Interview with a research assistant for Knowledge Management at the *Bundesgesellschaft für Endlagerung* (BGE) (July 10, 2024)
Length: 1:15h

PM:

Could you start by describing your activities and responsibilities at the BGE?

Expert:

Well, I'm currently in the Knowledge Management Department. You've already heard about the department; it's a cross-functional department within the BGE. There are nine or ten of us. And yes, we basically take care of knowledge management for all projects. First of all, we have set up knowledge management for the entire BGE and see ourselves as a service provider for every project that comes our way, whether it requires tools or wants to implement certain processes. Often, processes are developed, and this knowledge management component is often missing. Then we introduce tools, show how you can integrate them into other projects in a practical way, how you can incorporate them into processes, and how you can implement them, even in the long term, and the organizational units then make practical requests for them. So we see ourselves as a service provider. We started in 2019, I believe, when I was still involved in site selection. In 2019, the project was launched in the sense that knowledge management was established as an overall department for the entire BGE.

Yes, and my job is basically this: I brought my tasks with me from my previous project, "Site Selection." In site selection, I was initially responsible for developing documentation for site selection, and then it quickly became clear that we needed something like support in contemporary historical matters. In other words, we needed to be able to track how decisions within the site selection process were made in practice, how they were made, and what preliminary processes were involved. And since I am a historian by training, it made sense to have a historian do this. I had also implemented this documentation system together with a colleague during the site selection process. However, it quickly became apparent that support that is supposed to be independent cannot be effectively provided within the organizational unit that I am supposed to support – and that is why I switched to knowledge management. This contemporary historical support for site selection is therefore essentially my core project, and I have two other projects in addition to this.

One project that I developed from the documentation task for the site selection is that I am practically part of the international working group for awareness preservation and archiving – background: as a waste management organization, the BGE is practically part of the nuclear community, the global nuclear community – keyword International Atomic Energy Agency in Vienna, keyword OECD NEA in Paris. And in this Expert Group for Awareness Preservation and Archiving, I am practically a member for the BGE, for us. So that is my second main focus, so to speak, alongside the time-related support for site selection. Yes, and the third is that I am the head of the project group for offboarding discussions. And everything that basically concerns the tacit knowledge of employees who are either leaving or changing jobs – i.e., the so-called expert debriefing or offboarding – has also basically resulted from my work. So, I have always had a lot of conversations, conversations with contemporary witnesses, and this has led to me basically always being in charge of the offboarding discussions at . Those are the three areas of responsibility.

PM:

Providing historical context for site selection—at first, that sounded like something very exotic to me. Is this a newer position, and do other countries also provide similar support for such projects?

Expert:

Exactly, it is basically exotic. It is exotic because it is often only addressed when there is an anniversary – then people look and say: Oh, it's been 25 years, what a wonderful organization here and there, yes, let's do something or let's prepare something. This exists in several countries, and it also exists in some places in the US. But the fact that I accompany the actual process from a contemporary historical perspective is really something special that we have here in the German procedure, yes. It's simply due to the history of final storage in Germany and, ultimately, of course, to the long-term nature of the project. Because in our case, it's foreseeable – according to the Site Selection Act – that the entire site selection process should be completed by 2031. But it became clear very early on that 2031 was a political commitment. It would have been difficult to write into the law: Yes, we will continue searching until 2070. So this date [2031] was politically incorporated into the Site Selection Act, and it was foreseeable that it would basically take that long (i.e., until the 2060s) or longer.

And then the actual construction of the repository will follow, then the actual operating phase, and that will practically span historical periods. And that was actually the background to why it was said: It makes sense to accompany this practically in the process – and at least to lay the groundwork so that future generations can continue to work on it.

PM:

What would you say are the biggest challenges here?

Expert:

The biggest challenge, of course, is the constant change in personnel. If I simply look at who is retiring from the BGE in the next ten years, it's quite significant. This affects all BGE projects. It doesn't affect site selection so much, because site selection started as a project for which there is no direct predecessor project. But this morning, for example, I had a conversation with a drilling technician, a drilling engineer, who is now planning the exploration, the exploration planning, the drilling exploration, and the mining exploration. And although he has only been with the BGE for two and a half years, in order to preserve practical knowledge and pass it on, it is very important that we start doing this – both to preserve knowledge as a contemporary witness and to obtain the knowledge and assessment that he wants to pass on to us in practical terms. As a contemporary witness, this is important... Our staff have written many decision papers, for example, and many of them are also familiar with the old final repository projects.

And in order to pass on this knowledge in a practical way, to secure it, and to get a feel for what exploration at a site means, for example—what approvals it entails, how many site regions can be explored in parallel—it is necessary for us to collect the knowledge of our employees in a practical way and to do so across generations. Some challenges change, but some things naturally remain similar, and there is also an important insight to be gained here: many of the people who explored Gorleben back then are now retired. The same is true of those who worked on the pilot conditioning plant in Gorleben, which was planned in 1990 and went into operation in 1994 – many of them are no longer there either. We also have a department within site selection: Final Storage Planning, EP.

And to get a feel for how the above-ground facilities were planned back then and how we do it today, it is incredibly important to preserve this knowledge of the people involved. And I can do that, on the one hand, by accompanying it, that is, by collecting the explicit knowledge, and then, of course, by

transferring the time dimension—the tacit knowledge—as appropriately as possible and thus making it accessible.

PM:

Who are your discussion partners and, overall, the stakeholders in this whole process?

Expert:

Some of the stakeholders are already clearly defined by law – namely us as the BGE, as the operator, and then, of course, the various departments within the BGE and within the site selection process. Then there is the regulator, the BASE [Federal Office for the Safety of Nuclear Waste Management], which is our supervisory authority. Above that is the BMUV [Federal Ministry for the Environment, Nature Conservation, Nuclear Safety, and Consumer Protection], which is both a shareholder of the BGE and has overall supervision via the BASE. And when it comes to changes in the law, the BMUV naturally plays a central role in readjustments. Then, of course, there is also the political public sphere – first and foremost the constitutional public sphere, such as the Bundestag, which is involved in the site selection process. Changes to the Site Selection Act must be decided by the Bundestag and Bundesrat.

In addition, there are the local stakeholders, i.e., the site regions. And beyond that—which is not directly mentioned in the law—there is, of course, civil society. However, part of this is already covered by the National Monitoring Committee. This is a special feature that only exists in site selection—in no other large-scale project. Basically, the legislature was quite courageous in writing this into the law. And then, of course, there are also citizens' initiatives – both locally and at the national level. So there is a whole range of stakeholders, and that is what makes this historical accompaniment so exciting, but also so challenging.

PM:

If we focus on the employees who are actually working on site, are there individual groups that you would say are also stakeholders? My understanding is that the stakeholders tend to be higher-level individual groups. Or are there also certain job profiles in the field of final repository where you would say they also have a special role to play?

Expert:

Exactly, definitely. Well, the fact that the site selection process is science-based—not science-led, but science-based—is very important. Science forms the basis. The decision must ultimately be made politically, but the foundation is scientific work . And that's why it's clear, of course, that the scientists involved in final repository are both external and internal stakeholders within the BGE.

On the one hand, I can achieve this by transferring explicit knowledge as effectively as possible. And when I think of geological expertise... Especially in the first phase of site selection, the process is very geologically oriented. We are looking for the site with the best possible safety. This means, first of all, that we have to find the best possible overall geological situation. And that is why we are very geologically oriented in the very first step, which is where we are now. We have this geological expertise very well represented among our staff, and of course also externally – that is, among those who supervise us, or in the scientific community, for example at the state offices that provide us with data, the BGR, the Federal Institute for Geosciences and Natural Resources, which also develops methods with us. So that's a very important bouquet, and that's where I always start. I try to look at how this has developed among our staff – what backgrounds the geologists come from, whether they have been involved in other final repository projects before or are fresh out of university, which of course also

plays a role. Then, of course, there are also external perspectives, such as discussions I will soon be having with one of Germany's leading final repository researchers or with the former CEO of the BGE. They also contribute very valuable perspectives, of course. I also hold discussions with people from the BGR or the state geological surveys. This results in a bouquet of perspectives that I try to capture as best I can.

PM:

What are the strengths and weaknesses in an international comparison?

Expert:

When comparing Germany with other countries, I always notice that we Germans have the Site Selection Act, and we in Germany always try to do everything perfectly. The law is very detailed, very nice, and places great emphasis on traceability and transparency. This is perceived very positively internationally, partly because we in Germany work with three host rocks and search for a suitable site in all three. At the same time, the requirement formulated at the outset by the Site Selection Act – namely, to find a site with the best possible safety for a million years – is a very, very high standard that is not set so high in any other country. This isolation period of a million years and the requirement for the best possible geology are unique worldwide.

A colleague from the US responded with a quote from Voltaire: "You Germans try to do it so well... The best is always the enemy of the good." Internationally, we often hear that we should take a more pragmatic approach, that we need to make the process, which consumes a lot of time and resources, more efficient. At some point, we will have to move away from this high standard. In the very first step of the process, we identified 54% of the area of the Federal Republic of Germany as potentially suitable – that's 90 sub-areas. But we now have to move forward with this step. Initially, the plan was to identify ten site regions, narrowed down as far as possible, and then find the best areas within these regions – the so-called "cream of the crop." That is a huge challenge. We at the BGE believe we are well positioned, but I think the challenge posed by the exploration process must first be properly understood by everyone involved. There is still a lot to do, and we need to narrow down the number of regions as quickly as possible.

PM:

I would now like to move on to the second topic, namely knowledge management. Again, in very general terms: What does knowledge management actually mean to you?

Expert:

Yes, knowledge management basically means that I network and exchange knowledge—my own knowledge, but also the knowledge of the organization and other departments—as effectively as possible and keep it ready for use. I can do this with a wide variety of elements, and I would approach it very pragmatically. Of course, there is also a fixed definition that can be found in the literature, but I would simply see it pragmatically: the knowledge must first be there and made as available as possible. The standard is already high enough—if I succeed in providing the knowledge to exactly those who need it and helping them find it, then I see that as my job. And those are also our tasks in knowledge management at BGE.

PM:

There are two terms: on the one hand, we talk about knowledge management, but on the other hand, we also talk about knowledge preservation. What is the difference for you?

Expert:

Knowledge preservation is more about documentation. In nuclear technology, there are documentation regulations, the so-called KTA [Nuclear Technology Committee] regulations, which specify which documents must be archived and documented and where. For me, knowledge preservation means documenting knowledge and preserving it for future generations. That's what preservation means to me. Of course, there are many other tools involved in documentation, but primarily I would say that it is first and foremost about documenting and preserving knowledge. So also physically: where have I stored the documents, where are they located? That would be the lowest level, so to speak. Then, as in this classic pyramid, I would move upwards and add more and more instruments to improve knowledge transfer – with tools and elements that we have developed in practice at the BGE, but also in classic knowledge management.

PM:

When we talk about documentation requirements, we are primarily talking about documents. Can you discuss whether this mere documentation requirement is sufficient to adequately document knowledge?

Expert:

Exactly, that's the crux of the matter. We're talking about the explicit, written knowledge that we collect. But once it has been collected and stored in an Archive, that doesn't mean it's accessible. Even if you are the best archivist, you have to access this knowledge in a completely different way. And that's exactly what the other tools we have developed are for. For example, it's about making the search as low-threshold and easy as possible. The standard tool for this is our iFinder, which we developed. Another important tool is that we make knowledge accessible through conversations, interviews, expert debriefings, and also through project debriefings. The latter is particularly important. We have subprojects within our large projects, and it is crucial that these are properly debriefed. This means that they not only need to be documented, but also kept alive as Procedural lnowledge in the form of lessons learned. Knowledge maps offer many possibilities for this. But other methods also help us to transcribe written knowledge and make it more accessible. And that, I believe, is my job as a knowledge manager: to ensure that this is guaranteed.

PM:

My approach in my dissertation project is to consider how knowledge and space can be effectively linked. Could you briefly describe how this documentation requirement is currently being addressed at an organizational or technical level? Is it like a kind of container with objects of equal status, or how can it be ensured, apart from any keywords, that when I am in a certain place and looking for information about it, I will actually find it?

Expert:

That immediately raises a major problem. It starts with the technical aspect: there is no final storage archive in the true sense of the word. We basically have a documentation obligation, and whenever it concerns a nuclear facility, we store the documents and the data—i.e., the files—in two copies. But there is a lot of confusion, and anyone familiar with archives knows that even state archives can only

secure and preserve a fraction of what would actually be necessary. Basically, the attempt has been made to solve this problem for nuclear facilities by having technical documentation that is archived according to a fixed set of rules using a labeling bar and assemblies. In addition, there is the normal archive, which collects the political decisions that were decisive. But ultimately, the component needed to bring these two – the normal archive and the technical archive – together is missing.

The next crux of the matter is: Who decides what is to be retained? In the case of technical matters, it is relatively simple, as there are regulations. But the Site Selection Act states that we must retain essential documents as data – and here we are no longer talking about documents, but about data. This applies in particular to statements, reports, etc. When I look at the history of final repository in Germany, I see that meeting minutes or an important phone call between the minister and a department were often decisive. However, in order to trace such consistent decision-making, you need much more documentation than these "essential documents" cover. That would be the second crux, the difficulty. That's why, in my opinion, in addition to traditional archiving, you have to be careful not to throw too much away. At the same time, however, you have to be careful not to lose track of the big picture. It's important to set boundaries early on, and if possible, not after the fact, but during the process.

I would consider that to be the most important thing. You should also always remember to use keywords so that you have a systematic structure, but also so that you can look things up again at any time to find more. Our iFinder often finds a lot, but of course it generates many results that are of little use—duplicate entries and so on—but among them are also things that are important for decision-making and that I may not have found elsewhere. That's why it's good to have this digital information base that we've built up. This allows us to map as much knowledge as possible and offer not only the "essential documents" required by law, but also other things.

PM:

When you say that the documentation regulations refer not only to traditional documents but also to media in general, what variety of media do you currently have?

Expert:

The data that is actually requested from us by the state offices comprises, I believe, around 145 file formats. And that is, of course, a jumble of media. Both online, which is then made available via various links that we access, and via media such as sticks, CDs, and so on. So it's basically a wild mess, and it was important to get this data out of this jumble in such a way that we could then generate ISO images from the data and files and store these ISO images. This means we have an unchangeable data pool that we can ultimately access. And then, of course, there is the federal government, which is still in the planning stage, as stated in the Site Selection Act (Standortauswahlgesetz, StandAG), the so-called Documentation Ordinance pursuant to § 38 StandAG. I think that's very important. In 2018, when we started, it was originally said that the Documentation Ordinance would come next spring. Then in the spring it was said "in the fall." Then we as the BGE were also asked – we had a documentation department in the FEW division, which also submitted comments on the drafts – but basically these guidelines are now the state of affairs that must be referred to as long as there is no formal regulation.

PM:

Do these regulations also specify how long everything has to be stored? In the case of final storage, there is talk of an isolation period of one million years. But what about all the documentation, everything else – is there a specified period for that?

Expert:

It's relatively simple for us because the StandAG has basically been based on the 1983 guidelines for Final repository. It states that it must be permanently stored at two locations, but there is no specified period. The law states that we must deliver the data to BASE, which then takes care of the long-term documentation. Long-term documentation means that it must be available for generations and centuries to come. This long-term archiving is not actually the responsibility of the BGE, but of BASE. However, as implementers and operators, we must deliver all the data, and the data must then be properly available over these secular periods in the final repository archive, which has yet to be established.

BASE has a department that deals exclusively with long-term documentation. For example, it researches which paper is more suitable, whether paper or other materials, and also looks at various archiving practices that exist worldwide – this also plays a role in the Expert Group for Archiving and Awareness Preservation. BASE is the institution that is legally responsible for this in Germany. We take the first step, secure the information, and then hand it over. After that, BASE must continue the long-term documentation and pass it on to the next generation.

PM:

Paper is, of course, a memorable example. It's easy to imagine which type of paper lasts the longest. Do you have any idea how this is discussed with digital media and storage formats? Specifically, when you say that you create ISO images, how can you ensure that they will still be accessible over long periods of time?

Expert:

Exactly, a) it must be accessible, b) it must be readable, and c) it must be unchangeable, i.e., the data must remain intact and must not be altered. Of course, we have this huge data pool, but we also have to transfer it to BASE. We can basically map the state of the art, but when it comes to researching long-term media, that is one of BASE's primary tasks.

PM:

When it comes to deciding what is actually stored or documented here, someone has to take on the role of gatekeeper. What are your thoughts on this?

Expert:

I basically have this gatekeeper function for contemporary historical documentation, where I am practically the gatekeeper who says, "This is important now, and this storyline should be represented with the corresponding documents." In that case, I would be the gatekeeper. But you can see that this is still a problem: if you look at BASE's final storage platform for final storage documents – the information platform that is also required by law – it's really a forest for the trees, confusing, and it doesn't allow stakeholders to find their way around and really get the information they need. So there is still a lot of room for improvement. We at BGE also have an obligation to provide information, of course, and we fulfill this obligation with our own platforms. We try to present our approach to the search for a final repository as transparently as possible. At the same time, we provide this information to the final repository documentation information platform, where BASE is again the gatekeeper that decides what gets in and what doesn't.

PM:

I am asking this question primarily in the context of the research project I am involved in. It concerns the decommissioning of nuclear power plants. We are dealing with certain concrete structures that are often inadequately represented in construction plans. For example, reinforcement plans often differ from what is actually found in reality. Of course, we are dealing here with predominantly private actors, and much of the data dates back to the 1960s to 1980s. But I also cite this as an example of a gatekeeper—perhaps there was someone back then who thought, "Now that the power plant is up and running, we no longer need certain data, so we can just throw it away." No one thought about those who would later dismantle the whole thing. Do you see such a danger in your field of work?

Expert:

Absolutely, absolutely. Decommissioning is a special case, of course, because no one really thought about decommissioning. The focus was on construction, and decommissioning—okay, provisions were made, so in general and at a high level, it was said that something had to be done about it... But no one knew exactly how long the plants would actually run, and too little attention was paid to this issue. The same thing can happen with the final repository, of course; we're not immune to that. Especially when I think about how many resources are currently being poured into site selection in , and at some point there may be a final repository. These resources are subject to constant change, and there is no guarantee that the documentation will not fall by the wayside or that the technical development of storage and its provision will not be neglected. I also see this as a danger.

PM:

It's just difficult to predict what the important issues will be in a few generations. Perhaps they will use the same database, but from a completely different perspective. For example, in the 1960s and 1970s, the environmental movement was just emerging, and environmental regulations play a very decisive role in the construction and operation of a final repository. And so I can imagine that every long-term process will be viewed from very different perspectives by each generation.

Expert:

Yes, exactly. That's why, as a historian, I always advocate having at least a few eccentrics like me on board who can see how this works in normal archives, in historical archives. For example, there was a "performative turn" in historical science in the 2000s. Suddenly, it became important not only to look at the text of a speech—which is, of course, preserved—but also to consider how that speech was received by its audience. Was it delivered in a high-pitched voice? Was it even audible? One speech may suddenly become important in five years' time and be dug up again; another speech may lose its significance after just five weeks. And for questions like these, you need completely different documents. For example, it suddenly became important how speeches were broadcast, and it was important to know where the speaker stood, what the room looked like, a Bürgerbräukeller or something like that. Thirty or forty years ago, no one would have considered such things, and they would simply have been thrown away.

Or the gender perspective. That, too, would never have been considered in the past. The fact that women may speak differently than men—even such perspectives are suddenly becoming exciting fields of research, whereas previous generations didn't even have them on their radar.

PM:

Knowledge management is initially done internally. But in your field, regulations require that information be shared externally, albeit in a filtered form. Could this also be an obstacle for employees, in that they might be afraid to document things because they think it will then become public?

Expert:

That's never the case for me, because I've been through the whole process surrounding the Site Selection Act, and for me, this idea of transparency is really important; it's something I live by. But conversely, that means exactly what you said. I've been to conferences with colleagues where they said, "Yes, we always have to write a conference report." That makes sense, because you want to know what came out of the conference, but then it's often filtered, or many employees filter unconsciously and say, "Ah, those are just assessments, and if they're now in the files and some stakeholder reads them, it could look bad." And I experience this every day, that documents or minutes are not produced or that documents are not filed because people are afraid that someone might not like it later.

And I think that's a very bad development. When I notice this, I always say to my colleagues, "That's not the point of transparency. It's important that you record the assessments you're bringing back from the meeting right now." Regardless of whether someone might say at some point when looking at the files, "Uh, but that's..." And the good thing is that I'm not a government employee, but an employee of a federal government-owned company. Civil servants in particular are often cautious toward their employers, and this is also very common in some ministries. Of course, this runs counter to transparency and traceability, and that's really bad. I always take the opposite view: as much transparency as possible.

PM:

I think it's also a huge issue in private companies. There, people sometimes think and document in great detail and on a small scale. This information only has value if it can be traced back to someone. Lessons learned sessions are also about reviewing things that may have gone wrong and can therefore be traced back to someone. Last week, I had a conversation with an expert in digitalization at the BGE. I presented my concept of anchoring spatial knowledge and how this can be made traceable and transparent. However, concerns were raised: the average employee on site, for example, if they notice something during maintenance or an inspection, will think very carefully about whether to enter it into a general platform. Or whether to simply leave it as it is, not document it, and thus not create additional work for themselves. So how can good knowledge management be practiced by everyone? Not just by those who manage it, but also by those who possess the knowledge?

Expert:

When we implemented this documentation platform in the site selection process, there was always the problem that one department often didn't want the other department to see what was going on, and so on. And that's where this idea of transparency is important, which takes precedence over everything else. If we don't practice this transparency, then we're not practicing the site selection law properly and can't find a suitable location. I have always tried to convey this to new colleagues in such stark terms. On the one hand, it is often a matter of negligence. Documentation is also largely a matter of a sense of duty to file things away. It's not just a matter of saying, "I'll do that later." That's one thing: employees need to know that they have a duty to put things in this silo and not leave them on their computers. And the other thing is that I say very clearly: "There is the theoretical possibility of file access, but this file access is definitely more of a control mechanism. And this control mechanism only makes sense if everything is actually documented and actually there." Basically, I have always tried to dispel these concerns and fears. This is also the typical whistleblower problem. On the other hand, many people try to protect themselves in meetings by saying, "I am pointing this out now." And that's exactly why meeting minutes are often useful, if they record not only the outcome but also dissenting opinions.

That's why I always try to motivate my employees: You have to write it down if you disagree. Because there is no silver bullet. There are only several better ways, basically.

PM:

When it comes to motivating employees to do this, what are the possible tools? If you make it mandatory, it will be perceived as a duty. But you can also try to create incentives, even if it sounds a bit abstract. What do you think is the best way to motivate as many people as possible not to keep important knowledge to themselves, but to share it with everyone?

Expert:

On the one hand, the obligation is important in order to raise awareness in practical terms... Many of us come from a university background or have done our first research projects, and there are relatively few rules on how you document, whether you document, and so on. And the first step would be to say: This is your obligation. Just as you have to inform the public and be prepared to publicly explain your approach and provide information about it, it is also your obligation to document it. So those were always the two things.

And then, of course, it's important that the knowledge that has been stored can also be found. And that, of course, has a lot to do with supervisors – that it is also highlighted as something positive. It's always the case that employees want to be seen, in their actions and what they do. You can do that through staff meetings, but you can do it much better if the supervisor actually takes a look at what X or Y has done, what they are currently working on, and then mentions it in a positive way. And also mentions it in a negative way if there is practically nothing there.

In many organizations, this is also the case – but there are definitely organizations where this is practiced in such a way that every email and everything you do is placed in the mailbox of the next higher-up, and then the manager decides: Do I say something about it, do I mention it positively, or do I just let it go? And there, of course, I always wish for incentives to be created, not sanctions. The first step is training. Then raising awareness. The next step would be to create incentives through positive mention. And only those who are slow to comply – that would be the last step – who do not want to comply with the documentation requirement or have not gotten around to it, should be gently reminded to please do so.

In concrete terms, this is how it worked: when selecting locations, the state offices provided us with data. We then often went to the state offices and asked, "Don't you have any more data?" Or, "How should we interpret the data?" And, of course, there were many discussions in which they explained things to us. Some of them—there were state representatives at the time—documented these discussions very meticulously, while others did not do so at all. And now, two or three years later, we can see that responsibilities have often changed. The data is still there, but the discussions about how to interpret it are no longer available. Those who didn't file it away in a silo or even write a protocol for it...

PM:

Before we move on to the third topic, the ethical perspective, I would be very interested to hear how you conduct offboarding discussions. What kind of knowledge are you trying to "tease out" of someone?

Expert:

Well, I always take a very low-key approach. Often, these are colleagues who came to us through many of our existing projects. But sometimes they are people who have only been with us for two or three years. I start with their career history and ask why they were interested in this job and how their

professional and personal paths led them to us. That's how I begin. Then I try to get them to outline their area of responsibility and describe to me which documents, projects, or what they consider to be their three greatest successes or failures ( ). Where they see room for improvement at the departmental or project level. They should also say where they felt seen – and where they didn't. And then I let the interviewee decide for themselves whether they want their supervisor or colleagues to be present. The interviews usually last 60 to 90 minutes. And sometimes there is another opportunity if questions remain unanswered. Or often it's like this: the brain reflects, and then something else comes up afterwards. So there is also the possibility of a follow-up.

And yes, that's how I always proceed in the end. Another very important point is that colleagues can then offer tips or advice. So if they had a specific task in the research project, they might say, "In that chapter, I found out this and that..." – I try to tease that out a bit. Of course, it varies greatly. With some, you really have to pull the information out of them. With others, you have to slow them down. But that's what makes it so enjoyable—and ultimately so exciting.

PM:

Is such an offboarding conversation mandatory, and is it only done with certain professional groups?

Expert:

So far, it has basically taken place very irregularly. And we then presented what this tool can do to the division managers and department heads. It is now actively requested. It is voluntary and is actively requested by the organizational units at our company. For example, the division management says that a certain colleague will be leaving soon. That would be someone important to us. Because he did this and that. We would like to know more about that. But it may also be that it is ultimately an employee – it's just that, for example, he has basically been doing invoicing processes for decades and he is the clerk who did that and is about to leave. The supervisor has no one else with similar knowledge. So in that case, it would be entirely possible for a clerk to conduct an interview.

The offboarding interviews are always requested by the organizational units. But now we have the opportunity to actively approach the people who are leaving and ask them ourselves whether they would be willing to do so or whether they say, "No, I'd rather not." Most of them feel valued as a result. We once had one who just didn't want to. But otherwise, we've actually had a very positive response – both from the organizational units and from those being interviewed. We've now conducted around 30 interviews. And as I said, one person didn't want to and put us off. But that's only human, even in a company like this. Voluntary participation is very important. We can offer incentives, and voluntary participation is our top priority.

PM:

What different types of knowledge are discussed in such an offboarding interview? For example, there is process knowledge and procedural lnowledge. What have you dealt with so far?

Expert:

Exactly, procedural lnowledge, experiential knowledge, and also project management knowledge. And then it all gets mixed up. It's often impossible to separate them because they always get mixed up. Often, you have to ask specific questions about knowledge. I always make sure that I have someone from the department with me and try to find a third person who ultimately... For example, if I have geologists, I have a geologist with me who, apart from the supervisor, also asks questions. Now I had someone who did a lot of exploration planning. So I tried to find a contact person who was already

involved in exploration. So that, in addition to the person who is practically responsible in the department or the colleague or supervisor, I always have someone with specialist knowledge with me – and who basically moderates the discussion.

PM:

Let's talk about the ethical perspective. We are dealing with very long periods of time and we want to build a kind of collective memory. What does this memory encompass and what do you actually understand by this term?

Expert:

Well, what is definitely important in Germany is, of course, the history of the Final repository. Basically, it is very present now – also due to the Site Selection Act, civil society, and the stakeholders. But in 10 or 15 years, people will only know about it from history books. And then it will be important to present and explain this history again. That would be very, very important. And on the aspect of long-termism: I would always make sure to highlight how long and how many resources have ultimately been spent on this Final repository project. It is largely financed by taxpayers – and that must be reflected across the board, and it must also be reflected in a Final repository archive.

And then there's another point for me: if I go beyond documents and talk about artifacts. The French, for example, have preserved artifacts showing how Marie Curie dealt with radioactivity in practice—the plates have been preserved. I would also try to secure drill cores. In other words, as diverse as possible—and thus creating a legacy that consists not only of documents, but also of objects and relics that are as authentic as possible. Last week there was a conference in Berlin about nuclear power plants as places of remembrance. In the past, people used to say: we want to have a green field with a memorial stone saying, "This is where the nuclear power plant used to stand." But today people say that's wrong. You have to preserve at least the control room, and maybe the dome. From a heritage conservation perspective, there are so many possibilities. But incorporating that into a decommissioning project in the best possible way is extremely difficult, for example, because it has only been considered so far and never attempted. Basically, you can describe the transformation of this energy transition very well by preserving relics and also by presenting the new things that are already happening. And for me, that would always have to be included.

PM:

Yes, I can well understand that it lends a certain legitimacy to not treating everything as waste and dismantling it, but rather to stimulating the imagination of the next generation, so to speak, by leaving harmless structures standing.

Expert:

And that's also very important – that would be my last point – that I always try to exchange ideas with other nuclear states and see what they are doing and what they are planning in this regard . And not to stew too much in my own juice. Because that's a typical disease: not daring to look outside. There are so many ideas that are basically similar and that have already been tried and implemented elsewhere. And that would also be a plea for me – very important.

PM:

Yes, great. I think we've come to the end now. I'll definitely take away with me that your field of activity is very broad. At the beginning, I couldn't really imagine what "contemporary historical accompaniment" meant. In any case, it was very, very interesting to talk to you about it.