# Digital Horizons

A series of reports exploring CEE's digital future

**Technology transforming industries in CEE – what's next?**

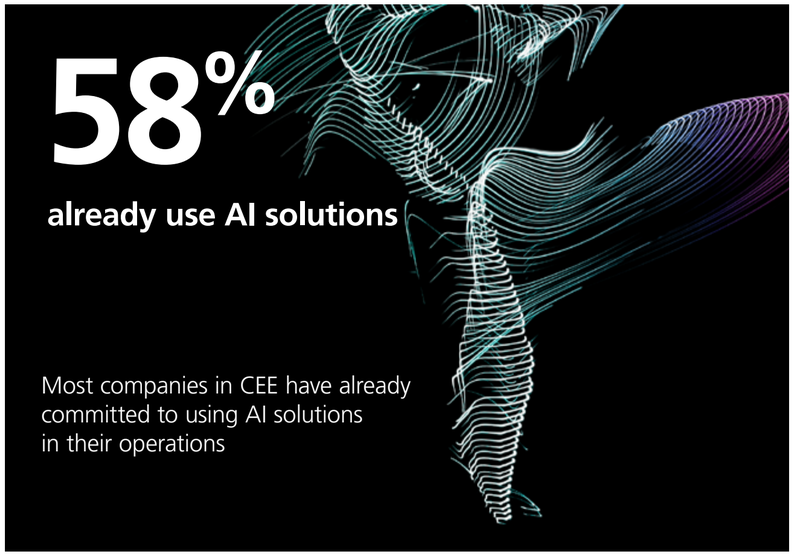
**2020**

# Data highlights

## 76%

**would consider digital tech cooperation with other companies in their sector**

The problems of size and scale are driving tech co-operation in nearly half of all businesses



## 58%

**already use AI solutions**

Most companies in CEE have already committed to using AI solutions in their operations

## 49%

**of CEE businesses take sustainability into account in their digital strategy**

Smart tech holds out great potential for sustainability

## 88%

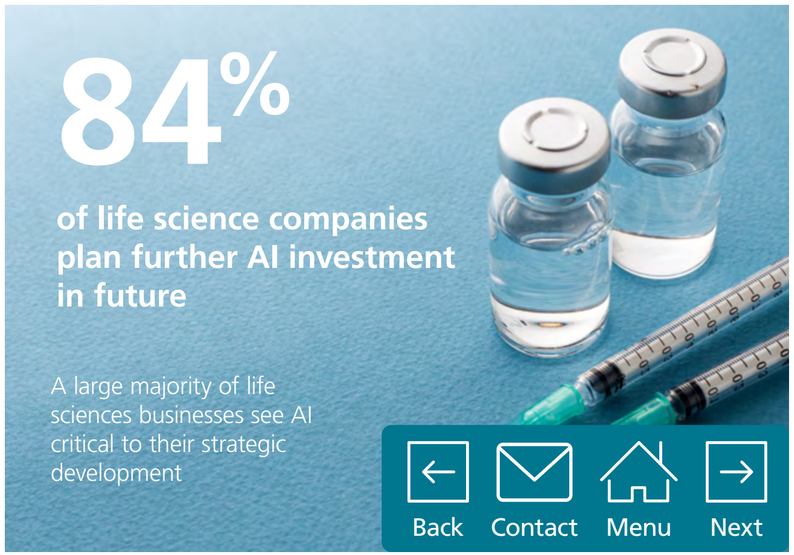
**are confident that EU/regional and local digital infrastructure strategies will meet their business ambitions in 3-5 years**

There is widespread optimism that the right medium-term infrastructure strategies are in place

## 65%

**of life sciences companies think digitalisation is important to achieve their business goals**

The life sciences sector perceives great value in the shift towards digitalisation



## 84%

**of life science companies plan further AI investment in future**

A large majority of life sciences businesses see AI critical to their strategic development

# Industry 4.0 - how smart is CEE?

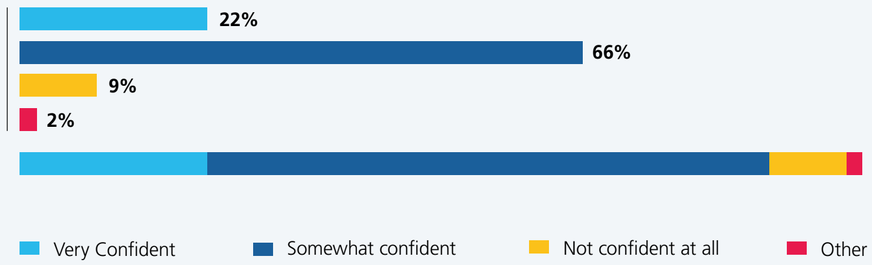
Not to be confused with The Digital Revolution, which saw a shift from mechanical and analogue technology to digital, smart industries are the product of The Fourth Industrial Revolution. Better known as Industry 4.0, or I4.0, a term coined by the German government in 2011, it encapsulates the gradual automation of traditional manufacturing and industrial operations and methods using modern smart technology.

Technological innovations such as digital platforms, artificial intelligence (AI) and 3D-printing are among the disruptive forces behind smart technology. As machines become increasingly able to communicate with each other, a new lexicon has emerged: machine-to-machine communication (M2M), the internet of things (IoT) and Cyber-Physical Systems (CPS). In practice, these are driving the transformation of manufacturing and industrial operations across a broad range of sectors.

In context, total CEE spending on robotics and related services will reach more than USD 4.2bn in 2020, according to the International Data Corporation (IDC). ***'The effects of Industry 4.0 can be seen right across CEE,'*** says Dóra Petrányi, CEE Managing Director, Head of TMT, Hungary at CMS. ***'We not only have smart offices, there is also an ever-growing number of smart factories with smart production lines. New digital infrastructure is the base of their operations.'***

Attracted by competitive labour costs, a skilled work force and benign local business conditions, manufacturing in CEE has benefited from robust FDI for many years: it now comprises roughly 20 percent of the combined CEE economy, compared to an EU- wide average of 15 percent. As the CEE manufacturing base becomes ever smarter, the systems deployed in factories, on production lines and across supply chains are becoming fully integrated and collaborative to meet changing demands and customer needs.

*How confident are you that EU/regional and local digital infrastructure strategies will meet your business ambitions in 3-5 years' time?*




# Digital factories

As the largest industrial manufacturing company in Europe, Siemens has a Digital Factory Division with smart plants across the CEE region. These aim to provide customers with ***'a comprehensive portfolio of hardware and software products which enable the comprehensive integration of data from development, production and suppliers.'***

Richard Bacek, General Counsel Siemens, Czech Republic, Romania and Slovakia, says: ***'We are facing increased demand from our customers on digitalisation of the production facilities using artificial intelligence in their production.'***

Smart tech is also being applied in retail. Ákos Fekti, Legal Director & Compliance Officer at Coca-Cola Hellenic Bottling Company, says: ***'We operate in several CEE countries and have a digital strategy and initiatives for handling data. We have started to improve our digital capabilities, and are already seeing results like Innovative Lawyers 2020, published by the Financial Times, which recognises the simplification and standardization of contractual jobs in Coca-Cola HBC as a commended practice, and a business enabling innovation.'***

At present, Europe leads the way in the deployment of AI in manufacturing. Over half of the top European manufacturers implement at least one instance of AI in manufacturing operations, according to McKinsey.

Pushing further ahead in the use of I4.0 technologies is therefore integral to maintaining CEE's future international competitiveness. The V4 countries (the Czech Republic, Hungary, Poland and Slovakia), are seeking to advance co-operation in AI, arguing that ***'the support for concentration of R&D should be coordinated to regional hubs and mutually supportive networks to maximize V4's competitiveness.'***

Gergely Szertics, business partner at AI Partners, concurs: ***'It's an important part of the strategy of Hungary and other CEE countries: let's try to bring here more R&D centres that create greater synergies, particularly with the academic sector.'***

According to Amit Joshi, Professor of AI, Analytics and Marketing Strategy at IMD, the impact of smart technology will be dramatic. ***'A small change in operational efficiency can translate to huge changes in the level of profit,'*** he says.

Joshi anticipates ***'massive applications for AI and tremendous value' in streamlining operations in the energy sector as well as in construction – 'things like giving sensors to workers who are on the job.'*** It can also be applied, he adds, to smart elevators, earthmovers, and cranes. ***'Beyond the cool sexy applications of self-driving cars and drug innovation, or for product recommendations in retail and healthcare, these kinds of industries are going to be hugely impacted.'***

# Smart cars

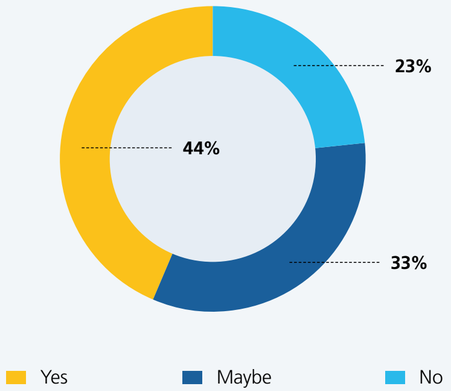
CEE is renowned for its high-quality, low-cost manufacturing operations, supply chain digitalisation and efficiency gains. Smart automotive manufacturing has made huge strides in the region, which has become the only place in Europe where the share of robots in the automotive sector (53%) surpasses the non-automotive sector.

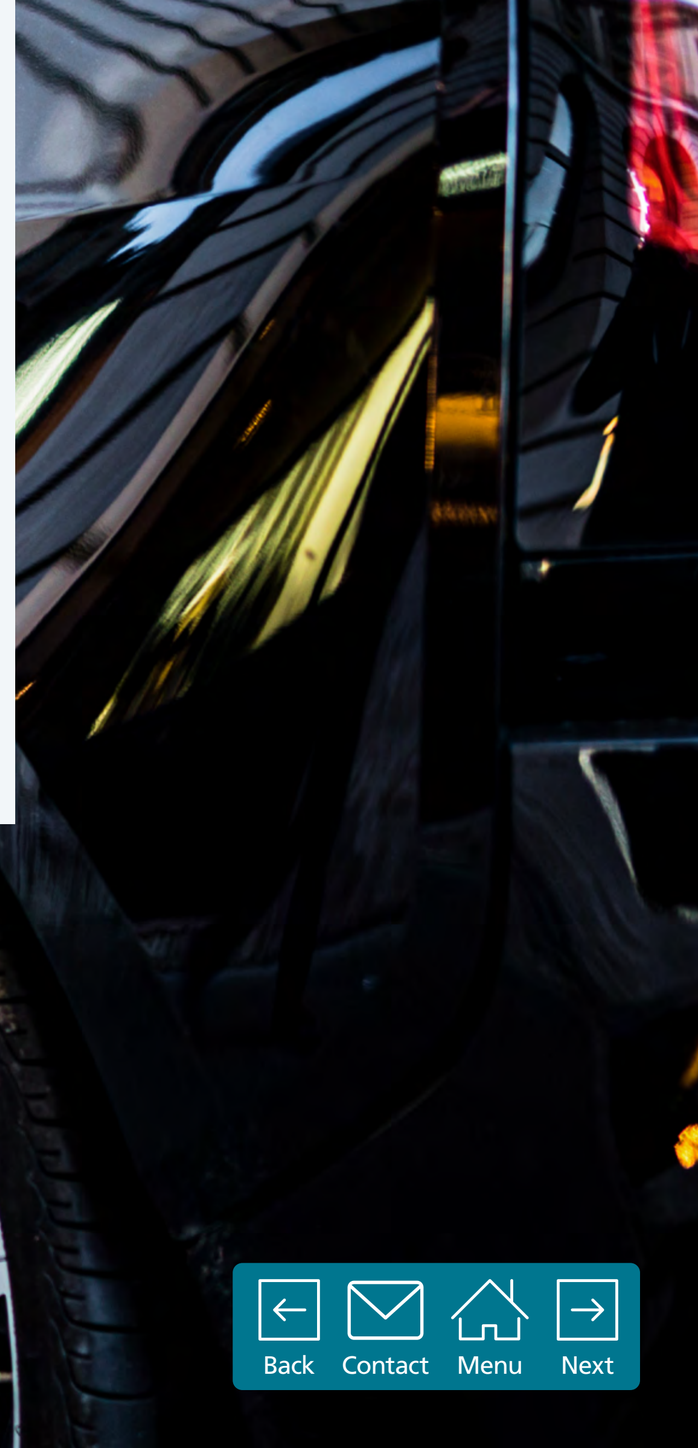
In aggregate car production, The Czech Republic and Slovakia lead the way as one of the key European automotive hubs, followed by Poland, Hungary and Romania. Between them, these five countries produced nearly 5.2m cars last year – more than Germany. Smart technology is already being used in CEE factories by a range of manufacturers, including: Volkswagen, Škoda, Kia, Audi, Mercedes-Benz, Jaguar Land Rover, Hyundai, and PSA Peugeot Citroën.

Automotive and other manufacturing sectors also depend upon smart supply chains. In looking for ways to make them more efficient, manufacturers are turning to Industry 4.0 solutions, connecting diverse areas of their business. In practice, this involves using real time data, spotting weaknesses in equipment derived from multiple sensors and data points, and ensuring quick replacement of parts.

But cars are not the only sector to benefit from smart production. According to the IDC, COVID-19 is the new force shaping the evolution of IoT maturity in Europe, as companies are forced to adjust their technology road maps in response to the crisis.

*Do you anticipate greater cooperation with other companies in your sector in developing/ using digital technology?*



# Health-related innovation in CEE


In fighting the pandemic, a range of advances in medical technology and biotech has put healthcare and life sciences centre stage. Health-related industries are among the most dynamic sectors for innovation in CEE: e-healthcare, telehealth, digital health, gene therapies, intelligent drug discovery and development, and consumer wearables are some of the drivers.

***'Johnson & Johnson is very interested in digital solutions and the digitalising of our work,'*** says Kamil Šebesta, Legal Director, Medical Devices Group at Johnson & Johnson. ***'Digitalisation, especially in the last six months, has become a key part of the future. We have digital programmes for our customers so we can help them make efficient use of their resources in hospitals. Our digital products can simplify some processes, making them more efficient and saving costs. These savings can help them to enhance and increase their capacity and quality of patient care.'***

CEE research among life sciences companies in the region shows that 65% of them believe that digitalisation is important in achieving their business goals, 62% are investing in data analytics, a third of them already use AI, while 84% plan further AI investment in future.

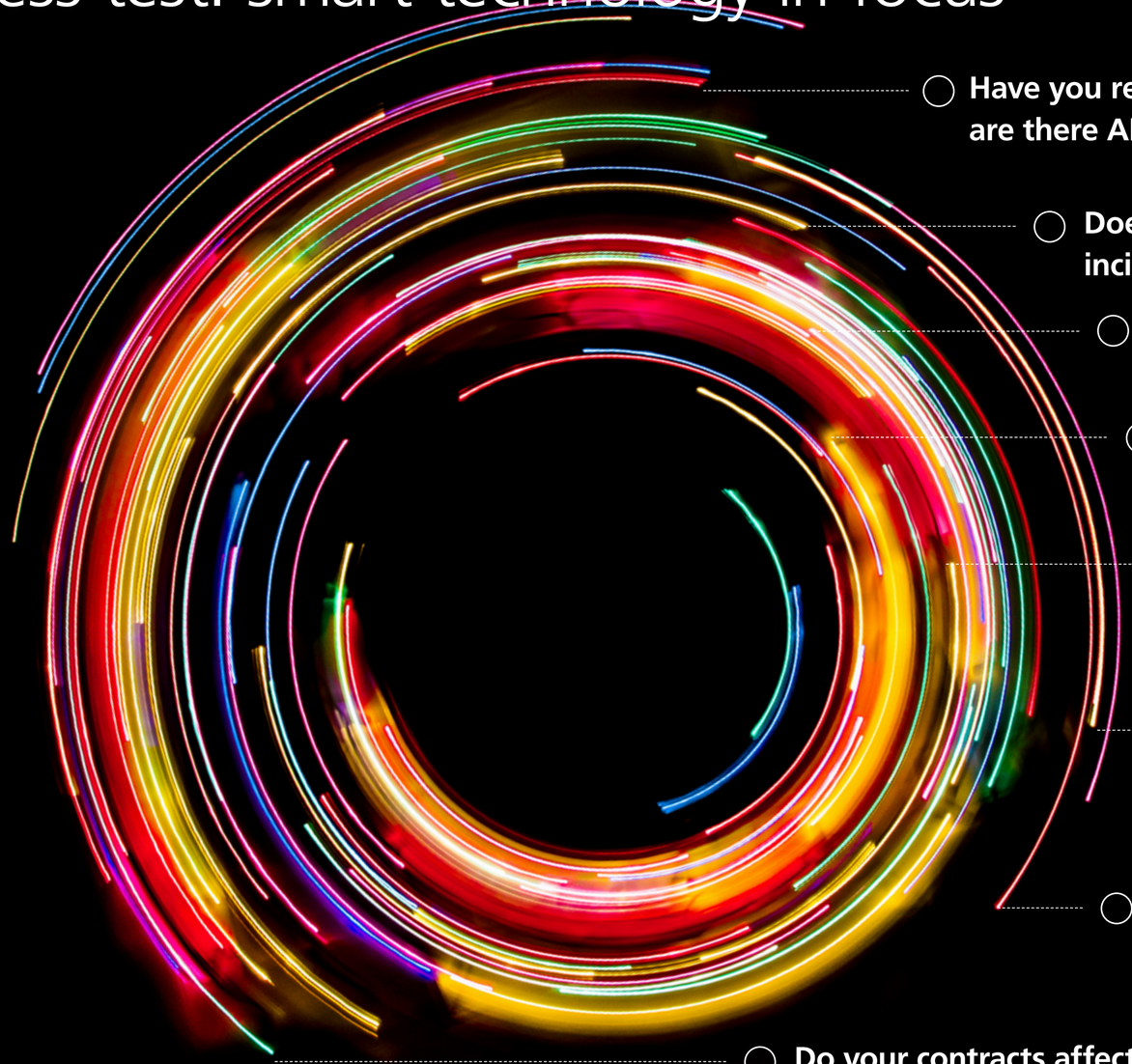
These levels of investment and application demonstrate the need for life sciences to become smarter still and reflect comparable levels of anticipated demand in other sectors. But size and scale, allied to cost pressures, are recognised as potential inhibiting factors in trying to achieve the required levels of sophistication.

The absence of an existing digital culture also holds some companies back from incorporating I4.0 technologies. Knowing that I4.0 is the right strategic choice does can automatically lead to instant adoption. It takes time and money. For that reason, 44% of respondents in all sectors, surveyed by CMS, anticipate greater cooperation with other companies in developing and using digital technology.

In mapping out their post pandemic strategy, there is still a way to go before every CEE business reaches digital maturity and becomes a fully smart operation. The post-pandemic shift in global supply chains will inevitably sharpen their focus with an increased interest in bringing production from Asia back into Europe.

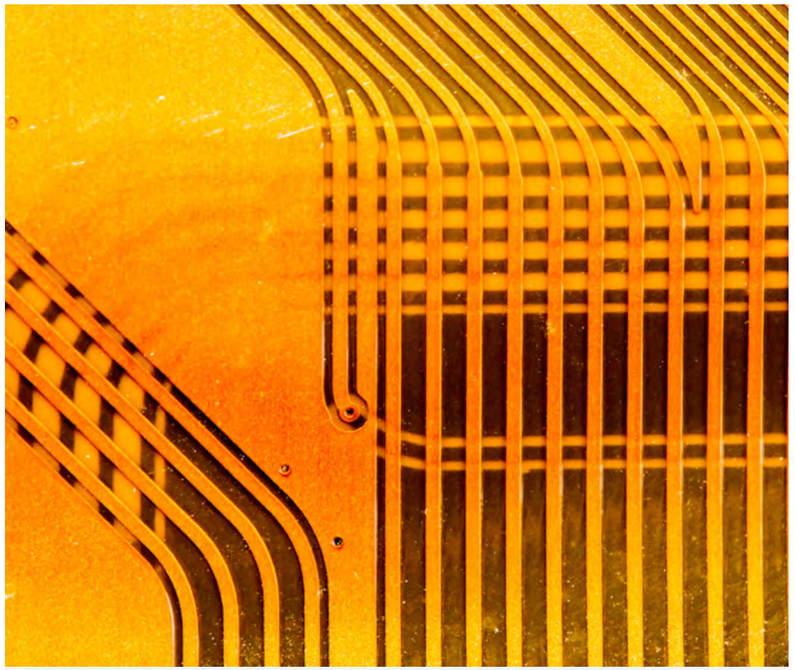
To secure European supply chains of the future, CEE is very well-positioned. Taking advantage of these opportunities, international manufacturing companies are expected to set up new CEE operations to service the continent. Having the right technology and becoming smart will be a key part of that process.

# Stress-test: smart technology in focus



- Have you reviewed your Business Continuity and Disaster Plans – are there AI or smart technology related issues and processes?
- Does your Incident Management Plan include AI/smart technology incidents, events?
- Do you have policies, principles and processes for AI-driven decision making?
- Do you plan an impact and risk assessment on AI/smart technologies and legal/ ethical issues?
- Have you checked your liability insurance: does it cover the use/provision of AI/smart technology?
- Have you reviewed other policies – do they cover AI liability issues and contain processes for avoiding biases?
- Have you checked your products/solutions that use AI or smart technologies: are they patentable/copyrightable? Do you have a policy to ensure their patentability?
- Do your contracts affect AI and smart technologies cover liability issues?

# Explore these topics more:



## Security Token Offerings

Find out more here


## CMS Expert Guide to Autonomous Vehicles

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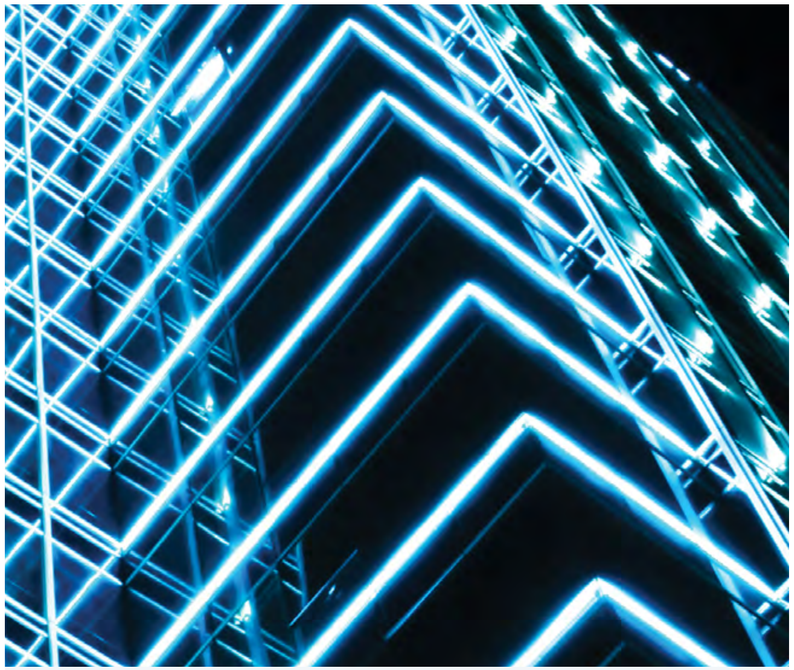

## Proptech – Smart Office

Find out more here

# Talk through your digital strategy with us

If you would like to consult on or stress-test your business' digital strategy with your local CMS experts, please do get in touch with us.

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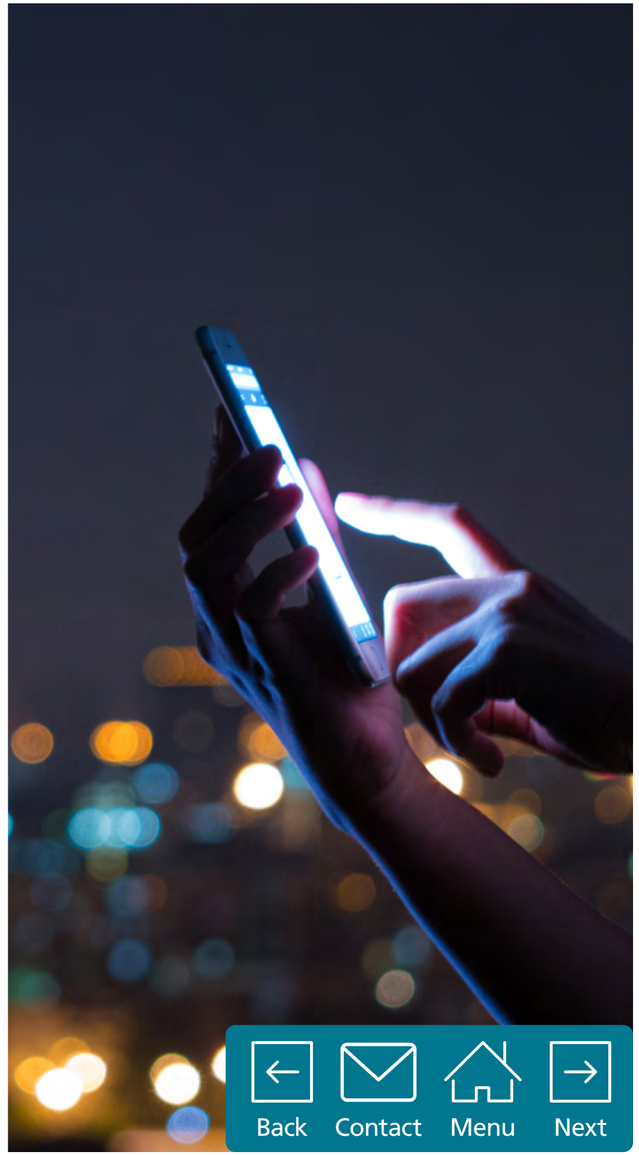

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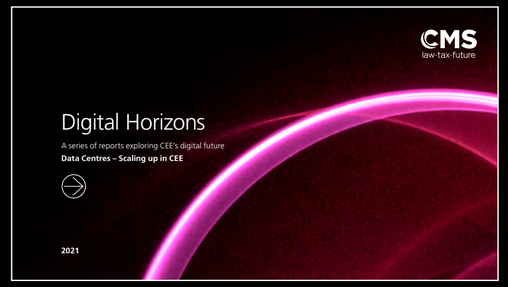


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