

The Open Source Way

Episode 04 – Outbound Process Made Easy – SAP's Process and Tooling



Karsten Hohage: Welcome to The Open Source Way. This is SAP's podcast series in which we'll talk about the difference that open source can make. In each episode we'll talk to a different expert and we'll talk to them about why they do it the open source way. I'm your host, Karsten Hohage and in this episode, I'm going to talk to Fabienne Haag from the SAP Open Source Office in Germany about SAP's outbound process for open source and how it was implemented. Fabienne holds a Bachelor's degree in Business Law and a Master of Science. She works in global licensing at SAP and is responsible for compliance and open source license requirements within SAP products. In addition, she's responsible for the open source outbound process and involved in the development of open source training as well. And with that said, hello Fabienne and welcome to The Open Source Way. Good to have you here.

Fabienne Haag: Hello, Karsten. Thanks for having me.

Karsten Hohage: Fabienne, you hold a Master of Business, a Bachelor of Law. Why are you here in this podcast?

Fabienne Haag: That is a very good question for the start. So actually, I work in global licensing and we are responsible for the compliance. So when we use third party in SAP products, we have to adhere to certain obligations, license terms and have to make sure we are compliant with this. And that's the biggest part of my job. So my background actually brings that nicely together to understand it from a business perspective but also the legal background. Yeah, which is a great combination to work with in a compliance topic.

Karsten Hohage: OK, I get it. So we did invite you for a reason here. How long have you been doing this?

Fabienne Haag: Within global licensing, I have been working for about two and a half years.

Karsten Hohage: And SAP in general?

Fabienne Haag: It will be five years next year.

Karsten Hohage: OK, but then again, I happen to know what your user number is and that would suggest you've been with the company a little longer than five years, actually.

Fabienne Haag: Yes, when you get your user and you leave the company, you keep it so people can always see that you have been there before. So, yeah, that's true. I have quite an old user ID because after school I have been working for SAP for two years. I did the vocational training but after that training I left to go and study and in the end I came back to SAP again.

Karsten Hohage: OK. And mainly for the reason that you wanted to work somewhere again where there is free coffee, right?

Fabienne Haag: Yes, that was one of the main reasons. But for me, it was more for lunch, the free lunch.

Karsten Hohage: OK, I was actually asking that because I think you told me you don't even drink coffee, is that right?

Fabienne Haag: Yes, that's right, and yes, I have SAP colleagues that I meet and when they hear that they cannot understand how I make my day and how can I go and start work without having a cup of coffee. But I just don't like it.

Karsten Hohage: And because in the end, actually, it's all of them who are only at SAP because there is free coffee and you are the only one who really wants to do the job, right?

Fabienne Haag: Yeah, I am only there to do a great job for SAP and not about free coffee.

Karsten Hohage: OK, then let's talk about your job finally. Outbound process, can you just, I think we all have an idea what we mean by that, but can you define that for us again? What do we mean when we say that?

Fabienne Haag: So it actually means that SAP is developing something and gives it to the public under an open source license. That means that the source code of what we

have developed is available to anyone. And as long as those users follow the license obligation, they can just use it, copy it, modify it and pretty much do a lot with it, free of charge. And whatever we contribute or what we put out there to the public, we do it in a compliant manner to mitigate risks that might be associated with such a publication. For that we needed an outbound process.

Karsten Hohage: So from a legal perspective, the source code is the object we're putting out there but what we're really putting out there is our intellectual property, right?

Fabienne Haag: Yes, exactly.

Karsten Hohage: And what kind of IP, what kind of intellectual property, is that usually?

Fabienne Haag: So there's... Actually we can distinguish between different types of contributions. On the one hand, we can do contributions to existing open source projects. So there's a third-party company, a private person, whoever, who hosts an open source project and SAP contributes to it. We give something to them as part of that existing open source project. And in this case, SAP is only responsible for this little piece that we contribute. And on the other hand, we have SAP-initiated open source projects. So that means that we as SAP start a new open source project and that is hosted by SAP. We have full responsibility for such projects and those projects can mostly be found under the SAP GitHub organization.

Karsten Hohage: Mm hmm. What I was getting at, even a little more than the type of projects, but that was my bad I didn't define well, is what kind of IP in the ways of how do we decide what kind of intellectual property is even fit to be open-sourced? Where don't we, like, lose anything or run any danger of whatever, or do we benefit from open sourcing our intellectual property?

Fabienne Haag: Ok, so first of all, there is usually a business reason. So when we talk about contributions to existing open source projects, then SAP might be interested in extending the functionality or the features to also make it fit to something we need or that we found a bug and we want to fix it. And there can be other benefits, like you can promote an industry standard or you can influence the direction an open source project

goes. And since SAP also uses open source, there are often reasons then to also give something back and also then put their own IP as an open source.

Karsten Hohage: And so basically one of the parts of the process is to even decide what is fit to be open-sourced?

Fabienne Haag: Yes, exactly. So the development teams, they do something and think about: "OK, what can, what does make sense? Does it make sense to open source this? What can be a reason?". And as I mentioned, it can be for various reasons. Is it about industry standards or a broader adoption in the industry? To ensure there's a roadmap for open source in the future. Many things.

Karsten Hohage: And then they kind of know if Fabienne doesn't approve this, then we can't open source it.

Fabienne Haag: Yes, pretty much. But that they have a business reason is just the first step. Then they need to explain to us why they want to do it and then we check if it's possible. So like from a compliance standpoint. In our process, we look at things like export control, data protection, license obligation and these kinds of things. So the first step is there must be a good reason why we open source our IP. And the second step is then to check if it's possible from a compliance standpoint.

Karsten Hohage: OK, so you are checking all that even before you decide if something can go outbound open source. And then once it is decided, what happens next in the process.

Fabienne Haag: Maybe let's phrase it differently, so we have a process and there are some mandatory steps in that process. And step number one is that they have to fill out a request form. So they give us lots of information about what they want to open source and also answer questions in regards to risks so we can do a risk assessment. And in that risk assessment, there are things like what I mentioned, data protection, export control and these types of things. And that's step number one. And once they fill that out, we usually talk about it and find out. And there we can pretty much from those answers already see, OK, there's more we have to dig into and find out details to make sure we are compliant or we can see, OK, it's quite low-risk for this request and we can

go ahead with next steps and then there are further process steps and we only trigger them when there's, let's say, the GO from this first step of this request from where we really can assess what are the risks.

Karsten Hohage: OK. And are you like the one and only owner of this process, or is this one of these virtual constructs?

Fabienne Haag: So I know that in the other podcasts, I think you already talked about the Open Source Program Office. So at SAP, we have an Open Source Program Office and there's a core team of people who work only for this team. And then we have many virtual team members of different teams. And I'm, for example, working for global licensing in my core role, but I am part of the Open Source Program Office. Like a virtual team member. And for that outbound process I am a part of because global licensing also plays a big role in this process. And we have a few members of the open source program core team that are also working on this process and process requests.

Karsten Hohage: Who are then contributing some more of the like, say, technical aspects or something?

Fabienne Haag: Yes, exactly. So we work together on defining the process, improving it and the guidelines and I more consult than on the legal and compliance topics and they more work on the tooling side and technical things.

Karsten Hohage: Mm hmm. And is that process in this set-up, is that already a pretty well-defined process or is the process still in process?

Fabienne Haag: We are always working on further improving it, but I would say now it is really set up quite well. So we have been working on it for more than two years now and lots of things happened in that time. So what we are really proud of is that we automated it as far as possible. So we came, two and a half years back, we came with using five tools, starting from filling out a ticket, sending word documents around and emails and tracking stuff via Excel. And no one had any transparency or knew exactly what's going on. And now we have everything in one tool and we are using Enterprise GitHub to process a complete request from beginning to the end which is really a great achievement and helped us a lot to shorten the process, to make it more transparent, to

have statistics, to involve all the colleagues that have to be involved. And so, yes, I would say now the process is set up quite nicely.

Karsten Hohage: OK, sounds cool. But one more or less personal question now, because I remember my first contact with GitHub, and you come from a law and business background. How did you like GitHub at first sight? Did you want to use that?

Fabienne Haag: I'm someone who has some experience in user experience, and so I knew GitHub is what our developers, so our target audience loves to use and wants to use. So that was my biggest motivation to also may get into this tool, because we picked this tool because it was the best for our end users. For me, yes, I had to get used to it. So I had never heard of GitHub before. But if you ask me three years back, I had not heard about open source before. So, yeah, I had to get into it, but I must say, for what I am, as far as I'm dealing with, with like tracking issues and setting up repos, and that's OK. I can handle that in the meantime.

Karsten Hohage: OK, yeah, that's kind of the same for me. Only if something goes wrong and GitHub says, I can't sync this because this and that happened, then I call Sebastian.

Fabienne Haag: Yes, that's always a good thing.

Karsten Hohage: You know, Sebastian from episode two.

Fabienne Haag: Yes.

Karsten Hohage: OK. How many projects run through that in, say, a year?

Fabienne Haag: So we have been using GitHub or Enterprise GitHub now for about one and a half years and in that time we have completed around 110 requests and currently about 30 requests are in our pipeline.

Karsten Hohage: Wow, that's all for outbounding SAP technology?

Fabienne Haag: Yes, and here, those numbers that I just gave you, that's really open source projects that you will in the end find on the SAP GitHub. In addition to that, we also have a GitHub organization for SAP samples. Those are also published under Apache, but there the process is a little bit different. And so, yes, there comes another, I guess I would say, around 70 to 80 samples per year on top of that.

Karsten Hohage: OK, maybe we should kind of recap quickly that SAP is currently what? Like the eighth largest contributor to open source GitHub repositories in the world. Which many people do not know. So let's maybe put that number back on the table. Now, when you're through with the process that we were just talking about then you are totally free to run your own project, contribute to others or are you still under some kind of control afterwards?

Fabienne Haag: Yes, we also have guidelines. So during our process, we provide the requestor with guidelines and in there we state what they have to do in certain cases. So we check initially, before we publish, that we are compliant. But of course, over time, if that project is further developed, things can change and there can come up topics around data protection or maybe they want to use, I don't know, a third-party API or something. And if that comes up, they have to come back to us so that we can check and to make sure we fulfill all the obligations that come from the license or the terms of use and that data protection is still in place. But when we set up the process, we decided that we also have to trust our developers. We have to trust that they know what they do and they will not put SAP in danger or put us at risk by publishing something that would mean a loss of SAP IP that should not be open-sourced or by, yeah, not adhering to obligations they have to fulfill. Up to now, that went quite smoothly and that trust pays off because they really appreciate how the process runs. And usually they see when there is some risk, their "light" goes off and they're like: "Ah, let's rather ask". So then they come back to us and check with us.

Karsten Hohage: But I think over the past 10 years or so, we've rather become less restrictive than more restrictive because we've adopted the open source idea for all I understand, right?

Fabienne Haag: Yeah.

Karsten Hohage: And the thing we now mainly talked about is, if I understand correctly, when we're actually open sourcing existing IP, right? And then there is also the case of just SAP employees contributing to projects. Do they also like just, I don't know, providing bug fixes to something that somebody else has open-sourced. Is there also a process like we've been talking about for that?

Fabienne Haag: We did have a process for this in the past. We checked pretty much the same things, we'd check for SAP projects, but we after a while, we saw that is not scaling and it's not the right way to do it because the risks were really quite low. And so after a while, we went over to now going with guidelines. So when you want to contribute to an existing open source project, colleagues do not have to go through the process but they have to comply with certain guidelines that we have for them.

Karsten Hohage: And then, were do I find these guidelines?

Fabienne Haag: We have a really nice wiki page, and there you can find them all.

Karsten Hohage: OK, that's the wiki of the OSPO then?

Fabienne Haag: Exactly.

Karsten Hohage: All right, great. And these guidelines, those are valid for contributing within your official work time, or...?

Fabienne Haag: Yes.

Karsten Hohage: Also for your private time or are there other guidelines - do you differentiate that?

Fabienne Haag: Yes, we differentiated it. So the ones we just talked about are really for working contributions. So you are contributing something because of your job. And then we also have spare-time contributions and we have guidelines for those. That's, I mean, yeah, some colleagues also like to develop in their free-time, and they are also allowed to do that, to contribute to open source. But there are certain rules they have to follow. So yeah, it should not be during your working time and not in an SAP location and

different kind of things. So it's really separated between if you contribute in your role, you're working for SAP, or if you do it as a private person.

Karsten Hohage: Right, and I guess it's sort of similar to when you have a job on the side or something that can't be the same thing that you're doing for SAP. So if you contribute from out of your job, it's like you can contribute things that are in context of your usual work. And if it's private time, it should be something very different, right?

Fabienne Haag: Yes, that's how you can phrase it.

Karsten Hohage: OK, I'm sorry I clumsily phrased that. I should have let you phrase that, I guess. But so like, how do you..? Who assesses cases? Or how do you work with those, where this is kind of like exactly that 'Does it have to do with my job?'. Say you, I don't know, contribute to a Linux distribution and now SAP is packing Kubernetes containers or doing whatever things that have to do with Linux. So is this my job or is this something I can do in private? Does that get difficult every once in a while?

Fabienne Haag: I guess it can get difficult and you know, I don't have that technical background but as far as I know, Linux is quite a big thing. So I guess there can be contributions for Linux that can be private but there can also be some that might be for SAP. But that's really a case-by-case thing where we then have to look into individually.

Karsten Hohage: OK. So, if you're not specifically, say, working on a new Linux feature that SAP has requested then this would be considered private, for instance.

Fabienne Haag: I can imagine that it could be private.

Karsten Hohage: OK, so we shouldn't worry all too much that the context is very widely being made. This has to do with SAP because you both live on the same planet.

Fabienne Haag: Yeah, it's a little bit of common sense and when you're feeling unsure, people can always reach out and then we can check the case.

Karsten Hohage: If someone contributes as a private person, still being an SAP employee at the same time, what would be examples of what they're absolutely not allowed to do?

Fabienne Haag: So usually that's really quite clear. It should not have to anything with an SAP product, not in the name of SAP, and has nothing to do with what you do during your daily work.

Karsten Hohage: OK, so don't call it SAP something, not the repo, not the class or whatever you're contributing and don't use very specific knowledge that you have acquired through your job at SAP, for instance.

Fabienne Haag: Yeah, I mean, you can use that knowledge, but not for things that you would do during work.

Karsten Hohage: I was intentionally saying 'very specific', of course, you have learned more things about, I don't know, programming in Java or C++ at SAP but that's not what we're talking about. We're just talking about the SAP specifics that may not flow into that. OK, cool. But otherwise, as we said before, the way to making personal contributions is rather not restrictive and informal. Right?

Fabienne Haag: Yes, you have to inform your manager. Just let them know and then what I said before, not during working time, not at SAP premises and yeah, pretty much obvious things that are not allowed.

Karsten Hohage: OK, and in general, we encourage this more than we try to inhibit this.

Fabienne Haag: Yes, it's absolutely welcome that people do that.

Karsten Hohage: Yeah, because I sometimes ask about the 'not OK' and so on, so everyone out there, it's totally OK. You're encouraged to do...

Fabienne Haag: Totally okay. Feel free to do that in your spare time, as long as it does not get in conflict with SAP, with anything you do at work. Totally free to do it.

Karsten Hohage: And also, of course, these private contributions or individual contributions, they're not your main job. Your main job is what SAP decides and what SAP then publishes as SAP intellectual property as open source. Is there any more to say about that process that we have not talked about? I loose the oversight a little bit.

Fabienne Haag: So I think we said the most important things. The most important thing is really we have it now tool based. We worked a lot on that. It's quite automated. We reduced our processing times by doing so a lot. And we work with different, I think I didn't mention that, I mentioned we use GitHub Enterprise, but I actually didn't say how we do it. So what we do is we have an organization and when a request comes in, the colleagues, all they have to do is they have to type in the name of the project into a template, an issue template, and hit send or save. And then a repository is being created to further process their requests. And I've mentioned a request form before. So whenever this repository is being created, this request form is already in there. So they can right away start with filling that out. And then for every next process step, a new issue is opened. So there are five mandatory steps in the process. In the end, we should have at least five closed issues until the project can then be published.

Karsten Hohage: You said you reduced the time. Can you put any numbers to that? How long did that take before you automated the process?

Fabienne Haag: Before the Open Source Program Office was put in place, it was just a little splattered all-around SAP. So there was not really a good process in place and the responsibilities were not clear. And all the things, you know, that happened made the process not work well. So we are talking about months. It took months to get a project out.

Karsten Hohage: And that is to get it out or months to even get it approved, that you could start getting it out?

Fabienne Haag: Exactly.

Karsten Hohage: Yeah, OK. Wow. And now we're down to what, a couple of hours, no?

Fabienne Haag: Yeah, no. Hours not, but if the request is really responsive and we get the answers to all the questions in a timely manner, it can be done within like a week.

Karsten Hohage: OK, but as you said, there are still people involved, of course.

Fabienne Haag: We should not forget we also work across different time zones. And you know, sometimes I open an issue, for example, for scanning. We always scan our code before we put it out just to make sure we are compliant with any third party that might be part of that project. And when I open that issue, my colleague who does the scanning, she's located in Vancouver. So it takes at least one day to fulfill that because there's some time difference. But it is possible within like four to five working days. We can get started. And then the colleagues have their repository in a private mode, and they can start setting it up. And once they are done, it's getting published.

Karsten Hohage: Which sounds like quite a difference to a couple of months before that.

Fabienne Haag: Yeah.

Karsten Hohage: So here's another reason why it's always a good idea to have an Open Source Program Office because this all derives from it, right?

Fabienne Haag: Yes. I mentioned it before, it's so many different roles and people involved, so we have global licencing, we have data protection, we have export control, we have the legal team, we have the scanning team, we have the open source core team. So it's many people, many roles involved. And yeah, with the Open Source Program Office we have now some kind of umbrella and getting it all together. And then when we moved over to using the tool, we just had transparency for all colleagues and that really helped to make it all quicker.

Karsten Hohage: OK, I was just going to say, now you just made it sound complicated again.

Fabienne Haag: No, no, it was, but we found a solution to make it easy.

Karsten Hohage: Because now my single point of access as a developer is the Open Source Program Office, right?

Fabienne Haag: Yes.

Karsten Hohage: OK, cool.

Fabienne Haag: No matter what question you have, you always end up there. We have also some GitHub organization for questions and no matter what kind of question in regard to open source, you end up there and then we can decide who takes it. Is it legal, is it the core team, is it compliance...?

Karsten Hohage: OK, let's leave it at that. Let's leave it at "You always contact the Open Source Program Office" and not make it complicated again.

Fabienne Haag: Yes.

Karsten Hohage: Maybe that is one of our first key takeaways, always contact OSPO. No, not always. But if you have a relevant question. Do you have any other one, two or three key takeaways that you want everyone to remember from this session or if we forgot something very important, remind me now!

Fabienne Haag: So actually, you said it, it's really important to bring everyone together. Everyone who's involved in the process and to find the best way to work together. And for us, working tool-based was the best solution. And I mentioned it quickly before. What is also really important is, listen to your end users. So in our case, it's our developers. And we listened to what their needs are. How does their usual workday look like and what can we take from that to not give them another new tool or another, yeah, something new to get used to. So we really listen to their needs. And then just go for it and then keep improving it on the go. I mean, we went live with the process, as I said, like 2 or 2 1/2 years ago and we did quite well at the beginning. But when I now look back one year ago, a lot of things also improved during the last year. Don't just stop because the process works nicely. There's always something you can make even better.

Karsten Hohage: OK, thank you for that and thank you, generally Fabienne, for being our guest today. It was great to have you here. I hope you noticed my closing question, the 'give us your key takeaways or any famous last words'.

Fabienne Haag: Just have fun with your open source projects and keep on contributing.

Karsten Hohage: Thank you for that one and thank you all out there for listening to 'The Open Source Way'. If you've enjoyed this episode, please share it and don't miss the next episode in two weeks. Subscribe to us either on openSAP, on Spotify, Apple Podcast and so on. You can get this podcast through all regular podcast channels. Thanks again for being here and talk to you next time. Bye bye.