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Shape the future
with confidence
From energy
to intelligence:
the race to power,
build and scale AI
The better the question.
The better the answer.
The better the world works.

# Intelligence: the next great leap

Every era is defined by its dominant source of power. In the 19th century, it was coal-fueled steam engines and the railroads that brought industrialized economies together. The 20th century belonged to oil, powering internal combustion engines and the roads and highways that enabled global mobility, manufacturing and trade. Today, we are entering a new epoch — one defined by artificial intelligence (AI) at unprecedented scale and data centers that have become the factories of the digital age.

These shifts are inevitable. Electrification could not be stopped, nor could the internet have been dismissed. AI will be no different. What can be shaped, however, is how intelligence is built, powered, governed and scaled — and who controls the foundations that make it possible.

For business leaders, policymakers and investors alike, this moment is defined by a simple but often overlooked reality: **intelligence is inseparable from energy**. The ability to deploy advanced AI systems depends on data, models and compute. But it also needs access to reliable, affordable and resilient power.

## Without energy, there is no intelligence

Global conditions are reinforcing this urgency. Supply chains are fragmenting, risk tolerance is shrinking, and both nations and enterprises are reassessing where critical capabilities reside. In this environment, AI infrastructure — from data centers to energy systems — is becoming a strategic asset rather than a background utility.

While governments set direction, the private sector will be the primary engine of execution — applying AI at scale and translating capability into real-world value. Companies will build the infrastructure, secure energy capacity and embed intelligence across industries. Their ability to execute will shape competitive advantage and long-term economic resilience.

As AI becomes foundational to growth and competitiveness, the central question is no longer whether intelligence will reshape the world — but whether leaders are prepared to power and execute it at scale.

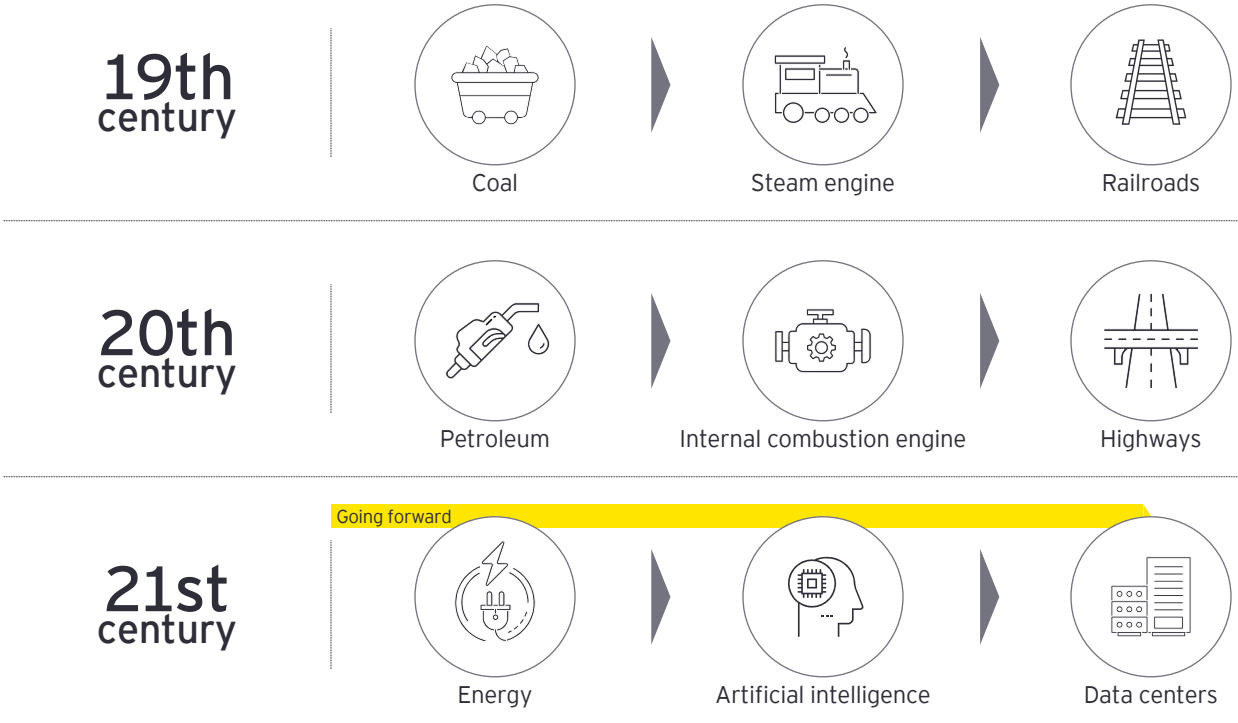
> Any conversation about AI and technological advances comes back to the ecosystem that supports them, including the resources and infrastructure capable of delivering power where it's needed to fuel that growth.

**Steve Wanner**
Americas Industrials & Energy Leader

## The new engine of power and success

AI is more than a tool; it is the infrastructure of the 21st century. Just as railroads and electric grids once determined industrial might, today's advantage lies in compute capacity and data pipelines.

Consider the parallels between energy, the innovative technology and the supporting infrastructure needed to scale the transformation:




Each leap has rewritten the rules of economics and sovereignty. AI is no different. It is the new industrial revolution, unfolding not in factories but in the cloud, yet still dependent on those who control the means of production.

This shift is redefining power — not as ownership of technology alone but as executional capability. Nations and enterprises that can align AI systems with energy supply, infrastructure and operational capacity will shape global value chains. Those that cannot risk becoming dependent on intelligence built elsewhere, on terms they do not control.

Unlike previous digital waves, AI does not scale through software alone. It depends on physical systems: data centers, grids, connectivity and supply chains. These systems have historically been planned and operated in silos. AI collapses those boundaries, forcing coordination across actors with different incentives, timelines and responsibilities.

As a result, a competitive advantage increasingly belongs to those who can **orchestrate ecosystems** — aligning energy providers, infrastructure developers, technology platforms, governments and enterprises around shared objectives. Execution, not ideology, is becoming the true source of power.

## Barriers to building AI

If the logic is so clear, why aren't all nations and enterprises racing to build their own AI ecosystems? The barriers are high:

- **Cost:** To maximize impact, the AI ecosystem demands significant upfront investment in infrastructure, compute and long-term maintenance.
- **Infrastructure:** Currently, many countries and companies lack the digital and connectivity backbones needed for large-scale AI operations.
- **Data:** AI progress depends on access to vast, high-quality datasets, which are unfortunately often fragmented or poorly governed.
- **Execution:** Even with infrastructure, organizations seeking to deploy and use AI face a global shortage of specialized talent and knowledge. For countries and enterprises pursuing sovereign AI, this challenge is compounded by ethical, legal and cybersecurity concerns.

This is not just a technological race. It is a contest of coordination — across government, industry, academia and civil society.

## The energy bottleneck: powering intelligence

AI ambitions are often framed as challenges of data, models or talent. In practice, the most immediate constraint is more fundamental: **energy**. While AI software and hardware have advanced rapidly, electricity generation and grid capacity have struggled to keep pace with surging demand.

The vast majority of data centers, which underpin AI development and deployment, are still powered by conventional grids. This is not just a matter of legacy infrastructure; it's about scale, reliability and the ability to meet surging demand.

Without energy, there is no intelligence:

- **Energy security:** For many countries, access to reliable energy (from fossil fuels to renewables and nuclear) ensures the uninterrupted operation of critical AI workloads, supporting ambitions for digital sovereignty.
- **Industrial synergy:** AI enhances the energy sector through operational optimization, while also enabling higher productivity, faster innovation and greater economic value creation across industries that deploy intelligence at scale.
- **Geopolitical leverage:** Without energy, intelligence lacks the fuel to scale across borders, while abundant AI capabilities become a cornerstone of national influence, shaping both economic strength and soft power. Control over energy resources and AI infrastructure enables nations to forge strategic alliances, influence global markets, and extend cultural and diplomatic reach.

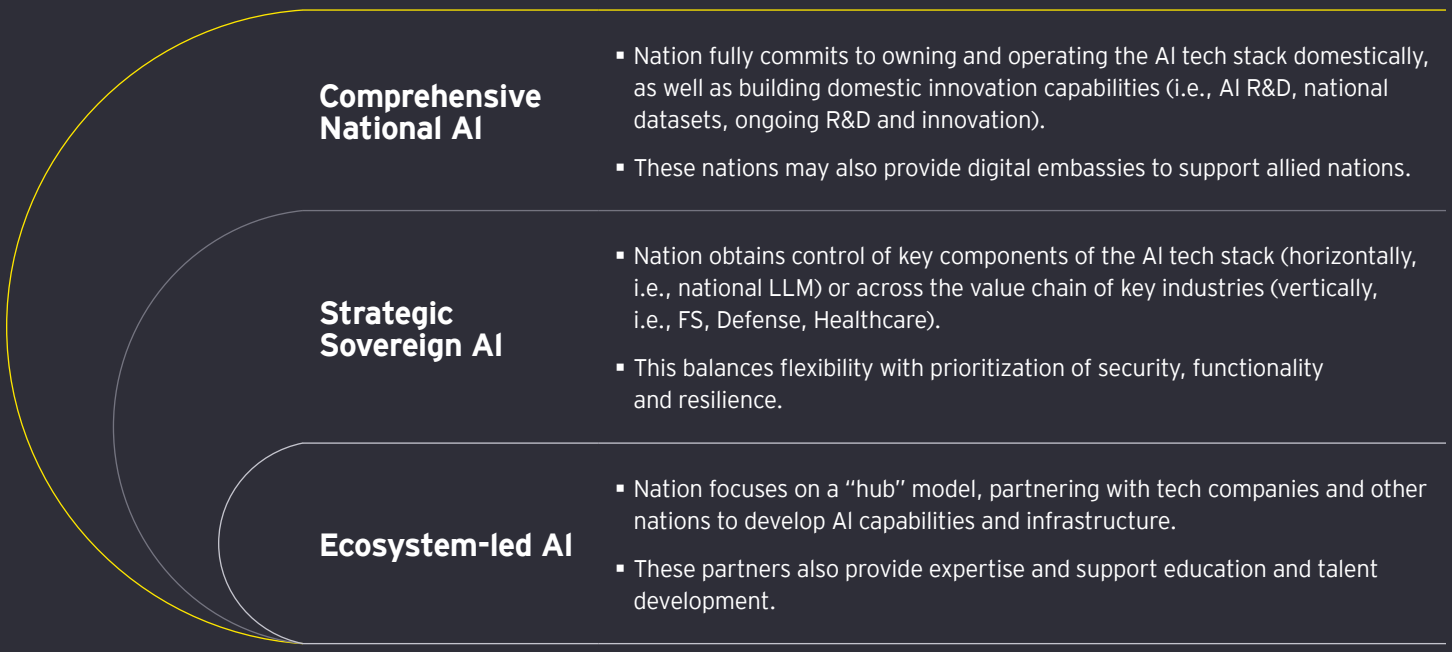
Every training run and inference request consumes real power from digital infrastructure and power plants. As AI adoption accelerates, electricity is shifting from a background assumption to a strategic input. Data center operators are revising long-standing cost and availability assumptions, reshaping where — and whether — AI and cloud infrastructure can be built.

This bottleneck is not solely a capacity issue. It reflects a deeper coordination challenge. Energy providers, data center developers, governments and builders have traditionally planned independently. AI forces these actors into shared planning cycles, where permitting, land use, grid upgrades, construction, and deployment must align.

As a result, the race for AI capability is increasingly a race for **energy security**. Nations and regions that can secure reliable, affordable power will attract investment and scale intelligence faster. Those that cannot will face constraints regardless of their technological ambition.

Meeting this demand cannot be solved by any single stakeholder. It requires deliberate orchestration — aligning policy, capital, infrastructure and execution across systems. Without coordination, AI strategies stall at the point of power availability. With it, energy becomes a source of durable advantage.

# Three paths to sovereignty: global models in action




## 1 | Ecosystem-led AI: the Singapore model

Singapore exemplifies an ecosystem-led model, characterized by high openness and strategic partnerships with global technology firms. Its emphasis on talent development, ethical governance and pragmatic adoption positions it as a trusted hub for AI innovation in Southeast Asia.

## 2 | Strategic sovereign AI: the French approach

France pursues a sovereignty-by-design strategy, selectively investing in national infrastructure and focusing on key sectors such as healthcare and defense. This model balances openness with strategic autonomy, leveraging European collaboration while safeguarding critical capabilities.

## 3 | Comprehensive national AI: The Chinese Blueprint

China represents a full-stack sovereignty model, marked by massive domestic investment in chips, data centers, foundational models and energy infrastructure. AI is treated as a pillar of national power, with government, industry and academia operating in coordinated alignment.

These models offer policymakers a spectrum of approaches to AI sovereignty — from collaborative integration to strategy autonomy and full-stack self-reliance. Each reflects a nation's geopolitical priorities, technological capacity and governance philosophy. What matters is intentionality — understanding which capabilities must be controlled, which can be shared, and how energy and infrastructure support those choices. In other words, these models serve as reference points, not prescriptions.

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Guyana is building a future where Guyanese talent powers global innovation, where its infrastructure supports frontier technologies and where the nation leads the region in digital transformation.

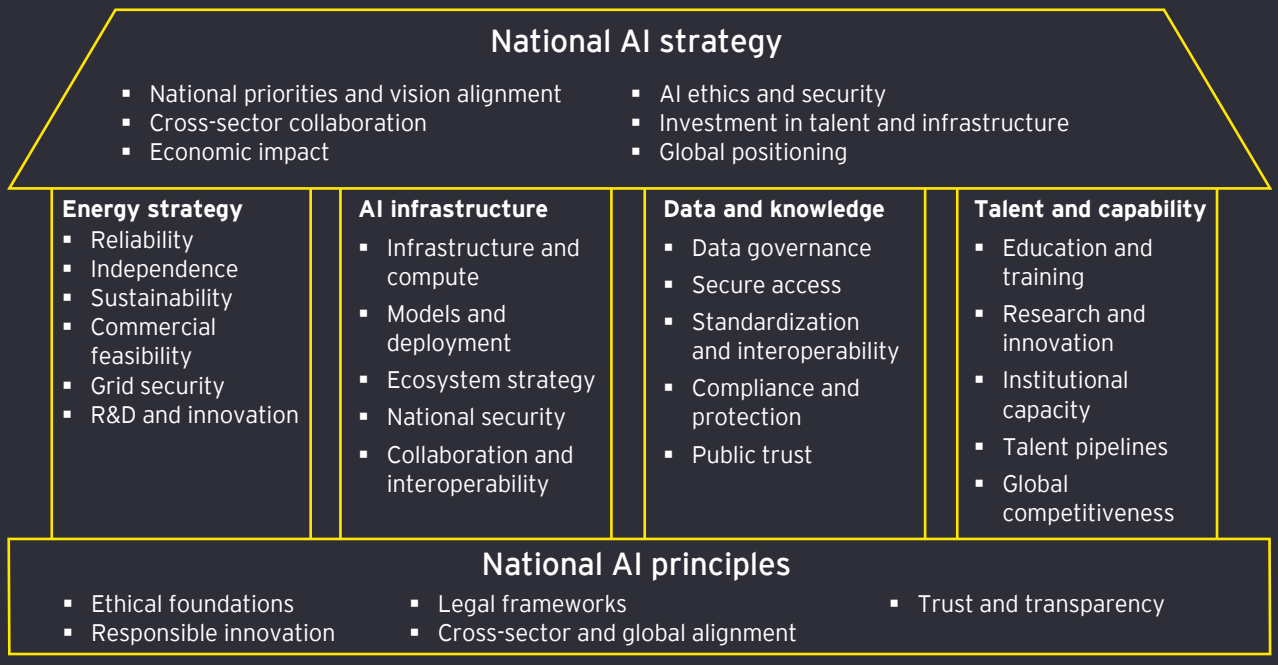
**Guyana’s President Dr. Mohamed Irfaan Ali**

Source: “Guyana and Cerebras forge historic AI partnership to launch a 100MW Data Center and ignite Regional Innovation,” Department of Public Information, November 2025.

## The architecture of a sovereign AI nation

Regardless of the path a country or ecosystem chooses — whether ecosystem led, selectively sovereign or fully national — successful AI development depends on a common underlying architecture. Sovereign AI is not achieved through a single investment or policy decision but through the deliberate design and coordination of multiple interdependent components.

This architecture can be understood as a house: one that must be built on solid foundations, supported by strong pillars and unified by a clear strategic roof. Each element serves a distinct purpose, and a weakness in any one can compromise the entire structure.

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When we talk about energy to intelligence, it’s really a journey of orchestration — bringing together energy, infrastructure, technology, regulation and execution so all the parts work in alignment to deliver high-performance compute.

**Jay Persaud**

EY Global Energy-to-Intelligence Leader

## Foundation: national AI principles

Every resilient AI ecosystem begins with a shared foundation of principles. These values — encompassing trust, transparency, security and human centric design — establish the social and ethical boundaries within which AI can scale responsibly.

For governments, these principles set expectations and guardrails. For enterprises, they provide clarity and confidence for long-term investment and deployment. Without a common foundation, AI adoption risks fragmentation, public distrust and regulatory uncertainty.

PILLAR **One**

### Energy strategy

Energy is the foundation of the AI value chain — the first link in converting power into intelligence. Reliable, affordable power enables the physical infrastructure that supports AI systems, from data centers to networks, and underpins the data flows and talent productivity that follow.

A credible AI strategy therefore requires an integrated utility and infrastructure approach: aligning power generation, grid capacity, water availability and telecommunications connectivity with the growing demands of intelligence workloads. This is not a question of choosing a single energy source but of securing flexibility and resilience across the full stack of utilities that make AI possible. Nations and enterprises that treat energy and supporting infrastructure as strategic assets — rather than operational constraints — will be best positioned to scale AI, unlock economic value and sustain long-term competitiveness.

PILLAR **Two**

### Digital and physical infrastructure

Infrastructure forms the structural backbone of AI capability. This includes data centers, compute capacity, connectivity and the physical assets required to deploy AI at scale. Unlike earlier digital waves, AI infrastructure is capital intensive, location dependent and deeply intertwined with energy systems.

While governments can enable infrastructure through policy, planning and incentives, the private sector will build and operate the majority of these assets. Resilient AI ecosystems therefore depend on public private alignment around investment timelines, permitting and long-term capacity planning.

PILLAR **Three**

### Data and knowledge management

Data is the connective tissue of the AI house — flowing through every system and application. Effective data governance, clear data rights and ownership frameworks, interoperability, and security enable innovation while protecting national and organizational interests.

Control does not necessarily mean isolation. Many ecosystems will rely on shared data environments, trusted partners and modular architectures that allow sensitive datasets to remain protected while still enabling collaboration and scale.

PILLAR **Four**

### Talent and capability development

No architecture stands without skilled builders. AI ecosystems depend on deep technical expertise, operational capability, and institutional knowledge across government, industry and academia.

Sustaining this talent requires long-term investment in education, research, workforce transformation and cross-sector mobility. For enterprises, this means building internal capability while partnering with universities and public institutions. For governments, it means creating conditions that attract, retain and continuously develop talent.

## Roof: National AI strategy

The roof unifies the structure, providing coherence, protection and direction. A national AI strategy plays this role by aligning principles, infrastructure, data, energy and talent into a coordinated whole.

More than a vision statement, an effective AI strategy acts as an execution framework — clarifying roles across public and private actors, setting priorities and ensuring that investments reinforce rather than fragment the ecosystem. In an era of rising uncertainty, this coordination turns ambition into a durable advantage.

# Implications for leaders

AI advantage will not be won through isolated technology investments. It will belong to leaders who treat intelligence as infrastructure and plan accordingly. For enterprises, this means integrating AI strategy with energy resilience, ecosystem partnerships and long-term capability development.

The private sector will build most of what AI requires — data centers, energy capacity, supply chains and operational capability. Companies that invest early, coordinate deliberately and align with national priorities will shape both competitive advantage and economic resilience.

For governments, success lies in enabling coordination — balancing the strategic imperative to scale AI infrastructure, including data centers, with the needs of communities, cities and industries to deliver sufficient energy, water and essential services.

## The future belongs to the bold

Artificial intelligence is foundational infrastructure — shaping how economies compete and how power is exercised. In the 21st century, the advantage will belong to those who can reliably convert **energy into intelligence** and scale it with purpose.

AI does not succeed on innovation alone. It depends on physical systems that must be planned and operated together. The defining leadership challenge is execution: orchestrating energy, infrastructure, talent and ecosystems at scale.

Those who act decisively will shape the next era of growth. Those who delay risk dependence, constraint and diminished influence. In an age where intelligence is becoming a strategic resource, that is a risk leaders cannot afford to ignore.

The future will belong to those bold enough to treat energy as the foundation of intelligence — and disciplined enough to turn that foundation into a lasting advantage.

In an era where intelligence is becoming a strategic resource, energy is no longer a background utility. It is an enabler of industrial scale, digital infrastructure and national competitiveness — and increasingly, a determinant of who leads and who depends.

## SIX QUESTIONS

Turning energy into intelligence requires coordinated execution across the ecosystem. Here are six questions leaders should be asking as they consider their AI strategy:

1. Where do our physical assets such as energy access, infrastructure, location and connectivity create a durable competitive advantage for scaling AI?
2. What happens if power, infrastructure or talent becomes the limiting factor — and what is our fallback plan?
3. Are energy, infrastructure, data and talent being planned as a coherent domestic value chain or still in silos?
4. Is there a clear national policy or mandate for navigating trade-offs between speed, scale, resilience and local capacity?
5. Do we have clear rights, governance and security around the data that will power AI — without over-centralizing control?
6. Is our organization equipped to use AI at scale — not just access it — with the operating model and talent required to execute?

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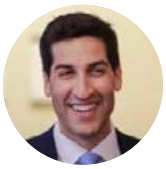

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