**INT: It should just ask for your confirmation there.**

DEU25: Yes, so I’ve done that.

**INT: Brilliant, so just to start off with if you could just tell me a bit about the organisation that y you’re affiliated to or work for and then your role within that.**

DEU25: Yes, effectively I have two roles and you have to decide which role you’re specifically interested in. The main role that you emailed me on is as deputy president of the [rural business organisation]. We have 28,000 members and we cover 10 million acres in England and Wales. We have a huge interest in gathering data from our members and putting that data to government effectively to lobby on behalf of our members for “better government policy” going forward. Obviously we’re moving from CAP to ELM, Environmental Land Management, as we come out of the European Union. The [RURAL BUSINESS ORGANISATION] has campaigned for the last probably 10-15 years for effectively a land management contract between government and the land manager. That’s really transpiring into this new concept of environmental land management. Of course, while the issues that we have is in getting together data to show that the measures that we’re promoting give sufficient gain to the public purse to show that the treasury could and should be paying for it.

Now my other role is as a farmer and I put some oats in the backdrop just to liven up the backdrop.

**INT: No, it’s good.**

DEU25: We have about 2000 acres near [Town] in the Cotswolds and we mainly grow premium arable crops. So, I grow Oats for [ Cereal Brand], many wheat for [Brand] bread and then spring barley which goes to [Brewery company], which ends up with [Brand] larger. Sometimes we do Maris Otter, which is a winter barley that goes off to craft brewers. Then the break crop are effectively oats and also linseed and I try and get a premium for that as well. Alongside that we have as you see on that side of the picture, we do a lot of environmental work, so we are part of the governments high level scheme. Albeit I’m finishing that and I’m moving into the countryside stewardship scheme, which will be a five year scheme, which I could finish early in time for the 2024 ELM project. Effectively what I’m aiming to do is to increase biodiversity on the farm and also [s/l increase, sell carbon. 00:03:41] We have a huge problem in our you measure it. Also how uniformed the data I. So, nobody in government ever to me when I first started all these various schemes from the set aside to environmentally sensitive area scheme and now it’s the high level scheme, environmental stewardship. Nobody ever said please set a baseline and let me measure how successful you have been with all the government money that we have you given you. You can look on a website to how much money we’ve been given. We’ve been given a lot of money every year to do good works on the land. I wanted to show that I was doing good works, so every year we have a biodiversity survey done by an independent organisation. Who also do the work for Natural England. So, I thought if they’re good enough for [environment organisation]they should be good enough for me. I think they’re called [ecology consultancy].

Then I’m just starting to do- we do our own in-house carbon audit, because we’re a LEAF mark farm, that’s Linking Environments and Farming. Because we have to do that to be part of the [Brand’s] farming partnership, which is then audited by the Gloucestershire Wildlife Trust and then also audited by Red Tractor. So, there’s a lot of measurement there but on top of that I’ve asked a neighbour of mine to come- he’s just set up a business called Nature Capital, effectively what he’s doing is assessing the level of carbon on your farm. So, we do a whole farm audit based on the whole farm carbon toolkit. But he’s also going to try and expand into biodiversity as well and look along with the biodiversity metric that [environment organisation]are suggesting as part of the Environment bill, that’s been delayed, yet again coming through parliament. Because as I see it going forward that the land manager and the occupier of the land will receive his support payment for environmental land management, for doing, being paid public money for public goods. They’ll build up a biodiversity bank for which they get a credit. They’ll build a carbon credit bank, they’ll be credits. Then I think what the government will look to do. There’s sort of muting within the discussions that [unclear 00:06:53] because I do the farming bit and I do the [RURAL BUSINESS ORGANISATION] bit, the whole thing kind of merges. The [RURAL BUSINESS ORGANISATION] has a lot of senior stakeholder meetings with government. So, I think what’s likely to happen, is you get an overlay of public and private finance in this sort of blending. The biodiversity bank would be used in future with developers who need to show there’s a biodiversity net gain in any development they do. So, the question will arise, if you’re Barrett Homes and you’re going to build on the edge of Basingstoke, how do you show that you’ve created 3000 biodiversity credits. You can either do it onsite or you can do it next to it or you’ve got to go and buy it from somewhere else. Then how do you measure, what is a credit, what is a biodiversity- So, that all needs to be bottom down. Similarly, you might be Shell or you might be a tobacco company, I don’t know and you might have an ESG requirement as part of your corporate responsibility, which you do. They might say for every airline flight we’re going to do we’re going to buy 300 carbon credits. Well instead of planting a tree in the Brazilian rainforest and then seeing the tree next to it cut down by Bolsonaro to then have hormone injected beef. Maybe you could drawdown a carbon credit from somebody who farms in the Cotswolds. So, that’s the sort of overall concept that in my head I’ve got. I don’t know whether that’s the sort of thing you’re looking at?

**INT: It’s very interesting, I think particularly where you’re having problems in terms of as a farmer and then working with the [RURAL BUSINESS ORGANISATION] as well. I think those two, it’s very interesting. We’ve struggled to get in contact with farmers around this topic. Obviously you talk about carbon credit and that element. I think we’re more focused on the species, so I don’t know if you’re involve in, you talk about the [RURAL BUSINESS ORGANISATION] at the start, you look at enhancing biodiversity and I think now that you’re moving to this new scheme. I think that will be involved as well.**

DEU25: So, one of the important aspects that the government is really keen to pay for and promote within the Environmental Land Management programme is biodiversity. So, the key components of it are the things that you as a general tax payer would expect.

Clean air, clean water, well managed soil and those are all things that farmers could and should be doing anyway. Also, on top of that you’ve got health and wellbeing, so that’s access and the countryside. There’s been a lot of talk about that. Heritage, what we do with our buildings. The other key area within it is biodiversity. We’ve been very strong as an organisation in promoting it. It comes back to the Big Farmland Bird Count for example, GWCT, Game and Wildlife Conservation Trust organise every year, which we support alongside the NFU. I’ve done some press on it to try and promote it. We don’t get the fanfare that the RSPB get for looking at the bird table, but it’s something. The other thing that I’m very involved with here on the farm and also within the Cotswold area is the [bird species] recover group. So, GWCT have across the country, they have [bird species] groups and every year there’s a census done on how many [bird species] there are. So, we do a spring count to see how many pairs there are. Then we do a count in the autumn to see how well those pairs have bred. We set up the Cotswold group, well I set it up with [WILDLIFE CHARITY] in about 2005, I suppose. I shouldn’t really win my own prize, but we’ve won it twice. We have 72 pairs on the farm. Now I don’t know if you know anything about [bird species].

**INT: Not much.**

DEU25: Wild [bird species], but most people don’t have any. It’s simply because you need three things for wild [bird species], which are indigenous to the country. Generally speaking, people don’t release them, breed them and release them, because it doesn’t really work very well. You need good habitat, both for the birds to next in and also to hide in over the winter months. You need good winter food and also you need food for the chicks. The chicks eat insects, so you need to have broadleaf weeds and then you need to have insects feeding on the broadleaf weeds. You need rain in June, because that’s when the chicks hatch out, about the middle of June. If there isn’t any insect life they’re not going to do very well, so it needs to rain, because then you need to get the insects. You need to supplement the feeding from January through to April, otherwise there’s not enough food for the adult birds. Then you also need to control all the predators that you can legally control, so that’s foxes and corvids, stoats and weasels, which we do. Then when you do all of those things, we started counting in 2005, we had one pair, so we now have 72, so, there’s something that’s worked. The thing that goes with it, everybody say, oh well you’re a [bird species] nut, who cares about [bird species]. But it’s a ground nesting bird and if you look after them and you have the right conditions for them you also end up with good habitats for other ground nesting birds and you help the other farmland birds. You help the corn bunting, the yellow hammer, you help the lapwing, the skylark, all those other birds. Whenever people review the British Trust Ornithology review the number of farmland birds. Each year they say it’s gone down. They blame farmers. If you look at farmers who are in high level stewardship schemes or environmental schemes or who participate in the [WILDLIFE CHARITY] [bird species] groups, you’ll see that quite the reverse. Our study figures show that our bird numbers have increased significantly.

**INT: That’s brilliant. So, you’ve obviously got motivation and dedication into increasing biodiversity then. You’re putting a lot of effort in as well. Are you involved in the- presumably you monitor the trends as well, you collect data?**

DEU25: We collect data all the time. So, we have the data for the [bird species]s, every year we have a much wider biodiversity survey, that [ecology consultancy] do for us. They look at, as well as looking at farmland birds they also look at rare arable plants and they look at butterflies and moths as well. So, we have that data. The other thing that I am trying to do, although government policy moves quite slowly. The government with the Environmental Land Management scheme is focusing on something that they’ve called the sustainable farming initiative, which is one of the components. Which is broadly speaking about farming. They’re going to develop two other components, local nature recovery, which is going to focus primarily on biodiversity and landscape recovery, which is going to look at the wider area. Now we’ve setup, or I’ve setup round here a group of about 26 farms I suppose, covering quite a big area. We act as a cluster and it’s a concept that Game Wildlife Conservation Trust put together. There’s a website for cluster farms. On our website all it says is I’m the lead farmer and the coordinator is a nice lady from National Trust and it doesn’t say anymore. If you go on the [s/l Marching Downs 00:17:20] cluster site, you’ll see much more and they’ve got much more data. There are also some clusters up near you and also in Cumbria, who look primarily at butterflies. There’s some fascinating work that they’ve been doing. Now I haven’t pushed our group to do anything in particular at the moment, because we’re all in a stewardship scheme with government. So, they’re already being paid an extra amount to do extra things for biodiversity. As you can imagine the cynical farming will say, well very interesting lovely coming to have a meeting with you all, have a chat about life. But if we’re going to do anything together collectively they then say, well what’s in it for me. Because I’m not going to bother to do any extra work unless there’s benefit for me. At the moment I can’t tangibly put my finger on something and say, yes you’re going to get another £5,000 for example if you’re going to do this. Now there will be an opportunity under ELM, under Landscape Recover for a big group of farmers to come together. What I think government should do, is they’ll say we take these certain measures, A, B, C, which promote biodiversity tree planting, river management. You can do this on your individual farms. If you do it collectively we’ll give you twice as much for example. Then there really is an incentive. The people sit up and think and they say, I will listen to Fred down the road. They make sure that the nature pathway, that they put in round their field to allow the birds and the mammals to move around, without getting caught up in the crops. They’ll join it up with their neighbour. Because at the moment why bother, it’s their neighbour they don’t care. Well, they should care, because if you’re a deer or if you’re a hare or a partridge or a yellow hammer.

**[00;20:00]**

There aren’t lines on a map, there aren’t boundaries, you don’t suddenly get to an electric fence and think, oh I can’t go over there, because that’s somebody else’s farm. They just go don’t they?

**INT: Yes. So, you talk about your cluster farms, so you’re already working with different farms already?**

DEU25: We’ve set it up, but what I’m saying is, we’ve set it up waiting to do something constructive.

**INT: Okay, yes.**

DEU25: We haven’t decided to do anything constructed yet, because at the moment I can’t come up with a tangible reason as to why they should.

**INT: So, this presumably will develop if the government is a little bit quicker in their decisions?**

DEU25: The government is going to come up with their plans for landscape recovery sometime next year. The first thing that I think would help enormously is for them to say if you’ve got a cluster farm, cluster group and you’re over a certain size we’ll give you, I don’t know, just think of a small figure, £1500. The total sum of money wouldn’t be very big, £1500, which would allow the group to get one person to come and to organise a baseline survey over all the farms. A lot of the farms would have all the data anyway, but it’s a case of, as you know being a researcher, you’ve got to collet it all up. People have it in one file here and one file there or in a different format there, or they’ve got it but they don’t realise they’ve got it.

**INT: Yes, that’s brilliant, that’s really interesting. It’s interesting to hear the perspective of a farmer as well, which we’ve not been able to speak to, which is brilliant. I just want to touch upon a bit more about your relationship with [ecology consultancy].**

DEU25: Yes.

**INT: Just a little bit, so you work with them in terms of the data collection. Is this a common exchange you have with them and in terms of the data how do you receive it and what format does it come in?**

DEU25: So, I’ve commissioned it for about the last five or six years. I pay, I don’t know, a £1000 a year for the survey. Then I get a Word document comes through at the end of the survey. I think some of the collected data is in Excel I think.

**INT: Okay.**

DEU25: It’s detailed, so in the appendix he’ll show every species that he spotted and then he analyses it and gives a comparison with previous years. He says which species are present, which have increased, which haven’t. Obviously he’s only coming for three or four visits in a morning, so it’s just a question of what he sees, when he does the survey. But he’ll do the same transept each time.

**INT: Brilliant. Within this appendix and with this Word document are there maps or models of data that help you to interpret what’s going on or is it all raw data?**

DEU25: I think it’s mainly raw data actually. But inherently from the description, because I know roughly where he goes and it’s not a very big farm. I know and I’ve got a gamekeeper here in any case who’s full time. We’ve got a pretty good handle on which bits of conservation work are working and which areas need improvement.

**INT: Sure, so I guess in that essence model data is probably not useful, because you’ve got that local knowledge, you know where everything is.**

DEU25: Yes, but what I never quite discovered and we had to do this when we did our original application for environmental stewardship. The [environment consultant], [ENVIRONMENT CONSULTANT] did the work for us. They had to show to [environment organisation] a lot of baseline data, which they got from the [City] records office. But what I never quite discovered was how Gloucestershire records actually got the information in the first place. I’ve got a lot of information on my farm, which nobody has ever asked for.

**INT: Okay, yes, that’s very interesting.**

DEU25: I’m very happy to share it, but nobody has ever asked for it.

**INT: Would you wish people asked for your data a bit more?**

DEU25: Well, I suppose only if they’re interested and only if they think they can do something useful with it. I am surprised that [environment organisation]and the RPA aren’t interested in collecting the data. Because they pay me a lot of money every year for it. You’d think that as part of the requirement they might like to know what’s happened.

**INT: Yes, that is slightly odd isn’t it.**

DEU25: Well, there is a study that you can look at actually in Yorkshire. I think DEFRA have done it, they’ve done some outcome trials work. Because they’ve been trying to look to see, should we pay farmers to improve biodiversity by paying X pounds per hectare to grow a crop of Y. They might pay you £540 a hectare to grown wild bird cover. The other way of looking, because they’ve done research that says, well the wild bird cover is going to help the corn bunting and the yellow hammer de de da. There’s another piece of work that they done in certain trial sites that says, well if you plant this, we’re going to come along and we’re going to look. See how many corn buntings you’ve got and how successful everything’s hatched out. If there’s been greater success than we’ve expected we’ll pay you more money for that. So, that’s the outcome basis of payment and they have done trials on that. There’s one area in Yorkshire they’ve done.

**INT: Yes, I might have to look into that a bit more, that sounds very interesting.**

DEU25: I can’t remember the name of the lady in DEFRA who did it, but if you Google.

**INT: Yes, I’m sure, I’ll be able to.**

DEU25: It’s what they’ve done. They did work with, I think they did work with the RSPB actually, because they’ve got some holdings in the north.

**INT: Great, I did have a few questions here, but I think in terms of what you’ve described, in terms of the work that you do, I think particularly as we’re focusing on species record data and that relationship with modelled data. Obviously you talk about how you perhaps don’t use modelled data that much. So, some of these questions perhaps are not related to you, but it is very interesting to hear what you’re doing. I think although you’re, in terms of modelled data you’re perhaps don’t use it at much. Is it something that you perhaps would use in the future. I’m particularly thinking about when you’re working with the cluster farms and on a slightly larger scale. Would that help to inform Natural England, the government of the efforts that you’re doing?**

DEU25: Well, I think it would definitely help, because it would definitely show that the actions that you’re undertaking have worked significantly better.

Without the data it’s a bit crazy really. You’re a researcher from the university and you understand these things.

**INT: Yes, I hope.**

DEU25: The way they’ve calculated payments to farmers in the stewardship schemes in the past has always been on the basis on income for corn. So, how much could you have got from this land if you hadn’t put it into wild bird cover. Then what profit would you have made and how much is it going to cost you do it. They have a team of people who sit in a darken room who come up with these figures mainly people who have never been involved in farming. They come up with a figure that’s lower than it actually should be. But people do it because like me, either because they want to do it. I went into the scheme 12 years ago when wheat prices were £70 a ton. They’ve been £60 or £70 a ton for quite a long time. Now it just so happens quite unusually they’re £200 a ton, but the average is more like £130, £140. The payment rates haven’t changed in 12 years’ time.

**INT: I would just ask how you’re involvement in enhancing biodiversity came about, how you got involved into initially?**

DEU25: Well, I was working as an accountant in London crunching numbers, auditing and also I then started doing private client work for people with farms and estates. My father had the farm that I now run and I went to [Town] agricultural college, as it was at the time. I did my bit in business management. Literally as I finished there in 1992, they changed the support structure. So, [Name], was the agricultural commissioner at the time, instead of having an intervention price for arable crops they changed to an area based payment. They brought in set aside. So, in order to get the money, you had to put 15% of your land aside from production. That was latterly changed to 5%. There were lots of rules and regulations. It was a totally new scheme. I remember being phoned up by my neighbour who’d been farming for much longer than I have. He said, please tell me how on earth I interpret this, what on earth are you going to do with your set aside. There was very much a feeling at the time, well it was money for old rope you just rotated it round your farm and use it as a break crop. You just took the cash and left and [unclear 00:33:40]. I just felt morally that that was wrong and it could be used to a greater effect. So, I looked around for examples of bodies who knew more about it than me, because I didn’t know much about it at all. I was just beginning to take over the farm and actually my father died in 1995, so I had to take it over. So, I went to the [charitable organisation], because they were given a farm in Leicestershire by [Name], he left it in his Will. This is at [Village]. They took a classic farm which had wheat, rape, barley going round in a rotation. They split it up completely, so they had a bit of wheat, a bit or barley a bit of rape. Then they had lots of little strips, wild bird cover to the right. When you looked at it, if you gave a different colour to each crop and a different colour to each wild bird cover or conservation, effectively you came up with a mosaic, rather than something with very large blocks. Their logic was that this would increase the wildlife on their farm. Being [WILDLIFE CHARITY], being a science based charity and they’ve been given the farm they could do it. So, they knew where they were before and they moved to this. I watched what they were doing and I went and visited right at the outset. I thought well I’ll do something very similar. Low and behold over time they’ve shown actually their work does exactly that, it does increase biodiversity and it really does work.

**INT: That’s brilliant.**

DEU25: So, they had their, whatever it was, 25 anniversary the other day. I went to that and I’ve been there at the first one. So, I’ve followed the journey through and I’ve used the set aside that we first had under the IACS system. I can’t quite remember what it stood for, to create an arable control system or whatever. We kept all that, but you could overlay it with the Environmentally Sensitive Area scheme that we had in the [Hill]. Which I joined in 95 I think, yes 95. They paid for special measures for biodiversity as well as stone walls. Then latterly I went into Environmental Stewardship and went from the lower level, the entry level scheme up to the higher level scheme. We’ve had some very good project officers from [environment organisation]who’ve helped and encouraged us. Our area was targeted specifically by [environment organisation]as a farm bird initiative area. I think he was called [Name] was the lead project officer for [environment organisation]in promoting our area. The officer who do a lot of the work, [Name] and then subsequently [Name]. Managed to persuade something like 75-80% of farms to participate in the scheme. [Name] is now very senior with Natural England. [Name] has actually left, he’s gone into the private sector. He works for Kings, who is owned by Frontier. He still comes and helps and he provides the seed. So, I’ve kept this long running interest going all the way through and I started off by thinking well we have relatively poor ground and here, this bit here, that’s north facing and it’s lots of stone. So, I know what I’m going to get paid for this bit of ground. It doesn’t start getting productive until you get to there. So, why not take that bit out of production and get paid for it. I know how much I’m going to get paid and I know how much it’s going to cost to look after every year. If I’m going to end up with greater biodiversity by doing all these measures and it’s been shown to work elsewhere, then it should work on my farm. It has worked and that’s why I’ve started doing the detailed collection of data since then. Because nobody else seems to be particularly interested in collecting the data.

**INT: Yes, no that’s a really interesting story how you got into it. Why do you think more farmers like yourself will adopt this way of thinking or do you think it will be a while?**

DEU25: I think it’s pretty straight forward actually. Farmers follow the money, it’s quite simple. If DEFRA want to make the whole scheme a success, which I think that they will want to do. They’ll make the options within the scheme worth the farmers while to take up. If the money is right then the farmers will take up the options. If it’s not they won’t. But you might see regional variations. So, if you take Herefordshire where they grow a lot of soft fruit, potatoes, beetroot, they wouldn’t want to put that bit of ground into wild flowers. They’ll grow beetroot, but that’s for them. If you go to East Anglia where they’re very capable of growing very good crops of sugar beet and they can grow 11 or 12 tons per hectare of wheat when I can only grow eight or nine. There’s not much incentive for them to cover their fields in wild flower meadows. But in my case economically I’m much better off to have a product such as the [s/l milling oats 00:41:09] that go to [Brand]. They can have a great picture on the back, a great story about biodiversity that people want to hear about. They can promote and I fee l that I’m doing some good for the wildlife. The person who’s buying the product feels they’re doing good as regards to buying it. So, that for me is a better story. I can’t compete with the wheat producer in Kansas. I can’t compete with the Argentinian beef producer. So, why try, I can do something totally different.

**INT: No, that’s really interesting and good on you.**

DEU25: You’ve got to give it a go.

**INT: Yes, it’s really good, no really good. Yes, it’s interesting about the regional differences, I didn’t really, you’ve explained it a lot more and it’s really interesting how it will perhaps work in areas. Like you say, the money aspect, yes, brilliant. You’ve obviously got quite an interest in data now. Do you mind if I just show you some modelled data outputs?**

DEU25: No, that’s fine.

**INT: I know you talked about they might not be useful and they might, but I’ll just share my screen now and just whether you can interpret them. Then whether you’d find them useful in your work or elsewhere. So, it might not be a species that you’re interested in, but it’s a five-spot burnet moth. Hopefully you can see, has it popped up.**

DEU25: It has popped up, yes. So, what is a zygaena trifoli?

**INT: It’s a five-spot burnet moth.**

DEU25: It’s a moth?

**INT: Yes, it’s a moth, yes.**

DEU25: Okay, sorry.

**INT: No, it’s fine.**

DEU25: I missed the last bit and dare I say what’s it do, what’s special about it?

**INT: The moth or the map?**

DEU25: The moth.

**INT: The moth.**

DEU25: So, why do you want to bother to have a map of where it is?

**INT: It’s just an example really.**

DEU25: Okay, that’s fine.

**INT: Yes. So, this is the concept that they’re aiming for. They’re going to do it at a national scale and sort of a more local site level. So, you’ve got one down here as well. So, what they’ll do is create modelled outputs for single species at the moment to help inform people of the species distribution. So, on the left here is a raw probability distribution of the moth. This model, is it easy to interpret and do you find it useful?**

DEU25: Yes, no I find those two graphs, those two maps very useful.

**INT: Brilliant.**

DEU25: Very very good. The next one down with the circles I think you might have to explain.

**INT: Yes, it’s essentially the same as on the national scale just zoomed in essentially.**

DEU25: Oh, I see.

**INT: Yes, so these are around the point of Wallingford in Oxfordshire, five kilometre scale. So, again they’re similar to the national scale. They are just zoomed in.**

DEU25: Oh, I see, okay.

**INT: Again, would something of a local scale be useful for you as well?**

DEU25: Yes, and actually the BTO do that for birds, they do that. So, for example the North Cotswold Ornithology Society collects data for the British Trust Ornithology. They do surveys on a grid basis. There’s also [Name] is doing a thing called ‘Map for Life’ I think he’s called it.

**INT: Yes, I’ve spoken to him.**

DEU25: He’s doing distribution. You have spoken to him, yes?

**INT: Yes, yes.**

DEU25: Well, his mother lives not very far away from us and he was very involved in a [bird species] project run by [WILDLIFE CHARITY] alongside the work at [Village] So, that’s why I know him and he’s been promoting his ‘Map for Life’ with me in Gloucestershire but also with the CLA.

**INT: Yes, okay.**

DEU25: He even gave me a certificate.

**INT: Oh, that’s lovely.**

DEU25: I don’t think I understood the certificate, but I was very pleased to get it.

**INT: That’s great. So, in terms of your work and your interest how would these models be useful to you?**

DEU25: Well, they would be useful for me in my cluster area and in the area of Gloucestershire as a farmer. With the [RURAL BUSINESS ORGANISATION] it would be very useful for England and Wales because those are the areas that we represent.

**INT: Absolutely, yes.**

DEU25: It would be extremely helpful to have the data to help in our lobbying work that we undertake with DEFRA and Natural England.

**INT: Yes, brilliant. In terms of these models, is there anything that you would add to them or remove to simplify them for your use?**

DEU25: No, I don’t think so. So, the probability one, what you’re saying the probability that you should see one in those areas based on the habitat.

**INT: Yes, that’s [unclear 00:47:50].**

DEU25: When you put variation that’s variation of the probability?

**INT: Yes, essentially yes, so they sort of work together, yes. So, on the variation model in the slightly darker areas those are the areas where you have a greater confidence in the probability of that species being there. Then likewise the paler pink less confident. So, if we look at the southwest where on the raw probability it’s dark green, there’s a high probability of that species being there. On the variation you’re less confident in that data.**

DEU25: Right, and then do you then run a map showing what you actually have?

**INT: Yes, so in terms of how it’s calculated and how the modellers part of the [s/l DESI 00:48:53] team have created this. So, for this variation model they’ve run it 10 times on 10 different data samples.**

DEU25: Right.

**INT: Which includes some points where there are target species records and some where there are records for other lepidoptera species.**

DEU25: Right, okay. I think that would be good.

**INT: Brilliant, no that’s great. Was there anything else that you wanted to talk about whilst I’ve got these up?**

DEU25: No, no I think that’s good.

**INT: Brilliant, so I’ll just stop sharing my screen now. That’s great. In terms of, just to focus on your data, just a tiny bit more before 10 o’clock. How do you deal with data gaps?**

DEU25: Well, I try and have a think every six months or so as to whether I’m missing a survey and whether I’m missing doing something. We do a [bird species] count, we do a deer census. We have [ecoclogy consultancy]. We have a local bird watcher who comes. We have an annual monitoring on barn owls, that’s another key area that we’re interested in. I’ve been asked if they can look at river health and I think [ENVIRONMENT CONSULTANT] are going to do a crayfish assessment and a fish assessment on some stretch of river that we have. They want to look at water quality. So, I suppose it’s just trying to build, every now and again somebody pops up with something they’re thinking of doing and I go, oh well that’s interesting, that’s a good idea, let’s do that. The other thing, I am trying to build on where we do have a big gap is on soil organic matter.

**INT: Okay, yes. That’s brilliant. So, you talked about your data is available for people to see. Do you produce any reports or projects that you share with other people at all?**

DEU25: Well, I haven’t actually. So, I should really and we’re thinking about doing a website and putting some data up on the website.

**INT: Yes, definitely.**

DEU25: That’s seems a rather slow process at the moment, there’s always some reason why somebody from the web designer can’t do something. There’s too many other things that have cropped up, so I haven’t done that yet.

**INT: No, that’s fine, no. I think it would be interesting to share your story and what you’re doing, I think is quite commendable.**

DEU25: Thank you.

**INT: No, it’s really good, really interesting. Then just finally on the data, in terms of resolution of data, is that something that you are concerned about or wish to have a particular resolution when you collect data or use data?**

DEU25: When you say resolution, what do you mean?

**INT: So, a finer scale or a larger scale, the scale of how you collect it.**

DEU25: I try particular with data on things like [bird species]s, deer etc, then it’s got to be down to the absolute fine detail. When you’re doing a biodiversity survey on the whole farm, then I think you’re looking in bands and grades. It’s not quite as fine as one would expect, but it’s whatever happens on the day.

**INT: Yes, not that’s brilliant.**

DEU25: So, I think it varies.

**INT: Yes. Well, that’s really good. You’ve sort of covered everything that I intended to ask and you’ve given me a wealth of information about the work that you do and it’s really interesting. Is there anything else that you wanted to tell me at all or you wish I’d asked you perhaps?**

DEU25: Well, I think the only the thing I would ask, I’ve enjoyed our together, is I’d love to hear how your project goes and what comes out of it. I’d also be very happy to help either through the data we’ve got on the farm or through the work we do through the CLA with the project.

**INT: Absolutely, yes, my final wrap up question would have been whether you would be interested in the next stages, so that’s brilliant, yes. Glad to hear of your interest.**

DEU25: Well, done, I think it’s very interesting, so thank you. I’ve enjoyed it.

**INT: Brilliant, thank you very much for taking your time to speak to me, I really appreciate it.**

DEU25: Great, thank you.

**INT: Thank you very much DEU25, take care.**

DEU25: Bye.

**INT: Bye.**

**[Audio ends: 00:55:04]**