

## Day 1 — 26th March 2019

- 9:00–9:30 **Registration and Coffee**
- 9:30–9:40 **Introduction — TWENTY65**
- 9:40–10:40 **Plenary Session: Resilience** ●
- MC:** Jonathan Abra, *KTN*  
**Key Note Speaker:** Rachel Fletcher, *CEO, Ofwat*  
**Key Note Speaker:** Philip Graham, *CEO, National Infrastructure Commission*
- 10:40–11:10 **Panel Discussion: Resilience** ●
- Rachel Fletcher, *Ofwat*  
 Philip Graham, *National Infrastructure Commission*  
 David Butler, *TWENTY65*  
 Toby Harding, *Kier*  
 Andrea Gysin, *Thames Water*
- 11:10–12:00 **Posters and Innovation Showcase**
- 12:00–13:00 **Lunch — Restaurant**
- 13:00–14:30 **Parallel Sessions 1A–4A** ●●●●●
- 14:30–15:00 **Break for Coffee**
- 15:00–16:30 **Parallel Sessions 1B–4B** ●●●●●
- 17:30–19:30 **Evening reception — Nibbles and Drinks in the Iris Lounge, Cloud 23, Hilton Hotel**

## Day 2 — 27th March 2019

- 09:00–09:30 **Registration and Coffee**
- 09:30–09:35 **Introduction — TWENTY65**
- 09:35–10:35 **Plenary Session: Planning for Water** ○
- MC:** Chris Digman, *Stantec*  
**Key Note Speaker:** Jo Harrison, *Director of Asset Management, United Utilities*  
**Key Note Speaker:** Bob Stear, *Chief Engineer, Severn Trent*
- 10:35–11:05 **Panel Discussion: Planning for Water** ○
- Jo Harrison, *United Utilities*  
 Bob Stear, *Severn Trent*  
 Liz Sharp, *University of Sheffield*  
 Jess Pheonix, *Defra*  
 Matthew Pluke, *Anglian Water*
- 11:05–12:00 **Poster and Innovation Showcase**
- 12:00–12:45 **Lunch — Restaurant**
- 12:45–14:15 **Parallel Sessions 6A–8A** ○●●●○
- 14:15–14:45 **Coffee and Innovation Showcase**
- 14:45–16:15 **Parallel Sessions 6B–8B** ○●●●○
- 16:15–16:30 **Closing remarks**

**Day 1 – 26th March 2019**

	13:00	13:30	14:00	14:30	15:00	15:30	16:00	16:30
<p><b>Session 1A</b> <b>Innovation</b> Room: Deansgate 1</p>	<p><b>Early stage research and Emerging Solutions</b> 13:00 – 14:30</p>				<p><b>Session 1B</b> <b>Innovation</b> p.20 Room: Deansgate 1</p>	<p><b>Early stage research and Emerging Solutions</b> 15:00 – 16:00</p>		
<p><b>Session 2A</b> <b>The Future of Catchment Management</b> Room: Deansgate 2 Chair: Jo Clark</p>	<p><b>Future concept of operation</b> John Sanders and Garry Sanderson <i>Ricardo and Visualyze Solutions</i> 13:00 – 14:30</p>				<p><b>Session 2B</b> <b>The Future of Catchment Management</b> p.22 Room: Deansgate 2 Chair: Virginia Stovin</p>	<p><b>Harvesting data from rainwater systems</b> David Butler <i>TWENTY65</i> 15:00 – 15:30</p>	<p><b>The application of in-river sensors and satellite data for monitoring dissolved organic carbon in surface waters</b> Jonathan Ritson and Nigel Graham <i>TWENTY65</i> 15:30 – 16:00</p>	<p><b>Session C</b> <b>Customer Centricity</b> p.28 Room: Deansgate 3 <b>Customer centricity: Lessons learned from the energy sector – British Gas</b> Emma Lampert, <i>Localz</i> 16:00 – 16:30</p>
<p><b>Session 3A</b> <b>Innovation in our Water Companies</b> Room: Deansgate 3 Chair: Caroline Wadsworth</p>	<p><b>Water Innovation in the UK: history and a view forward</b> Vanessa Speight and Caroline Wadsworth, <i>TWENTY65</i> 13:00 – 13:30</p>	<p><b>How innovative engagement builds personal resilience</b> Lee Pitcher, <i>Yorkshire Water</i> 13:30 – 14:00</p>	<p><b>Risk: So much Innovation, and yet so risk averse</b> Jeanette Garwood, <i>TWENTY65</i> 14:00 – 14:30</p>		<p><b>Session 3B</b> <b>Innovation</b> p.24 Room: Deansgate 3 Chair: Tom Flood</p>	<p><b>A new way to measure dewaterability of sludges quickly and accurately – the DET</b> Miklas Scholz and Nick Hawkins, <i>Salford University, Lund University and Johannesburg University</i> 15:00 – 15:30</p>	<p><b>Optimisation of sewers: How can biology inspire management of our networks?</b> Claire Fenwick and Louise Keogh, <i>Nuron</i> 15:30 – 16:00</p>	
<p><b>Session 4A</b> <b>Resilience</b> Rooms: 2/3/4 Chair: Richard Dawson</p>	<p><b>Resilience: What is it and how can we implement it?</b> Charles Rouge, <i>The University of Sheffield</i> 13:00 – 13:30</p>	<p><b>Securing a sustainable water future through inter-basin water transfer</b> Majed Khadem, <i>TWENTY65</i> 13:30 – 14:00</p>	<p><b>Can nature based solutions for water management help address social inequalities?</b> Clair Cooper, <i>Durham University</i> 14:00 – 14:30</p>		<p><b>Session 4B</b> <b>Planning for Water</b> p.26 Rooms: 2/3/4 Chair: Tony Conway</p>	<p><b>Optimal strategic water network planning considering cost, resilience, network performance and business risk</b> Christina Chiu, <i>Arcadis, Optimatics and Southern Water</i> 15:00 – 15:30</p>	<p><b>AI-based software instantly predicts the impact of housing growth on network drainage</b> John Barnes and Hedy Watt, <i>EnginSoft and AECOM</i> 15:30 – 16:00</p>	

## Day 2 – 27th March 2019

	12:45	13:15	13:45	14:15	14:45	15:15	15:45	16:15
<p><b>Session 5A</b> <b>Innovation</b></p> <p>Room: Deansgate 1</p>	<p><b>Early stage research and Emerging Solutions</b> 12:45–14:15</p>				<p><b>Session 5B</b> <b>Innovation</b></p> <p>Room: Deansgate 1</p>	<p><b>Early stage research and Emerging Solutions</b> 14:45–16:15</p>		
<p><b>Session 6A</b> <b>Planning for Water</b></p> <p>Room: Deansgate 2 Chair: Richard Laikin</p>	<p><b>Demand impacts during the extreme summer of 2018</b> Dene Marshallsay, Sarah Rogerson and Mumin Islam, <i>Artesia and Affinity Water</i> 12:45–13:15</p>	<p><b>The potential of reducing carbon emissions by integrating urban water systems and renewable energy sources at a community scale</b> Fei Liu, <i>TWENTY65</i> 13:15–13:45</p>	<p><b>In-pipe condition assessment of cast iron trunk mains – a new approach</b> Tim Evans, <i>Thames Water</i> 13:45–14:15</p>	<p><b>Session 6B</b> <b>Robotics</b></p> <p>Room: Deansgate 2 Chair: Kirill Horoshenkov</p>	<p><b>Robotics for buried infrastructure</b></p>			
					<p><b>The Economic Level of Inspection</b> Keith Walker, <i>WRc</i> 14:45–15:10</p>	<p><b>Machine Learning, the Onsite Teacher and Mentor</b> Wez Little, <i>Control Point</i> 15:10–15:30</p>	<p><b>Workshop</b> 15:30–16:15</p>	
<p><b>Session 7A</b> <b>Engagement</b></p> <p>Room: Deansgate 3 Chair: Alison Browne</p>	<p><b>A taxonomy of mobilisations: exploring the nature, extent and effectiveness of public engagement across the UK water sector</b> Emma Westling, <i>TWENTY65</i> 12:45–13:15</p>	<p><b>Engaging Customers to help bring down sewer blockages and flooding</b> Elvira Gabos, <i>Southern Water</i> 13:15–13:45</p>	<p><b>Climate Change, flood risk management, and public health: Time to return to Victorian values?</b> Anna Kenyon, <i>The University of Sheffield</i> 13:45–14:15</p>	<p><b>Session 7B</b> <b>Innovation</b></p> <p>Room: Deansgate 3 Chair: Vanessa Speight</p>	<p><b>Global Perspectives on Water Innovation</b></p>			
					<p><b>Milwaukee: The Silicon Valley of Water</b> Beverley Ferrara, <i>The Water Council</i> 14:45–15:15</p>	<p><b>Collaborative research on underground infrastructure</b> Bert Bosseler, <i>IKT</i> 15:15–15:45</p>	<p><b>Panel Discussion</b> 15:45–16:15</p>	
<p><b>Session 8A</b> <b>Collaboration</b></p> <p>Rooms: 2/3/4 Chair: Joby Boxall</p>	<p><b>It's About Time! Conflicts in temporal management across the collaborative innovation development chain in the Water Utilities</b> Jeanette Garwood, <i>TWENTY65</i> 12:45–13:15</p>	<p><b>Exploiting Innovation in the UK Water Industry</b> Hans Jenson, <i>UKWP</i> 13:15–13:45</p>	<p><b>The Big Questions facing the Water Industry</b> Steve Kaye, <i>UKWIR</i> 13:45–14:15</p>	<p><b>Session 8B</b> <b>Resilience</b></p> <p>Rooms: 2/3/4 Chair: Kamal Birdi</p>	<p><b>How will we achieve zero leakage in a sustainable way by 2050?</b> Mark Jones and Kamal Birdi, <i>UKWIR</i> and <i>TWENTY65</i> 14:45–16:15</p>			