KPMG ptc

The digital road to a sustainable future

How 5G private networks can accelerate innovation while promoting sustainability in the enterprise

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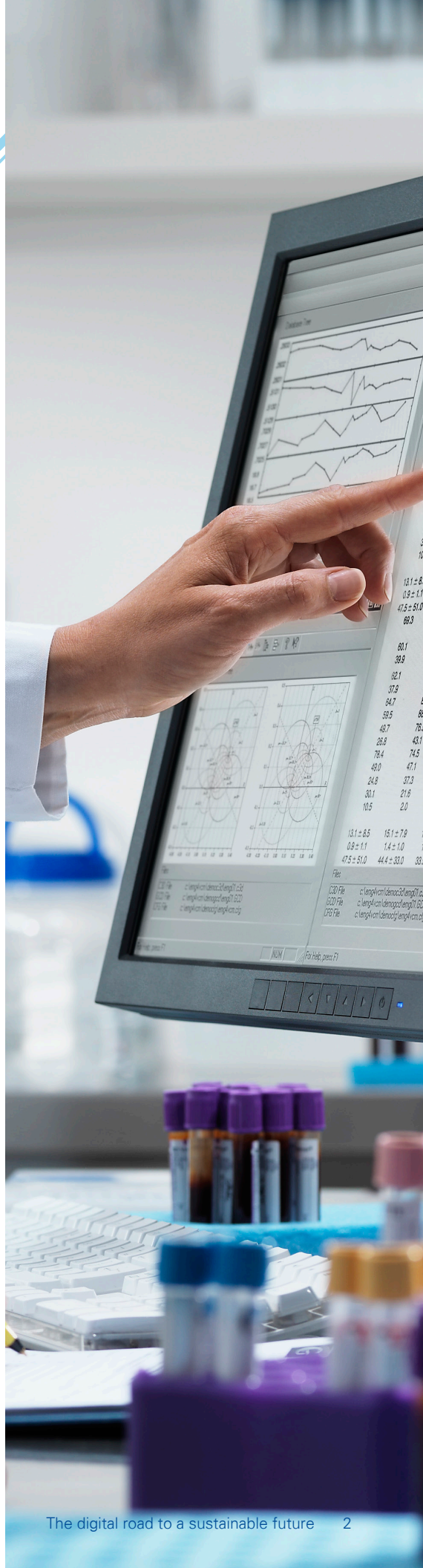
If 2020 and 2021 have taught organizations anything, it's that being agile and adaptable to change is critical to business success and, in some cases, survival. Having the ability to respond rapidly to everything—from changes in demand and supply chain disruption to spending pressure—will put your business head and shoulders above the competition. Ensuring investments are supporting an environmentally sustainable business will help shield you from future crises—this is none more true than for the industrial manufacturing and healthcare sectors.

So where should organizations focus their investments? The answer lies in using digital technologies harnessing the power of 4G and 5G private networks to drive innovation. These advanced networks can help organizations accelerate the adoption of industrial IoT, augmented reality, edge computing, and other emerging technologies. By creating an "always-on and optimized" factory floor, organizations can reduce operational costs, improve reliability and product quality, increase operational efficiency, and enhance the employee experience.



Sustainable change

The Harvey Nash 2020 CIO Survey found a clear link between those who have embraced digital technology and improved performance in several areas, from operational efficiency to customer loyalty. However, digital transformation alone is not enough. These digital innovations are also a critical vehicle for driving sustainability. Responsible environmental, social, and governance (ESG) practices are now a priority for every industry—from energy and manufacturing to healthcare and retail—and are proving to support both financial performance and resilience.

Greg Corlis, Partner, Emerging Technologies, said, "In order for organizations to competitively differentiate themselves in today's world, where the economic costs of climate change grow and the potential for more frequent pandemics loom large, they must evolve to integrate environmental risks into the core of their business. Leveraging advanced technologies such as 5G, IoT, edge computing, digital twins, and others will help them navigate through this journey."

This demand is driving innovation to reduce carbon emissions, with organizations investing in sophisticated decarbonization strategies. These may include renewable energy sourcing and the deployment of technology solutions that reduce, measure, and report on carbon emissions. These systems are being adopted across global organizations to drive the broad transformations required to support a sustainable economic and environmental future.

"Our collaboration with KPMG to build private 5G networks for clients will enable our customers to adopt new and emerging technologies and to bring the promise of the connected, sustainable enterprise within reach," said Steve Dertien, chief technology officer, PTC. "IoT sensors, mobile devices, and software solutions allow for greatly increased accessibility to incorporate data at scale to empower a growing number of high-impact use cases. Private 5G networks provide the pathway to extracting the maximum value from real-time monitoring of the manufacturing process, yielding operational insights, improving efficiency and cost, and driving a reduction in product and operational waste—benefiting both the bottom line and the planet."

1. 2020 CIO Survey. Industrial Manufacturing industry insights

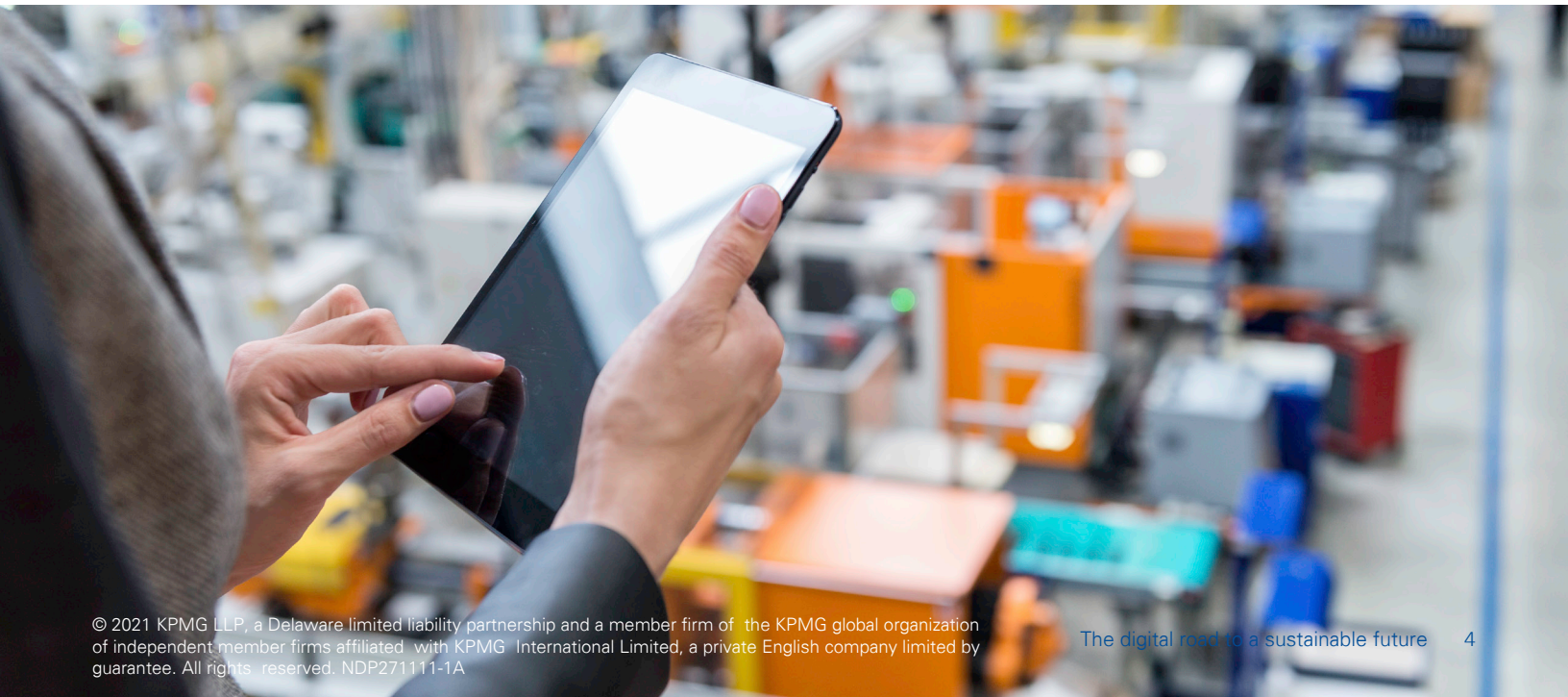
A digital ecosystem

To create a factory of the future that enables sustainable change, manufacturers must first consider adopting innovative solutions to drive automation and efficiency. Leveraging 5G private networks will accelerate the digital ecosystem across the manufacturing sector, allowing factories to take advantage of advanced industrial IoT and I4.0 initiatives—technologies with the power to transform the sector.

Improving the efficiency of their operations in turn enables sustainability advantages. For example, IoT sensors allow for increased real-time monitoring of the manufacturing process, resulting in a significant increase in operations insights, improved efficiency, and a reduction in product and operational waste—benefiting both the bottom line and the planet.

Through its partnership with leading industrial manufacturing software solution provider PTC, KPMG is helping companies develop deep insights from IoT sensor and device networks that capture time-sequenced data related to factory operations and performance. Leveraging this data and additional corporate data, we are able to track and calculate the enterprises carbon footprint, which creates transparency and builds trust by demonstrating environmental performance for shareholders, regulators, and the wider community.

Machine learning and artificial intelligence deployed on trusted data infrastructure also enable automated command and control, improving performance, reducing consumption, and allowing for greater responsiveness to customer and operational demand.



Revolutionizing technology

These innovations are not just possible within industrial manufacturing. Many industries can benefit from harnessing the power of 5G, from agriculture, mining, commercial real estate, and construction to energy and oil and gas. Healthcare is also now primed for a digital transformation with 5G and emerging technologies leading the charge.

In fact, KPMG is building our own Healthcare and Life Sciences lab powered by a 5G private network in Orlando, Florida. KPMG Ignition will help to accelerate the transformation of the healthcare industry by allowing clients to interact directly with the technology and coexperiment with their own solutions, leveraging the power of 5G along with other advanced technologies such as IoT, digital twins, computer vision, and AR/VR, to name a few.

By exploring how these advanced technologies can transform healthcare, our clients will see how it can improve the overall patient experience and outcomes, drive hospital operational efficiency, create a healthy and clean hospital campus, and simplify provider interactions in a controlled and safe environment. Similar labs will be opening for the industrial manufacturing, retail, and smart city/building industries in the near future.

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The cost of doing nothing

As manufacturers and businesses around the world are being tested like never before, failing to innovate could cost them dearly. The Harvey Nash survey clearly shows that businesses that accelerate their digital innovation are more operationally efficient, provide a better customer experience, and are faster at getting new products or services to market.

Through KPMG IMPACT, KPMG is supporting its clients to transform their businesses and supply chains to rapidly reduce their carbon footprints. We're bringing the experience of KPMG professionals across the globe to help clients reduce carbon emissions, transition to renewable energy, and integrate climate risk into corporate strategies.

But we believe we have a wider responsibility to support sustainable growth and stakeholder capitalism than is indicated by these measures alone. By focusing on being a purposeful business, we are supporting our clients to deliver against a broader environmental, social, and governance agenda and laying the foundations for continued success into the future.

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