AI Global Alliance

In collaboration with Bain & Company

WORLD ECONOMIC FORUM

Rethinking AI Sovereignty: Pathways to Competitiveness through Strategic Investments

WHITE PAPER

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Foreword

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Artificial intelligence (AI) is rapidly becoming the defining capability of the 21st century, reshaping economies, redrawing industrial boundaries and redefining the nature of competitiveness and sovereignty in the world. It is no longer just a technology but a driver of productivity, innovation and geopolitical influence. Economies that build strong foundations and make strategic investments today will define the trajectory of the intelligent economy for decades to come.

Why now?

What began as a race for innovation has evolved into a race for AI infrastructure – economies are competing to strengthen control, secure AI competitiveness and determine who sets the rules, captures value and sustains long-term advantage. While data centres continue to attract a significant share of AI investments, many economies are grappling with a more fundamental question: how to participate meaningfully in this accelerating race. At the same time, waiting for clarity is not an option. Failing to act risks widening AI and economic gaps between markets. At this critical juncture, economies must rethink their approach to AI sovereignty and determine how to invest wisely.

The approach

This white paper, *Rethinking AI Sovereignty: Pathways to Competitiveness through Strategic Investments*, emerges from the World Economic Forum's AI Global Alliance's work on AI competitiveness, in collaboration with Bain & Company. It builds on the Forum's January 2025 white paper, *Blueprint for Intelligent Economies: AI Competitiveness through Regional Collaboration*, and will be followed by targeted publications detailing how to build different elements of sovereign AI ecosystems and AI competitiveness.

We provide a new approach to AI sovereignty: one that prioritizes strategic control and resilience over rigid self-sufficiency, and explores how economies can strengthen their AI competitiveness through deliberate investment choices, strategic AI infrastructure development, and AI deployment, as well as trusted alliances.

This paper is a call to action to shape a future where AI sovereignty serves as a shared engine of growth, ensuring strategic control while enabling all economies to benefit from the advances of AI. We invite policy-makers and business leaders to rethink AI sovereignty and join us in advancing global AI competitiveness, empowering every economy to thrive in the intelligent era.

Executive summary

In the race for AI competitiveness, economies must pursue AI infrastructure, interoperability, policy and partnerships to build lasting competitive advantages.

AI sovereignty is emerging as one key element of long-term competitiveness. AI sovereignty refers to the ability of economies to shape, deploy and govern AI ecosystems in accordance with their own values, whilst ensuring strategic and operational control, flexibility and, ultimately, resilience through a combination of localized investment and trusted international collaboration. In practice, AI sovereignty agendas reflect economies' strategic priorities to strengthen AI capabilities, aiming to reduce dependence on foreign entities, protect national interests and enhance competitiveness. Several economies have therefore attempted to compete by owning the entire AI value chain, from raw materials to AI-based applications.

Based on investment patterns, however, "AI sovereignty" has been conflated with "AI infrastructure" and data centres. While AI infrastructure is a pressing concern for governments placing big bets on AI, it is not the only deciding factor. AI competitiveness depends equally on where economies invest, how they build and deploy AI capabilities, and who they partner with across the AI value chain.

This paper advocates for a redefined approach to AI sovereignty – one that prioritizes strategic control and resilience over rigid self-sufficiency. Success in the AI era will be determined not by isolation, but by strategic interdependence – balancing domestic investment in key AI infrastructure with international collaboration. Economies that focus on their comparative advantages, ensure interoperability across AI systems and cultivate regional alliances will be best positioned to capture long-term value from the AI revolution.

Invest wisely – not everywhere – and with a long-term vision

Decisions made in the next few years will shape who remains or becomes competitive in an AI-driven economy. Policy-makers can enable AI competitiveness by promoting focus and collaboration, not full control. This means policy-makers should coordinate with investors and other stakeholders to:

- **Identify strengths** and national advantages that can translate into AI capabilities.
- **Invest strategically**, concentrating on areas of comparative advantage rather than spreading resources across the entire AI value chain.
- **Ensure interoperable AI infrastructure** to guarantee scalability, trust and resilience.
- **Partner strategically**, tapping into alliances to fill critical gaps instead of duplicating costly efforts.

Different paths to competitiveness

Every economy joins the AI race from a different starting point. While infrastructure-based AI sovereignty is out of reach for most economies, there are different paths to AI competitiveness. This paper describes several potential paths, tailored to different economic starting points on the AI journey.

The bottom line

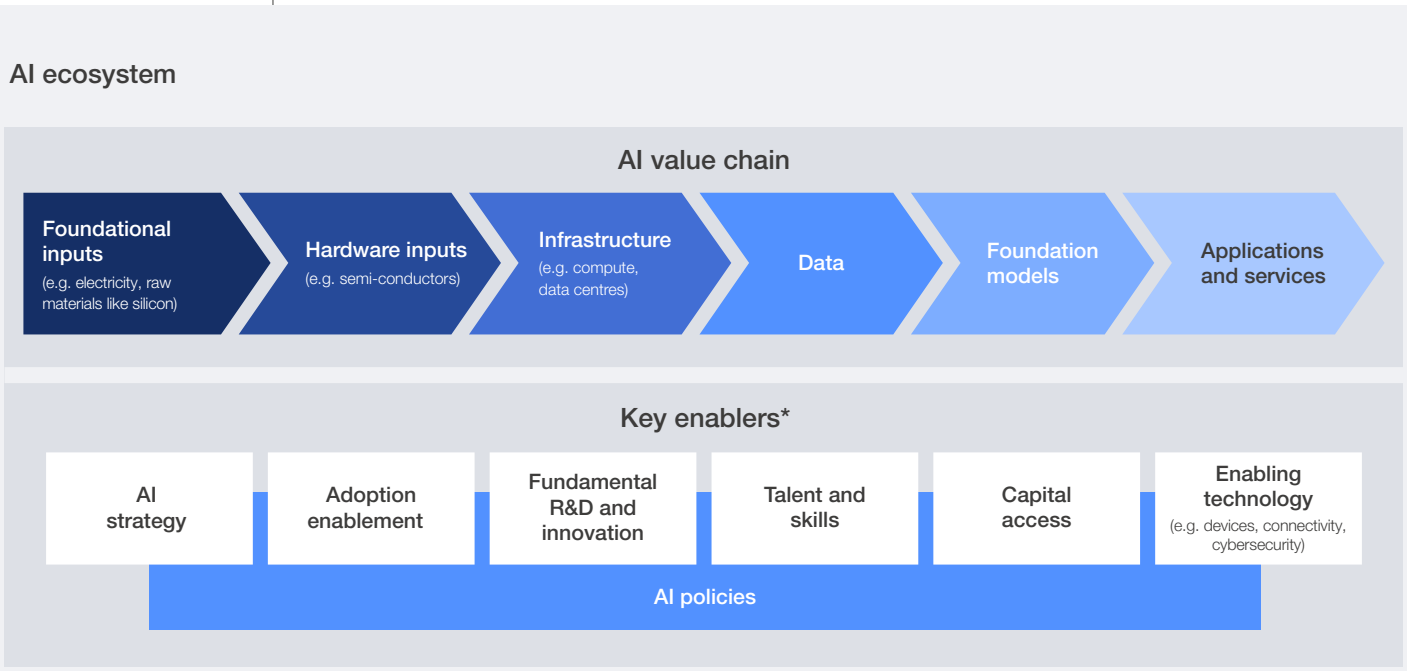
Policy-makers must support the development of intentional national AI strategies that focus investments on the comparative advantages of their economy. They should help reframe AI sovereignty as strategic interdependence, where localized investments are combined with trusted partnerships and alliances. With a clear view of their local strengths, economies can leapfrog towards AI success. Partnership, not ownership, is a key path forward.

1 Investment patterns across the AI value chain

Driving AI competitiveness requires a thorough understanding of investment flows, trends and capital allocation across the AI value chain.

Understanding the current and future dynamics of AI investments is essential to building robust AI ecosystems (see Figure 1) and strengthening AI sovereignty. Around the world, economies are making major financial commitments to advance domestic capabilities, often announcing these as movements towards AI sovereignty. For example, the UK has pledged to become "an AI maker, not just an AI taker"[1] while China has prioritized the development and adoption of domestic AI chips,[2] and the European Union has committed to mobilize €200 billion to InvestAI, an initiative to build "AI gigafactories".[3]

FIGURE 1 **The AI ecosystem**



Note: *Enablers are interdependent; order does not represent any priority.

As outlined in *Blueprint for Intelligent Economies: AI Competitiveness through Regional Collaboration*, the AI ecosystem encompasses AI value chain elements and key enablers which allow AI to be developed, deployed and scaled. Putting people at the centre of this ecosystem unlocks productivity, job creation, innovation and growth. However, its strength depends not only on the robustness of individual enablers but also on how effectively they reinforce one another. Economies should therefore be mindful of the need for close coordination among enablers and remain adaptive, as new ones will inevitably emerge and reshape the AI ecosystem given the rapid technological progress.

Average annual growth in AI investments (2010–2024):

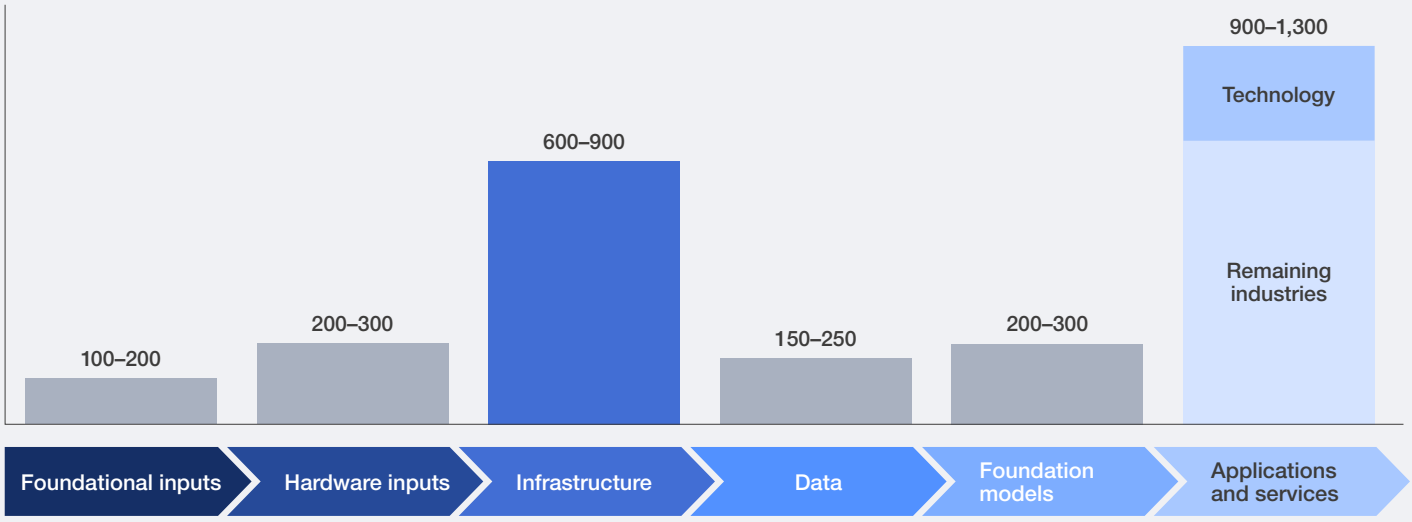
approximately 33%

1.1 Historical investments in the AI value chain

To date, more than half of global AI-related investment has been directed towards AI infrastructure, as well as applications and services (Figure 2). Investment in AI-dedicated infrastructure – such as data centre capacity equipped to host advanced AI workloads – has been a major focus, attracting more than $600 billion between 2010 and 2024.

FIGURE 2 **AI infrastructure, as well as applications and services, has attracted most global investments in the AI value chain**

Historical investments across the AI value chain,* 2010–2024, in $ billions



Note: *Investment estimates are based on capital and R&D spending across electricity capacity, silicon processing, equipment and chip manufacturing, data centres, foundation model training, and AI application development by major technology firms, as well as corporate investments in AI initiatives for other industries and the market size of data-related solutions. Land-related investments are excluded.

Source: Public sources from WEF; IMF; IEA; IRENA; USGS; NRMMRRD; Goldman Sachs; World Bank; WHO; IATA; Gartner; S&P Global; OpenAI; Epoch AI; Cushman & Wakefield; Bain & Company; Market Research.

AI infrastructure and hardware demand is expected to rise even further as economies pursue domestic control over data centres and critical inputs such as processors. The world could have nearly 2,000 hyperscale data centres by 2030 – a sharp increase from the 300 that existed in 2016[4] and 1,136 that exist today.[5]

The US and China dominate the investment landscape, capturing about 65% of aggregate global investment in the AI value chain (Figure 3). Their outsized presence in every element of the AI value chain reflects a full-stack approach that few economies can match, given the scale of investment needed.

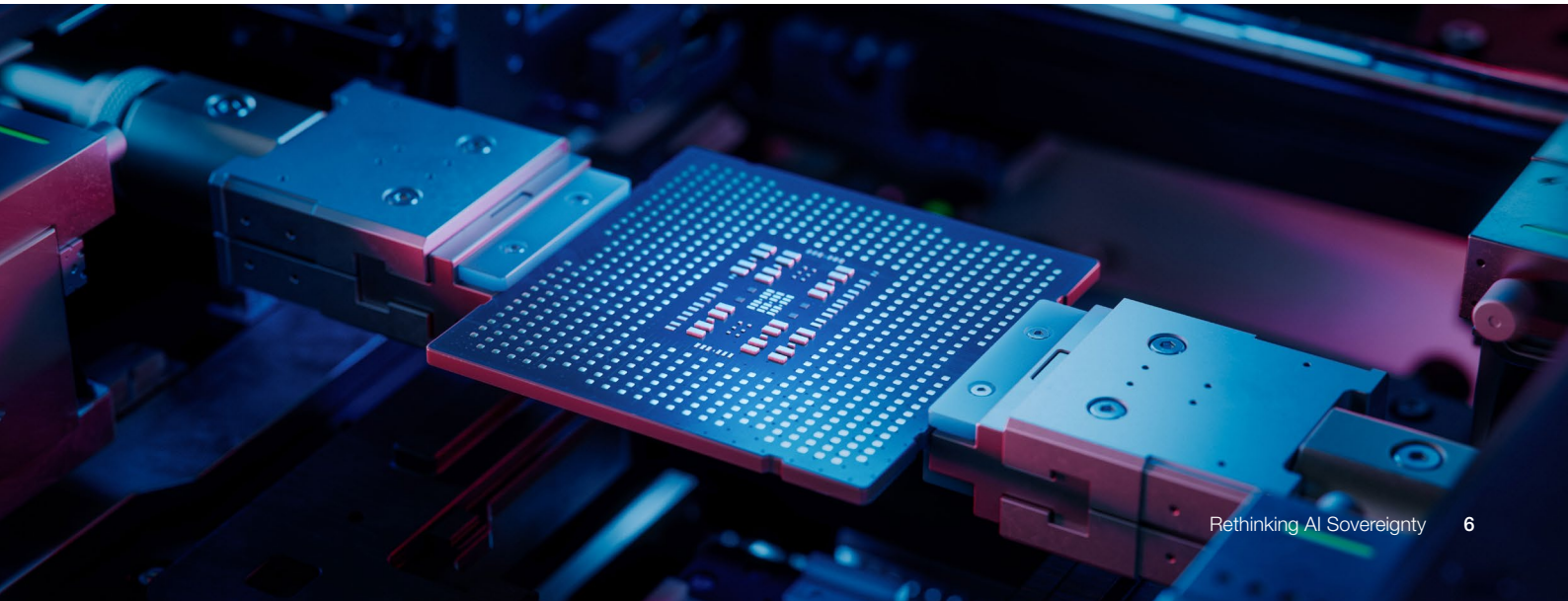
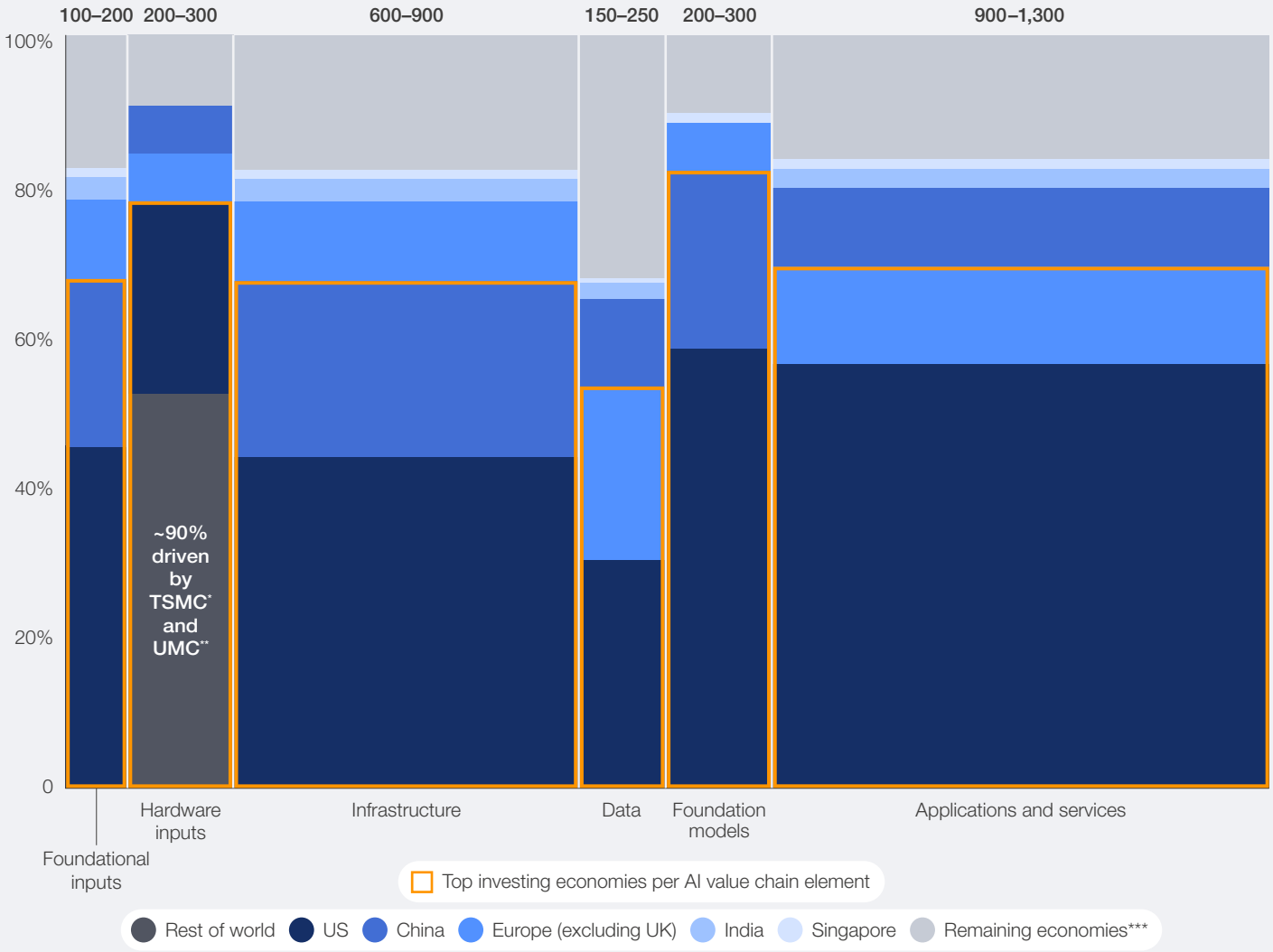


FIGURE 3 | **The US and China are the largest investors across the AI value chain**

Historical investments across the AI value chain split by economy, 2010–2024, in $ billions



Notes: *Taiwan Semiconductor Manufacturing Company; **United Microelectronics Corporation; ***Including Brazil, Canada, Japan, Korea, the United Arab Emirates, the UK, and all other economies except where "rest of world" is shown separately.

Source: Public sources from WEF; IMF; IEA; IRENA; USGS; NRMMRRD; Goldman Sachs; World Bank; WHO; IATA; Gartner; S&P Global; OpenAI; Epoch AI; Cushman & Wakefield; Bain & Company; Market Research.

Yet this is not the only path to AI competitiveness. Balanced and targeted plays have helped some economies turn capital into deep comparative strengths and resilience. For example, Singapore has taken a balanced approach, intentionally allocating resources in a measured way across the AI value chain (case study 1). Similarly, South Korea has initially concentrated their investments in hardware elements like chips (Figure 4) and is expanding efforts across foundation models[6] and applications.[7]

Economies can therefore accrue measured advantages by positioning themselves in sectors along the AI value chain where they can scale demand. To assess the success of investments, leaders should consider adoption and outcomes, including aspects of resilience, not just money deployed or returned.

Cumulative AI infrastructure investment since 2010:

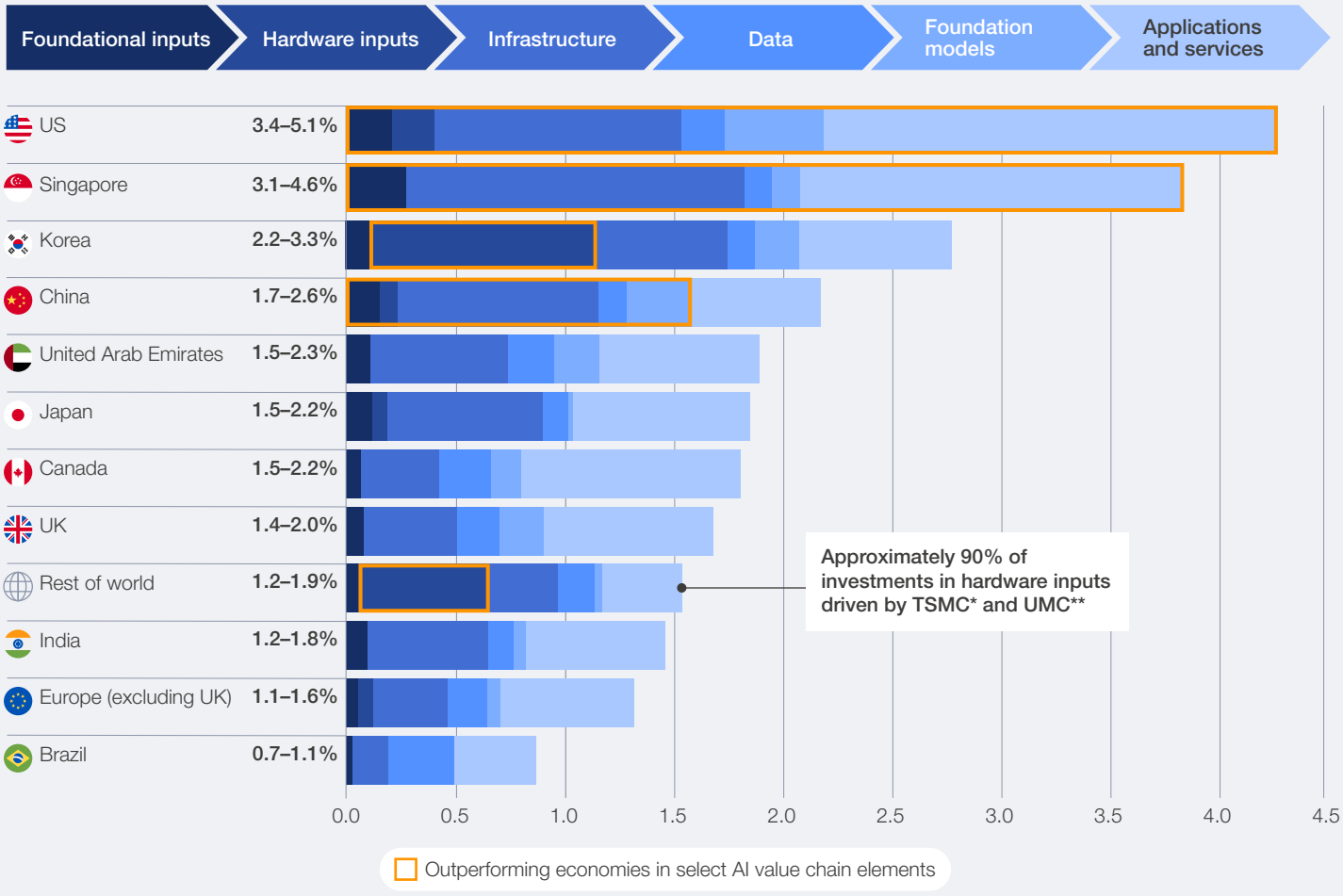
more than $600 billion

Share of aggregate global AI investment by the US and China:

approximately 65%

FIGURE 4 **Economies have pursued different investment strategies**

Benchmark of historical investments across the AI value chain:
Accumulated investments, 2010–2024, in % of 2024 gross domestic product (GDP)



Note: *Taiwan Semiconductor Manufacturing Company; **United Microelectronics Corporation.

Source: Public sources from WEF; IMF; IEA; IRENA; USGS; NRMMRRD; Goldman Sachs; World Bank; WHO; IATA; Gartner; S&P Global; OpenAI; Epoch AI; Cushman & Wakefield; Bain & Company; Market Research.

1.2 Investment trends in key AI value chain elements

Projected annual investment in AI applications by 2030:

approximately $1.5 trillion

Foundational inputs

Crucial foundational inputs for AI include energy, raw materials (e.g. silicon and rare earth elements) and land. Since 2010, energy and raw materials have attracted over $100 billion in investment – with the vast majority directed towards energy systems powering data centres, whose electricity consumption has reached 1–2% of global demand.[8] Although AI can improve energy efficiency, it has thus far contributed to rising electricity demand (see the World Economic Forum's 2025 white paper, *Artificial Intelligence's Energy Paradox: Balancing Challenges and Opportunities*). This increase also led to debates on reviving nuclear power and net-zero vs. full AI potential goals. A forthcoming report on optimizing AI and hyperscale data centres for energy efficiency will be launched ahead of the Forum's 2026 convening in Saudi Arabia, informing future regional energy policy.

Investments in foundational inputs will keep growing but remain limited relative to the rest of the AI value chain, reaching approximately $50 billion per year by 2030. Policy-makers should help integrate these foundational inputs with broader AI infrastructure investments to support sustainable AI systems' growth (see the World Economic Forum's recent publication *From Paradox to Progress: A Net Positive AI Energy Framework*). Chapter 2 examines the role these inputs play in enabling AI hardware and infrastructure.

Hardware inputs

Since 2010, investments in hardware have surpassed $200 billion, led by capital expenditure from semiconductor foundries, alongside contributions from lithography equipment makers and fabless chip suppliers. With approximately 90% of global foundry revenue concentrated in four companies – Taiwan Semiconductor Manufacturing Company (TSMC), United Microelectronics Corporation (UMC), Samsung Foundry and Semiconductor Manufacturing International Corporation (SMIC) – which are based across three economies,[9] a key part of the debate on AI sovereignty is on the high geographical concentration of hardware production. Hardware investment is projected to grow by 15–25% annually, reaching almost $90 billion per year by 2030.

Infrastructure

AI infrastructure has expanded rapidly as organizations have built initial capacity and scaled to support foundation model providers and generative AI workloads.[10] Investment is forecasted to increase at 10–15% annually, reaching over $400 billion per year by 2030, with total vendor financing across chipmakers, model developers and data service providers expected to be even higher.

While business models are very integrated, with hyperscalers covering a significant part of the AI value chain, the AI infrastructure development is largely fragmented across the globe. The US holds over 40% of installed global data centre capacity,[11] while many emerging economies are still establishing reliable connectivity and digital infrastructure.

Data

Investors' focus is shifting towards data, mirroring a market trend of migrating data to hyperscalers. Cumulative investment in data-related solutions is estimated at over $150 billion, reflecting strong growth after 2018.[12,13] By 2030, investment is expected to exceed $90 billion per year. This includes training datasets for foundation models and data solutions that support applications and services (e.g. integration, governance, migration, marketplaces).

AI performance and competitiveness hinge on the size, diversity, uniqueness, recency and overall quality of curated data, as well as its integrity and availability. Meta's multi-billion-dollar investment in Scale AI underscores the strategic value of data. This trend extends beyond advanced economies, offering emerging economies opportunities to build competitive advantages.

Foundation models

Foundation model investment is projected to grow 25–35% annually, reaching at least $300 billion per year by 2030. This growth is driven by the rising complexity of large language models (LLMs) and the continuing growth of classical machine learning (ML) and small language models (SLMs).

“ AI infrastructure has expanded rapidly as organizations have built initial capacity and scaled to support foundation model providers and generative AI workloads.

US-based providers such as Anthropic and OpenAI have collectively raised more than $85 billion,[14,15] most of it in the past two years. Outside the US, firms such as DeepSeek, Mistral AI and others across Asia, Europe and the Middle East are also developing open-source and proprietary models tailored to local language and culture – with substantial returns expected as they scale. Their investments will also generate demand for applications and shape the AI ecosystem evolution.

Applications and services

In personal computing, value has shifted from hardware to software. In the mobile era, value moved from devices to apps. As history repeats, investments in the AI value chain are expected to move towards AI-based applications and services.

Annual investment in AI applications could reach $1.5 trillion per year by 2030, outpacing growth in AI infrastructure and foundation models and delivering greater economic value through domain-specific use cases. For example, adoption in healthcare applications could reduce spending by 5–10%[16] without sacrificing quality. Similarly, AI could free up approximately 8% of public sector budgets by 2030.[17] Economies that effectively channel investment into high-impact applications and build supportive AI ecosystems will secure the largest gains.

Thus, global investment has surged across the AI value chain, but AI competitiveness depends on how strategically economies allocate capital, not just how much they spend. Chapter 2 explores the pivotal role of AI infrastructure as the backbone of the AI value chain in more detail.

2

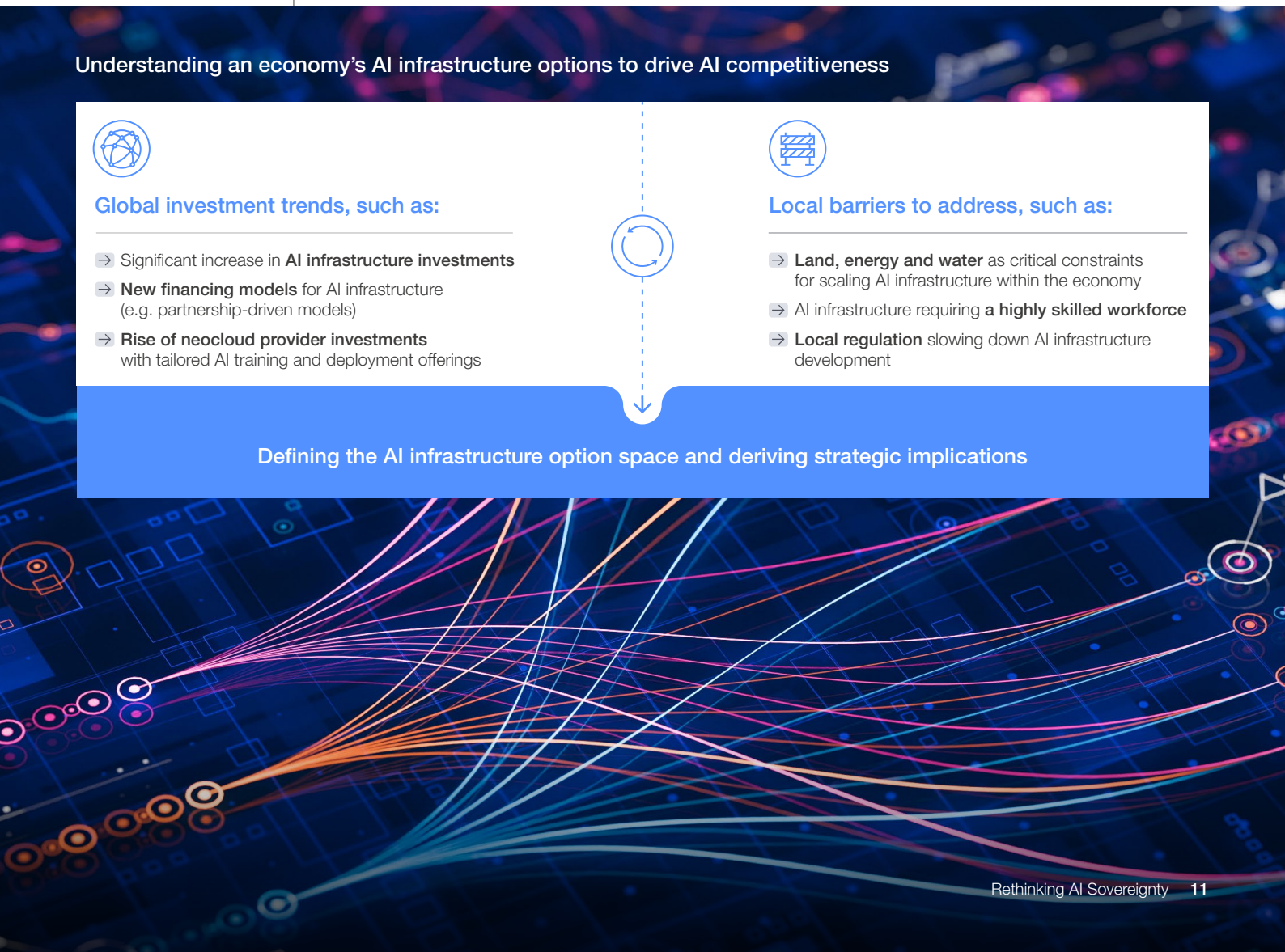
AI infrastructure as the backbone for driving AI competitiveness

Policy-makers should facilitate investment in resilient AI infrastructure, considering trends, barriers and strategic implications.

AI infrastructure underpins foundation models and applications and thereby drives AI competitiveness, attracts foreign investments and enables the broader growth of intelligent systems. It spans interdependent layers including data centres, compute resources, cloud platforms, edge systems and high-capacity connectivity networks. AI ecosystem readiness depends on how effectively these layers interoperate to support both training and inference, enabling large-scale data processing and deployment. Within this ecosystem, data centres remain the primary investment focus, delivering scalable compute for training clusters and inference operations.

Today, AI is driving one of the largest infrastructure buildouts in modern history – a multi-trillion-dollar expansion spanning chips, data centres and energy systems. To navigate this, economies must pair global AI infrastructure investment trends with their local constraints, barriers and enablers. This defines each economy's "AI infrastructure option space" and supports resilient investment choices (see Figure 5).

FIGURE 5 **Aspects influencing AI infrastructure options (not exhaustive)**

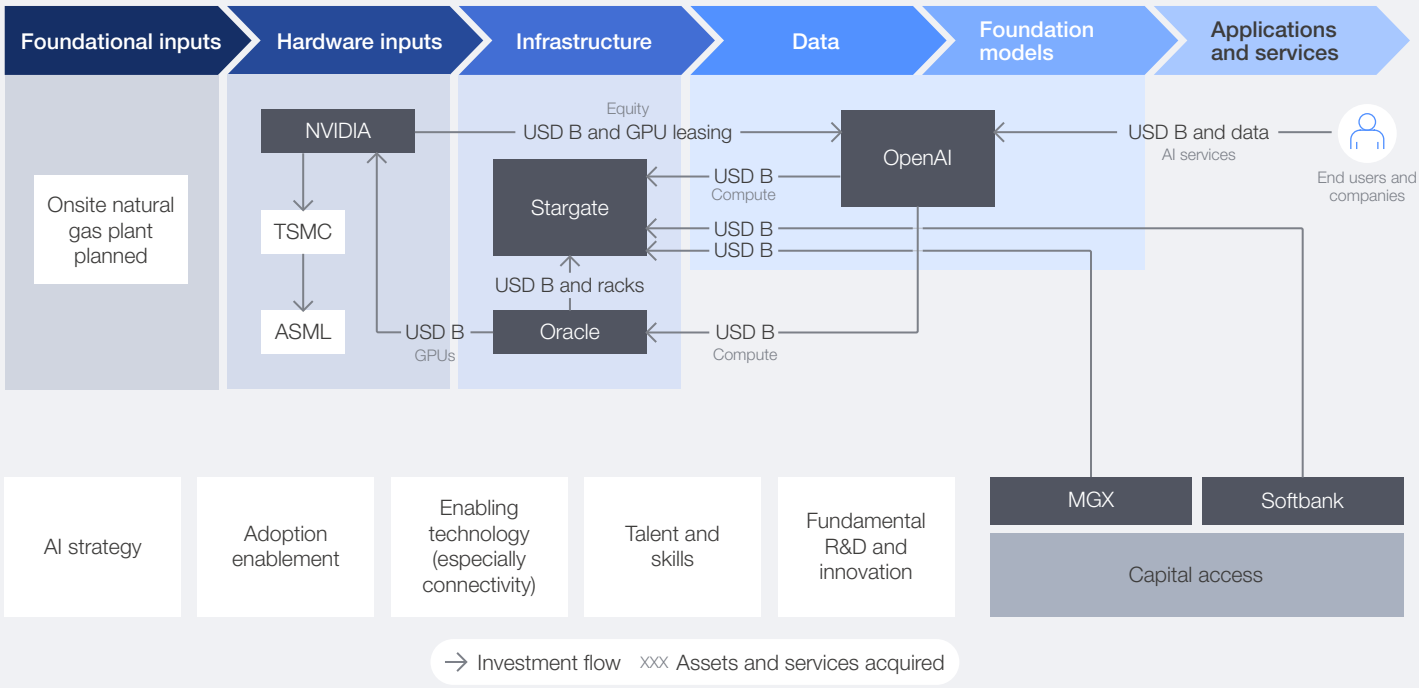


2.1 Global AI infrastructure investment trends

As discussed in Chapter 1, AI infrastructure investment continues to rise, alongside new financing and ownership models, including expanded public-private partnerships (PPPs). Early deals focused on acquiring hardware, like chips, computing and data centre equipment – such as Advanced Micro Devices' (AMD) acquisition of Xilinx, and NVIDIA's Mellanox deal. Since 2019, investment priorities have shifted from ownership to partnership-driven models. Hyperscaler-model lab partnerships now dominate investment activity. Microsoft has invested billions into OpenAI and provided compute capacity to embed frontier AI research in its cloud platforms. Similarly, Huawei partnered with the AI infrastructure start-up SiliconFlow to make models from DeepSeek available via the cloud. These investments led to a new mix of strategic acquisitions, partnerships and accelerating financing rounds underpinned by a complex flow of funds. One example is the Stargate Project, led by OpenAI and Softbank in partnership with NVIDIA, Oracle and other industry collaborators (Figure 6).

FIGURE 6 **Fund and resource flows between OpenAI, NVIDIA and Oracle**

Illustration of the ecosystem driving AI infrastructure



Source: Adapted from Citi Research 2025.

Surging demand for compute is spawning new AI infrastructure development models, such as neocloud providers, national cloud providers and industry-specific AI clouds. While hyperscalers offer global reach and full-service cloud ecosystems, neoclouds provide specialized, high-performance solutions tailored for AI training and deployment – and are seeing a spike in demand. CoreWeave, for instance, specializes in GPU-accelerated cloud infrastructure optimized for AI, offering flexible access to advanced NVIDIA hardware. The company is undergoing a massive capacity expansion, having secured a total of $25 billion since 2024. AI infrastructure buildout is also expanding through national cloud providers such as HUMAIN (Saudi Arabia), G42 (United Arab Emirates), Outscale (France) and STACKIT (Germany), reflecting a global trend towards digital sovereignty and reduced dependency on hyperscalers.

“ Governments are increasingly co-investing in large-scale data centre and compute projects through PPPs.

Public investment has become a critical driver of several of these initiatives, including HUMAIN, which is backed by the Saudi Public Investment Fund (PIF). Governments are increasingly co-investing in large-scale data centre and compute projects through PPPs (e.g. the IndiaAI Mission’s national compute grid[18]). AI infrastructure is thereby increasingly viewed as a strategic public asset of comparable importance to traditional infrastructure investments such as highways or utilities. More broadly, other models with government participation are also emerging, such as digital embassies – i.e. agreements that allow an economy’s data to be stored and processed abroad while remaining under its own legal jurisdiction (e.g. Estonia’s data embassy in Luxembourg).

This evolution of investment reflects the growing importance of AI infrastructure as the backbone of AI competitiveness. The pace of change has been remarkable. For smaller and mid-sized economies, this poses a challenge and an opportunity. Those that move quickly and strategically channel investments – through partnerships, focus or shared regional capacity – can secure a competitive foothold despite limited resources. Conversely, slower responses risk widening capability gaps as hyperscalers and large economies continue consolidating their dominance.

Some experts foresee a widening divide in how AI infrastructure is developed and governed.[19] Hyperscalers and emerging neocloud providers are constructing AI compute facilities that are concentrating chips, energy and network capacity – accessible via governance, performance or sovereignty agreements. Consequently, a small group of capital-intensive providers is likely to control large-scale capacity, while others maintain smaller, distributed computing hubs to meet regulatory or political requirements (e.g. data-sovereignty mandates, latency reduction or sensitive data controls).

At the same time, there is some debate about whether AI progress must depend on ever-increasing compute and data – and, by extension, power-intensive requirements.[20] SLMs are demonstrating performance comparable to LLMs for targeted applications while requiring far fewer resources.[21] This trend might influence the need for further data centre buildouts. In parallel, the proliferation of open-source models enables fine-tuning for specific contexts, such as linguistic or cultural needs, empowering economies to co-create and innovate within their own AI ecosystems without starting from scratch, thereby reducing compute demands.

Another structural change reshaping the landscape is the deployment of edge computing, where AI capabilities are embedded at the network’s edge, e.g. at internet of things (IoT) devices, industrial systems, smartphones. As AI workloads transition from centralized training to distributed inference, demand might further shift towards edge infrastructure. Edge AI solutions allow consumers and enterprises to process data locally, reduce reliance on centralized cloud resources and enable economies to address bandwidth, latency, and privacy or security challenges.

Together, these developments underscore the need for economies to cultivate resilient AI ecosystems grounded in robust enablers that can adapt to evolving AI infrastructure demands. The optimal configuration of intelligence across networks, i.e. whether concentrated in large-scale facilities or distributed across edge and sector-specific nodes, will, however, depend on each economy’s access to capital, energy, connectivity and policy objectives. Identifying viable AI infrastructure options therefore requires aligning global investment dynamics with local realities, ensuring that national AI ecosystems remain both resilient and competitive.

2.2 AI infrastructure challenges and strategic approaches

Local AI infrastructure barriers to address

When building or scaling AI infrastructure, economies often face several constraints. For instance, 87% of US site selectors reported that land, labour or utility shortages had impacted project timelines in 2024.[22]

Energy is often a big bottleneck to data centre expansion – both access to reserves and grid availability and capacity. In Europe for example, the Netherlands temporarily banned new hyperscale sites exceeding 10 hectares or 70 megawatts (MW),[23] and Ireland's utility EirGrid halted new data centre grid connections in Greater Dublin until 2028.[24] Conversely, hyperscale data centres in the US and Middle East economies will reach gigawatt (GW) scale (e.g. Stargate, Stargate UAE), offering larger opportunities. Development periods for grid upgrades of more than five years also pose a major challenge, since they are misaligned with shorter data centre planning cycles (e.g. wait time for a grid connection in the UK is currently approximately eight to 10 years[25]). Competition for development-ready sites is therefore intensifying. These pressures are driving adoption of advanced cooling and siting approaches (e.g. liquid cooling systems and floating or subsea data centres).

Investors are increasingly targeting energy-advantaged regions for large-scale compute operations. Energy-rich US states – as well as Nordic hydro belts,[26] Canadian hydro and nuclear corridors,[27] Middle Eastern energy hubs, and Central Asian energy basins – are becoming magnets for AI-optimized infrastructure. They offer lower cooling costs, reliable baseload supply and often faster permitting processes.

Developing economies additionally grapple with limited access to affordable capital and talent. However, many challenges fall outside an economy's full control (e.g. concentration of chip production and other global interdependencies). Thus, most economies cannot overcome these barriers alone, and the path to AI competitiveness will be non-linear.

> Economies should translate global context and local barriers into clear implications for AI infrastructure: where to invest and what regulatory measures to prioritize.

Defining the AI infrastructure option space and strategic implications

Economies should translate global context and local barriers into clear implications for where to invest and what regulatory measures to prioritize. For instance, without enablers such as energy and land, inland AI infrastructure development can be constrained. A balanced investment approach can build domestic capacity for priority workloads while using regional or shared facilities to scale. Regional collaboration – such as European-level coordination (see the World Economic Forum's 2025 insight report, *Open but Secure: Europe's Path to Strategic Interdependence*) – can improve cost-efficiency and expand access to compute. Besides, economies can focus on blended public-private financing vehicles and developing pipelines of investable projects to scale AI infrastructure investments quickly. Finally, encouraging interoperability in AI infrastructure design is also key to driving AI sovereignty, reaching scale and enabling model and application provision.

Recurring challenges can occur when identifying strategic options for AI infrastructure. Table 1 summarizes these and highlights possible policy and investment responses. For instance, in contexts with high regulatory uncertainty, streamlining approvals for data centres and grid upgrades can accelerate capacity growth and enable a steadier project pipeline. Likewise, long-term usage agreements can give investors greater visibility and reduce financing risk, thereby attracting private capital at a lower cost. Together, these measures can diversify both the sources of capital and the types of developers involved, which in turn strengthens AI ecosystem resilience, limiting exposure if market valuations or funding conditions cool. Understanding an economy's current position is therefore essential to design effective responses – not only for AI infrastructure, but also for the broader AI value chain – as discussed in the next chapter.

TABLE 1 | **Common AI infrastructure development challenges and strategic approaches**

Key local AI infrastructure challenges	Excerpt of strategic approaches to mitigate challenges
Energy availability and sustainability limiting AI infrastructure growth 	– Align AI infrastructure with national energy strategies – Promote energy-efficient technologies – Support grid modernization and flexibility
Limited national compute capacity and dependence on **foreign cloud providers** 	– Establish sovereign or public-private AI infrastructure funds – Incentivize partnerships for AI infrastructure clusters
Shortage of a skilled workforce 	– Foster university-industry programmes for specialized training – Expand apprenticeships in compute operations and cybersecurity
Dependence on a **few international vendors** 	– Adopt multi-cloud and interoperable standards – Encourage open-source software and middleware – Build regional cloud alliances – Support local firms through targeted incentives
Fragmented financing landscape 	– Launch national co-funding and guarantee schemes – Use blended-finance instruments with development banks
Regulatory uncertainty or delays for data centre projects 	– Create one-stop and fast-tracked approval platforms and procedures – Promote consistent regulations to lower compliance burdens
Weak public demand for AI infrastructure services 	– Aggregate government demand across ministries – Introduce long-term public procurement frameworks – Run pilot programmes in key sectors (e.g. health)
Limited access for AI start-ups **to large-scale compute** 	– Issue AI infrastructure bonds or scale-up financing mechanisms – Enable initial public offering (IPO) and exit pathways for firms – Establish regional AI growth and venture funds – Expand PPPs for compute access
Data siloes and underdeveloped data structures limiting AI infrastructure use 	– Implement cross-sector data-sharing, interoperability and open data initiatives – Advance data transformation to improve quality, access, creation and diversity – Regulate cross-border data flows (e.g. through digital embassies)

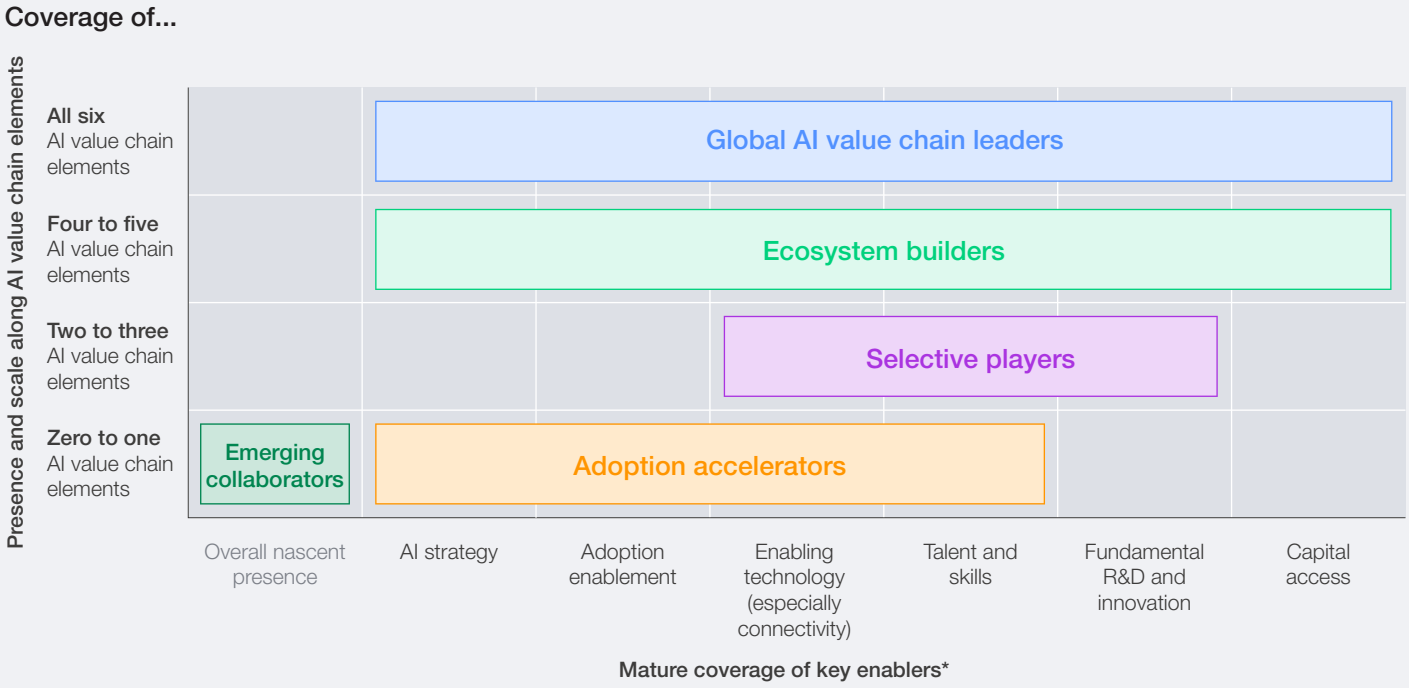
3 Different paths towards AI competitiveness

Archetypes and pathways provide economies with a compass to understand competitive positioning and derive investment strategies for greater AI competitiveness.

Every economy will enter the next phase of the AI race from a different starting position. Policy-makers should help assess where their economy stands – in local, regional and global contexts – to support their next AI investment strategies. Archetypes provide a structured way to understand these positions for a broad range of economies.

To create archetypes for AI competitiveness, the analysis examined economies with their status quo along the AI ecosystem. The assessment considered each economy's coverage across AI value chain elements (using presence and scale thresholds[28]) and the maturity of key enablers (e.g. connectivity, talent and skills, capital access). This process revealed five major recurring patterns, grouped into archetypes ranging from global AI value chain leaders to emerging collaborators (Figure 7).

FIGURE 7 **Archetypes for AI competitiveness consider both coverage and maturity across the AI value chain**



Note: *AI policies set the base for other enablers.

These archetypes reflect the wide variance in starting positions in the AI race. They are not rankings or sequential steps to be followed. Instead, they outline broad patterns on the status quo to help economies assess their position and create tailored investment strategies for AI competitiveness, while recognizing that each economy's context and trajectory are different. A summary of the five archetypes is presented in Figure 8, providing an at-a-glance view of their key features. For a more in-depth view of each archetype, their typical profile and investment strategies, see Boxes 1–5.

FIGURE 8 | **Summary of the five AI competitiveness archetypes**

	Global AI value chain leaders	Ecosystem builders	Selective players	Adoption accelerators	Emerging collaborators
Investments into AI value chain elements	→ **Significant investments across all AI value chain elements** focused on reaching a globally leading position → Unique position with key investments in **foundation models (e.g. LLMs)**	→ **Strong, but balanced investments across AI value chain elements** (except for hardware) → Investments focused on building a **strong local AI ecosystem**	→ **Focused investments on select AI value chain elements** (e.g. data, applications and services) → **Dependencies on international cooperation** for other elements	→ Limited investments on **tailored** (local) **applications and services** → Given limited local capacity, **external reliance especially on hardware and foundation models**	→ **Emerging status in investments across AI value chain elements** with fragmented internal capabilities → Investments usually through **international partnerships** or donor-backed accelerators
Investments into key enablers	→ **In general, broad approach targeting all enablers** → **Public and private investments** (e.g. R&D) with strong sector-specific efforts	→ **In general, broad approach targeting all enablers** → **Strong government-led** or incentivized promotion of enablers (e.g. talent, R&D)	→ **Mature coverage of select enablers,** but gaps remain (e.g. capital access) → **Predominantly government-led** investments (e.g. R&D)	→ **Focus on select enablers, especially to promote adoption,** but gaps remain → **Initial push on enabling tech,** such as digital public infrastructure	→ **Key challenges on some enablers** (e.g. talent drain, low compute access) → **Leveraging of PPPs** and development finance to innovate
Examples					

BOX 1 | **Global AI value chain leaders**

Overview: End-to-end investors across the AI value chain, with world-class capabilities in every element and enabler, pursuing dominance by maintaining or expanding their leadership positions in AI technology and innovation

Typical profile: Global economic leaders with extensive research and financial capacity

AI value chain investments:

- Investments of unique global scale across all AI value chain elements, including hardware
- Significant expansion of energy infrastructure based on leading position in energy technologies
- Globally dominant in AI infrastructure (especially data centres) with the ability to mobilize capital-intensive assets at scale
- Unique capacity to fund and develop foundation models with global scale (e.g. frontier LLMs)
- Highly effective at producing and deploying applications and services for global markets at scale

Coverage of key enablers:

- Broad, cross-sector approach addressing all enablers
- Strong public and private investments (e.g. in R&D) supported by robust sector specific efforts

Examples:

BOX 2 | **Ecosystem builders**

Overview: Orchestrators pursuing balanced, government-driven investment strategies, building strong local AI ecosystems and regional influence, and increasingly joining international alliances and partnerships

Typical profile: Smaller advanced economies leveraging agile governance and strong access to capital and resources

AI value chain investments:

- Strong, balanced investments across most AI value chain elements (except hardware)
- Reliable energy supply through diversification and innovation, including renewables, grid efficiency and alternative sources
- Dense, efficient AI infrastructure serving as regional hubs, with national champions playing key roles (e.g. by partnering with hyperscalers and trusted vendors)
- Investments in regionally focused or sovereign foundation models (e.g. SEA-LION) with limited global scale
- Focus on AI applications in government and priority sectors (e.g. healthcare, education, finance)

Coverage of key enablers:

- Strong government-led initiatives targeting all enablers and promoting AI ecosystem growth (e.g. talent, R&D)
- Use of targeted incentives and public-private collaboration

Examples:

CASE STUDY 1

Singapore's AI ecosystem

Singapore exemplifies an **ecosystem builder**, combining public-private coordination and balanced investments across the AI value chain. Its model demonstrates how governance, infrastructure planning and talent development can build a competitive, trusted AI ecosystem with regional influence. During the rise of AI, Singapore could already build on its robust information technology (IT) infrastructure thanks to initiatives such as the Next Generation Nationwide Broadband Network (2008)[29] and Smart Nation (2014),[30] its vibrant start-up ecosystem with business and investor-friendly regulations,[31,32] and its strong talent base, which capitalizes on skill development initiatives.[33] The National AI Strategy, first launched in 2019 and refreshed in December 2023 (NAIS 2.0),[34] defines AI as a shared national priority and sets a coordinated, cross-sector plan to strengthen compute, improve data access, develop talent and accelerate adoption. It set clear objectives:

1. Becoming a global hub for AI
2. Driving economic gains from AI
3. Increasing AI understanding and literacy

(1) Global hub:

Partnerships between the government and industry have been crucial. Through the Government on Commercial Cloud (GCC) programme,[35] agencies adopted secure cloud infrastructure from global hyperscalers, standardizing adoption while keeping sensitive data under national control. The Economic Development Board (EDB) plays a central role in attracting global AI investment and nurturing PPPs that anchor Singapore's position as a regional AI hub.[36] Google has invested approximately $5 billion in data centres and cloud services,[37] while Amazon Web Services (AWS) plans to invest S$12 billion (Singaporean dollars) by 2028.[38] AI infrastructure investments support national and regional AI ambitions. The National Supercomputing Centre (NSCC) provides computing for research and industry.[39] A "green growth" policy for data centres released 300MW of new capacity with strict energy efficiency and sustainability criteria.[40] National champions such as Singtel, ST Telemedia Global Data Centres (STT GDC) and Keppel are expanding AI-ready facilities with global partners to provide advanced compute capacity.[41,42,43]

(2) Economic value:

Singapore's second goal centres on creating a trusted environment for innovation and growth. The Personal Data Protection Act (PDPA)[44] provides clear rules for open data and cross-border data flows, enabling responsible data sharing. The AI Verify framework, developed by the Infocomm Media Development Authority (IMDA), allows organizations to test AI systems for transparency, fairness and safety – embedding trust while promoting adoption.[45] These are just two examples of measures that enable the development of leading applications and turn AI capabilities into economic value.

CASE STUDY 1 CONTINUED

③ AI understanding and skills:

Singapore's third goal focuses on human capital. Different programmes like TechSkills Accelerator (TeSA) and the AI Apprenticeship Programme (AIAP) equip professionals with practical AI skills, ensuring AI infrastructure and partnerships are matched by a capable workforce and a population with AI proficiency.[46,47]

Bottom line: Rather than controlling every layer of the AI value chain, Singapore pursues a balanced approach to AI sovereignty. It keeps critical government and research workloads within national AI infrastructure (e.g. NSCC and GCC) while relying on global partners for scalable cloud capacity. Besides this, Singapore's national strategy sets clear priorities and is underpinned by relevant legislation, such as the PDPA, which enables data sharing. Overall, Singapore's coordinated model shows how policy, partnerships and investment can reinforce one another.

BOX 3 Selective players

Overview: Targeted players with moderate adoption and selected strengths in the AI ecosystem, investing in sector-specific data and applications

Typical profile: Established industrial economies leveraging strong research and manufacturing bases

AI value chain investments:

- Sustainable and low-carbon energy sources in line with climate goals and energy regulations
- Reliance on international partnerships for other elements, particularly hardware and compute, with focus on sovereign facilities
- Orientation towards regionally focused and open foundation models (e.g. Mistral) aligned with ethical and regulatory standards
- Selective investments in data and applications, mainly for manufacturing, mobility and government services

Coverage of key enablers:

- Mature coverage of select enablers such as R&D and education, though some gaps persist (e.g. capital access)
- Predominantly government-led investments supported by public research institutions and industrial partnerships

Examples:

BOX 4 Adoption accelerators

Overview: Rapid commercial deployers with wide AI adoption that focus on driving application development, scaling use cases and demand first, then selectively backfilling AI infrastructure through partnerships

Typical profile: Large emerging economies driven by a fast-growing digital sector

AI value chain investments:

- Strategic build-out of critical domestic capabilities, while harnessing global suppliers for scale
- Renewable and grid capacity expansion to meet growing energy demand
- Domestic AI infrastructure build-out through public-private partnerships and foreign investment
- Continued reliance on external partners for hardware and foundation models due to limited local capacity
- Concentrated investment in locally tailored applications and services addressing priority sectors (e.g. agriculture, finance, healthcare)

Coverage of key enablers:

- Focus on enablers that promote adoption, including digital literacy and open data initiatives
- Early-stage investment in enabling technology, such as digital public infrastructure

Examples:

BOX 5 | **Emerging collaborators**

Overview: Early-stage actors with nascent, fragmented AI capabilities still in the stage of exploring the AI landscape and potential partnerships

Typical profile: Emerging economies with modest research and financial capacity, in some cases with a large share of GDP coming from routine manufacturing or service activities facing AI-driven automation

AI value chain investments:

- Reliance on international cooperation and donor-backed programmes to catalyse AI value chain growth
- Expanding energy generation (particularly renewable) and grid reliability
- AI Infrastructure capacity generally in planning or early construction phases with very limited access to hardware
- Reliance on open or partner foundation models through academic or regional collaborations due to limited financial capacity
- Emerging status in investments across AI value chain elements, with applications and services focused on development priorities

Coverage of key enablers:

- Persistent challenges in certain enablers (e.g. talent attraction, connectivity)
- Leveraging public-private partnerships and development finance to foster innovation and pilot projects

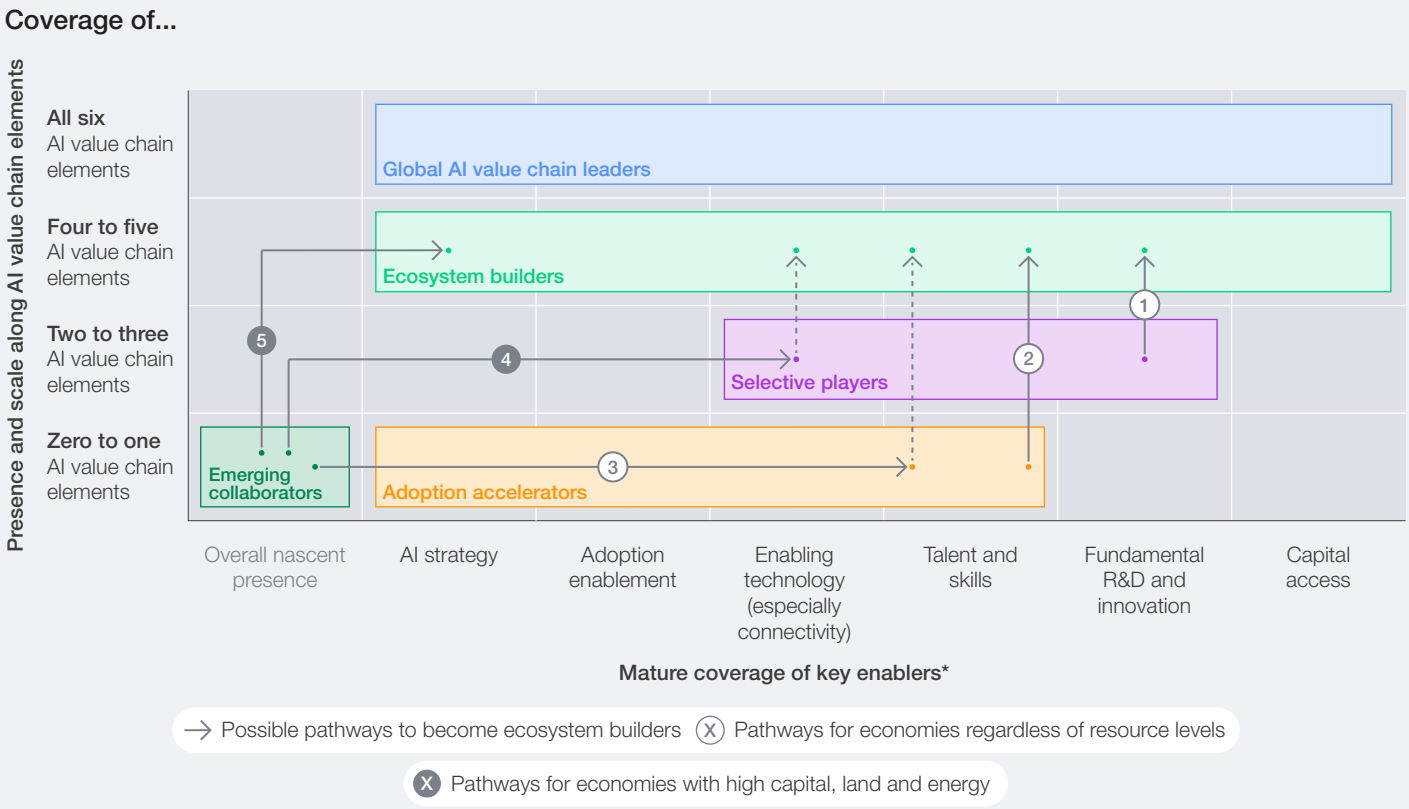
Examples:

Uncovering the best path forward

Archetypes are not fixed categories. With clear strategies and targeted investments, economies can develop into new archetypes. Over the next decade, an economy's AI trajectory will depend on how it deploys capital across the AI value chain and key enablers. Given capital intensity and supply chain constraints, only very few economies can become global AI value chain leaders across the entire AI value chain. Most economies will instead achieve better outcomes by becoming effective ecosystem builders, scaling what they can master domestically while partnering internationally for other elements.

Advancing its AI competitiveness requires an economy to identify and commit to a strategic pathway. The pathways outlined below represent desirable, medium-term options given current key enabler conditions. Other routes may exist, but they are likely longer, less feasible or carry a higher risk. Building on the identified archetypes as starting points, Figure 9 illustrates five potential pathways of how economies can strengthen their coverage and maturity in the AI ecosystem, including AI infrastructure, and eventually become ecosystem builders. These pathways, however, are not travelled alone: how economies partner and invest will play a key role in driving their AI competitiveness.

FIGURE 9 | **Five possible pathways for different AI competitiveness archetypes**



Note: *AI policies set the base for other enablers.

PATHWAY 1

From selective players to ecosystem builders

> Selective players can capitalize on their presence along the AI value chain, their enabling technologies, and a strong R&D base.
>
> Pathway 1

Starting points: Selective players can capitalize on their presence along the AI value chain, their enabling technologies, a strong R&D base often linked with industrial champions, and talent foundations with robust education systems, to generate economic gains.

General approach: Economies can strengthen the funding environment (e.g. through public-private mechanisms) and incentivize early-stage innovation. Building on their strengths, these economies can focus on specific elements of the AI ecosystem that complement and add value vs. global AI value chain leaders, rather than attempting to replicate them, while negotiating access to complementary capabilities that are not developed domestically. Enhanced national coordination and sector-specific roadmaps in key segments (e.g. health, energy) can accelerate large-scale, responsible adoption in both public and private sectors, including among small and medium-sized enterprises (SMEs). Cooperation across the AI value chain, with both local players and global hyperscalers, can help accelerate technology diffusion and build resilience. Finally, capital market depth and risk-sharing mechanisms, such as insolvency and restructuring laws, can help sustain innovation and bolster investor confidence.

For businesses: Underdeveloped enablers (e.g. start-up ecosystem) and partnerships offer attractive investment opportunities.

> Adoption accelerators can benefit from early digital public infrastructure, a large talent base with an active start-up ecosystem and a strong foundation of AI adoption.
>
> Pathway 2

PATHWAY 2

From adoption accelerators to ecosystem builders

Starting points: Adoption accelerators can benefit from early digital public infrastructure, a large talent base with an active start-up ecosystem and a strong foundation of AI adoption with locally tailored applications and services.

General approach: Economies can deepen their participation across the AI value chain to scale data and computing power. These economies can use blended financing models to expand compute and cloud capacity. Coordinated industrial policies can link digital infrastructure projects with R&D and workforce development programmes. National data utilities and open data platforms can improve data access, interoperability and quality, giving these economies an anchor for innovation supported by effective intellectual property (IP) legislation, capital markets and risk-sharing mechanisms. Investing in early AI initiatives – such as applied research, accelerators and pilot programmes – to increase domestic capabilities can further drive innovation and commercialization.

For businesses: Greater capacity and demand, combined with policy support, create opportunities to co-invest in local AI infrastructure, data and applied research.

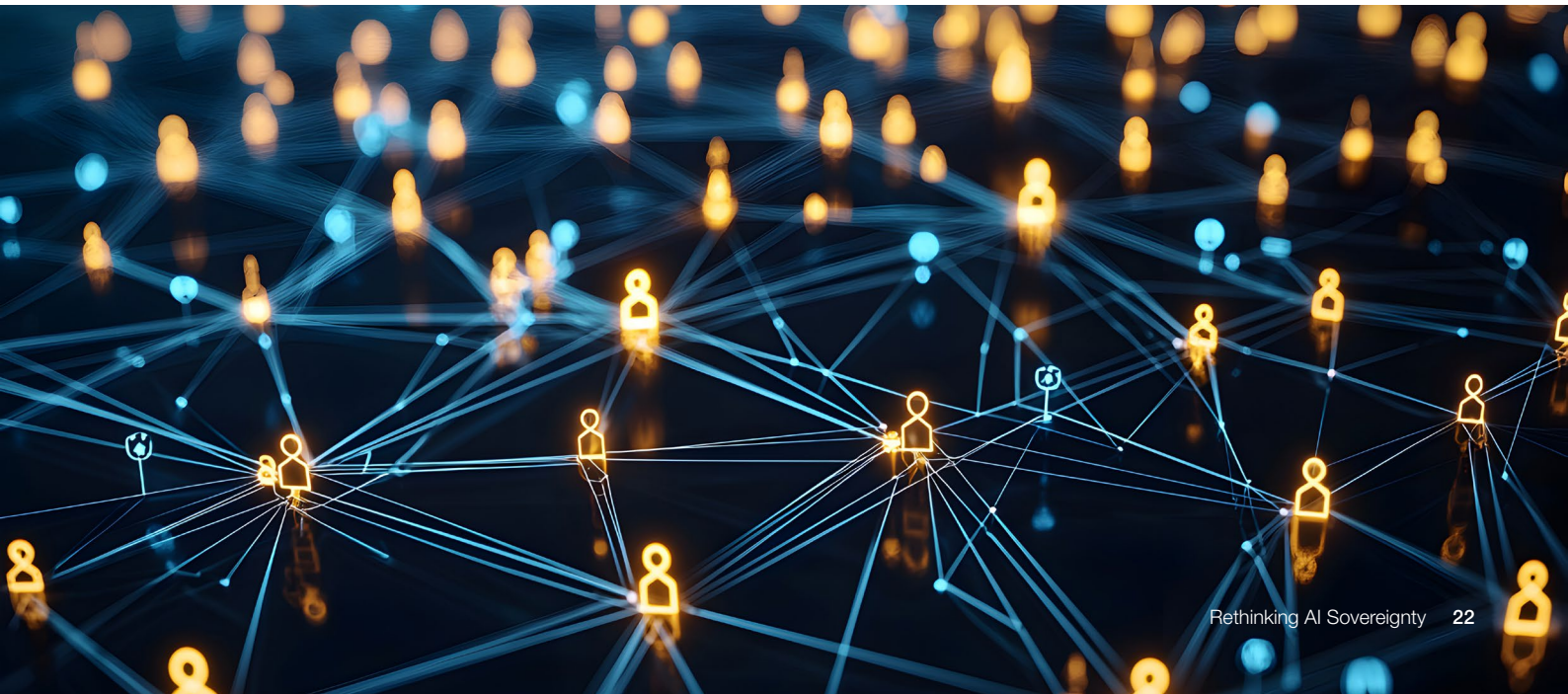
PATHWAY 3

From emerging collaborators to ecosystem builders via adoption accelerators

Starting points: If an emerging collaborator lacks abundant access to energy, land or capital, it can first evolve into an adoption accelerator by tapping into growing start-up and innovation ecosystems and focusing on AI adoption and application development in high-impact sectors (e.g. agriculture, healthcare, education).

General approach: Rather than pursuing full sovereign AI infrastructure, these economies can use PPPs, pay-as-you-go pricing models and concessional finance to expand access. Investments can focus on enabling elements, such as reliable connectivity. Improving curated data and partnering on open-source or allied foundation models can help accelerate the deployment of locally relevant AI solutions. Ensuring that start-ups and innovators have affordable compute and funding can help them scale solutions beyond pilot stages. Developing talent can be advanced through university partnerships, such as exchanges with regional AI hubs and open university programmes. Digital education and data literacy initiatives, including training for SMEs through lighthouse projects and public awareness campaigns, can further build trust and understanding of AI. For a historic example of pathway 3, see case study 2.

For businesses: This pathway provides opportunities to co-create localized AI solutions for high-impact sectors, in support of national development goals.



CASE STUDY 2

India's pathway from emerging collaborator to adoption accelerator

India's transition from emerging collaborator to adoption accelerator has been years in the making, shaped by early and ongoing investments in connectivity, (open) data, talent and applications – many initiated well before ChatGPT's 2022 debut. This approach is reflected in the 2025 AI adoption playbooks released by the Centre for the Fourth Industrial Revolution India and the Ministry of Electronics and Information Technology (MeitY).

AI strategy

National and state strategies combine focus, coordination and sectoral priorities:

- The *National Strategy for Artificial Intelligence* (2018) set priorities in key sectors (e.g. agriculture, healthcare, education),[48] emphasizing ethical and human-centric AI.
- IndiaAI Mission (2024), a $1.3 billion initiative to expand domestic compute,[49] supports start-ups and strengthens public-private research collaboration.

Digital infrastructure

Early investments in connectivity enabled adoption:

- BharatNet has become one of the world's largest rural broadband projects, extending high-speed internet and enabling 5G connectivity to over 250,000 village councils.[50]
- Building on this, domestic and global players – including Yotta,[51] AWS,[52] Microsoft[53] and Reliance Industries[54] – have invested in AI-ready data centres, building localized compute while anchoring India within global AI ecosystems.

Talent

Between 2018 and 2020, the number of professionals with advanced analytics skills was estimated to increase roughly threefold – from approximately 65,000 to over 200,000[55] – driven by a strong science, technology, engineering and mathematics (STEM) pipeline and IT services base. At the population level:

- The Pradhan Mantri Gramin Digital Saksharta Abhiyan programme trained citizens in basic digital literacy.[56]
- The FutureSkills Prime initiative upskilled professionals,[57] while YUVAi introduced AI concepts into secondary curricula.[58]

As of 2025, India has one of the world's largest analytics and AI workforces.

(Open) data:

India adopted an open and interoperable approach to data:

- The Reserve Bank of India's Account Aggregator (AA) framework enables secure, consent-based sharing of financial data across more than 2.2 billion bank accounts.[59]
- The Ayushman Bharat Digital Mission created a unified health data backbone, issuing about 830 million digital health IDs and linking nearly 780 million medical records,[60] powering predictive and diagnostic applications.
- In 2025, MeitY launched AIKosha, a national repository of curated datasets and foundation models[61] for start-ups and researchers.

India thus uses data as a tool for collaborative public good and AI competitiveness.

Applications

India applies AI at scale across priority domains, turning data into applications:

- In finance, the Unified Payments Interface (UPI) reached more than 20 billion transactions in a single month in 2025,[62] fuelling AI-powered credit scoring and fraud detection systems.
- In healthcare, eSanjeevani has enabled 350 million teleconsultations,[63] piloting AI-enabled diagnostics.
- In agriculture, AgriStack,[64] the Agricultural Data Exchange (ADeX)[65] and Kisan Drones[66] use AI and remote sensing to optimize yield forecasting and crop management.

Responsible AI deployment is supported by regulatory sandboxes and data protection measures, including MeitY's Safe and Trusted AI initiative[67] as detailed in the World Economic Forum's 2025 white paper, *Shaping the AI Sandbox Ecosystem for the Intelligent Age*, written in collaboration with the AI for India 2030 initiative.

Outlook

India is a leading accelerator of AI adoption, with 86%[68] of firms exploring or deploying AI, and an estimated 14.23%[69] of the population actively using AI, reflecting a broad-based integration. Despite this, a structural gap remains: India hosts only around 3% of global data centre capacity.[70] Recognizing this, the IndiaAI Mission aims to establish a compute grid of 10,000 graphics processing units (GPUs) and a subsidized compute marketplace.[71] This signals India's transition from an adoption accelerator towards an ecosystem builder.

PATHWAY 4

From emerging collaborators to ecosystem builders via selective players

Starting points: Emerging collaborators with high availability of capital, land and energy, strategic location and regional connectivity advantages can first become selective players by focusing on AI infrastructure (e.g. building a promising investment environment for data centres).

General approach: Economies can invest in excess AI infrastructure capacity and serve both domestic and neighbouring markets as regional compute hubs. By engaging strategically with global trade and investment networks, these economies can partner with leading actors to establish their role in international AI value chains. This requires trusted technology sourcing, such as advanced chips, and long-term offtake arrangements to ensure stable use. Economies can host external foundation models through partnerships, ensuring reliability and security, while supporting local firms in developing sector-specific AI solutions. Establishing investment frameworks and incentives for PPPs, and strengthening energy, land use and permitting policies, can accelerate AI infrastructure deployment. Ensuring regulatory certainty and data governance standards can further attract international partners, sustain investor confidence and secure foreign direct investment.

For businesses: Co-investing in AI infrastructure with key long-term partners creates stable demand and early access to regional markets.

PATHWAY 5

From emerging collaborators to ecosystem builders

Starting points: Some emerging collaborators can harness their strong energy base, high land availability for large-scale developments and strategic location with advanced data connectivity to directly become ecosystem builders by simultaneously developing data, applications and AI infrastructure.

General approach: This pathway serves as an extension of pathway 3, contingent upon a robust foundation to support AI infrastructure scaling and the availability of key enablers such as talent, R&D and capital access. Economies can use strategic partnerships to develop local computing infrastructure and broaden their capacity to serve domestic and neighbouring markets. Policy-makers can support this path by incentivizing investments in local data centres, national data platforms and open-sourced or allied foundation models. Concentrated, balanced investments could develop an economy into a regional AI hub, where global technologies integrate with domestic strengths. Developing strong mechanisms that enable funding, data, talent and intellectual property to move effectively and safely across institutions can strengthen the AI ecosystem.

For businesses: Co-investing in AI infrastructure and applied solutions offers early access to growing AI markets.

> **Some emerging collaborators can harness their strong energy base and high land availability for large-scale developments.**
>
> Pathway 5

4 Key considerations for policy-makers

With a clear vision and a focused investment path, economies can advance their AI competitiveness. This chapter outlines five priorities to guide that journey.

AI competitiveness starts with intentional local strategies. Economies should invest in areas where they have comparative advantages.

Full AI sovereignty is not feasible for economies. Instead, they can leapfrog their way to AI success by harnessing national strengths and collaborating with strategic partners. Ensuring access to and affordability of key inputs, such as compute and models, is essential for meaningful participation in the AI ecosystem.

The following considerations translate the findings of this paper into five priorities for policy-makers on a national and supranational level, such as Europe. They address how to focus local strategies, strengthen AI ecosystems and build sustainable competitive advantages. They emphasize interoperable AI infrastructure and regional collaboration rather than duplicating efforts to drive AI sovereignty.

1 Support the development of clear local strategies that play to strengths

AI competitiveness starts with intentional local strategies. Economies should invest in areas where they have comparative advantages, such as hosting and powering data centres, developing edge AI solutions or building industry-specific applications like those in healthcare or manufacturing. Other AI value chain components can be sourced from trusted partners and alliances. Clear local AI strategies therefore strengthen the investment environment, providing greater confidence in the local AI ecosystem and ensuring that people remain at the centre of AI development and use (Malaysia's national AI framework[72] is an example for this approach). Scaling AI responsibly and sustainably is equally important. Investment strategies must account for socioeconomic and environmental impacts, using approaches such as digital decarbonization, to avoid unintended outcomes, including unemployment or excessive energy use.

2 Help reframe AI sovereignty as strategic interdependence

For most economies, it is neither practical nor feasible to control every element of the AI value chain. Given the capital intensity of chips and AI infrastructure, for instance, few economies can cover these AI value chain elements domestically. Instead, AI sovereignty should be reframed as strategic interdependence, i.e. the ability to shape, deploy, and govern AI ecosystems through a mix of localized investments and global alliances.

Resilience depends on strong enablers and strategic decisions about AI infrastructure. Because AI infrastructure is costly and resource-intensive, collaboration can be more effective than rigid self-sufficiency. Policy-makers should help promote operational control, AI ecosystem health and flexibility over ownership, encouraging action now while retaining the option to localize later. Rather than replicating every component domestically, policy-makers should support efforts to strengthen security, safety and accountability in sourced systems, facilitating investment in AI security infrastructure and shared regional risk frameworks – with regional alliances such as the Association of Southeast Asian Nations (ASEAN) AI safety network.[73]

3 Enable targeted investments to strengthen the local AI ecosystem

Scattershot investments across the AI stack are unlikely to yield meaningful returns. Economies should instead focus on building dense, interconnected local AI ecosystems that unite start-ups, corporates, academia and public institutions. Targeted AI hubs and clusters promote synergies, accelerate adoption and attract global investment – as seen in Singapore and the United Arab Emirates.

Policy-makers can stimulate growth through tax incentives, venture and impact fund support and research grants. Expanding access to capital via public-private funds and maintaining clear, predictable AI regulation can further attract private investment and accelerate AI ecosystem development.

4 Promote interoperable AI infrastructure

AI infrastructure is central to AI competitiveness and should be treated as part of a broader intelligent infrastructure strategy that supports innovation and resilience. Rather than isolated procurements, it should be built as a system of interdependent assets with chips, compute, energy, land and financing.

To avoid vendor lock-in, policy-makers must promote interoperability and workload portability across hardware and software spanning clouds, data centres, and edge AI. This can ensure seamless integration, flexibility and protection against market volatility, e.g. if AI infrastructure valuations cool. For smaller economies, interoperability can be a key equalizer, enabling rapid scaling through open, compatible systems. Effective AI policies can foster both proprietary and open-source AI designs, ensuring diversity in innovation approaches and broad access to AI capabilities.

5 Facilitate the use of data and applications to encourage responsible adoption

Small and mid-sized economies can gain an advantage by focusing on AI application development and adoption rather than competing in capital-intensive areas. High-impact use cases in healthcare, finance, education and public services can deliver both new social and economic value beyond just improving efficiencies.

Policy-makers can lead by example through AI adoption in public services, while promoting use across industries. Harnessing the rise of edge AI can further accelerate uptake in sectors that depend on real-time analytics and localized decision-making, such as healthcare, transport and public safety, which enables faster insights, greater efficiency and real-time services. Strong domestic applications and services can stimulate demand and create export opportunities that fund further innovation. Data is central to this effort, and policy-makers can unlock its value by promoting diverse content generation while ensuring privacy, security and ethical use.

Together, these policy actions help frame AI sovereignty as strategic interdependence. True AI competitiveness, therefore, stems from strategic focus, trusted alliances and responsible scaling, which should all be anchored in secure access, openness and interoperability.

Conclusion

To capture the greatest economic and societal benefits of AI, economies must invest strategically across the AI value chain and not aim to own it entirely. Full AI sovereignty is out of reach. Lasting advantages are not.

The archetype-based approach and pathways presented in this paper offer policy-makers a practical way to assess their competitive position today and support a tailored path towards maturity and scale. Economies can advance AI competitiveness – even without extensive resources – by making focused investment decisions aligned with local strengths and priorities. Decisions about where to invest, how to build and deploy AI, and who to partner with will shape AI competitiveness and create stronger, more sustainable economies. In essence, there are different possible routes to AI competitiveness. As new partnerships and collaborations develop, possibilities can grow exponentially.

As a next step, policy-makers should look inward to help clarify their strengths and investment priorities, and outward to enable partnerships and collaborations. Effective collaboration can take many forms, but it must be grounded in local needs and regional strengths rather than flashy pilots or grand proclamations.

We challenge leaders to rethink the notion of AI sovereignty and shift from defensive postures to strategies for shared prosperity. Through collaboration, economies can accelerate the collective progress towards AI competitiveness and narrow the divide between “AI makers” and “AI takers”.

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