How digital technologies boost resilience

CASPAR HERZBERG: AVEVA

Industrial companies around the world are learning from the pandemic to ensure they can build resilience and ensure future success

The Covid-19 outbreak showed how sudden events can impact business continuity and disrupt operations overnight. Extreme climate events and geopolitical conflicts in the following months have only underscored how vulnerable businesses can be.

Industrial resilience is more important than ever. With the right digital solutions in place, industrial organisations can optimise their operations to maintain continuity and safeguard their value chains against future unprecedented events.

CEOs recognise the value technology brings. Nearly 70 per cent of global C-level executives polled in Accenture's *Zero-Based Transformation: The big reset* survey are investing in technologies including data, artificial intelligence (AI), digital tools and cybersecurity to optimise operations.

During a keynote panel at the 2022 AVEVA PI World event in Amsterdam, Netherlands, business leaders from across the world's biggest organisations shared real-life examples of digital-led resilience

> "The next generation of data-led digital technologies offer us an unprecedented opportunity to make a positive global impact"

in action. By onboarding solutions based on new technologies such as cloud and AI, they are helping drive profitability and sustainability, identifying new paths to growth, and fostering collaborations across the industrial ecosystem.

Companies need to be able to understand vulnerabilities and potential losses to be able to build resilience. When organisational data is analysed

and contextualised into insightful information, it can help the industrial world to innovate at scale.

As Jacky Wright, chief digital officer at Microsoft, explained during a panel session at AVEVA PI World: "Digital is now at the core of everything you need to do – whether it be around your people, the planet or the products you offer. Events of the last two years have shown how interrelated we are as a society and how we apply these services has an impact on someone else. In practical and geopolitical terms, with the supply chain, for example, we can see how we can use technology to anticipate and forecast where the risks are relative to all the things that are occurring."

An example is Neste, the leading global producer of renewable diesel and jet fuel, which uses digital solutions to coordinate business across more than 80 processing units in different countries. With the help of AVEVA Unified Supply Chain software, Neste staff now have access to real-time data intelligence and analytics in the cloud. Within one digital space, they can schedule and optimise production tasks, and make stronger decisions backed by AI. As a result, waste is down while business yield is up, putting the company closer to its goal of carbon neutral production by 2035.

Transforming the way we consume energy is essential to achieving our

common net-zero carbon emissions targets. But while attention has focused on renewable sources such as solar and wind, energy efficiency also has a key role to play. The energy, materials and mobility industries can deliver up to 20 per cent of the emissions reduction required to achieve the International Energy Agency's net-zero trajectories for 2050, according to estimates from Accenture and the World Economic Forum.

Kellogg's shows how digital solutions can pay off. The breakfast cereals producer onboarded AVEVA PI System to help it track, analyse and manage energy data in its factories. At AVEVA PI World, Michael Dean, global director of power, controls and information system at Kellogg's, shared that by creating a digital ecosystem that benchmarked usage and identified opportunities for savings, the company saved $3.3 million in a single year, identified an additional $1.8 million in rebates, and optimised abatement measures. This digital system is now being rolled out across the company's global manufacturing fleet to achieve energy efficiencies and unlock sustainability across the Kellogg's network.

Digitising the value chain carries a number of benefits for individual organisations. But sharing this data with corporate partners – securely and as required – can activate and transform it into new information that delivers significantly greater benefits for all parties.

Dominion Energy, for example, enables its expanded ecosystem to operate more sustainably by sharing data it gathers from wind and solar power generating units. The US power and energy leader shares information about its energy sources with customers in real time over the cloud. Not only does the company benefit from full transparency about energy supplies, but it can also share this proof of its low-carbon initiatives with its own customers, helping it to comply with its net-zero commitments.

In addition, Dominion supports successive customer tiers with the help of AVEVA Data Hub, a multi-tenant, cloud-native offering built on top of components from the Microsoft Azure platform and natively integrated with AVEVA Connect. Consequently, Dominion isn't just increasing its own profitability – it's also helping advance the low-carbon energy transition across North America.

Technology has now evolved to the point where industrial leaders can leverage it to deliver traits traditionally associated with human beings, such as resilience and transformational capabilities. Our responsibility now is to channel those proficiencies for resilient and lasting benefit across the social, economic and environmental stage.

As delegates heard from AVEVA CEO Peter Herweck at AVEVA PI World, the next generation of data-led digital technologies is already delivering impressive efficiency and value gains for enterprises. These technologies offer us an unprecedented opportunity to make a positive global impact. It is time for us to put them to good use. ∎

Watch videos of key panel sessions and presentations at AVEVA PI World: piworld.aveva.com/amsterdam2022/ bestofamsterdam

Caspar Herzberg is chief operating officer at AVEVA

AVEVA's Caspar Herzberg with Dr Catherine Green, associate professor of the Wellcome Centre for Human Genetics at Oxford University, discussing how AVEVA software supported the development of the Oxford Astra Zeneca Covid-19 vaccine