

## **Digital Twins are a catalyst to fulfilling organizations' sustainability agenda**

*A third of organizations have implemented digital twins to understand and predict their energy consumption and emissions.*

**Paris, May 30 2022 –According to the '[Digital Twins: Adding Intelligence to the Real World](#)' report from the [Capgemini Research Institute](#), 60% of organizations across major sectors are leaning on digital twins<sup>1</sup> as a catalyst to not only improve operational performance, but also to fulfil their sustainability agenda. By being able to simulate the physical world, digital twins can help organizations to better utilize resources, reduce carbon emissions, optimize supply and transportation networks, as well as increase employee safety.**

The new report reveals that digital twin implementations are set to increase by 36% on average over the next five years. This indicates a growing appetite for digital twin technology across all major industries, such as automotive, aerospace, life sciences, and energy and utilities among others, driven by organizations looking to advance their digital transformation journeys and adding intelligence to operations along the value chain. Organizations surveyed reported that cost-saving benefits (79%) and technological advancement (77%) are key drivers of their digital twin investments.

The research also found that 57% of organizations agree that digital twin technology is pivotal to improving sustainability efforts, which reflects the growing trend of businesses keen to deliver on their Environmental Social Governance (ESG) promises. Digital twins offer flexible ways of working to mitigate risks and extend collaboration, thereby providing a unique opportunity to increase profitability while optimizing the use of resources along the value chain.

Over one third (34%) of organizations surveyed reported having already implemented digital twins at scale to understand and predict their energy consumption and emissions. Consumer products and energy and utilities industries are leading the way in this use case, with 52% and 50% respectively utilizing the virtual replicas to benefit the sustainability of operations. Collectively, those that have already begun implementing digital twin technology are realizing an average improvement of 16% in sustainability metrics.

Roshan Gya, Global Head of Intelligent Industry at Capgemini said, *"By bridging the 'physical-digital' gap, digital twins help organizations to unlock value, bring synergies across data, technologies, and business processes, and are at the core of Intelligent Industry<sup>2</sup> transformation. Digital Twins offer a unique opportunity for organizations looking to accelerate their journey towards intelligent operations, while increasing profitability and enabling a sustainable future."*

To read the full report, [click here](#).

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<sup>1</sup> A digital twin is a virtual replica of a physical system that can model, simulate, monitor, analyze, and constantly optimize the physical world. It aims to bridge the "physical-digital" gap at the right frequency and fidelity, thereby improving performance and sustainability. Used in a multitude of cases across the value chain – from design and conception through to manufacturing and production – the technology provides a remote, collaborative, and flexible way of working. It can function as a tool to experiment with different scenarios and assess the impact of each decision without any real-world risks, leading to faster time to market, lower costs and improved safety.

<sup>2</sup> Capgemini coined the term "Intelligent Industry" to describe the next era of transformation. Intelligent Industry is about fostering synergies between the digital and engineering worlds to help companies build intelligent products, operations, and services, at scale. Intelligent Industry brings together engineering, IT, and digital and thereby allows a convergence of the physical and virtual worlds.



## **Methodology**

To understand how leading companies are approaching digital twin transformation, Capgemini gathered inputs from 1,000 organizations across sectors, such as life sciences, consumer products, energy & utilities, discrete manufacturing, as well as infrastructure owners and operators. 80% of the organizations surveyed have an ongoing digital twin program, with the rest planning to start one. Capgemini also conducted 14 in-depth interviews with industry experts, academics, and think tanks from various organizations and universities.

## **About Capgemini**

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## **About the Capgemini Research Institute**

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