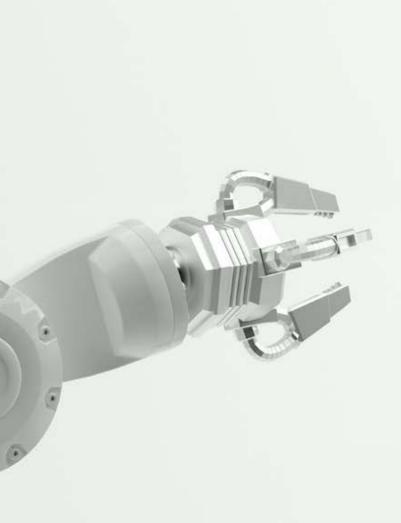
Creating your roadmap to smarter manufacturing









Smart technology is revolutionising the manufacturing industry. But how can you make it work for your business? And how can you ensure a successful transition to Industry 4.0?

The move to smart manufacturing is under way

Manufacturers have been quick to embrace smart technology. As they realise the promise of Industry 4.0, we're seeing a dramatic resurgence of investment. And manufacturing companies are exploring the latest innovations to intelligently connect their processes, break down silos and create a smarter, streamlined approach to production.

This is helping them drive greater efficiency, enhance productivity, reduce costs and improve sustainability in their operations. However, while individual organisations are committed to change, there's still work to do for the sector to realise the vision of a fully connected, digitalised industry.



Virtually every manufacturer we speak to is on a journey. They're all at very different stages on that journey, but they are committed to it.

Henry Anson

Publisher, The Manufacturer

Deloitte survey:



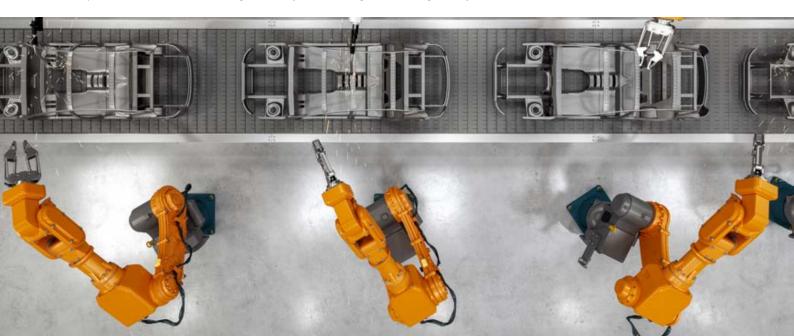
86% of manufacturers believe that smart factory solutions will be the primary drivers of competitiveness in the next five years.



70% have already woven technologies such as data analytics and cloud computing into their processes.¹

Read more about what the industry needs to do next here.

1. 2024 manufacturing industry outlook. (2023, November 28). Deloitte Insights. https://www2.deloitte.com/us/en/insights/industry/manufacturing/manufacturing-industry-outlook.html



Getting smarter all the time

Every day, manufacturers are finding new ways to make their operations even smarter. They're using automation in their factories to streamline processes and boost production. Autonomous Mobile Robots (AMRs) move materials through the warehouse and production line quickly and efficiently. Smart cameras and sensors – as part of the Industrial Internet of Things (IIoT) – enable close monitoring of production lines, to help detect problems and ensure product quality. And with Artificial Intelligence (AI) and Machine Learning (ML) to analyse the large amounts of data collected, manufacturers can make more informed decisions and react with greater agility.



Lots of automation is already in place. Now, companies are trying to standardise across their global footprint.

Sundeep Samra

Client Partner, Verizon Business

See how manufacturers are using smart tech here.



It's time to scale things up

To really benefit from Industry 4.0, however, manufacturers need to think beyond a single smart factory and create a fully connected, end-to-end enterprise. With every element of their business linked and communicating, manufacturers get increased visibility of their whole supply chain.

They can see what consumers are buying, how they're using the products, and get a better overview of global supply availability — and potential disruption. Meaning they can respond quickly to changing market conditions, using Al and ML to make informed decisions everywhere, enhancing sustainability and regulatory compliance in their supply chains. But embracing digitalisation on this scale takes time, investment and new ways of working. And it means companies need to build a positive culture of change and collaboration.



It's not just putting a wire between factories because [they're] all connected to a network. It's how they share live data and information across factories so they can make intelligent decisions around production, demand, supply chain, logistics and make the best decision to increase the productivity and reduce the cost."

Sundeep Samra

Client Partner, Verizon Business

See how manufacturers are taking the next step <u>here</u>.





Creating a successful transition

Transitioning to smarter manufacturing is complex, with lots of moving parts that need to be delicately aligned. For example, with digitalisation running throughout the whole factory, Operational Technology (OT) needs to work more closely with IT, sharing responsibilities to keep machines running and protected from cyberattacks. Organisations who are already on their path have realised the need to create a carefully planned roadmap for integration with buy-in from all areas of the business. This helps them avoid getting stuck in dreaded pilot purgatory, where they don't progress beyond the pilot phase. They're also seeing the benefit of introducing change agents to help align teams on a shared goal.



It's that director of digital transformation whose role is to try and pull these silos together. Make sure they're operating with common interests.

Henry Anson

Publisher. The Manufacturer

Read more about the transition to smart manufacturing here.



Unexpected consequences

No matter how prepared they are, and how closely they follow best practice, as with adopting any new innovation, manufacturers will always face unexpected risks and challenges. Because they'll store and process much larger amounts of data, and because more machines are connected to the internet, companies open themselves up to greater potential for attacks by cybercriminals. Therefore, they need to heighten their cyber resiliency.

New ways of working also mean businesses need to address cultural shifts internally. From aligning previously disparate teams and functions, to changing operational practices and embracing new technologies, manufacturers need to promote a culture of openness and improvement. This is why collaborating with a partner that has experience in these kinds of projects and change processes is of paramount importance.

Read more about the challenges of smart manufacturing <u>here</u>.



Many manufacturers assume their current cybersecurity measures are sufficient, but this is often not the case.

Henry Anson

Publisher, The Manufacturer

Why Verizon?

At Verizon, we work with organisations to help them build and operate the foundational network infrastructure that supports smart manufacturing. And we've helped countless clients embrace the power and potential of Industry 4.0.

Cybersecurity experts

With our expertise in cybersecurity, we're perfectly placed to help manufacturers understand the risks, and bolster their defences. We offer leading solutions in cyber resiliency and our team help businesses of all sizes, in all industries, to protect their operations from threats. We also produce our annual <u>Data Breach Investigations Report</u>. It contains the insights that our unique global perspective gives us. And it helps organisations keep up to date with the latest trends in real-world security incidents and breaches.

Global footprint

We work with manufacturers all around the world, offering outcome-led network transformation solutions, with integrated network and cloud security. Our global network acts as a key enabler for Industry 4.0, supporting the critical infrastructure needed to develop agile, connected factories and production ecosystems. We help manufacturers optimise connectivity across all systems, ensuring they have the right network for the right task.





Recognised by IDC MarketScape

IDC MarketScape have recognised Verizon as a worldwide leader in Managed SD-WAN services (secure digital wide area network).²





The vision is to have fully autonomous factories.
This is why I frequently discuss self-driving IT and autonomous factories. We aren't there yet; it's probably more than a decade away.
But at Verizon, we have a clear understanding of the trajectory and the steps needed to reach this goal."

Philip Horn

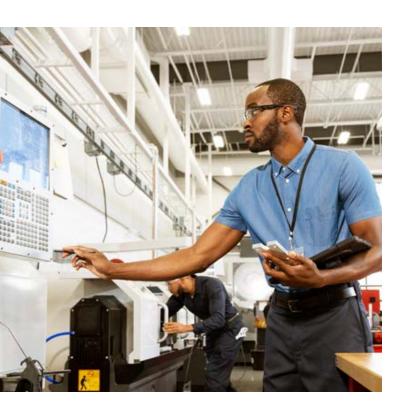
Head of Digital Transformation and Innovation EMEA, Verizon Business

2. IDC MarketScape: Worldwide Managed SD-WAN/SASE Services 2023 Vendor Assessment. (2023, November). IDC #US49437022ep.https://idcdocserv.com/US49437022ep_Verizon

How we help you make manufacturing even smarter

We'll work with you to design and deliver the kind of network transformation that supports Industry 4.0 and enables you to embrace smart production processes. We'll help you deploy IoT devices so you can boost productivity, enhance quality, improve efficiency and create a robust digital supply network.

Our industrial network offers you the connectivity you need for real-time visibility across all device types – at scale – so you can see how your production line is performing and react quickly. With 5G MEC giving you the power to exploit edge computing's possibilities, you can extract high-value insights from your data with ease and at speed. This means you can make more-informed decisions on production lines, costs and shipping. Plus, with our enterprise-grade security, you can feel confident that all your sensitive customer data and confidential product information remains protected from cybercriminals.



Get the network transformation you need

Industry 4.0 requires the management, sharing and analysis of incredibly large amounts of data. And for a fully connected global enterprise, that data needs to be available in real time throughout your whole production operation around the world. So, you need a network that's faster, bigger and more robust. That's where our Network as a Service (NaaS) comes in.

We offer all the network solutions you need to support your smart manufacturing operations. All your virtual services, resources and applications sit in the cloud. Even better, it's fully scalable. So, as your business grows, or you integrate more smart manufacturing innovations, you can adapt your network to meet your requirements.

Keep everything safe and secure

You also need to make sure all your connected factories are secure and protected from cyberthreats. And we have you covered there, too. With Secure Access Service Edge (SASE), you get Software Defined WAN (SD WAN) and managed cloud security services that help to protect your enterprise. So, you can boost your cyber resilience, increase your agility and enable more effective digital transformation.

Learn more about why <u>Verizon could be your</u> perfect partner.

Working with us

We believe co-creation and collaboration is the key to success. So, we'll partner with you to understand more about your business, your goals and your own expertise. That will help us determine your exact needs, and how we can help you meet your smart manufacturing ambitions. During this initial contact, we may even redefine your initial RFP and build a new scope of work together. But we think that's the way to get things right

We'll carry out an assessment of your current network infrastructure and security capabilities. Once we know more about you and what you want to achieve, we'll create a network and security architecture that aligns technology and services to your business needs, along with a detailed roadmap for your transformation, with the least possible risk. And, of course, we'll agree on performance service levels and KPIs.

Finally, we'll work with you to design, build and deploy network solutions, with our proven methodology, that enables smarter production processes. Then we'll be on hand for all the setup, roll-out and support – however you want it.

Pathway to transformation

This diagram represents an example of the kind of actions taken in helping to define and implement the network transformation required to support smart manufacturing. As each project has its own individual requirements, not every point listed will be needed for every job.



Collaborate to understand scope of project



Evaluate cybersecurity requirements



Assess existing tech and capabilities



Help align stakeholders on outcomes and KPIs



Create a roadmap for transformation



Share knowledge and advice to make technology decisions



Design and deploy network and security solutions



Help to align business functions (OT and IT)



Help with onboarding and cultural change



Provide lifecycle management for continuous improvement

Get in touch

Find out more about how we can help you make manufacturing even smarter at verizon.com/gb/manufacturing.

Or <u>fill in the contact form</u> and one of our experts will be in touch soon.

And why not visit our London Hub to take part in co-innovation sessions? Find out more here.

