



Interview with Bob Stear, Chief Engineer and head of innovation at Severn Trent Water

Severn Trent Water and United Utilities Water have joined forces with water companies around the world to launch the [‘The World Water Innovation Fund’](#) to tackle water challenges and cut leaks.

Ofwat spoke to Bob Stear, Chief Engineer and head of innovation at Severn Trent Water to find out more about the fund.

Bob Stear was appointed Severn Trent Water’s Chief Engineer in November 2018. Bob is a chartered Environmental Engineer who joined the company in 1997 as a process technician. He has worked his way up through the company via operational, engineering, strategic and innovation roles.



In particular Bob played a key role in the transformation of Severn Trent’s wastewater business and successfully governed a capital programme of about £2 billion. In 2013 Bob worked alongside government on the implementation of the 2014 Water Act. He has a PhD in wastewater treatment.

Ofwat: Hi Bob. Thanks for speaking to us. You're a founder member along with United Utilities of the World Water Innovation Fund. How did it all come about?

Bob: Like most things in life it came about for a set of conversations where we were looking around. We’d had our own internal campaign [Bike on a Boat] that was really successful. It reminded us how many great solutions are out there to our problems...and yet there was also a sense of we weren’t forming deep relationships with any of those companies. We would perhaps visit a certain company in a certain country on a certain issue - but we wouldn’t form a deep relationship. At the same time I myself were getting bombarded with suppliers who would understandably be frustrated because we wanted to try a technology that had already been tried in two other companies in the UK and already was established overseas.



So the concept of the fund was all about: 'how do we accelerate adoption of this technology?' That was the way it really started. Because if we could adopt the very best for each of the nations that we've got relationships with very quickly, we would solve a large number of our innovation problems.

So it started off with an adoption fund. Then we went to thinking about who would we want to work with and who are the like-minded organisations that we know. And again there's a balance there. We didn't want to have it very UK-centric because that kind of defeats the object. And we already had a good working relationship with United Utilities. So it was great to work more with them. They also been recently fast tracked through the price review process. So there's a lot more certainty in their business that we're able to work with them on.

At the same time we already had relationships for some of the other water companies. For example, the consortium down in Melbourne, we have a working relationship that was a natural progression really to start to work with them on a bit more a formal basis but with some real skin in the game.

We're all committing to scale trials in our own area on our asset base and we'll share the learning openly to accelerate how we all perform in delivering a set of very similar outcomes that all of our customers want. They want good safe water. They want to always have it there when they turn on the tap. And they want to be able to get rid of their wastewater safely and efficiently. And all of that with a great customer service. There isn't a water company out there with a different set of ambitions really than that. So it was a natural thing to do.

Ofwat: And did you have to do much convincing to get others to sign up?

Bob: That's a great question. I think the reality is that I think many people that have been around sector long enough kind of intuitively see this gap in adoption [of new innovation]. They often know we've all been trying the same thing. And yet there's always a fear: is it going to become a talking shop? And that's why we were quite keen to put our money where our mouth is. And we're keen that other people who participate at the founder member level, relative to their size, are putting in a chunk of money so we can genuinely actually do some real things and share the results. And, if it works as we intend, we can very quickly accelerate how we adopt the best technology. Because it may well be that we trial three things this year and our partners trial a couple each. Just think about how many great new bits of quality learning that will give us that we don't have to repeat.

Was it a hard sell? I think that's where the relationships come in. We recognise that we are a Midlands UK water utility and we really love what we do. But there are other people who understand the world – the ecosystem – better than we do in terms of the companies. So that's why we worked with Isle Utilities. We've worked with quite a lot in the past and I've got a tremendous amount of time for. They have a really good network of organisations they work with around the globe. [They] have done the hard



yards over the years and so understand who's good at what they do, who's got the same sort of mindset and would be up for collaborating in the right spirit. And using Isle Utilities was a really helpful way to accelerate some good conversations into those organisations.

Overall, the conversations with other organisations has been really positive. The people we've spoken to have been extremely interested in the concept of this fund.

Ofwat: So why collaborate in this way? What is the benefit of doing it this way?

Bob: I think the main benefit is that we've all roughly got similar problems to solve. I think it would be ineffective us all trying the same thing in each of our companies in each of our continents. If we've got a mindset that believes the results that come from another partner organization, we do perhaps three trials a year, share them – and get the results from twenty three other trials. And so it is just literally a very accelerated way of learning from people in a way that you've got a high degree of trust and faith that they're going to be sharing their results - warts and all. Because that's what we all want. Not t all the inventions and innovations will work of course. We just want a really open honest dialogue about things that people have tried.

Ofwat: When do you expect to see tangible benefits from the fund itself?

Bob: We want to be fast out of the box. We have got our first board meeting of the group in June where we're taking the first set proposals. We think we're going to do three trials this year at Severn Trent. That's our contribution to the fund. And we think within 12 months we'll start getting the results out across the board. We think that's the sort of timescale we're talking about. In 12 months time we'll be able to get the first significant set of results from scale trials. And that's the point you should remember – these aren't a few hundred homes. The idea is that any innovation can be picked up and implemented at full scale from one of our partner organisations.

Ofwat: You've talked about accelerated learning. But it's often cited there is a slow rollout of products in the water sector. Will the fund help combat that?

Bob: Yes, the most important thing about the fund is it is seeking to adopt technology fast. There's no shortage of great trials around the water sector. What there is is a shortage of people taking something that's already proven and working, for example from overseas, and bringing it and implementing it over here. So implementation – for anyone who's worked around the innovation space in the water sector – is the key to success. Because there's some great technology out there but the adoption isn't always great.

So the whole point of the fund is that you've got you've got this relationship with the other organisations such that you can pick up the results of their trials and make decisions on it straight away and implement them at scale.



I've got two halves to my role. One is innovation. The other is standards. And to me that transition of taking something from an idea and a test into a standard, that then gets rolled out as standard in your organization, is the key step where we unlock the value in innovation.

The simple answer is the main point of the fund really is about adopting the technologies already proven.

Ofwat: So why is the fund focusing on leakage? And what other areas do you want it to focus on in time?

Bob: I think initially that the focus on leakage is because for us in the UK, as you know, we have a really challenging 15 percent target [for reducing leakage]. It is a sufficient stretch for us to mean that we have to think about it in a very different way and employ all of our best creativity. And we also know that around the globe everyone else is struggling with non-revenue water leakage. Yet some countries have made really great advancements in the leak detection or work with their infrastructure. And it's a real opportunity for us to learn around a common starting point. That's definitely something that the UK companies we need to learn quickly from. And, as it transpires, everyone's very interested in leakage.

It is true to say, that some of the organisations we partner with are keen to then move the conversation on to other areas. As water companies we all deal with the same sort of things: risks around water quality, how to make sure the water always keeps flowing, how to safely take the wastewater away and treat it to a high standard, how to do it at very low energy, how to keep bills affordable. They are the same sets of challenges everywhere. So we're going to start with leakage but actually there's a whole world of opportunity for collaboration beyond leakage.

Ofwat: So what is the scope for other organisations to join the collaboration or join the fund?

Bob: We're very keen for other people to join in. We made a start with the organisations that are already members. But this only really works when people want to join the story. We've got founder members and we've got observer members where we share the results very specifically and technically. But we have committed to share all the results to anybody via our website in time. So everyone will benefit by being able to go onto our website and see the results as they emerge. We'd love more people to join the party, because frankly the more people that join the more things we can try and the more results we can get quickly. And that's what this is all about. So our website will always make it clear how they go about joining. So if there is an organisation out there that's thinking about joining, we'd love to hear from them.

Ofwat: You mention about making things available publicly. Why do that? Why not keep it for members only?



Bob: The challenges that we're just talking about here: about water resources, about leakage, around energy – the circular economy – are global challenges that we're just playing a small part in. So I think it feels like the right thing to do to start a process off – and committing some cash ourselves to that process. Simply put, there is a global challenge. So we want some global solutions. And I think the more we can talk and share the quicker we'll get to the best answers.

Ofwat: **And would you recommend some other organisations collaborate in a similar way?**

Bob: We're not saying this is going to be the panacea and solve everything. We think this is a great way to start a conversation and form some really good relationships with some global partners. Other people have got other innovation ecosystems that they've cultivated over years that work for them. I think the key is that the more we're able to share what we learn openly and quickly the more we're all able to benefit. So it would be great if other organisations collaborate and publish their results widely as we're going to do.

Ofwat: **One last question. What do you see as the main benefits to the fund? For example in terms of everyday excellence, wider environmental and social value and stewardship for the future?**

Bob: If I start more locally to our own customers. We've got some great customers here at Severn Trent. I think this is a very effective way for us to improve the service we can offer to our customers in a very affordable way by pooling resources with like-minded organisations around the world. I think we'll benefit from adopting some technologies that are already in and running in places that we don't yet know about today. They'll already have solved some problems that are causing us and our customers some headaches.

I think in the longer term that the overall concept of publishing everything openly will be a good thing for our sector. As a model for how to collaborate, we hope we might learn a lot from that as well. Aside from the tangible outcomes there's the global benefits for us all working on these global issues. And there's a way of working that means we've got a network of like-minded people that we can call upon. Who knows what problems we might be facing into next? But we'll have built a network to help us look for the solutions.

Ofwat: **So it's exciting times! Thank you very much for your time Bob.**

Bob: No worries. Thank you.