On the line



Louise Parfitt chats to incoming IAM President Christian Roberts about railways, risks and resilience

'Either you go and get a degree, or I'm going to fire you.' It's not every day your boss threatens to sack you because they think your talent is too good to ignore. But for Christian Roberts, Senior Vice-President of Asset Management and Business Advisory at WSP – and incoming IAM President – this was the ultimatum issued to him by his boss at Bullen Consulting. Roberts had been working for the company as a draughtsperson, supporting flood alleviation and coastal defence projects, since leaving school halfway through his A levels.* During the four years he'd been there, he had gained additional qualifications, but his boss finally gave him the push he needed to go further. 'It was a big deal, because none of my family had gone to university before,' Roberts says.

While studying for his Bachelor's degree in civil engineering at the University of Birmingham, he was inspired by one of his professors to take his study further, and decided to do a PhD researching the decision support systems for maintenance and capital planning. 'It was my introduction to the world of asset management – how we make decisions in order to maintain our assets,' he says.

On being IAM President

Roberts first became involved with the IAM more than 25 years ago, through the organisation for which he was working at the time. 'It was great: it extended my understanding of asset management from the operational world I was living in at the time to how other organisations were approaching it as well. It also helped me to see how, by drawing on different experiences and capabilities, you can cross-fertilise knowledge between sectors.'

He was part of the council shortly after it was formed and, when he moved to the USA, he helped establish the USA Chapter, eventually becoming chair in 2017. In 2019, he became a board director, and was voted in as the next President in 2020.

'I'm really honoured. To be given the confidence of my peers to lead the Institute forward – particularly given how difficult a time it is right now, as we start to come out of the pandemic – is truly humbling.'

Roberts' PhD was sponsored by Railtrack – a private company in the UK that, at the time, was responsible for managing the UK's rail infrastructure network. On 17 October 2000, he presented his research to the Railtrack sponsors. 'During my presentation, I was interrupted by one of the guys who told me: "What you have described as a risk has actually just happened." That same day, a train had derailed near Hatfield, just outside London, killing four people and injuring more than 70 others. The cause: a fractured rail. Roberts was brought in as a consultant to help develop revised asset management plans for the national rail industry. 'That was a huge piece of work, and was my first real insight into asset management within the operational world, not just the academic world.'

Global view

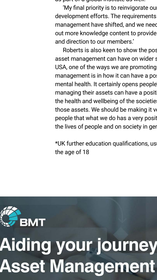
Roberts worked on railway asset management for five years, and then became self-employed, with his clients including London Underground and Merseyrail. He expanded his work more globally, joining GHD, an Australian consultancy that had extended into Europe, where he worked on projects for Merseyrail, the Swiss Federal Railways and the Washington Metro, in DC, USA. 'I got a solid understanding of the global best practice that was happening in the asset management space, which really opened my eyes,' Roberts says.

During his time with London Underground, he had conversations with the USA Federal Transit Administration about how the requirements for asset management were being placed on contractors, and how you could use that to drive performance improvement. 'They took on some of our thinking to help develop the Fixing America's Surface Transportation Act, which is the funding and authorisation bill, at the federal government level, that drives investment within the industry,' Roberts says. 'That put a focus on asset management and I knew it was a growing market in the USA. That was why, ultimately, I moved here – to attend to a market that was expanding.'

Since moving to the USA, Roberts has worked with many of the major rail and transit systems, including leading the development of improvement programmes at New York's Metropolitan Transportation Authority, as well as drafting the first asset management plans for Amtrak. At WSP, one of his current projects is the California high-speed rail line.

'Establishing the asset management capabilities from the outset, with a project that's still being planned, and helping think about how we organise in order to manage these assets in the future and how we capture information now to support that – it's great,' he enthuses.

> **"During my presentation, I was interrupted by one of the guys who told me, 'what you have described as a risk has actually just happened'. It was the same day as the Hatfield rail crash"**



Different focus

The importance of this early involvement of asset management is key for Roberts, especially as the issue of climate change becomes more urgent, and inclusion and equity become a priority. It is no longer enough to think about assets from a maintenance or capital planning point of view, but rather consider how we manage assets to achieve goals and objectives.

'Through 2020, those goals and objectives have shifted,' he says. 'Now we're not just thinking about a customer level of service – running x number of trains or providing x gigawatts of power. We need to think about how we invest and provide access to assets in an equitable way; how we ensure these assets are more resilient – and their impact on the climate.'

Roberts believes using digital resources will help improve access to assets, but an area that needs to get better is the profession's ability to tap into technology for analytical purposes. 'We've still got an awful lot of clients that are playing catch-up in terms of capturing, maintaining and using quality information about their assets,' he says.

There has also been a significant shift in the reliance on major infrastructure, such as increases in transportation needs, and in the demand for power and water, which is being seen across the globe. These increases really put pressure on systems, especially as assets age. 'What we've seen during the past few years are the impacts of climate change on our assets, but also an understanding that our assets have an impact on climate change as well. We're starting to see a recognition that, to support the goals and objectives of governments and organisations, we need to make significant changes to how we deliver assets and how we manage and deliver the services for those assets over time.'

Global awakening

It is the beginning of a global awakening, according to Roberts. 'Last year, we had the most active hurricane season on record, and the worst fires on record in the USA, Australia and elsewhere. People are waking up to the fact that they have to pay attention to this. We're also seeing a much bigger focus on equity and social justice, including making sure our transport systems are providing equitable access to other services, such as schools and community facilities and hospitals.'

> **"To be given the confidence of my peers to lead the Institute forward is truly humbling"**

On downtime

Since moving to the USA, Roberts enjoys the car scene and spends most weekends riding a Harley Davidson. Earlier in his career, between the demands of a job that often took him overseas and three young children at home, he just didn't have the time for hobbies, he says.

His children are now aged 20, 18 and 15. His 18-year-old son is looking at what to do for a career and recently asked Roberts to explain what he does for a living.

'I said: "I fix problems. I go into an organisation and figure out what doesn't work, and I fix it. Whether that's helping them understand their physical assets more, or helping them identify what they should invest in, or enabling organisation development and technology transformation, I fix the problem," Roberts says. 'I don't know whether he got it or not, but I think he realised there are a lot of problems!'

Did he have an idea at his son's age what he wanted to do? 'No! The reason I dropped out of A levels is because, up until that point, I had intended to join the Royal Air Force. But it wasn't until I went to officer selection that I realised I didn't really want to do that.'

The one thing he knew he did want to do was travel and work overseas, and his career in asset management has provided the opportunity to do this. So where, out of all the places he has visited, would he like to be right now?

'I've got a real soft spot for the Middle East and Stockholm, and I've been to many places in Africa and Australia that I love so much. But honestly, right now, I'd love to be back on the Wirral [in England] with my mum and dad, having a full English breakfast, because it's been such a long time since I've been home.'

As incoming President, it is no surprise to hear Roberts say that the IAM has a key role to play – as a leader, an innovator, and a knowledge-sharing community. The COVID-19 pandemic was a different challenge from many faced before, because it didn't affect the assets so much as the organisations that manage them. It also brought other challenges for the profession: people retired early, while others moved into different industries.

As much as we've been focusing on resilience of assets, we now need to focus equally, if not more so, on the resilience of organisations,' Roberts says. 'We've definitely got a skills shortage. It's something we, as Institute, are going to have to step up to and help resolve over the next decade.'

Positive impact

Roberts doesn't have a decade as IAM President: he has two years. So, what are his priorities during the next 24 months?

Providing more digital services is key. It is something the Institute has been thinking about for some time, but it has become a higher priority since the pandemic,' he says.

We need to keep extending our reach beyond engineering, into other sectors, such as financial and technology, but also to globalise the Institute. We need to make sure we've got a local presence, where members can engage with a chapter but be recognised as part of a global Institute as well.

My final priority is to reinvigorate our knowledge-development efforts. The requirements for asset management have shifted, and we need to be putting out more knowledge content to provide that guidance and direction to our members.'

Roberts is also keen to show the positive impact asset management can have on wider society. 'In the USA, one of the ways we are promoting asset management is in how it can have a positive impact on mental health. It certainly opens people's minds to how managing their assets can have a positive impact on the health and wellbeing of the societies that rely on those assets. We should be making it very clear to people that what we do has a very positive impact on the lives of people and on society in general.'

*UK further education qualifications, usually taken at the age of 18

On connectivity and wider thinking

On being *Assets* editor

'I was the deputy editor of *Assets* for one, maybe two issues, and then the editor moved to Australia and I became, by default, the editor of the magazine. Then, the publishing house we were using closed, so not only was I the editor, but I was also the publisher of the magazine, working with a colleague who had an appalling ability to misspell anything – including the word 'assets', which we discovered at the 11th hour was spelt wrong on the cover!'

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