

Rail must battle for its share of the digital pie

The International Railway Summit reunion breakfast held on September 22 in Berlin produced a lively debate on digitisation and what the rail industry needs to do to realise the benefits on offer. Kevin Smith was in the audience.

DIGITISATION and the growing importance of internet-connected smart components and technology in future rail systems was the major theme and talking point of InnoTrans 2016.

Suppliers were understandably enthusiastic to demonstrate their latest innovations and solutions in fields ranging from rolling stock and infrastructure maintenance to passenger information and connectivity. Yet many questions remain over how the rail industry can effectively reap the potential cost and efficiency savings on offer.

In reality, digitisation is nothing new for the railway industry. For years before phrases like the Internet of Things were coined, rail operators and infrastructure managers have used machine-to-machine technology and data analysis tools to improve the maintenance and performance of railway assets.

Yet as more industries also embark on their own "digital revolution," the fight to secure the precious bandwidth that these services require is heating up. This led Mr Josef Doppelbauer, executive director of the European Union Agency for Railways, to urge the industry to act to protect the bandwidth it has already secured and will require in the future for mission-critical applications.

"Digitisation is an opportunity but it is also a threat," says Doppelbauer, who was speaking at the International Railway Summit reunion breakfast hosted by IRJ and IRITS in Berlin.

"Digitisation is multi-modal; it is about an end-to-end seamless journey. But there are limits on bandwidth. The automotive sector needs huge bandwidth of up to 500MB/s

for automatic cars. My fear is that they will take it all and we will lose the little bit we have for things like ERTMS."

Doppelbauer's stark warning led to a wider discussion of how the industry can effectively secure the coverage it needs. In particular, participants warned that the industry must find a way to improve cooperation between its representative bodies, which are often criticised for failing to establish a shared voice on the key issues.

Mr Libor Lochman, executive director of the Community of European Railways and Infrastructure Managers (CER), made a similar case for the industry to



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act as one to secure universal access to cellular network coverage, this time by lobbying the EU to introduce specific regulations guaranteeing coverage.

Services such as onboard Wi-Fi for passengers are reliant on the 3G and 4G service provided by private third-party cellular networks. Yet to the frustration of railway operators and infrastructure managers, serving the railway is often a low priority for the networks. This means that blackspots are commonplace, which makes providing a consistent onboard service almost impossible.

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operators to ensure they understand our needs," Lochman said. "Our voice is still relatively small, which is why we believe that we

about how it will approach Shift²Rail 2.

"The deadline for Shift²Rail 1 in 2020 is getting quite close and it is likely that the commission will begin to ask about the next stage next year," Citroën says "This will require lobbying by all of us because it requires investments in networks across the Union."

The likelihood that many of the projects from these research initiatives will utilise digital technologies only adds to the urgency to secure the level of coverage that rail needs today and in the future.

If not the much-heralded "digitisation of the railway" will simply not happen, which could potentially be disastrous for rail in the long term.

"It must be achieved, because it is what society expects," Lochman says. "The younger generation have grown up with IT-technology, and are able to find anything on their iPhone. Experience shows that if they can't find it, they will go elsewhere. And it's the same for us. It is not a choice but an obligation to deliver these changes, because if we haven't done it in three years from now, we will have lost everyone. They would have moved to other modes of transport." **IRJ**