Innovation in Water Challenge Partnership Brokerage Session 1 Transcript

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# Speakers

Oliver Raud, South West Water,   
Ben Tam, Isle Utilities,  
Paul Gaskin, Welsh Water,   
Dan Green, Wessex Water,   
Michael Taylor, Anglian Water,   
Elin Williamson, Southern Water,   
Jeremy Heath, SES Water

# Transcript

Ben Tam, Isle Utilities 00:00

[Clipped Speech]. And we're really looking today to hear from and get a bit more context from some of the water companies. And now, just a little bit of housekeeping as we as we do kick off, we're using zoom. It's not a webinar version. So we'll keep everyone on mute for today, the event is being recorded. So to just try and make sure that we have the best shot of getting the right information across can be shared afterwards. We do have a series of presentations by Jez coming on first, and I'll introduce him in just a moment. We have a Sli.do to ask questions just because it's been easier to manage questions on there. So most people should be familiar with with Sli.do , just go to Google or type into your search browser Sli.do. And then you'll be asked for a code the code is just IWC. So #IWC, you'll see that's already clear. For those who haven't used it, we will then be able to prioritize questions and get them across. And hopefully we'll be able to answer everything in this really short session that we have today. If not, we'll make sure we come back to another point. You're welcome to use the chat function within zoom to stay in touch to ask other sorts of questions. But we'll we'll try and aim to ask questions off Sli.do just just to make it easy and fair off there. And thanks, Catherine, you just dropped the link in the chat there for those who haven't haven't seen that. So I'm going to kick off in just a moment, I'm just going to give a tiny bit of context about about the fund. I'm going to hand over to Jeremy Heath, Innovation Manager at SES Water. And then we're going to go on through to Elin from from Southern Water. And then Paul at Welsh Water just to give this bit of extra context to what is water companies are really looking for in these early stages, these early rounds of competition. I'm just gonna share my screen really quickly. Okay, here we go.

Okay, well, so the last few people are joining. And that's the quick agenda that we have hope everyone now can find their way on the Sli.do and ask us those questions. For those who have joined, hopefully, you've all seen if the comms have gone out there. But today we're talking about the Innovation in Water Challenge. That's the first of the competitions available here. There's been two rounds of 2 million pounds [correction - the first round is opening next week] we're launching opening up next week on the 18th. And the information, as promised will be available on opening day, in terms of the application form and other parts, those are all very much close to being sort of hands out on that side. So we're looking forward to to getting going fully on that. And today is really about trying to forge those connections between water companies and potential partners out there, especially for those who don't have any connections at the moment, or need that extra information. I just be really clear for those who have joined in so hopefully that's been clear across the board is that the lead applicant has to be a water company. And we're looking for other people out there we term partners. And that's Water Company lead is one of the 17 licensed water water only wastewater water only and water wastewater companies in England and Wales or some of the new entrants. So those are those are the companies you need to partner up with in order to have an entry for the competition. My slides finished. I'm gonna hand over to the other side I was gonna put onto here was around it was that the timelines on the things we're expecting to see, but I'll segway across to to to Jeremy, who be able to talk a bit about the joined up priorities from from the sector and a bit of insights that they been so far. Jez?

Jeremy Heath, SES Water 04:27

Thank you, Ben. So I'm gonna get my PowerPoint up there. There we go. Hope you can see that right. So my name is Jeremy Heath. I'm the Innovation Manager at SES Water. For those who don't know, SES. We are a smallish company based just south of London. But I'm also part of the Innovation Managers Group and that is all of the innovation managers across England, Scotland and Wales have been getting together and working as a group in order to understand industry priorities and to work as well towards using all this funding that's coming through. So what I'm going to take you through is, is some of the reasons that we doing- we need the innovation and also how we think you are able to help. Okay, so let's hop on there. And here we go. So firstly, why innovation and let's hold our hands up straight away. Some of you may not know the water industry at all, you're coming into it. And you're thinking, you know, our water industry really known for being innovative. And I'll be absolutely honest, traditionally, we've been cautious innovators, okay. That's how water industry works. And part of the reason for that is that we've got a food grade product, our customers want it to be relatively cheap, they want to always there and they want it to be pure, you know, with a pretty much the lowest utility bill, depending upon where you live, but pretty much the lowest utility bill, we are 99.9% available and 99.9% pure. There's not far you can go from there. And the trouble always with innovation is that when you look at something like that, and you go, Okay, we're going to do something to your network, we come up with an innovative way of running your network, the concern would always be is, is that going to affect availability and purity? Because if it does anything to those, it's, it's going to be on a negative level, maybe at first. So we are cautious innovators, let's be honest, okay. However, number of factors Now, many companies have got to embrace innovation. Okay, that's got to change. And only some of the factors here, you kind of come across: Climate change in the supply demand gap; London is listed as the eighth most likely capital city in the world to run out of water. And that comes as a surprise, everybody associate England with rain. But actually, there is a huge supply-demand gap - demand is growing faster than our supply resources are there and therefore we've got to do something about it from that side. Low and zero carbon commitments; now the water industry is the fourth largest energy user in the UK, moving water around is extremely expensive. Okay, we've got to lower our carbon and look at you know, as we say, low or zero carbon commitments there, and leakage reduction is huge has come through in the last few years, all companies have committed to a minimum of a 15% reduction over the next five years with some companies more than that, and let's make no bones about that, that is going to be extremely challenging to do, okay, it's gonna be extremely hard jobs, drive down leakage, there's a lot of innovation going on in that area because of this. And then individual company challenges was what I'm going to talk about. And I'm going to, rather than talk about SES challenges, I'm going to talk about industry challenges, recognize that each individual water company will have their own priorities and challenges as well. And what I'm going to do at the end is give you some ideas and links about how you can find out about what what an individual water company is trying to solve at the moment. Okay, and you know, welcome the Ofwat Innovation Fund. Fantastic, because this allows us to proceed with innovation, you know, in an unprecedented way, we never been like this before. For me, you know, this is wildly exciting times, I've been in the industry for 25 years, and I've never known anything like this. So it's a great opportunity, we just want to make best use of it. So okay, where do we need to do innovation?

Jeremy Heath, SES Water 08:04

So let's start off with a kind of solutions that we're looking for. And you know, what they could be a wide range in their materials, process technology, sensors, comms, data design, business models, behavioral sciences, science, human, you know, Human Centered development regulation, application systems thinking, there's a real wide gamit of solutions that we're looking for out there. And you're thinking, that's fantastic, you know, and everybody I imagine is now looking at that list and try to pick your own company solution out from there. Brilliant, because that's the kind of thing we're looking for. But, okay, we're looking for collaborative projects. And and there's this real thing here with the innovation and water challenge is the size of that £50 to 250k range, okay, looking for things that will accelerate implementation and rollout, what kind of TRL( Technology Readiness levels) are we looking for? A range those, some of these are going to be near-market solutions, you've got something that's nearly ready, but you've got some last stages of proof that you need to go through, you need to be able to test it in certain environments before you're sure of it. And it needs that kind of push to get it over, you know, the Valley of Death stage and things like that, certainly looking for those but also were interested in early TRL stuff as well. And it's been quite encouraging to hear that, and the regulator's that they believe we should be doing that as well. And that will be where we need to validate demonstrate less mature technologies in order to demonstrate the effectiveness of bringing them into our industry. But there is one caveat I need to play tight. Okay. And there are things that we're not interested in. And by that, I mean, you know, consultancy, paper based studies, demonstrations, commercially available products. I've had a number of approaches from companies that are interested in Innovation in Water Challenge. Typically coming from outside the UK say we've got a product and we're marketing it successfully in this country or that country. They've already got an existing product and my pushback always there is okay where's the innovation. If you're going to be doing something different with that? Fantastic, okay, there's some way you want to bolster that product. Brilliant. But we don't want stuff that's commercially available at the moment. That's not the purpose of this. Okay? solutions with no prospect, the prospect of integration into existing water systems, there's some things that just simply will not work by trying to integrate them in and accept that there's certain technologies, but I'm really interested in where it works in another industry, and you take that and apply that into ours. Fantastic. And then obviously, solutions that offer no prospect of out competing existing solutions, we've got certain ways of doing things at the moment, what we're looking for better ways of doing. Okay, so if that's where we need our kind of innovation, that kind of big things there. You're, you're asking, okay, what's the specific specific kind of projects? Okay, so look, in December this year, I went to all of the other innovation managers, and I said, Look, we need to do an exercise to kind of highlight the areas where as a industry, we're most interested in innovation, let's try and give the supply chain some steer on where we're looking for solutions. Okay, so we got together as an industry, and we took our seven things, and I'm going to show you the seven themes in a moment. These are the broad themes that we have that that encapsulate the whole of our water industry. But the seven themes were too wide. So we kind of subdivided it down into 31 discrete areas, okay. By way of example, leakage is one of those areas, okay. And then we can understand the industry appetite for innovation in each of those areas. And I need to put a number of caveats on this, okay. Because it can be easy to look at that list and go, Oh, why so and so not on the list, do water companies not consider it to be important? Okay. Well, what doesn't show his insight into relevant importance of those areas. It doesn't tell you that at all. Okay, so if something is not on our top list there, it doesn't mean it's not important. What the list does is it shows those areas where water companies as a whole, were particularly seeking innovative solutions. Okay, so if it doesn't appear, I'm going to show you in a second, the kind of top eight that we've got, if it doesn't appear on those. Yeah, it means that either water companies are satisfied, they've got current tools and methodologies. Yeah, that will help them to achieve that goal. Or maybe it is seen as a slightly lower priority within the water industry, because there's bigger fish to fry as this stage. Okay. And the final ranking or the list I'm going to show you here, it doesn't represent the unique priorities and challenges of each Water Company, you'll be able to go into a water company and go, Oh, we'll just set this and that would come and go Well, yes, we took part in that exercise. But actually, our own priorities look like this, each company can and will have markedly different, different priorities as well. So okay, where does that take us? Here's our seven themes. So let's just start off with those. That's how we break the industry down. Now, there's a really good document, the innovation strategy document that sets this all out and explains what each of those areas encompasses. And part of that is included in the document that I can, that we're going to be able to share with you. But you can get it from the website, as well put some links up at the end, but you can go and grab hold of that. And as I said, we broke that down into 31 discrete areas. And then what I did is I asked all of the water companies to say, Okay, if you had a choice, where do you want innovation to occur? Okay, out of these 31 areas, where's your top areas? And what I've done is I taken that back, and I picked out the top eight. And I said okay, give me your top eight areas where we're looking for innovation, and here they are, Okay, I'm gonna go through those in a second. They're not in any particular order. In fact, what I've done is I've just grouped them around the themes, but these are our top eight areas where we're looking for innovation. And I'm just going to go through briefly and kind of explain what those kind of mean. Okay, so how might you redesign drinking water supply? Okay, so that's very much looking at our low energy treatment processes, low chemical processes that we can do, as well. How do we do better management of Water Resources, abstraction? How do we look at monitoring water quality as well? Okay, and then you can see that follows on into the next one down, which is far more specific about monitoring water quality all the way through our network. Okay, improved methods of monitoring water from catchment to tap. Okay. So capturing it all the way through. Net positive. Okay. How do we get to net zero carbon, minimal waste and natural capital? Okay. And again, you'll see that that one is covered elsewhere as well. So monitoring your assets, how do we monitor our assets to respond correctly to rapidly changing environments and unpredicted events? Effectively, I'm talking about interruptions to supply that, okay, or the beast from the east? Things like that, that come through and our networks only goes down, we get a burst occurring customers out of water? How do we come up with systems that allow us to respond very quickly to those that tell us what's going on? Part of smart networks will fall into that particular area there. How do we measure the current condition of our assets Remember, our assets are above And below ground as well accurately predict the deterioration and know how and when to when to intervene. Okay, we have a large amount of our asset base, that is one meter below ground is very, very hard to tell the condition. And there's been a lot of work going on in that area to try and understand the condition better. But because we want to drive down leakage, that's one of the areas that impinges upon that, we want to make sure that we're replacing the right pipes. It's really tricky. The public don't want us sticking out roads, or wants us to minimize that. And we want to make sure we're digging up the right mains. So yeah, condition assessment of assets really important to us. And of course, above ground as well. How do we decarbonize energy, and transport emissions through avoidance efficiency and alternatives to fossil fuel. And as I said, we are the fourth largest user of energy in the UK. Okay. So there's a lot of things in there about pumping regions, okay. But also think about simple things like, you know, smart vehicles, and how we manage our transport fleet as well. Okay, how about we sustainably eliminate leakage across Water Company networks and customers pipes, that's one of the areas that I'm particularly interested in on the program lead for for leakage with UKWIR. So I'm really pleased to see that that was that was viewed as quite important by the water companies, it is a huge, huge issue, we've got to drive down leakage by 15%. If it had been 5%, every company would have said, I'll just do a bit more of the same, okay. 15% is a step change for our companies. And it's going to be really hard to do. We're desperate for innovation there. One of the things and I'll just talk about this briefly, when we talk about leakage, I tend to use the acronym 'PALM'. Okay, there we go stands for Prevent, Aware, Locate, and Mend. I did a study last year to look at how much innovation is occurring in those areas. And it became very, very clear that while there's quite a bit of innovation, occurring in awareness and location, we are failing in terms of prevention. There's some innovation there, but I'd love to see a lot more. But very different innovation in our mend technology, we're still using the same method that the Romans did, which was dig a big hole, cut out the bad bits and piece through, I'd really like to see some great innovations coming through that allow us to mend pipes faster, and therefore reduce the lead time. So yeah, so leakage extremely important. And then how might we better engage with our customers about how they think and feel about water and behaviors with our customers, so that they realize that which water is a scarce resource, and a lot of this comes down to getting the message of the valuable to customers. That's about smart metering. It's about that relationship that we have with customers that they understand how much water are they using? Okay, how can they make better use of that water? Okay, so a lot of things in that area as well. That's your document. This goes in where we're going to be publishing on our website. And that will give you a greater insight, because there'll be more detail in there as well. And what I will do is just show you, for example. So this is the area that I was talking about here with leakage. And you can see that although there's a broad challenge here on leakage, how might we sustainably eliminate leakage across Water Company networks and customer pipes, which is what I've already talked about, but how that breaks down into specific challenges that we're trying to solve underneath. And then you can see, I've talked about how do we make pipe repairs quickly, economically, and with minimum disruption as well. So there's a wealth of detail that goes underneath this as well, where you can go and have a look and find out which particular areas there might be underneath there that will help you. So what I want to do is then finally talk about how do we do innovation? And obviously, the key bit from supply chain is caught by innovation. I think that he's going to answer one of your questions. How do I let you know about that? Okay, how do I contact customers and talk to them about this kind of thing. So number one is going through the water 2050 website, okay, again, links up there for it. That's also got the innovation strategy document with a wealth of detail in there about our strategy as water companies together in terms of managing innovation. And you can email as well. So contact awards for contact@waterinnovation2050.org.uk And then that will get sent round to all of the water companies as well. Okay, so I receive emails from that as well that say, here's an innovation. And because it's coming through as a joint area, it means that as innovation managers, we can discuss amongst ourselves collaboration as well and say, Oh, I'm interested in that as well. And we're working in collaborative areas. So there's some good collaboration that can come through that as well. One thing I would heartily recommend is go look at the AMP plans, okay. If you want to understand what what companies are trying to do have a read of their AMP plans and have a look at their final determinations. Now, most companies will share a number of common features that they've got to do through their final final determinations, okay, their performance commitments, okay. And they will share those, but often companies will have individual performance commitments as well. Okay. That they have to achieve and that will give you a really good guide into what they're doing. I would heartily recommend you doing that anyway. Anytime you talk to water companies read their AMP Plan. I actually make a note, when a supplier comes to me and wants to sell me something or wants to demonstrate something to me, he gets a positive tick, he's actually read my asset management plan and knows what my problems are. I read their website before they come visit me, it's really nice when companies do the same to me and read my website and understand what my problems are, and look at their current performance, discover water, I'll put a link up on there as well. This is a really excellent website that basically sets out the water industry across the UK and its performance in various areas. Nice thing is you can drill down into individual companies. So you want to know what a company's leakage level is, you can drill down to that kind of level of detail their water quality standards, and you can actually understand what their current performance is, again, if you've got an innovation, you think is going to be particularly useful, you may want to use that to look at that company and find which companies have got the biggest issues there. And that will help you target them. You can of course, contact individually, you can go through the company website, but what have nicely collated them all together, I put the link up on there as well. And you can use that to click through and go straight through to the various company innovation websites and contact companies individually on that as well. And finally I put other resources up on there: How will we achieve zero leakage in a sustainable way by 2050? That's my own word actually, from my my UKWIR big question. Well, that is effectively that's a guide to leakage innovation in the UK at the moment is 320 projects that are going on in the UK at the moment on leakage. The reason I put that up there is that kind of resource that will help you understand who's working on what at the moment, or who has a need in a particular area. So if when I've gone through this, you're particularly interested in leakage innovation, I'd recommend going to have a look at that site and download the leakage innovation heat map will give you a good understanding of what we're working on at the moment and where there might be gaps in that knowledge. And yeah, I put out a personal plea there as well, if you have issues with or if you've got particular leakage innovations, give me a shout because it's my particular area I'm very interested in. I'm going to stop talking there. And then hand back over to Ben, but I'm sure there'd be some questions coming back from that.

Ben Tam, Isle Utilities 22:13

Thanks, Jez. And thanks, thanks for running through that. There's lots of information, especially for those people who haven't seen that much from the sector before. So thanks for providing those links. One further one that I would add is that you can contact ourselves at Isle or waterinnovation@nesta.org.uk email address up there as well, because we can help maybe signpost in another way. So just another another layer of people, they might be able to help it get some really useful stuff. And I'm sure we'll get some more questions. So we'll hang on to those shortly. One piece of housekeeping, I think I neglected was if people keep their cameras off, that helps the bandwidth for everybody else around so when the presenters are speaking that will keep them off. And that will help. And we have one late addition to the to the agenda of a route from Southwest which is going to speak at the end of the world's company speakers, you'll hear from one more water company speaker, I hand over to Elin now who's just going to speak with no slides, but just to give the Southern Water perspective.

Elin Williamson, Southern Water 23:20

Hello, thank you the loud unmuting there. And yeah, I just wanted to give a bit of a voiceover about obviously, Jez has done a really good job of explaining through the challenges that we face as a collective. And obviously, we've spent quite a bit of time pulling all of those together and working out really good strategy document that brings all of that together for the industry in the sector. And how that kind of translates, I guess to each individual company is really important. And obviously some of them will be more important to us than other ones. So from Southern Water perspective, we're obviously we're based in the south east of the UK. And we have for those of you who don't know, we have got a large amount of coastal regions. So that kind of that poses quite a big problem for us in terms of additional pressures. And we also being in the south, we have probably like Jez articulated about Thames being and the London area being a problem for climate change and water scarcity. And we have that in the south of England as well. So really looking at you know, we've got population growth, and the water scarcity challenges are really, really real, and they're coming soon and how we respond to those is probably more of a pressure on the more Southern base water companies and some of the others. From Southern Water perspective, we're also quite challenged in that we have quite a lot of we have quite a lot of dense, densely populated areas. We also have a lot of really rural areas. And those are pretty much protected by national parks areas of outstanding natural beauty sites with specific scientific interest. So actually, as you can imagine, that puts like another layer of challenge on so we're restricted by the coast, restricted by a lot of the South Downs National Park. And then we've got really densely populated areas in between those two. So actually, sort of responding to challenges relating to, like, capacity increase, and that sort of thing are really probably like a real problem for Southern Water, perhaps some of the other water companies. And in terms of a sort of more granular view of our problems. So we're - or challenge areas, should we say problem statements. So we're doing quite a bit of work looking at how we can make both our waste and water networks, more like intelligent networks. So actually, how can we sort of operate and maintain them better in a more knowledgeable way. So kind of working down the route of more, I suppose people will call it more smart network approaches. And that covers all aspects of it. So sort of people side through to analytics, and also physical technologies for how you can receive that information. So there's a huge amount of potential innovation across the piece there. And also looking at sort of environmental challenges. So obviously, when we are releasing like our final effluent into the environment, we have a lot of permits that we have to meet through, sort of put up put on us by the Environment Agency, but also, obviously to protect the environment. And there's a lot of sort of improvements in our ability to meet those that we, we need to respond to so this specific sort of more technical water process, wastewater process technology that we need to look at to be able to meet those as well. And plus more catchment led approaches. So really looking at like, what can we do before it gets to our works? And how do we work with our communities and other other stakeholders in our environment to help us achieve that in a more natural way? One of the other specific challenges we have really echoed in some of the pieces that Jez was talking about relates to energy consumption. So it's a huge cost to the industry. And obviously, as we're, as a whole nation and world, we're trying to achieve, like, more carbon neutral approaches. So how can we put in practice like more, even if it's smaller initiatives that could build up to be bigger ones? Like what what are those things that we could could be doing and should be doing to actually really reduce our sort of our net energy position as a business? And then I think the, the, other key one, which I touched on before is around actually how do we respond to having a more like a slightly different approach to capacity increases, rather than just needing to build huge capital infrastructure to respond to like increase in population? What could we be doing differently to actually do things in a greener and more sustainable way and, and all of that overall in the lens of actually making it more cost effective for the customer? So obviously, everything that we do is really in the in the lens of the customer and the environment. And yeah, thank you, I'll hand back to Ben now hopefully, that gives a bit of an articulation if if some of the more localized challenges and how they present themselves.

Ben Tam, Isle Utilities 28:50

Thank you very much Elin, that that really helps. Hopefully everyone on the call can begin to see this kind of already presented the beginning Jez has given us a picture where water companies have joined up and shared priorities but you know, the nuances between water companies are there as well. And Elin's articulated a few of those, which I'm sure people have picked up upon and will be available for some questions at the end as needed. Thanks, Elin. Next, we're heading further west rail to to Wales, we've got Paul Gaskin who's going to present a quick review on some of the more specific challenges for Welsh Water.

Paul Gaskin, Welsh Water 29:33

there we go. I'm unmuted hopefully so hopefully you can all hear me now. I'm also going to try and share my screen screen. That's not gonna work. Yes, it will. So my apologies. Share?. And then if I go to that hopefully you can see that now the PowerPoint. So thanks, Ben. My name is Paul Gaskin. I'm the Water Services Research and Innovation Manager, quick plug. If my internet dies or anything, please visit our website https://corporate.dwrcymru.com/en/innovation, and everything I say you'll find on there anyway. So I'd like to just start with our vision and Welsh Water which is to earn trust with our customers every day. That's run through everything we do, including innovation. So from there, back in 2017, time, we started looking at what's going to happen in the future. And how's the world, and how's Wales going to look in 2050. So looking at challenges like climate change, demographic change, regulatory change, economic change, and then we came up with 18 strategic responses, so that we could become a truly world class resilient and sustainable water service for the benefit of future generations. And that's important in Wales, because we have the future generations Act, which sets out how companies and how individuals, and everyone else should act to enable future generations to live a prosperous, and healthy life, etc. So moving on from there, one of the things we did in innovation was we looked at what research and innovation we need to answer our strategic responses. So the first one here I've put up is safeguarding clean drinking water, through catchment management. And basically, every Ray here, if you like, is fair game, for you to come up with some ideas to help us and there's 18 of these in different stages of development, but where we're keen to hear from you if you've got answers to those specific problems we've put down in those you can download that from our website. But to move to some of our top priorities, and some of them will be no will will have overlaps with what Jez said and Elin. So smart networks, both on the water and waste side. When are we going to have a problem? How do we operate on that our water networks in a calm way? When are we going to see sewer blockages? can we predict them before they happen and cause a pollution events? Treatment efficiency in Wales . In Welsh Water, we have over 800 wastewater treatment plants. So some of them serve very small populations in rural locations. How can we actually get to those in a quicker and more efficient way? Or can we use AI and some other ways of understanding what's happening? So we don't have to visit them? equally on the water side and increasingly on the wastewater side. How do we cause - how do we cut chemical usage? Can we use AI to keep our works working well, and within compliance but at the lowest possible cost? improving resilience? If we just look back at last year, we had storm Dennis which actually flooded a couple of our water treatment works when rather severely, we had lots of sewer flooding. And then straight on the back of that we had a global pandemic. And then we also had thethe drought of the driest one of the driest summers we've had with everybody at home, drawing watering different patterns than we're used to. Customer acceptability is a big one on the water treatment side. So that's discoloration and taste. We have 11,000 kilometers of unlined cast iron mains in various states of decay. And how can we sort sort those issues out. Reductions in supply interruptions and leakages. So, if we have an interruption in supply, how can we get that quickly repaired and get back on board and also with leakage now, Jez has mentioned that so I've move over that. Circular economy, how can we make value out of our waste to move forward so at the moment, all our sludge is spread to land is and that's quite economic for us and it does give benefit but are there other ways we can use that sludge to get more benefit from it? Carbon I think Jez and Elin mentioned carbon been a big one for all the work really? How can we reduce our carbon footprint and get to a net zero value or even a positive value? customer satisfaction? Obviously, if we put everything in place, we'll get that right. But when things do go wrong, how can we use things like AI for our call center? To to know something's going to go wrong? and staff up appropriately? So we can answer questions, and how can we let people know beforehand? And that should lead to complaint reduction as well. And one of the other things we're very keen on, especially in Wales, is supporting our most vulnerable customers. So that's it from me. I will stop sharing and I will go on mute. Thanks a lot for listening.

Ben Tam, Isle Utilities 35:50

Thanks Paul I think your slides when best photos there of water works in dramatic countryside as well. So some great pictures of Wales across those. And again, Paul will be around to answer some questions and see some kind through on Sli.do now. So there'll be a chance to ask him some clarifications from there. Thank you again, Paul. So we are Ollie Raud from South West Waters is going to present. I've got his slides here. Just give me a moment. I'll bring those up.

Oliver Raud, South West Water 36:20

Yeah alright Ben

Ben Tam, Isle Utilities 36:21

Yea, no problem.

Oliver Raud, South West Water 36:22

Thank you. Apologies. I'm having to dial in on my phone.

Ben Tam, Isle Utilities 36:26

no problem.

Oliver Raud, South West Water 36:29

Can you see and hear me? Okay.

Ben Tam, Isle Utilities 36:31

Yeah. Okay. So your slides just went through, they disappeared off my screen such.

Oliver Raud, South West Water 36:46

So whilst you're doing that I can just give myself a quick introduction, and then

Ben Tam, Isle Utilities 36:49

go for it.

Oliver Raud, South West Water 36:51

Yeah. apologies for not being able to share my screen, but I'm on my mobile. So homeschooling has nicked the only laptop that which loads so apologies in advance for that. And so my name is Ollie Raud. I'm the program manager for CREW, which is the Center for resilience and environment, water and waste at South West Water. We'll just say it's a collaborative r&d and innovation program with the University of Exeter, some of you may well have heard about it already. So. when Ben's uploaded the slides, I just wanted to give you a quick flavor of some of the on an innovation competition priorities around this first call around the innovation in water challenge.

Ben Tam, Isle Utilities 37:29

And can you see those Ollie?

Oliver Raud, South West Water 37:34

two seconds

Ben Tam, Isle Utilities 37:37

they should be up there on your screen.

Oliver Raud, South West Water 37:42

I can't see them at the moment.

Ben Tam, Isle Utilities 37:45

I see.

Oliver Raud, South West Water 37:46

I can just see you still

Ben Tam, Isle Utilities 37:54

Hasn't worked for some reason. Sorry. If

Oliver Raud, South West Water 38:11

it's okay. I mean, if not I can just do a quick voice over like Elin, if you want.

Ben Tam, Isle Utilities 38:16

Somehow, your slides don't want to come up.

Oliver Raud, South West Water 38:28

As Okay, well, I mean, I wanted to just be very brief anyway, just give you a bit of a flavor around some of the challenges they were looking for to be solved in this first round. So I mean, our particular focus in this Innovation in Water Challenge first round is going to be more of a specific focus on wastewater and resilience. So as you'll see there from those pictures, we'll have three kind of main challenges that we'll be looking at . And those are mostly centered around so biosolids, we've spoken about it before already and sludge into to agricultural and other land based practice. So and look at the contents of microplastics and other emerging contaminants and in in those and their effects from a kind of ecological and ecotoxicological basis as well, but more broadly, and other opportunities around circularity and circular economy models so that's one of our our areas of interest in this in this first round. You'll all be aware of the need for water companies increasing performance around our sewage and CSOs and storm overflows. So we're very, very, very keen to look at how we can look to harness and leverage innovation and innovative practices and solutions and around that key key area reducing the frequency and also the impact of any storm overflows. And, and also around the kind of smart wastewater networks as well and and how we move to a more predictive and preventative analytics within our networks and how we understand the network and our assets, across the, you know, the fullest extent, to be able to get on the front foot, be proactive and not be able to act when it's too late, etc. And probably hype that up quite a bit by, you know, kind of having a bit of time to get the screens, but it was just a very kind of brief vision of what we were looking at specifically within this. I mean, notwithstanding, you know, we're interested in the wider context as well around some of the specific challenges that others have mentioned around carbon, zero carbon, reaching decarbonisation, obviously, other other key aspects such as leakage and reduction in per capita consumption, as well as some of the more social societal context, behavioral challenges and changes and all that kind of stuff. So, yeah, very interested in a broad range of challenges. But I think specifically for this, just wanted to give you a bit of flavor that we're looking at the kind of wastewater context and resilience context. So if you want to get in touch, those are my details there. Thanks very much, and apologies for the slight technical glitch on that. But feel free to get in touch happy to take you through some of that in more detail. Thanks.

Ben Tam, Isle Utilities 41:22

Thanks, sorry. Yeah, apologies, they all jumped over my different screens all at once short way. But hopefully, you got the sense of it there. And the slides will be available afterwards. And thanks for jumping in there only to get a bit more bit more detail from South West Water's perspective as well. So I think we can, you can see across the board now for those who have joined in, we've got the overall priorities, which are put together as a sort of the current ones where there's alignment across the whole sector. And you've seen that from various innovation managers, how they're the slight nuances on some of the things they're really keen to see coming forward. But hopefully, you can see also, it was very open to these new ideas coming through, and the different ways of contacting. And the best way is to if you have a specific idea that you think is regional then to go direct to those water companies. There's the people who have presented today, but also on the Ofwat website, you'll see there's the contact details for other the other companies have presented today. And also there were links there, which were on Jeremy, he's presentation right at the start. So also use that as a resource. I'm going to hand over to the few questions which have come through on Sli.do which I can begin to ask. I also know there are a couple of other water companies out there who might just want to say hello, whilst we're still getting ready to answer a couple of questions. If there's I know Dan green from Wessex and Mike Taylor from Anglian are there, they might just want to say hello and say hello, get in touch with them just as an opportunity on this call. And then we'll we'll dive into a couple of the questions.

Michael Taylor, Anglian Water 43:00

And yeah, I will I'll jump in and Michael Taylor, I'm innovation integration manager with Anglian water, largely very, very similar needs and challenges and opportunities as the others have said already. And specifically, if you guys want to get in contact with us or understand a little bit more about Anglian waters, some opportunities and challenges. We have an event later on this month called Water Connect as well. So I'd encourage you to sign up to that the information, I'll drop it in the chat, know where you can where you can sign up for that as well.

Ben Tam, Isle Utilities 43:31

Thanks, Mike. If Dan's still there, so you can quickly say hello and how they get in touch with you.

Dan Green, Wessex Water 43:39

Hi, yep, I'm here. Am I coming through? Yeah. Great. I'm Dan Green, I'm head of sustainability and innovation at Wessex water. My contact details are on the water innovation page that you referred to earlier, Ben. So contact me that way. If you want to see how Wessex water is engaged with innovation in the past, you can visit our website. But also you may be aware of Wessex water marketplace, which has been one area in which we have historically in the last couple of years been putting up innovation challenges where we've gone out to markets and requested people to put in their suggestions or express their their interest in partnering with us on some specific topics where we're trying to solve an issue. So if you want to know a bit more about that [inaudible]

Ben Tam, Isle Utilities 44:40

Thanks, Dan. Thanks both for jumping in. There are a few more water companies contact details and some insight.