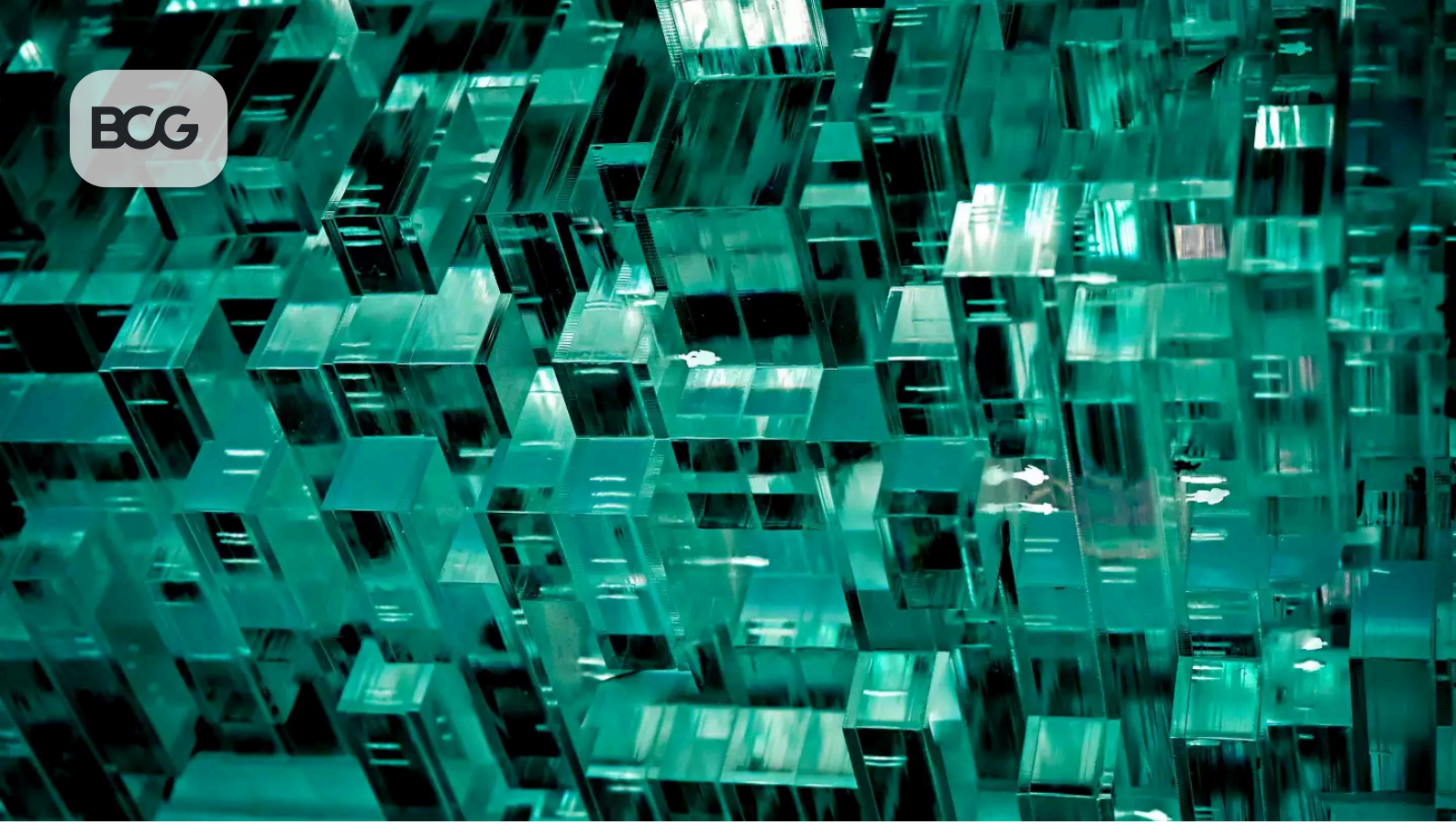

PUBLIC SECTOR

Are US States Ready for the AI Economy?

The AI Maturity Matrix

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Economic and workforce-development leaders throughout the US are in broad agreement on the importance of AI: 88% of them see the technology as crucial to the competitiveness of their economies. But fewer than 10% say their state has a well-defined strategy in place for responding to AI's economic impact.

That's the stark paradox revealed in BCG's latest study of AI in the public sector. Building on last year's global AI Maturity Matrix report, our current research focuses on AI readiness in the US.

We've surveyed economic and workforce-development leaders on the challenges their states face. We analyzed US states and territories across six archetypes of AI-related economic development and potential. Our results show that, while some states have formed task forces to analyze AI's impact, government leaders can do more to drive innovation and AI adoption across industries, in public sector agencies themselves, and throughout the communities these agencies serve.

Our research offers public sector stakeholders a four-part playbook for transformative action on AI:

- **Workforce.** Equip residents and workers with education and training that's aligned with employer needs where possible.
- **Industry Adoption.** Fast-track AI adoption across sectors by supporting small- and medium-size businesses as they implement AI solutions.
- **Innovation Clusters.** Foster AI ecosystems by funding startup hubs, expanding access to computing infrastructure, and urging collaboration among universities, investors, and industry.
- **Research and Development.** Strengthen research through public-private partnerships that develop AI for both economic impact and social good.

Governments can play a pivotal role in modernizing economies and securing a future of prosperity and purpose for their constituents. Though our study is focused on US states and territories, we believe it holds valuable lessons for public sector stakeholders worldwide.

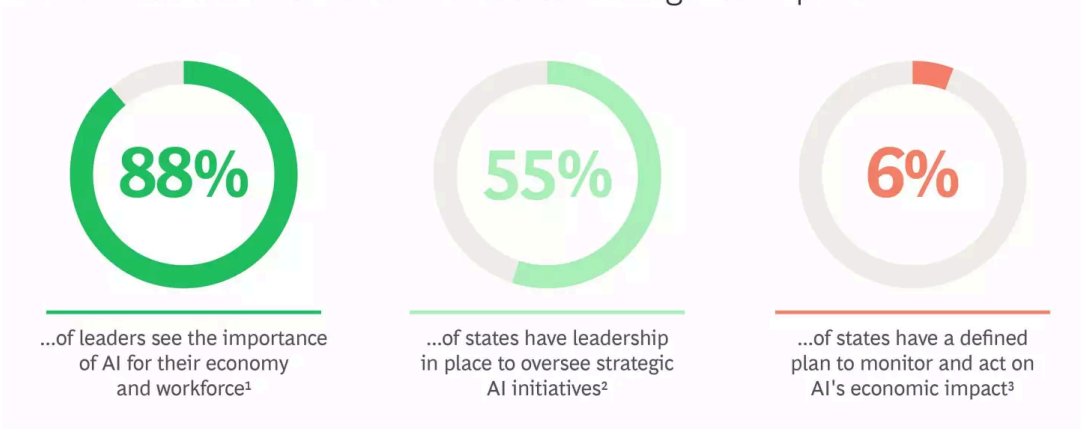
What Leaders Are Saying

Last year, BCG introduced the AI Maturity Matrix, which benchmarked 73 national economies by their exposure to AI disruption and their readiness to respond. The project named the US as the most exposed economy—and one of the most prepared.

As a global leader in technology innovation with an advanced national AI strategy, the US is poised to command a major share of AI's projected five-year, $1.8 trillion global value.[1] But the fullest success on the national level requires state-level success—and the responses to our latest survey suggest that progress at the state level is sometimes fragmented.

EXHIBIT 1

Most Economic and Workforce Development Leaders See AI as Critical, Yet Few States Have Plans in Place to Manage Its Impact



Source: BCG AI Impact on States survey.
[1]Responded "important" or "very important" to the question "How important do you think AI is for the future of your state or region's economy and workforce?"
[2]Responded "yes, appointed task force" or "yes, designated official" to the question "Does your state or region have a designated leader/task force to provide strategic leadership on the impact of AI on the economy?"
[3]Responded "yes" to the question "Does your state or region have a defined plan to monitor and act on AI's impact on your local economy?"

Economic and workforce-development leaders noted a confluence of factors that make progress with AI difficult for policymakers. Among the survey's key findings:

Internal barriers within government are preventing the public sector from driving economic change with AI:

- 39% of respondents say the biggest barrier to driving change is a lack of cohesive economic strategy around the technology.
- 21% say that understanding is limited within their agencies around what AI could mean for their state.

Hesitancy among business and the public is slowing the pace of AI transformation:

- 27% of respondents say factors outside government—including low public trust and business adoption barriers such as lagging ROI—are slowing transformation in their state.
- 27% point to a lack of AI-skilled workers and misalignment between education and labor needs as barriers to wider adoption.

Several states have commissioned task forces and/or named leaders to address AI's impact, but most have not gone further:

- 55% of states have named a task force or official to address AI's impact on the economy.
- 36% have named a task force or official to address AI's impact on the workforce.
- A much smaller share says their state is moving forward with coordinated plans to act on AI's economic (6%) and workforce (18%) impacts.

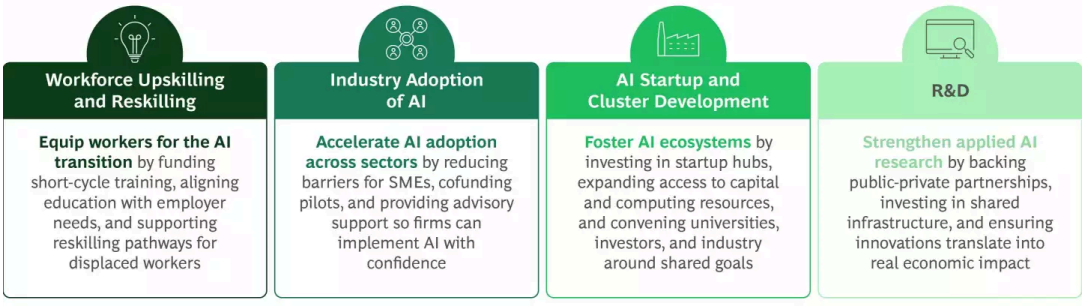
While it's important to analyze AI's potential impact, the creation of task forces and the appointment of leadership roles are only the first steps. By following a coordinated strategy, public sector leaders can boost their state's competitiveness and prepare workforces for the AI economy.

Four Plays for the AI Era

There are plenty of moves for public sector stakeholders to choose from when activating an AI strategy, as several US states show. A four-part playbook lays out the key areas of focus and important actions leaders can take.

EXHIBIT 2

A Four-Part AI Playbook for Economic and Workforce-Development Leaders



Source: BCG analysis.

Playbook, Part 1: AI Workforce Transformation

Workforce readiness is the foundation of any AI strategy. Governments that mobilize their populations with training can expect to see the adoption of emerging technologies move forward

in complementary, adaptive ways. Those that don't move quickly could see underemployment spread—and a growing digital divide.

The scale of workforce transformation is immense. Some 40% of all work hours are expected to be impacted by GenAI, according to BCG research; repetitive, digital tasks are likely to be phased out. Remaining roles will be transformed into AI-enabled positions, with 60% of talent needing upskilling over the next two to five years. Yet in change lies opportunity: according to Lightcast, jobs dependent on AI skills pay up to 28% more.

As a state reliant on more highly AI-exposed sectors like automotive manufacturing, Mississippi has recently begun forming AI training initiatives. The Mississippi AI Collaborative (MSAIC) runs a program to boost teacher familiarity with AI and offer workshops to residents, while the Mississippi Artificial Intelligence Network works to align curricula and offer free courses through partner colleges and K–12 schools.

In 2025, the state launched the Mississippi AI Talent Accelerator Program, awarding $9.1 million in grants to universities to expand AI programs and align education with practical AI applications. When viewed across the six archetypes for AI readiness, the state's strength lies in its efforts to help people gain technology skills, especially midcareer workers and those who live in rural areas. (See the sidebar "Our Framework for Assessing AI Readiness.")

— Our Framework for Assessing AI Readiness

To assess the AI readiness of each US state, we collected data from a mix of public and private sources aligned to the ASPIRE framework used in the global assessment. Specific state-level factors include:

- **Ambition.** The presence of a public-facing AI strategy or government AI leader (whether a person or agency) for economic development.
- **Skills.** Science and engineering degrees awarded by in-state institutions; employment of workers in AI-related occupations; guidance for AI use in K-12 education.
- **Policy and Regulations.** The number of bills enacted (or pending) in 2024 intended to regulate AI or address its impact.
- **Investment.** The share of state gross domestic product generated by the information and tech sector; overall venture funding activity; venture funding directed toward AI companies.
- **Research and Innovation.** Startup, publishing, and patenting activity specifically related to AI; federal funding for AI-related research and

development.

- **Ecosystem.** Use of AI by small- and medium-size businesses; accessibility and quality of electricity and telecommunications infrastructure.

Here are five steps state governments can take to upskill their workforces:

Start teaching AI skills early. Integrate AI learning into the entire student journey, from the K–12 years through higher education. Stanford University has teamed with high schools in New Jersey and New York to embed AI in curricula. Emphasize practical uses of AI; Ohio State University now includes GenAI training for first-year students and builds AI fluency into degree requirements.

Expand on-demand training for incumbent workers. Practical, industry-aligned training programs can help professionals learn to apply AI to their jobs. Work with stakeholders throughout the state to collect their feedback on real-world deployments; online training is a useful channel to quickly engage workers statewide with any resulting tips and tricks.

Create public access points for AI. Libraries, community centers—these are easily accessible places where the state can set up AI terminals and learning hubs for residents. Offer AI office hours and workshops at these hubs; it's best to make training convenient, so have training staff meet people where they are—close to home.

Offer specialized training for experts. Machine learning scientists and data engineers are always eager to learn new concepts. Work with universities and industry to prepare advanced curricula around the latest models and innovations.

Align upskilling initiatives with capital investment. Industry stakeholders can be a source of funding for capital grants that incentivize employees and professionals to learn relevant new skills.

Playbook, Part 2: Industry Adoption

We're only starting to see what AI startups and R&D efforts are creating in terms of new use cases. But value creation is also within reach of traditional industries like automotive and energy.

For example, adoption of AI in an economy's oil and gas sector—which BCG considers moderately exposed to AI disruption—can boost the broader economy. Energy firms with AI in their operations will be able to deliver incremental profits over several years—which in turn could boost state GDP.

Yet small- and medium-size enterprises (SMEs) are stuck. They currently lag far behind their larger peers, with AI adoption rates two to four times lower due to systemic barriers such as a lack of infrastructure and prohibitive costs. SMEs make up roughly 40% of US GDP, according to the US Small Business Administration. It's important to help these businesses move forward with AI.

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Louisiana is pushing AI adoption among SMEs through its LA.IO (Louisiana Innovation Office) initiative, focusing on the energy, advanced manufacturing, and logistics sectors. LA.IO offers technical support and AI readiness assessments to help firms safely use AI tools and digital systems.

In our AI Maturity Matrix, the state scores well in ecosystem management—demonstrating Louisiana's concerted efforts to prepare its workforce and businesses for AI disruption at the industry level.

Here are five steps state governments can take to drive AI adoption:

Prove how AI delivers ROI and shared prosperity. Highlight the returns on AI deployments to industry stakeholders; for example, companies that are engaging fully with AI are seeing more than twice the ROI than slower adopters. Frame AI adoption as an advantage for everyone, including SMEs, not just global tech firms.

Activate a network of AI implementors. Intermediaries with real-world AI experience can work closely with firms, often at the ground level, to help them adopt the technology. Coinvest with private sector players to seed this network, as the shared commitment will scale expertise and support across core industries.

Help SMEs gain confidence with AI. For every hundred companies that have the right resources, there are thousands of smaller businesses that need access and support. Help boost their capacity to adopt AI by providing awareness programs and applied learning. States can deploy digital resources like agents and chatbots to give these smaller players quick knowledge support.

Observe what tech partners do differently. Look at the ways that hyperscalers are deploying AI in distinct use cases or models that are relevant to the state's industries. A solution pioneered by a tech giant may be an ideal fit for in-state businesses, and partnership opportunities could form around use of the model.

Fuel a system of continuous learning. AI adoption is a journey of endless learning. Encourage this by building feedback and learning loops; draw on what the state's leading AI companies have learned. Share insights from successful pilots, partner with hyperscalers to publish best-practice guides, and post sector-specific starter playbooks on a state AI portal.

Playbook, Part 3: Innovation Clusters

The flourishing of AI in San Francisco has made it America's heart of innovation. Over 70% of all AI-related North American venture funding goes to companies in the Bay Area, according to Crunchbase. So how do policymakers in other states position their communities as ideal for relevant startups and compelling for investors?

Innovation cannot reach its full heights without money and focus. In most places around the US, invention isn't about pushing the leading edge of LLM development; instead, new AI solutions and use cases should be relevant to a state's specific economic mix. Leaders can see this as the priority of a strong innovation cluster: focusing funding, partnerships, and startups at the intersection of AI and unique state challenges and core objectives.

— International Examples

Some notable approaches to talent, R&D, innovation, and adoption in other countries:

Workforce. Several talent programs have helped Japan become a hub of AI innovation. Over 80,000 foreign IT workers reside in the country, drawn in part by salaries comparable to the US and UK. The Ministry of Economy, Trade and Industry runs an internship program for foreign applicants. Domestically, corporations and startups based in Japan prioritize AI upskilling for workers.

Industry Adoption. Canada created Scale AI, a coinvestment fund pooling public and private capital, channeling over $600 million into roughly 120 projects. Businesses are urged to partner with local providers and researchers, keeping value in the domestic ecosystem. The program has lifted adoption in firms of all sizes, including SMEs, by lowering risk and giving access to talent and applied research. The effort's projected returns include $16.5 billion in GDP and 16,000 new jobs.

Innovation Cluster. A state in India launched an equity-free AI accelerator, allowing startups to join without giving up equity while gaining access to supercomputing infrastructure and shared facilities. The program connects startups with corporations and government agencies, helping them launch pilot projects, build networks, and secure early customers.

Research and Development. Singapore has made itself as a leader in AI by investing heavily in AI R&D. This funding is driven by strong initiatives, including the five-year Research, Innovation, and Enterprise (RIE) plan that puts billions into R&D and brings together academic institutions, startups, and the country's abundant talent. The effort's emphasis is on national opportunities: for example, RIE channels funds into biotech, a priority sector for the country.

Massachusetts has fostered a strong innovation sector by mobilizing both private and public resources to the effort. In 2024, the legislature passed the Mass Leads Act, which lays out several sectors of economic importance, including AI and robotics, as targets of new infrastructure and grant programs. The Act also allocated $100 million to create the MA AI Hub. This strategy brings together government, industry, startups, and academia to fuel research and deploy AI for real-world applications. Such moves have made Massachusetts a leader in ambition and innovation, as the Maturity Matrix shows.

In Indiana, Purdue University's Physical AI initiative explores AI solutions for both core state economic issues like agriculture and larger social matters around AI, including mitigating deepfakes.

Without dedicated strategies to support startups, states will see promising AI companies cluster elsewhere, taking jobs and IP with them and depriving key sectors access to emerging technologies.

Here are five steps state governments can take to spark innovation:

Make a statewide AI hub the centerpiece. Bring together leading players—industry, universities, startups, and tech firms—to create the connective tissue of the state's AI ecosystem. It's an approach meant to make collaboration among these parties more consistent and rewarding. Shared initiatives can better drive coordinated growth.

Set up sandboxes to continuously refine regulations and policies. Establish transparent guardrails on consumer protection, bias, and data security. Clear rules build trust and give businesses the confidence to innovate and scale responsibly.

Free AI companies to develop and test solutions without running afoul of existing regulations. An example is Utah's Office of AI Policy, which provides temporary relief from regulations for technologies in development.

Create sector testbeds. Provide the setting and resources for startups to test their creations in near-real-world environments. For example, a researcher can try out their concept robotic arm in a testing lab that mimics a manufacturing floor. When looking for coinvestors to fund testing programs or provide physical resources, seek out distinct sector stakeholders like relevant industry partners and university departments.

Pinpoint investments that build harmony. Use intentional, targeted seed funding and match funding to link startups with established players throughout the state. Avoid scattering capital across isolated ventures; concentrate investment on efforts that build cohesion across the state's innovation network.

Position the state as a first customer for AI. Hyperscalers and startups are always looking to test concepts in real-world deployments, so position state agencies and public services as early customers for AI pilots. Offer to test the latest model—say, a new chatbot in the state DMV call center—and share what workers learn.

Playbook, Part 4: AI Research and Development

R&D has long been a strength of high-income economies, but even capital-rich states will find traditional research models too slow and unfocused to match the tempo of AI's evolution.

Focused R&D moves much faster, as the US private sector's massive contribution to AI research shows. And though R&D in industry settings often takes a commercial angle, research could also address fields like education and medicine as leaders spread their state's experts and resources across the economy.

The goal is a balance of expertise that today's R&D doesn't fully achieve. Drawn by lucrative pay and cutting-edge projects, roughly 70% of AI PhDs join industry, including tech firms, versus 20% two decades ago. What's more, over 90% of leading AI progress indicators are found in industrial sectors, meaning that much of the progress with AI falls outside of academia and government, along with the talent building the next big AI model.

By mobilizingevery expert and resource—especially computing power—states can drive focused R&D in both commercial and academic settings. This can lead to applications that inspire wider

AI use throughout the economy, from new AI tools for relevant industries to new AI models that can be used for social benefit.

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In 2024, New York's EmpireAI consortium launched to provide computing power and expertise to AI research at a mix of private and state universities, including Columbia, Cornell, and the City University of New York. The initiative is currently funded by over $500 million in public and private investment, including up to $340 million in state capital grants. The project will also receive more than $200 million from various contributors and philanthropic backers.

The project's priority is to boost AI R&D for the public good. Current projects are linked to health care and sustainability use cases; budgeting for the program is also linked to legislation that mandates ethical AI. Developing AI responsibly can go a long way toward building the public's trust in the technology. It's no surprise that New York scores high in ambition, policy, and research in our AI Maturity Matrix.

Here are five steps state governments can take to enhance R&D:

Rely on coalitions to make computing infrastructure accessible. R&D cannot move forward without computing power, the scale of which is too expensive for research institutions to provide on their own. (Data center requirements will range to upwards of 200 megawatts, with related increases in costs.) To respond, build partnerships across leading institutions to fund shared infrastructure; back up these alliances with memoranda of understanding and financing arrangements with private sector actors.

Think creatively about how to access computing resources. For example, when courting hyperscalers that are looking for sites to build data centers, negotiate with them to set aside a percentage of the power generated (say, 1% to 10% of total output) for public use.

Tap into premier research talent. To draw experts to work in government and academic settings, states can move to attract them with the right assets, with access to computing resources first on the list. Leading AI researchers cite this as their top need.[2]

Another option is to link with hyperscalers and academic institutions to develop shared collaboration models and frameworks, including around competitive pay for researchers.

Broaden the state's research area. To ensure that the state is using AI to elevate the greater good, enable the research community to take on diverse projects alongside those meant for business aims. Harness resources to explore AI for uses that serve us all, such as advancements in genome research.

Build data commons. Extending access to valuable, trustworthy data is a good strategy. Stand up industry-specific databases for use by researchers centered on key sectors—manufacturing in Ohio, for example. Open the state's own industry data for use in public domain AI research.

Set up AI acuity councils. States can team with the best minds to make the best bets pay off. Assemble leading thought partners to help pinpoint the most promising AI projects; these are prime targets for the state's resources.

Putting the Playbook in Motion

While the more detailed elements of a state's approach will be specific to its needs, certain key steps can be helpful for any government leader planning an AI strategy to drive economic and workforce priorities—all while promoting the ethical use of the technology.

Set the direction and ambition. Ambition is the guiding force of an economy's relationship with AI; it helps leaders define what to aim for and what resources to utilize. Start shaping ambition by conducting statewide AI-readiness assessments for economic, workforce, and institutional sectors; evaluate areas where the state can build competitive advantage. The effort will provides a view on each sector's exposure to AI and their resources to engage the technology at both the user level and broader strategic level.

Goals give ambition focus, so articulate clear aims for the next two to three years that are linked to measurable outcomes. AI moves so fast that technical goals can shift quickly. Instead, set concrete targets like reaching a specific dollar amount of investment by 2028 or requiring every state university to offer an introductory AI course by year two.

Establish governance foundations. A well-grounded governance program achieves dual purposes: it helps the state's strategy grow value while guiding stakeholders to use the technology responsibly. A big first step is to choose the right structure for the governing body. Some agencies sit within government, while others rest outside government or adopt a hybrid model. Governance entities could be a central coordinating body or a specialized department within a larger agency. Look at other economic governance efforts in the state for ideas around which model would be best.

Members of the agency should have technical and economic expertise and familiarity with the state's specific industrial mix. Engage the leading universities, investors, and businesses; they

may very well be further along their own AI journeys and can speak from experience.

Mobilize resources and action. Always align resources and funding with statewide imperatives, such as building an innovation hub. Each economy has unique opportunities; your assessment of readiness will reveal much about the state, including its potential to strengthen R&D or its specific need for skilled workers in core industries. These areas become imperatives for your strategy and targets for capital funding or investor activity.

It's just as vital to build early momentum, even on a smaller scale, and no-regret steps are great to get moving. For example, launch small AI pilots in teams of government workers who are adept with technology and eager to learn. Once a pilot delivers a benefit, launch the model throughout other agencies—and show the results to stakeholders across other sectors.

Monitor and adapt. AI will never stop evolving, so stakeholders will want to regularly monitor how the state can use the technology for benefit. Use a recurring governance cycle: assess, invest, evaluate, and scale. Periodically review the changing readiness of stakeholders to use AI. Direct funds toward promising projects. Analyze the effectiveness of rollouts. Whenever a deployment pays off, scale it across businesses and industries.

Use public dashboards or AI progress trackers to keep tabs on transparency and impact. Set up joint business–IT teams with clear KPIs—say, hours saved on a pilot. Progress against these KPIs will make clear what's going well and worth scaling.

From Task Forces to Action

Expectations around AI keep building, but execution at the state level is often lagging. Moving from conversations to commitment requires new approaches to leadership and coordination.

The public sector leaders who act now—by upskilling workforces, boosting AI adoption across industries, building innovation clusters, and mobilizing resources for research and development—will not only strengthen their economies. They'll also help ensure that AI becomes a driver of prosperity for their states and for the constituents they serve.

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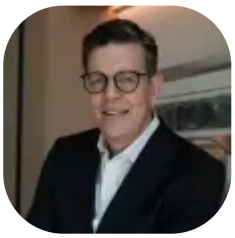

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1 Based on analysis by Grand View Research.

2 Gelles, R., Kinoshita, V., Musser, M., & Dunham, J. "Resource Democratization: Is Compute the Binding Constraint on AI Research?" *Proceedings of the AAAI Conference on Artificial Intelligence*, Feb. 2024.