technique or skill whose faculty for judging or deciding rightly, justly, or wisely is accorded authority and status by their peers or the public in a specific well-distinguished domain.

Goals Breakdown Structure (GBS)

The EURAD goals breakdown structure is a thematic breakdown of knowledge and activities essential for radioactive waste management. It comprises Themes (Level 1), Sub-themes (Level 2) and Domains (Level 3), each formulated as goals. Although hierarchical and numbered, the knowledge and activities presented across the GBS should be considered collectively with no weighting to order of importance. Rather it is emphasised that there are many inter-dependencies and linked data across the GBS, where knowledge and activities can be centred in different ways, depending on the end user role and precise boundary conditions of the RWM programme to which the roadmap is applied.

Knowledge

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Knowledge is the acquisition, understanding and interpretation of information. It is often used to refer to bodies of facts and principles accumulated by humankind over the course of time. Knowledge and information each consists of true statements, but knowledge serves a purpose: knowledge confers a capacity for effective action.

Knowledge Ambassador

Knowledge Ambassador is a person which plays an active role in supporting knowledge sharing and effective integration of knowledge management strategies in various WPs. Knowledge Ambassadors are appointed individuals specifically identified for each WP which play a key role in fostering effective communication, collaboration, and knowledge exchange between WPs and KM WPs and also between WP members.

Knowledge Management (KM)

An integrated, systematic approach of identifying, managing and sharing an organisation's knowledge and enabling groups of people to create new knowledge collectively to help in achieving the organisation's objectives.

Knowledge Management System (KMS)

Knowledge Management System (KMS) is a system for applying and using knowledge management principles to typically enable to create, share and find relevant information & knowledge quickly.

Knowledge Provider

An expert, group of experts or the organisation that shares knowledge, information, or expertise with the end-users.

Newcomer

Somebody who started out in the field of RWM (students, early career researchers, new employees etc.).

Radioactive Waste Management (RWM)

All activities, administrative and operational, that are involved in the handling, pretreatment, treatment, conditioning, transport, storage and disposal of radioactive waste.

Review

Activity undertaken to determine the suitability, adequacy and effectiveness of the subject matter to achieve established objectives. The purpose of the review is also to ensure the accuracy and completeness of the information, evaluate the methodologies, identify potential flaws and limitations, and assess the overall contribution to the field of RWM.

Reviewer

The expert involved in the review of the SoK or DI document. The reviewers provide feedback to the authors helping them improve the overall quality and impact of the document. They play a vital role in the decision-making process for publication.

Roadmap

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A high-level overview of a programme's goals, typical activities and knowledge needed to implement a RWM programme, from the generation of radioactive waste to disposal.

SoK document

The document describing the state of knowledge in a specific domain of EURAD Goals Breakdown Structure (GBS). Experts' view of the most relevant knowledge and associated uncertainties in a specific domain applied in the context of RWM programme. Short summary of scientific and engineering facts relevant to the domain. Typically SoK documents would use a relatively small number of key primary references and signposts out to further detail where necessary (i.e., relevant SotA).

State of Knowledge (SoK)

Experts' view of the most relevant knowledge and associated uncertainties in a specific domain applied in the context of a radioactive waste management programme. Activities consisting of developing a systematic approach of establishing the state-of-knowledge in the field of RWM research.

State of The Art (SotA)

Scientific facts underpinning the knowledge base. SotA documents are oriented typically on a narrower scope and go into significant detail (e.g., focus on mechanistic or process-level understanding). They would not normally demonstrate the application of that knowledge. They typically include many technical references and are long documents.

Themes

Themes are large groupings of related Knowledge Domains typical in Radioactive Waste Management. They are the highest level of the EURAD Roadmap Goals Breakdown Structure (GBS).

Theme Overview (TO)

Broad description of programme goals and typical activities for each theme and how they evolve over the phases of implementation.

Work Package (WP)

A work package is a group of related tasks established within EURAD. Because they look like projects themselves, they are often thought of as sub-projects within the Joint Programme.

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1. Introduction

Knowledge Management (KM) is crucial for a safe radioactive waste management (RWM) and disposal. This important role of KM is realised by the European Joint Programme on Radioactive Waste Management (EURAD) and addressed through a number of activities in its EURAD KM Programme. One of these activities, led by Work Package 11 State-of-Knowledge (WP11 SoK), is to capture relevant knowledge in the field of RWM and make it available to end-users through dedicated documents (KM documents). These documents will be written on different levels of detail to allow the end-user to access the knowledge on their suitable level of expertise (KM document hierarchy, see Knuuti et al., 2022). The topics of the individual documents are defined by the EURAD Roadmap/Goals Breakdown Structure (GBS) (Beattie et al. 2021), which is a valuable tool developed by EURAD to organise and structure topics relevant to RWM. All of these documents are authored and reviewed by experts in their respective fields, who have worked hands-on in their respective fields for a long time. This allows to capture the experts' view on the most relevant and current knowledge. The focus of WP11 SoK is on the production of Domain Insight (DI) documents. Furthermore, WP11 SoK guided the production of two State-of-Knowledge (SoK) documents (demonstration cases). In short, the DI documents are brief overview documents (~10-20 pages) that provide an entry point into a topic relevant to RWM, whereas the SoK document go into more scientific and factual detail and are therefore longer (~20-50 pages). This deliverable describes the involvement of knowledge providers, i.e., experts, with focus on their involvement in DI document authorship, which is the dominating part of WP11 activities.

The involvement of experts for SoK documents will be covered in the chapter about lessons learnt (Chapter 3.1) and the outlook (Chapter 4). Additional important information on the process of KM document production, including aspects of the experts involvement can be found in the deliverables D11.5 – QA Procedures for the Generation of SoK Demonstration Cases (Iarmosh et al., 2022) and D11.8 – Authors Guidance and Template (Tatomir et al., 2023).

Although this deliverable focuses on KM document production (i.e., DI and SoK documents), experts are also needed for other types of KM activities, such as lecturing training courses or creating guidance documents. Some aspects of the insights and processes outlined here could also apply for these activities.

2. Process of experts involvement

The process of experts involvement for the KM document production (i.e., authorship, review) can be divided into three different steps: 1) Identification and selection; 2) Engagement; and 3) Support. A schematic illustration is provided in **Erreur ! Source du renvoi introuvable.**. Although it may be helpful to follow some guiding principles for all of these steps, it is important to maintain a certain flexibility depending on the involved expert and topic. It should be kept in mind that the main goal of the process is to produce documents that are useful for the end-users (e.g., organisations, newcomers, experts, etc.), rather than blindly following a strict process. Details of the individual steps are described in the following chapters.
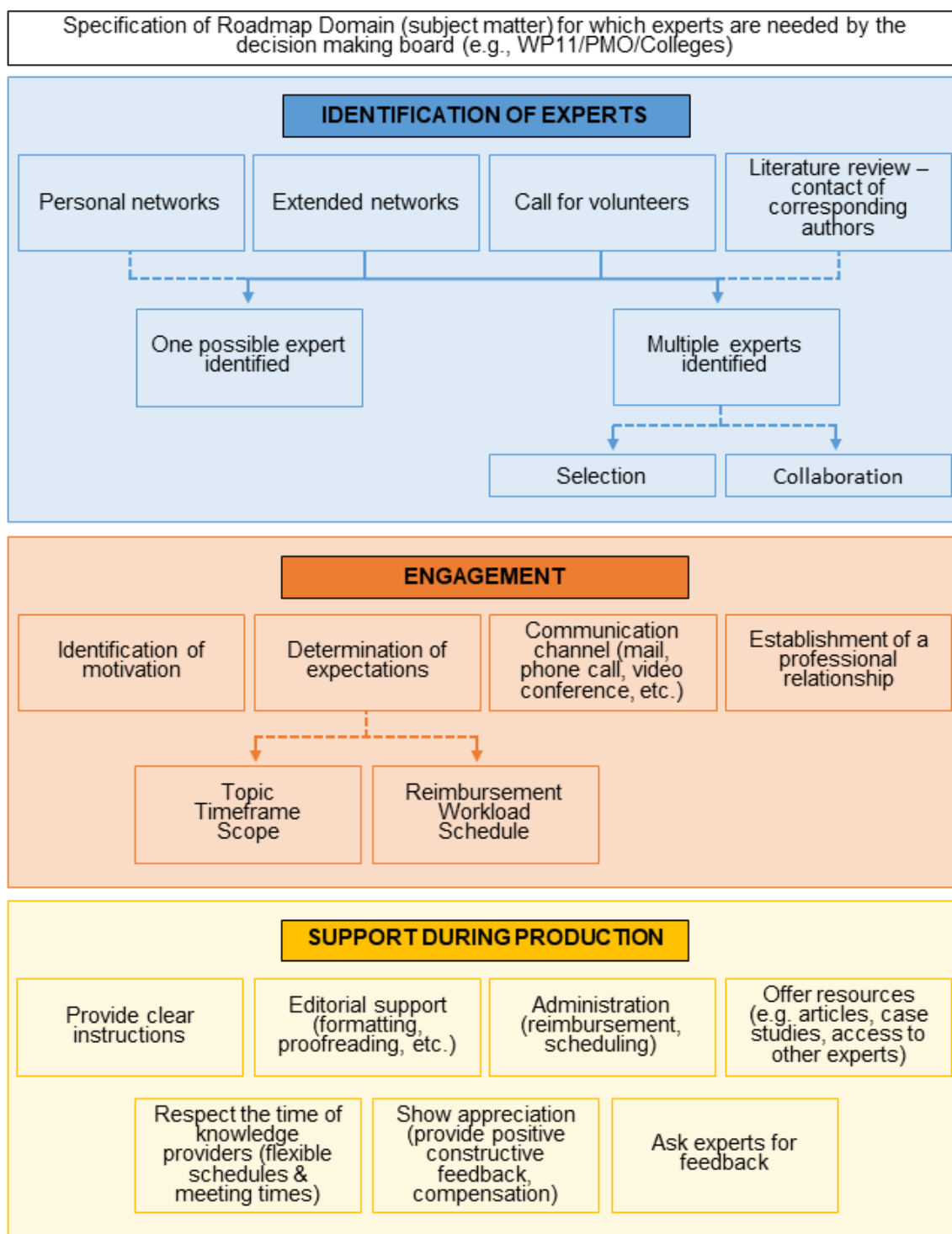
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Figure 1: Schematic illustration of the process to involve the knowledge providers for capturing the state-of-knowledge in KM documents.

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2.1 Identification of Experts

The first step in involving experts in the KM document production process is the **identification** of suitable individuals for the task by the decision making body (e.g., WP11/PMO/Colleges). To achieve this, it is first necessary to comprehensively define

i)   the type of work that needs to be carried out (in this case the type of DI documents; and the activity: writing or reviewing), and

ii)   the specific topic or title of the document (i.e., the domain defined by the EURAD Roadmap/GBS). The topics addressed for DI documents are the 79 domains of the EURAD Roadmap. The primary goal is to identify suitable authors and reviewers, but consideration is also given to find possible multiplicators, i.e., persons that could point towards suited experts and maybe even initiate the contact.

The general requirements for the selection of experts (authors and reviewers) are described in deliverable D11.5. IAEA definition of an expert is someone widely recognised as a reliable source of knowledge, technique or skill whose faculty for judging or deciding rightly, justly, or wisely is accorded authority and status by their peers or the public in a specific well-distinguished domain.

With this information it is then possible to start the identification of experts. For this, two main approaches were identified and put into practice:

a.   the **utilisation of personal networks**; and

b.   a request for volunteers, i.e. **Call-to-Action** (CtA).

In the first case, i.e., the **utilisation of personal networks**, WP11 SoK members screened the topics for which experts were needed. They then determined if they had suitable experts in their personal/professional networks, such as co-workers from the same organisation or former colleagues. In cases where no experts could be identified for the DI production by WP11 or the request for volunteers (see below), the Programme Management Office (PMO) is asked for giving input.

The second approach is the **request for volunteers**. This was done in the context of presentations that WP11 held at a number of different occasions, such as the EURAD Annual Events, General Assembly, WP Meetings, etc. There, the concept of the EURAD KM programme as well as the KM documents were promoted and the need for support from experts was clearly stated. The success of these activities was limited, most likely because no person was directly asked to provide a response. As a result, and to encourage the participation of the EURAD community as experts, WP11 decided to issue a more specific CtA to all EURAD WPs. For this, the WP leaders received a list of all EURAD GBS domains with the request to enter for their WP to which domain they can contribute either as author or as reviewer. This request and its rationale were explained in advance in a presentation to the WP leaders. This action was much more successful and proved the need to formulate a request for volunteers as clearly and specifically as possible and, most importantly, to assign responsible persons to provide feedback on the request, even if it is a negative feedback.

Potential additional methods for identifying experts include conducting a literature review on the given topic and contacting the corresponding authors and/or their organisations.

After the identification process, multiple experts could be identified for one task, e.g., four different experts are identified as authors for the same DI document (which is rather an exception). In this case, it is either necessary to create a team of experts that performs the work together or to make a **selection** of some of these experts. The decision which way to pursue or which experts to select should be carefully considered. If a team of experts is to be formed, this increases the complexity of the work as schedules have to be coordinated, responsibilities defined, communication managed, etc. Moreover, personal sympathies and compatibilities might become relevant, as well as questions about the reasons and perceived individual qualifications. If mismanaged, this might lead to a negative reputation of the programme and the product, i.e., the KM documents. Hence, it is important to have a transparent and objective decision-making process and communication, and to consult experienced partners such as the PMO and Bureau when in doubt. An additional option in these rare cases is to ask the experts to take on the role as reviewer for the document.

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2.2   Engagement

After the identification and selection of an expert, WP11 starts the **engagement** with the expert. This is a crucial step to secure the participation of the expert in the planned work. If an expert declines to participate, it may become very difficult to regain interest, especially if only a one or few experts have been identified, as is the case for most domains. Therefore, it is important to assess the motivation that individual expert might have to participate in the EURAD KM programme and how he/she can benefit from his/hers contribution, such as the contribution to a safer management and disposal of radioactive waste. Possible and varying motivational reasons should be taken into account throughout the whole process of engagement and collaboration.

The engagement of knowledge providers, as authors, reviewers or lecturers, is related to the question of interest, motivation and, if applicable, the benefits of participation. In this sense, the motivation of experts to participate in the peer-review process has been studied several times in the past in various research communities (e.g., medicine, biomedicine, library and information science) (Nobarany, Booth and Hsieh, 2015). An empirical study identified the reasons for participating in the review process on a more detailed, clustered scale. The following factors for the motivation of experts in participating in the review processes were identified (Nobarany, Booth and Hsieh, 2015):

- Learning (i.e., improving writing skills),
- Reputation,
- Quality control and influence on research,
- Prestige/Significance of the review,
- Social obligation (e.g., request from a friend),
- Scientific ability and match with the research interests (e.g., being an expert in the research field),
- Convenience (e.g., knowing the project, having free time),
- Content benefit (e.g., awareness, staying up-to-date),
- Recognition of the contribution,
- Improving papers, and
- Social motivations (e.g., giving back to the research community).

These motivational factors cannot only be applied to participation in the review process, but also to participation as an author. Based on this detailed analysis of motivational factors, the resulting (personal) benefits for the experts could include positive effects on learning, knowledge and reputation. Social motivations can also play an important role. Regarding the engagement of experts, it seems helpful to carefully analyse and assign the topics to be worked on, whether in writing or in the review process, based on the specific and individual preferences and interests of the respective experts. If the motivating factors are identified and addressed accordingly, positive feedback and regaining interest in engagement appears more likely.

Experts should be provided with all necessary information to get a clear picture of the work they are required to do and also be made aware of key administrative issues, such as compensation, estimated workload, and approximate schedule. Furthermore, given the unique nature of EURAD, external experts should first be given an introductory overview of the programme's overarching objectives and vision. To ensure clarity, a transparent and understandable document provision is needed (e.g., Tatomir et al., 2023, D11.8-Authors Guidance & Template) and DI examples.

Only by knowing the expectations well, the expert can make an informed judgment as to whether participate in the work or not. Agreeing to participate based on wrong or incomplete information would not only lead to an unproductive working atmosphere and thus increase the likelihood of a low-quality work, but would also damage the reputation of EURAD. Practical experience has shown that initial contact by email or phone with some first information, combined with the invitation to a short video call, works best and is well received. The possibility of such a meeting is usually highly welcomed by the experts and has proven to be very beneficial. There is usually an email exchange prior to the video call to clarify initial questions like approximate schedules and estimated workload. For this first contact, it is important to be aware of how the expert was identified, e.g., if the expert volunteered or was

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recommended by someone and by whom. This information allows to make first conclusions about the knowledge and the motivation of the expert regarding EURAD. A volunteer is expected to have some basic knowledge and motivation, whereas an expert from a personal network likely needs more basic information and possibly motivation. When it comes to an expert from a personal network, it is a good idea to use existing personal connections for the first contact. If this is not possible, for example because the connection is too distant, it may still be useful to refer to this connection when first making contact, provided the person suggesting the expert agrees.

Engaging knowledge providers can be done through various communication channels depending on various factors such as the urgency of the request, availability, preference of the expert, etc. The most common ways are: Email, phone calls, video-conferencing, in-person meetings, other online collaboration tools (e.g., Microsoft Teams, etc.).

The communication has to be clear, trustworthy and respectful at all times. WP members in charge of the engagement need to keep in mind that they do not only represent themselves and their own organisations, but also act as EURAD representatives. Individual behaviour has a great influence on how the EURAD programme is perceived and therefore how well it will be able to work with experts and other organisations in the future. Therefore, all steps for successful engagement must be thought through individually before this phase begins. The process should also be reassessed along the authorship and adapted immediately, if necessary. Thus, a high degree of flexibility and creativity is beneficial at this stage, in line with an agile "learning-by-doing" approach.

Once contact is made with the experts, a professional relationship needs to be established with them to build trust and ensure participation. This involves regular communication, providing support and guidance, and recognising their contributions to the programme. Furthermore, it is important to establish a transparent and uncomplicated contracting process, outlining the terms of remuneration for the experts, as specified in Deliverable D11.8 – Authors Guidance and Template (Tatomir et al., 2023).

2.3   Support during production

After the successful engagement of the experts, the WP11 team offers continuous support throughout their work. This includes

- Providing guidance on the content and scope of the documents during the writing process, as well as answering any administrative questions, e.g., regarding cost reimbursement or scheduling.
- Providing relevant resources, such as access to reports, articles, case studies, or access to other experts.
- Regular status updates on the work should be made to increase the likelihood that schedules are met and work progresses. However, a balance needs to be found between regular inquiries and giving enough flexibility, as most experts volunteer to perform the work and are involved in other undertakings. At the same time, the importance of producing mature DI documents for the overall success of EURAD needs to be clear and kept in mind for scheduling. Therefore, it has proven to be beneficial to at least agree on an approximate schedule (e.g., final draft in Q1 of 2023), which will then justify an update.
- Editorial support, such as formatting and proofreading of the document, is another important part that is appreciated by the experts.
- During the review and publication phase, it is advisable to keep the experts and later the reviewers informed about the status of the work, particularly when they have no pending actions.
- Providing positive feedback, and informing experts about any constructive feedback received about the document and their work is advisable. Appreciation and positive feedback can motivate the experts to continue contributing to the EURAD KM programme in the future, while even constructive negative feedback can help to optimise and improve approaches. Offering compensation can also be an effective way to show appreciation for their time and expertise.
- Asking the knowledge providers for feedback on the project, the process, or their experience is beneficial to improve the future engagements and ensure they feel valued and heard.

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In general, it should be self-evident that the experience the experts have during the DI document production is important for the overall success of the EURAD programme. A positive experience increases the likelihood of future contributions from an expert and contributes to the overall positive perception of EURAD, whereas a negative experience can have the opposite effect.

3.   Experiences and lessons learnt

3.1   SoK document production

At the beginning of EURAD, WP11 SoK set the goal to produce two SoK documents as demonstration cases (see Chapter 1). The topics of these documents were determined to be the roadmap domains 3.1.1 Spent Nuclear Fuel and 3.2.1 HLW and SF Containers, each to be written by a team of approximately three experts (Deliverable 11.2; BGE, 2020). While these two documents were being produced, the focus of KM document production was shifted towards the DI documents. The production of the two SoK documents was continued and provided not only useful documents but also valuable lessons for the process of experts' involvement, which differed from the DI document production process described above. For the SoK demonstration cases, WP11 SoK also prepared some recommendations for experts based on their knowledge. In a next step, the PMO and Bureau were asked to provide their own recommendations to the list. Since this resulted in a long list of identified experts that had to be further broken down by the PMO, this practice was not used in the DI document production being too time consuming to achieve the required timely results in form of final documents.

These recommended experts were contacted by WP11 via email with some first information and the invitation for a video call. At this stage, two experts of three in a team declined to participate due to personal reasons. This demonstrated the need to appoint multiple experts when possible. It was also a first experience showing that involving experts can be difficult due to limited time of the experts and/or limited motivation to participate in a new project that had not yet proven valuable. Another lesson was that engaging EURAD external experts can be time consuming and complicated, lengthening timelines and jeopardising expert participation if the process takes too long and gets too complicated. This was one reason to focus on EURAD internal experts for future work, assuming that their qualification is at least equal to external experts. Reimbursement of costs is also much easier through the standard cost declaration process in EURAD. After the first experiences of contracting experts, the process of contracting is now faster and with fewer complications. For EURAD internal experts, the issue remains that their cost can only be reimbursed at 70% (as stated in the EURAD consortium agreement), which may discourage some experts from participating. This should be improved in the future by also providing 100% cost reimbursement for EURAD internal experts performing KM work.

After the contracting issues were solved, production of the SoK documents commenced. For one of the documents, the final draft was quickly prepared. However, significant editorial and review efforts lead to a delay in the schedule. This can partly be attributed to the fact that it was the first document and processes had to be developed and tested for the first time. Consequently, more resources and time should be allocated to these initial steps.

For the second SoK document (HLW/SF Containers), which was published in the beginning of May 2023, there were significant delays in producing the final draft due to the limited availability of experts. This again demonstrated that scheduling can be challenging and flexibility is needed.

In both cases, however, the results achieved so far are considered to be of high quality and of great benefit to the end-users, so the effort is justified. With these two final documents as examples, it should be easier for future experts to get involved having an example that illustrates what is required of experts and how useful their work is.

Moreover, in addition to the publication of the two SoK documents, two online information and discussion sessions based on the two documents were organised in collaboration with WP13. These webinars attracted a substantial audience, with each session hosting more than 50 participants. The significant participation highlights the widespread interest and engagement of the EURAD and RWM community.

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Additionally, the recordings of these sessions are available online (Euradschool) and accessible through the EURAD webpage.

These sessions not only served as a platform for knowledge exchange but also highlighted the significance of SoK documents in fostering collaborative discussions within the community.

Furthermore, beyond the immediate community engagement, the socialisation efforts are extended through the dissemination of their work. The KM documents, are assigned a DOI and are strategically shared through platforms such as the IAEA INIS repository, the EURAD Wiki, Zenodo, and the programme webpage. This strategic socialisation is deemed crucial to prevent these valuable documents from becoming lost amidst the vast volume of publications in RWM field.

3.2 DI document production

The ongoing production of DI documents has already provided insights into the procedures for involving knowledge providers, i.e., experts. It is worth summarising some key aspects, also from the lessons learned stated above (Chapter 2 and 3.1).

Overall, experience shows that for the identification of experts for DI documents, a combination of two approaches, the utilisation of personal networks and a CtA is feasible and necessary. Even with the combination of both approaches, experts have yet to be identified for some areas, again by the use of networks as well as open invitations. First, experts are in high demand and therefore have limited resources for additional work. Therefore, it is important to provide a clear task description that could motivate the expert to participate (e.g., providing a real benefit to end-users in the field of RWM), and to be flexible when it comes to scheduling and processes (e.g., the structure of the DI document). Furthermore, the possibility of financial compensation, ideally 100%, is crucial. Often this is necessary because the employers cannot allow the experts to work for free. Additionally, the role of personal contacts and building trust over time should not be underestimated. If the expert receives the request for a contribution to the EURAD KM programme from a respected, long-time colleague, this may lead more likely to a commitment. In contrast, an open call for volunteers, such as an open invite at the end of a presentation to contact WP11 SoK as an expert, rarely works and a more direct approach is required. Experience has also shown that, regardless of the personal connection, face-to-face support for the experts, usually via video call, is essential. Unsurprisingly, having some final high quality DI documents as examples that can be shown to the experts, facilitates their involvement. It is therefore expected that the experts' involvement is facilitated as the number of published documents increases. It was also recognised that, regardless of the size of EURAD, it is not possible to identify internal experts for all domains of the EURAD GBS. Providing external input to these domains will remain essential and critical.

At the initial stages of the programme, a notable difficulty was the apparent reluctance within the community to actively participate in the KM and implement more user-friendly tools (e.g., KM documents). Several actions were taken in order to overcome this, such as the introduction of Digital Object Identifier (DOI) numbers for documents, their dissemination across various platforms, such as the widely recognized IAEA. At the same time, the development of the reimbursement procedures ensured the efforts are recognized and easily compensated. These initiatives ignited fresh interest, leading to increased authors contributions. To improve the identification and active engagement of experts, EURAD has implemented two initiatives: the introduction of knowledge ambassadors and the establishment of a knowledge management community of practice (CoP). The knowledge ambassadors have been assigned to each EURAD R&D and strategic studies WP to facilitate the interaction with the KM WPs. They operate as key connectors, building personal networks and promoting communication among team members. At the same time, the KM CoP is intended to provide a dedicated platform for professionals to engage in specific problems that might be solved using knowledge from professionals in other organisation on the platform, experiencing similar problem.

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4.   Summary and outlook

Experts and their knowledge are an invaluable resource for WP11 SoK and the EURAD KM programme as a whole. Despite the challenges described above, WP11 SoK has succeeded in involving experts in their work and the processes and lessons learned described here can help others to involve experts in their activities. These experiences are also extremely valuable for the ongoing work of WP11, which continues to produce DI documents to populate the entirety of the EURAD GBS. The production of further SoK documents will also benefit from the lessons learned.

Both for the DI and SoK document production, several experts emphasised the need for flexibility in the development and in structuring of the DI or SoK document. Therefore, a balance must be struck avoiding excessive bureaucracy and regulation to ensure that these experts want to participate. The collaboration between the EURAD and PREDIS communities facilitates expert identification, their engagement and knowledge sharing by e.g., organising workshops and lectures and disseminating progress at conferences, WP meetings and annual events, as outlined in the EURAD/PREDIS joint statement. Leveraging the expertise of both the internal and external experts from PREDIS community, the collaboration is focused on producing the DI documents in Theme 2 "Pre-disposal activities".

In selecting the authors for the SoK and DI documents, WP11 approach aimed to identify experts who have a deep understanding of the subject matter and a demonstrated commitment to advancing knowledge in the field. The current approach involves proactive engagement in search for knowledge providers. However, we recognize that the KM programme can aspire to be more ambitious. Making an analogy with sport, where attracting the best athletes is crucial for success, the aspiration is to position the KM initiatives to be so effective and impactful that the leading knowledge providers decide to actively participate of their own accord.

Communities of practice and knowledge ambassadors can also play an important role by fostering networking and knowledge sharing among professionals. The effectiveness of these initiatives within EURAD has yet to be formally evaluated, but there is a general consensus that they are essential for the future. There is a shared belief that these strategies will lead to a more cohesive integration of the entire programme by promoting collaboration and facilitating a better exchange of knowledge and expertise. Through enhanced networking, this will further play an important role in the identification and engagement of experts and fostering a culture of continuous learning.

Currently, the EURAD Wiki offers a place for collaboration and interaction between EURAD experts and end-users. For the future, the development of a portal knowledge management system (p-KMS) (EURAD D11.9; Abbasova et al., 2023) can further enhance expert participation in the capturing of the SoK process. These platforms can and will provide a centralised location for sharing knowledge and best practices related to RWM, as well as a space for collaboration and interaction between experts and end-users. By facilitating the sharing of and access to information, these platforms can support the identification of key knowledge gaps and opportunities for further research, as well as promoting greater transparency and accountability in RWM processes.

In the future, experts' involvement should be elaborated including activities such as lectures, and other promoting/disseminating activities like invited talks of the authors, etc. This would be very useful to further expand the expert network and reputation of EURAD. Additionally, the target audience of EURAD's KM documents should be specified more precisely to ensure they reach interested end-users with an educated background. By keeping a high-level output by renowned experts, interested end-users can gain trust in EURAD and see if the concerns/problems raised by the EURAD output match theirs, providing another possibility of quality assurance and document update. This refers to another important aspect requiring the involvement of experts, which is the updating of DI documents. As knowledge progresses, the DI and SoK documents should as well. The documents will only remain useful if they will be updated to preserve and constantly capture the current SoK, also in the future.

Finally yet importantly, EURAD's unique approach to capture the SoK has gained recognition and appreciation from KM experts in various RWM organisations. This acknowledgment is particularly

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noteworthy considering that the DI and SoK documents synthesise the advancements and efforts of the last 40 years in RWM by national organisations and also capitalize on the substantial financial support provided by the EC. Overall, the EURAD KM programme has the opportunity to provide a tangible benefit for national programmes and the RWM community. The access to experts described in this document represents a central pillar of this potential benefit, particularly for the production of KM documents, but also in other activities such as trainings and lectures.

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