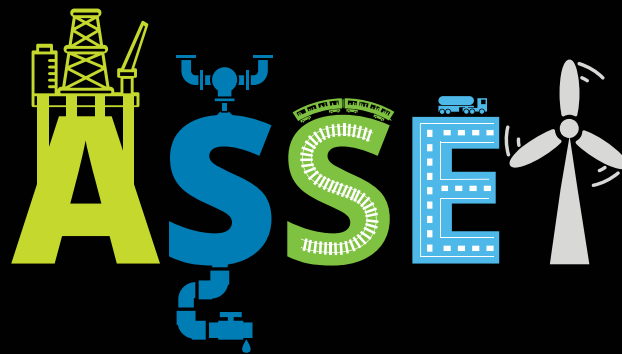


PHYSICAL



DIGITAL

**The future of Enterprise
Asset Management**

How the Connected Digital Twin
is shaping your landscape

Maximo
Centre of Excellence

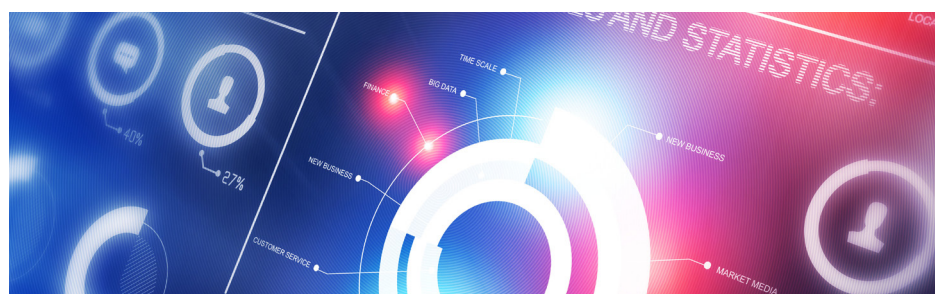
Introducing the Connected Digital Twin

It's no secret that the Internet of Things (IoT) is redefining the relationship we have with our environment. Technologies such as drones, light and temperature sensors, cameras, mobile and integrated weather forecasting not only connect to the environment but they also interact with the physical assets in our business.

If high value physical assets could be made digitally visible, could technologies like these help reduce the complexities of managing them? Could the availability and accessibility of asset IoT data prove a valuable source when making business decisions?

In a word, yes. After all, in the era of the newly connected worker, drones and wearable technologies relieve the burden of dangerous tasks. As a Platinum Business Partner of IBM, Deloitte is working to deliver solutions for our clients in asset intensive industries. Connected technologies when used with IBM Maximo will prove to be game changers in managing high value physical assets, provided they are harnessed in the right way. This means intelligently synthesising specific data from the IoT, and creating an interactive digital version of your physical asset: its connected digital twin. It provides an accurate real-time digital view of your asset's performance, accessible on your desktop or from your preferred device.

[▶ IBM Maximo has taken the next step. Find out what's new – in full](#)



Making Assets efficient, available and reliable – long term

IBM Maximo, the world's leading Enterprise Asset Management (EAM) application, was once a planning tool that used historical data. It has evolved into a smart application that consumes real-time data to enable preventative insights. This means managing the entire lifecycle of assets can now be done with clarity and efficiency.

Right now, industry-specific tools and standards (such as IBM IoT Platforms, BIM, COBie and RDS-PP) reflect an assumption that your business will be integrating them with applications as sophisticated as IBM Maximo.

IBM Maximo is the ultimate efficiency booster for businesses that depend on the operational capacity and reliability of physical assets. It reduces risks related to human error, speeds up reaction time and streamlines processes.

By embracing this step change and connecting the digital twin, you can eliminate up to 20% of your biggest costs: manual labour, asset downtime, material costs and inventory. You could see your asset utilisation increase by up to 10%. What could these figures mean for your business?

A life-long digital thread

By deploying the Connected Digital Twin earlier in the asset lifecycle, you simplify the management of your assets throughout their full lifetime, in a 'digital thread' that runs through design, build, operation and decommissioning.

The Connected Digital Twin weaves this thread into a broader interactive network of assets, people and systems that enables complete visibility with seamless communication.

Throughout the operational lifetime, critical physical components will not be missed. Steps will not be overlooked. You can use real-time insight to inform decisions that shield your business from all types of asset-related risk.

For example, decommissioning a power station may take decades - but with built-in future planning, data will remain complete and useful throughout the lifecycle and into handover. At acquisition or disposal, buyers won't be surprised by hazardous material; handover includes a clean and comprehensive history with preventative and predictive information included.

With the Connected Digital Twin, your most important physical assets are:

THE MOST IMPORTANT PHYSICAL ASSETS ARE:



1. DESIGNED



Designed intelligently using real-time data that gives insights into future impacts and possibilities.



3. COMMISSIONED



Commissioned into production faster.



2. BUILT



Built more quickly and efficiently, with the ability to visualise outcomes in detail.



4. OPERATED



Operated at lower servicing cost and higher efficiency.



5. DECOMMISSIONED



Decommissioned in a planned way, with a clear, full history.

...use real-time insight to inform decisions that shield your business from all types of asset-related risk...

Monitoring and protecting the health of assets

One vital consideration during an asset’s entire lifetime is its health. Individual pieces of data will give glimpses into its health at a point in time. But the Connected Digital Twin improves overall asset health by vastly broadening that visibility and keeping it accurate.

It does this by connecting elements of the Internet of Things (IoT), such as sensors, drone images or weather forecast data, to your twinned digital asset. These elements are readily available as out-of-the-box tools; they simply need IBM Maximo to harness their potential. Linked intelligently, they create a real-time digital replica of your asset that drastically improves information quality and planning.

Your real-time asset health monitor

Once connected, your Digital Twin constantly monitors the ‘heartbeat’ of its physical twin - your asset. Not only is each data item recorded and delivered to the Connected Digital Twin in real time, but IBM Maximo understands the asset’s normal state. It supports

preventative maintenance, by helping to predict issues before they occur, preventing costly downtime and outages.

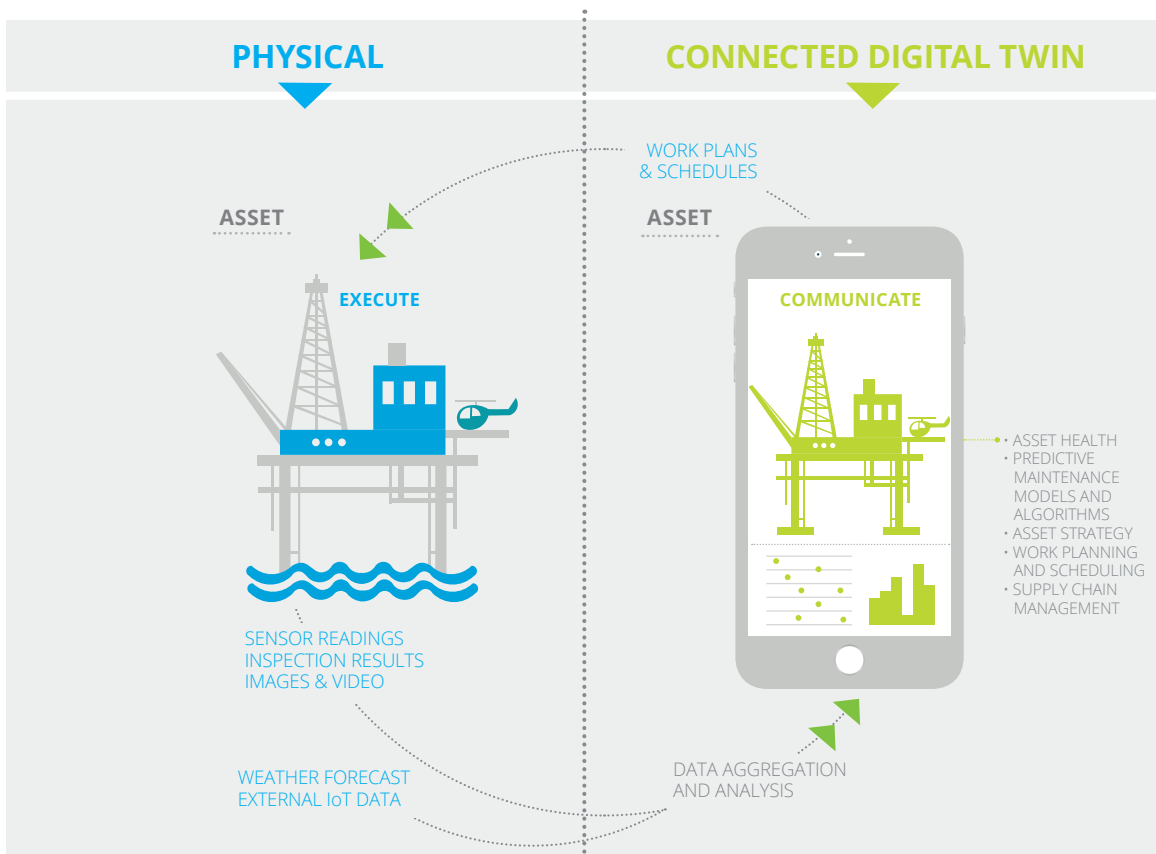
Whether it’s overheating, weather damage or component degradation –the connected digital twin will alert you so that preventative maintenance activities are scheduled and addressed and, asset lifetime and productivity is optimised.

Enabling up-to-the-minute compliance

With broad awareness and deep insights, you can keep your business at the leading edge of ever-shifting compliance. Regulations surrounding health and safety or the environment, for example, become easier to meet.

Whether you’re tracking emissions or planning for asbestos disposal at end of life, IBM Maximo has already factored in the necessary considerations from data in the Connected Digital Twin.

MAKING MAINTENANCE SMARTER WITH THE CONNECTED DIGITAL TWIN



Future-proofing asset productivity

The exceptional potential of IBM Maximo lies in its ability to look after tomorrow's asset management as well as today's.

By shifting towards connected technologies to manage assets, you will only continue to maximise productivity.

By routinely predicting and fixing issues before they occur, you'll rarely take assets out of production unexpectedly. By helping you manage assets this way, the Connected Digital Twin increases uptime as much as 20%. Together with lower maintenance time and costs, this makes digital twinning a guardian of future profitability.

Deepen asset intelligence over time

As the network of connected components grow, so too will the richness of data feeding in to IBM Maximo. By encompassing emerging technologies, now and in years to come, your business will enjoy extraordinary capabilities that support intelligent growth.

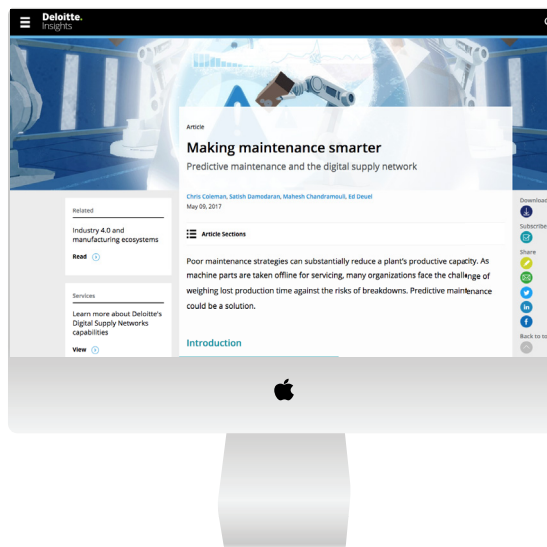
Connecting the Digital Twin today lays the foundation for the huge advantages that IBM Maximo can offer into the future.

This is the future of EAM

The tools and data standards to support IBM Maximo are already in place. Asset-based businesses are weighing up the risks of not taking this exciting step forward.

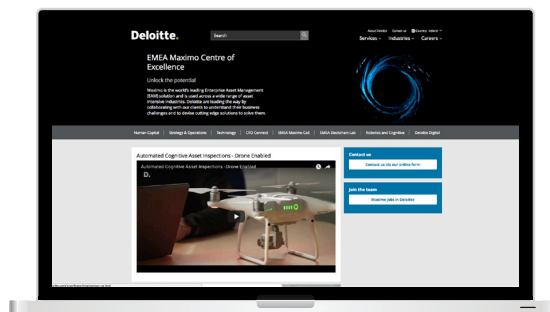
There's no doubt about it. With increasingly intelligent competition, an uncertain economic landscape and an environment of frequent legislative change, the time to leverage the Connected Digital Twin is now.

For more details on **making maintenance smarter**: <https://dupress.deloitte.com/dup-us-en/focus/industry-4-0/using-predictive-technologies-for-asset-maintenance.html>



For more information on our **Global Maximo CoE** - please see below. This includes a video showing our innovative solution for **autonomous cognitive drone asset inspections**.

https://www2.deloitte.com/ie/en/pages/consulting/topics/emea-maximo-center-of-excellence-.html?cid=nav2_emea-maximo-center-of-excellence-



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