

Digital Tools for New Delivery Models – Exploring the Approach on Sydney Water Transcript

Intro: 0:06

On Season 2 of the People and Place podcast, we will be taking a closer look at the future of innovative program delivery models. How can they be used to foster a culture of collaboration? Can they promote the integration of ideas from a variety of stakeholders and ultimately deliver better outcomes for our projects and the communities we serve? Here's your host, Kate Borg.

Kate: 0:26

Welcome to Henry Okraglik and Ian Chase from WSP. It's great to have you guys here, and it's a really exciting podcast on today. It is all about the blending and the importance of digital engineering and project delivery, and some success stories around that. Thanks guys for joining us. It's great to see you. We'd like to start with you, Ian, can you tell us a little bit about the D4C Sydney Water project? And I'm really curious at what D4C stands for as well.

Ian: 0:56

So D4C stands for delivering for customers, and I'll get back to that at the end of this introduction. I guess, as most people probably know Sydney Water is the largest water authority in Australia, serving about 5 million customers. So we cover, obviously the Greater Sydney down to the Illawarra region and out west to the Blue Mountains and Northern Beaches in Sydney. So it's quite a large geographical area. Sydney Water is an evolving organization. Currently, I would say they've got four major challenges, if you like. The growth that is happening in Sydney and that has been happening for a number of years. Changing customer expectations, customers in Sydney have different expectations now to what they had 10, 20 years ago. Competition, which may sound a bit surprising, but even though Sydney Water appears to have a monopoly of supplying water and sewage services in Sydney, there actually is a competition act and Sydney Water are subject to competition. And that other challenge is climate change. So obviously that is a very real challenge when it comes to drought and coastal environments and things like that. So, you know, a couple of years ago, I guess Sydney Water, were looking at a new model to deliver their capital works program and really looking at the best sort of model that's going to best position them to meet the challenges, I guess, while delivering that world-class services. So they came up with this model called partnering for success P4S, and that is the model that they chose to deliver the next, sort of, round of services. There's probably three key aspects that set it aside from your previous models and also probably for most models you find in Australia in water and probably even, even in other sectors.

Henry: 2:27

The first aspect that it's a 10 year partnership. So Sydney Water typically previously worked on three, five-year, maybe six-year partnerships arrangements. This is 10 years. They're using the NEC, which has the new engineering contracts. That's the UK contract model from the institution of engineers in the UK. So it's the first probably significant or large use of the NEC contracts in Australia. It's a very collaborative form of contract. The other unique factor is it's the first time that within the scope of delivery, they've bundled design construction with maintenance and facilities management. So typically, again, we've seen design and construction bundled together, but now we've got maintenance and facilities management bundled in together. So that provides that opportunity for that sort of real opportunity to look at Totex as a whole within the consortium. So where D4C comes from, um, so Sydney Water have divided into three regions, North, West and South. So when they went out to the markets, they were looking for three consortia to look after one in each region and the team that we're a part of that we put together, there's D4C, Delivering for Customers, and it consists of Comdain, John Holland Lendlease and WSP, and we were successful in winning the Southern region, which is the largest region in Sydney Water.

Kate: 3:41

What I really like about what your story that you told there, it sounds like that I could be involved as a member of the public. Is that sort of what the authority was going for when it was choosing these models? Was it trying to have that affiliation with its customers and being very affiliated with the public?

Ian: 3:57

Absolutely. I mean, Sydney Water has been on a journey, you know, customer centric journey for the last few years, just in listening to senior management at Sydney Water, the last managing director, Kevin Young, and the current managing director, Roch Cheroux, very much customer focused. And that message has come clearly through, you know, throughout the whole process, which is why we were on board. And we've chosen the name Delivering for Customers. In a way, when you talk about water, often you imagine customers are quite remote and not necessarily engaged. And to some extent that's true. The happy customer is someone who never has to talk to Sydney Water. You turn on your tap, your shower, you flush your toilet and everything works perfectly. You don't have to worry about it. And that's the ultimate sign of delivering world-class services. You know, we have great public health, we have clean waterways and we have water in our homes. So in that sense, it's great when the customers are sort of not actively engaged, but on the other hand, a lot of the work we do is out there in the public eye. You know, when we place a pipe, when we build a new asset, often it's very close to the public. And so the way we operate, the way we share information, and that's sort of starting to lead into that digital side of things is looking at new ways to share information about works both within the team, Sydney Water and customers.

Kate: 5:12

Yeah, that's really great. Before we launch into the discussion around digital, because I really want to get Henry involved in that discussion as well. Just want to understand if there's any unique challenges with the model that you're delivering under at the moment. Do you have any walls that you're hitting or problems that need unraveling with this partnering model, even though the model sounds very collaborative?

Ian: 5:34

Yes. Is the answer there's always challenges with these sort of models, particularly when you're changing from one model to another. Interestingly, probably what's worth mentioning as well is early on in the piece when we were sort of forming our team. And I think there's probably an unimportant sort of lead into the digital side of things as well is, as you can imagine, you know, for larger organizations, a lot of expertise in the early days of coming together, there was challenges just then and getting the teams working as one organization. And I was probably the first WSP person involved as the bid lead and the water, sort of, leader. So early on engaging with our partners as we started to sort of understand more about the model and more about what Sydney Water were looking for. And also more about what we wanted to offer a couple of sort of key areas really started to come to the fore . And those were project controls. It was evident early on that project controls was going to be critical to making this thing work. And then the other was technology. I'll use the broad term technology, which I'm sure Henry will delve into in a minute, but the more we discussed it sort of got me thinking, and I had worked with Henry on previous projects and with Brian on project controls. So at various stages, I called Brian and Henry and just to meet the team and just talk to them about what we can offer and that really sort of then got the conversation going. And before you knew it, our expertise was really coming to the fore and producing that. So there was that sort of challenge around the team and coming together. But in terms of putting the model together with Sydney Water, I guess probably the biggest challenge was commercially Sydney Water sort of changing from, from the previous model to this model and aligning the whole business to really align with this new model rather than the previous model. But the positive thing was we had a six month mobilization period, which was, I think very clever of Sydney Water to recognize that, and actually allow that mobilization period. Because often you see many projects where you're, day one, you're just launching into it. So having that six months mobilization was a really, a really good opportunity for us to work collaboratively with Sydney Water, with the other regions as well. That was another unique part of this is we worked really closely for six months with the other consortium and the other two regions and with Sydney Water to identify what things needed to be the same and what didn't to allow that balance between consistency for Sydney Water, but also allowing the innovation to come through from the different consortia , you know , reflecting each consortium's strengths. So look plenty of challenges, but I think just to sort of round off, I guess the most pleasing aspect is from a behavioral and culture point of view, everyone is really committed and engaged and determined to sort of make this work and have a real collaborative culture, not just in name, but you know, a real day-to-day working arrangement.

Kate: 8:09

Yeah. I completely get that. I think we can talk about collaboration till the cows come home, but unless we have that trust and that building of relationships, collaboration, it's just a word it's not a feeling or a culture. So I completely agree with that. Speaking of challenges and somebody who likes to challenge the norms, that would be our friend Henry. So Henry I know you talk about the Sydney Water project as Project in a Box. Where did that name come from and what does that name mean?

Henry: 8:42

So to go back to the beginning, there was a fateful day. I think it was last March when Ian called me up and said, Oh, there's all this technology stuff, that we want to talk about, can you come to a meeting at Lendlease. Should only take an hour of your time. And I should have known then that I was in for six months of bidding process. Once I started getting involved and looking at what Sydney Water required, and they had quite a heavy technology requirements as part of their RFT process. And I started looking at this and thinking, you know, this is a consortia that's going to have ultimately probably 5 or 600 people employed, it's going to be around for 10 years. If we do things right with the technology and the architecture and the systems we put in this could be a model for how you should run a large joint venture or alliance project, and may get the best out of technology and be really efficient in the way you work. And that's where the Project in a Box idea came from, is to try and get all of the disparate applications that you require to run a project of this size and stitch them all together in a way that means that we need minimum number of people moving data around the place and that everything as much as possible would be automated throughout all of these systems for the whole life cycle of the project. So that was really the origins of Project in a Box.

Kate: 10:02

Fantastic. I really liked that. I mean, we were talking earlier about the importance of technology and getting technology right at the start of, of a project. And I'm definitely a subscriber to that. But when we talk about technology, what does technology mean to you in terms of a project and maybe in terms of Sydney Water? What are we talking about when we talk about technology?

Henry: 10:22

Yeah, that's a really good question. I think that there are three key aspects that you look at. One is what are the applications, the software that you buy from vendors that you need to get the job done. So in that category Ian mentioned project control software, which you'd need, and then you have your health and safety, occupational health and safety software. That's usually used by people in the field. You need your financial systems. You need your time sheeting systems in all within this D4C joint venture, there are 23 different applications. So when you've got that number of applications, and then you say, we really want to automate the data that goes between them you get to the second element, which is integration. You need to integrate those disparate applications so that you get the data moving, where you need it to be at the time you need it so it's fit for purpose. So that's the second element. The third element then is you need to equip people with the equipment

they need to do their job. And that's things like the hardware and all of the bits and pieces that you need to do your job. And then the fourth bit is really the network and hosting infrastructure. So you need somewhere for everything to be. And when we started this project, we said that there were three or four main things that we were going to look for. Everything had to be in the cloud. So we weren't going to buy any hardware. We weren't going to do anything on premises. Everything had to be ISO 27001, which is the global standard for data management and security. And we needed everybody to subscribe to single on. So we've all had the experience where you need multiple logins and passwords to log into applications. Now you can imagine if you've got 22 or 23 different applications, you definitely do not want to have 23 login passwords. So we insisted that everything comply to a standard for single sign on so that you log on once and you get access to all the systems that you need just by signing on once. And so that's how we started this project is kind of our idealized model of Project in a Box. This is the ideal way that you could run a project really efficiently.

Kate: 12:26

I think that's really fantastic. I really like a lot of things that you said there. I just know from my own personal experience on projects, you waste a lot of time just going in between applications and that time hits . No one really factors that in, into what that means over the life cycle of a project. Have you looked at that in any sort of statistical sense as to how much time you're saving by having a Project in a Box?

Henry: 12:48

Yeah, it's interesting. Cause when I first came up with this idea and I was pitching it to the senior leadership team from Comdain and John Holland, Lendlease and WSP, and I said, well , Hey , that sounds really expensive for putting in that system and I said to them all , OK, so you guys have worked on a lot of projects. Tell me how much money do you spend just on admin time and admin staff, moving data from one system to another. You tell me the cost of that. And then let's look at what I think it's going to cost to automate that over a 10 year period and let's work out then whether it's expensive or not. And that's how really we got this over the line, because it was obvious to anyone that's worked on any project that even though this looks like a lot of money up front, but in fact, you're going to save yourself six or seven times that amount.

Kate: 13:35

I completely agree. I'll have to talk to you after this podcast about some projects I'll need your help on. So , um , Ian just a technology discussion, it can be a bit of a scary word to some of our clients. How did you get Sydney Water in your collaborative contract environment? How did you get them on board with all these digital engineering changes that we were rolling out? Were they an instant subscriber like I am, or were they a bit more of a challenge to get them across the line?

Henry: 14:02

It was interesting. I think as Henry said, in some ways it was almost, not more of a challenge, but it was a challenge to get it across the line within the team first, once the team was sold then we were all a hundred percent committed and this was the approach that we were really putting forward to Sydney Water, because we were convinced it was going to provide value for us, which means it's providing value for Sydney Water's customers. So I think really a large part of getting it across the line was during the interactive sessions themselves during the tender phase. So after submitting the tender, we had several weeks of interactive sessions on the whole range of aspects of the project. And one of those was technology and Henry and his team, a number of his team would have attended those sessions and to be fair, they were the ones who sold it and got it over the line. And again, it wasn't through sort of any convincing. It was just really through those robust discussions and showing them the benefits of what we were doing. And ultimately then it also came down to putting on our sort of best foot forward in the final tender process after the interactives and having the confidence to say, yep , we've had the discussions with Sydney Water, and now we are putting forward our mobilization solution, that includes a technology solution and Sydney Water accepted that. And we were one of the three successful tenders.

Kate: 15:13

This is a question to both of you really. Do you think that Project in a Box, we've got a 10 year plan for the Sydney Water project. Is it going to evolve over that lifecycle ? Can you see that there's going to be some more improvements along the way, or you look at that and go, well , we're pretty much there.

Ian: 15:28

Well, I think I'll give you my point of view and I'm sure Henry will give you a better answer. But from my point of view, what I can see already is you look, there's some things , the single sign on that sort of stuff, you know , it's just great. As a user now, actually in the delivery phase of the project, things like that, you know , obvious sort of everyday user systems. But I think whatever, and I remember from these conversations, everything we've done is future proof to future ready the insistence on certain apps. And that is certainly an evolution that will happen over the 10 years. Henry could probably talk a bit more about that, but yeah, what I like is that what we've put in now kind of lays the foundations for the next 10 years and whether it evolves by 50% or a hundred percent or a thousand percent, we've got the foundations to do it. So yeah, Henry.

Henry: 16:10

We always recognized that this would be an evolving, changing system . So it's designed to be modular so that we can pull out different components and replace them as we find things better over a period of time. It's just recognizing that the rate of change of technology and improvement in technology is inescapable. So you might as well cater for it to begin with if you know that it's evolving right now. I mean, it's interesting when you , when we started designing this system , this architecture, we had a view of how it was going to work. And as we got more and more into the detail, a lot of things changed during the mobilization phase. And what we're

finding now is people start using the systems, they're realizing that they need different things done. But we knew that in the beginning so we catered for that. So at the moment, I'd say we're in the phase where we're just like , we just getting the systems exactly the way people want them and tuning them. And then I predict we'll go through a period of sort of settling down and then there'll be another round of changes and improvements over time . But yeah , it's a long-term plan and WSP are providing support and hosting services for the life of the project. So there's already built in the financial capacity to keep improving that systems.

Kate: 17:19

I really like it, cause it sounds like such a simple idea, but it's clearly that it's always the simple ideas that evolve into these innovative solutions. And I remember someone told me quite a number of years ago, and this was more in relation to hardware was buy cheap and buy often. Because as you were saying, there's that technological change, that's constantly evolving and occurring. So over a 10 year life cycle, would you think that that's going to still be the way in the case over that 10 year period?

Henry: 17:46

Yeah, absolutely. And probably no more so than in the areas that we're talking about because the engineering sector is, I would say been quite behind the times relative to many other sectors that I've worked in. And so there's huge rooms for improvement here and we're starting to see a wave of digital transformation in the whole engineering construction architecture sector. That whole AEC sector is facing massive, massive upheaval, digital transformation. So I think, you know, if we play our cards, right, we can be at the forefront and lead that transformation and not be a victim to it.

Kate: 18:21

Completely understand what you're saying. Nothing's proved to me more how far behind we are than the digital things that I'm experiencing and watching as a result of the COVID environment. You know, now it's really easy to get things and you wonder, how is engineering going to change to get things the same way as other industries have? Do you think that COVID has proven that to us as an engineering fraternity, Henry, and that we need to really lift our game and change our thinking?

Henry: 18:51

Yeah, absolutely. I think once COVID hit and people were working from home, it exposed a lot of the deficiencies of a network design and architecture that dates from late last century. It's accelerated our wish to move everything to the cloud because then it doesn't matter where in the world you are, where you're sitting, what time zone you're in and it gives the whole company a lot more resilience. Some of it gives you that ability to do some work in India or some in Perth or some in Melbourne or wherever. And it shouldn't really make any difference where you get the work done as long as you've got the architecture and the infrastructure to enable that to happen. And I think COVID's really accelerated WSPs thinking in that.

Kate: 19:32

I also want to tap in Ian whether you believe that COVID is going to change the landscape for you delivering on the project, is that something that you can see that when we all go back to our old lives, if you like, that we're going to have a little bit of a move towards a lack of fear of digital technology.

Ian: 19:51

I hope so. And I can certainly see it already. I hope we will land in a good sort of balanced place. I mean, with these sort of projects, there's certainly an element of there's a benefit that comes with having the team together in an office, not necessarily every day, but you know, we've got a blue collar workforce, we've got people from multiple organizations coming together. So I think there's a cultural and communication piece that is, we'll probably benefit from when we can all spend some time together in an office. Having said that, when COVID hit, I can honestly say that the mobilization barely hit a speed bump. We just kept working as a team. And there was a fear sort of back in March, how are we going to hit mobilization, you know, by the 30th of June very quickly, I think we realized that, you know, it wasn't going to be a problem. I mean, no more a problem than it would have been if, of were working in the office was a challenge. And that's kind of continued now since go live on the 1st of July. I think what I hope we'll see is that's real sort of mix of, as you said, the lack of fear of using technology, acceptance of people working from home, whether it's just to provide work-life balance or just because you don't need to come into the office on that day or for that week, and then finding the right balance between working from home and working in an office, whether that's, you know, your home office or a project office. But certainly we've proven, I think that from a technology point of view, we can make it work. It's really just the cultural piece and how we choose to make it work now.

Kate: 21:18

Yeah. I can really feel the pride when you both speak about this project and that, you know, you've really put heart and soul into it and you can say that there's a long life and some great lessons learned so well done.

Henry: 21:29

You talk about that pride that you hear from us. We won this job on the 13th of December, 2019. We came together as a team for the first time to start mobilization on the 6th of January. And we went live on the 1st of July. So that pride is because it was basically like running a startup. We had absolutely nothing to start with and we've built essentially a whole enterprise in less than six months, including an IT infrastructure and applications architecture that most companies don't achieve in decades. So I'm very proud of what we've done. It's not perfect by any means, and we will get it perfect because that's what we're going to do. And I think we fought disparate organizations together, I think, correct me if I'm wrong Ian, we're up to what 260, 300 people, maybe.

Ian: 22:16

They were very close, getting close to 300. Yeah.

Henry: 22:18

Close to 300 people and they're all working effectively and we've managed to do this all in the space of six months from a zero start. So yeah, I think it's a pretty, something to be very proud of.

Kate: 22:29

Thanks again, Ian, and thanks again, Henry. I've really enjoyed our discussion today and I look forward to seeing Project in a Box, come to fruition on many other projects and hopefully in the transport space. Well, I'll meet you there.

Outro: 22:42

Thank you. We hope you enjoyed this episode of People and Place. To hear more, find us on Spotify, Apple podcasts, and Google podcasts. You can also find us on LinkedIn and Facebook at WSP in Australia and on Instagram and Twitter at WSP_Australia.