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COMPUTE, CAPITAL AND SOVEREIGNTY:

Learnings for Europe from the UAE on scaling AI.

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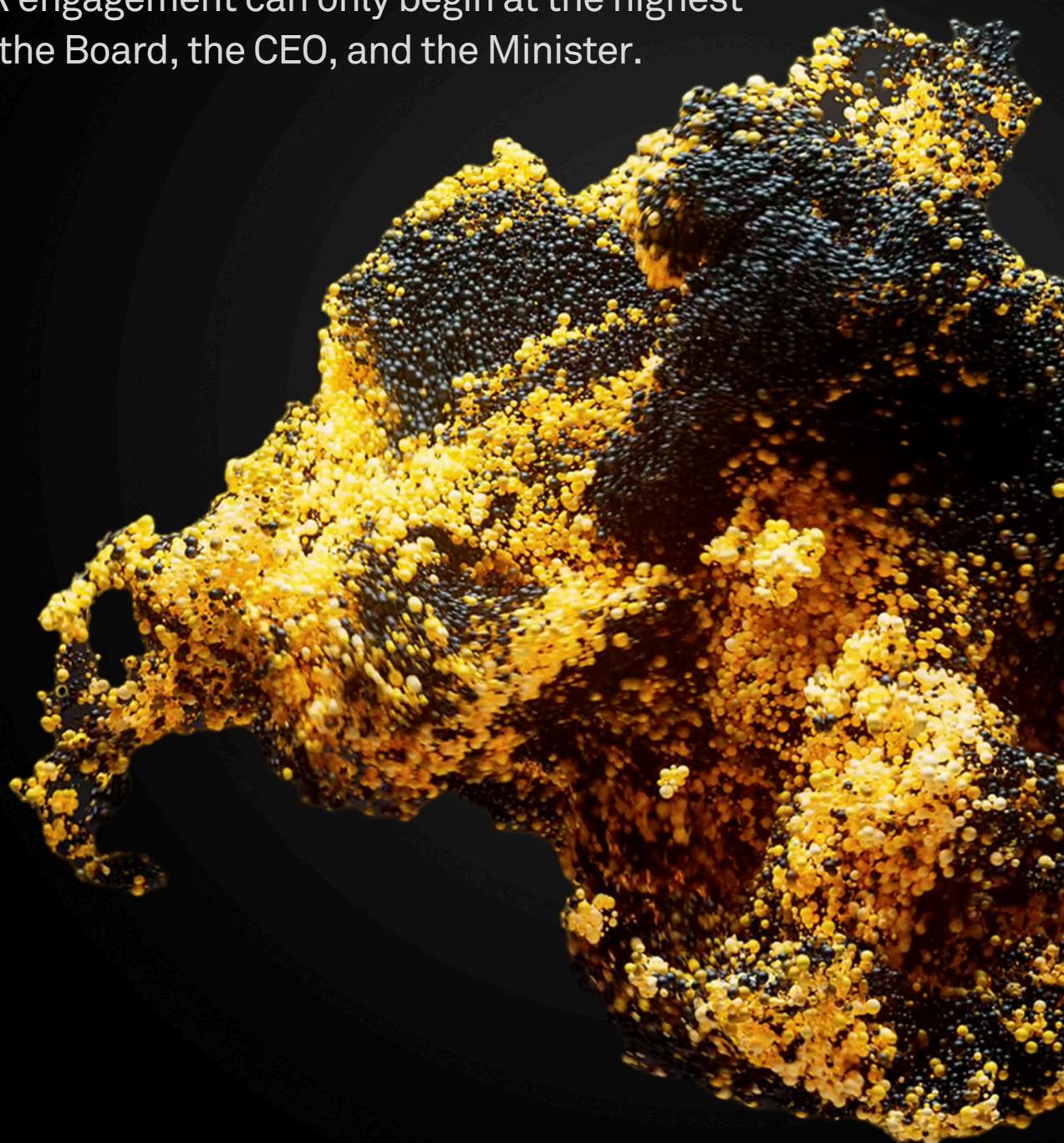
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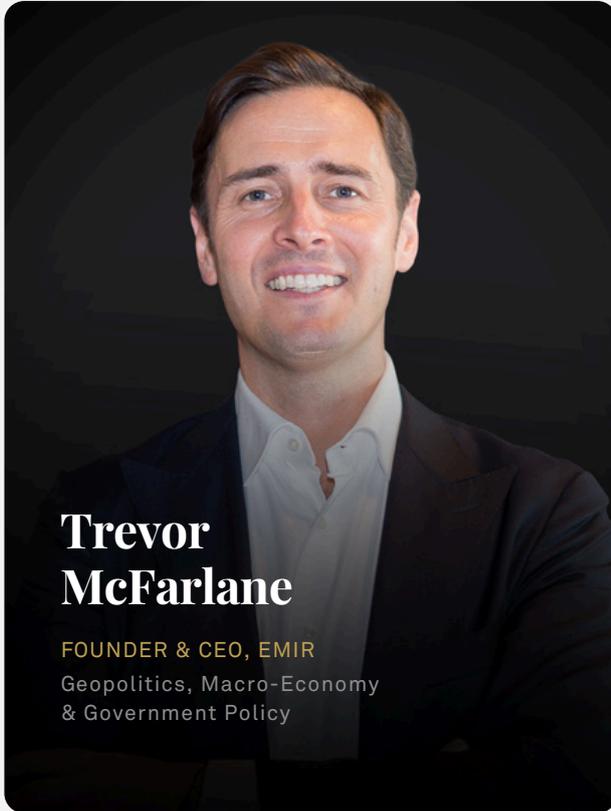
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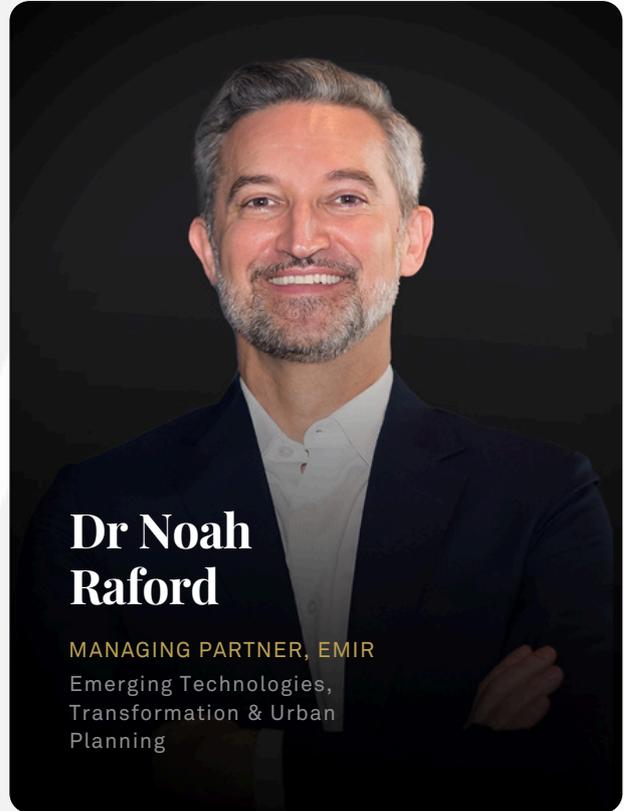
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About This Report.

Compute, capital and sovereignty: learnings for Europe from the UAE on scaling AI is an EMIR Intelligence report, supported by Core42, a G42 company specialising in sovereign cloud and AI infrastructure. It explores what Europe can learn from the UAE's rapid progress in building AI compute capacity and enabling sovereign AI adoption. It assesses Europe's current AI deficit spanning slower productivity growth, uneven enterprise adoption, and emerging infrastructure constraints and contrasts this with the UAE's state-backed approach to scaling low-cost compute and stimulating AI demand through public-sector deployment.

The analysis is informed by a review of public data and third-party research on productivity, corporate AI investment, and the data centre buildout challenge, alongside expert perspectives captured through interviews and commentary. It demonstrates how sovereign approaches, including localised cloud and controlled data/AI workflows, can accelerate AI adoption in regulated sectors, drawing on execution at scale through platforms such as Core42's sovereign cloud and its expanding European partnerships.

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Compute, capital and sovereignty:
Learnings for Europe from the UAE on scaling AI.

From a renewed focus on security to energy independence and decarbonisation, the European Union's ambitions for the next five years hinge on industrial renewal.[1] Yet the continent has yet to decisively embrace the technology most likely to unleash productivity gains: Artificial Intelligence.

European companies lag behind US peers in terms of adoption[2] and prioritisation of AI,[3] while creaking infrastructure and a lack of political direction leave the continent struggling to meet the energy needs of the technology.[4] Europe faces a pivotal decision: either act now to develop competitive AI infrastructure, or risk falling behind as innovation migrates to regions with abundant computing power.

The United Arab Emirates (UAE) shows what can be achieved if a state's resources are fully mobilised behind AI. With a massive infrastructure buildout to develop low-cost compute capacity[5] and state adoption of AI to create local demand for services,[6] the country has moved into the top 5 of Stanford's Global AI Vibrancy index.[7] This paper explores what lessons Europe can learn from this experience.

EUROPE'S AI DEFICIT

The economy of the EU has grown more slowly than the US over the past two decades.[8] Much of this is down to a productivity problem: the average European worker now produces only 76% as much as a US counterpart *(see chart 1)*.[9]

CHART 1

Productivity: Output per hour worked, 2023

Country	$/h
United States	83.5 $/h
Germany	82.5 $/h
France	77.7 $/h
United Kingdom	68 $/h
Italy	67.2 $/h
Spain	64 $/h
Poland	64 $/h
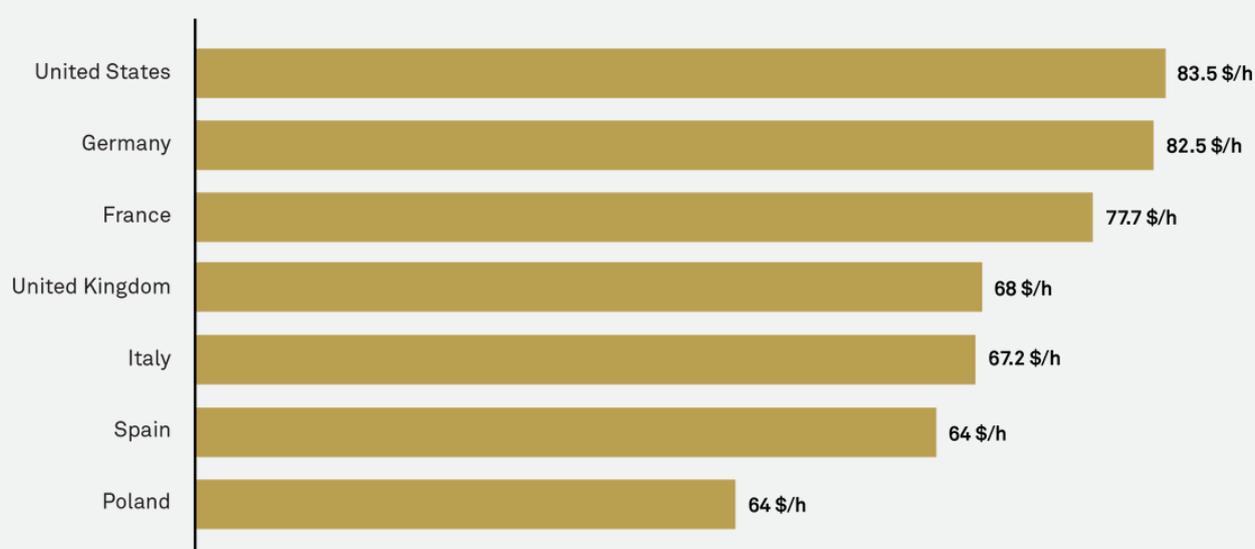
Source: World Bank[10]

> **"THE ONLY WAY FOR COMPANIES TO SUCCEED WITH AI IS FOR IT TO BECOME BUSINESS AS USUAL - ADOPTED THROUGHOUT THE ORGANISATION."**

DR MAX CLARK

CHIEF TECHNOLOGY OFFICER -EMEA, PARSONS

Yet European companies have so far failed to comprehensively adopt the technology most likely to change that. More than half (56%) of 800 large European companies surveyed in 2025 have yet to scale a major AI investment. If they did, almost €200 billion would be added to annual business revenues in a significant boost to productivity, according to Accenture.[11]

Many factors contribute to European firms' slow adoption of AI. Its companies invest less than their US peers.[12] Historic firms are beset by legacy technology challenges that make it hard to combine data from across the company to feed into AI models. The EU's Artificial Intelligence Act, meanwhile, imposes costs on European companies before they have developed production-ready tools.

> **"EUROPE IS A COMPLIANCE-LED REGION, WITH A STRONG FOCUS ON PRIVACY. WHILE WE DON'T DISAGREE WITH THAT, IT DOES MEAN EVERY ASPECT OF AI IMPLEMENTATION NEEDS TO BE ANALYSED, WHICH MEANS MORE TIME FOR IMPLEMENTATION AND EXECUTION — MORE THAN ANY OTHER CONTINENT OR REGION."**

SANDRINE EL KHODRY

EXECUTIVE VICE PRESIDENT - GLOBAL SALES AND MARKETING ALCATEL-LUCENT ENTERPRISE

But above all of these implementation challenges lies a problem of commitment: a failure to recognise the unique opportunity represented by AI and to reshape economies around it. Without urgent action, this is likely to come to a crunch in the next decade, with an anticipated shortfall in infrastructure denying European firms speedy access to the latest AI tools and products.

THE LOOMING INFRASTRUCTURE CHALLENGE

To work, AI requires giant server warehouses with enough graphic processing units (GPUs) to train large language models (LLMs) and then put them to work on customer data. Where this specialist infrastructure ends up is crucial for two reasons.

First, the 'latency', or time taken, to transmit information back and forth between companies and the data centres where AI tools operate, increases with the distance between them. This gives firms with access to local AI computing power a significant advantage.

Second, because of data security issues. In regulated industries like healthcare, energy, telecommunications and, above all, government, there is sensitivity about allowing data to leave the borders of a nation-state, where it becomes subject to the jurisdiction of another country.

Domestic AI infrastructure is a foundation for AI sovereignty, ensuring that data, infrastructure, and models remain subject to national jurisdiction and control.

So far, Europe has fared well in terms of local AI infrastructure. Providers like Google, Oracle, Microsoft and Amazon have invested heavily in specialist AI data centres on the continent, because it is among their largest markets after the US. That gives European companies low-latency access to the AI tools built for each of these companies' AI ecosystems *(see chart 2)*.

> "TO EFFECTIVELY USE DATA ANALYTICS, MACHINE LEARNING OR AI, YOU WANT TO HAVE YOUR TOOLS AND PROCESSING POWER NEXT DOOR TO WHERE YOU STORE THE DATA. IT IS NOT EFFICIENT TO MOVE DATA FROM ONE SERVER OR DATA CENTRE TO ANOTHER."

DR MAX CLARK

CHIEF TECHNOLOGY OFFICER - EMEA, PARSONS

> "BY USING AI TO ANALYSE YEARS AND YEARS OF DATA, YOU'RE ACTUALLY TURNING THAT DATA INTO INTELLECTUAL PROPERTY. SO DO YOU WANT THIS IP TO BE CONTROLLED BY SOMEBODY ELSE? FOR MANY OF OUR CLIENTS, THE ANSWER IS NO."

KHALID MOHAMMAD

VICE PRESIDENT - EMEA ELECTRICAL SECTOR, EATON

CHART 2

The Global AI Divide (where AI data centres are located)

European Union 28
Other Europe 8
United States 26
China 22
Other Asia 25
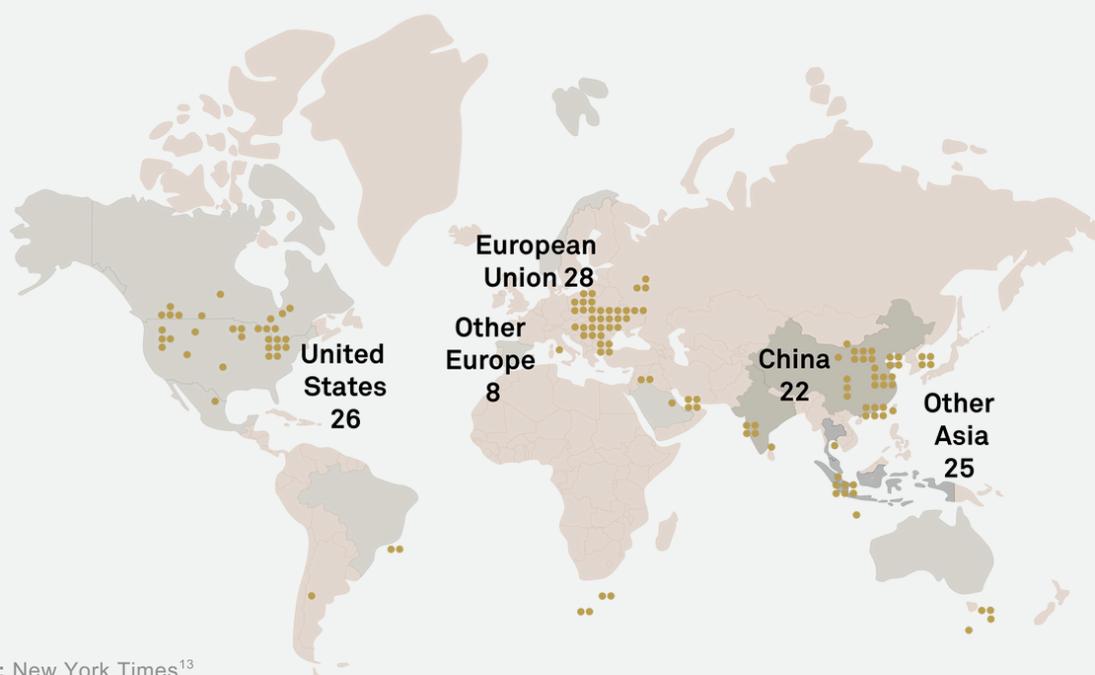
Source: New York Times[13]

> **"THE DATA CENTRE INDUSTRY IS ESSENTIALLY GOING TO HAVE TO THINK ABOUT WHERE TO LOCATE THE NEXT GENERATION OF DATA CENTRE SITES."**
>
> ___
>
> **PAUL O'DONNELL**
> PARTNER
> SCHRODERS GREENCOAT

This existing infrastructure is about to be eclipsed, however, by what JP Morgan forecasts to be $5tn of investment in data centres over the next five years to meet surging global demand for AI.[14] The ability to generate power will be a major constraint on where infrastructure is built, according to the bank.

With its decades-old power grids already creaking under existing demand, relatively high power prices and commitments to shift to a renewable generation, Europe faces a struggle to support a massive buildout. In fact, in Ireland, where data centres already account for more than a fifth of total power demand,[15] global tech firms are already under pressure to build energy sources on-site at data centres, rather than rely on access to the grid, according to Paul O'Donnell,

> **"THE ENERGY CONSTRAINT ISSUES, THE NOT IN MY BACKYARD POLITICS AND REGULATION, ACCESS TO WATER, ALL OF THESE THINGS ARE FUNDAMENTAL BOTTLENECKS FOR AI INFRASTRUCTURE DEVELOPMENT IN EUROPE."**
>
> ___
>
> **DR NOAH RAFORD**
> MANAGING PARTNER
> EMIR

a partner at Schroders Greencoat, which owns and operates European renewable energy infrastructure.

Unless Europe can find ways around these constraints to develop abundant computing capacity, it risks seeing AI become a scarce input for its firms, leaving them unable to confidently commit to multi-year AI roadmaps. On the other hand, if the continent can act urgently to secure low-latency, sovereign ecosystems within its borders, the benefits will be huge. One country which has shown this is possible is the UAE.

THE UAE PATH TO RAPID AI GROWTH

While the UAE boasts a handful of giant companies, including state-owned energy firms, it is not yet a globally significant demand centre for AI services like Europe. The country's government, however, committed early to both the development of AI infrastructure and the adoption of AI tools. This has helped to foster a mutually reinforcing ecosystem around AI that has become the envy of many highly developed states.

The UAE's combination of empty desert and abundant, affordable energy has drawn US tech firms to construct extensive infrastructure in the country. A wave of investment from hyperscaler data centre projects[16] to OpenAI's Stargate development in Abu Dhabi,[17] has created a dense, multi-firm environment in the UAE, which gives local companies low-latency access to world-leading AI platforms.

In fact, the UAE is now ranked second globally behind only the US for total AI compute capacity *(see chart 3)*.

Abundant AI infrastructure has allowed homegrown UAE firms to develop sovereign AI offerings in partnership with global infrastructure providers. Core42's AI Cloud offering, for example, combines access to NVIDIA, AMD, Cerebras, and Qualcomm accelerators, with full visibility over data and workflows. Its customers can therefore keep sensitive data and AI operations within the UAE, while still accessing the latest technology.

This advanced sovereign offering has unlocked adoption in highly regulated sectors like energy and healthcare in the UAE. Crucially, it has come without the need for a comprehensive and intrusive EU-style AI Act, because compliance is guaranteed by localisation.

Today, the UAE ranks fourteenth in the world in the Oxford Insights' Government AI Readiness index, above most states in Europe.[19] Early adoption of AI across government services stimulated a local market for the development of AI tools, products and services. It also normalised AI usage across the economy and workforce, accelerating private-sector adoption.

CHART 3

Total AI compute power

Total AI compute power (H 100 equivalents, millions)

Country	Value
USA	39.7
UAE	23.1
Saudi Arabia	7.2
South Korea	5.1
France	2.1
India	1.2
China	0.4
UK	0.12
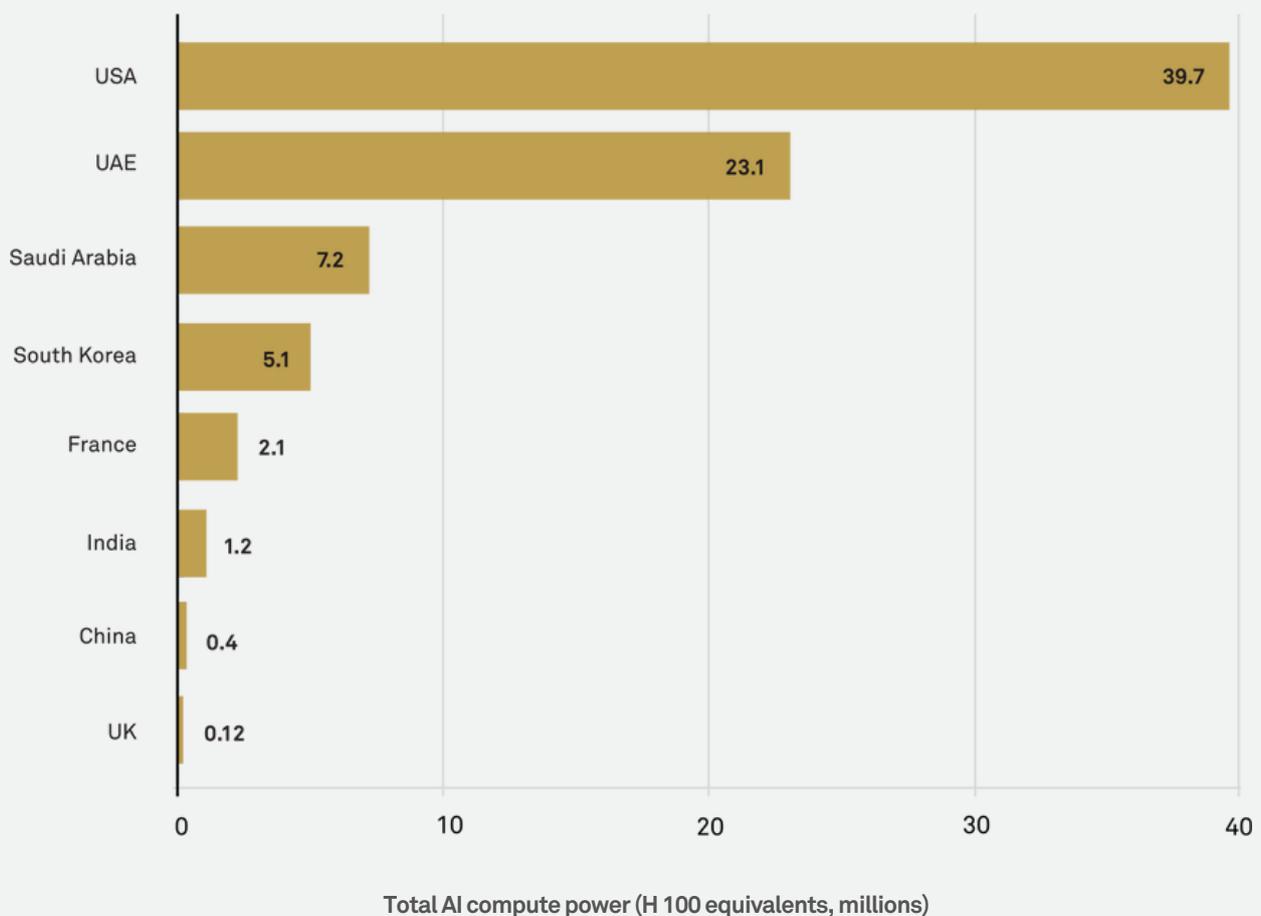
Source: TRG datacentres[18]

Companies interviewed for this report suggest a greater enthusiasm for integrating AI into workflows among their UAE-based workforces than the European teams they oversee.

These different dynamics of investment in sovereign infrastructure, homegrown ecosystem development and government-led adoption have created a self-reinforcing dynamic: infrastructure attracts further capital investment, sovereignty enables trust and AI adoption in regulated industries, while government-driven demand drives experimentation.

> "THE REGULATION HERE HAS FACILITATED US TO DEPLOY AI AT SPEED AND AT SCALE BECAUSE THE UAE OPTED FOR AN ADAPTIVE, PRINCIPLE-BASED MODEL RATHER THAN A COMPREHENSIVE AI LAW."

DR MAX CLARK
CHIEF TECHNOLOGY OFFICER - EMEA, PARSONS

> "LEADERSHIP IS KEY. THE DECISION TO ADOPT AI NEEDS TO COME FROM TOP DOWN, FROM THE EXECUTIVE, FROM LEADERSHIP."

SANDRINE EL KHODRY
EXECUTIVE VICE PRESIDENT - GLOBAL SALES AND MARKETING ALCATEL-LUCENT ENTERPRISE

LESSONS FOR EUROPE

The UAE experience shows that AI innovation will move to areas with abundant computing power at low cost. Multinationals increasingly factor local infrastructure into decisions about where to carry out AI experiments, while AI developers are leveraging the UAE's low latency infrastructure to train their models.

That leaves Europe at a crossroads. The next two to three years will determine whether the continent develops the sovereign infrastructure to unlock an AI-enabled productivity surge, or drifts into dependency on external computing capacity and platforms. Nearly a decade ago, in a similar position, the UAE acted with foresight, building sovereign platforms and compute capacity that power its AI leadership today. Europe can do the same if its governments, companies and investors move decisively.

> "WE ADAPT OUR TOOLS TO THE LOCAL ENVIRONMENT. WE ARE NOT GOING TO GO INTO A COUNTRY AND TRY TO ADOPT SOPHISTICATED AI TOOLS AND PROCESSES IF THE INFRASTRUCTURE IS NOT READY BECAUSE IT WILL BE A DISASTER."

SANDRINE EL KHODRY
EXECUTIVE VICE PRESIDENT - GLOBAL SALES AND MARKETING ALCATEL-LUCENT ENTERPRISE

Recommendations.

PROTECT TECHNOLOGICAL SOVEREIGNTY

Capital will flow toward ecosystems with guaranteed access to large-scale compute and clear regulatory frameworks that enable scaling without friction. EU governments must work with energy companies and global tech firms to overcome grid capacity and land use constraints to ensure the continent remains a viable destination for investment in AI infrastructure. The UAE experience demonstrates that sovereign AI infrastructure is an investable and scalable platform model that Europe can adopt faster through partnerships with operators that have already executed at scale.

DEVELOP SOVEREIGN OFFERINGS

Once infrastructure is in place, Europe will need to develop homegrown sovereign offerings that give European companies access to the latest AI technology while retaining full control over their data.

Some Gulf-based technology and infrastructure providers are already expanding into Europe through partnerships in Germany and France — for example, deploying cutting-edge AMD chips in next-generation data centres in Grenoble. Co-investments with experienced Gulf providers, which have already built sovereign-grade platforms in their home markets, can deliver near-term capacity in Europe while EU-led sovereign systems mature and scale. These collaborations will enable low-latency access to advanced compute resources while ensuring that data remains within national borders.

INTRA-SECTOR COMPACTS

Mature sovereign offerings will help accelerate the adoption of AI by regulated industries in Europe. To accelerate this further, energy, health and telecom leaders should align with both infrastructure providers and sovereign ecosystem developers on their needs from a sovereign ecosystem.

Industries could also share standards for data management and security, which could then become defaults in public-sector procurement.

> "THERE'S A PROLIFERATION OF STARTUPS HERE IN THE UAE. THEY COME HERE BECAUSE THEY KNOW THEY WON'T BE COMPETING FOR COMPUTE OR STRUGGLING TO ACCESS SERVICES."

DR MAX CLARK

CHIEF TECHNOLOGY OFFICER -EMEA,
PARSONS

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