

Digital Horizons

A series of reports exploring CEE's digital future

Data Centres – Scaling up in CEE

Introduction



The world needs more data centres: that much is evident from the projected growth in data generation. Last year, the volume of data created, captured, copied, and consumed worldwide was c.64Zb – a figure that is anticipated to grow to c.180Zb by 2025. Inevitably, big companies operating in Europe will need more data centres to house the increasing volumes of valuable data which they hold. In terms of cost, incentives and access to skilled labour, CEE provides significant opportunities for these companies to build safe, secure and cost-effective data centres in a multiplicity of locations across the region.

"Everything depends on local regulations: that's why in some CEE countries there are more data centres than elsewhere," says Olga Belyakova, CMS partner and co-Head of TMT in CEE. "This is often connected to factors such as local rules for construction procedures, energy generation and telecom infrastructure."

From an investment perspective, CEE-based data centres - including new internet provision and HVAC systems - are equally attractive: they provide stable revenues since operators generally sign long leases and rarely relocate because of significant upfront costs and the inherent risk of data loss during migration. Accordingly, data centres are becoming a key part of commercial real estate development across CEE, a phenomenon which has been accelerated by the Covid-19 pandemic.

"Thanks to EU harmonisation, you have very transparent and predictable legal systems in CEE, with favourable tax regimes in some countries," says Eva Talmacsi, Co-Head of the CEE TMT Practice at CMS. "There is an exponentially growing demand from various companies operating in Europe, which are not necessarily based in CEE, but their data centres could be."

CEE digitalisation

The revolution in data centre development coincides with big companies and national governments escalating the speed and scale of their technological transformation. Governmental commitment to digital infrastructure has enabled the development of solid broadband infrastructure. According to McKinsey Research, CEE's digital economy grew by almost 8% a year between 2017 and 2019 – nearly double the equivalent in the major economies of Western Europe.

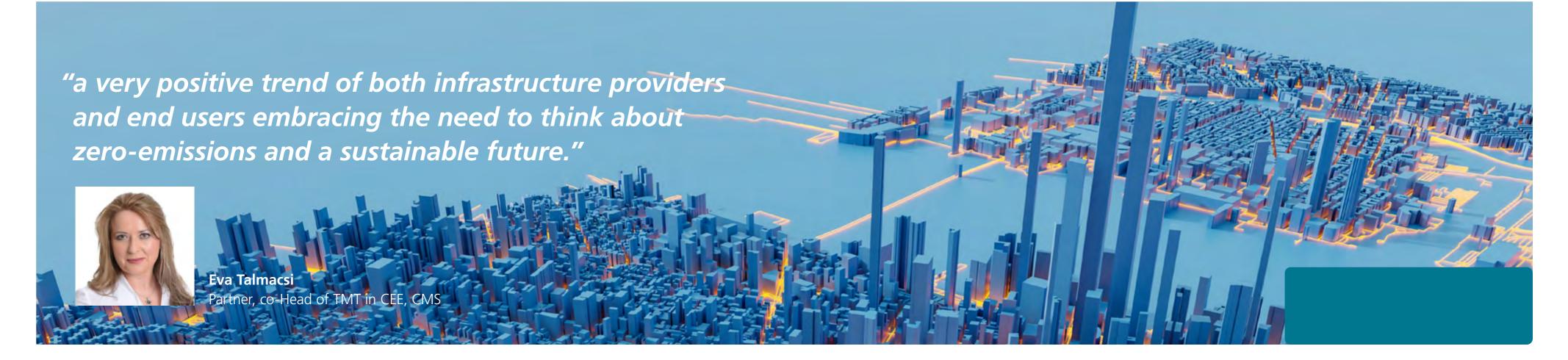
Acceleration of a digital, tech-driven economy is seen as pivotal to post-pandemic growth across the region. So too is the pressure to incorporate sustainability into new buildings, such as data centres. According to Talmacsi, future-proofing digital infrastructure is a high priority for regulators and businesses alike. Citing Netflix's commitment to achieve net zero emissions by the end of

2022, she identifies "a very positive trend of both infrastructure providers and end users embracing the need to think about zero-emissions and a sustainable future."

Together, the confluence of multi-Cloud and Big Data strategies, the move towards 5G, and the increased industrial use of AI and smart city initiatives are fuelling demand for data centre companies. As new data centre locations appear, tech companies are focusing on European capitals. Among CEE hubs, Warsaw takes the lead. Internet usage in the region is already high. While 47% of people in the EU looked up information on public authority websites last year, for example, three CEE countries were above average: Hungary 60%, the Czech Republic 53% and Slovakia 51%.

In bridging the technological gap with Western Europe, corporate expenditure on digitalisation in CEE continues to rise with large IT companies reporting strong demand. For example, CEE's largest local software company, Asseco, saw its project pipeline grow by 25% last year. Across the EU, 36% of companies use Cloud services. In CEE, the Czech Republic ranks highest (29%), followed by Slovakia (26%), Hungary (25%) and Poland (24%). Comparable figures for Big Data technologies show that 14% of EU companies use them. The Czech Republic, Poland, Hungary and Slovakia, where the figures are 9%, 8%, 7%, and 6%, respectively, are expected to catch up with the rest of the EU over the next few years.

Cloud Services and Big Data technologies What percentage of companies use cloud services and big data technologies in European countries? EU Czech Republic Slovakia Hungary Poland Cloud Services Big Data technologies 36% Hungary Poland Cloud Services Big Data technologies 40% 9% 6% 6% 6% 6% 6% 6% 7% 8%



CEE - Multinational hubs



Throughout CEE, there has also been an increase in supply requirements from hosting, managed service and Internet service providers. During the COVID-19 pandemic, many operators saw a surge in demand from existing customers in these subsectors seeking to expand their footprint to meet increasing enterprise demand.

"Over the past two years, there has been an expansion of major players in the data centre market and in developers, specifically in Poland," says Tomasz Łosek, Head of Data Centres at Turner & Townsend in Poland. "These are hyperscalers - big players in the data market. Effectively there are three big ones: Google, Microsoft and Amazon Website Services." Cybersecurity providers are critical in the operation of such data centres: CEE's strong reputation in this area helps to make the region a preferred client choice.

Other major end users across CEE include the ICT, finance, insurance, and utility sectors, as well as public administrations. Financial sector companies that have already located their tech hubs in Poland, for example, include ING, UBS, Morgan Stanley and Credit Suisse. Key investors in the CEE Data Centre space include: Equinix, Conova Communications, IXcellerate, Interxion, Boosteroid, 3data, DataPro, Host-telecom.com, and CEZ Group. Global tech giants have also announced plans to open a major data centre and cloud hub, respectively in the region.

EU's Digital Europe programme

Recognising that digital transition will underpin its future prosperity, the EU plans to increase funding to support digital investments. In the Multi-annual Financial Framework, part of the long-term EU budget, the Commission has proposed a Digital Europe programme to accelerate post-COVID-19 recovery and drive the EU's digital transformation. 'The Digital Europe programme will boost investment in supercomputing, AI, cybersecurity, advanced digital skills, and ensure the widespread use of digital technologies, including through digital innovation hubs.' says Dóra Petrányi, CEE Managing Director, Head of TMT, Hungary at CMS.

To realise this, building capacity for new digital technologies will be augmented to support digital transformation that will benefit people and businesses. With a budget of €7.58 billion, the Digital Europe programme will run from 2021 to 2027, complementing other EU programmes, such as the Horizon Europe programme for research and innovation, and the Connecting Europe Facility, which focuses on digital infrastructure.

"The Digital Europe programme will boost investment in supercomputing, AI, cybersecurity, advanced digital skills, and ensure the widespread use of digital technologies, including through digital innovation hubs."



Dóra Petrányi Partner, CEE Managing Director, CMS



Key investment factors

Incentives

To ensure that enterprises can compete on equal terms in the markets of all member states, it is generally prohibited under EU law to grant any kind of incentive that may affect competition and trade between them. But there are exceptions to this general rule. These allow the granting of aid for R&D, training, the creation of employment and environmental protection, the development of certain business areas of activities (sectoral aid), and regional aid to promote economic development in areas where the standard of living is very low compared to the EU average.

Since many CEE countries are less economically developed than their Western European counterparts, aid is often permissible to encourage development within designated regions. Accordingly, investment grants are available in some CEE countries, such as the Czech Republic, Poland, Bulgaria, and Slovakia. To varying degrees, corporate income tax reliefs can be applied while cash grant schemes for priority areas can cover salary costs in regional development which promotes job creation.

Energy supply

Energy is critical in data centre operation. "Data centres are energy intensive users," says Piotr Ciołkowski, Energy and Projects partner at CMS Poland. Typically, a dry storage warehouse will require around 50kW of electricity per 1000 sqm, whereas an average data centre of comparable size and a standard number of servers requires around 2MW - 40 times as much. Because data centres operate continuously, they must be safeguarded against power or internet outages, and voltage spikes. To mitigate these risks, more than one source of both electricity and fibre optic internet provision are necessary.

In case of network failure, separate systems for each internet provider are also imperative.

Barriers to the free flow of non-personal data between member states have recently been removed under EU law. In this context, Poland is well-positioned as a potential European data hub: it has the second-lowest corporate electricity prices in the EU while a planned pipeline to Norway, which will improve the country's energy security, is likely to attract more companies that offer cloud services to Poland from across Europe. Benefiting from relatively low construction costs and land prices, Poland is also undergoing significant improvement in its transport and digital infrastructure. Together with a pool of skilled domestic IT labour, this further adds to its investment appeal.

Tax Benefits

Corporate income tax (CIT) rates vary widely across the EU. In a competitive tax environment, several CEE countries offer low rates to attract foreign investment. Notably, four of the five EU countries with corporate tax rates below the EU average of 20.7% are in CEE: Hungary has the lowest rate at 9%, followed by Romania, 16%, and the Czech Republic and Poland, both 19%.

To encourage investment, many countries are also seeking to introduce measures which favour reinvestment of profit, so that tax collection is shifted to the point when a company distributes profits to shareholders. This system supports reinvesting earnings and has simplified tax accounting requirements. In 2021, Poland became the first country to introduce thus tax regulation in the CEE region.



Key investment factors

Skilled Labour

Big multinationals already use CEE as a major hub for back-office process outsourcing. They rightly perceive CEE as a good place to locate their R&D, technological and operational centres with access to an abundance of highly skilled local programmers and ICT employees who are more than a match for other labour markets. Critically, Eurostat data from 2019 shows that labour costs in CEE are up to 70% lower than equivalent rates in Western Europe. Łosek points to the availability of a skilled workforce at moderate costs. "We have a relatively high number of young educated people, whose salary demand is below the level of Western Europe, but who provide equivalent services to Western Europe," he says.

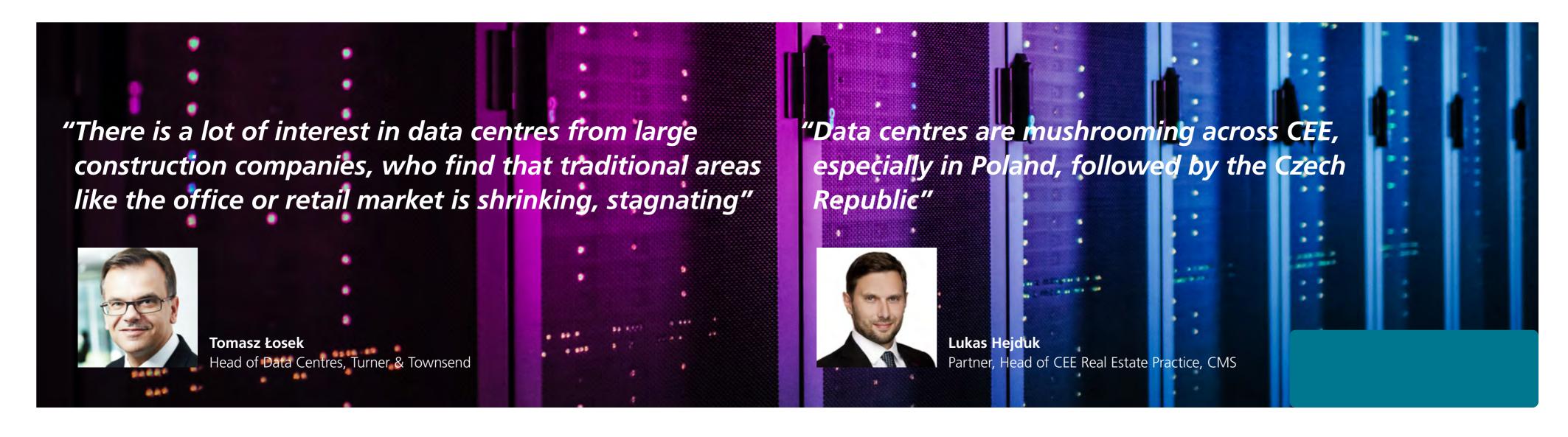
Real Estate

The increasing volume of data that needs to be managed, stored and controlled is driving the construction of new data centres to meet demand. For the real estate sector, this provides significant potential. Data centres are set to see strong growth, according to a recent report from global commercial real estate company CBRE. "There is a lot of interest in data centres from large construction companies, who find that traditional areas like the office or retail market is shrinking, stagnating," notes Łosek. "They are looking at switching to provide the infrastructure."

Lukas Hejduk, Head of CEE Real Estate and Construction at CMS in Prague, adds: "Data centres are mushrooming across CEE, especially in Poland, followed by the Czech Republic," he says. "They are typically long-term, triple net leases, which means that the landlord is able to recover their costs very easily: all expenses including taxes, insurance and maintenance are covered by the tenant. Data centres are emerging as a new sector and are already attracting investors' interest. There is a lot of development. A number of operators use data centres as co-location centres, renting out space to other companies."

Conclusion

Fuelled by strong demand that is anticipated to grow further, the outlook for data centres across CEE remains very buoyant. This is underpinned by a range of beneficial factors: a secure and well-developed digital infrastructure, supportive national governments, a range of EU incentives, access to a pool of highly skilled IT labour with distinct cost advantages, reliable energy sources, and access to real estate that enables and supports hybrid digital infrastructures.



Stress-test: data centres in focus



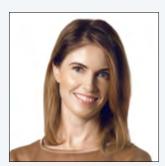
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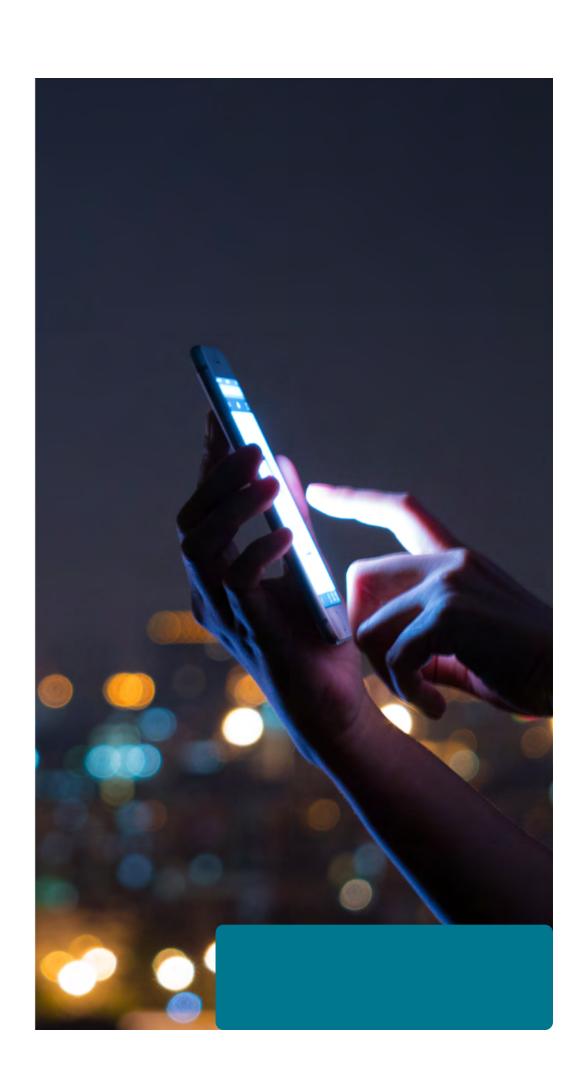


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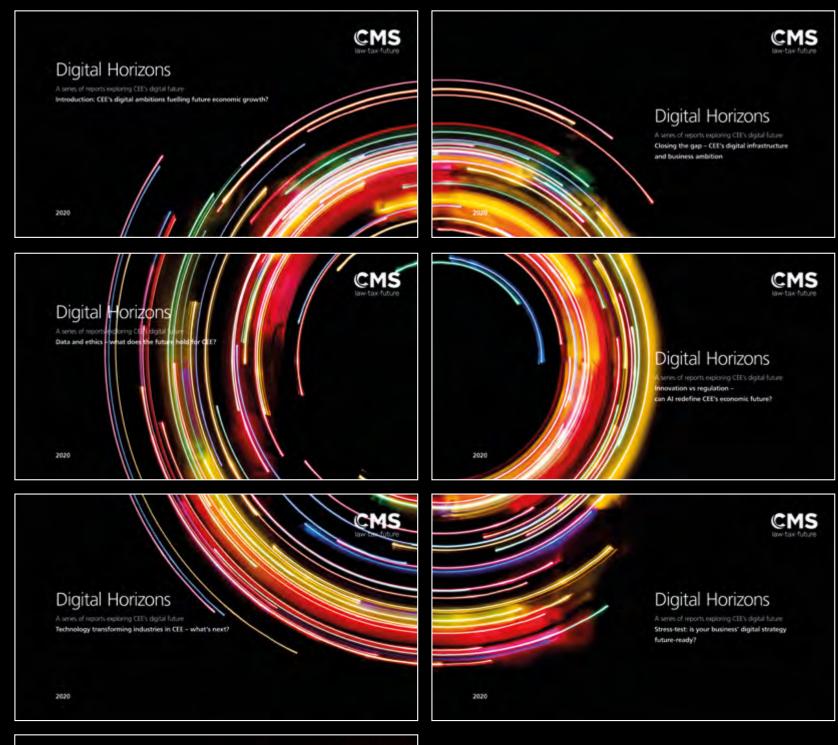
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