

Interview 12

Interviewees	Interviewee 12-Prov-E & Interviewee 13-Prov-E
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Interviewer

Could you first describe the role of <redacted>?

Interviewee 13-Prov-E

Yeah. Well, we have two roles. Oh yeah, maybe more. But we are representing two roles so, but if [interviewee 12-Prov-E] start because that's the overall role.

Interviewee 12-Prov-E

Yeah. And I can say maybe a description would be facilitated by a little historic back view. So, <redacted> is originally a land mapping and survey institute organization. And during the last ten years, it has moved more and more to be a supporter of e-government and digitization at a national level. But we're still legally mandated to map on land. Sea charting is in another agency, it used to be here. And we still have responsibility for some of the main registers in [country E]. And [interviewee 13-Prov-E] knows much more about that than I do. And then we have an obligation, we are mandated by a couple of laws and one of the laws for spatial data information mandate us to be the coordinators of the geospatial infrastructure in [country E].

Interviewee 13-Prov-E

And we also have the role of basic data authority across register authorities where we are coordinating the cooperation between registries and a call-in order to accommodate user needs. There's a governance across the authorities that we are driving and there are, which is a steering committee and so on, there are processes to take care of the cooperation with the end users and so on. And there is a platform to distributing basic data, which is also operated from our agency, so that's another area where we have a role in the society regarding digitization.

Interviewee 12-Prov-E

And yeah, I could add just that we also have the main responsibility for transporting some EU directives in [country E], for instance, the INSPIRE directive, that's our responsibility.

Interviewer

But before I move to the next question, maybe I can ask you [interviewee 12-Prov-E]. You mentioned about the history of <redacted> starting as a land mapping survey agency. So, in [country E] is cadastre and land mapping agency the same agency or different agencies?

Interviewee 12-Prov-E

No, it split up. It used to be the same but in <redacted> it was split up. So, we have our sister organisation with whom we work very closely and then we also distribute their data because we have two distribution channels. [interviewee 13-Prov-E] mentioned one for the common public basic data and another one is more spatial data where we also distribute for other agencies. Among them are the <redacted> agency, which has nautical charting and cadastral as their responsibility.

Interviewer

OK, but <redacted> agency, which is the cadastral agency is also distributing open data by themselves?

Interviewee 12-Prov-E

Not by themselves, we do it for them on our infrastructure.

Interviewer

OK. My next question, which is the first question I sent to you. Could you please describe your role in the <redacted>?

Interviewee 13-Prov-E

Well, I help operate the governance around <redacted> as <redacted> and participate in the coordination across authorities regarding the processes and data being coherent. And a large part of my time is also used in strategic cooperation with the end user organizations and the interested organisations such as the IT Business Corporations and so on.

Interviewee 12-Prov-E

Yeah, <redacted>, we used to call him.

Interviewee 13-Prov-E

Yeah, I spent ten years or something implementing basic data in [country E].

Interviewer

And you [interviewee 12-Prov-E]?

Interviewee 12-Prov-E

Yeah, I'm a <redacted> by education, and I call myself <redacted>. I guess it's the same title as <redacted>. A <redacted> or <redacted> or whatever, never, mind. I work in many fields, but more than half of my time is spent dealing with the EU digital agenda. Both keeping an eye on it, being directly involved, and trying to utilize what's coming from EU in the national infrastructure and data work. So, I'm the <redacted>. And so, I'm dealing a bit a lot with the EU Commission. But the other part is actually trying to build this spatial data ecosystem which we have had very fruitful collaborations with <redacted> and hopefully we'll have more.

Interviewer

And how long have you been working in this or similar role?

Interviewee 12-Prov-E

Oh, plus <redacted> years.

Interviewer

And you, [interviewee 13-Prov-E], as well? It's been a while?

Interviewee 13-Prov-E

Yeah, it's about the same, I think.

Interviewer

OK, now I'm going to move to the topic of open data. You mentioned a bit how <redacted> facilitates other agencies as well to implement open data, but can you describe a little bit more how long has the <redacted> been implementing open data?

Interviewee 13-Prov-E

If open data is interpreted as a free of charge, I don't know if that's really a part of the definition, but if it is, then this year, it's 10 years ago that the government in [country E] implemented free data across a variety of domains, from cadastre through geographic information to data on the businesses and dwellings and addresses, and so on. And before the provision of data free of charge, there were several years analysing and establishing the decision for platform implementation. So, I guess it's been on the agenda in our agency for at least 15 years, at least.

Interviewee 12-Prov-E

And what you could say, if I may add is, in 2013 there was this huge political decision about what we call basic data across domains. We also in the agency said, well, let's free all our data. Also the ones that weren't directly under the umbrella of basic data because it made no sense in having a huge pool of data without charge and then some data that we should manage with charging so we freed all our data in 2013.

Interviewer

And what do you think is the value of open data to society?

Interviewee 12-Prov-E

Well, we actually have a couple of reports that show that there is economically. So, there is absolutely a monetizing surplus in that, that you can demonstrate which is also always important when you speak to the Ministry of Finance. But apart from that, of course, it is about accessibility to data has actually spurred on this data-driven agenda, which is on everybody's lips from EU, but we have done it for many years.

Interviewee 13-Prov-E

And then we also we saved the cost for all the bureaucracy around taking care of the charges and contracts on the users and so on. And we can use our manpower on more productive things also within our agency of course, but also with the end users organization. And when it comes to digital solutions, they can be way more coherent and address problems across domains or organizational differences so you can have a coherent user 'travel', I don't know if that's the correct term in English, but if you have a problem, that's it goes across the municipality borders or across state level and municipality level or even into the some private domain, then you don't have any issues with that in regards of: Do the organizations have the right to use data and so on?

Interviewee 12-Prov-E

If I may just elaborate a bit, because you can say that whole open dates agenda was spurred by a huge business case where you can say what we gained with the data was efficiency and effectiveness in the public sector. We gained a new business possibilities, new products in the private sector, which equals growth. And then we can see that it also spurs innovation in small medium size enterprises. Finally there's the democracy aspect that it's easy for citizens to access data not only about themselves, but about their surroundings where they live and dwell.

Interviewer

Can I ask for some clarification? So do you mean that implementing open data reduce the cost of public agencies because they don't have to handle all these bureaucracies. And does the cost reduction is compensated by the loss of revenue from charging data, previously?

Interviewee 12-Prov-E

Yeah, are you asking about the financial setup of the opening of data?

Interviewer

Yeah. Meaning, because previously you charged for data, now you don't charge for data and then you reduce costs because you are sort of like simplify the bureaucracy. But that's the cost reduction is compensating the loss of revenue from previously charging data?

Interviewee 12-Prov-E

Well, and [interviewee 13-Prov-E], here you may correct me or compliment me. The exact reduction, of course, in the public sector was part of the financing of the basic data program. So you can say it was financed up front by the Ministry of Finance, and you freed the data because you knew it would reduce the cost. So you could say it was the public sector who actually brought the business case, but after a few years, then it was the growth in the private sector that was going to finance the basic data program. And now agencies that are within the basic data program are financed yearly on the finance law. So, each year we have to prove our relevance and value to society in order to get money.

Interviewer

Interesting. And so do you think then it's quite sustainable to be continued to have to prove the relevance?

Interviewee 12-Prov-E

I think it's crucial. I don't know, [interviewee 13-Prov-E], what do you think?

Interviewee 13-Prov-E

Yeah, it's very sustainable, I think. And the businesses we met, operating in [country E] and operate abroad in other countries, they can see the positive impact it has for the business in [country E] and would really like something similar in other countries as well.

Interviewer

So can I say then then it also encourages and incentivizes public agencies to really help businesses to use open data and generate money from open data? Because then these agencies can make business cases saying that "see open data indeed give benefits to businesses." So, it's not simply just publishing this data and stop it there, but actually making sure that these companies can actually generate profits and innovations from open data.

Interviewee 13-Prov-E

Yeah, within the basic data domain there is, as I mentioned, the governance around it with the Steering Committee on top, with directors across public authorities and also with some users represented from the municipalities, the <redacted> and also the large private pension company in [country E] and there, we held accountable for the accommodating or meeting end user needs and

they have decided on a strategic framework for the development of basic data. So we are evaluated in that way, around how we meet the end user needs.

Interviewee 12-Prov-E

If I may add, you touched upon something that I think is a general weak spot. And you can actually see it in our name: <redacted>. And this has for many years been some kind of strategic guideline. That you supply, you have easy access, you have well documented interfaces. But actually going in and being a consultant for the private sector, to help them understand how to use the data, we have not done. This has been a task that was lying in the private sector, but what we can see now, lately, within the last couple of years is that there is a huge task here that is not lifted from the private sector. So, this is the reason why we are changing from data supplier to data facilitator. The whole ecosystem thinking that we actually need, as [interviewee 13-Prov-E] say, to be much more user driven, much more out there on the other side instead of just supplying, we actually need to facilitate the uptake of data.

Interviewee 13-Prov-E

Yeah, and the same movement as you speak upon within the geographical ecosystem is also undergoing within the basic data domain. And within this strategic framework plan, there are some focus areas around building partnerships with the private sector and establishing ecosystem. So that's the strategic goal on that.

Interviewer

If I may ask further, do public agencies including <redacted>, at the moment feel quite vulnerable, that in the future you can't prove the value of open data and the funding for open data then will be, you know, disconnected? I mean, that the Minister of Finance for example, wouldn't give a fund for implementing open data anymore. Do you think it's gonna be an issue or you sort of trust that in the future open data will continue to be even more prominent?

Interviewee 12-Prov-E

I would say we're not threatened, but we will be if you we sit on our hands and we do nothing. If we do not get out there and actually continue to be relevant and then of course there is a risk. But right now, everything is data-driven and you can see from what is coming from the EU, which is in many ways the frame around what we're doing as a public sector. Then, there will only be more data-driven solutions and we need to tap into this and provide what is needed. If we do that, I think it can only grow.

Interviewee 13-Prov-E

Yeah, within basic data we are very aware that it can fall apart, the coherence across the registers and the user value. In [country E], we have invested like <redacted> million in the <redacted> infrastructure. And of course, like any other area, you have to maintain it and develop it further to meet the future needs. So, currently we are seeking extra funding on the finance law in order to ensure the further development so that the value does not disintegrate overtime.

Interviewee 12-Prov-E

Absolutely, and I think another aspect which I think should be very much in focus when we speak about, well, whatever we call them open data ecosystem or whatever, is the aspect of the domain. I mean, we speak about a spatial data ecosystem, but what we see is that – and we have years and many years of building up an infrastructure, spatial data infrastructure –, but what we can see is that much of the rapid development that is actually creating value right now, is happening outside the

domain. So, I think the biggest risk is that we keep on being a bit siloed, and not well connected. Still being the supplier instead of being well connected part of the development going on in other domains.

Interviewee 13-Prov-E

Yeah, if I may also say that I'm quite confident that we will get the funding – within the basic data– because it is now critical infrastructure in [country E]. For instance, the finance sector within mortgage and loans for housing and so on, it cannot function without basic data provided for them. So, when push comes to shove in the political context, I'm quite sure that the financial institutions will make the politicians understand how crucial it is.

Interviewer

Yeah, just for clarification, basic data is open, right?

Interviewee 13-Prov-E

Yes

Interviewer

I'm now going to move to the topic of open data ecosystem, which is defined as a network of interdependent yet self-interested open data actors. Of course, there are many interpretations of what ecosystem is, and the conversations continue, but this is still working definition that I'm taking for now. My question is, what is your perception of the health or sustainability of the current open data ecosystem?

Interviewee 12-Prov-E

And in a way we already spoke about that, didn't we? The whole finance issue, but also the issue about being a connected to where the technological drivers are embedded in other domains so well open data is here to remain, there is no doubt about that so it's only a question about opening up even more data, which is also the EU agenda.

Interviewee 13-Prov-E

Yeah, within my area of expertise, <redacted>, I think that we have to go further into ecosystem thinking and also the end users have to go into a more equal system thinking whereas of now, they are just harvesting a lot of value free of charge. So, they're not really giving anything back. So, we have to develop the cooperation further. So it's more also in the mind of the private sector to give back to the ecosystem and maybe in the future also like really help supply or update data in new models of doing business or cooperating together across public and private sector. But I think if we get stuck in this situation where we give this infrastructure with the vast value, just three of charge with no application to give anything back, I don't find that very sustainable in the long run, we have to develop it further than that.

Interviewee 12-Prov-E

Absolutely. And then there's one thing, if we look at [country E], which has a lot of open data, as you already know. Then, speaking about one open data ecosystem, I don't think that really mirrors the reality. I think there is a lot of soft data ecosystems and the linking together of these will be, not only a driver, but it would also be a need in order to provide these more complex needs and well, to save our planet, right? So, the more complex the problems get that we need to solve, the more we need to collaborate across these many open data ecosystem that exists.

Interviewer

I really like what you mentioned, [interviewee 13-Prov-E], about the sustainability and also what you mentioned [interviewee 12-Prov-E] about, you know, ecosystems within ecosystems. So, one of my interviewees also mentioned that spatial data is not special anymore because, you know, everything is actually you need more than just spatial data. Other than these two, are there any other areas that you think can be developed in the open data ecosystem?

Interviewee 12-Prov-E

Say that again, please, I'm not sure I understood you.

Interviewer

Are there any things that you think can be developed in the open data ecosystem, anything that can be done by other actors or even by data providers themselves to improve the sustainability of open data ecosystem? Anything you want to add?

Interviewee 12-Prov-E

If you really want a sustainable ecosystem, you need to engage also with the private sector, not only their valuable data, but also their take and they're being closer to the end user. And in order to do that they need to be some kind of "what's in it for me", for the private sector. And as I see it right now, at least in [country E], there is a lack here. I mean, it's coming, it's growing but very slow and it is difficult up front to demonstrate why should they engage in this ecosystem, I mean, they just take the data and they make business on it and all is good. Why should they feed into this? So, we need to solve that in order to really get it sustainable.

Interviewer

Anything you want to add, [interviewee 13-Prov-E]?

Interviewee 13-Prov-E

Yeah, I think you're right on the money there, and that being a focus we need to address. And then, of course, there are some more businesses like all technical aspects around the ecosystem where you have some issues. Maybe with the platforms distribution channels or maybe a large overall issue, I think, across public data is the data quality that has to be addressed. Also because we are looking now into, or seeing also in effect, that the data are being used within new areas of application not thought about when we established the registers. So we have to work on metadata and the data quality so that we ensure that the quality meets the user needs, and that you do not use data for something it cannot be used for and so on and so for. Yeah, there's a large overall theme around data quality I think also.

Interviewee 12-Prov-E

Absolutely, absolutely.

Interviewer

With the development of SDI's in Europe, especially since INSPIRE, and especially because you two are involved in geospatial data, what would you see are key lessons learned for other non-geo open data ecosystems?

Interviewee 12-Prov-E

I mean, there are lessons learned even for us. Well, if I should sum up from the top of my head, one

thing is “keep it simple”. Don't imagine that you can make a “Model 1” size “fits all” because you cannot, forget it. So, limit standardization at the source, move by neat, make it neat and user-driven in each case. I mean, get data out there more or less as it is, and see if there is a need or use case for further harmonization or interoperability, and then go case by case. You need to be agile and flexible because some of the things we have seen in the public sector is that we have absolutely not met time to market. I mean, it takes much too long. It has to, in some cases -- I mean when we speak about critical infrastructure, as [interviewee 13-Prov-E] has done, with the basic data, we need to be its authoritative data. So it should be very solid and robust and well defined and everything. But in many cases, you can do with the less. If you are small medium sized enterprise who has a good idea; you cannot wait two years for us to get data ready for them. And then data knowledge, knowledge about data management all the way around is really, really becoming more and more important.

Interviewer

Anything to add, [interviewee 13-Prov-E]?

Interviewee 13-Prov-E

No, I think no.

Interviewer

On data knowledge, [interviewee 12-Prov-E]. So, you mean that not only to data specialists, people who have skills with data, but you also think that general users should be able to also have some sense of data and how to utilize it, right?

Interviewee 12-Prov-E

Yeah, yeah. At least, I think, it's very important to have, the end user -- once identified -- with you from the start when you do develop something new. But what I see -- what I really meant about the data knowledge -- is that I see the ICT domain, it's really developing a lot of interesting, also ecosystems you could say, and cloud edge and whatever technology and it's super fine systems. But when you then need to add the content, the data, it doesn't fit because they didn't have any data knowledge on board. So, it's quite important that the ecosystems dealing with data are providing that data knowledge very early on to the other sectors, in order in order to get the real value.

Interviewer

OK, I see what you meant now. I'm gonna move to the topic of open data intermediaries, which defined as third party actors that enhance the supply access and flow of open data and all relationships among open data stakeholders. My first question, do you think that open data intermediaries are playing an important and positive role in open data ecosystem right now?

Interviewee 13-Prov-E

Yeah, well, for sure within the basic data domain, they are playing an important role, yeah, and well also, they will play a crucial role in the future I think, because it's crucial for us as public authorities to have intermediaries, because that's really not our role in society: to know about end-user needs and make solutions. We have to make the basic data foundation and make sure that the data are coherent across register domains and provide it in a reliable way. We need intermediaries to take that, and apply it to solutions within different areas of usage. We should not use public spending on knowing everything about it.

Interviewee 12-Prov-E

But then again -- it's not that I disagree at all with [interviewee 13-Prov-E]. A little bit, yeah, I do disagree a little bit. Because I think it's very crucial that we have these specific sector, specific intermediaries who can actually customize the data; this is what I'm saying about, being flexible and time to market and one size does not fit all. But I also think that we, as a public sector agency, might need to step a bit up on not just being a supplier, but also providing a platform that could disseminate the knowledge we have about data. And this is what I touched upon, this data knowledge. How do you actually use them? How do you connect to them? How do you integrate them? How can we make good data models? And things like that. And maybe that's lifting up the thing to a more -- maybe it's some kind of data intermediaries -- but I think we need to step up from being a supplier and to be a facilitator.

Interviewee 13-Prov-E

Yeah, for sure. I think you're right. But I don't think that means there's no room for intermediaries. It's more a question of us reaching out and enabling intermediaries to bring out the data in a more good manner.

Interviewee 12-Prov-E

Sure, sure, sure, they could.

Interviewer

That's very interesting. [interviewee 12-Prov-E], but do you think there's a legal challenge for public agencies to be intermediaries? Because I give an example -- I'm not sure how it is in [country E], in <redacted> for example, there's a very clear role of every public agency and what they supposed to do, and so, there are certain, I think, public agencies that are quite interested to also provide some services that can be considered as an intermediaries, but they are quite hesitant because they're not sure how it will be perceived, in legal eyes; are they encroaching what they're supposed to do? So is there such a problem or challenge or issue as well in [country E]?

Interviewee 12-Prov-E

Yeah, there will be. It's not actually mentioned in our law that strictly. And we are supposed to create value for society, but we have a law competition, and it was challenged when we freed our data in the first time by a some private sector companies. And yeah, it's always a question about drawing the line and that is why it's so important that we collaborate. And that is why it's so important that we actually expand the ecosystem because it's not one agency or private company that should do it all, we need to do it together. So, forming this new collaboration -- and whether we would then become an intermediary or provider to an intermediary, I don't know, it doesn't matter -- but as long as we kind of, do it together.

Interviewee 13-Prov-E

Yeah, yeah. And I think, it's not a simple balance between private and public sector because within the private sector, the different interests at play. Referring back to the challenge of freeing our data originally, and there you had a private company that was challenging us, but all other of the private sector were interested in the freeing of data because that has been driving business for them.

Interviewee 12-Prov-E

Yeah, exactly.

Interviewer

Do you have anything else [interviewee 12-Prov-E]?

Interviewee 12-Prov-E

No, I was just thinking about it because there are different definitions about these intermediaries. And especially the EU under the Data Governance Act has one which is a bit difficult to understand where maybe we are an intermediary, as a data sharing. We provide data sharing services. But then again you can discuss what is the data sharing services?

Interviewer

Yeah, I totally agree with you.

Interviewee 12-Prov-E

Yeah, well, anyhow, sorry, it's not to complicate things even more.

Interviewer

No, the definition part is actually, it's also an issue. In fact, that's why just to add, one of my first papers is actually trying to find a common definition of open data intermediaries, because people speak of open data intermediaries differently, people have different interpretations and so on.

So back to my question, do you think that current open data intermediaries, however you conceive them, can play a better role? Are there any gaps that they can fulfil better?

Interviewee 12-Prov-E

Yeah, I think [interviewee 13-Prov-E] actually has said it, because this is about customizing data to a specific need or specific use case is becoming more and more important. So, I think they can play that role.

Interviewee 13-Prov-E

Maybe there could also be some kind of need for professionalization or something where you know if you use public data in a wrong way, it gives problems for the end user. So maybe we could work on the model for cooperation between intermediaries and the public sector so that we get higher quality in the end user applications. I don't know what the model should be, but you have to be qualified in some way without building extreme bureaucracy or anything. We have to ensure that the companies providing solutions containing public data, they have to be qualified.

Interviewee 12-Prov-E

Absolutely. That's a good point. And also, I think that the data intermediaries could play this bridging role, that bridge the actual user with the data providers. That could be a very nice role for them to also take.

Interviewee 13-Prov-E

Yeah, we only have so many hours and people. So yeah.

Interviewee 12-Prov-E

Exactly, exactly.

Interviewee 13-Prov-E

And thousands of users are out there, so.

Interviewer

So, [interviewee 12-Prov-E], when you say “bridging role” doesn’t only mean that open data intermediaries are processing data and give to end users, but actually also facilitating the process of engagement between data providers and users, right?

Interviewee 12-Prov-E

Yes, yes, that could be a perfect role.

Interviewer

Now I'm going to move to the topic of [Esri distributor in country E] as an open data intermediary. But before I start, I just would like to check if you are familiar with [Esri distributor in country E]. If you have engaged with [Esri distributor in country E]? (Interviewee 12-Prov-E nods). OK, so my first question, do you think [Esri distributor in country E] plays a role in enhancing access supply or flow of open data?

Interviewee 12-Prov-E

Should I go now? Or do you want to go [interviewee 13-Prov-E]?

Interviewee 13-Prov-E

Yeah, you can go fine with me.

Interviewee 12-Prov-E

Yeah, because my comment here, is an overall comment. I mean, I'm Esri-bred from the university, so I'd been brought up with these tools, but when we speak about open data, vendor locked systems or platforms like Esri is not really a go. I mean, you should be avoiding this vendor locked standards and solutions in an open data environment. At least that's my opinion. Because the business case is of course based on proprietary technologies, I mean, that's the way they gain their money. So maybe open source and SOA principles so you secure the interoperability between domains and between agencies and between countries. Sorry. Amen. But that was my open data speech.

Interviewer

Yes, yes, very good. What about you [interviewee 13-Prov-E]?

Interviewee 13-Prov-E

Yeah, it's a very good point you have there. But if we see besides that, of course, they are bringing open data in use just as providers based on open source and so on. We have a long history of cooperation with them, in different areas where they have implemented solutions using data from us and <redacted> in a broader sense and so on. So we know them well and cooperate with them just as we cooperate with other companies so.

Interviewer

And do you think that [Esri distributor in country E] also plays a role in connecting other actors in the ecosystem? Maybe something like the bridging of data that you mentioned [interviewee 12-Prov-E]. Would they do that? Do you think?

Interviewee 12-Prov-E

Yeah, yeah, they could if they want to, and if there's money in it for them, I mean.

Interviewer

But at the moment, do you think they are playing that role?

Interviewee 12-Prov-E

[interviewee 13-Prov-E], you know more about that, than I do.

Interviewee 13-Prov-E

Yeah. Well, I don't really know how they are positioning themselves in that manner. Within the basic data domain we have within the last year, there has been formed a new network across the private companies. It's a more informal interest organization is called <redacted> but and as I have witnessed, I don't think I have seen them participating in that network, but yeah, well they are participating in the <redacted> corporation, where there are some corporation across companies and the well, I guess also end users. The committee on the basic data within the <redacted> Association primarily consists of private companies and [Esri distributor in country E] is participating there.

Interviewee 12-Prov-E

Yeah. What I see as the biggest challenge here is that there's competition on this market, very strict competition. So you might not as a private company as [Esri distributor in country E] for instance, be all that interested, in sharing your thoughts and your business models and your strategic ways with other companies. So we get this one way silo roads, because of course they play the role as intermediaries for, for instance, the municipalities that I'm working with ArcGIS, but it remains in that silo. So, being a part of an ecosystem means that you have to share with the others, and we are not there yet. Not as I see it. I might be wrong, but that's not the way I see it.

Interviewee 13-Prov-E

Yeah, but maybe it comes back to the first issue you raised with the proprietary software and so on. Yeah, because I think that other companies are going towards establishing cooperation with other companies and sharing knowledge on how to use the infrastructure provided by the public sector.

Interviewee 12-Prov-E

Yeah, because there is a difference here, right? Because the companies that we see now are going together in order to have greater impact on the public sector in what they actually deliver as data is that they are mainly consultants. But here, we have a company who is consultants, but they also live from selling systems and standards. So this double role makes it, in my view, difficult to actually enter full blown into an ecosystem.

Interviewer

Very interesting. A more practical question, does <redacted> ever need to pay to obtain data or services from [Esri distributor in country E]? From the data that you provide as open data?

Interviewee 12-Prov-E

Please rephrase the question.

Interviewer

Meaning for example, you provide something as open data and then [Esri distributor in country E] takes your data, they add value, or they do something with the data and do you ever sort of like have to purchase back this added value data from them?

Interviewee 12-Prov-E

No.

Interviewee 13-Prov-E

No.

Interviewee 12-Prov-E

At least not to my knowledge. <Interviewee 13-Prov-E> do we get anything back from?

Interviewee 13-Prov-E

I don't know if we, in our production, have any use for something they have done with the free open data and I don't know if that could be the case, but I have no knowledge of it.

Interviewee 12-Prov-E

No. I guess there's the financial model again, because if they add value to our data, they create a product. And if that is going back into let's say our value chain, then we will have to pay for it. And of course we cannot pay for something that we have delivered for free. So the whole setup is very anti open data ecosystem, right?

Interviewer

OK, but do you use ArcGIS technology, software?

Interviewee 12-Prov-E

Yeah, we do.

Interviewee 13-Prov-E

Yeah in production. Yeah.

Interviewer

Yeah. And also, like other municipalities in [country E] also use their software?

Interviewee 13-Prov-E

Yeah, for sure.

Interviewer

My last question, because you also elaborated a lot. Do you have any suggestions or wishes of how [Esri distributor in country E] can change their business model to better contribute to a more sustainable open data ecosystem?

Interviewee 12-Prov-E

That's a tricky one, right? There could say enter into these new formed collaborations between private sector companies. <Interviewee 13-Prov-E> knows a lot about that.

Interviewee 13-Prov-E

Yeah, they could participate in that and provide us with the consolidated feedback where their perspectives are also taking into consideration, so that could be an option for them. And maybe there could be an area of business opportunity for them within the overall issue of the ecosystem, looking into how the private sector can supply update back. Because maybe that matches their strength technologically. I don't know if there could be some areas for business development for them there, because I think we should need to go that way overall. So, it could be maybe of interest to them to like go into like, how can we help the incorporation. Of course, they have to take that step and that path a bit cooperative mind and not keep it to ourselves and competitive mind. Of course, they have to protect their interests, but they have to take that path in an open ecosystem.

Interviewee 12-Prov-E

Yeah, exactly. And that's the new journey and new culture for all of us actually, but especially from the private sector. But we have spoken about, in our agency and with some of our sister agencies, this is about being able to create a – what can you say? – a sandbox or a platform where you can co-create, which is within a framework where nobody has to gain on it and all secrets are kept within the rooms and things like that. And company like [Esri distributor in country E] could participate there with all the knowledge they have about how to utilize the data. So, creating these secure rooms where you can develop together and explore possibilities could also be a proposition.

Interviewer

Is there any particular sandbox or program that I can check out afterwards? Is there any?

Interviewee 12-Prov-E

Well, we have it on a small scale, what we call <redacted>-labs, but it's actually in the creation. So, the whole sandboxing is something that's interesting.

Interviewer

Yeah. So, it's a new development. Meaning that private companies are brought together with public agencies and

Interviewee 12-Prov-E |

And the users.

Interviewer

Yeah, and the users. Yeah, ok. And so everybody is benefited from this collaboration instead of like just one party benefiting at the expense of other actors.

Interviewee 12-Prov-E

Exactly. We have this problem, let's see how can we deliver. And you work on a conceptual level, right? So you don't encode anything or make anything ready for deploy.

Interviewer

Exactly. Thank you. That is the end of my questions.