

Improving people's lives

Smart Infrastructure Solutions



techUK - Brit-twin: towards a national digital twin

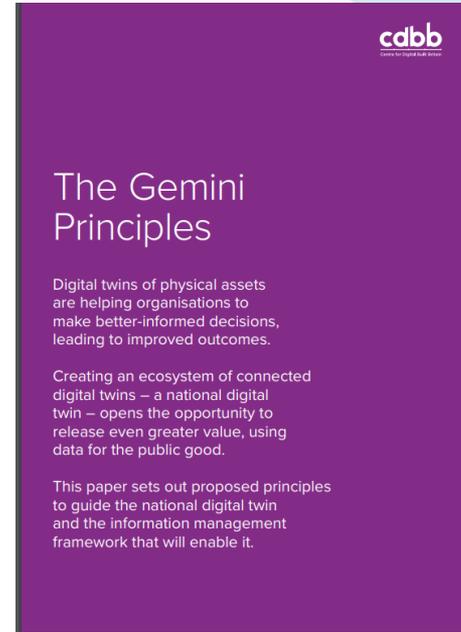
Kevin Reeves – Group Head IoT and Data Services

Defining the Infrastructure Digital Twin

There are many definitions of a digital twin, to provide clarity, this opportunity will utilise the current definition as set out by the Cambridge Centre for Digital Built Britain, as noted below:

*“In the context of Digital Built Britain a digital twin is
“a realistic digital representation of assets, processes
or systems in the built or natural environment”*

It is important to note that CDBB are seeking a consensus view for the Infrastructure Digital Twin definition and principles as set out in the ‘Gemini Principles’.



[Gemini Principles](#)



A starting point.....



How might we use a Digital Twin to:

OFWAT
Reduce
leakage by
15% by 2025 ?

Highways
England
Improve air
quality on our
Strategic Road
Network ?

National Grid
Monitor and
optimise
locally
generated
electricity ?

How to engage

- Contact Matthew Evans (Matthew.Evans@techUK.org)
- Come and meet the team at our innovation hub in London Bridge



Themes

tech^{UK}



cdbb
Centre for Digital Built Britain

bsi. PETRAS

OFWAT

Reduce leakage by 15% by 2025 ?

Within the water sector OFWAT, the regulator, has set a series of targets which water companies need to meet. Failure to meet these targets can result in fines, some of which have been as high as £8m in relation to leakage.

Due to the high financial risk in not meeting these targets, we are launching various initiatives to help our clients.

We would like to explore how a digital twin could help solve leakage issues.

Highways England

Improve air quality on our Strategic Road Network ?

Highways England have set out their Road Investment Strategy which includes a focus on improving air quality across the strategic road network. Given this is a strategic priority we propose a consortium to help Highways England address the air quality challenge.

We are looking to help shape a proposal and provide support in driving a successful implementation of innovative technologies which demonstrate how a digital twin might help solve this challenges.

National Grid

Monitor and optimise locally generated electricity ?

National Grid has set out various future energy scenarios to assess potential, credible futures enabling them to support a diverse energy system.

This rapidly changing landscape introduces many challenges, particularly with local generation through renewable technologies and the expected impact from electric vehicles.

As part of this project we welcome technology suppliers to propose digital twin related solutions which will help National Grid understand the energy landscape and help provide greater certainty in future planning scenarios.

COSTAIN

Costain, our partners and our clients are investing to help solve these industry challenges

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