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Infrastructure: The Engine Behind Every Breakthrough



AI dominates current technology discussions, but behind each announcement and innovation is a critical foundation called infrastructure.

As we approach 2026, infrastructure is the backbone of the digital economy and the driving force behind the AI revolution.

In recent months, there has been a considerable increase in infrastructure announcements.

The pace represents a competitive race to lay the groundwork for the future, and the size is worldwide.

The Era of Infrastructure Is Here

Infrastructure is now at the centre of the technology narrative. Companies worldwide are investing heavily in data centres, computing power, and connectivity, committing billions and soon trillions to meet future demands.

The recent announcement of a \$38 billion infrastructure agreement between **AWS and OpenAI** aims to ensure the cloud's limitless scalability for the next generation of AI workloads.

Kathrin Renz, VP of AWS Industries, said, "OpenAI will use Amazon EC2 UltraServers, featuring hundreds of thousands of chips, giving them the ability to scale to tens of millions of CPUs for advanced generative AI workloads."

This fall, **NVIDIA and OpenAI's** \$100 billion collaboration came. That single figure says more about the scale of transformation than any speech could.

NVIDIA's GPUs have become the engine of AI training, and now, the company is ensuring that the infrastructure to match that ambition exists.

Jensen Huang, founder and CEO of NVIDIA, said, "NVIDIA and OpenAI have pushed each other for a decade; this investment and infrastructure partnership marks the next leap forward in deploying 10 gigawatts to power the next era of intelligence."

Meta has announced plans to invest \$600 billion in infrastructure by 2028

Additionally, **Meta** has announced plans to invest \$600 billion in infrastructure by 2028, which would result in an unparalleled growth of data centres around the United States.

Over the course of the next 10 years, this programme aims to support AI products, virtual experiences, and data-intensive technologies, including the creation of jobs in local communities.

Mayor of Altoona, Dean O'Connor, says, "Meta is one of the best economic development projects because they not only invest in these grants and other community work that impacts Altoona for the better, but they help build the local infrastructure around Altoona and Iowa."

These investments exemplify a global recognition that infrastructure is an investment in resilience, security, and innovation.

Why Pay Attention To Infrastructure?

In previous discussions on AI and sustainability, infrastructure emerged as a key challenge.

The environmental impact of data centres, the need for renewable energy, and the development of efficient cooling systems are central to responsible scaling.

Infrastructure determines leadership in AI

Infrastructure determines leadership in AI. Without scalable compute power, cloud storage, and fast networks, even the most advanced models cannot become a reality. Governments and companies are working to achieve the right balance.

The unprecedented pace of technological change often outstrips government policy development, which can slow progress.

However, there is growing collaboration between the public and private sectors through shared investments and joint ventures.

Building the Future Together

Infrastructure development is expanding beyond traditional tech hubs, with rising momentum in regions such as the Middle East.

For example, Saudi Arabia's **HUMAIN** initiative, in partnership with companies such as Qualcomm, NVIDIA, and AirTrunk, is positioning the Kingdom as a key player in AI infrastructure.

Infrastructure is becoming the common foundation for technological progress

DATAVOLT is also redefining digital infrastructure through strategic partnerships with SMC (Super Micro Computer), HUMAIN, Vertiv, and Chemours. These collaborations foster innovation across hardware and sustainable cooling solutions.

This trend reflects a more interconnected world, where infrastructure growth is driven by global collaboration and cooperation.

From Riyadh to California and Singapore to Dublin, infrastructure is becoming the common foundation for technological progress.

Challenges On The Horizon

But there are difficulties with this expansion. There is a shortage of materials for processors and servers, and the data centres consume a lot of electricity. It is necessary to consider how infrastructure expansion may affect the environment.

Along with capacity and performance, leaders should place a high priority on sustainability.

This involves making investments in cutting-edge cooling technologies, renewable energy sources, and efficient chip designs.

A further challenge is the speed of innovation, which is outpacing regulatory efforts

Companies such as Vertiv and Chemours show that infrastructure can evolve responsibly while maintaining scale.

A further challenge is the speed of innovation, which is outpacing regulatory efforts. Governments need to develop policies that support investment, protect consumers, and promote fair competition. Policymakers need to act with the same urgency as the private sector.

The Road to 2026

What I see is that by 2026, the competition to build infrastructure will intensify. As AI continues to integrate into various areas, such as healthcare, transportation, manufacturing, and finance, demand for computing power and cloud scalability will surge. Early investors will lead, while others risk falling behind.



Infrastructure is becoming a visible symbol of national strength, economic growth, and technological independence - Data Center in The Netherlands

Infrastructure is becoming a visible symbol of national strength, economic growth, and technological independence. Countries that achieve data sovereignty and support open innovation will shape the next decade.

Investments such as the AWS-OpenAI partnership, NVIDIA's expansion, Meta's \$600 billion initiative, and regional leaders like HUMAIN and DATAVOLT are foundational to the emerging digital landscape.

These are essential building blocks to make sure the future does not crumble.

Leadership and Vision

For business leaders, this is a pivotal moment. Investing in AI without supporting infrastructure is ineffective. Visionary leadership requires recognising the foundational value of infrastructure.

Infrastructure will drive innovation, from renewable energy integration to advanced data architecture and AI-driven management. The field is dynamic and open to new ideas.

In 2026, infrastructure will take centre stage

The scale of global investment we are seeing puts a spotlight on infrastructure. It is the

engine behind every breakthrough, innovation, and future opportunity.

In 2026, infrastructure will take centre stage. Companies and countries that invest strategically now will shape the future narrative.

We are witnessing the foundation of a new digital era. Are we ready for what is yet to come?