BSA
The Business Services Association
130 Fleet Street,
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Briefing Note

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Speakers

Steve Bagge, Business Development Director (UK Transport), Sopra Steria

Stuart Calvert, Head of Early Contractor Involvement, Digital Railway

Caroline Coates, Partner – Head of Automotive, DWF LLP

Stephen Hart, Senior Innovation Lead – Connected Transport, Innovate UK

Jonathan Moss, Partner - Head of Transport, DWF LLP

Dr Jennifer Schooling, Director, Cambridge Centre for Smart Infrastructure and Construction

Transport Technology: driving our network forward

The BSA, in conjunction with Associate Member DWF LLP, held an event on the role and development of technology and data in the transportation sector.

The rate of technological change in both the transport sector and beyond has been well documented and discussed. Understanding how best to harness the ever increasing rate of technological change is the not insignificant challenge facing the transport sector. Projects such as Crossrail have shown us the potential for what can be achieved with technological innovation and effective use of data.

It was in this context that BSA members, local authorities and transport providers joined together to discuss what the transport network of the future might look like. DWF's Jonathan Moss opened proceedings, outlining the key findings of a recent DWF report into transport and economic prosperity. 77% of the business leader surveyed as part of the report said 'technology' was their most important business lever, with the majority saying cost-saving will be the number one benefit of improved transport tech. Additionally, a healthy majority said UK regulation supports the deployment of smart transport technology.

Following his welcome, Jonathan introduced the afternoon's first speaker, Stuart Calvert of Digital Railway. He began by asking how we can make better use of our existing rail infrastructure through digital solutions. He went on to point out that the UK has experienced the biggest growth in rail passenger demand anywhere in Europe over the past 20 years. Technology, Calvert said, allows us to put all our asset data to a 'digital twin', improving our ability to maintain the network. Rail network operation is still largely based on Victorian principles, he went on to say. Calvert concluded that rail construction and maintenance needs a shift towards modular, off-site construction, using automation and robotics to reduce possessions and minimise disruptions for rail users.

Stephen Hart of Innovate UK was the next speaker on stage. He began by highlighting his organisations role in boosting economic growth through innovation. Capacity is set to continue being squeezed over the next few decades and we can't keep building new roads and rail, Hart said. As a result, he went on to say, we will need to look to digital to help alleviate congestion. He concluded by asking how we can bring together emerging digital sectors to improve innovation in both the existing transport network and newly built infrastructure.

DWF's Caroline Coates was the next to speak, looking at overcoming some of the barriers to a connected road network and automated vehicles. She began by emphasising that the key to connected digital transport is data, bringing with it massive opportunity and significant risks. Consumers have

been willing to share their data in many cases, because it brings a benefit either in terms of cost-saving or improved service, such as usage based insurance. Caroline went on to point out how Singapore has agreed a deal with Scania and Toyota to open up the sharing of transport and automotive data. She concluded by pointing to an RAC report which highlighted the enormous gap between where we are now and where we need to be in terms of infrastructure to support autonomous vehicles.

The afternoon's first Q&A session began, following the conclusion of Caroline's speech, with the first three speakers taking part. The session included questions and discussion of how organisations can best share good practice of digital innovation in transport and how policy and regulation can keep pace with the rate of technological change.

Following a quick coffee break, the Infrastructure & Project Authority's Keith Waller kicked off the afternoon's second session, entitled 'building transport digitally'. He began by highlighting the UK's £60bn per year infrastructure spend, as well as the growing productivity gap between different industries. He went on to highlight technologies potential impact on the different layers of infrastructure performance, including project, asset, network and system. He point out that 95% of the infrastructure we have now will still be here in 20 years, asking how we can make sure we improve capacity on this network.

Dr Jennifer Schooling, Director of the Cambridge Centre for Smart Infrastructure and Construction was next to the stage. She opened her speech by outlining her definition of smart infrastructure as the application of the digital to the physical. She went on to ask if a car can be smart enough to tell you when the brake pads are wearing, why can't we do the same with infrastructure? Digital solutions, Schooling said, can allow us to get increased capacity out of the existing infrastructure. The industry is particularly good at gathering data and using it once, but the management and 'curation' of data needs improvement, she went on to argue. She concluded her presentation by saying there is a huge amount of potential in digital infrastructure but that we need to figure out how to move on from a one-off good case studies to business-as-usual mindset.

BSA member Sopra Steria's Steve Bagge was the final speaker of the day. He began by highlighting how we can use digital monitoring systems to better understand and improve our transport network. He went on to point out examples of the use of data to monitor transport usage, such as TFL using Wifi usage to help build business cases for station redesigns. Private providers have a role in shifting the paradigm of solutions to transport problems, Bagge said. He concluded by asking whether technology may in fact reduce our requirement to travel.

In the final Q&A session, the audience raised issues such as the culture of people allowing (or not allowing) the use of new technology on construction projects and the role of the internet of things. DWF's Jonathan Moss then brought the event to a close, summarising the key points of discussion raised throughout the afternoon.