




How can Digital Twins help Energy and Utility organisations to meet their **Net Zero, Customer and Operational** agendas?

A worker in a yellow hard hat and dark uniform is seen from the side, looking at a futuristic digital interface. The interface is overlaid on a dark, industrial background featuring robotic arms and machinery. The interface displays various data points, including a large '24' in a circular gauge, 'ACTIVE TRACKING X8', 'SIGNAL X515 D 45'', 'RGET IDENTIFICATI', 'LOADING 17%', '36 DATA CHANNEL IDENTIFICATION', and several smaller gauges with numbers like 25, 18, and 31. The scene is lit with blue and green hues, creating a high-tech, industrial atmosphere.

In a post Covid-19 world Energy and Utility organisations are now embracing bleeding edge technologies to tackle the customer, net zero, regulatory and operational challenges they are facing. Many Utility organisations in recent months have started to seriously explore a concept which can help them to narrow the gap between where they are today with their strategy and what they need to achieve in the future. This concept is Digital Twin.

## So what is a Digital Twin?

In its simplest form, it is a virtual replica of a real-world entity, such as an asset, person or process. The Digital Twin can develop in terms of scale and sophistication to deliver increasing levels of business-driven benefits and societal values.

The key for a Digital Twin is to integrate many data sources across the lifecycle of a product, asset and customer to understand it/them, deliver efficiencies and to gain insights to design better products and services.



*A Digital Twin approach allows you to be the manager of the situation, not be managed by the situation, by things you didn't expect, or even look for.*

*- Ex-CEO of Cambridge City Council, Andrew Grant*



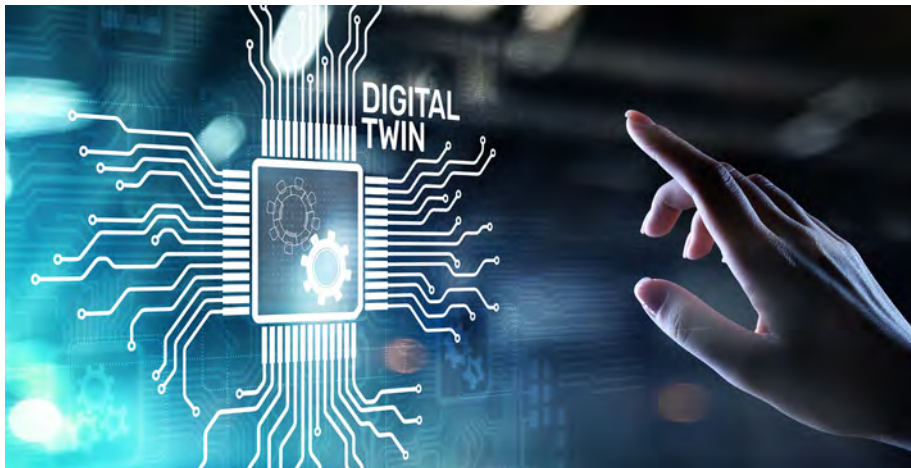
For Utilities, the Digital Twin is imperative in connecting customer, service, and assets to deliver benefits which:

- Meet Net Zero faster and reduce pollution - by understanding carbon and waste across the business and supply chain.
- Increase Customer satisfaction - Provides opportunities and insights to understanding customers and how they fit your service.
- Increased Service availability and reduced leakage - by understanding your service delivery assets you can deliver a fit for purpose predictive and proactive maintenance strategy.
- Reduce operational costs - Digital Twin as a critical strategy has been identified as a value of 6:1 in cost savings alone many times over the years via a Six Sigma analysis. Validated by KMPG and Atkins in a report for the Centre of Digitally Built Britain.

# What are the major hurdles and what have we learned?

Sopra Steria's 20+ years' experience in building Digital Twins comes from programmes delivered in Transport and Aerospace, where positive results include reducing the time to market for commissioning new planes, and improvements in supply chain management.

We are also developing the Skywise platform with Airbus and other suppliers, which is a first of a kind for the aviation industry, connecting digital assets of operations and their customers to drive efficiency and to understand previously unknown, *"invaluable insights"*.



So what lessons can Utility organisations learn from Aviation, Transport and Manufacturing around Digital Twins, particularly in the initiation stage?

- It must be bought into by the whole organisation. The Digital Twin is a lever to develop good Information Management (IM) and digital maturity, which is critical in developing value, and reducing decision support times within any business.
- Stakeholder management is the number one critical risk. Getting buy-in from various stakeholders involved is not an easy task and these stakeholders must be excited for this essential business change.
- From initiation the programmes business outcomes must be identified and aligned. The stakeholder map must be clear and an understanding of those stakeholders must be completed in depth to ensure that the programme aligns with their personal wins from it.
- Identify and agree the critical success criteria. Don't try and boil the ocean, initiate manageable PoC's and pilots, and identify the right partners who can collaborate with you, and add value across the journey, from initiation through to scalability, and service.
- Develop a framework for success. Understand the limitations and hurdles, while valuing the programme and importantly the data that is needed to support it. Use tools to visually demonstrate the impact of the programme which clearly shows the validation process to increase stakeholder engagement.

*Digital Twins potentially hold a lot of promise in helping the Utilities sector overcome its most pressing challenges. It should be clear that those Utility organisations who start building Digital Twins of their assets today will be the ones that push the industry boundaries towards a more agile and intelligent future. But before the future can be built the right Digital Twin platform needs to be put in place and this needs to be a collaborative exercise between those within the Utilities industry and those with experience and expertise from outside it as well.*

## More Information

To succeed in this new economic landscape energy and utility organisations must have access to new capabilities, the right skills and suppliers who can help them meet their digital challenges. Working as a strategic partner to energy and utility organisations, Sopra Steria can develop, deliver and operationalise traditional technology platforms, unlock the value of data and information, simplify and accelerate cloud strategies and provide end to end system integration solutions. The solutions we provide enable the delivery of IT services which are aligned with business objectives and clear measures of success.

If you would like to discover more about the services we provide to energy and utility organisations please contact one of our specialists below:

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Or you can visit us at: <https://www.soprasteria.co.uk/industries/energy-and-utilities>

**We look forward to working with you.**