

# Smart Infrastructure and Systems, in a nutshell

We work to promote the tech-led transformation of infrastructure systems.

Through showcasing the potential of technology in decarbonising, driving efficiency and generating new insights through data capture, we are helping our members reach new customers, shape policy and deliver positive outcomes.

Our work primarily focuses on smart energy, utilities, mobility and cities; working with government, regulators, legal experts, industry and other actors to support deployment and overcome market and regulatory barriers.



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# Benefits of joining the Smart Infrastructure & Systems programme

#### **Market Development**

- •Regular industry briefings of infrastructure markets (energy, water, transport, cities, digital twins).
- •Holistic approach to infrastructure.
- •Access to key stakeholder forums, task forces, external leadership councils.
- •Guidance for companies in their transition to net zero.





#### Networking

- •Multiply your network through numerous events.
- •Raise your profile through speaking opportunities.
- •Utilise our network for creating marketing opportunities and co-design communication strategies.
- •Access to our external media and event partners.

#### **Policy and Regulation**

- Regular policy briefings.
- Opportunities for small roundtable discussions with high level policy makers and ministers.
- Briefing opportunities with regulators.
- Consultation workshops with key teams in government.
- · Access to pre-policy development.
- · Access to procurement opportunities.



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# What do we deliver?



# Our work falls broadly into two categories:

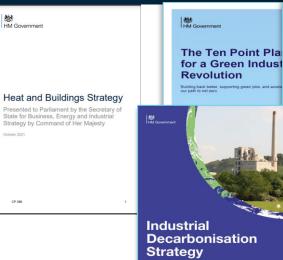
- 1. Policy advocacy
- 2. Market engagement

Across these areas we have held over 20 events during the past year, providing opportunities for valuable engagement with key stakeholders and other members.



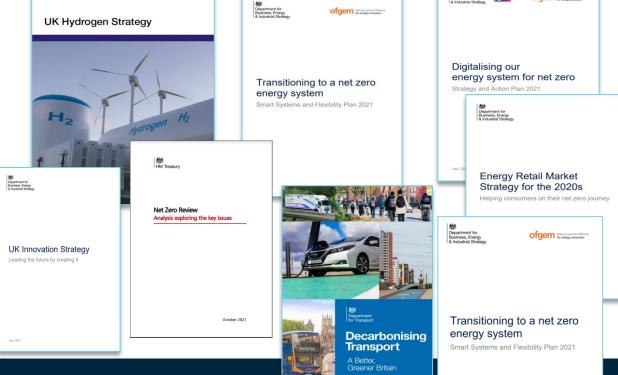
## Policy advocacy

- The Smart Infrastructure and Systems programme works with government and regulators to deliver the next generation of digital tech in the transition to net zero.
- We create a platform for the industry to share their expertise and concerns with policymakers directly through events, roundtables and industry briefings.
- As a trade body, we also reflect our membership's views within our policy positions, consultation responses and direct engagement with elected politicians and officials.







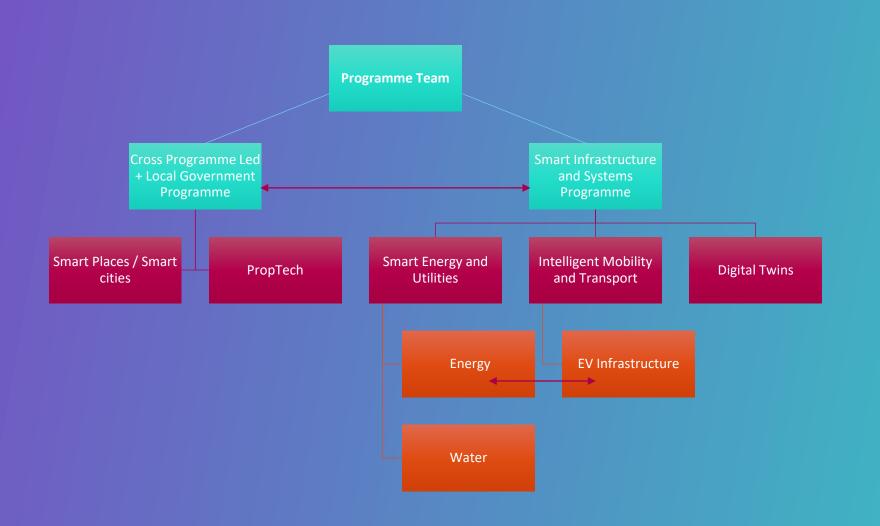


#### What have we done recently?

- We have worked with government to shape a range of flagship policies.
- We have held workshops with members to input into the Transport Decarbonisation Plan.
- We have worked with the Committee for Climate Change on the 6<sup>th</sup> Carbon Budget.
- We provide expertise to the National Data Strategy, National Innovation Strategy, Smart Data Policy, Digital Skills, R&D and financial incentives for digital tech.
- We work with BSI on standards creation.
- We advise the NIC on the impact from digital technologies.

#### How are we structured?





## **Smart Energy and Utilities in 2022**



The Smart Energy and Utilities Programme provides a strong platform of technological solutions in support of delivering a competitive, dynamic, and flexible market. The aim of the programme is to provide leadership in emerging technologies and innovation benefits with a focus on decarbonisation, affordability, accessibility and reliability.

#### **Policy and Regulation**

- Developing a position paper on the digital tech sector priorities.
- · Working with Ofgem and BEIS on flexibility markets.
- Working with BEIS on the Energy Security Bill.
- Strengthen policymakers understanding of key technologies and procurement.
- Regular industry briefings with BEIS, DCMS, Ofgem, and others.
- Advise Ofwat on innovation funding.
- Work with Ofwat on open data for the water sector.

- Showcase industry's expertise for interoperability, data strategies, and cyber security through thought leadership papers, case studies and campaign weeks.
- Supporting members in advance of the shut off of BT's ISDB and PSTN services through the provision of intelligence.
- Working closely with UKRI and InnovateUK to provide guidance to the Strategic Innovation Fund and Prospering to the Energy Revolution for members.
- Speaking opportunities to multiple events through out the year e.g. <u>London tech week</u>; <u>Climate Innovation Forum</u>; <u>Tech and Net</u> <u>Zero Conference</u>, other UK wide festivals and conferences.
- Energy and Water innovation series showcasing new and emerging technologies.

## **Intelligent Transport and Mobility in 2022**



The Smart Energy and Utilities Programme provides a strong platform of technological solutions in support of delivering a competitive, dynamic, and flexible transport ecosystem. The aim of the programme is to provide leadership in emerging technologies and innovation benefits with a focus on decarbonisation, affordability, accessibility and reliability.

#### **Policy and Regulation**

- Promoting a technology and data led transition to Great British Rail.
- Consulting the Government on its forthcoming Transport Bill.
- Shaping emerging regulation for autonomous and self-driving vehicles.
- Ensuring the regulatory environment supports the EV transition.
- Shaping emerging regulation for micro-mobility and Mobility as a Service.
- Ensuring innovation forms a central plank of the Future of Freight strategy.

- Showcase the cross-cutting ways technology can help the transport sector reach net zero.
- Demonstrate to customers how technology can help improve their experience on transport networks
- Highlight the ways technology drives efficiencies within transport systems.
- Unpack and tackle operational vulnerabilities including cybersecurity, supply chain challenges and regulation.
- Advocate for an integrated view of transport systems and work to break down silos between network operators, mobility providers, local and central Government.

#### **Smart Cities in 2022**



The Smart Cities programme is a transdisciplinary, cross-market engagement group that serves to identify, optimise and activate human-centred, inclusive and resilient smart tech adoption across the UK. The group focuses on enhancing strategic relationships between smart tech suppliers and the public sector, building citizen trust in smart city tech, developing UK leadership in smart tech trade, and on the realisation of city-level climate and cyber resilience

#### **Policy and Regulation**

- Working with DCMS, DLUCH, LGA and other bodies to overcome key barriers to deployment.
- Informing DCMS' cyber-security guidance for secure connected places.
- Consulting with the CCS to ensure procurement processes for smart cities do not hinder deployment.
- · Working the BSI to inform standards development.

- Working directly with local authorities and umbrella organisations (LGA / Socitm) to ensure council's understand smart city capabilities and how these can assist them in delivering positive outcomes.
- Driving trust in smart cities through demystifying their technology and promoting transparency.
- Promoting approaches to citizen-centric design and delivery of smart city projects.
- Spearheading innovative approaches to financing and procurement of smart initiatives.

#### Digital Twins in 2022



The Digital Twin working group is a transdisciplinary, cross-market engagement group that plays a pivotal role in enabling the UK's digital twin ecosystem to flourish and serves as a critical source of advice for decision-makers responsible for the delivery of policy, regulation, and investment in the sphere. The DTWG also convenes industry leaders around the risks and benefits of deploying extensible, interoperable and scalable digital twins across multiple layers of the UK economy and society.

#### **Policy and Regulation**

- Work closely with BEIS in response to their Cyber-Physical Infrastructure call for evidence.
- Enabling a National Cyber-Physical Infrastructure to Catalyse Innovation. Understanding the opportunities for connected digital twins.
- Provide expertise to Government on the application of digital twins across sectors.

- Publish the Apollo Protocol Report addressing the language barriers of digital twins between manufacturing and built environment. In collaboration with AMRC, IET, CDBB, CLC, Alan Turing Institute.
- Working with techUK members to strengthen market opportunities for Digital Twins.
- Part of the Advisory Board for the Digital Twin Hub.

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# Who we are

#### Some of our members











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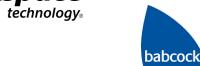






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#### **Involvement within other forums**

- Electric Vehicle Infrastructure Council.
- 2. Secure Smart Electricity Systems Advisory Group.
- 3. Open Networks Advisory Group Energy Networks Association.
- 4. Smart Systems and Flexibility Forum BEIS and OFGEM.
- 5. Flexibility First Forum led by industry.
- 6. Strategic Innovation Fund Steering Group Ofgem and InnovateUK.
- 7. L/13 Smart Energy Systems coordination group BSI.
- Construction Leadership Council (Digital Advisory Group).
- 9. British Energy Efficiency Federation (BEEF).
- 10. APPG on Hydrogen.
- 11. Advisory Group for Digital Twin Hub led by Connected Places Catapult.
- 12. CAV Development Framework Digital Europe (Brussels).
- 13. SMMT Autonomous Vehicle Working Group.
- 14. AVIVA Future of Mobility Working Group.
- 15. Digital Framework Task Group (DFTG) National Digital Twin Programme.
- 16. Smart Cities & Connected Communities External Advisory Board DCMS.
- 17. Smart Cities Standards BSI



# Programme team





#### Teodora Kaneva | Head of Smart Infrastructure and Systems

Teodora's rich background varies from working in business development for a renewable energy lobbying association in Brussels to the fast moving technology innovation startup scene in the UK

She has designed the market strategy for a German renewable energy engineering scale up for the UK, listed on Nasdaq private market, and now one of the fastest growing scale ups in the world. Previous experience also includes managing a renewable energy startup in London, which has built a small-scale biomass CHP power plant. Teodora is passionate about cross-industry collaboration and working together with academia to inform the design of future educational models and skill building.

Most recently Teodora has run the commercial activities and business development at Future Cities Catapult, focusing on innovation in cities, digital health and wellbeing, mobility, and infrastructure. Teodora is a passionate STEM Ambassador and a vocal advocate for women in tech.

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#### Ashley Feldman | Programme Manager Transport and Smart Cities

Ashley joined techUK in 2022 having worked in the public policy and communications industry for four years. He specialised in advising businesses in the infrastructure, built environment and transport sectors on a wide range of issues including stakeholder engagement and corporate reputation management.

Ashley obtained a masters degree in Urbanisation and Development studies at the London School of Economics

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# Thank you

If you would like more information regarding Smart Energy and Utilities or Digital Twins please email <a href="mailto:Teodora.Kaneva@techuk.org">Teodora.Kaneva@techuk.org</a>

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