

New Civil Engineer
TechFest.
 FESTIVAL OF INNOVATION AND TECHNOLOGY 2021

2 December 2021

TIME	PROGRAMME
08:30	Registration and refreshments
08:55	TechFest Welcome Claire Smith , editor, New Civil Engineer
09:00	KEYNOTE: Ethically embracing digital - Are we sleep-walking into the future? Delving into the potential issues around digital and smart technology in the built environment: How digitisation can make us more vulnerable in the drive for smarter infrastructure and an intelligent and more secure built environments; How smart can be stupid with regards to diversity, equality and inclusivity; How the digital world can actually make us less safe and secure in reality. Dr Fred Sherratt , professor of construction management, Anglia Ruskin University
09:30	INDUSTRY EXPERT: A new approach to construction - Building and testing the first 3D printed steel bridge Discover how the world's first 3D printed steel bridge in Amsterdam was built and tested and explore how 3D printed steel could shape construction projects in the future. Leroy Gardner , Imperial College London
10:00	KEYNOTE INTERVIEW: Spotlight on Network Rail A fireside chat with Network Rail's Martin Frobisher sharing insight on how the organisation is embracing technological change and what they need from their supply chain to help them achieve net zero, deliver projects efficiently and better manage assets. Martin Frobisher , group safety, technical and engineering director, Network Rail
10:30	Networking break Live judging – drop into one of our live judging sessions to hear the biggest innovations in the industry. Categories: Best Use of Technology: Carbon Reduction Best Use of Technology: Offsite and Modular

<p>11:00</p>	<p>Infrastructure Stage</p> <p>A deep dive into how project teams and asset owners are driving innovation in the short and long term.</p> <p>11:00 – Illustrating the benefits of augmented delivery to combine human skills and machine learning Exploring how human and machine collaboration enhances the industry’s capabilities and drives efficiency. Understanding the impact of augmented delivery on infrastructure projects and asset management and the benefits for the whole supply chain. Richard Shennan, group digital delivery director, Mott MacDonald</p> <p>11:25 – Demystifying cryptocurrency and blockchain to enhance major projects and better understand future estimating processes Unearthing how major projects can benefit from cryptocurrency and blockchain and what this means for quoting major projects. Learn how to have better visibility of materials, labour and funds throughout the supply chain. Explore how major projects can have a greater impact on the country’s economy. Howard Mitchell, head of innovation, HS2</p> <p>11:50 – Using technology to safely extend the life of existing assets Understanding existing assets fully to be able to enhance and prolong the life of existing infrastructure to reduce the need to build new assets. Keith Solts, technical manager, Environment Agency</p> <p>12:15 – Group question and answer session</p>	<p>Building Stage</p> <p>A deep dive into how project teams and asset owners are driving innovation in the short and long term.</p> <p>11:00 – The Hickman - Developing a smart building to meet the demands of occupiers The Hickman is the first building in the world to achieve the prestigious Platinum SmartScore rating. Uncovering the technology and innovation involved in Great Portland Estate's smartest building to date, from sensors and digital twins to its smart workplace app, sesame. Understanding how these technologies will increase the productivity and efficiency of the space for occupiers and to optimise operational energy to help the developer meet its net zero ambitions. James Pellatt, director of workplace and innovation, Great Portland Estates</p> <p>11:25 – Constructing sustainable homes with modular and futureproof systems Delving into an affordable and high-quality approach to the housing crisis that prioritises climate neutral materials and building methods that create minimal waste. Rosie Toogood, CEO, Legal & General Modular Homes</p> <p>11:50 – Panel: Establishing a ‘golden thread’ of information throughout a project Showcasing how to collect data through digital recording. Improving workflows to establish a record for each building to improve safety and accountability. Matt Gough, head of innovation, Mace Jack Ofstrowsky, head of quality and design, Southern Housing Group May Winfield, director, Buro Happold</p>
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<p>12:30</p>	<p>Networking lunch</p> <p>Live judging – drop into one of our live judging sessions to hear about the biggest innovations in the industry.</p> <p>Categories: Best Use of Technology: Carbon Reduction Best Use of Technology: Offsite and Modular</p>	
<p>13:30</p>	<p>Infrastructure Stage</p> <p>13:30 – Using data to understand the needs of end users and improve transport infrastructure planning</p> <p>Analysing how to mine and harness data to better understand how infrastructure is used and make informed decisions to improve the transport network.</p> <p>Ruairidh Roberts, UK country manager, Waze</p> <p>14:00 – Table talks</p> <p>How can machine learning, augmented reality and data help design, build and manage infrastructure?</p> <p>Urszula Kanturska, digital engineering and technology integration lead, Hinkley Point C Lila Tachtsi, asset management director, Highways England Kate Young, innovation lead, TEAM2100, Jacobs</p> <p>14:40 – Feedback session</p>	<p>Building Stage</p> <p>13:30 – Integrating digital twins in building management and city level models - Helsinki 3D+</p> <p>Sharing insight into building management (in particular, energy data) in city models and exploring its role in supporting a city’s carbon neutrality goals.</p> <p>Jarmo Suomisto, project manager, architect, Helsinki 3D+</p> <p>14:00 – Table talks</p> <p>How can data and technology be used to better help the industry retrofit assets and increase whole life performance?</p> <p>Helen Causer, office and investment lead, King's Cross, Argent Henry Fenby-Taylor, Centre for Digital Built Britain Dr. Eleni Papadonikolaki, associate professor in digital innovation and management, University College London Elizabeth Reynolds, director, Urban</p> <p>14:40 – Feedback session</p>
<p>15:00</p>	<p>Networking coffee break</p>	
<p>15:30</p>	<p>INNOVATION INCUBATOR Live Pitches</p> <p>Live pitches and judging for the Innovation Incubator category, where you will hear from the best Start-ups and SMEs in the industry. Shortlist to be announced in the Autumn.</p>	
<p>16:20</p>	<p>KEYNOTE INTERVIEW: Spotlight on Highways England</p> <p>A fireside chat with Highways England’s Phillip Proctor sharing insight on how the organisation is embracing technological change and what they need from their supply chain</p>	

	to help them achieve net zero, deliver projects efficiently and better manage assets. Phillip Proctor , head of research, Highways England
16:45	TechFest closing remarks
17:00-18:45	Informal networking
18:45	VIP drinks reception
19:00	Main drinks reception
19:30-22:30	Tech Fest Dinner and Awards Winners from all the categories will be announced during our gala dinner event.
22:30-00:30	After Festival Party
00:30	Carriages

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