

# Connecting communities in Scotland

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Steven Murdoch is **AECOM**'s Rail Lead for UK & Ireland. Speaking to RBD, he explained how the infrastructure consultancy is helping to challenge inefficiencies, support decarbonisation and connect communities in Scotland.

## Can you give some examples of what's worked well in Scotland in the current Control Period?

Scotland's Railway is quite a tight-knit community, when Network Rail Scotland award frameworks, they are loyal and work collaboratively with these suppliers. AECOM is on one of the main design frameworks, and then you have got a core group of contractors that are trusted delivery partners. What I think has worked well is coming together as an industry collective and looking for the right people and organisations to deliver certain schemes. While, in a number of instances, it's not been a formal alliancing-type arrangement, we've brought those behaviours to the fore within the delivery teams we have been involved with - focusing on a common end goal and adopting a truly collaborative approach.

A number of recent schemes - including the enhancement of the railway between Aberdeen and Inverness - have seen AECOM and other designer and contractor organisations come together and do just that. Other notable projects include the new Inverness Airport railway station and associated infrastructure, which has just opened, the latest station to be added to Scotland's railway.

Ultimately, AECOM and its partners trust each other to deliver, this has been a real positive. There's also that drive to not disappoint, and to do the right thing for the industry.

### **Are there any lessons learnt from current Control Period to take forward to CP7?**

There are certainly a few things around the funding and efficiency challenge. Historically, the documents outlining project requirements have been very prescriptive, and I think the industry could improve by doing less of that. Instead, it should be about getting the right organisations involved early, looking at outcome-focused problem statements, and letting us, as industry partners, innovate and develop solutions. When documents are overly prescriptive, it is more difficult to do that.

This approach is linked to what we are doing with SPEED, PACE and MVP. If we're going to drive those approaches forward, we need to bring stakeholders and partners along on the journey; we've got a real opportunity to work as a collective.

It's also important to challenge the way things have been done historically. On one recent station scheme, AECOM's lead engineer challenged a requirement for platforms that were longer than necessary. As a result of our engineer's considered approach, platform length was reduced and cost savings made, and ultimately a more efficient solution was delivered.

### **How can we build on efficiency realised during CP6?**

A range of issues have come to the fore during discussions with Network Rail. One is the need to build on the integration currently taking place, working as a true industry collective. Talks also focus on innovation, and how we can approach things in a smarter way. Investment in skills is equally important. These ideas are routinely referred to as the 'three I's' – integration, innovation, and investment.

Another term that often comes to the fore is 'revolt'. If we've come up with smart new delivery methods, but encounter 'blockers' that make it difficult to implement them, Network Rail encourages us to 'revolt' – escalate the issue, rather than simply reverting to old ways of working.

Our update discussions with Network Rail are also very much around decarbonisation. Then, wrapped around it all is the idea of efficient delivery – smart ideas that deliver more for less.

The companies that address these issues will be the ones trusted to deliver in future control periods.

### **What are the priorities/objectives in your region?**

There continues to be an ambition to open up communities, and there's been quite a significant investment in new stations and new railways. When you look at the Borders railway, you can see how successful that's been, and connectivity linked to the economic regeneration of areas is a real priority for our region.

Alongside that is actively encouraging more freight onto the railway, which is linked to the decarbonisation agenda, and the question of how we can make it easier for the industry to work with third parties and

attract new business. Indeed, there's a drive to decarbonise the railway in Scotland by 2035, and that's a big challenge. It involves a lot of interdependencies and is tied to how we attract more customers onto the railway and ensure that we have the infrastructure to support that.

These are financially challenging times for the industry, and for me, it comes back to bringing to the fore the best we've got to offer – driving down unit costs, delivering more for less, and embracing technologies and solutions that support those efforts.

### **What does the industry need to do to achieve them?**

I think collaboration is key. To ensure that we, as designers, are developing the right solutions, we need to have the right touchpoints with principal contractors, fabricators, piling specialists, hauliers etc. Collaboration enables us to design products that are not only in line with our construction partners' expectations, but also sit within the available funding envelope. It doesn't necessarily mean coerced partnerships; bringing the right people together at the right time will drive the right project outcomes.

There's also the question of how we align works to maximise track access. I think there's more that could be done on this with a focus on how we collaborate as an industry collective in reviewing and integrating workbanks with the aim of maximising the works which can be done in line of route closures of the railway. Visibility of workbanks is key to this.

### **What new ways of working are you looking forward to implementing over the next few years?**

There's a lot we could learn from other industries, and I'm keen to look at things like design automation, modularisation, and off-site fabrication. Those approaches would limit boots on ballast and expensive weekend possessions, as well as shortening more expensive track access periods.

As discussed, we've also got quite prescribed standards, and have historically tended to design to these. I think, as an industry, we need to reflect on this. We have highly skilled Engineers who must use their technical and industry expertise to challenge the norm, this includes standards. We want our Engineers to 'engineer' and not to have their smart thinking and engineering judgement being overly constrained. We must also continue to attract Graduates and Apprentices to the industry, their smart thinking and embracing of digital technologies have a critical and essential role in the industry going forward. Embracing technology will greatly support our efficiency drive.

For example, where solutions are obvious, do we need to go through a three or four-stage design process? There are a number of instances where I think we could get better at fast-tracking processes and procedures, while of course ensuring that any associated risks are still captured and dealt with at the appropriate time.

### **CP6 was an extraordinary period, particularly with the impact of the pandemic, has this changed your view of the benefits of rail?**

Different parts of the sector are bouncing back at different paces, and when you look at the curve of railway usage, it's probably not as wide as it was pre-pandemic. I think the bounce-back stats around

leisure and tourism usage will have an impact, both in terms of when we access the railways, and which levelling-up schemes become a priority. In recent years, there's been a real focus on more tourist-orientated areas, and we have an opportunity to deliver trains for tourist and leisure users making Scotland in all its beauty a more accessible destination.

Bill Reeve, Rail Director at Transport Scotland, consistently talks about the need to balance net zero carbon, net cost, and safety. From a funding perspective, we are in competition with other sectors to secure this, hence we must demonstrate that we can put forward the best business case for the schemes we want to deliver – demonstrating how they tie into the post-pandemic bounce-back and benefits to the wider economy.

We've got to ensure that we're absolutely robust in this approach and in doing so ensure that we are able to articulate the wider benefits this investment in the railway delivers to Net Zero, the wider economy and to the benefit of the customers to the railway, both freight and passengers. If we cannot demonstrate this, why would we expect funding to be made available.