

WHITE PAPER

Capturing the AI Opportunity

How State and Local Leaders Can Harness the Power of AI to Maximize Economic Development

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Al is poised to deliver a \$7 trillion boost to the global economy over the next 10 years (Goldman Sachs)—and will prove equally transformative for state-level economies. BCG recently examined a midsized U.S. state and found that virtually every sector of their economy was positioned to benefit from the AI opportunity, with nearly a half million workers likely to see their jobs significantly changed.

The benefits of AI won't accrue equally to all regions, though. Jobs and investments will flow preferentially to states that establish themselves as AI leaders. Some regions will benefit from high-wage job creation and productivity gains; others may see reduced demand for workers with AI-replicable skills.

To seize the AI opportunity, state leaders must take decisive action. Drawing on BCG's work with governments and private-sector AI leaders, this article offers an actionable plan for state and regional economic development in the AI era.

Is your state ready for the AI talent race?

Current AI job creation is concentrated in existing technology clusters, with approximately 25% of all AI patents and companies emerging from the Bay Area, which also enjoys the highest concentration of AI-related job postings (Brookings). In the future, however, most AI job creation will come from outside existing technology clusters. Just as the birth of the Internet created an explosion of IT jobs, AI will drive widespread job creation and impact virtually the entire U.S. workforce.

Indeed, half of U.S. companies are already experimenting with AI, while one-quarter are embedding AI into their operations (BCG). This is sparking a race for skilled, AI-ready workers: Amazon, for instance, recently launched an "AI Ready" education program to upskill 2 million people by 2025 (Daily AI). The upshot: all states will be impacted by AI—and states that act now, placing AI at the center of their economic planning, have a critical window in which to capture enduring benefits.

The 3 key steps to AI success

Regions that take early and appropriate action will capture a greater share of AI investments and job creation, with AI becoming an engine of lasting economic growth. To achieve this, policymakers can use three key levers:

- 1) **Employers** by offering smart incentives to attract key Al innovators
- 2) **Research & innovation** by spurring AI research, knowledge transfer, and business creation
- 3) **Talent** by forging Al-aligned education pathways and supporting reskilling for existing workers

To maximize the gains from these levers, regions will also need clear coordination and a multifaceted funding strategy, with all stakeholders working in concert to execute on a regional AI vision.

To understand that process, let's take a closer look at each of the three key levers available to state and regional policymakers.

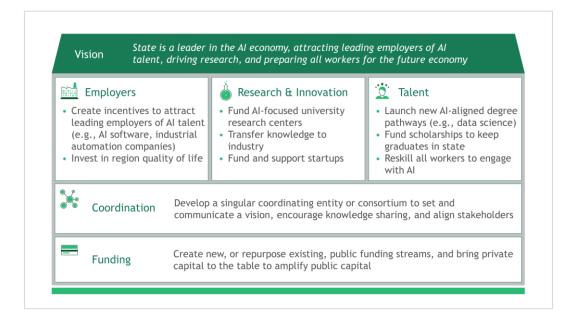


Exhibit: Vision and five critical components of a comprehensive economic development strategy for the AI economy

1) Employers

Employers are key drivers of economic growth, creating jobs, funding R&D, and commercializing new technologies. With most AI companies located near existing technology clusters, states will need to use business attraction strategies to encourage the relocation of AI-linked jobs and businesses. Leaders can use three main strategies:

- Incentives for AI specialists. Leading AI companies with roots in existing tech clusters may relocate in exchange for financial incentives. In 2021, Kansas offered tax incentives to Torch.AI, a defense-focused AI company, to expand its headquarters and create 500 jobs in the Kansas City area (EnterpriseAI). California similarly issues grants through its CalCompetes program, including a 2023 grant to AIBOT, the AI-powered autonomous aviation company (Ca.Gov).
- Incentives for AI adopters. States can drive AI job creation by attracting established companies that are integrating AI into their operations. Examples include industrial automation leaders such as Rockwell Automation, Zebra Technologies, ABB, Siemens, and FANUC. These manufacturers are pushing the boundaries of AI-powered machinery, and attracting facilities from such companies can bring AI jobs at a variety of levels, from R&D to direct manufacturing.
- Quality-of-life investments. Non-economic factors such as a friendly business climate, manageable cost of living, and high quality of life play a key role in attracting and retaining high-tech employers. Austin TX, Boulder CO, and Bozeman MT have all attracted high-tech companies by positioning themselves as excellent places to live and work. States that successfully brand themselves as attractive homes for the next generation of talent will find it easier to attract and retain both skilled workers and AI employers.

2) Research and Innovation

Research is critical to driving the development and adoption of Al-powered technologies. Winning regions will attract and fund research activity in academic institutions and employer labs, while also creating the conditions for Al-powered startups to grow and commercialize their tech through accelerators and funding opportunities. Key strategies include:

- Funding AI research. University research centers can fuel both basic and applied research. While AI research has historically been led by heavyweights such as Carnegie Mellon, MIT, and Stanford, many other institutions are now creating programs to recruit faculty and fund transformational research—often with support from federal grants. In 2023, for example, the NSF's National Artificial Intelligence Research Institutes funded seven AI research institutes including the University of Maryland's Institute for Trustworthy AI in Law & Society and the University of Minnesota's AI-CLIMATE Institute.
- **Promoting knowledge transfer**. Universities can also play a key role in AI commercialization, acting as bridges to end users. The Georgia Tech Research Corporation (GRTC) received \$65 million through the Build Back Better Regional Challenge to support Georgia AIM, a coalition accelerating AI adoption in manufacturing. Funded projects include the AI Manufacturing Pilot Facility, which supports cooperative public-private pilot trials, and the Underserved Entrepreneurship Activation project, which promotes AI-enabled manufacturing and entrepreneurship in rural and Black communities.
- **Nurturing AI startups**. Winning regions can support startups by providing capital to early-stage investment funds. The Missouri Technology Corporation, Michigan Rise, and Launch Tennessee are examples of state-powered venture-style investment funds aiming to increase local founders' access to capital. Many funds also provide entrepreneurial support such as mentorship, coaching, and networking opportunities. By directly investing in AI innovation, states can fill early-stage funding gaps and empower local entrepreneurs to develop new AI technologies.

3) Talent

In order to attract employers and research organizations, it is critical to grow local talent. Given skills shortages in AI and related fields, regions that forge new talent development pipelines can gain an important competitive advantage. Strategies include:

- Enabling new degree programs. While established degrees such as computer science remain relevant for AI development, new degree offerings such as data science and machine learning are increasingly in demand. Universities such as Carnegie Mellon have established B.S. programs in AI; others, including the University of Virginia and Northern Kentucky University, have created new data science programs. By encouraging local universities to develop AI-aligned degree pathways, regions can build a pipeline of skilled AI-ready talent.
- **Preventing brain drain**. Demand for AI skills means new graduates will be targeted for recruitment by high-growth employers in other states. Michigan's mobility-focused Michigander EV Scholars program presents a strong model for retaining specialized talent, offering \$10,000 scholarships to electrical engineering and computer science graduates who stay with participating local employers for 12 months. Similar programs for AI-aligned graduates can reduce talent loss and strengthen connections between graduates and local employers.
- **Upskilling existing workers**. State-led reskilling programs can prepare workers for the impact of AI in their workplaces. One promising example is Tennessee's Smart Factory Institute, which gives manufacturing workers skills in areas such as automation and Alpowered robotics. Leaders in this space—such as Georgia's QuickStart program, which works with community colleges to design training initiatives for employers—can also serve as models for AI-focused programs, reducing workforce disruption as AI technologies grow more prevalent.

Bringing it All Together

Individually, each of these levers can drive positive results. To achieve deep and sustained success, however, regions need a coordinated and connected vision for the AI economy. Effective regional coordination—like that used to drive the development of high-tech clusters in sectors such as biotech and robotics—can enable the development of AI clusters, generate alignment across stakeholders, and elevate and amplify local successes.

One strong example of AI-focused coordination is Canada's Scale AI supercluster (Scale AI), which focuses on next-generation supply chain technologies. Drawing together more than 150 partner organizations—including AI startups, enterprises such as RBC and Air Canada, and universities including Université de Montréal and University of Waterloo—Scale AI has received over \$280 million from the Canadian government while also attracting private capital to expand its impact.

With a mandate to "support the building of world-leading businesses, create highly skilled jobs, and accelerate the adoption of Al-powered technologies," Scale Al offers coordinated support across all three areas highlighted in this article:

- **Employers** receive up to 50% funding for industry-led AI implementation projects ranging from digital twinning for warehouses to AI-augmented workforce and planning tools. To qualify, projects must be new, collaborative, ready to launch, and backed by private capital in addition to Scale AI support.
- **Research & innovation** is encouraged through endowed research chairs at participating universities; incubators, accelerators, and AI research centers; and collaborative projects that connect both large and small employers with research teams to foster end-to-end technology development capabilities.
- **Talent** is nurtured through the STEM Youth Awareness Program, which gives students early exposure to critical AI concepts and provides customized support to help employers train and upskill existing workers. These workforce investments help create clear talent pipelines, producing the human capital needed to drive success.

These three areas are interconnected, and each is an opportunity to connect major employers, small and medium enterprises, and academic researchers. Industry AI projects, for instance, are required to feature partnerships with other Scale AI members, encouraging collaboration and the dissemination of pre-competitive insights.

By connecting employers, research, and talent, and encouraging knowledge sharing and connectivity, Scale AI thoughtfully supports the evolution of a thriving, AI-focused cluster. Individual programmatic investments build upon each other in a unified framework, increasing the sustainability and impact of Canada's AI economic development strategy.

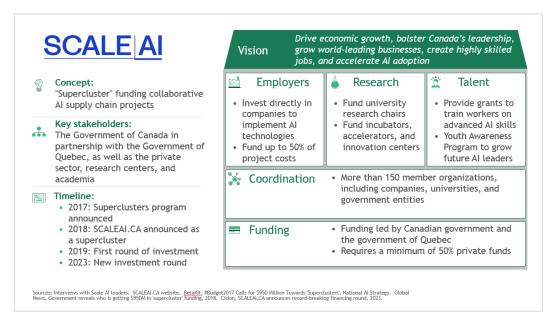


Exhibit: Scale AI's "supercluster" approach to coordinating employers, research, and talent to build Canada's AI capabilities

Accelerating Your Region's Journey

To turn talk into action, states and regions must activate the capital needed to fund a comprehensive economic development program. Some components can be funded by individual actors under existing budgets—creating new Al-aligned degree programs within existing university departments, say, or retargeting already appropriated business attraction incentives.

Other initiatives, however, will require meaningful new investments, prompting regions to explore multiple ways to fund Al-focused economic development. Some, such as Canada's Scale Al initiative, are directly funded by governments via dedicated appropriations. In other regions, U.S. federal grants can similarly help to seed regional strategies.

Increasingly, private capital will also be needed to amplify the impact of public dollars. Requiring private organizations to share in project costs can help ensure that research beneficiaries have skin in the game, while also promoting the strategic deployment of public funding to areas with private sector support.

Don't miss the AI opportunity

Accelerating progress toward Al-powered economic growth cannot be left to chance. Despite business-led efforts to drive Al upskilling, BCG research shows that many organizations remain unprepared for the Al revolution. In fact, almost three-quarters of frontline employees have yet to receive any training in how Al will impact their jobs (BCG).

This leaves states with an important role to play: providing coordinated leadership and ensuring that both employers and workers receive the support they need. Regions that develop a comprehensive economic development strategy, with proper coordination and effective funding, will be positioned to capture a disproportionate share of the benefits as AI technologies grow increasingly powerful and ubiquitous.

BCG helps startups, enterprises, research organizations, and governments develop proactive strategies for success, and forge the partnerships needed to make the most of the AI opportunity. With the right expertise, strategic support, and execution, it's possible for all states and regions to drive growth and achieve lasting success in the emerging AI economy.

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