Driving Digitalisation and Innovation

Technology developments in artificial intelligence (AI), machine learning, cloud computing, internet of things (IoT), blockchain and robotic process automation, underpinned with cybersecurity, are disrupting most industries, including ours. Sembcorp continues to innovate and is embracing digital technologies to create competitive advantage and strengthen our position as a leading energy, marine and urban development group. We are actively broadening and deepening our digital capabilities around four themes.

Establishing a Strong and Secure IT Foundation
Enhancing cybersecurity and improving the flexibility and reliability of our information technology (IT) infrastructure by building a future-ready IT foundation and architecture.

Moving to the Cloud
Ability to rapidly deploy and scale applications with the migration of over half of our existing enterprise systems and applications to a highly secure, flexible and cost-effective cloud environment.

Digitising the Business
Improving efficiency, productivity and the customer experience with investments in business process engineering, optimisation and robotic process automation.

Full-automated Drones
Pipeline inspections and fuel stockpile analyses will be carried out more efficiently and accurately by fully-automated drones equipped with highly specialised cameras, sensors and AI for image analysis.

Business Process Automation Bots
Increased productivity through the automation of repetitive processes, such as data verification and entry, by software robots.

Customer-centric Mobile Application
Retail customers can monitor electricity consumption and manage their accounts easily with the Sembcorp Power app, which provides a rich digital experience.

Intelligent Wastewater Processing
Consistent and reliable execution via a patented intelligent platform that digitises standard operating procedures, with over 100 machine learning models that help improve operation of industrial wastewater plants.

Cybersecurity Framework
Implemented a framework based on the National Institute of Standards and Technology (NIST) to provide a common language and systematic methodology for managing cybersecurity risk.

Asset Optimisation and Improvements
Developing insight platforms using machine learning and AI to improve how we operate and optimise our thermal and renewable assets. For example, the Sembcorp Virtual Brain combines machine learning and engineering processes to proactively identify and enhance plant performance.

Automated Detection of Potential Hazards
Health, Safety, Security and Environment event detection applies computer vision to video footage to detect potential hazards to improve operator safety.

Data Lake
Ability to build and deploy analytic applications much faster, because of our data lake – a highly secure and single source of truth repository of real-time operational data from over 200,000 IoT sensors across our global power, water and renewables businesses.

Managing Our Digital Journey and Change
Creating a digital workplace of the future by introducing advanced digital solutions and investing in employee upskilling.

E-Learning Platform
Employees can pick up new skills easily through our partnership with a leading employee e-training provider.