THE WHITE HOUSE

Winning the Race

AMERICA'S AI ACTION PLAN

JULY 2025

"Today, a new frontier of scientific discovery lies before us, defined by transformative technologies such as artificial intelligence... Breakthroughs in these fields have the potential to reshape the global balance of power, spark entirely new industries, and revolutionize the way we live and work. As our global competitors race to exploit these technologies, it is a national security imperative for the United States to achieve and maintain unquestioned and unchallenged global technological dominance. To secure our future, we must harness the full power of American innovation."

Donald J. Trump

45th and 47th President of the United States

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Introduction

The United States is in a race to achieve global dominance in artificial intelligence (AI). Whoever has the largest AI ecosystem will set global AI standards and reap broad economic and military benefits. Just like we won the space race, it is imperative that the United States and its allies win this race. President Trump took decisive steps toward achieving this goal during his first days in office by signing Executive Order 14179, "Removing Barriers to American Leadership in Artificial Intelligence," calling for America to retain dominance in this global race and directing the creation of an AI Action Plan.[1]

Winning the AI race will usher in a new golden age of human flourishing, economic competitiveness, and national security for the American people. AI will enable Americans to discover new materials, synthesize new chemicals, manufacture new drugs, and develop new methods to harness energy—an industrial revolution. It will enable radically new forms of education, media, and communication—an information revolution. And it will enable altogether new intellectual achievements: unraveling ancient scrolls once thought unreadable, making breakthroughs in scientific and mathematical theory, and creating new kinds of digital and physical art—a *renaissance*.

An industrial revolution, an information revolution, and a renaissance—all at once. This is the potential that AI presents. The opportunity that stands before us is both inspiring and humbling. And it is ours to seize, or to lose.

America's AI Action Plan has three pillars: innovation, infrastructure, and international diplomacy and security. The United States needs to innovate faster and more comprehensively than our competitors in the development and distribution of new AI technology across every field, and dismantle unnecessary regulatory barriers that hinder the private sector in doing so. As Vice President Vance remarked at the Paris AI Action Summit in February, restricting AI development with onerous regulation "would not only unfairly benefit incumbents… it would mean paralyzing one of the most promising technologies we have seen in generations."[2] That is why President Trump rescinded the Biden Administration's dangerous actions on day one.

We need to build and maintain vast AI infrastructure and the energy to power it. To do that, we will continue to reject radical climate dogma and bureaucratic red tape, as the Administration has done since Inauguration Day. Simply put, we need to "Build, Baby, Build!"

We need to establish American AI—from our advanced semiconductors to our models to our applications—as the gold standard for AI worldwide and ensure our allies are building on American technology.

Several principles cut across each of these three pillars. First, American workers are central to the Trump Administration's AI policy. The Administration will ensure that our Nation's workers and their families gain from the opportunities created in this technological revolution. The AI infrastructure buildout will create high-paying jobs for American workers. And the

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[1] Executive Order 14179 of January 23, 2025, "Removing Barriers to American Leadership in Artificial Intelligence," Federal Register 90 (20) 8741, www.govinfo.gov/content/pkg/FR-2025-01-31/pdf/2025-02172.pdf.

[2] J.D. Vance, "Remarks by the Vice President at the Artificial Intelligence Action Summit in Paris, France," February 11, 2025, www.presidency.ucsb.edu/documents/remarks-the-vice-president-the-artificial-intelligence-action-summit-paris-france.

breakthroughs in medicine, manufacturing, and many other fields that AI will make possible will increase the standard of living for all Americans. AI will improve the lives of Americans by complementing their work—not replacing it.

Second, our AI systems must be free from ideological bias and be designed to pursue objective truth rather than social engineering agendas when users seek factual information or analysis. AI systems are becoming essential tools, profoundly shaping how Americans consume information, but these tools must also be trustworthy.

Finally, we must prevent our advanced technologies from being misused or stolen by malicious actors as well as monitor for emerging and unforeseen risks from AI. Doing so will require constant vigilance.

This Action Plan sets forth clear policy goals for near-term execution by the Federal government. The Action Plan's objective is to articulate policy recommendations that this Administration can deliver for the American people to achieve the President's vision of global AI dominance. The AI race is America's to win, and this Action Plan is our roadmap to victory.

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Pillar I: Accelerate AI Innovation

America must have the most powerful AI systems in the world, but we must also lead the world in creative and transformative application of these systems. Achieving these goals requires the Federal government to create the conditions where private-sector-led innovation can flourish.

Remove Red Tape and Onerous Regulation

To maintain global leadership in AI, America's private sector must be unencumbered by bureaucratic red tape. President Trump has already taken multiple steps toward this goal, including rescinding Biden Executive Order 14110 on AI that foreshadowed an onerous regulatory regime.[3] AI is far too important to smother in bureaucracy at this early stage, whether at the state or Federal level. The Federal government should not allow AI-related Federal funding to be directed toward states with burdensome AI regulations that waste these funds, but should also not interfere with states' rights to pass prudent laws that are not unduly restrictive to innovation.

Recommended Policy Actions

- Led by the Office of Science and Technology Policy (OSTP), launch a Request for Information from businesses and the public at large about current Federal regulations that hinder AI innovation and adoption, and work with relevant Federal agencies to take appropriate action.
- Led by the Office of Management and Budget (OMB) and consistent with Executive Order 14192 of January 31, 2025, "Unleashing Prosperity Through Deregulation," work with all Federal agencies to identify, revise, or repeal regulations, rules, memoranda, administrative orders, guidance documents, policy statements, and interagency agreements that unnecessarily hinder AI development or deployment.[4]
- Led by OMB, work with Federal agencies that have AI-related discretionary funding programs to ensure, consistent with applicable law, that they consider a state's AI regulatory climate when making funding decisions and limit funding if the state's AI regulatory regimes may hinder the effectiveness of that funding or award.
- Led by the Federal Communications Commission (FCC), evaluate whether state AI regulations interfere with the agency's ability to carry out its obligations and authorities under the Communications Act of 1934.[5]
- Review all Federal Trade Commission (FTC) investigations commenced under the previous administration to ensure that they do not advance theories of liability that unduly burden AI innovation. Furthermore, review all FTC final orders, consent decrees,

[3] Executive Order 14110 of October 30, 2023, "Safe, Secure, and Trustworthy Development and Use of Artificial Intelligence," Federal Register 88 (210) 75191, www.govinfo.gov/content/pkg/FR-2023-11-01/pdf/2023-24283.pdf.
[4] Executive Order 14192 of January 31, 2025, "Unleashing Prosperity Through Deregulation," Federal Register 90 (24) 9065, www.govinfo.gov/content/pkg/FR-2025-02-06/pdf/2025-02345.pdf.
[5] Communications Act of 1934, 47 U.S.C. §§ 151-646.

and injunctions, and, where appropriate, seek to modify or set-aside any that unduly burden AI innovation.

Ensure that Frontier AI Protects Free Speech and American Values

AI systems will play a profound role in how we educate our children, do our jobs, and consume media. It is essential that these systems be built from the ground up with freedom of speech and expression in mind, and that U.S. government policy does not interfere with that objective. We must ensure that free speech flourishes in the era of AI and that AI procured by the Federal government objectively reflects truth rather than social engineering agendas.

Recommended Policy Actions

- Led by the Department of Commerce (DOC) through the National Institute of Standards and Technology (NIST), revise the NIST AI Risk Management Framework to eliminate references to misinformation, Diversity, Equity, and Inclusion, and climate change. [6]
- Update Federal procurement guidelines to ensure that the government only contracts with frontier large language model (LLM) developers who ensure that their systems are objective and free from top-down ideological bias.
- Led by DOC through NIST's Center for AI Standards and Innovation (CAISI), conduct research and, as appropriate, publish evaluations of frontier models from the People's Republic of China for alignment with Chinese Communist Party talking points and censorship.

Encourage Open-Source and Open-Weight AI

Open-source and open-weight AI models are made freely available by developers for anyone in the world to download and modify. Models distributed this way have unique value for innovation because startups can use them flexibly without being dependent on a closed model provider. They also benefit commercial and government adoption of AI because many businesses and governments have sensitive data that they cannot send to closed model vendors. And they are essential for academic research, which often relies on access to the weights and training data of a model to perform scientifically rigorous experiments.

We need to ensure America has leading open models founded on American values. Open-source and open-weight models could become global standards in some areas of business and in academic research worldwide. For that reason, they also have geostrategic value. While the decision of whether and how to release an open or closed model is fundamentally up to the developer, the Federal government should create a supportive environment for open models.

Recommended Policy Actions

- Ensure access to large-scale computing power for startups and academics by improving the financial market for compute. Currently, a company seeking to use large-scale compute must often sign long-term contracts with hyperscalers—far beyond the

[6] National Institute of Standards and Technology, "Artificial Intelligence Risk Management Framework (AI RMF 1.0)," (Gaithersburg, MD: National Institute of Standards and Technology, 2023), www.doi.org/10.6028/NIST.AI.100-1.

budgetary reach of most academics and many startups. America has solved this problem before with other goods through financial markets, such as spot and forward markets for commodities. Through collaboration with industry, NIST at DOC, OSTP, and the National Science Foundation's (NSF) National AI Research Resource (NAIRR) pilot, the Federal government can accelerate the maturation of a healthy financial market for compute.

- Partner with leading technology companies to increase the research community's access to world-class private sector computing, models, data, and software resources as part of the NAIRR pilot.
- Build the foundations for a lean and sustainable NAIRR operations capability that can connect an increasing number of researchers and educators across the country to critical AI resources.
- Continue to foster the next generation of AI breakthroughs by publishing a new National AI Research and Development (R&D) Strategic Plan, led by OSTP, to guide Federal AI research investments.
- Led by DOC through the National Telecommunications and Information Administration (NTIA), convene stakeholders to help drive adoption of open-source and open-weight models by small and medium-sized businesses.

Enable AI Adoption

Today, the bottleneck to harnessing AI's full potential is not necessarily the availability of models, tools, or applications. Rather, it is the limited and slow adoption of AI, particularly within large, established organizations. Many of America's most critical sectors, such as healthcare, are especially slow to adopt due to a variety of factors, including distrust or lack of understanding of the technology, a complex regulatory landscape, and a lack of clear governance and risk mitigation standards. A coordinated Federal effort would be beneficial in establishing a dynamic, "try-first" culture for AI across American industry.

Recommended Policy Actions

- Establish regulatory sandboxes or AI Centers of Excellence around the country where researchers, startups, and established enterprises can rapidly deploy and test AI tools while committing to open sharing of data and results. These efforts would be enabled by regulatory agencies such as the Food and Drug Administration (FDA) and the Securities and Exchange Commission (SEC), with support from DOC through its AI evaluation initiatives at NIST.
- Launch several domain-specific efforts (e.g., in healthcare, energy, and agriculture), led by NIST at DOC, to convene a broad range of public, private, and academic stakeholders to accelerate the development and adoption of national standards for AI systems and to measure how much AI increases productivity at realistic tasks in those domains.
- Led by the Department of Defense (DOD) in coordination with the Office of the Director of National Intelligence (ODNI), regularly update joint DOD-Intelligence Community (IC) assessments of the comparative level of adoption of AI tools by the United States, its competitors, and its adversaries' national security establishments, and establish an

approach for continuous adaptation of the DOD and IC's respective AI adoption initiatives based on these AI net assessments.

- Prioritize, collect, and distribute intelligence on foreign frontier AI projects that may have national security implications, via collaboration between the IC, the Department of Energy (DOE), CAISI at DOC, the National Security Council (NSC), and OSTP.

Empower American Workers in the Age of AI

The Trump Administration supports a worker-first AI agenda. By accelerating productivity and creating entirely new industries, AI can help America build an economy that delivers more pathways to economic opportunity for American workers. But it will also transform how work gets done across all industries and occupations, demanding a serious workforce response to help workers navigate that transition. The Trump Administration has already taken significant steps to lead on this front, including the April 2025 Executive Orders 14277 and 14278, "Advancing Artificial Intelligence Education for American Youth" and "Preparing Americans for High-Paying Skilled Trade Jobs of the Future."[7, 8] To continue delivering on this vision, the Trump Administration will advance a priority set of actions to expand AI literacy and skills development, continuously evaluate AI's impact on the labor market, and pilot new innovations to rapidly retrain and help workers thrive in an AI-driven economy.

Recommended Policy Actions

- Led by the Department of Labor (DOL), the Department of Education (ED), NSF, and DOC, prioritize AI skill development as a core objective of relevant education and workforce funding streams. This should include promoting the integration of AI skill development into relevant programs, including career and technical education (CTE), workforce training, apprenticeships, and other federally supported skills initiatives.
- Led by the Department of the Treasury, issue guidance clarifying that many AI literacy and AI skill development programs may qualify as eligible educational assistance under Section 132 of the Internal Revenue Code, given AI's widespread impact reshaping the tasks and skills required across industries and occupations.[9] In applicable situations, this will enable employers to offer tax-free reimbursement for AI-related training and help scale private-sector investment in AI skill development, preserving jobs for American workers.
- Led by the Bureau of Labor Statistics (BLS) and DOC through the Census Bureau and the Bureau of Economic Analysis (BEA), study AI's impact on the labor market by using data they already collect on these topics, such as the firm-level AI adoption trends the Census Bureau tracks in its Business Trends and Outlook Survey. These agencies could then provide analysis of AI adoption, job creation, displacement, and wage effects.
- Establish the AI Workforce Research Hub under DOL to lead a sustained Federal effort to evaluate the impact of AI on the labor market and the experience of the American

[7] Executive Order 14277 of April 23, 2025: "Advancing Artificial Intelligence Education for American Youth," Federal Register 90 (80) 17519, www.govinfo.gov/content/pkg/FR-2025-04-28/pdf/2025-07368.pdf.
[8] Executive Order 14278 of April 23, 2025: "Preparing Americans for High-Paying Skilled Trade Jobs of the Future," Federal Register 90 (80) 17525, www.govinfo.gov/content/pkg/FR-2025-04-28/pdf/2025-07369.pdf.
[9] Revenue Act of 1978, 26 U.S.C. § 132.

worker, in collaboration with BLS and DOC through the Census Bureau and BEA. The Hub would produce recurring analyses, conduct scenario planning for a range of potential AI impact levels, and generate actionable insights to inform workforce and education policy.

- Led by DOL, leverage available discretionary funding, where appropriate, to fund rapid retraining for individuals impacted by AI-related job displacement. Issue clarifying guidance to help states identify eligible dislocated workers in sectors undergoing significant structural change tied to AI adoption, as well as guidance clarifying how state Rapid Response funds can be used to proactively upskill workers at risk of future displacement.
- At DOL and DOC, rapidly pilot new approaches to workforce challenges created by AI, which may include areas such as rapid retraining needs driven by worker displacement and shifting skill requirements for entry-level roles. These pilots should be carried out by states and workforce intermediaries using existing authorities under the Workforce Innovation and Opportunity Act and the Public Works and Economic Development Act, and should be designed to identify surface scalable, performance-driven strategies that help the workforce system adapt to the speed and complexity of AI-driven labor market change. [10, 11]

Support Next-Generation Manufacturing

AI will enable a wide range of new innovations in the physical world: autonomous drones, self-driving cars, robotics, and other inventions for which terminology does not yet exist. It is crucial that America and our trusted allies be world-class manufacturers of these next-generation technologies. AI, robotics, and related technologies create opportunities for novel capabilities in manufacturing and logistics, including ones with applications to defense and national security. The Federal government should prioritize investment in these emerging technologies and usher in a new industrial renaissance.

Recommended Policy Actions

- Invest in developing and scaling foundational and translational manufacturing technologies via DOD, DOC, DOE, NSF, and other Federal agencies using the Small Business Innovation Research program, the Small Business Technology Transfer program, research grants, CHIPS R&D programs, Stevenson-Wydler Technology Innovation Act authorities, Title III of the Defense Production Act, Other Transaction Authority, and other authorities.[12, 13, 14, 15]
- Led by DOC through NTIA, convene industry and government stakeholders to identify supply chain challenges to American robotics and drone manufacturing.

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[10] Workforce Innovation and Opportunity Act of 2014, 29 U.S.C. §§ 3101-3361.
[11] Public Works and Economic Development Act of 1965, 42 U.S.C. §§ 3121-3233.
[12] William M. (Mac) Thornberry National Defense Authorization Act for Fiscal Year 2021, 15 U.S.C. § 4656.
[13] Stevenson-Wydler Technology Innovation Act of 1980, Pub. L. No. 96-480, 94 Stat. 2311 (codified as amended in scattered sections of 15 U.S.C.).
[14] Defense Production Act of 1950, 50 U.S.C. §§ 4551-4568.
[15] National Defense Authorization Act for Fiscal years 1990 and 1991, 10 U.S.C. §§ 4021-4022.

Invest in AI-Enabled Science

Like many other domains, science itself will be transformed by AI. AI systems can already generate models of protein structures, novel materials, and much else. Increasingly powerful general-purpose models show promise in formulating hypotheses and designing experiments. These nascent capabilities promise to accelerate scientific advancement. They will only do so, however, with critical changes in the way science is conducted, including the enabling scientific infrastructure. AI-enabled predictions are of little use if scientists cannot also increase the scale of experimentation. Basic science today is often a labor-intensive process; the AI era will require more scientific and engineering research to transform theories into industrial-scale enterprises. This, in turn, will necessitate new infrastructure and support of new kinds of scientific organizations.

Recommended Policy Actions

- Through NSF, DOE, NIST at DOC, and other Federal partners, invest in automated cloud-enabled labs for a range of scientific fields, including engineering, materials science, chemistry, biology, and neuroscience, built by, as appropriate, the private sector, Federal agencies, and research institutions in coordination and collaboration with DOE National Laboratories.
- Use long-term agreements to support Focused-Research Organizations or other similar entities using AI and other emerging technologies to make fundamental scientific advancements.
- Incentivize researchers to release more high-quality datasets publicly by considering the impact of scientific and engineering datasets from a researchers' prior funded efforts in the review of proposals for new projects.
- Require federally funded researchers to disclose non-proprietary, non-sensitive datasets that are used by AI models during the course of research and experimentation.

Build World-Class Scientific Datasets

High-quality data has become a national strategic asset as governments pursue AI innovation goals and capitalize on the technology's economic benefits. Other countries, including our adversaries, have raced ahead of us in amassing vast troves of scientific data. The United States must lead the creation of the world's largest and highest quality AI-ready scientific datasets, while maintaining respect for individual rights and ensuring civil liberties, privacy, and confidentiality protections.

Recommended Policy Actions

- Direct the National Science and Technology Council (NSTC) Machine Learning and AI Subcommittee to make recommendations on minimum data quality standards for the use of biological, materials science, chemical, physical, and other scientific data modalities in AI model training.
- Promulgate the OMB regulations required in the Confidential Information Protection and Statistical Efficiency Act of 2018 on presumption of accessibility and expanding secure access, which will lower barriers and break down silos to accessing Federal data,

ultimately facilitating the improved use of AI for evidence building by statistical agencies while protecting confidential data from inappropriate access and use.[16]

- Establish secure compute environments within NSF and DOE to enable secure AI use-cases for controlled access to restricted Federal data.
- Create an online portal for NSF's National Secure Data Service (NSDS) demonstration project to provide the public and Federal agencies with a front door to AI use-cases involving controlled access to restricted Federal data.
- Explore the creation of a whole-genome sequencing program for life on Federal lands, led by the NSTC and including members of the U.S. Department of Agriculture, DOE, NIH, NSF, the Department of Interior, and Cooperative Ecosystem Studies Units to collaborate on the development of an initiative to establish a whole genome sequencing program for life on Federal lands (to include all biological domains). This new data would be a valuable resource in training future biological foundation models.

Advance the Science of AI

Just as LLMs and generative AI systems represented a paradigm shift in the science of AI, future breakthroughs may similarly transform what is possible with AI. It is imperative that the United States remain the leading pioneer of such breakthroughs, and this begins with strategic, targeted investment in the most promising paths at the frontier.

Recommended Policy Actions

- Prioritize investment in theoretical, computational, and experimental research to preserve America's leadership in discovering new and transformative paradigms that advance the capabilities of AI, reflecting this priority in the forthcoming National AI R&D Strategic Plan.

Invest in AI Interpretability, Control, and Robustness Breakthroughs

Today, the inner workings of frontier AI systems are poorly understood. Technologists know how LLMs work at a high level, but often cannot explain why a model produced a specific output. This can make it hard to predict the behavior of any specific AI system. This lack of predictability, in turn, can make it challenging to use advanced AI in defense, national security, or other applications where lives are at stake. The United States will be better able to use AI systems to their fullest potential in high-stakes national security domains if we make fundamental breakthroughs on these research problems.

Recommended Policy Actions

- Launch a technology development program led by the Defense Advanced Research Projects Agency in collaboration with CAISI at DOC and NSF, to advance AI interpretability, AI control systems, and adversarial robustness.

[16] Confidential Information Protection and Statistical Efficiency Act of 2018, 44 U.S.C. §§ 3561-3583.

- Prioritize fundamental advancements in AI interpretability, control, and robustness as part of the forthcoming National AI R&D Strategic Plan.
- The DOD, DOE, CAISI at DOC, the Department of Homeland Security (DHS), NSF, and academic partners should coordinate an AI hackathon initiative to solicit the best and brightest from U.S. academia to test AI systems for transparency, effectiveness, use control, and security vulnerabilities.

Build an AI Evaluations Ecosystem

Evaluations are how the AI industry assesses the performance and reliability of AI systems. Rigorous evaluations can be a critical tool in defining and measuring AI reliability and performance in regulated industries. Over time, regulators should explore the use of evaluations in their application of existing law to AI systems.

Recommended Policy Actions

- Publish guidelines and resources through NIST at DOC, including CAISI, for Federal agencies to conduct their own evaluations of AI systems for their distinct missions and operations and for compliance with existing law.
- Support the development of the science of measuring and evaluating AI models, led by NIST at DOC, DOE, NSF, and other Federal science agencies.
- Convene meetings at least twice per year under the auspices of CAISI at DOC for Federal agencies and the research community to share learnings and best practices on building AI evaluations.
- Invest, via DOE and NSF, in the development of AI testbeds for piloting AI systems in secure, real-world settings, allowing researchers to prototype new AI systems and translate them to the market. Such testbeds would encourage participation by broad multistakeholder teams and span a wide variety of economic verticals touched by AI, including agriculture, transportation, and healthcare delivery.
- Led by DOC, convene the NIST AI Consortium to empower the collaborative establishment of new measurement science that will enable the identification of proven, scalable, and interoperable techniques and metrics to promote the development of AI.

Accelerate AI Adoption in Government

With AI tools in use, the Federal government can serve the public with far greater efficiency and effectiveness. Use cases include accelerating slow and often manual internal processes, streamlining public interactions, and many others. Taken together, transformative use of AI can help deliver the highly responsive government the American people expect and deserve.

OMB has already advanced AI adoption in government by reducing onerous rules imposed by the Biden Administration.[17, 18] Now is the time to build on this success.

Recommended Policy Actions

- Formalize the Chief Artificial Intelligence Officer Council (CAIOC) as the primary venue for interagency coordination and collaboration on AI adoption. Through the CAIOC, initiate strategic coordination and collaboration with relevant Federal executive councils, to include: the President's Management Council, Chief Data Officer Council, Chief Information Officer Council, Interagency Council on Statistical Policy, Chief Human Capital Officer Council, and Federal Privacy Council.
- Create a talent-exchange program designed to allow rapid details of Federal staff to other agencies in need of specialized AI talent (e.g., data scientists and software engineers), with input from the Office of Personnel Management.
- Create an AI procurement toolbox managed by the General Services Administration (GSA), in coordination with OMB, that facilitates uniformity across the Federal enterprise to the greatest extent practicable. This system would allow any Federal agency to easily choose among multiple models in a manner compliant with relevant privacy, data governance, and transparency laws. Agencies should also have ample flexibility to customize models to their own ends, as well as to see a catalog of other agency AI uses (based on OMB's pre-existing AI Use Case Inventory).
- Implement an Advanced Technology Transfer and Capability Sharing Program with GSA to quickly transfer advanced AI capabilities and use cases between agencies.
- Mandate that all Federal agencies ensure—to the maximum extent practicable—that all employees whose work could benefit from access to frontier language models have access to, and appropriate training for, such tools.
- Convene, under the auspices of OMB, a cohort of agencies with High Impact Service Providers to pilot and increase the use of AI to improve the delivery of services to the public.

Drive Adoption of AI within the Department of Defense

AI has the potential to transform both the warfighting and back-office operations of the DOD. The United States must aggressively adopt AI within its Armed Forces if it is to maintain its global military preeminence while also ensuring, as outlined throughout this Action Plan, that its use of AI is secure and reliable. Because the DOD has unique operational needs within the Federal government, it merits specific policy actions to drive AI adoption.

[17] Office of Management and Budget, "Accelerating Federal Use of AI through Innovation, Governance, and Public Trust (M-25-21)," (Washington, DC: Executive Office of the President, 2025), www.whitehouse.gov/wp-content/uploads/2025/02/M-25-21-Accelerating-Federal-Use-of-AI-through-Innovation-Governance-and-Public-Trust.pdf.

[18] Office of Management and Budget, "Driving Efficient Acquisition of Artificial Intelligence in Government (M-25 22)," (Washington, DC: Executive Office of the President, 2025), www.whitehouse.gov/wp-content/uploads/2025/02/M-25-22-Driving-Efficient-Acquisition-of-Artificial-Intelligence-in-Government.pdf.

Recommended Policy Actions

- Identify the talent and skills DOD's workforce requires to leverage AI at scale. Based on this identification, implement talent development programs to meet AI workforce requirements and drive the effective employment of AI-enabled capabilities.
- Establish an AI & Autonomous Systems Virtual Proving Ground at DOD, beginning with scoping the technical, geographic, security, and resourcing requirements necessary for such a facility.
- Develop a streamlined process within DOD for classifying, evaluating, and optimizing workflows involved in its major operational and enabling functions, aiming to develop a list of priority workflows for automation with AI. When a workflow is successfully automated, DOD should strive to permanently transition that workflow to the AI-based implementation as quickly as practicable.
- Prioritize DOD-led agreements with cloud service providers, operators of computing infrastructure, and other relevant private sector entities to codify priority access to computing resources in the event of a national emergency so that DOD is prepared to fully leverage these technologies during a significant conflict.
- Grow our Senior Military Colleges into hubs of AI research, development, and talent building, teaching core AI skills and literacy to future generations. Foster AI-specific curriculum, including in AI use, development, and infrastructure management, in the Senior Military Colleges throughout majors.

Protect Commercial and Government AI Innovations

Maintaining American leadership in AI necessitates that the U.S. government work closely with industry to appropriately balance the dissemination of cutting-edge AI technologies with national security concerns. It is also essential for the U.S. government to effectively address security risks to American AI companies, talent, intellectual property, and systems.

Recommended Policy Actions

- Led by DOD, DHS, CAISI at DOC, and other appropriate members of the IC, collaborate with leading American AI developers to enable the private sector to actively protect AI innovations from security risks, including malicious cyber actors, insider threats, and others.

Combat Synthetic Media in the Legal System

One risk of AI that has become apparent to many Americans is malicious deepfakes, whether they be audio recordings, videos, or photos. While President Trump has already signed the TAKE IT DOWN Act, which was championed by First Lady Melania Trump and intended to protect against sexually explicit, non-consensual deepfakes, additional action is needed.[19] In particular, AI-generated media may present novel challenges to the legal system. For example, fake evidence could be used to attempt to deny justice to both plaintiffs and

[19] TAKE IT DOWN Act, Pub. L. No. 119-12, 139 Stat. 55 (2025) (codified as 47 U.S.C. § 223(h)).

defendants. The Administration must give the courts and law enforcement the tools they need to overcome these new challenges.

Recommended Policy Actions

- Led by NIST at DOC, consider developing NIST's *Guardians of Forensic Evidence* deepfake evaluation program into a formal guideline and a companion voluntary forensic benchmark.[20]
- Led by the Department of Justice (DOJ), issue guidance to agencies that engage in adjudications to explore adopting a deepfake standard similar to the proposed Federal Rules of Evidence Rule 901(c) under consideration by the Advisory Committee on Evidence Rules.
- Led by DOJ's Office of Legal Policy, file formal comments on any proposed deepfake-related additions to the Federal Rules of Evidence.

[20] Haiying Guan, James Horan, and Andrew Zhang, "Guardians of Forensic Evidence: Evaluating Analytic Systems Against AI-Generated Deepfakes," (Gaithersburg, MD: National Institute of Standards and Technology, January 27, 2025), www.nist.gov/publications/guardians-forensic-evidence-evaluating-analytic-systems-against-ai-generated-deepfakes.

Pillar II: Build American AI Infrastructure

AI is the first digital service in modern life that challenges America to build vastly greater energy generation than we have today. American energy capacity has stagnated since the 1970s while China has rapidly built out their grid. America's path to AI dominance depends on changing this troubling trend.

Create Streamlined Permitting for Data Centers, Semiconductor Manufacturing Facilities, and Energy Infrastructure while Guaranteeing Security

Like most general-purpose technologies of the past, AI will require new infrastructure—factories to produce chips, data centers to run those chips, and new sources of energy to power it all. America's environmental permitting system and other regulations make it almost impossible to build this infrastructure in the United States with the speed that is required. Additionally, this infrastructure must also not be built with any adversarial technology that could undermine U.S. AI dominance.

Fortunately, the Trump Administration has made unprecedented progress in reforming this system. Since taking office, President Trump has already reformed National Environmental Policy Act (NEPA) regulations across almost every relevant Federal agency, jumpstarted a permitting technology modernization program, created the National Energy Dominance Council (NEDC), and launched the United States Investment Accelerator.[21, 22, 23, 24] Now is the time to build on that momentum.

Recommended Policy Actions

- Establish new Categorical Exclusions under NEPA to cover data center-related actions that normally do not have a significant effect on the environment. Where possible, adopt Categorical Exclusions already established by other agencies so that each relevant agency can proceed with maximum efficiency.
- Expand the use of the FAST-41 process to cover all data center and data center energy projects eligible under the Fixing America's Surface Transportation Act of 2015.[25]
- Explore the need for a nationwide Clean Water Act Section 404 permit for data centers, and, if adopted, ensure that this permit does not require a Pre-Construction Notification and covers development sites consistent with the size of a modern AI data center. [26]
- Expedite environmental permitting by streamlining or reducing regulations promulgated under the Clean Air Act, the Clean Water Act, the Comprehensive

[21] Executive Order 14156 of January 20, 2025, "Declaring a National Energy Emergency," Federal Register 90 (18) 8433, www.govinfo.gov/content/pkg/FR-2025-01-29/pdf/2025-02003.pdf.
[22] Presidential Memorandum of April 15, 2025, "Updating Permitting Technology for the 21st Century," www.whitehouse.gov/presidential-actions/2025/04/updating-permitting-technology-for-the-21st-century/.
[23] Executive Order 14213 of February 14, 2025, "Establishing the National Energy Dominance Council," Federal Register 90 (33) 9945, www.govinfo.gov/content/pkg/FR-2025-02-20/pdf/2025-02928.pdf.
[24] Executive Order 14255 of March 31, 2025, "Establishing the United States Investment Accelerator," Federal Register 90 (63) 14701, www.govinfo.gov/content/pkg/FR-2025-04-03/pdf/2025-05908.pdf.
[25] Fixing America's Surface Transportation Act, 42 U.S.C. §§ 4370m-4370m-11.
[26] Clean Water Act of 1972, 33 U.S.C. § 1344.

Environmental Response, Compensation, and Liability Act, and other relevant related laws.[27, 28]

- Make Federal lands available for data center construction and the construction of power generation infrastructure for those data centers by directing agencies with significant land portfolios to identify sites suited to large-scale development.
- Maintain security guardrails to prohibit adversaries from inserting sensitive inputs to this infrastructure. Ensure that the domestic AI computing stack is built on American products and that the infrastructure that supports AI development such as energy and telecommunications are free from foreign adversary information and communications technology and services (ICTS)—including software and relevant hardware.
- Expand efforts to apply AI to accelerate and improve environmental reviews, such as through expanding the number of agencies participating in DOE's PermitAI project.[29]

Develop a Grid to Match the Pace of AI Innovation

The U.S. electric grid is one of the largest and most complex machines on Earth. It, too, will need to be upgraded to support data centers and other energy-intensive industries of the future. The power grid is the lifeblood of the modern economy and a cornerstone of national security, but it is facing a confluence of challenges that demand strategic foresight and decisive action. Escalating demand driven by electrification and the technological advancements of AI are increasing pressures on the grid. The United States must develop a comprehensive strategy to enhance and expand the power grid designed not just to weather these challenges, but to ensure the grid's continued strength and capacity for future growth.

Recommended Policy Actions

- Stabilize the grid of today as much as possible. This initial phase acknowledges the need to safeguard existing assets and ensures an uninterrupted and affordable supply of power. The United States must prevent the premature decommissioning of critical power generation resources and explore innovative ways to harness existing capacity, such as leveraging extant backup power sources to bolster grid reliability during peak demand. A key element of this stabilization is to ensure every corner of the electric grid is in compliance with nationwide standards for resource adequacy and sufficient power generation capacity is consistently available across the country.
- Optimize existing grid resources as much as possible. This involves implementing strategies to enhance the efficiency and performance of the transmission system. The United States must explore solutions like advanced grid management technologies and upgrades to power lines that can increase the amount of electricity transmitted along existing routes. Furthermore, the United States should investigate new and novel ways for large power consumers to manage their power consumption during critical grid periods to enhance reliability and unlock additional power on the system.

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[27] Clean Air Act of 1963, 42 U.S.C. §§ 7401-7671q.
[28] Comprehensive Environmental Response, Compensation, and Liability Act of 1980. 42 U.S.C. §§ 9601-9675.
[29] Office of Policy, U.S. Department of Energy, "Faster, Better Permitting with PermitAI," (Washington, D.C., July 10, 2025), www.energy.gov/policy/articles/faster-better-permitting-permitai.

- Prioritize the interconnection of reliable, dispatchable power sources as quickly as possible and embrace new energy generation sources at the technological frontier (e.g., enhanced geothermal, nuclear fission, and nuclear fusion). Reform power markets to align financial incentives with the goal of grid stability, ensuring that investment in power generation reflects the system's needs.
- Create a strategic blueprint for navigating the complex energy landscape of the 21st century. By stabilizing the grid of today, optimizing existing grid resources, and growing the grid for the future, the United States can rise to the challenge of winning the AI race while also delivering a reliable and affordable power grid for all Americans.

Restore American Semiconductor Manufacturing

America jump-started modern technology with the invention of the semiconductor. Now America must bring semiconductor manufacturing back to U.S. soil. A revitalized U.S. chip industry will generate thousands of high-paying jobs, reinforce our technological leadership, and protect our supply chains from disruption by foreign rivals. The Trump Administration will lead that revitalization without making bad deals for the American taxpayer or saddling companies with sweeping ideological agendas.

Recommended Policy Actions

- Led by DOC's revamped CHIPS Program Office, continue focusing on delivering a strong return on investment for the American taxpayer and removing all extraneous policy requirements for CHIPS-funded semiconductor manufacturing projects. DOC and other relevant Federal agencies should also collaborate to streamline regulations that slow semiconductor manufacturing efforts.
- Led by DOC, review semiconductor grant and research programs to ensure that they accelerate the integration of advanced AI tools into semiconductor manufacturing.

Build High-Security Data Centers for Military and Intelligence Community Usage

Because AI systems are particularly well-suited to processing raw intelligence data today, and because of the vastly expanded capabilities AI systems could have in the future, it is likely that AI will be used with some of the U.S. government's most sensitive data. The data centers where these models are deployed must be resistant to attacks by the most determined and capable nation-state actors.

Recommended Policy Actions

- Create new technical standards for high-security AI data centers, led by DOD, the IC, NSC, and NIST at DOC, including CAISI, in collaboration with industry and, as appropriate, relevant Federally Funded Research and Development Centers.
- Advance agency adoption of classified compute environments to support scalable and secure AI workloads.

Train a Skilled Workforce for AI Infrastructure

To build the infrastructure needed to power America's AI future, we must also invest in the workforce that will build, operate, and maintain it—including roles such as electricians, advanced HVAC technicians, and a host of other high-paying occupations. To address the shortages in many of these critical jobs, the Trump Administration should identify the priority roles that underpin AI infrastructure, develop modern skills frameworks, support industry-driven training, and expand early pipelines through general education, CTE, and Registered Apprenticeships to fuel American AI leadership.

Recommended Policy Actions

- Led by DOL and DOC, create a national initiative to identify high-priority occupations essential to the buildout of AI-related infrastructure. This effort would convene employers, industry groups, and other workforce stakeholders to develop or identify national skill frameworks and competency models for these roles. These frameworks would provide voluntary guidance that may inform curriculum design, credential development, and alignment of workforce investments.
- Through DOL, DOE, ED, NSF, and DOC, partner with state and local governments and workforce system stakeholders to support the creation of industry-driven training programs that address workforce needs tied to priority AI infrastructure occupations. These programs should be co-developed by employers and training partners to ensure individuals who complete the program are job-ready and directly connected to the hiring process. Models could also be explored that incentivize employer upskilling of incumbent workers into priority occupations. DOC should integrate these training models as a core workforce component of its infrastructure investment programs. Funding for this strategy will be prioritized based on a program's ability to address identified pipeline gaps and deliver talent outcomes aligned to employer demand.
- Led by DOL, ED, and NSF, partner with education and workforce system stakeholders to expand early career exposure programs and pre-apprenticeships that engage middle and high school students in priority AI infrastructure occupations. These efforts should focus on creating awareness and excitement about these jobs, aligning with local employer needs, and providing on-ramps into high-quality training and Registered Apprenticeship programs.
- Through the ED Office of Career, Technical, and Adult Education, provide guidance to state and local CTE systems about how to update programs of study to align with priority AI infrastructure occupations. This includes refreshing curriculum, expanding dual enrollment options, and strengthening connections between CTE programs, employers, and training providers serving AI infrastructure occupations.
- Led by DOL, expand the use of Registered Apprenticeships in occupations critical to AI infrastructure. Efforts should focus on streamlining the launch of new programs in priority industries and occupations and removing barriers to employer adoption, including simplifying registration, supporting intermediaries, and aligning program design with employer needs.
- Led by DOE, expand the hands-on research training and development opportunities for undergraduate, graduate, and postgraduate students and educators, leveraging

expertise and capabilities in AI across its national laboratories. This should include partnering with community colleges and technical/career colleges to prepare new workers and help transition the existing workforce to fill critical AI roles.

Bolster Critical Infrastructure Cybersecurity

As AI systems advance in coding and software engineering capabilities, their utility as tools of both cyber offense and defense will expand. Maintaining a robust defensive posture will be especially important for owners of critical infrastructure, many of whom operate with limited financial resources. Fortunately, AI systems themselves can be excellent defensive tools. With continued adoption of AI-enabled cyberdefensive tools, providers of critical infrastructure can stay ahead of emerging threats.

However, the use of AI in cyber and critical infrastructure exposes those AI systems to adversarial threats. All use of AI in safety-critical or homeland security applications should entail the use of secure-by-design, robust, and resilient AI systems that are instrumented to detect performance shifts, and alert to potential malicious activities like data poisoning or adversarial example attacks.

Recommended Policy Actions

- Establish an AI Information Sharing and Analysis Center (AI-ISAC), led by DHS, in collaboration with CAISI at DOC and the Office of the National Cyber Director, to promote the sharing of AI-security threat information and intelligence across U.S. critical infrastructure sectors.
- Led by DHS, issue and maintain guidance to private sector entities on remediating and responding to AI-specific vulnerabilities and threats.
- Ensure collaborative and consolidated sharing of known AI vulnerabilities from within Federal agencies to the private sector as appropriate. This process should take advantage of existing cyber vulnerability sharing mechanisms.

Promote Secure-By-Design AI Technologies and Applications

AI systems are susceptible to some classes of adversarial inputs (e.g., data poisoning and privacy attacks), which puts their performance at risk. The U.S. government has a responsibility to ensure the AI systems it relies on—particularly for national security applications—are protected against spurious or malicious inputs. While much work has been done to advance the field of AI Assurance, promoting resilient and secure AI development and deployment should be a core activity of the U.S. government.

Recommended Policy Actions

- Led by DOD in collaboration with NIST at DOC and ODNI, continue to refine DOD's Responsible AI and Generative AI Frameworks, Roadmaps, and Toolkits.
- Led by ODNI in consultation with DOD and CAISI at DOC, publish an IC Standard on AI Assurance under the auspices of Intelligence Community Directive 505 on Artificial Intelligence.

Promote Mature Federal Capacity for AI Incident Response

The proliferation of AI technologies means that prudent planning is required to ensure that, if systems fail, the impacts to critical services or infrastructure are minimized and response is imminent. To prepare for such an eventuality, the U.S. government should promote the development and incorporation of AI Incident Response actions into existing incident response doctrine and best-practices for both the public and private sectors.

Recommended Policy Actions

- Led by NIST at DOC, including CAISI, partner with the AI and cybersecurity industries to ensure AI is included in the establishment of standards, response frameworks, best-practices, and technical capabilities (e.g., fly-away kits) of incident response teams.
- Modify the Cybersecurity and Infrastructure Security Agency's Cybersecurity Incident & Vulnerability Response Playbooks to incorporate considerations for AI systems and to include requirements for Chief Information Security Officers to consult with Chief AI Officers, Senior Agency Officials for Privacy, CAISI at DOC, and other agency officials as appropriate. Agencies should update their subordinate playbooks accordingly.
- Led by DOD, DHS, and ODNI, in coordination with OSTP, NSC, OMB, and the Office of the National Cyber Director, encourage the responsible sharing of AI vulnerability information as part of ongoing efforts to implement Executive Order 14306, "Sustaining Select Efforts to Strengthen the Nation's Cybersecurity and Amending Executive Order 13694 and Executive Order 14144."[30]

[30] Executive Order 14306 of June 6, 2025, "Sustaining Select Efforts To Strengthen the Nation's Cybersecurity and Amending Executive Order 13694 and Executive Order 14144," Federal Register 90 (111) 24723, www.govinfo.gov/content/pkg/FR-2025-06-11/pdf/2025-10804.pdf.

Pillar III: Lead in International AI Diplomacy and Security

To succeed in the global AI competition, America must do more than promote AI within its own borders. The United States must also drive adoption of American AI systems, computing hardware, and standards throughout the world. America currently is the global leader on data center construction, computing hardware performance, and models. It is imperative that the United States leverage this advantage into an enduring global alliance, while preventing our adversaries from free-riding on our innovation and investment.

Export American AI to Allies and Partners

The United States must meet global demand for AI by exporting its full AI technology stack—hardware, models, software, applications, and standards—to all countries willing to join America's AI alliance. A failure to meet this demand would be an unforced error, causing these countries to turn to our rivals. The distribution and diffusion of American technology will stop our strategic rivals from making our allies dependent on foreign adversary technology.

Recommended Policy Actions

- Establish and operationalize a program within DOC aimed at gathering proposals from industry consortia for full-stack AI export packages. Once consortia are selected by DOC, the Economic Diplomacy Action Group, the U.S. Trade and Development Agency, the Export-Import Bank, the U.S. International Development Finance Corporation, and the Department of State (DOS) should coordinate with DOC to facilitate deals that meet U.S.-approved security requirements and standards.

Counter Chinese Influence in International Governance Bodies

A large number of international bodies, including the United Nations, the Organisation for Economic Co-operation and Development, G7, G20, International Telecommunication Union, Internet Corporation for Assigned Names and Numbers, and others have proposed AI governance frameworks and AI development strategies. The United States supports like-minded nations working together to encourage the development of AI in line with our shared values. But too many of these efforts have advocated for burdensome regulations, vague "codes of conduct" that promote cultural agendas that do not align with American values, or have been influenced by Chinese companies attempting to shape standards for facial recognition and surveillance.

Recommended Policy Actions

- Led by DOS and DOC, leverage the U.S. position in international diplomatic and standard-setting bodies to vigorously advocate for international AI governance approaches that promote innovation, reflect American values, and counter authoritarian influence.

Strengthen AI Compute Export Control Enforcement

Advanced AI compute is essential to the AI era, enabling both economic dynamism and novel military capabilities. Denying our foreign adversaries access to this resource, then, is a matter of both geostrategic competition and national security. Therefore, we should pursue creative approaches to export control enforcement.

Recommended Policy Actions

- Led by DOC, OSTP, and NSC in collaboration with industry, explore leveraging new and existing location verification features on advanced AI compute to ensure that the chips are not in countries of concern.
- Establish a new effort led by DOC to collaborate with IC officials on global chip export control enforcement. This would include monitoring emerging technology developments in AI compute to ensure full coverage of possible countries or regions where chips are being diverted. This enhanced monitoring could then be used to expand and increase end-use monitoring in countries where there is a high risk of diversion of advanced, U.S.-origin AI compute, especially where there is not a Bureau of Industry and Security Export Control Officer present in-country.

Plug Loopholes in Existing Semiconductor Manufacturing Export Controls

Semiconductors are among the most complex inventions ever conceived by man. America and its close allies hold near-monopolies on many critical components and processes in the semiconductor manufacturing pipeline. We must continue to lead the world with pathbreaking research and new inventions in semiconductor manufacturing, but the United States must also prevent our adversaries from using our innovations to their own ends in ways that undermine our national security. This requires new measures to address gaps in semiconductor manufacturing export controls, coupled with enhanced enforcement.

Recommended Policy Actions

- Led by DOC, develop new export controls on semiconductor manufacturing sub-systems. Currently, the United States and its allies impose export controls on major systems necessary for semiconductor manufacturing, but do not control many of the component sub-systems.

Align Protection Measures Globally

America must impose strong export controls on sensitive technologies. We should encourage partners and allies to follow U.S. controls, and not backfill. If they do, America should use tools such as the Foreign Direct Product Rule and secondary tariffs to achieve greater international alignment.

Recommended Policy Actions

- Led by DOC and DOS and in coordination with NSC, DOE, and NSF, develop, implement, and share information on complementary technology protection measures, including in basic research and higher education, to mitigate risks from strategic adversaries and

concerning entities. This work should build on existing efforts underway at DOS and DOC, or, where necessary, involve new diplomatic campaigns.

- Develop a technology diplomacy strategic plan for an AI global alliance to align incentives and policy levers across government to induce key allies to adopt complementary AI protection systems and export controls across the supply chain, led by DOS in coordination with DOC, DOD, and DOE. This plan should aim to ensure that American allies do not supply adversaries with technologies on which the U.S. is seeking to impose export controls.
- Expand new initiatives for promoting plurilateral controls for the AI tech stack, avoiding the sole reliance on multilateral treaty bodies to accomplish this objective, while also encompassing existing U.S. controls and all future controls to level the playing field between U.S. and allied controls.
- Led by DOC and DOD, coordinate with allies to ensure that they adopt U.S. export controls, work together with the U.S to develop new controls, and prohibit U.S. adversaries from supplying their defense-industrial base or acquiring controlling stakes in defense suppliers.

Ensure that the U.S. Government is at the Forefront of Evaluating National Security Risks in Frontier Models

The most powerful AI systems may pose novel national security risks in the near future in areas such as cyberattacks and the development of chemical, biological, radiological, nuclear, or explosives (CBRNE) weapons, as well as novel security vulnerabilities. Because America currently leads on AI capabilities, the risks present in American frontier models are likely to be a preview for what foreign adversaries will possess in the near future. Understanding the nature of these risks as they emerge is vital for national defense and homeland security.

Recommended Policy Actions

- Evaluate frontier AI systems for national security risks in partnership with frontier AI developers, led by CAISI at DOC in collaboration with other agencies with relevant expertise in CBRNE and cyber risks.
- Led by CAISI at DOC in collaboration with national security agencies, evaluate and assess potential security vulnerabilities and malign foreign influence arising from the use of adversaries' AI systems in critical infrastructure and elsewhere in the American economy, including the possibility of backdoors and other malicious behavior. These evaluations should include assessments of the capabilities of U.S. and adversary AI systems, the adoption of foreign AI systems, and the state of international AI competition.
- Prioritize the recruitment of leading AI researchers at Federal agencies, including NIST and CAISI within DOC, DOE, DOD, and the IC, to ensure that the Federal government can continue to offer cutting-edge evaluations and analysis of AI systems.
- Build, maintain, and update as necessary national security-related AI evaluations through collaboration between CAISI at DOC, national security agencies, and relevant research institutions.

Invest in Biosecurity

AI will unlock nearly limitless potential in biology: cures for new diseases, novel industrial use cases, and more. At the same time, it could create new pathways for malicious actors to synthesize harmful pathogens and other biomolecules. The solution to this problem is a multi-tiered approach designed to screen for malicious actors, along with new tools and infrastructure for more effective screening. As these tools, policies, and enforcement mechanisms mature, it will be essential to work with allies and partners to ensure international adoption.

Recommended Policy Actions

- Require all institutions receiving Federal funding for scientific research to use nucleic acid synthesis tools and synthesis providers that have robust nucleic acid sequence screening and customer verification procedures. Create enforcement mechanisms for this requirement rather than relying on voluntary attestation.
- Led by OSTP, convene government and industry actors to develop a mechanism to facilitate data sharing between nucleic acid synthesis providers to screen for potentially fraudulent or malicious customers.
- Build, maintain, and update as necessary national security-related AI evaluations through collaboration between CAISI at DOC, national security agencies, and relevant research institutions.

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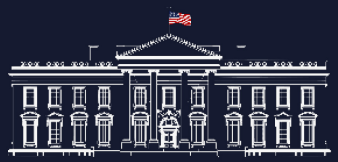

THE WHITE HOUSE

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Ministry of Foreign Affairs
People's Republic of China

Global AI Governance Action Plan

Updated: JULY 26, 2025 23:55

The 2025 World artificial intelligence (AI) Conference and High-Level Meeting on Global AI Governance published Global AI Governance Action Plan on July 26.

Full text of the action plan:

Artificial intelligence (AI) is a new frontier in human development. It is a key driving force of the ongoing scientific and technological revolution as well as industrial transformation, and an international public good that benefits humanity. AI presents unprecedented opportunities for development, and it also brings unprecedented risks and challenges. In the AI era, only through global solidarity can we fully unleash the potential of AI while ensuring its safety, reliability, controllability, and fairness, and ultimately deliver on the commitments outlined in the United Nations Pact for the Future and its annex: the Global Digital Compact, create an inclusive, open, sustainable, fair, safe, and secure digital and intelligent future for all.

To this end, we hereby put forward the Global AI Governance Action Plan, calling on all parties to take concrete and effective actions in advancing global AI development and governance based on the objectives and principles of promoting AI for good and in service of humanity, respecting national sovereignty, aligning with development goals, ensuring safety and controllability, upholding fairness and inclusiveness, and fostering open cooperation.

1. Jointly seizing the opportunities of AI. We call for the active participation and collaboration of all stakeholders, including governments, international organizations, enterprises, research institutions, social organizations, and individual citizens to accelerate the development of digital infrastructure, jointly explore cutting-edge innovations in AI technology, promote worldwide adoption and application of AI, and maximize AI's huge potential in empowering global economic and social development, supporting the implementation of the United Nations 2030 Agenda for Sustainable Development, and addressing global challenges.

2. Promoting the innovative development of AI. In the spirit of openness and sharing, we encourage efforts of bold experimentation and exploration. We need to establish various international platforms for scientific and technological cooperation, foster an innovation-friendly policy environment, strengthen policy and regulatory coordination, promote technological collaboration and the transformation of research outcomes, and reduce and remove technology barriers. We need to jointly push for innovation breakthroughs and sustained development in AI technology, deeply explore open application scenarios for "AI Plus," and take global AI innovation and development to a higher level.

3. Advancing AI empowerment across industries. We need to promote AI application in industrial manufacturing, consumption, commercial circulation, health care, education, agriculture, poverty alleviation, and other fields, push for the integration of AI in scenarios such as autonomous driving and smart cities, and foster a diverse, healthy, and AI-for-good application ecosystem. We need to promote the construction and sharing of intelligent infrastructure, carry out cross-border AI application cooperation, exchange best practices, and jointly explore ways to promote AI empowerment across all sectors of the real economy.

4. Accelerating digital infrastructure construction.We need to speed up the construction of global clean power, next-generation networks, intelligent computing power, data centers and other infrastructure, improve the layout of interoperable AI and digital infrastructure, and promote the establishment of a unified computing power standard system. We need to support countries, especially the Global South, in developing AI technologies and services in line with their national conditions, assist the Global South in truly accessing and utilizing AI, and promote AI development in an inclusive and universally-beneficial manner.

5. Creating a diverse, open, and innovative ecosystem. We need to fully leverage the respective role of multiple stakeholders, including governments, industries and academia, as well as various mechanisms and platforms to jointly promote international exchanges and dialogue on AI governance. We need to build cross-border open-source communities and secure, reliable open-source platforms, facilitate the open sharing of basic resources, lower the thresholds of technological innovation and application, avoid redundant investment and resource waste, and enhance the inclusiveness and accessibility of AI technology services. We need to promote the development of an open-source compliance system, clarify and implement the technical safety guidelines for open-source communities, and promote the open sharing of development resources such as technical documentation and API documentation. We need to strengthen the open-source ecosystem by enhancing compatibility, adaptation, and inter-connectivity between upstream and downstream products, and enable the open flow of non-sensitive technology resources.

6. Actively promoting the supply of high-quality data. We need to drive the development of AI with high-quality data, collaborate to facilitate the lawful, orderly and free flow of data, explore the construction of a global mechanism/platform for data sharing, and jointly create high-quality data sets to provide more nourishment for AI development. At the same time, we need to actively safeguard personal privacy and data security, enhance the diversity of AI data corpora, eliminate discrimination and bias, and promote, protect, and preserve the diversity of the AI ecosystem and human civilization.

7.Effectively addressing energy and environmental issues. We advocate the concept of sustainable AI, support continuous exploration and innovation in resource-saving and environmentally friendly AI development models, jointly establish AI energy and water efficiency standards, and promote green computing technologies such as low-power chips and efficient algorithms. We encourage dialogue and cooperation on energy-saving AI development to jointly identify optimal solutions. We need to promote AI’s empowerment of green transformation and development, climate change response, biodiversity and other fields, expand the application of AI technologies in related areas, strengthen international cooperation, and share best practices.

8.Promoting common understanding on standards and norms. We support more dialogue among standard-setting bodies of states and the role of international standards organizations such as the International Telecommunication Union (ITU), the International Organization for Standardization (ISO), and the International Electrotechnical Commission (IEC), and emphasize the role of the

industry in accelerating the formulation and revision of technical standards in key areas such as security, industry and ethics, so as to establish a scientific, transparent, and inclusive normative framework in the field of AI. We need to actively eliminate algorithmic bias, balance technological progress, risk prevention, and social ethics, and enhance the inclusivity and interoperability of the standards system.

9.Spearheading deployment and application by the public sector. Public sectors should become leaders and pacesetters in the application and governance of AI, actively prioritize the deployment of reliable AI in public services such as healthcare, education, and transportation, and strengthen international exchanges and cooperation. At the same time, assessment of the safety of the aforementioned AI systems should be conducted regularly, and intellectual property rights such as patents and software copyrights respected. We need to strictly enforce data and privacy protection, actively explore lawful and orderly transactions of training data, jointly promote the opening and utilization of data compliant with rules and regulations, and enhance public management and services.

10.Advancing the governance of AI safety. We need to conduct timely risk assessment of AI and propose targeted prevention and response measures to establish a widely recognized safety governance framework. We need to explore categorized and tiered management approaches, build a risk testing and evaluation system for AI, and promote the sharing of information as well as the development of emergency response of AI safety risks and threats. We need to improve data security and personal information protection standards, and strengthen the management of data security in processes such as the collection of training data and model generation. We need to increase investment in technological research and development, implement secure development standards, and enhance the interpretability, transparency, and safety of AI. We need to explore traceability management systems for AI services to prevent the misuse and abuse of AI technologies. We need to advocate for the establishment of open platforms to share best practices and promote international cooperation on AI safety governance worldwide.

11.Jointly implementing the Global Digital Compact. We need to actively fulfill the commitments outlined in the United Nations Pact for the Future and its annex, the Global Digital Compact. We need to take the U.N. as the main channel, work for the goal of helping developing countries bridge the digital divide and achieve equitable and inclusive development, and promote the establishment of an inclusive and fair multilateral global digital governance system based on complying with international law and respecting for national sovereignty and developmental differences. We need to support the establishment and early operation of two mechanisms under the U.N. framework—the Independent International Scientific Panel on AI and the Global Dialogue on AI Governance—to facilitate meaningful discussions on global AI governance, particularly in advancing the safe, fair and inclusive development of AI.

12.Strengthening international cooperation on AI capacity building. We need to place international cooperation on AI capacity building high on the agenda of global AI governance, and encourage leading countries in AI to take concrete actions, such as collaborating on AI infrastructure development, establishing joint laboratories together, building mutual recognition platforms for safety assessment, organizing education and training programs for AI capacity building, facilitating supply-demand matchmaking events for the AI industry, and jointly developing high-quality AI datasets and corpora, to support developing countries in enhancing their comprehensive capacity building in AI innovation, application, and governance. We need to work together to improve public

AI literacy and skills, with special attention to safeguarding and strengthening the digital and intelligent rights and interests of women and children, to bridge the AI divide.

13. Building an inclusive multi-stakeholder governance model. We support the establishment of inclusive governance platforms based on public interests and the joint participation of relevant entities. We encourage AI enterprises from different countries to engage in dialogue and exchanges, learn from each other's application practices in various fields of AI, and promote innovation, application, as well as ethical and safety cooperation in specific domains and scenarios. We encourage research think tanks and international forums to create global and regional platforms for exchange and collaboration, to ensure that AI researchers, developers, and governance departments from across the world maintain communication on technology and policy.

Links:

State Council | Ministry of Commerce | National Development and Reform Commission | National Immigration Administration

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Australian Government
Department of Industry, Science and Resources

National AI Plan

2025

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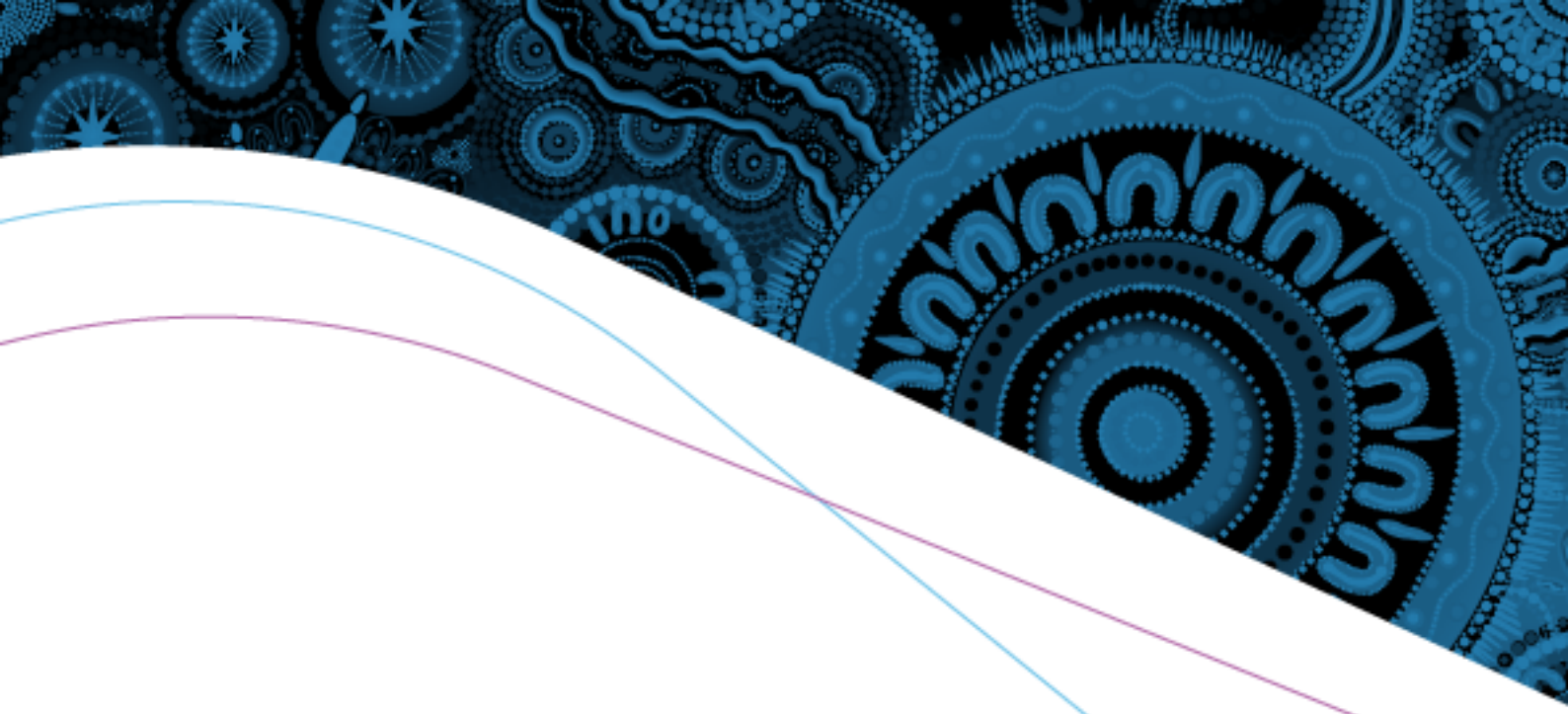
The National AI Plan takes a whole-of-economy approach and complements, but remains distinct from, ongoing work and dedicated arrangements on AI development, adoption and use by Australia's national security, defence, intelligence and law enforcement agencies.

All financial figures in this document are in Australian dollars (AUD), unless specified otherwise.



Acknowledgement of Country

Our department recognises the First Peoples of this Nation and their ongoing cultural and spiritual connections to the lands, waters, seas, skies, and communities.

We acknowledge First Nations Peoples as the Traditional Custodians and Lore Keepers of the oldest living culture and pay respects to their Elders past and present. We extend that respect to all First Nations Peoples.

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DISR Journey
2024
Chern'ee Sutton

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Ministers' foreword

Artificial intelligence (AI) is reshaping the global economy and transforming how Australians work, learn and connect with one another. The Albanese Government's ambition is to harness AI technologies to create a fairer, stronger Australia where every person benefits from this technological change.

AI should be used to help close service gaps in health, disability and aged care, improve education and employment outcomes; and create secure, well-paid jobs in future industries. Our National AI Plan is a whole-of-government framework that ensures technology works for people, not the other way around. The plan will guide government, industry, research and communities to work together so that no one is left behind.

This government's approach to the transformative technologies of today is grounded in timeless Labor values: fairness, inclusion and opportunity. Success will rightly be measured by how widely the benefits of AI are shared, how inequalities are reduced, how workers and workforces can be supported, and how workplace rights are protected. AI should enable workers' talents, not replace them. We are committed to a consultative approach to AI adoption in the workplace, and we will bring together government, unions and business, on issues including uplifting the AI skills and training of all Australians.

This plan is a key pillar of the government's Future Made in Australia agenda. By building sovereign capability in AI, supporting local innovation and ensuring that Australian workers and businesses are equipped to lead in the global digital economy, we are laying the foundations for a more resilient and competitive Australia. The National AI Plan complements our broader efforts to revitalise Australian industry, create high-value jobs and ensure that the benefits of technological progress are realised here at home.

The government is acting decisively to manage risks and keep Australians safe, with regulation that recognises the rapid pace of technological change, and the need for legislation to keep up. This plan reflects our enduring commitment to dignity at work, equality of opportunity and a future where technology strengthens communities.

This plan marks the beginning of the government's vision for AI in Australia.
As technology evolves and confidence in its use grows, we will continue to refine and strengthen the plan to seize new opportunities and address emerging risks.
Our commitment is clear: Australians will share in the benefits of AI while remaining protected in a fast-changing world.

Senator the Hon Tim Ayres

Minister for Industry and Innovation
Minister for Science

The Hon Dr Andrew Charlton MP

Assistant Minister for Science, Technology and the Digital Economy

Introduction

Australia is an active and influential player in the global AI ecosystem, consistently punching above our weight in research and innovation:

- Australia ranks highly in AI use by consumers. After adjusting for population size, Australia ranks third globally in the use of Claude, a popular AI tool developed by leading technology company Anthropic (Appel et al 2025).
- Australia attracted $10 billion in data centre investment during 2024, making it the second-largest destination globally that year for this asset class after the United States (Knight Frank 2025).
- Our AI industry is thriving, with more than 1,500 companies driving growth and innovation nationwide (Bratanova et al. 2025).
- Australia produces 1.9% of the world's AI research publications, far exceeding our share of global population and GDP. Our research extends beyond core computer science and into practical, discipline-specific applications including in medicine, environmental science, agriculture and the social sciences (Bratanova et al. 2025).
- In 2024, Australia attracted $700 million in private investment in AI firms, reflecting increasing momentum in developing and deploying Australian AI solutions (Bratanova et al. 2025).
- Demand for AI-skilled workers has tripled since 2015, underscoring Australia's position as a hub for cutting-edge technology and talent (Bratanova et al. 2025).

AI is already shaping our economy and society, presenting both opportunities and challenges. Realising the full benefits of AI will not happen by chance – it requires deliberate, coordinated action to seize the potential of AI while managing its risks.

This plan sets out the steps the Australian Government will take to support Australia to build an AI-enabled economy that is more competitive, productive and resilient.

With significant private sector capital ready to invest in AI technologies, our role is to ensure settings are fit for purpose to attract and direct investment, enable successful adoption and proactively identify and address harms as appropriate.

Guided by the plan, the government will ensure that AI delivers tangible benefits for all Australians. In this National AI Plan, references to artificial intelligence refer generally to AI systems. The OECD defines an AI System as 'a machine-based system that, for explicit or implicit objectives, infers, from the input it receives, how to generate outputs such as predictions, content, recommendations, or decisions that can influence physical or virtual environments. Different AI systems vary in their levels of autonomy and adaptiveness after deployment' (OECD 2023).

Our goals

The National AI Plan is anchored in 3 goals:

- **Capturing the opportunity**: We are fostering investment in world-class digital and physical infrastructure, supporting local capability and attracting global partnerships. By expanding high-speed connectivity, attracting investment in advanced data centres, and backing our researchers and businesses, we aim to lead in AI innovations and applications.
- **Spreading the benefits**: Our goal is to ensure that all Australians, regardless of background or location, shares the advantages of AI. We are supporting small and medium enterprises, regional communities and groups at risk of digital exclusion. Australian workers must share fairly in the potential productivity benefits of AI. Building digital and AI skills, growing and protecting jobs, supporting workforce transitions, and improving public services are central to this effort.
- **Keeping Australians safe**: We are committed to robust legal, regulatory, and ethical frameworks that protect rights and build trust. This includes ongoing review and adaptation of laws and establishing an AI Safety Institute. We are engaging internationally to manage risks such as bias, privacy breaches, and emerging threats, while promoting responsible innovation.

This plan is a starting point for the government's vision. As technology develops and confidence in AI use becomes more widespread, we will adapt and evolve the plan to capture emerging opportunities and manage new risks. This will ensure that Australians continue to benefit from AI and remain safe in a rapidly changing world.

The government's role

As the steward of the National AI Plan, the government will:

- **Provide national leadership and coordination** to shape the direction of AI development, adoption, and governance to ensure Australia has the right policies, infrastructure, skills and capabilities to lead in AI innovation.
- **Establish the right settings** to attract domestic and global investment, in collaboration with state and territory governments.
- **Promote responsible practices** to ensure Australians and organisations have the confidence to adopt AI.
- **Coordinate action** with unions, businesses and civil society to improve workers' standard of living, protect jobs, and ensure the benefits of AI are equitably distributed across Australian society.
- **Partner with industry, unions, and the tech sector** to equip Australians with the skills, training and credentials needed to develop and use AI technologies.
- **Engage internationally** to strengthen Australia's innovation capability, support adoption of trusted technologies with a focus on our region and promote international norms in line with our interests.

Implementing the plan and measuring success

The National AI Plan sets out the government's direction on AI and is designed to support iterative, adaptive action to reflect the dynamism of AI technologies.

We will track progress under the plan using a flexible, evidence-based approach, factoring in the evolving nature of AI and its impacts across the economy and society.

We will draw on national data sources, sector-specific reporting and stakeholder feedback to monitor adoption, skills development and responsible AI practices. Data sources may include, but are not limited to:

- the Australian Bureau of Statistics.
- Jobs and Skills Australia reports.
- tools such as the National AI Centre (NAIC) AI Adoption Tracker and National AI Ecosystem Report.

This evidence base will guide ongoing refinement of the plan and help identify gaps and priorities. Updating frameworks will ensure we can respond flexibly to urgent issues.

Our National AI Plan on a page

Our vision

> AI for Australia: capturing the opportunities, spreading the benefits, keeping us safe.

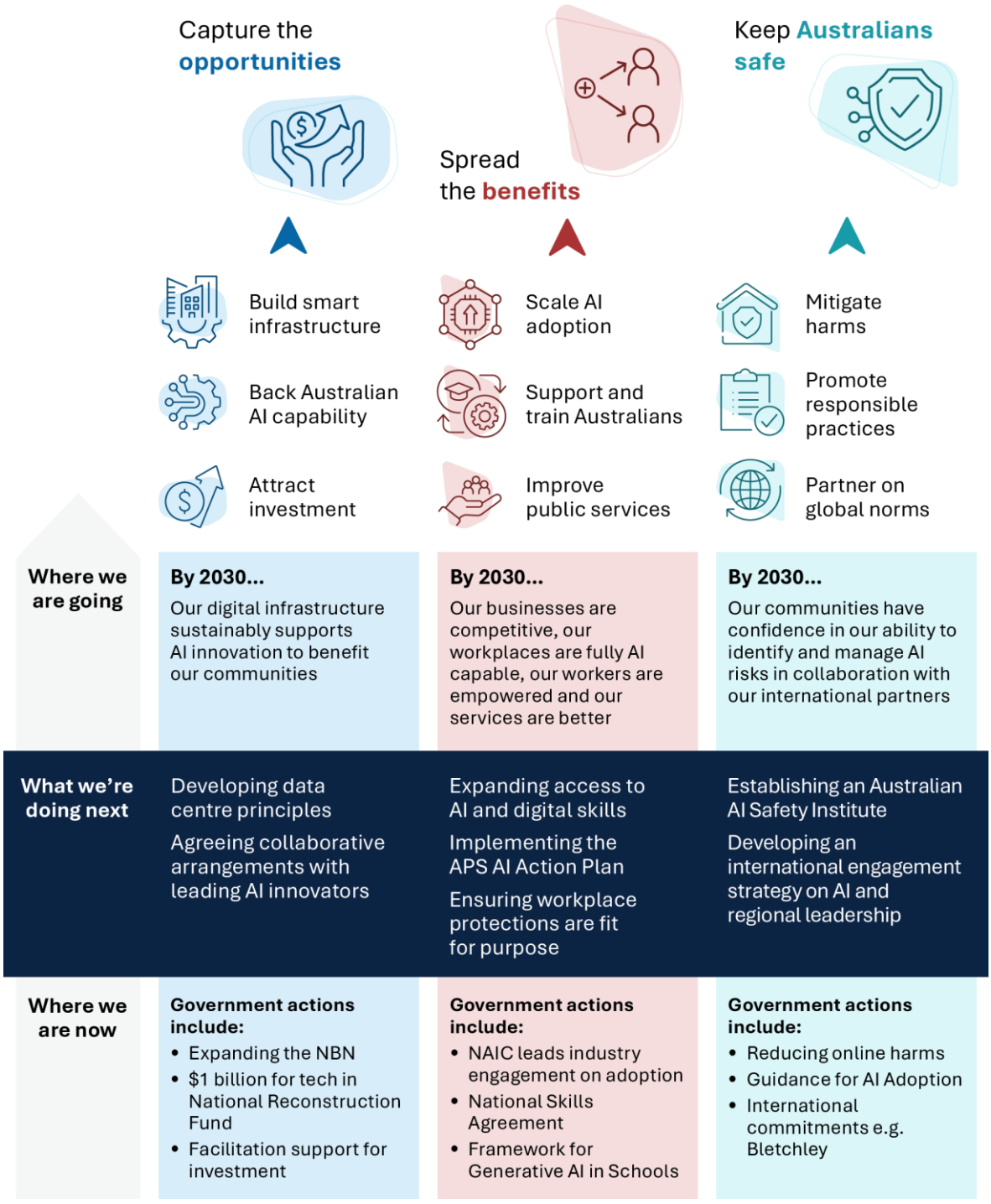


Figure 1: Our National AI Plan on a page

Capture the opportunities

Australia's success in capturing the opportunities of AI depends on equipping our people to get the best out of AI in their jobs, communities and their personal lives.

The government is supporting Australia to build the foundations for a world-class AI ecosystem. We are prioritising smart infrastructure and strengthening local tech capability so Australian businesses and researchers can lead in innovation. We are setting clear and stable conditions to attract domestic and global investment.

Australian workers across all industries are pivotal to capturing the opportunities of AI. A workforce equipped to build the necessary infrastructure, develop AI solutions, and apply them effectively across industries is essential to unlocking the full economic and social opportunities of these technologies. For workers to effectively adopt AI technologies, they must have confidence that AI will enhance their jobs and skills.

Capturing the opportunities of AI will help industry to scale, create high-quality jobs, and position Australia to compete successfully on the global stage.

Action 1: Build smart infrastructure

Realising the opportunities of AI requires reliable and extensive digital and computing infrastructure, such as data centres.

Smart infrastructure is essential not only to build local capability but also to secure Australia's position in the region. Australia is a leading destination for data centre investment in the Indo-Pacific. We offer a stable operating environment, clear legal protections, abundant renewable energy potential, available land and proximity to growing economies. These factors, combined with Australia's access to advanced chips vital for AI development, and connectivity through international submarine cables, make Australia uniquely placed to attract investment.

Between 2023 and 2025, companies announced plans to make investments in Australian data centres that could scale up to more than $100 billion. Both international and domestic data centre operators have been investing heavily to expand Australian capacity. Investor enthusiasm is high. As Knight Frank reported, in 2024 Australia ranked second globally (after the US) as a data centre investment destination (Knight Frank 2025).

Two components are critical to support AI at scale: high-quality computing power (compute) infrastructure and robust digital connectivity. Compute infrastructure provides the processing power required to run advanced AI models and data-intensive applications, ensuring development and deployment can happen domestically. The second component is the digital backbone, which includes high-speed networks, fibre-optic connectivity and resilient telecommunications systems. These enable rapid data transfer and distributed processing across the country.

Australia is connected to the global internet primarily through 15 international submarine cables. Australia plays an important role in connecting other states in the Indo-Pacific region to the international network. Investment in the subsea cable network is continuing, with Google announcing investments to build two further cables.

Our commitment to AI infrastructure

The Australian Government is already investing in Australia's digital and physical infrastructure nationwide to support widespread AI development and adoption. Examples of actions already underway include:

- **Expanding the NBN**: Upgrading the National Broadband Network to deliver fast, reliable connectivity nationwide, including to regional and remote areas. Low Earth orbit satellites and expanded mobile coverage are also supporting greater access to AI services.
- **Cybersecurity and secure critical infrastructure**: Coordinating cross-government efforts, led by the Department of Home Affairs, to uplift cybersecurity and safeguard Australia's critical infrastructure.
- **Enhancing regional leadership and partnerships**: Coordinating government efforts, led by the Department of Foreign Affairs and Trade, to become the partner of choice in the Indo-Pacific region on trusted critical digital infrastructure.
- **Mapping compute**: The government is undertaking work to assess the landscape of available compute infrastructure to identify gaps and guide future investment opportunities. This will ensure that Australia's research infrastructure keeps pace with technological advances and supports our world-class research system to remain competitive globally.

Data centres

We are positioning Australia as a leading destination for data centre investment while ensuring growth is sustainable and secure. The government is developing a set of national **data centre principles** in partnership with the states and territories, to clarify what it looks like for investment in data centres to align with Australia's overall national interests. These principles will set clear expectations for sustainability and other factors, including bringing new renewable energy online and adopting efficient cooling technologies. Where investments align with the data centre principles, the government is exploring opportunities to coordinate data centre approval processes with states and territories, as part of our broader efforts to make it easier to develop major, transformational projects and invest in Australia.

Australia's robust infrastructure planning processes will support growth in datacentres in a way that supports affordability and reliability for all infrastructure users. For example, data centres are significant energy users and consumed around 4 TWh of electricity across the National Electricity Market in 2024, about 2% of grid-supplied power. Australia's Energy Market Operator is monitoring data centre demand and accounting for electricity demand from these users to triple by 2030 (AEMO 2025). The government is working with the states and territories, energy market bodies, network service providers and the data centre industry to harness opportunities from the growth of data centres to promote investment in renewable energy and maintain affordable energy for households and businesses.

Data centre operators have demonstrated interest in investing in Australia in ways that manage these impacts. For example, conventional data centre cooling systems can consume tens of millions of litres annually, but Australian operators are adopting innovative solutions such as highly efficient liquid cooling to significantly reduce water consumption. Many operators are already contributing to additional renewable energy generation and storage as part of their projects.

By setting strong principles and encouraging best practice, the government is ensuring data centre growth supports sustainability, strengthens energy security, and drives investment in clean technologies.

CDC: Driving data centre sustainability

CDC Data Centres is an Australian provider of secure, sovereign digital infrastructure with an emphasis on sustainable practices.

CDC offers its customers across Australia 100% net zero carbon electricity. CDC is also a leader in water conservation, with its closed-loop LiquidCoreTM cooling system consuming near-zero water, saving billions of litres of water annually across 16 CDC-operated data centres in Australia and New Zealand.

Approximately 47% of CDC's ownership is linked to Commonwealth entities through the Future Fund and the Commonwealth Superannuation Corporation (CSC).

Inbound investment in Australia's next-generation AI infrastructure

Recent announcements of multi-billion-dollar investments in data centres include:

- **October 2025**: Firmus announced plans to expand Project Southgate with an initial $4.5 billion investment, with potential to scale up to $73.3 billion.
- **June 2025**: Amazon announced plans to invest $20 billion to expand data centre infrastructure in Australia.
- **October 2023**: Microsoft announced it would invest $5 billion in expanding its hyperscale cloud computing and AI infrastructure in Australia.

Australia has the opportunity to take advantage of ambitious AI infrastructure initiatives in ways that accelerate our renewables transition and drive investment in skills, research and sustainable technologies.

Our abundant renewable energy potential, robust privacy protections and strategic Indo-Pacific location can make Australia an AI hub for the region. Working closely with international partners, Australia can capture economic and social benefits that advance digital sovereignty, sustainability and innovation.

It is in our interests to ensure that AI development happens locally, where it aligns with our national priorities, social and economic interests. It positions us to lead in shaping ethical standards, secure technologies and competitive industries, and ensures that AI serves Australian communities and businesses first.

Action 2: Back Australian AI capability

Australia's competitive edge in AI is in developing targeted, high-value AI products and services for sectors such as healthcare, agriculture, resources and advanced manufacturing. Australian companies are already building world leading applications to help doctors diagnose disease and undertake surgery remotely and improve the way farmers manage their land and crops.

Building on this strength requires the right conditions for innovation. This includes the robust digital infrastructure referenced in Action 1.

The government is also considering the role of Australian-developed models within this landscape. Locally developed models may provide benefits such as reflecting unique cultural context or language, supporting innovation and mitigating risks around data security.

The government is backing local capability through significant investment in sovereign AI for the public service. GovAI will act as a centralised AI hosting service, providing a secure, Australian-based platform for agencies to develop customised AI solutions at low cost. AI use in government can help deliver clearer, simpler services for Australians, and GovAI will ensure government departments can innovate responsibly while maintaining sovereignty, security, and cost-efficiency when deploying AI technologies.

Access to diverse, high-quality datasets from government, Australian companies and research institutions is an important foundation of AI models. Unlocking Australia's data potential requires robust data governance, privacy protections, documentation, human oversight and legal compliance.

By combining infrastructure, data, and targeted investment, Australia can accelerate the development and application of AI models. This will empower local businesses and researchers to deliver world-class solutions that make Australians' lives better, help businesses be more efficient, and position Australia as a trusted AI provider in global markets.

Australia is investing in AI

The government is backing this ambition with more than $460 million in existing funding already available or committed to AI and related initiatives. The National AI Plan brings this investment together in a cohesive strategy to maximise benefits and manage risks for all Australians. The funding includes:

- over **$362 million** in targeted grants from the Australian Research Council, Medical Research Future Fund, National Health and Medical Research Council, and Cooperative Research Centres
- **$47 million** for the Next Generation Graduates Program
- **$39.9 million** to strengthen Australia's AI ecosystem, which includes expanding the NAIC
- **$17 million** for the AI Adopt Program to support SMEs.

These investments are complemented by broader technology investments that can support AI and related technology development, including:

- a further **$1 billion** commitment for critical technologies in the national interest, such as AI, under the National Reconstruction Fund
- **$950 million** registered by businesses for activities associated with AI under the Research and Development Tax Incentive Program, across the 2022–23 and 2023–24 income years.

The government is also helping Australia's leading AI firms to expand internationally and compete on the global stage. Initiatives such as Austrade's Landing Pads program provide international co-working space, networking opportunities and tailored advice.

Accelerating AI innovation

The government will build on these foundations by launching an **'AI Accelerator' funding round** of the Cooperative Research Centres (CRC) program to accelerate the development and commercialisation of AI by businesses and researchers across Australia and turn innovative ideas into real-world solutions.

Australia can be a leader in AI innovation and a trusted exporter of AI computing power, not just a consumer of AI technologies built elsewhere. With the right conditions, significant homegrown global businesses can emerge to create bespoke models and applications for both businesses and consumers. To make this happen, we must connect talented researchers with real-world challenges faced by industry and the community. The new CRC will strengthen local capability by incentivising partnerships between businesses and research organisations. It will help Australian ideas to scale and compete on the global stage.

Harrison.ai: Transforming medical diagnostics

Harrison.ai is a Sydney-based healthcare technology company that enhances clinician capacity and patient care through AI automation. Harrison.ai is developing world-leading diagnostic tools that use AI to improve radiology services. They are helping to address the global shortage of radiologists by providing early diagnosis support, increasing diagnostic accuracy and improving efficiencies. They have AI solutions for chest X-rays, chest CT scans, and brain CT scans.

South Australia Medical Imaging (SAMI) is now using the Harrison.ai chest X-ray solution that detects up to 124 findings in under 20 seconds. SAMI has rolled out the solution across all locations to enhance the accuracy, expertise and efficiency of their radiologists.

In January 2025, the National Reconstruction Fund Corporation made a $32 million equity investment in Harrison.ai.

Australia's data assets and AI

Data is a critical driver of modern economies, enabling innovation, efficiency, and informed decision-making across industries. AI models are only as good as the data they are trained on. Australia has high-quality and comprehensive data sets that could support AI innovations that create value for the AI sector, can deliver public goods, and that better reflect the Australian context. Both government and the private sector hold high value data sets which can support a globally competitive Australian AI sector.

The government is exploring opportunities to unlock high value datasets for pilot AI use cases, from both public and private sources. This work complements and builds on the existing program of work to improve APS data and data maturity. This includes work on consistent data standards and metadata, building trusted and secure approaches to data sharing, and identifying high value, non-sensitive datasets.

The government will also build on previously released resources by exploring ways to expand access to certain government datasets. This may include making the Australian Bureau of Statistics' economic datasets available in ways which support AI training. In addition, large, unstructured datasets could be made accessible for AI system training. The government will work with industry to unlock private sector data for AI applications that deliver benefits to Australians. These initiatives will help develop and train AI models that are locally relevant.

AI and Indigenous Knowledge: Managing Kakadu's wetlands

In Kakadu National Park, Bininj Traditional Owners, CSIRO, Parks Australia and partners are using AI and drones to control invasive para grass, restore wetlands and protecting animal habitats. Machine learning (Microsoft Custom Vision) analyses drone imagery to guide targeted conservation and land management actions, blending Indigenous knowledge with advanced technology.

This project shows how Australia can capture AI opportunities and back local capability through government, industry and Indigenous ranger partnerships. Cultural protocols are central. Traditional Owners govern data use, rangers operate drones to avoid sacred sites, and information is shared under Indigenous data sovereignty principles. The approach shows AI can create environmental and economic benefits while respecting culture and empowering Traditional Owners.

Action 3: Attract investment

We are positioning Australia as a leading destination for AI investment. Building domestic capability and attracting foreign investment are critical for economic security, job creation, and national resilience. A stable and transparent environment ensures investment delivers strong returns while supporting world-class AI solutions.

Australia is an attractive AI investment destination

Australia is already attracting large investments relating to AI, showing growing investor confidence in our market. In 2024 alone, over $700 million in private investment flowed into AI firms (Bratanova et al. 2025). This is in addition to plans announced by various companies to make investments that could scale to more than $100 billion in Australian data centres, and to make significant investments in domestic and international cables and energy projects.

Australia welcomes global investment to support local capability to build resilience in our AI, data infrastructure and energy sectors. Some investments into the sector may be subject to Australia's foreign investment framework to ensure they are not contrary to the national interest and national security

Australia has large domestic capital pools, such as superannuation funds, alongside strong foreign direct investment. Both forms of investment have an important role to play in growing the AI sector. Supporting national AI capabilities helps keep local innovations in Australia and deliver broad national benefits.

Supporting future AI investment

Our balanced approach will help secure Australia's place as a trusted partner in the global AI landscape. To this end, the government is already:

- **Facilitating investment in AI projects**: through the Investor Front Door, actively working with states and territories, to identify and address barriers to approvals that would impact AI investment, particularly in relation to data centres. The Investor Front Door as well as the Major Project Facilitation Agency is available to actively work with proponents to enable private investment that is nationally significant.
- **Promoting AI investment**: Austrade is attracting foreign direct investment to support the development of Australia's AI ecosystem. This includes investment to support development of innovative industry applications of AI in Australia and addressing gaps in Australia's digital infrastructure footprint.

The government will build on initiatives to ensure that investment flows into critical infrastructure and innovative AI ventures. This includes supporting significant data centre projects and their associated energy sources navigating regulatory approvals.

Australia is attracting major projects, such as Project Southgate and multi-billion-dollar investments from Microsoft, Amazon and others (see Action 1).

Australia is working towards collaborative arrangements with leading international and domestic AI companies. The goal is to signal our willingness to partner with innovators, improve our national AI capabilities, and uphold Australian standards.

Building on Actions 1–3: What's next

The National AI Plan is closely aligned with the Future Made in Australia agenda. Investment in new data centres and other digital infrastructure will help secure Australia's place in a rapidly changing world. Capturing the full spectrum of the AI opportunity – in terms of productivity, innovation and improved living standards – will ensure Australia can turn the changes and challenges of the present into the opportunities of the future.

Capturing the opportunities of AI requires sustained investment in data centres and the broader digital infrastructure that underpins them. Ensuring that local companies and researchers have access to the high-performance computing power they need for AI development is critical to building a strong, local technology sector.

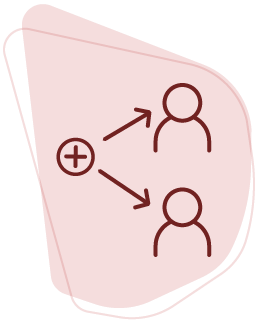
As AI adoption increases across the economy, our digital infrastructure must keep pace. Growth must be managed responsibly, expanding capacity without placing unnecessary strain on existing resources.

Advances in AI are accelerating the development of quantum technologies. As quantum computing capabilities mature, they have the potential to power faster and more efficient training of AI models. Australia's strengths in quantum position us well to capture these opportunities in the future.

Securing resilient supply chains will be vital to Australia's global competitiveness, supporting the development of local capability. Unlocking sources of domestic capital will be crucial to backing homegrown AI ventures and infrastructure, to keep the benefits of innovation in Australia. By tackling these challenges, we can secure a resilient, inclusive, and globally competitive AI future.

This plan should give the global investment community the confidence and certainty that it needs to back in an AI future in Australia. The successful adoption of AI in Australia will help Australians maximise existing competitive advantages in clean energy, advanced manufacturing, advanced medical and defence technological capabilities and high-quality service provision for the benefit of all Australians.

Spread the benefits



Every Australian should be able to benefit from AI, regardless of age, location or gender. Achieving this outcome requires a broad approach to building capability across all workplaces, including in not-for-profits, universities, schools, TAFEs and community organisations. It must elevate suburban and regional voices and ensure that local businesses and communities are not left behind.

We need to give particular consideration to cohorts already disadvantaged by digital and economic gaps, as well as those in roles at higher risk of AI and automation-driven disruption. This includes First Nations people, women, people with disability and remote communities.

Beyond the current labour force, AI will also shape opportunities for jobseekers and those engaged in unpaid work. Ensuring these groups share in AI-driven improvements to services and support, while addressing risks of exclusion, is essential.

AI adoption has the potential to improve business productivity and deliver better wages, job satisfaction and stability for workers. Adoption can also enhance public services through faster processing, personalised support and stronger protections. To realise these benefits, we need to ensure workplace rights are fit for purpose. Australia must support digital and AI skills uplift across all levels of the education pipeline, improve connectivity in remote areas, and build a resilient workforce that can adapt to technological change.

Action 4: Scale AI adoption

Small and medium enterprises (SMEs) are the backbone of Australia's economy – supporting innovation, creating jobs, and contributing significantly to national productivity. Supporting SMEs to adopt AI is essential to ensure they remain competitive, efficient, and well-positioned to seize emerging market opportunities in an increasingly digital landscape. Businesses need to optimise operations and encourage responsible AI innovation, supported by high-quality, trusted data.

AI adoption will be vital for business success

Many Australian consumers and businesses are fast, early adopters of new AI technologies. Over one third of SMEs have adopted AI (NAIC 2025) and, after adjusting for population size, Australia ranks third globally for consumer use of Claude, a popular AI tool (Appel et al 2025).

However, current adoption rates show a clear regional–metro divide: only 29% of regional organisations in Australia are adopting AI compared to 40% in metropolitan areas. Regional businesses also have a higher proportion (26%) that are not aware of AI opportunities (Fifth Quadrant 2025). Addressing this gap is critical to ensure inclusive growth and equal access to AI benefits, as existing digital divides exacerbate barriers to AI adoption. Notably, around 40% of First Nations people, and one in 5 Australians

broadly remain digitally excluded. This highlights the urgency of closing these gaps (Australian Digital Inclusion Index 2025).

The National AI Centre

The **National AI Centre (NAIC)** is the government's lead body supporting industry to unlock the economic benefits of AI. The NAIC provides tailored guidance and direct engagement to help SMEs, not-for-profits, social enterprises and First Nations businesses adopt AI responsibly.

The government has invested $17 million in the **AI Adopt Program**, which provides tailored assistance for SMEs implementing AI. To further align and strengthen government support for industry adoption, we will bring this program into the NAIC's remit.

Practical support for AI adoption

The government is already reducing barriers and building confidence through practical support:

- **Guiding safe AI adoption**: The NAIC released the *Guidance for AI Adoption* (NAIC 2025) on 21 October 2025 to support effective adoption practices by business. The guidance includes a suite of practical resources to make AI adoption widely accessible, including editable AI policy templates. NAIC resources have been simplified in partnership with business.gov.au, ensuring even the smallest organisations can benefit.
- **Supporting not-for-profits**: A collaboration between NAIC and Infoxchange will see the creation of tailored AI adoption resources and templates for the non-profit sector, as well as new training and advisory services.
- **Providing tailored support**: The AI Adopt Program offers SMEs consultations, training and tools to support responsible AI development and use nationwide. For Australian small businesses, the Digital Solutions Program also provides tailored advice on how to adopt digital tools including AI capabilities to increase business productivity.
- **Boosting First Nations digital inclusion**: The First Nations Digital Support Hub and Network of Digital Mentors will enhance digital skills and connectivity.

Data relating to First Nations Peoples, their lands, and knowledge is subject to Indigenous Data Sovereignty. In any actions taken relating to this plan, the Australian Government is committed to upholding principles of the Framework for Governance of Indigenous Data (NIAA 2024) ensuring that First Nations communities have control over the collection, access, use, and sharing of their data.

Building AI capability in the not-for-profit sector

The Infoxchange Digital Transformation Hub and AI Learning Community was developed to accelerate the safe and responsible adoption of AI in the not-for-profit sector.

The platform is supported by cross-sector partners including the National AI Centre, philanthropic funders, corporate partners and government. So far, it has helped over 20,000 not-for-profits on their digital transformation and AI journey. Platform services include training, development of policies, roadmaps, and AI certifications for staff and volunteers.

Not-for-profits receive hands-on support through an 'expert bar' and advisory services to create tailored AI action plans and solutions that advance their mission and impact.

The AI Learning Community has recorded an average 70% increase in confidence and 30% increase in skills by training participants. It has enabled thousands of organisations to increase efficiency, enhance service delivery and improve data-informed decisions.

As a collaborative model, it demonstrates how scalable digital training and AI resources can empower not-for-profits to deliver better outcomes for Australian communities.

Action 5: Support and train Australians

AI adoption could bring significant changes to Australia's labour market, creating major benefits if managed fairly and inclusively. Workers and those seeking to enter the workforce must be at the centre of this transition.

The government is supporting lifelong learning through skills and training, embedding digital literacy across education, and addressing digital literacy gaps to prevent deepening inequalities. Industry, employers and unions will play a critical role ensuring that workers are prepared for and benefit from AI-driven shifts. Where AI reshapes tasks rather than entire jobs (Jobs and Skills Australia 2025), reskilling, career support, and workforce mobility will be essential. Employers should support workers to access training and skills development in AI technologies. This is particularly important for groups at higher risk of disruption, including women, First Nations people, mature-aged workers, people with disability, and those in regional areas. Workers' voices and union engagement must guide decisions on technology adoption to ensure fairness and protect rights. The government will ensure that workers' rights are fit for purpose to deliver these outcomes.

AI tools used in workplaces, from task allocation to hiring, can boost productivity but also pose risks like surveillance, bias, discrimination in rostering, and reduced autonomy. To be effective in practice, deploying these technologies should involve meaningful consultation with workers, including into the design of AI systems. Deployment should protect workers' privacy and ensure they are working in a safe environment, including addressing potential psychosocial risks. It is important that there is transparency with affected workers about how algorithmic tools are used to manage work performance, work standards or engineered standards, including the data used.

Australia faces both challenges and opportunities in preparing workers with the skills needed for future industries, particularly in digital skills and AI. Industry, government, and the skills and education sectors all have a vital role in equipping students and the workforce to seize the opportunities AI presents. Broad AI skills and credentials are essential across the workforce. Specialised AI expertise is critical to ensure Australia has the advanced technical capability required for AI development and deployment (Jobs and Skills Australia 2025).

Action to support Australian workers

The Australian Government is taking early action to build a workforce that can thrive in an AI-enabled economy. Initiatives are underway to boost digital skills, expand training access, and grow an inclusive pipeline of AI-ready workers. These include:

- **The National Skills Agreement (NSA)** is about ensuring the national vocational education and training (VET) sector provides high-quality, responsive and accessible education and training. The NSA will boost productivity, deliver national priorities and support Australians to obtain the skills and capabilities they need to prosper. Ensuring Australia's digital and technological capability is an agreed national priority under the NSA.

- **The Future Skills Organisation 'FSO Skills Accelerator – AI'** brings together the VET sector and industry to connect, collaborate, and share best practices. This program expands access to AI skills for VET learners, educators, and administrators. It aims to mobilise the VET system to upskill teachers and trainers, provide training to learners, and collaborate with training providers. The long-term goal is to ensure a sustainable approach to AI skills development across the national skills and training system.
- **Digital Knowledge Exchange** is a national collaboration platform, developed and coordinated by FSO. The platform facilitates the sharing of knowledge and scaling of best practice digital skills and training initiatives across state and territory governments.
- **Developing future AI talent**: The Next Generation Graduates Program is building a pipeline of highly skilled professionals in AI and emerging technologies through industry-linked postgraduate scholarships.
- **Aligning workforce development with industry needs**: Jobs and Skills Councils (JSC) work in partnership with industry, government and training providers to identify sector-specific AI -related skills gaps and develop responses, including nationally accredited training products.
- **Providing labour market insights**: Jobs and Skills Australia provides evidence-based analysis of labour market trends and skills needs. This includes studies on how generative AI is reshaping job roles and informing workforce planning.
- **Improving AI and digital skills**: TAFEs deliver digital and AI training through targeted initiatives. The Institute of Applied Technology offers several AI microcredential courses, such as the Responsible AI microcredential. These courses have attracted more than 150,000 enrolments to date.
- **Building a skilled workforce for priority sectors**: The Key Apprenticeship Program supports apprenticeships in priority sectors to build a pipeline of skilled workers. This includes in sectors required for AI infrastructure, such as clean energy.
- **Responsible AI skills partnerships with professional associations and unions**: NAIC will continue to engage with key professional associations to ensure AI and responsible AI learning are available through their membership networks.
- **Reviewing Work Health and Safety laws**: Safe Work Australia have received feedback and submissions through the best practice review relating to AI and included a section on the potential impact of AI in the initial discussion paper for the review.

Building an AI-ready workforce

To build an inclusive AI-ready workforce, the government will work to help Australians gain the skills needed to thrive in an AI-enabled economy. Employers should support workers to access training and skills development in AI technologies. Guided by Jobs and Skills Australia's Generative AI Capacity Study (August 2025), actions led by

government and the Jobs and Skills Councils, alongside unions and employers, will support this effort. The Department of Education and the Department of Employment and Workplace Relations will also explore ways to equip learners with the skills and credentials to participate in an AI-driven workforce and ensure a strong pipeline of AI-ready school leavers and graduates.

FSO plays a critical role in ensuring the skills and training system is responsive to the digital and AI skills needs of the future. It will continue to:

- undertake workforce planning that identifies the digital and AI skills needs and strategies that support and respond to the workforce challenges.
- develop generalist and specialist digital and AI units of competency across Australian Qualifications Framework levels.
- research barriers to AI adoption for SMEs and diverse worker cohorts.

Workers and unions must have a strong voice in how AI is adopted across workplaces. The government will work with unions and industry representatives to ensure workplaces introduce AI technologies transparently, safely, and in ways that allow workers to share in the benefits. This includes embedding foundational digital literacy and ensuring that workplace relations settings promote fair, balanced, and collaborative environments. It also includes meaningful consultation and co-design with workers to improve outcomes of AI systems in the workplace.

This effort will include a focus on:

- enabling an AI-ready workforce by ensuring Australians have the employability, skills, training and education to thrive in an AI-enabled economy and meet Australia's workforce needs.
- the cooperative adoption of AI technologies in the workplace, so that new technologies are safely and transparently introduced allowing for workers to share the benefits.
- collaboration with employers and workers to navigate AI's effect on the labour market, including fostering worker adaptation to changing roles and future work opportunities.
- progressing an analysis of workplace relations regulations frameworks with a focus on making sure settings are responsive to the risks of AI and ensure they continue to create fair, safe and cooperative workplaces.

Every Australian can benefit from AI

A focus on inclusion will ensure all Australians, including First Nations peoples, women, people with disability, and regional communities, can benefit from future economic growth. In line with the **National Agreement on Closing the Gap** (Joint Council on Closing the Gap 2020), the government is committed to carrying out actions in this plan, including to support and train Australians, in genuine partnership with First Nations communities. This includes supporting community-led and community-controlled approaches to digital skills and workforce development, and the governance of Indigenous data as it relates to AI in the workplace.

Reducing the gender gap in technology and addressing skills shortages, especially to bridge gendered differences, will continue to be a priority for Australia, in line with the objectives of the government's Working for Women: A Strategy for Gender Equality (Department of Prime Minister and Cabinet 2024) and the National Skills Agreement.

AI for Good: Building and embedding AI literacy

Good Things Australia, in partnership with Telstra, Microsoft and LinkedIn, is expanding the successful Digital Sisters: AI for Good program to boost AI and digital literacy across diverse and underserved communities.

Delivered through 10 community based and virtual AI Literacy Hubs, the initiative will combine in-person support from digital mentors. A dedicated learning site will collate practical and accessible learning content. AI literacy content and training will integrate into existing national digital literacy programs. The program will focus on building the confidence of community members to use AI tools for everyday life, learning and pathways to work.

The National AI Centre will work alongside Good Things to publish an AI Literacy Impact Report, showing the economic and social value of inclusive AI upskilling across Australia.

Action 6: Improve public services

AI can improve the delivery of public services in Australia, making our services more effective, efficient, accessible and responsive to the needs of Australians. With appropriate human oversight, AI can enhance the capabilities of government agencies and public servants and enable them to operate more efficiently. By leading the way in adopting AI transparently and responsible, the government can build public trust in the technology and ensure its benefits are shared widely across society.

AI can drive better services

AI is already having a positive impact in healthcare. For example, combined with the National Lung Cancer Screening Program (NLCSP), AI triage could lift lung cancer detections at stage 1 from 16% to 64% (Tech Council of Australia 2025). In education, AI offers opportunities to reduce teacher workloads and improve student outcomes.

The Australian Government is taking practical steps to integrate AI into public services, making them more efficient, accessible, and responsive. The following actions are already underway:

- **Embedding AI in government operations**: The GovAI platform offers secure, whole-of-government tools that streamline processes and enable more personalised, connected services.
- **Piloting generative AI in schools**: States and territories are funded to trial GenAI, reducing workloads for teachers and exploring safe classroom use. The Australian Framework for Generative AI in Schools (Department of Education 2023) supports the responsible and ethical use of GenAI tools.
- **Lifting public service capability**: The Data and Digital Government Strategy (Digital Transformation Agency 2023) strengthens APS digital and data skills, leveraging AI for seamless, secure, inclusive services.
- **Providing trusted environmental data for AI**: Through Geoscience Australia's Earth Observation Program and the Australia-United States Partnership in Landsat Next, over $440 million will be invested to enable access to next generation satellite missions. These missions include work with global space agencies on new standards for verification of Earth Observation data for AI applications in sectors like agriculture and mining.

The Australian Government is working to expand the safe and responsible use of AI to all government agencies to help create consistent, high-quality services for people. The government aims to lead by example, lifting the productivity of the public sector and providing better job satisfaction.

The Australian Government will use AI to better serve the public

The **AI Plan for the Australian Public Service** (APS) was released on 12 November 2025. The plan will improve government service delivery, policy outcomes, efficiency and productivity through substantially increasing the use of AI in government. Every public servant will have the training and guidance required to use generative AI safely and responsibly, alongside secure access to generative AI tools. Every agency will have a Chief AI Officer to drive adoption, with AI use tracked and reported on.

The government is also focused on a consistent legal framework for supporting government use of automated decision making (which may include AI) in service delivery to the Australian public. This includes ensuring that human decision makers remain accountable for key decisions made with the assistance of AI tools.

The Australian Government has developed the Framework for Governance of Indigenous Data (NIAA 2024) which guides its use of AI systems with First Nations data in public services. This recommends that Indigenous communities are engaged on the collection, access, use and sharing of data, in partnership and with respect for cultural protocols and collective rights.

To support the provision of efficient and accessible services, the Attorney-General's Department is also considering options to harness AI to improve access to justice and reduce the cost of legal services to vulnerable and low-income Australians.

AI use in the Australian Government

The **Department of Finance** created GovAI to allow APS staff to work more productively and efficiently.

The **Department of Veterans' Affairs** has launched an AI-enhanced search tool on its external website that delivers plain-English summaries and direct links to trusted content, improving access to support for veterans and their families.

The **National Library of Australia** is using AI to preserve Australian history and culture through transcription of 58,000 hours of interviews in its oral history collection.

The **Tiwi Islands Ranger Ghost Nets Program** uses AI and drones to identify and remove ghost nets and plastics threatening marine ecosystems.

Building on Actions 4–6: What's next

The government is committed to ensuring no one is held back and no one is left behind as AI technologies become widespread across the economy.

To ensure the widespread benefits of AI across Australia, it will be crucial to improve digital access and inclusion for all communities, particularly in regional and remote areas. Addressing gaps in digital literacy will enable Australians to confidently navigate and participate in an increasingly AI-driven society. This will require strategic investment in connectivity and collaborative efforts from government, industry, civil society and local stakeholders, ensuring that no one falls behind as technology evolves.

Beyond access and literacy, supporting SMEs to overcome resource limits and upskill their workforce will foster innovation and economic growth. As labour market dynamics shift with the adoption of AI, proactive measures – such as reskilling programs and flexible career pathways – will help workers adapt and thrive. In the Australian Public Service, the government's AI Plan for the APS will address barriers like risk aversion, long-term contracts and institutional inertia. By tackling these challenges together, Australia can spread the benefits of AI more equitably and ensure a resilient future for all Australians.

Keep Australians Safe

The government's regulatory approach to AI will continue to build on Australia's robust existing legal and regulatory frameworks, ensuring that established laws remain the foundation for addressing and mitigating AI-related risks. These frameworks are actively enforced and continuously adapted to emerging risks. Agencies and regulators will retain responsibility for identifying, assessing, and addressing potential AI-related harms within their respective policy and regulatory domains.

To support this approach, the government is establishing an AI Safety Institute (AISI). The AISI will monitor, test and share information on emerging AI capabilities, risks and harms. Its insights will support ministers, portfolio agencies and regulators to maintain safety measures, laws and regulatory frameworks that keep pace with rapid technological change. The Institute will support existing regulators with independent advice to ensure AI companies are compliant with Australian law and uphold legal standards around fairness and transparency.

The government is committed to upholding international obligations, promoting inclusive governance and maintaining a resilient regulatory environment that provides certainty to business and responds quickly to new challenges.

Managing AI risks requires a whole-of-government approach. Every organisation developing and using AI is responsible for identifying and responding to AI harms and upholding best practice. A proactive approach to harms as they emerge ensures that government is continuing to update and introduce targeted laws where needed. This approach allows us to respond quickly and effectively to emerging risks and keep Australians safe.

Our approach focuses on harnessing the opportunities of AI while taking practical, risk-based protections that are proportionate, targeted and responsive to emerging AI risks. By applying fit-for-purpose legislation, strengthening oversight and addressing national security, privacy and copyright concerns, we will work to keep the operation of AI systems responsible, accountable, and fair. This gives businesses confidence to adopt AI responsibly while safeguarding people's rights and protecting them from harm.

Action 7: Mitigate harms

Mitigating the potential harms of AI is essential to maintaining trust and confidence in AI applications and upholding Australians' rights. We cannot seize the innovation and economic opportunities of AI if people do not trust it.

Australia has strong existing, largely technology-neutral legal frameworks, including sector-specific guidance and standards, that can apply to AI and other emerging technologies. The government is monitoring the development and deployment of AI and will respond to challenges as they arise, and as our understanding of the strengths and limitations of AI evolves.

The approach promotes flexibility, uses regulators' existing expertise, and is practical and risk-based. It supports government in targeting emerging threats such as AI-enabled crime and AI-facilitated abuse which disproportionately impacts women and girls. AI has manifested harms to First Nations people, including through perpetuating harmful stereotypes and the use, misattribution and falsification of First Nations cultural and intellectual property. Genuine engagement with impacted First Nations communities, including alignment with Closing the Gap reforms and Indigenous data sovereignty principles, is vital to understanding and managing these risks.

Australia has strong protections in place to address many risks, but the technology is fast-moving and regulation must keep pace. That's why the government continues to assess the suitability of existing laws in the context of AI. We are taking targeted action against specific harms, as outlined below.

Action on AI risks and harms

The government is taking action to identify and understand AI risks and deal with AI harms, including:

- **Advancing the science of AI safety**: AI safety research underpins the reliability and trustworthiness of AI systems. The government is engaging domestically and internationally to build expertise and understanding of the capabilities and risks of advanced AI systems, to inform when and how to respond.
- **Consumer protections for AI-enabled goods and services**: The Department of the Treasury's *Review of AI and the Australian Consumer Law* found that Australians enjoy the same strong consumer protections for AI products and services as they do for traditional goods and services, including safety protections. The Government will consult with states and territories on minor opportunities to clarify existing rules that the review identified and progress the changes when appropriate.
- **Reducing online harms through reforms, codes and standards**: The government addresses AI-related risks through enforceable industry codes under the *Online Safety Act 2021* and by criminalising non-consensual deepfake material. Further restrictions on 'nudify' apps and reforms to tackle algorithmic bias are also being considered.
- **Reviewing application of copyright law in AI contexts**: The Attorney-General's Department is engaging with stakeholders through the Copyright and AI Reference Group to consult on possible updates to Australia's copyright laws as they relate to AI. The government has provided certainty to Australian creators and media workers by ruling out a text and data mining exception in Australian copyright law.
- **Reviewing AI regulation in healthcare**: The *Safe and Responsible AI in Healthcare Legislation and Regulation Review* (Department of Health, Disability and Ageing 2024) is assessing the impact of AI on healthcare regulation.
- **Reviewing AI regulation in medical device software**: The Therapeutic Goods Administration (TGA) oversees AI used in medical device software and led the review on *Clarifying and Strengthening the Regulation of Medical Device Software including Artificial Intelligence* (TGA 2025).

- **AI security**: The Department of Home Affairs, the National Intelligence Community and law enforcement agencies will continue efforts to proactively mitigate the most serious risks posed by AI. As the national security policy lead on AI, Home Affairs has contributed to the uplift of critical infrastructure, international collaboration on AI security, and coordinating a multiagency group on synthetic biology and AI. Home Affairs also oversees the Protective Security Policy Framework (Department of Home Affairs 2025), which details policy requirements for authorising AI technology systems for non-corporate Commonwealth entities.
- **Updating Australia's privacy laws**: the Attorney-General is leading work to develop a modernised and clear *Privacy Act 1988* (Cth), which achieves the right balance between protecting people's personal information and allowing it to be used and shared in ways that benefit individuals, society, and the economy. This will help to underpin trust in digital services.

Responding to AI harms

The Australian Government continues to support regulators and law enforcement in countering AI-enabled non-compliance and crime. The government is considering preventative measures for harms such as child abuse material and infringements on Indigenous data sovereignty. The government is also developing AI-driven fraud detection and prevention capabilities to strengthen policies and outpace malicious actors.

Keeping Australians safe also means recognising that AI is likely to exacerbate existing national security risks and create new and unknown threats. To keep Australians safe, the government is taking proactive steps to prepare for any potential AI-related incident. The Australian Government Crisis Management Framework (AGCMF) provides the overarching policy for managing potential crises. For major AI incidents, our responses will continue to be guided by existing processes and frameworks, including the AGCMF. The government will consider how AI related harms are managed under the AGCMF to ensure ongoing clarity regarding roles and responsibilities across government to support coordinated and effective action.

Keeping Australians safe: The mission of the AI Safety Institute

The government is establishing the AISI to strengthen its ability to respond to AI-related risks and harms, and to help keep Australians safe.

The AISI will focus on both upstream AI risks and downstream AI harms. Upstream AI risks are the model capabilities and ways AI models and systems are built and trained that can create or amplify harm. Downstream AI harms are the real-world effects people may experience when an AI system is used.

The AISI will generate and share technical insights on emerging AI capabilities and upstream risks, working across government and with international partners. It will develop advice, support bilateral and multilateral safety engagement, and publish safety research to inform industry and academia.

The AISI will engage with unions, business and the research sector to elicit expert views, inform broader engagement and ensure its functions meet the needs of the community.

The AISI will also support a coordinated response to downstream AI harms by engaging with portfolio agencies and regulators. It will monitor, analyse and share information across government to allow ministers and regulators to take informed, timely and cohesive regulatory action, including by supporting existing regulators to ensure AI companies are compliant with Australian law and uphold legal standards of fairness and transparency. Portfolio agencies and regulators remain best placed to assess AI uses and harms in their specific sectors and adjust regulatory approaches and the law if necessary.

The AISI will operate with transparency, responsiveness and technical rigour, reinforcing public confidence in both AI technology and the institutions responsible for its governance. It will collaborate with domestic and international partners, including the National AI Centre and the International Network of AI Safety Institutes, to support the global conversation on understanding and addressing AI risks.

Action 8: Promote responsible practices

Businesses need to do their part in adopting AI responsibly. Promoting responsible AI practices is central to building public confidence and supporting safe, ethical innovation. To support this, the Australian Government is encouraging the development and use of systems that are transparent, fair, and accountable, with consistent governance and compliance with relevant laws. This also includes promoting responsible practices by organisations throughout their development, including in relation to high-quality data, robust stewardship and clear documentation of how a system has been built.

The government will work with industry, unions, civil society and standards bodies to explore practical ways to support responsible deployment, including through voluntary measures and shared guidance. Businesses often express uncertainty about liability when adopting AI, which can undermine confidence and slow responsible innovation (Fifth Quadrant 2025). The government is responding by clarifying how existing laws apply to AI and supporting compliance, including workplace, consumer protection, product liability and competition laws.

Support for responsible AI adoption

By fostering responsible practices, Australia aims to deploy AI in ways that are safe, inclusive and aligned with the public interest, supporting economic growth and national resilience. Examples of actions underway include:

- **Encouraging responsible AI adoption by organisations**: The Guidance for AI Adoption (NAIC 2025) provides 6 essential practices to embed safety, transparency and ethical conduct into AI development and deployment.
- **Promoting transparency measures for AI-generated content**: The *Being clear about AI-generated content* guide (NAIC 2025) advises businesses on how they can improve trust by clearly signalling when AI has been used to create or modify content. The recommended transparency measures include labelling, watermarking, and metadata recording.
- **Clear governance for government AI use**: The Policy for the Responsible Use of AI in Government (Digital Transformation Agency 2025) promotes transparency, accountability and oversight, positioning government as a leader in ethical AI adoption.
- **Guidance for AI in schools**: the Australian Framework for Generative AI in Schools (Department of Education 2023) provides nationally consistent guidance to students, teachers, staff, parents and carers on the opportunities and challenges presented by AI.
- **Aligning with international AI standards**: Australia is actively participating in global standards development to reflect national values and industry interests, and to promote shared understanding of responsible AI practices.

- **Supporting responsible AI use by regulators**: Regulators such as the Australian Prudential Regulation Authority and the Australian Securities and Investments Commission provide guidance for AI use in banking, insurance, and financial services, including operational risk and governance standards.

Being clear about AI-generated content: Guidance from the National AI Centre

As everyday AI use accelerates, Australians need to feel confident that they can recognise when digital content has been created or changed using AI.

Developed by the **National AI Centre**, *Being clear about AI-generated content* provides best-practice approaches to help Australian business show clearly when they use AI to create or modify digital content. Transparency around AI use can help business to reduce regulatory and reputational risks, build confidence in their digital content, and gain a competitive advantage in the digital economy.

The guidance outlines practical steps to make AI-generated content easy to identify, including how to choose the right level of transparency for their context:

Labelling: Adding a visible notification to show AI-generated content, and the source.

Watermarking: Embedding information within digital content to verify authenticity and trace its origin.

Metadata recording: Including descriptive information within the content file.

This voluntary guidance is based on industry best practice and developing global standards. It will be updated as technology and international standards change.

Simplifying responsible innovation

The NAIC will launch a dedicated online platform to consolidate guidance, training and use-case examples, supporting SMEs and end-users with regular updates to keep pace with industry change and complement existing cybersecurity resources. The 6 essential practices in the Guidance for AI Adoption will underpin new tools and resources, offering a coherent framework adaptable to different audiences and aligned with international standards.

Australia aims to promote both innovation and responsibility, supporting local adoption while shaping global standards for safe, fair and transparent AI. The government will actively participate in major international forums and trade partnerships to promote interoperability and best practice. We will periodically review and update guidance and standards to reflect evolving global norms and certification schemes.

Action 9: Partner on global norms

Shaping global governance of AI is vital for Australia's economic prosperity and national security. Australia can use its role as a responsible middle-power to embed our values of safety, transparency and inclusion in international AI norms and standards.

Australia as an international AI leader and partner

Through our deep and longstanding engagement in international AI governance Australia has already cemented itself as a reliable, responsible and trusted leader in our region. Australia can build on this leadership to ensure that we are the partner of choice for the adoption of safe, secure and responsible AI and digital infrastructure in the Indo-Pacific. We will expand our capacity building efforts and work with partners to ensure the benefits of AI reach across the region and to share trusted and secure digital infrastructure. We are supporting this work with efforts to understand and address the risks and harms related to AI, informed by our engagement in the International Network of AI Safety Institutes and with our Five Eyes partners informs this.

Our goal of keeping Australians safe will continue to drive our international advocacy and collaboration on AI safety. The AISI will continue working with international partners to advance global understanding of AI risks and safety, while national security agencies collaborate with partners to address emerging threats, such as the future prospect of AI systems achieving Artificial General Intelligence (AGI). We will keep examining new technologies and be proactive about evolving our approach to keep Australians safe as new capabilities emerge.

Our ambition is to align international frameworks with domestic approaches, reduce regulatory friction and support innovation. This will position Australia as a trusted partner in global supply chains and a leader in secure, responsible adoption of trusted AI technologies across the region.

Through foundational **multilateral commitments and engagements** Australia has signalled its dedication to advancing AI safety, ethical standards and trustworthy development on the world stage.

- Australia is a signatory to the Bletchley Declaration, the Seoul Declaration and the Paris Statement, which emphasise inclusive international cooperation and coordination on AI governance.
- Australia participates in the UN Global Digital Compact and the Hiroshima AI Process, which promote digital inclusion, human rights and collaborative approaches to AI risk management.
- Australia's membership of the Global Partnership on AI supports and promotes conversations across the diverse OECD group on advancing safe, secure and trustworthy adoption of AI.
- Australia has endorsed the G7 Energy and AI Work Plan, which aims to proactively manage energy demands from AI and data centres.

Australia has **strong bilateral relationships** that are essential for supporting Australian industry and ensuring national resilience.

- The MoU on Cooperation on AI with Singapore demonstrates Australia's commitment to joint initiatives that promote ethical AI development and knowledge sharing.
- Strategic partnerships with the United Kingdom and Republic of Korea in cyber and critical technologies advance Australia's capacity to innovate securely and collaboratively.
- Australia's Framework Arrangement with India supports joint research, standards development, and improved market access for AI technologies. This strengthens Australia's role as a trusted partner in the region and supports the growth of a robust, globally connected AI ecosystem.

We have also agreed to develop and launch a bilateral Technology Prosperity Deal with the United States to establish joint initiatives on cooperation and investment in AI, quantum, and other critical technologies.

Australia's role in promoting AI safety

Australia is also playing a pivotal role in **advancing global AI safety science**. By participating in the International Network of AI Safety Institutes, Australia shares expertise and collaborates on the safety testing of advanced AI systems, helping to develop international best practice. Australia's involvement in the International AI Safety Report (UK Government 2025) lets us offer evidence and insights that inform global efforts to understand and prevent AI-related harms. Through these contributions, Australia is helping to shape a safer, more transparent and more accountable AI landscape, both domestically and internationally.

Through multilateral and bilateral engagement, we will deliver on our existing international commitments. We will collaborate with like-minded countries and regional partners to strengthen digital and data governance and promote the adoption of trusted technologies, with a focus on the Indo-Pacific. Strategic relationships, such as the Comprehensive Strategic Partnership (CSP) with Singapore, under which both nations have agreed to set up a Cyber and Digital Senior Officials Dialogue, and initiatives like the Australia–UK Cyber and Critical Technology Partnership create a strong foundation for future cooperation on AI. Our agreement to develop and launch a bilateral Technology Prosperity Deal with the United States will see us deepen cooperation on building a trusted and secure global AI ecosystem.

Australia's leadership on AI in the region

The Department of Foreign Affairs and Trade, with the Department of Industry, Science and Resources, will lead on developing an Australian Government Strategy for International Engagement and Regional Leadership on Artificial Intelligence. The strategy will align Australia's foreign and domestic policy settings on AI. It will also establish our approach to opportunities and the priorities of our bilateral partnerships and our engagement in international fora.

Building on Actions 7–9: What's next

As AI advances at pace, Australia faces a rapidly shifting landscape of opportunities and risks. The government is actively monitoring emerging risks. Where necessary, we will take decisive action to ensure safety and accountability as new technologies and frontier AI systems emerge. Existing regulators will continue to identify and manage harms and report any gaps in laws to the AISI. We will respond to emerging risks including bias, privacy breaches, disinformation and cyber threats. If more regulation is needed to address bad actors or broader harms, the government will not hesitate to intervene.

The rights and data sovereignty of First Nations peoples and other vulnerable groups are increasingly at risk, as AI systems process and generate data in ways that do not always respect cultural protocols or individual privacy. Possible divergence of the global regulatory environment could lead to different countries and industries adopting varying standards, regulatory regimes and expectations. To keep Australians safe, we will continue to foster collaboration across government, industry, and communities, and to remain agile in the face of evolving global and technical challenges.

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COMMUNICATION FROM THE COMMISSION TO THE EUROPEAN PARLIAMENT, THE COUNCIL, THE EUROPEAN ECONOMIC AND SOCIAL COMMITTEE AND THE COMMITTEE OF THE REGIONS

AI Continent Action Plan

AI Continent Action Plan

The European Union is committed and determined to become a global leader in Artificial Intelligence, a **leading AI continent.** This Communication outlines a set of bold actions to achieve that goal. AI has just begun to be adopted in the key sectors of our economy, helping to tackle some of the most pressing challenges of our times. While the full impact of this transformational shift is still unfolding, Europe must act with ambition, speed and foresight to shape the future of AI in a way that enhances our competitiveness, safeguards and advances our democratic values and protects our cultural diversity. A trustworthy and human centric AI is both pivotal for economic growth and crucial for preserving the fundamental rights and principles that underpin our societies. Swift policy action is of highest priority.

The global race for leadership in AI is far from over. Breakthroughs continue to redefine the boundaries of what is possible. From cutting-edge foundation models to specialised AI applications, the AI landscape in the EU remains dynamic, driven by research, emerging technologies, and a thriving startups and scaleups ecosystem.

Achieving our ambitions in AI will require leadership both in developing and using AI. It entails **sustained investment in infrastructure** (including computing power and networks), alongside advances in model development, and broad adoption across the economy. Only by working together at EU, national and local level will we succeed in this endeavour. Both the private and the public sectors have a role to play. Businesses must scale up their investments and embrace AI in their domains, while the public sector must enhance its capabilities. Public procurement should promote European preference for critical sectors and technologies, as proposed in the Competitiveness Compass[1].

The EU must maintain **its own distinctive approach to AI** by capitalising on its strengths and what it does best. This includes: first, a large single market with one single set of safety rules across the EU, including the recently adopted AI Act, ensuring AI is trustworthy and aligned with EU values; second, making the most of its high-quality research, and science, a substantial pool of scientists and skilled professionals; third, a thriving startup and scaleup scene, industrial knowhow and expertise: and, last but not least, a solid foundation in world-class computational power with data spaces accessible to all.

Indeed, the European brand of **open innovation** is showing results. Computing power in the EU is publicly accessible through the European network of cutting-edge supercomputers deployed by the **European High-Performance Computing Joint Undertaking** (EuroHPC[2]). The network provides AI innovators and research organisations with an open environment to

[1] COM(2025) 30 final

[2] The European High-Performance Computing Joint Undertaking (EuroHPC) was launched in 2018 and co-funded by the EU, Member States, and private actors. Notable examples of EuroHPC supercomputers include LUMI (ranked #8 globally), Leonardo (#9), and MareNostrum 5 (#11), which collectively enhance Europe's computational capabilities. The procurement contract for the first EuroHPC exascale supercomputer JUPITER was signed.

access computing resources to train and finetune models, linking to high-quality data spaces and enabling broad participation in cutting-edge model development. AI model development in the EU benefits from advances in open-source approaches. It encourages knowledge sharing, enables collaboration, facilitates integration into specific applications and increases transparency.

In this context, it is no surprise that the EU's AI startup and scaleup scene is booming. This is reflected in the increased investments and the growing number of unicorns in this field in recent years. The EU is home to more than 6800 AI startups[3]. This **vibrant community of innovative AI startups and innovators** is advancing the frontier of AI models as well as applying them to industry-specific applications. But more still needs to be done. The EU needs to ensure that its startups, industry, public sector, and scientists at large have what they need to harness the prospects of AI. This includes ensuring secure value chains, their resilience and that of the EU's Single Market, which is of particular importance for EU's competitiveness and its future innovation in the current geopolitical context.

For the EU to become an AI Continent, **efforts must accelerate and intensify in five key domains**:

First, **computing infrastructure**: The EU's public AI infrastructure needs to be scaled up so that innovators and researchers can train and finetune AI frontier models. This includes both strengthening the **network of AI Factories** – which are being launched to offer greater computing capacity for AI and related services – and establishing **resource-efficient Gigafactories**, integrating massive computing power into data centres. The inspiration for these gigafactories comes from the ambition that underlies CERN; these Gigafactories will foster scientific collaboration around powerful and unique infrastructures, bringing together researchers, entrepreneurs and investors to tackle ambitious and forward-looking projects – "moonshots" – in areas like healthcare, biotechnology, industry, robotics and scientific discovery. In this spirit the European AI Research Council (Resource for AI Science in Europe – RAISE) could pool resources for AI scientists and domain scientists applying AI across the EU. Concurrently, private-sector investment in cloud capacity and sustainable data centres must be facilitated and scaled up.

Second, we need to take further action to ensure more access to **high-quality data** for AI innovators. With this objective, the EU will work towards a dedicated Data Union strategy and will, among other measures, explore the development of Data Labs as integral components of the AI Factories, to enable the provision, pooling, and secure sharing of high-quality data.

Third, we need to stimulate the further **development of AI algorithms and leverage their adoption in the EU's strategic sectors**. The forthcoming Apply AI Strategy will launch concrete actions to boost new industrial and scientific uses of AI and improve public services. European Digital Innovation Hubs will refocus in order to support the adoption of AI by SMEs,

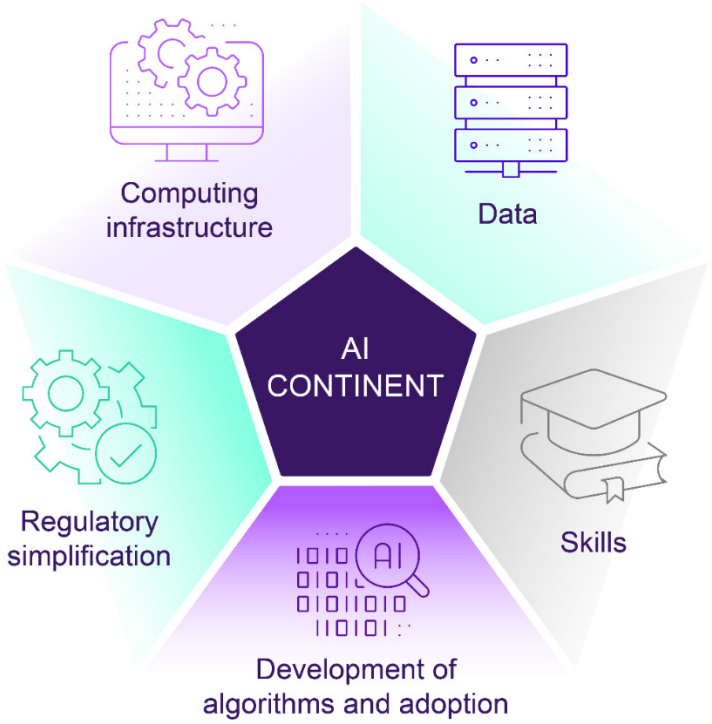
[3] https://www.appliedaiinstitute.de/en/hub/2024-generative-ai-study

mid-caps and public administrations, and further technological advances in strategic sectors will be supported by European funding programmes over the next three years.

Fourth, the EU's **strong AI talent base** is a major asset. We need to reinforce AI skills, including basic AI literacy and diverse talent, throughout the EU by closing existing gaps, by further developing excellence in AI education, training, and research, by attracting more women to AI, by raising awareness of AI among the wider society and public administration, as well as by attracting and retaining AI talent from outside the EU. As a global leader in free scientific research, the EU is an attractive destination and must remain open to global talent.

Fifth, the EU's large single market is a significant asset, with one set of clear rules, including the AI Act, preventing market fragmentation and enhancing trust and security in the use of AI technologies. Nevertheless, there is a need to **facilitate compliance with** the AI Act, particularly for smaller innovators.

These are the necessary pillars for Europe to become the AI Continent. The Commission President set out this vision at the AI Action Summit in Paris[4] in February 2025 when she announced **InvestAI**, an initiative to mobilise EUR 200 billion for investment in AI in line with the political priorities of the Competitiveness Compass.



[4] https://ec.europa.eu/commission/presscorner/detail/en/speech_25_471

1. Build large-scale AI data and computing infrastructures across Europe for the AI ecosystem

Infrastructure – particularly computing power – is fundamental to AI model development **all throughout the AI lifecycle.** From *training*, where the model learns from vast amounts of data and requires massive computational resources, often relying on high-performance advanced AI processors; *finetuning*, where it is optimised for specific applications; *testing*, where, once the model is trained and validated, it is tested to assess its performance; to *inference and deployment*, where the model output is integrated into real world applications. The availability of powerful computing resources is an important element for attracting academic, technical, and industrial talent and is essential for enhancing the AI ecosystem. It is therefore vital for the EU and the Member States to work together in ensuring an adequate supply of computational power across the AI continent, including also in cooperation with EU candidate and potential candidate countries.

1.1 Deploy and scale AI Factories

The EU has most recently been strengthening the EuroHPC network of supercomputers through the **AI Factories initiative**, as announced in the 2024 **AI Innovation Package**[5]. AI Factories are dynamic ecosystems that foster innovation, collaboration, and development in the field of AI. They integrate AI-optimised supercomputers, large data resources, programming and training facilities, and human capital to create cutting-edge AI models and applications. By connecting supercomputing centres, universities, startups, industry, the public sector and financial stakeholders, AI Factories will enhance collaboration in AI across Europe. They will drive advances in AI applications across multiple domains. Moreover, AI Factories will enhance access to high-quality data by linking to large national data repositories, EU Data Spaces, and dedicated data labs (see section 2).

The AI Factories initiative has been a huge **success, demonstrating the strong commitment and support of Member States**. Following the first AI Factories' call deadline on 1 November 2024, seven consortia – spanning 15 Member States[6] and two associated EuroHPC Participating States[7] – were selected to host the first AI Factories. Building on this momentum, six additional AI Factories were selected in March 2025[8]. With a total of 13 AI Factories across 17 Member States and two EuroHPC Participating States, overall investments in supercomputing infrastructures and AI Factories in the EU will reach EUR 10 billion over the 2021-2027 period. In this context, **nine new AI optimised supercomputers will be procured and deployed across the EU in 2025/26, and an existing supercomputer will be upgraded with AI capabilities**[9]. This will more than triple the current EuroHPC AI computing capacity.

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[5] AI Innovation Package

[6] https://ec.europa.eu/commission/presscorner/detail/en/ip_24_6302

[7] Non-EU Member States participating in the EuroHPC Joint Undertaking, i.e., Iceland, Israel, Montenegro, North Macedonia, Norway, Serbia, Türkiye, United Kingdom and soon Switzerland: Discover EuroHPC JU - EuroHPC JU

[8] https://digital-strategy.ec.europa.eu/en/news/second-wave-ai-factories-set-drive-eu-wide-innovation#:~:text=This%20follows%20the%20first%20selection,of%20around%20%E2%82%AC485%20million.

[9] See details in annex I.

AI Factories bring unique strengths and specialised focus areas, playing a pivotal role in advancing AI applications across strategic sectors as follows:

Key Sectors	AT	BG	DE	EL	ES	FI	FR	IT	LU	PL	SE	SI
Health & Life Sciences	●		●	●	●	●	●	●		●	●	●
Technology & Digital		●		●	●	●	●	●	●	●	●	●
Environment & Sustainability		●	●	●	●		●	●	●	●	●	●
Education & Culture	●	●	●	●	●		●	●			●	●
Manufacturing & Engineering	●	●	●			●	●				●	●
Finance & Business	●		●		●		●	●	●		●	
Agriculture & Food	●				●		●	●			●	●
Cybersecurity & Dual use							●	●	●			
Space & Aerospace		●					●		●	●		
Public Sector	●		●		●					●		

A summary of the 13 selected EuroHPC AI Factories is included in Annex I.

The interest and confidence from Member States continues to grow, with further countries signalling their willingness to participate in the ongoing third call closing in Q2 2025, underlining the success of the initiative and its strategic importance for Europe's AI future.

Additionally, Participating States can establish **AI Factory Antennas** to support services to their national AI/HPC ecosystem without the need for dedicated supercomputer infrastructure. AI Factory Antennas will provide remote access to AI-optimised supercomputing resources of the linked AI Factory located in another Member State.

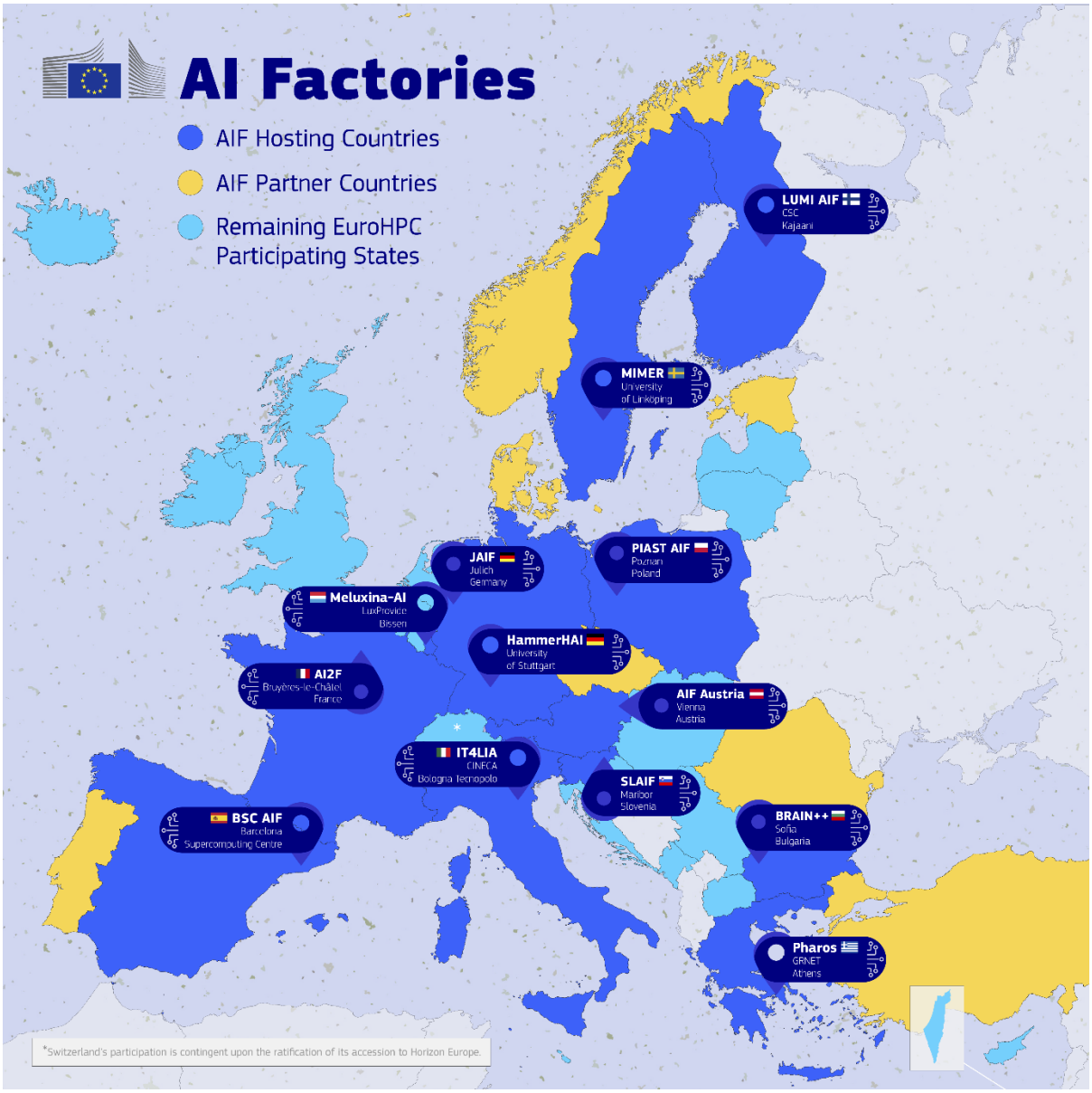
By end 2025, all selected AI Factories and AI Factories Antennas will be fully operational, networked together, and connected to other major AI support initiatives, such as the Testing and Experimentation facilities for AI[10], offering dedicated resources for testing AI solutions, and the network of European Digital Innovation Hubs.

The EuroHPC Joint Undertaking will serve as the single-entry point for users across the EU, providing access to computing time and support services offered by any EuroHPC AI Factory. The AI Factories are open to European[11] users from various sectors, including industry, research, academia, and public authorities. **New tailored access modes will prioritise AI innovators – startups, scaleups, SMEs – and selected EU-funded research projects,** ensuring streamlined fast access to computing resources with minimal administrative overhead. The Governing Board of the **EuroHPC Joint Undertaking** plans to adopt this Access Policy together with the publication of this Communication. In line with our **Preparedness Union and Internal Security Strategies**, provisions are included for the direct allocation of access time to strategic Union projects[12] as well as for emergency and crisis management situations.

[10] https://digital-strategy.ec.europa.eu/en/policies/testing-and-experimentation-facilities
[11] Established or located in an EU Member State or in a Participating State or in a third country associated to the Digital Europe Programme or to Horizon Europe.
[12] Destination Earth, Human Brain Flagship Initiative, the centres of excellence in high performance computing or 1+ Million Genomes Initiative.

Key Commission / EuroHPC Actions:

- Set up and deploy selected AI Factories and their services (Q2 2025);
- Set up a single-entry point for all users across Europe for access to AI Factories and their services (Q2 2025);
- Launch procurement of the first AI-optimised Factory supercomputers (Q2/Q3 2025);
- Launch the Call for Proposals to establish AI Factories Antennas (Q2 2025);
- Launch a Call for networking all the AI Factories and AI Factories Antennas activities (Q2 2025).



1.2 Invest in AI Gigafactories

While recent advances in training techniques and architectural optimisation have made AI models more efficient, the pursuit of frontier AI models still requires vast amounts of computing and data capacity.

Over the last two years, **AI models have become increasingly complex, evolving from text processing to reasoning, multimodal capabilities and agentic behaviour**. This trend will continue, with the next generation of frontier AI models expected to unlock a leap in capabilities, towards Artificial General Intelligence (AGI) capable of tackling highly complex and diverse tasks, matching human capabilities.

Currently, the most performant AI Factories' supercomputers, equipped with up to 25,000 advanced AI processors, play an essential role in developing and training the current generation of AI models. Leading the next wave of advanced AI models requires significantly greater computing power, and data. As announced in the Competitiveness Compass, the EU will **invest in AI Gigafactories.**

AI Gigafactories will be **large-scale facilities that develop and train complex AI models at an unprecedented scale**, with hundreds of trillions of parameters. They will integrate massive computing power, **exceeding 100,000 advanced AI processors**, while taking into account power capacity, as well as energy, water efficiency and circularity. These facilities are essential for Europe to compete globally and maintain its strategic autonomy in scientific progress and critical industrial sectors. They will be federated with the EuroHPC network of AI Factories, ensuring seamless integration and knowledge sharing across the European AI ecosystem. This should also stimulate the design – and in due course the manufacturing – of AI processors in Europe. The COVID crisis and the latest geopolitical developments[13] have shown how important it is for Europe to be able to count on secure and resilient value chains and on a strong single market. The EU is determined to avoid the fragmenation of its single market and to enhance its capabilities to reduce dependencies on critical technologies and strengthen sovereignty in cutting edge semiconductors[14]. While activities in this area have already started under the Chips and EuroHPC Joint Undertakings, this should be a key priority for the review of the Chips Act, which will aim at ensuring strategic autonomy in the design and production of AI semiconductors. The Commission will accelerate preparatory work in view of revising the Chips Act in 2026. High energy efficiency and security should feature among the key requirements for European AI chips.

[13] Joint Statement by Executive Vice-President Henna Virkkunen and Commissioner Maroš Šefčovič https://ec.europa.eu/commission/presscorner/detail/en/statement_25_255

[14] EuroHPC has launched the DARE initiative with a budget of EUR 240 million to develop a full HPC ecosystem based on open RISC-V processors (general purpose and accelerators, including AI-specific chips) and their integration into exascale and post-exascale European supercomputers, This initiative will strengthen the EU's strategic technological sovereignty, producing competitive HPC technology to power the future European supercomputers, with a critical impact in other areas like AI, cloud and data centres or automotive.

The establishment of a **single AI Gigafactory is estimated to require significant investments**, encompassing both capital expenditures and operational expenses. Given the magnitude of the necessary investment, these AI Gigafactories will be implemented through **public-private partnerships** and innovative funding mechanisms. In this regard, Commission President von der Leyen announced at the AI Action Summit in Paris[15] the launch of the **InvestAI** Facility, with a view to mobilise EUR 20 billion investment for AI infrastructure, notably targeting up to 5 AI Gigafactories across the Union. The facility, to be developed in collaboration with the European Investment Bank group, aims at facilitating and crowding in private investment, in combination with grants and guarantees provided by the Union budget and Member States. The Commission also urged Member States and regions to enhance support to digital capacities such as AI, cloud and giga-factories, in the context of its mid-term review of Cohesion policy[16].

For example, in the framework of such a public-private partnership, the **EU and Member States would contribute direct grants**, in line with applicable State aid rules, while private proponents would be responsible for financing the remaining amount – with the possibility of derisking investment through the InvestAI Facility. These AI gigafactories may also become the platform for attracting the participation of large international financial investors.

The establishment of the first-ever AI gigafactories on European soil will require a significant effort of investment and policy coordination, with clear added value to EU competitiveness. Therefore, the AI gigafactories will serve as one of the pilot cases of the **Competitiveness Coordination Tool** announced in the Competitiveness Compass.

In line with this vision:

- a **call for expression of interest for consortia interested in setting up AI Gigafactories is launched together with the adoption of this Action Plan**. The aim is to enter in a dialogue with individual proponents. The dialogue will include the partnership, the proposed budget, the geographical location, computing performance, technical specifications and sustainability considerations as well as feasibility analysis of their AI Gigafactory.

- Following the outcome of the discussions in the preliminary calls of interest with interested parties, including Member States, industry, and financial institutions, **the official call for the establishment of AI Gigafactories will be published in Q4 2025 by the EuroHPC Joint Undertaking**.

Further advancing the frontier of AI models, including towards Artificial General Intelligence (AGI), also requires facilitating the scale-up of companies**. To crowd in substantial capital investment for the development of new AI models**, investment funds could step in, for example those supported through the European Innovation Council Fund, the planned TechEU Scale-up Fund[17], the EIB Group's European Tech Champions Initiative or by the InvestEU guarantee. What is more, EU public procurement, accounting for over 15%[18] of our GDP, could

[15] https://ec.europa.eu/commission/presscorner/detail/en/speech_25_471
[16] Communication on a modernised Cohesion policy: the mid-term review [ref to 1.4.2025 (COM(2025) 163]
[17] From the Competitiveness Compass: "to help bridge the financing gap to support disruptive innovation, strengthen Europe's industrial capacity and scale-up companies"
[18] Access to public procurement | Single Market and Competitiveness Scoreboard

create an enormous market for innovative products and services. In that context, the Competitiveness Compass announced the promotion of **European preference in public procurement for critical sectors and technologies** in the context of the forthcoming review of the EU rules.

Dedicated solutions aimed at facilitating innovative startups' and scaleups' access to finance, public procurement, markets, services and talents, will be explored by the EU **Startup and Scale Up Strategy** announced by the European Commission in the Competitiveness Compass.

Key Commission / EuroHPC actions:

- Issue a call for expression of interest to invest in AI Gigafactories (9 April 2025);
- Define the InvestAI Facility with EIBG (Q3/Q4 2025);
- Launch the official call on AI Gigafactories under the EuroHPC Joint Undertaking (Q4 2025);
- Address the financing gap of startups and scaleups and facilitate their access to markets,–public procurement, services and talent in the EU Startup and Scaleup Strategy (Q2 2025).

1.3 Establish the support framework for boosting EU cloud and data centre capacity

The EU also needs further **instruments to enable the private sector to close other capacity gaps along the computing continuum** that affect all phases of an AI model's lifecycle, from development and fine-tuning to deployment and real-time use. These gaps notably include: **general cloud capacity,** which is typically delivered from large data centres; and **edge capacity** that delivers similar services but with significantly lower response time (latency), such as in a telecom environment (telco edge)[19]. In relation to AI, cloud and edge computing are key enablers of smaller fine-tuning operations, particularly those that adapt pre-trained AI models to specific tasks using smaller datasets, and of inference, the execution of trained AI models to generate outputs from new data.

The EU currently lags behind the US and China in terms of available data centre capacity, relying heavily on infrastructure installed in and controlled by other regions of the world, that EU users access via the cloud. While access to innovative and affordable cloud services is vital for EU competitiveness, an excessive **dependence on non-EU infrastructure may bring economic security risks and is a concern** for European industry, key economic sectors and public administrations. To adequately serve the AI and general computing needs of businesses and public administrations across the entire EU, and to ensure competitiveness and sovereignty, it is **essential for the EU to increase its current cloud and data centre capacity** in a geographically balanced manner.

[19] The term telco edge describes edge computing environments offered by telecom operators as a service to third parties. These are today's most prominent edge computing offerings. For more details, see: https://digital-strategy.ec.europa.eu/en/library/white-paper-how-master-europes-digital-infrastructure-needs.

The **Cloud and AI Development Act** will create the right conditions for the EU to incentivise large investments in cloud and edge capacity. Today, the average time to obtain a permit and the related environmental authorisations for building a data centre in Europe often lies upwards of 48 months. The data centre industry struggles to identify suitable sites, and to obtain access to sufficient energy to power their facilities. The Cloud and AI Development Act will address these obstacles, with a **view to at least tripling the EU's data centre capacity within the next five to seven years and bringing it to a level that meets the needs of EU businesses and public administrations by 2035.** To this end, the Commission envisages that data centre projects that meet requirements related to resource efficiency, including in energy and water efficiency, circularity and requirements related to innovation will benefit from simplified permitting, while maintaining environmental safeguards and protecting human health, and from other public support measures, in line with applicable State aid rules.

Adding new data centres to the grid presents important challenges, notably in terms of potential impacts on consumption, other energy consumers, networks and decarbonisation. The **strategic roadmap for digitalisation and AI in the energy sector** will propose measures to facilitate the sustainable integration of data centres into the energy system and address other energy-related issues resulting from the large-scale deployment of data centres in the EU such as electricity grid optimisation, energy efficiency in buildings and industry and demand-side flexibility. In the same vein, the upcoming **Water Resilience Strategy** will look at reducing the water footprint of these installations and at increasing their circularity through water reuse, efficiency and dry cooling.

For highly critical use cases, including AI applications, sovereignty and operational autonomy require **highly secure EU-based cloud capacity**. The Cloud and AI Development Act will ensure that the public and private sector in the EU can rely on such capacity for these use cases, thus laying the basis for the public sector to adopt AI in an environment of trust. More generally, leveraging the existing Data Act provisions on cloud switching, the Cloud and AI Development Act will look into establishing a **common EU marketplace for cloud capacity and services** to enable the entry into the market of a more diverse set of cloud service providers.

The Commission invites stakeholders to share their views on the **Cloud and AI Development Act** as part of a public consultation, which accompanies this Action Plan.

The Commission's actions in this area will complement efforts from Member States, which are currently designing two possible new Important Projects of Common European Interest (IPCEI) in this area. One initiative focuses on advancing beyond-the-state-of-the-art research and first industrial deployment of solutions in a continuum of federated and distributed AI services. Another initiative focuses on the infrastructure deployment of large-scale computing infrastructure and services.

Key Commission actions:

- Adopt a proposal for the Cloud and AI Development Act (Q4 2025 - Q1 2026), preceded by the launch of a public consultation (9 April 2025);
- Adopt a Strategic roadmap for digitalisation and AI in the energy sector (2026);
- Support Member States in their work on designing possible future IPCEIs in the field of AI and data processing infrastructure.

2. Data for AI

Access to reliable and well-organised data is essential if the EU is to unlock the full potential of AI. The Commission will address this in the second half of 2025 with a new **Data Union Strategy** to make more data available in support of AI development and innovation.

The **Data Union Strategy** will focus on strengthening the EU's data ecosystem by enhancing interoperability and data availability across sectors, to respond to the scarcity of robust and high-quality data for the training and validation of AI models. It will aim to better align data policies with the needs of businesses, the public sector and society, while fostering a trustworthy environment for data sharing. To achieve this, necessary safeguards will be put in place to ensure the confidentiality, integrity, and security of shared data, thereby promoting a culture of trust and cooperation. Particular attention will be given to streamlining existing data legislation to reduce complexity and administrative burden and to ensure that data governance structures are efficient and effective, based on an inclusive process that takes into account applicable copyright legislation.

One important tool in this context will be the **Data Labs,** which will be set up as part of the AI Factories initiative. These Data Labs will bring together and federate data from different AI Factories covering the same sectors. In addition, they will link to the corresponding Common European Data Spaces and will make this data available to AI developers under appropriate conditions. The Data Labs will thus ensure that AI developers will have access to large volumes of high-quality data in health, energy or other sectors (always in compliance with the rules that apply to each data space).

Data Labs will not only ensure access to **Common European Data Spaces** but could also offer a range of other services. These could include cleaning and enriching datasets, providing technical tools (e.g. standardised formats, synthetic data, shared technical building blocks) and fostering interoperability across sectors and borders. Data Labs could also offer data-pooling services that would help companies to share data while adhering to antitrust rules, drawing on the **Data Governance Act framework** for trusted data intermediaries. They would, in short, turn fragmented data sources into a trusted and accessible resource for AI development.

The Commission is supporting these efforts by developing *Simpl*, **a shared cloud software to make it easier to manage and connect data spaces** [20]. This software acts as a common layer

[20] https://simpl-programme.ec.europa.eu/

and helps participants in a data space to work together more smoothly. It offers ready-to-use tools – such as secure ways to exchange data, manage access and verify identities – and thus reduce technical complexity and costs. This will in turn help more organisations to join and expand data spaces across the EU.

The area of language data is a clear example of how pooling data from different Member States can deliver tangible results. Language data are the basis for large language models. Their availability is essential for breaking down language barriers in the single market, potentially boosting intra-EU trade by up to EUR 360 billion[21]. The **Alliance for Language Technologies (ALT-EDIC)** is a large-scale effort to pool EU language data that was launched in March 2025. It will bring together 17 Member States to build a comprehensive repository of high-quality language resources to bridge the gap in multilingual data and preserve Europe's linguistic and cultural diversity, fostering technological excellence and leadership.

Another example is in the area of health, where the European Health Data Space regulation sets out a common framework to make health data from different Member States securely available for secondary use across the EU. By ensuring access to high-quality datasets that reflect the diversity of Europe's population, this will contribute to reducing bias and enhancing fairness and effectiveness in the development of AI applications for healthcare.

In addition, the European Open Science Cloud, Europe's Data Space for research and innovation, is gathering vast amounts of high-quality research data from research institutes to make them available for innovative applications. The EU itself, through Copernicus, provides freely accessible geospatial data for the development of AI technologies.

Beyond making more data available, the **Data Union Strategy** will also investigate ways to reduce unnecessary bureaucracy. It aims to simplify how businesses can comply with EU data rules, so that they can more easily share and use data for AI. The strategy will also look at how the EU can attract more valuable data – while ensuring that sensitive EU data are protected when shared internationally.

To shape the Strategy, the Commission will launch a public consultation to gather input from businesses, the public sector, researchers and other stakeholders. This will help in identifying specific data needs, fine-tuning proposed actions and making sure that the Strategy supports a strong, competitive and innovative AI ecosystem in the EU.

Key Commission actions:

- Launch a public consultation on the Data Union Strategy in order to better understand industry's data needs (Q2 2025) before presenting the Data Union Strategy (Communication, Q3 2025);
- Set up Data Labs associated with the AI factories (Q3-Q4 2025);
- Continue supporting the deployment of Common European Data Spaces (including the use of common software and use of shared technical building blocks to ensure

[21] Language Technology Solutions study (CNECT/LUX/2022/OP/0030)

interoperability) and fostering their links with AI factories (Digital Europe Programme 2025-2027).

3. Foster innovation and accelerate AI adoption in strategic EU sectors

Today many European companies, especially midcaps and SMEs, struggle with AI adoption. As of 2024, only 13.5% of companies in the EU had adopted AI[22]. Accelerating the uptake of AI across all sectors, including the public administration, fosters innovation and is essential to enhance competitiveness and economic growth as well as to reduce administrative burden.

This is the objective of the upcoming **Apply AI Strategy,** the EU approach to accelerate AI adoption and drive innovation while leveraging AI solutions "made in Europe". It will focus on industry sectors where EU know-how could contribute to further increasing productivity and competitiveness gains. It will also address adoption by the public sector, where AI in areas like healthcare can bring transformative benefits to wellbeing. To complement, a dedicated European Strategy for AI in Science will target the use of AI across scientific disciplines, boosting productivity and unlocking scientific breakthroughs.

3.1 A use-case based approach in key European industry sectors and the public sector

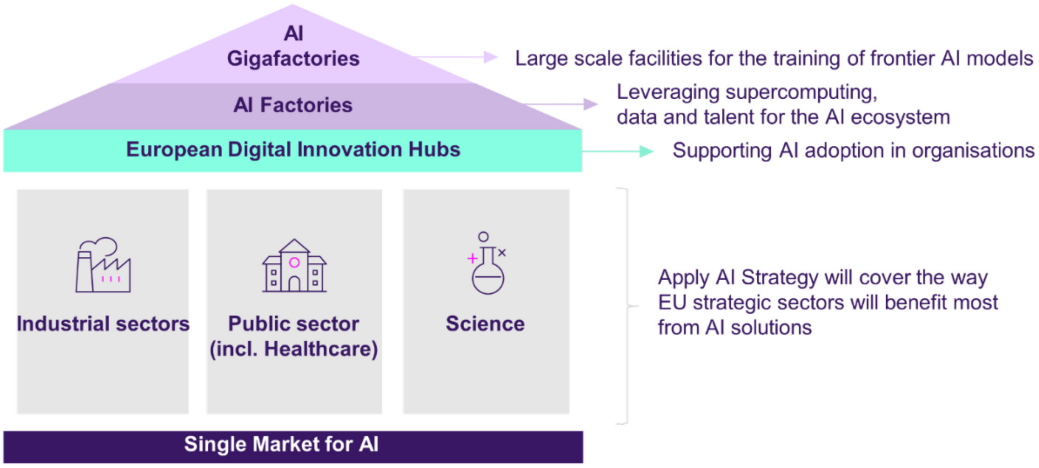
In line with the Draghi report, the Apply AI Strategy will target the **key European industrial sectors where the EU has a strong leadership**. These sectors hold the largest untapped potential regarding AI adoption and include, amongst others, **advanced manufacturing; aerospace; security and defence[23]; agri-food; energy and fusion research; environment and climate; mobility and automotive; pharmaceutical; biotechnology; advanced materials design; robotics; electronic communications; cultural and creative industries[24] and science.** Furthermore, the **public sector** will be a leading strategic driver of the Apply AI Strategy. The Strategy will ensure that AI is used to improve the quality and the efficiency of public services, in areas such as **healthcare, justice, education and public administration**. In this context, AI has the potential to be a powerful tool for preventing and combatting discrimination and ensuring equal opportunities for all, including by generating accessible solutions and removing barriers for persons with disabilities. At the same time, it is crucial to ensure that further integration and use of AI in these sectors does not undermine the EU's economic security interests. For that, the EU's economic security toolbox will play a central role.

[22] https://ec.europa.eu/eurostat/databrowser/view/isoc_eb_ai/default/table?lang=en

[23] In line with the White Paper for European Defence Readiness 2030, foundational technologies like AI, are key inputs for both long term economic growth, and military pre-eminence.

[24] For creative industries, an AI strategy for cultural and creative sectors and industries will be developed in parallel to the forthcoming Apply AI Strategy. It will focus on ensuring that AI enables and reinforces human creativity rather than replace humans, and that it contributes to safeguarding European cultural and linguistic diversity.

The Strategy will propose actions to address sector-specific challenges, including access to data, talent, skills development and upgrade, automated contracting and testing opportunities. The approach ultimately seeks to determine the most effective policy instruments to facilitate the adoption of AI solutions within and across sectors. This includes the strategic positioning of appropriate support instruments, such as AI Factories/Gigafactories, European Digital Innovation Hubs, Testing and Experimentation Facilities, the Data Union Strategy and the AI Skills Academy (see section 4). Additionally, the strategy will propose that the EU AI Office, as the EU centre of AI expertise, sets up an observatory to monitor developments and implementation.



To gather a wide range of views and contributions, identify stakeholder priorities and challenges, and assess the relevance of potential solutions, the European Commission invites stakeholders to share their views on the Apply AI Strategy, as part of the **public consultation** which accompanies this Communication.

The Commission is also initiating **structured dialogues with industry** representatives (including SMEs, startup and scaleup communities) as well as the public sector. Building on existing stakeholders consultation platforms, these dialogues aim to identify relevant examples of untapped potential regarding the adoption of AI technologies in specific sectors, the current integration in business and production processes, as well as the potential for their scale-up in the sector and the wider economy.

3.2 European Digital Innovation Hubs as the key drivers for advancing AI deployment

A key role to support effective AI integration will be carried out by the network of **European Digital Innovation Hubs present in all EU Member States** and ten other European countries, including candidate countries, covering 85% of European regions. European Digital Innovation Hubs aim to ensure a successful digital transformation of SMEs, mid-caps and public sector organisations. In their second phase, as of December 2025, European Digital Innovation Hubs will **become Experience Centres for AI**. Their focus on AI uptake will be strengthened to ensure that they can effectively support the adoption of sector-specific AI solutions, while continuing to provide flanking services such as funding advice, networking and training.

The Network of European Digital Innovation Hubs will work in close synergy with the AI Factories ecosystem. Among others, it will facilitate companies' access to the computing and data resources of the AI Factories as well as to other AI initiatives such as regulatory sandboxes and Testing and Experimentation Facilities.

The latter provide large-scale, real-world environments to test and refine AI, ensuring the AI model is validated, optimised, and prepared for deployment. Testing and Experimentation Facilities operate in particular in the areas of health, manufacturing, smart cities (including transport and mobility), agriculture and energy[25]. A new such facility will be launched in 2026.

For instance, a company willing to implement an AI-driven energy-consumption forecasting model within an existing manufacturing system might need specific staff training and upskilling. European Digital Innovation Hubs can provide such trainings, and they will also support the company by providing clear training paths depending on the needs of employees.

The following examples showcase how European Digital Innovation Hubs have been assisting SMEs already in applying AI solutions:

AI Algorithms and Sensor Integration for Robotic Vessels (Estonia)[26]

Mindchip OÜ, a micro-sized maritime technology startup in Estonia, faced challenges in developing an effective AI-based machine vision system for autonomous ships. Collaborating with the AI & Robotics Estonia EDIH, which provided assistance through the 'test before invest' initiative and helped in finding funding, they integrated a cutting-edge AI-based machine vision system that significantly enhanced their autonomous navigation capabilities. This system significantly reduced costs and environmental impact, while improving safety and operational efficiency.

ARACNE - Machine Vision for needles and sinkers control for zero defect manufacturing: From Proof of Concept to Spin-off company (Spain)[27]

CANMARTEX, a small enterprise in Spain, targeted inefficiencies in textile production due to fabric defects. By partnering with Eurecat through the DIH4CAT European Digital Innovation Hub, they developed the ARACNE solution, incorporating advanced AI and machine vision technologies. This predictive quality control system detects and addresses potential defects in knitting machinery in real time, significantly reducing waste and increasing productivity. The innovative approach led to the creation of a spin-off company and earned CANMARTEX several prestigious awards, including the "Best AI solution applied to industrial manufacturing" at the Factories of the Future event in 2023.

Supporting Gas Grün GmbH's success in AI, marketing and prototyping using 3D printing (Germany)[28]

Gas Grün GmbH, a small biogas startup in Germany, was struggling to optimise the energy yield of its biogas plants. With the help of a Digital Innovation Hub, which provided the opportunity to test

[25] https://digital-strategy.ec.europa.eu/en/policies/testing-and-experimentation-facilities

[26] https://european-digital-innovation-hubs.ec.europa.eu/knowledge-hub/success-stories/ai-algorithms-and-sensor-integration-robotic-vessels

[27] https://european-digital-innovation-hubs.ec.europa.eu/knowledge-hub/success-stories/aracne-machine-vision-needles-and-sinkers-control-zero-defect

[28] https://european-digital-innovation-hubs.ec.europa.eu/knowledge-hub/success-stories/supporting-gas-grun-gmbhs-success-ai-marketing-and-prototyping-using

technologies such as 3D printing before investing in them and connected Gas Grün with specialised partners, the company developed an AI-based control system that maximised energy production and minimised waste. This helped them grow their business and showcase their work at industry events.

ArtCentrica: online platform revolutionizing the learning of art and humanities (Italy)

ArtCentrica offers access to over 8,000 high-resolution artworks from global museums, and introduces a unique educational tool where human and artificial intelligence converge to create interactive multimedia narratives centered around works of art: **AI ArtCentrica Stories**. This innovative tool transforms art pieces into dynamic elements, serving both as the object of the narrative and a vehicle to illustrate diverse concepts. The R&D for this project is conducted thanks to the support of a Digital Innovation Hub.

3.3 AI "made in Europe" from research to the market

With the goal of deploying AI solutions, it is essential to ensure a continuous process that spans across the technology's development cycle, from research to the market. **Fostering R&I efforts is hence vital.** The Commission already initiated efforts in this direction with the **AI Innovation package** launched in January 2024, financially supporting research and innovation in generative AI under the **GenAI4EU initiative,** which supports applied research and sets the cornerstones for a strong European AI ecosystem.

The GenAI4EU initiative takes a sectorial approach and has thus far **allocated close to EUR 700 million in planned Horizon Europe and Digital Europe Programme** calls[29] for the development of advanced AI models and solutions in a wide range of sectors. Among others, projects will develop generative AI for the optimisation of production lines in manufacturing, to improve robot autonomy and human-robot collaboration in complex tasks, as well as to enhance our cyber-defence and medical imaging capabilities**.**

Furthermore, within the public sector, **up to four pilot projects will aim at accelerating the deployment of European generative AI solutions in public administrations.** These pilots will focus on enhancing decision-making, streamlining internal administrative processes, and improving citizen interactions by making public services more accessible. By leveraging public purchasing power, the call drives innovation procurement, fostering the development and deployment of novel solutions, accelerating adoption and improving public services. Building on the GenAI4EU initiative, the Commission will continue to support the European AI R&I and solution development in 2026 and 2027 as an integral part of the Apply AI Strategy. Emphasis will be put on the most promising use cases identified by the Strategy. In addition, the GovTech Incubator initiative will, over the period 2025-2029, support 21 GovTech actors from 16 countries to co-pilot and develop, as a first step, AI solutions for public procurement, evidence processing and accessibility assistants.

To complement and enhance the initiatives above, substantial investment in foundational research is crucial. This is essential **to sustain Europe's AI excellence, leveraging on world-**

[29] Amount for current and planned calls: for the period 2024-2025 under the Horizon Europe Programme and for the period 2024-2027 under the Digital Europe Programme.

class expertise in Member States, joining forces at European level to stimulate collaboration, retain and attract the best research talents, and accelerate the next generation of technology and scientific breakthroughs that support both industry and society. The **European AI Research Council**, announced in the Political Guidelines for 2024-2029, in the form of a **Resource for AI Science in Europe (RAISE)**, will pool resources that push the technological boundaries of AI and tap into its potential to facilitate scientific breakthroughs. It will support both "Science for AI", driving the development of next-generation AI technologies, and "AI in Science", fostering the use of AI for discovery and exploration across a range of scientific disciplines, unlocking cross-pollinations between AI and domain sciences. Based on the inputs received during the open public consultations on both Apply AI and AI in Science, the Commission will further develop the concept, including its governance, and launch a pilot phase of the Resource for AI Science in Europe (RAISE) of AI by 2026.

The upcoming Apply AI Strategy will therefore include science as a vertical sector and link to the **AI in Science Strategy** (to be adopted together with the Apply AI Strategy). This Strategy will aim to facilitate **responsible** and **swift adoption** of AI by scientists, supported by the **RAISE**. It will introduce an action plan to overcome identified barriers for scientists, empowering the scientific community, and encourage collaboration and scientific excellence. It will link to the computing power of Gigafactories and provide an open environment for scientific collaboration to take place.

Key Commission actions:

- Launch a public consultation and Call for Evidence to identify stakeholders' priorities and inform the Apply AI Strategy (9 April 2025);
- Launch a Call for Evidence and targeted consultation activities with the scientific community to inform the AI in Science Strategy (Q2 2025);
- Organise structured dialogues with industry and public sector representatives to identify sector-specific AI-related deliverables and KPIs and inform the Apply AI Strategy (Q2-Q3 2025);
- Adapt the mission of European Digital Innovation Hubs to ensure they fully support the adoption of relevant AI solutions in strategic sectors (Q2-Q3 2025);
- Adopt the Apply AI Strategy jointly with the AI in Science Strategy (Q3 2025);
- Adopt R&I work programme Horizon Europe 2026-2027, further boosting development and deployment of AI/generative AI in strategic sectors (Q4 2025);
- As part of the GenAI4EU initiative, launch calls from Horizon Europe and Digital Europe Programme – in health, cybersecurity, energy, pharma/drug, electronic communications, aerospace, robotics, manufacturing, public sector, science etc. – reaching close to EUR 700 M investment (Q1 2026);
- Launch a pilot phase of the RAISE, the European AI Research Council (2026).

4. Strengthen AI skills and talent

As highlighted in the **Union of Skills**[30], Europe's competitive strength lies in its people. A skilled population is essential to respond to today's rapid technological transformations and ensure the EU's future prosperity and competitiveness. AI is increasingly affecting the job profiles and skillsets of workers and citizens. The EU therefore needs to address any talent shortages and cross-sectoral skill mismatches, in accordance with the goal of the Apply AI Strategy. In this context and in line with the work strands[31] of the Union of Skills[32], the AI Continent will focus on measures to enlarge the EU's pool of AI specialists and to adequately upskill and reskill EU workers and citizens in the use of AI.

Developing a broad-based AI-savvy workforce starts with high-quality and inclusive initial education and training. The **2030 Roadmap on the future of digital education and skills** and its **AI in Education** initiative[33], will support the development of AI literacy for primary and secondary education and foster the strategic and ethical uptake of AI in education, including through support and capacity building for teachers and education institutions. Building on this, and contributing to the four work strands[34] of the Union of Skills and in particular the STEM Education Strategic Plan[35], the AI Continent will focus on measures to enlarge the EU's pool of AI specialists and to adequately upskill and reskill EU workers and citizens in the use of AI.

4.1 Enlarging the EU's pool of AI specialists

The EU needs to enlarge its AI talent pool in order to keep up with the increasing demand for AI-related expertise, especially in relation to AI application development and industry-specific skills[36]. The Commission will do so by focusing on:

- educating and training the next generation of AI experts based in the EU;
- incentivising European AI talent to stay and to return to the EU; and
- attracting and retaining skilled AI talent from non-EU countries, including researchers.

To complement existing **educational programmes**[37] and prepare the next generation of AI experts in Europe, the Commission will support the increase in the overall provision of **EU bachelors and masters degrees and PhD programmes in key technologies, including AI[38],**

[30] Union of Skills - European Commission
[31] (1) building skills for life through a solid education foundation; (2) upskill and reskill to ensure future-oriented skills; (3) circulate and allocate skills to unlock the full potential of the single market; (4) attract and retain skills from third countries to address skills shortages and develop top talent in Europe.
[32] and associated policy strategies, such as the STEM Education Strategic Plan (COM/2025/89 final).
[33] As announced in the Union on Skills.
[34] (1) Building skills for life through a solid education foundation; (2) upskill and reskill to ensure future-oriented skills; (3) circulate and allocate skills to unlock the full potential of the single market; (4) attract and retain skills from third countries to address skills shortages and develop top talent in Europe.
[35] COM/2025/89 final
[36] LeADS, D1.3 Final ADS demand and forecast report, 2023.
[37] Including initiatives such as the Erasmus+ European Universities alliances, MSCA Dcotoral Networks and those of the European Institute of Innovation and Technology (EIT) and its Knowledge and Innovation Communities (KICs).
[38] Please see actions in the Digital Europe Work Programme 2025-2027: Work Programme 2025-2027 of the Digital Europe Programme (DIGITAL) | Shaping Europe's digital future

as well as organise virtual study fairs and scholarship schemes to promote such programmes. A pivotal action in this context will be the launch of the **AI Skills Academy**[39], a one-stop shop providing education and training on skills related to the development and deployment of AI, and in particular generative AI. Through the Academy, the Commission will also pilot an AI apprenticeship programme to prepare a pipeline of AI specialists trained on real-world projects and ready to (re-)enter the EU labour market. To this end, **returnship schemes**[40] for female professionals are planned. Moreover, to create further virtuous circles between academia and industry, the Commission will develop **European Advanced Digital Skills Competitions,** which will involve young people in the co-creation of AI-driven solutions to key societal and industrial challenges and foster creative and innovative thinking.

Together with **AI Factories**, the AI Skills Academy[41] will be also important in leveraging excellence in **AI education and research**[42]. The Academy will support **AI fellowship schemes,** allowing highly skilled EU and non-EU PhD candidates as well as young professionals living outside the EU to work in EU-based entities. AI fellowships will ensure that top-level experts in generative AI can educate and train the AI Skills Academy's students, while also advancing their own research in the field. The AI Skills Academy will therefore **develop a pilot generative AI-focused degree**[43]. **AI Factories**, on the other hand, will be pivotal in creating a highly dynamic environment for top-level researchers and will foster innovation and collaboration in the development and deployment of AI solutions for strategic sectors.

To further support the arrival of top PhD candidates and researchers, the Commission will focus on actions to attract top students and **researchers** (including in the AI sector) **from non-EU countries**. To this end, the Commission will set out measures in the forthcoming Visa Strategy to improve the implementation of the Students and Researchers Directive and the **BlueCard Directive**, as well as by piloting the **Marie Skłodowska-Curie action 'MSCA Choose Europe' scheme**. As with other MSCA initiatives, this pilot will be open to all research fields, allowing research institutions such as universities and research infrastructures to attract, develop and retain excellent international AI researchers. The pilot co-funds recruitment programmes, enabling them to link their MSCA grants to long-term prospects within the insitution including, for example, competitions for permanent positions. It aims to tackle precarity in research careers, making the European R&I ecosystem more attractive and strengthening European research capacity in the long term.

[39] EU Funding & Tenders Portal | EU Funding & Tenders Portal

[40] Returnship programmes support the re-entering to the workforce after an extended career break, such as for maternity leave. These schemes complement further EU initiatives to attract more women and girls to education and training on AI, including the STEM Education Strategic Plan.

[41] The AI Skills Academy will look into cooperating with other relevant initiatives, e.g. the European Artificial Intelligence Skills Alliance.

[42] Ensuring complementarity and synergies with other relevant initiatives, such as the European Artificial Intelligence Skills Alliance (ARISA).

[43] This will well complement efforts of the Erasmus+ programme to support innovative approaches in the use of generative AI tools in education (EdTech) and will take into consideration relevant actions of the Union of Skills, such as the European degree/label.

Finally, building upon the existing EU legal framework, the Commission will take actions to support Member States and employers to **attract and retain more highly skilled nationals from non-EU countries, including AI experts.** A key tool for this will be the future **EU Talent Pool**, which should be adopted as soon as possible by the co-legislators. By 2026, the Commission will furthermore launch the first **Multipurpose Legal Gateway Offices** in key partner countries to boost international labour mobility and skills development between the EU, Member States and partner countries including on ICT. The Commission will also continue to strengthen **Talent Partnerships** to maximise labour mobility and skills development in sectors relevant for AI, such as ICT, a priority sector of four of the five current Talent Partnerships.

4.2 Upskilling and reskilling the EU workforce and population

To support effective AI diffusion across the EU and ensure a human-centric digital transition at the workplace and in the broader society, the Commission, in cooperation with Member States, needs to support the upskilling and reskilling of professionals in all fields and the wider population in the use of AI[44]. In this context, social dialogue is key to anticipate and address skills needs in the labour market and facilitate the adoption of digital technologies in Europe's workplace in a fair and inclusive way.

With the aim of ensuring the continuous learning of workers (in SMEs, mid-caps, startups, as well as public-sector organisations), the Commission will rely on the network of the **European Digital Innovation Hubs**, which will increase their skills and training services, offering hands-on courses on AI for different technical and non-technical profiles and for specific sectors. The Commission will also **raise awareness on AI literacy[45]** and **foster dialogue on AI for all**[46], notably by promoting dissemination activities and by maintaining a repository of AI literacy initiatives implemented by private and public-sector organisations[47].

Key Commission actions:

- Support the increase in provision of EU bachelors and masters degrees as well as PhDs focusing on key technologies, including AI (Q2 2025);
- Launch the AI Skills Academy (Q2 2025), including:
    - AI fellowship schemes to attract EU and non-EU PhD candidates, researchers and young professionals living abroad;
    - (together with AI Factories) a pilot certified generative AI-focused degree to facilitate top-level teaching and research of AI fellows;

[44] In the coming years, 61% of adult workers will need new skills to deal with the impact of AI on their work, but only 15% have already so far received training in using AI tools (Cedefop, AI skills survey, 2025).
[45] This will be done in alignment with parallel activities, such as the 2030 Roadmap on the future of digital education and skills, its AI in education initiative and the update of the Digital Competence Framework for citizens (DigComp 3.0), all announced in the Union of Skills.
[46] In line with the AI Act, the European Declaration of Digital Rights and Principles and in particular the concept of leaving no one behind.
[47] The repository was launched in the context of the work to support the implementation of article 4 of the AI Act and contains so far practices collected among AI Pact organisation: Living repository to foster learning and exchange on AI literacy | Shaping Europe's digital future.

    - a pilot AI apprenticeship programme with industry;
    - scholarship and returnship schemes for female professionals;
- Organise Advanced Digital Skills Competitions in key technologies, including AI (Q2 2025);
- Contribute to attracting and retaining skilled AI talent from non-EU countries, including via the 'MSCA Choose Europe' scheme for researchers (Q4 2025-2026);
- Support continuous learning by workers in SMEs, mid-caps, startups and public-sector organisations with the European Digital Innovation Hubs (Q2 2025);
- Promote AI literacy via dissemination activities and a repository of AI literacy initiatives (Q2 2025);
- Launch a pilot, leveraging existing Talent Partnerships and the Multipurpose Legal Gateway Offices to promote the mobility of highly skilled non-EU workers in the AI sector (Q4/2025).

5. Fostering regulatory compliance and simplification

A workable and robust regulatory framework is crucial to creating a positive and competitive environment for EU AI companies to strive and for the EU's AI ecosystem to innovate. The EU has adopted the **AI Act to create the conditions for a well-functioning single market** for AI, ensuring free circulation across borders and harmonised conditions for access to the EU's market. It also ensures that AI developed and used in Europe is safe, respects fundamental rights and is of the highest quality – a selling point for European providers – and drives the uptake of AI. The AI Act follows a targeted and risk-based approach, imposing requirements only on high-risk AI applications. It entered into force on 1 August 2024 and is being phased in gradually with full application by 2 August 2027.

The AI Act's success will primarily depend on how workable its rules are in practice. The current preparatory phase is crucial to achieving a **successful implementation.** The Member States and the Commission, including its AI Office, must step up their efforts to facilitate a smooth and predictable application of the AI Act. As a first step, the Commission is launching the **AI Act Service Desk**, which will be a central information hub on the AI Act, allowing stakeholders to ask for help and receive tailor-made answers. This initiative will provide straightforward and free access to information and guidance on the applicable regulatory framework, which will particularly serve the needs of smaller AI solution providers and deployers. The answers will consist of practical advice that will help to understand and comply with the AI Act. The AI Act Service Desk will be provided by a dedicated team in the AI Office. It will offer an interactive platform where businesses and other stakeholders, including public authorities, will be able to ask questions, get answers and have access to technical tools to help them apply the AI Act, e.g. decision trees and other self-assessment tools.

The AI Act Service Desk will complete the EU's ecosystem of support for stakeholders which also includes initial information through the European Digital Innovation Hubs, and the

possibility of cooperating during the development of a high-risk AI system in a national AI regulatory sandbox. The AI regulatory sandboxes are currently being set up in the Member States and will be operational by August 2026. Stakeholders can also already directly engage with the AI Office by participating in the **AI Pact**[48], which encourages and supports them – by sharing experiences and knowledge – in planning the implementation of AI Act measures. Furthermore, the Commission will continue to provide guidance on the AI Act's application in support of compliance. This includes preparing implementing delegated acts and guidelines, facilitating, for example, the consistent application of the AI Act with sectoral product legislation, e.g. the Medical Device Regulation[49], and its interplay with that of other related legislation[50]. In addition, the Commission facilitates compliance by steering co-regulatory instruments like the development of standards in support of the AI Act and the Code of Practice on general-purpose AI[51]. In view of the important role played by standards to reduce compliance costs and advance effective, practical and widely adopted solutions, the Commission will step up action together with responsible organisations to accelerate their development. The Commission will continue to work with the **AI Board** [52] of Member States, which assists in providing guidance on the application of the AI Act, including within the context of **sectoral legislation**.

As a next step, the Commission will build on the lessons learned during the current implementation phase and **identify further measures that are needed to facilitate a smooth, streamlined and simple application of the AI Act**, particularly for smaller companies. The Apply AI Strategy public consultation that is launched together with this Communication therefore also includes specific questions on the challenges in the AI Act implementation process, to identify where regulatory uncertainty is hindering the development and adoption of AI and ascertain how the Commission and Member States can support stakeholders better in the implementation of the AI Act. The Commission will take the results from the stakeholder consultation into account and provide templates, guidance, webinars and training courses to streamline procedures and facilitate compliance. The results of this public consultation will also feed the broader assessment during the first year of the mandate, of whether the expanded digital acquis, including the AI Act, adequately reflects the needs and constraints of businesses such as SMEs and small midcaps, going beyond necessary guidance and standards that facilitate compliance[53].

The AI Act is a horizontal legislation which creates a single market for safe and trustworthy AI across sectors and domains, including law enforcement, health, machinery, radio equipment, motor vehicles, financial services and employment. The AI Act will deploy its full effect as it

[48] https://digital-strategy.ec.europa.eu/en/policies/ai-pact
[49] Regulation (EU) 2017/745 of the European Parliament and of the Council of 5 April 2017 on medical devices, amending Directive 2001/83/EC, Regulation (EC) No 178/2002 and Regulation (EC) No 1223/2009 and repealing Council Directives 90/385/EEC and 93/42/EEC (OJ L 117, 5.5.2017, p. 1–175).
[50] E.g. Regulation (EU) 2016/679 of the European Parliament and of the Council of 27 April 2016 on the protection of natural persons with regard to the processing of personal data and on the free movement of such data, and repealing Directive 95/46/EC (General Data Protection Regulation) (OJ L 119, 4.5.2016, p. 1–88).
[51] https://digital-strategy.ec.europa.eu/en/policies/ai-code-practice
[52] https://digital-strategy.ec.europa.eu/en/policies/ai-board
[53] COM(2025)47 – Simpler and faster Europe: Communication on implementation and simplification

progressively enters into application over the next 2 years[54]. As clarity is key to innovation, the Commission will ensure that implementing measures will be in place in time for the entry into application of the respective provisions of the AI Act. For it to create a truly single market in which AI can thrive under common, predictable regulatory conditions, it is crucial that both the Member States and the EU focus on its effective implementation. In principle, we should first gain experience in applying these new horizontal rules and evaluate their effect before any possible new legislation on AI can be considered.

Key Commission actions:

- Launch an AI Act Service Desk in the EU AI Office (July 2025);
- Launch, as part of Apply AI Strategy's public consultation, a process to identify stakeholders' regulatory challenges and inform possible further measures to facilitate compliance and possible simplification of the AI Act (April 2025).

6. Conclusion

The AI Continent Action Plan aims to boost and accelerate EU AI policies by **investing in large-scale AI computing infrastructures, improving access to data, accelerating AI adoption in strategic EU sectors, strengthening AI skills and talent, and fostering regulatory compliance and simplification.** To achieve this goal, EU institutions, governments, companies, researchers, and developers must work together, committing to a joint endeavour that takes cooperation to a new level. In particular, the EU AI Office will work in close collaboration with the Member States through the AI Board to ensure a consistent policy approach, taking into account the dynamic technological developments.

International engagement is an integral part of the strategy, which aims to strengthen the EU's position and influence in AI. The EU seeks – through proactive bilateral and multilateral engagement with partner countries – to lead global efforts on AI by supporting innovation, ensuring trust through guardrails, and developing the global governance on AI. It is crucial for the EU to join efforts with like-minded partners, candidate and potential candidate countries, to promote a safe, trustworthy and human-centric AI development in multilateral fora. The EU will further explore the potential of its digital partnerships and international digital cooperation to promote an approach to AI that enhances human well-being and societal progress. The upcoming Communication on International **Strategy for Digital Sovereignty, Security and Democracy** (Q2 2025) will outline the EU international approach further.

[54] The AI Act has entered into force on 1 August 2024. It progressively enters into application until 2 August 2027. The general provisions and prohibitions started to apply on 2 February 2026, the rules related to governance and general-purpose AI models will apply on 2 August 2025, the general application, which covers the rules for high-risk AI systems, transparency and measures in support of innovation, takes effect on 2 August 2026 and the rules for high-risk AI systems covered by existing product legislation will apply on 2 August 2027.

The AI Continent Action Plan brings together a set of initiatives aimed at accelerating policy action that is needed to positionEurope at the forefront of innovation in tech sectors. By investing in key areas like AI, quantum computing, and chip design, Europe can enhance its productivity and competitiveness, ensure its tech sovereignty, and provide high-quality public services to its citizens. **This is a unique opportunity for Europe to act swiftly to shape the future of AI and create a better tomorrow for all Europeans, ultimately becoming a leading AI Continent.**

Department for
Science, Innovation
& Technology

AI OPPORTUNITIES ACTION PLAN

Matt Clifford CBE

CP 1241

AI Opportunities Action Plan

Presented to Parliament
by the Secretary of State for Science, Innovation and Technology
by Command of His Majesty

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Foreword by the Secretary of State for Science, Innovation and Technology

Today, Britain is the third largest AI market in the world. We are home to an extraordinary array of global talent and pioneering AI firms like Google DeepMind, ARM, and Wayve. But despite our record of scientific discovery – from Alan Turing on algorithms and general-purpose computing to Tim Berners-Lee's World Wide Web – the UK risks falling behind the advances in Artificial Intelligence made in the USA and China.

In this next phase of AI development, we want Britain to step up; to shape the AI revolution rather than wait to see how it shapes us. Because we believe Britain has a particular responsibility to provide global leadership in fairly and effectively seizing the opportunities of AI, as we have done on AI safety. That is why one of my first acts as Secretary of State was to commission Matt Clifford to devise an AI Opportunities Action Plan for the British government.

This plan shows how we can shape the application of AI within a modern social market economy. We will do so by working closely with the world's leading AI companies, Britain's world leading academics and entrepreneurs, and those talented individuals keen to start-up and scale-up their businesses here. Our ambition is to shape the AI revolution on principles of shared economic prosperity, improved public services and increased personal opportunities so that:

- AI drives the economic growth on which the prosperity of our people and the performance of our public services depend;
- AI directly benefits working people by improving health care and education and how citizens interact with their government; and
- the increasing of prevalence of AI in people's working lives opens up new opportunities rather than just threatens traditional patterns of work.

Across government, we have already taken decisive action to support the AI sector and take down the barriers to growth. Our transformative planning reforms will make it easier to build the data centres that are the engines of the AI age. Skills England will help ensure that British people are prepared for jobs in the AI-powered industries of tomorrow. The Digital Centre of Government I have created in my Department will drive forward the technological transformation of the state, ensuring that public services offer citizens the same seamless experience they can find in the private sector.

The recommendations in this plan are unapologetic in their ambition; Government must be the same. Delivering our AI vision for Britain requires lots of hard work, some tough choices, and a commitment to real partnership between public and private sectors. There's no time to waste. Today, we have set out how we will rise to the challenge.

The Rt Hon Peter Kyle MP, **Secretary of State for Science, Innovation and Technology**

The opportunity

AI capabilities are developing at an extraordinary pace. If this continues, artificial intelligence (AI) could be the government's single biggest lever to deliver its five missions, especially the goal of kickstarting broad-based economic growth. It is hard to imagine how we will meet the ambition for highest sustained growth in the G7 – and the countless quality-of-life benefits that flow from that – without embracing the opportunities of AI.

Any national AI plan needs to be founded on a realistic assessment of the country's strengths and weaknesses. Fortunately, the UK has solid – and in places genuinely world-leading – foundations on which to build:

- Strong fundamental AI research, and high-quality research and engineering talent coming out of our universities, which are some of the best in the world for AI.
- A vibrant startup and scaleup scene, with an increasingly skilled and experienced entrepreneurial workforce and growing quantities of sophisticated capital available for ambitious companies.
- Leading frontier AI companies in London, including Google DeepMind's headquarters, significant OpenAI, Anthropic, Microsoft and Meta AI offices, as well as emerging local winners – such as Wayve, the autonomous vehicle company.
- Global leadership on AI safety and governance via the AI Safety Institute, and a proportionate, flexible regulatory approach.

These are all crucial prerequisites to making the most of AI opportunities; without them, the ambition in this plan would not be credible. However, we cannot be complacent: to remain a world leader we need to lead in both building and using AI. Our goal should be a thriving domestic AI ecosystem, with serious players at multiple layers of the "AI stack" and widespread use of AI products and services across the economy.

The UK's starting point makes this aspiration plausible, but achieving it will require bold and visionary action. The government must:

- **Invest in the foundations of AI:** We need world-class computing and data infrastructure, access to talent and regulation (Section 1).
- **Push hard on cross-economy AI adoption:** The public sector should rapidly pilot and scale AI products and services and encourage the private sector to do the same. This will drive better experiences and outcomes for citizens and boost productivity (Section 2).
- **Position the UK to be an AI maker, not an AI taker:** As the technology becomes more powerful, we should be the best state partner to those building frontier AI. The UK should aim to have true national champions at critical layers of the AI stack so that the UK benefits economically from AI advancement and has influence on future AI's values, safety and governance (Section 3).

This Action Plan is made up of three sections – one for each of these goals. There are detailed recommendations in each. In making them, I have tried to draw consistently on a small number of core principles:

- Be on the side of innovators: In every element of the Action Plan, the government should ask itself: does this benefit people and organisations trying to do new and ambitious things in the UK? If not, we will fail to meet our potential.
- Invest in becoming a great customer: Government purchasing power can be a huge lever for improving public services, shaping new markets in AI, and boosting the domestic ecosystem. But doing this well is not easy – it will require real leadership and radical change, especially in procurement.
- Crowd in capital and talent: The UK is a medium-sized country with a tight fiscal situation. We need the best talent around the world to want to start and scale companies here. If we do that, the best investors globally will want to deploy capital here – both into our startups and our AI infrastructure.
- Build on UK strengths and catalytic emerging areas: The UK has strong companies in the AI application and integration layers that are well positioned to grow. We also have emerging areas of research and engineering strength – particularly in AI for science and robotics – that could have a transformational impact across the economy, advance AI and unlock further innovation.

No one can say with certainty what AI will look like a decade from now. My judgement is that experts, on balance, expect rapid progress to continue. The risks from underinvesting and underpreparing, though, seem much greater than the risks from the opposite. Even if AI progress slows, we will see large benefits from deploying today's frontier capabilities and investing in our infrastructure and talent base.

If, however, capabilities continue to advance, having a stake in – and being the natural home of – advanced AI could be the difference between shaping the future of science, technology and work, or instead seeing these decisions made entirely outside our borders. This is a crucial asymmetric bet – and one the UK can and must make.

1. Lay the foundations to enable AI

1.1 Building sufficient, secure and sustainable AI infrastructure

The foundation of the last decade of AI progress has been an extraordinary and sustained investment in computational power (often called “compute”). AI requires data centres that house the large and complex computers that are used to train AI models and to run ‘inference’ (where AI is used to complete tasks and answer queries).

Of course, the UK does not need to own or operate all the compute it will need. Indeed, only a small fraction of our needs will be through such compute (though this fraction is important). A decade from now the economy will almost certainly be more computationally intensive: new high-skill jobs and compute-adjacent industries will have been created and access to compute will be a key pillar of economic security. Countries that enable the build out of AI infrastructure will reap benefits through increased economic growth, the reinvigoration of former industrial sites and ownership of critical strategic assets.

The availability of powerful computing resources sends an important signal to academic, technical and entrepreneurial talent and is a critical ingredient of innovation. We should expect enormous improvements in computation over the next decade, both in research and deployment. Having this “learning by doing” happen in the UK is crucial if we want the industries of the future to be built here.

The government must therefore secure access to a sufficient supply of compute. There is no precise mechanism to allocate the proportions, but it should consist of:

- Sovereign AI compute, owned and/or allocated by the public sector, will enable the UK to quickly and independently allocate compute to national priorities. For example, we need the ability to: drive mission-focused AI research; empower academics and startups to train AI models; and ensure access to AI compute for critical services in times of market disruption. Sovereign AI compute will almost certainly be the smallest component of the UK’s overall compute portfolio. NB: this review has not considered the requirements of non-AI high-performance computing, for which there is already a well-established case, including the need to deliver an exascale capability. Government should seek to resolve this as soon as possible, noting that these systems will play a crucial role in supporting AI science and research.
- Domestic compute, that is based within the UK but privately owned and operated and that will position the UK as a leading AI economy and ensure the UK’s economic security. Due to the criticality of compute for AI, domestic compute will create spillover benefits in the form of jobs, investment and new, AI based, service businesses. In this part of the portfolio, crowding in private and international capital is critical.
- International compute, accessed via reciprocal agreements and partnerships with like-minded partners, to give the UK access to complementary capabilities and facilitate joint

AI research in areas of shared interest. We should proactively develop these partnerships, while also taking an active role in the EuroHPC Joint Undertaking.

To achieve this, government should:

1. **Set out, within six months, a long-term plan for the UK's AI infrastructure needs, backed by a 10-year investment commitment.** Building a world class AI compute ecosystem requires a clear objective and long-term capability and expertise. Government should consider what the most appropriate delivery body is for large scale research infrastructure that is delivered in partnership with universities and industry. We have pockets of deep academic expertise in this space, such as at Edinburgh, Bristol and Cambridge universities, and we should draw on this. A credible plan will consider emerging compute technologies, include investment in software, skills, and wider high-performance computing capabilities to complement our AI compute and enable AI for science.

2. **Expand the capacity of the AI Research Resource (AIRR) by at least 20x by 2030 – starting within 6 months.** The AIRR should evolve into a set of mission-oriented clusters that bring together compute, data, and talent to pursue frontier AI research and other national priorities. Expansion by at least 20x by 2030 would ensure the AIRR enables the training of multiple AI models a year and provides an up to date research capability.[1] Given trends in hardware performance, this would not mean a 20x increase in investment if the government procures smartly.[2] Such expansion is needed to keep up with the expected increases in computing power that we should assume will be needed for AI workloads. This is unlikely to slow down; we need to "run to stand still". As part of this, government should ensure that the public compute ecosystem hosts a range of hardware providers to avoid vendor lock-in and ensure value for money.

3. **Strategically allocate sovereign compute by appointing mission-focused "AIRR programme directors" with significant autonomy.** These could be modelled after the Defense Advanced Research Projects Agency (DARPA) or the Advanced Research and Invention Agency (ARIA) to quickly and independently provide large amounts of compute to high-potential projects of national importance, operating in a way that is strategic and mission driven. Allocation is an essential part of any compute strategy: spreading large amounts of compute thinly will have little impact. We will have to make choices about when to subsidise compute and when to provide it at cost, recognising that this could form part of an attractive offer to entrepreneurs and researchers deciding where to base themselves.

4. **Establish 'AI Growth Zones' (AIGZs) to facilitate the accelerated build out of AI data centres.** As AI infrastructure providers seek access to land and power, governments who move quickly and mirror the pace of growth and innovation in the AI data centre market will be best placed to secure investment. AIGZs could introduce a

[1] Assumes compute requirements continue to grow at 4x per year.
[2] Assuming trends in hardware performance continue, by 2030 each pound spent on GPUs will buy 8x more FLOP and require 4x less power, therefore expanding AIRR by 20x would require much less than a 20x increase in investment.

streamlined planning approvals process and accelerate the provisioning of clean power. This is a major opportunity to crowd in private capital to boost our domestic compute portfolio and to build strategic partnerships with AI developers to work on shared AI and AI-enabled priorities. Government can also use AIGZs to drive local rejuvenation, channelling investment into areas with existing energy capacity such as post-industrial towns and coastal Scotland. Government should quickly nominate at least one AIGZ and work with local regions to secure buy-in for further AIGZs that contribute to local needs. Existing government sites could be prioritised as pilots, including Culham Science Centre, the UK Atomic Energy Authority's headquarters, which has access to significant power and land. Alongside this, government should consider other measures to accelerate buildout of data centres, such as offering central guidance, creating a bespoke planning use-class and considering the case for AI data centres to be eligible for relevant relief schemes that incentivise private sector investment.

5. **Mitigate the sustainability and security risks of AI infrastructure, while positioning the UK to take advantage of opportunities to provide solutions.** This should focus both on secure private-sector compute as well as collaboration with the UK Intelligence Community. Government should also explore ways to support novel approaches to compute hardware and, where appropriate, create partitions in national supercomputers to support new and innovative hardware. In doing so, government should look to support and partner with UK companies who can demonstrate performance, sustainability or security advancements.

6. **Agree international compute partnerships with like-minded countries to increase the types of compute capability available to researchers and catalyse research collaborations.** This should focus on building arrangements with key allies, as well as expanding collaboration with existing partners like the EuroHPC Joint Undertaking.

1.2 Unlocking data assets in the public and private sector

To fuel both frontier AI progress and high-quality AI applications, developers need access to high-quality data - the lifeblood of modern AI. Data that isn't in the training sets of current models and encodes new insights about the world is particularly valuable. Public data sets, including scientific data sets, may be extremely important in this context.

We should seek to responsibly unlock both public and private data sets to enable innovation by UK startups and researchers and to attract international talent and capital. As part of this, government needs to develop a more sophisticated understanding of the value of the data it holds, how this value can be responsibly realised, and how to ensure the preservation of public trust across all its work to unlock its data assets.

The creation of the National Data Library (NDL) presents an enormous opportunity. As it develops the NDL, the government should:

7. **Rapidly identify at least five high-impact public data sets it will seek to make available to AI researchers and innovators.** Prioritisation should consider the

potential economic and social value of the data, as well as public trust, national security, privacy, ethics, and data protection considerations. We should explore use of synthetic data generation techniques to construct privacy-preserving versions of highly sensitive data sets. Government data sets are a public asset, and careful consideration should be given to their valuation.

8. **Strategically shape what data is collected, rather than just making data available that already exists.** Government should look to collect data in strategically significant areas, building on existing UK strengths. For example, the NDL could build on the achievements of the UK Biobank to enhance research in areas such as disease recognition and the prediction of health outcomes. The NDL should run open calls to receive proposals from researchers and industry to propose new data sets.

9. **Develop and publish guidelines and best practices for releasing open government data sets that can be used for AI, including on the development of effective data structures and data dissemination methods.**

10. **Couple compute allocation with access to proprietary data sets** as part of an attractive offer to researchers and start-ups choosing to establish themselves in the UK and to unlock innovation.

11. **Build public sector data collection infrastructure and finance the creation of new high-value data sets that meet public sector, academia and startup needs.** Government should identify how public data will be collected and its quality enhanced, including the use of AI-driven data cleansing tools to curate data sets stored across government, making them suitable for AI developers and researchers.

12. **Actively incentivise and reward researchers and industry to curate and unlock private data sets.** In particular, the NDL should engage with UKRI to identify how the creation of valuable high-quality data sets that support the research community could be better acknowledged via the Research Excellence Framework. Government should also explore how to shape the market in data set curation, including contributions from the private sector.

13. **Establish a copyright-cleared British media asset training data set,** which can be licensed internationally at scale. This could be done through partnering with bodies that hold valuable cultural data like the National Archives, Natural History Museum, British Library and the BBC to develop a commercial proposition for sharing their data to advance AI.

1.3 Training, retaining, and attracting the next generation of AI scientists and founders

If we want the UK to have both world-class AI research and a world-leading AI application ecosystem, we need to be the natural home for elite talent. In the next five years, the UK must be prepared to train tens of thousands of additional AI professionals across the technology

stack to meet expected demand and proactively increase its share of the world's top 1,000 AI researchers.

In the long-term, government needs to create a deeper pool of AI skills and talent that will build, diffuse and use AI products across the economy.[3] Setting a short-term target to train tens of thousands of AI professionals by 2030 will help bridge the estimated gap between supply and demand.[4] This would put the UK in step with countries like France, whose National AI Commission calculates that the number of French AI graduates would need to triple over the next decade to match estimated demand.[5]

As a priority first step, government should:

14. **Accurately assess the size of the skills gap.** Current estimates are imprecise and outdated; the last government-funded AI labour market survey was in 2020 and the Unit for Future Skills' jobs and skills dashboard, while a step in the right direction, still uses supply data from 2019.[6] The success of the following recommendations depends on accurately understanding the skills gap, and so government must make efforts to come to a concrete and up-to-date number.

Once the size of the skills gap is confirmed, to reach this target over the next five years government should:

15. **Support Higher Education Institutions to increase the numbers of AI graduates and teach industry-relevant skills.** In 2022, 46,000 students graduated from an AI-relevant higher education programme in the UK. While this is the highest in Europe, with Germany (32,000) second, the UK is behind Finland and others on a per capita basis and there remains unmet demand for skilled workers.[7] Supporting universities to develop new courses co-designed with industry – such as the successful co-operative education model of Canada's University of Waterloo, CDTM at the Technical University of Munich or France's CIFRE PhD model – and increasing their teaching and recruitment capacity would help train the tens of thousands of AI professionals needed by 2030.

16. **Increase the diversity of the talent pool.** Only 22% of people working in AI and data science are women.[8] Achieving parity would mean thousands of additional workers. The AI conversion courses have helped to diversify the AI pipeline, but only at the top end. Government should build on this investment and promote diversity throughout the education pipeline. Interventions must be tailored – there is no one-size-fits-all

[3] Jeffrey Ding, 'Technology and the Rise of Great Powers: How Diffusion Shapes Economic Competition', 2024
[4] Based on internal DSIT estimates.
[5] French Government, '25 Recommendations for AI in France', 2024 (accessed 15 October 2024)
[6] Ipsos Mori 'Understanding the UK AI labour market' (accessed 15 October 2024), 2020; Unit for Future Skills, 'Jobs and skills dashboard', 2023 (accessed 15 October 2024)
[7] Stanford AI Index, 'AI Index Annual Report', 2024 (accessed 15 October 2024)
[8] The Alan Turing Institute, 'Report: Where are the women? Mapping the Gender Job Gap in AI', 2021 (accessed 15 October 2024)

approach. Hackathons and competitions in schools have proven effective at getting overlooked groups into cyber and so should be considered for AI.[9]

17. **Expand education pathways into AI.** Higher education is the most common pathway into AI careers and will likely remain so at least until 2030.[10] To meet the demands of the labour market and the changing skills needs of the future, however, government should encourage and promote alternative domestic routes into the AI profession – including through further education and apprenticeships, as well as employer and self-led upskilling.

18. **Launch a flagship undergraduate and master's AI scholarship programme on the scale of Rhodes, Marshall or Fulbright for students to study in the UK.** Open to a diverse initial cohort of 100 scholars from the UK and abroad, the programme would combine financial support, cohort building, industry co-investment, and placements in government or private sector AI organisations. Potential scholars must show exceptional promise, but recognising the broad range of talents needed for success in AI, this could be in a variety of fields, such as strong performance in a leading STEM competition (e.g. the International Mathematical or Informatics Olympiads).

19. **Ensure its lifelong skills programme is ready for AI.** AI will continue to change the labour market, though exactly how and when is unclear. What is certain is while some jobs will be replaced by AI, many will be augmented – and an unknown number will be created. Government should ensure there are sufficient opportunities for workers to reskill, both into AI and AI-enabled jobs and more widely. The UK should also learn and adopt best practice from other countries who are preparing their skills systems for the long-term impacts of AI. Singapore, for example, developed a national AI skills online platform with multiple training offers. South Korea is integrating AI, data and digital literacy throughout its education pipelines through an AI curriculum and a variety of training and education programmes. Skills England and the independent Curriculum and Assessment Review present an opportunity to consider the merit of such approaches in our system.

Alongside these longer-term investments, the government's priority should be to rapidly increase the number of top AI research talents who work in the UK. These leading AI scientists and engineers are few in number and highly prized globally. The countries that attract them will play an outsized role in the future of AI. It is not surprising that the US, which is the number one destination for top talent, has also been at the forefront of recent AI breakthroughs.

International competition for top talent is fierce. The UK must go further than existing measures and take a more proactive approach at every stage of the talent pipeline. Though ambitious, these efforts could yield large benefits for the UK if one individual founds the next DeepMind or OpenAI.

[9] Centre for Security and Emerging Technology, 'U.S. High School Cybersecurity Competitions', 2022 (accessed 15 October 2024)
[10] Unit for Future Skills, 'Jobs and skills dashboard', 2023 (accessed 15 October 2024)

Within the next year, government should:

20. **Establish an internal headhunting capability on a par with top AI firms to bring a small number of elite individuals to the UK.** Government should build on the success of the AI Safety Institute in attracting top talent. This may include recruiting more people into AISI, UK Sovereign AI or other public AI labs, as well as UK-based companies. Officials will need flexibility to develop specific offers and provide wraparound support to talent targets – recognising that to truly 'headhunt' talent the programme will need to be backed by appropriate funding.

21. **Explore how the existing immigration system can be used to attract graduates from universities producing some of the world's top AI talent.** Graduates from some leading AI institutions, such as the Indian Institutes of Technology and (since 2020) Carnegie Mellon University in the US, are not currently included in the High Potential Individual visa eligibility list. Government should take steps to develop new pathways, and strengthen existing ones, to support these graduates. It should also explore how best to address wider barriers like the cost and complexity of visas which create obstacles for startups and deter overseas talent from re-locating to the UK.[11]

22. **Expand the Turing AI Fellowship offer.** 15 new Turing AI Pioneer Fellowships should be created for specialists in other sectors who wish to develop deep technical skills in AI. At the same time, funding for 25 more Turing AI Acceleration and AI World-Leading fellowships should be committed to maintain the current cohort size over the next three years, as existing fellows graduate from the programme.

1.4 Enabling safe and trusted AI development and adoption through regulation, safety and assurance

The UK's current pro-innovation approach to regulation is a source of strength relative to other more regulated jurisdictions and we should be careful to preserve this.

Well-designed and implemented regulation, alongside effective assurance tools, can fuel fast, wide and safe development and adoption of AI. Regulators themselves have an important role in supporting innovation as part of their Growth Duty. Government must protect UK citizens from the most significant risks presented by AI and foster public trust in the technology, particularly considering the interests of marginalised groups. That said, we must do this without blocking the path towards AI's transformative potential.

Ineffective regulation could hold back adoption in crucial sectors like the medical sector.[12] But regulation, safety and assurance have the power to drive innovation and economic growth too, as shown by the success of regulatory sandboxes in supporting fintech startups[13] and the

[11] Startup Coalition, 'Startup Manifesto 2024', 2024 (accessed 15 October 2024)
[12] NHS England, 'AI Regulation', 2022 (accessed 15 October 2024)
[13] Bank for International Settlements, 'Regulatory sandboxes and fintech funding: evidence from the UK', 2022 (revised 2023) (accessed 15 October 2024)

development of the UK's cyber security industry.[14] Clear rules provide clarity to businesses so they have the confidence to invest and bring new products and services to market.

The government should:

23. **Continue to support and grow the AI Safety Institute (AISI) to maintain and expand its research on model evaluations, foundational safety and societal resilience research.** AISI is the first safety institute to have conducted pre-deployment evaluations of frontier models and its success is a significant and growing source of international influence for the UK. Continued investment is needed to ensure AISI retains its position as a world-leader and remains attractive to top AI safety researchers. It is also essential to act quickly to provide clarity on how frontier models will be regulated. A top priority of any such regulation should be preserving the capability, trust and collaboration that the AISI has built up since its creation.

24. **Reform the UK text and data mining regime so that it is at least as competitive as the EU.** The current uncertainty around intellectual property (IP) is hindering innovation and undermining our broader ambitions for AI, as well as the growth of our creative industries. This has gone on too long and needs to be urgently resolved. The EU has moved forward with an approach that is designed to support AI innovation while also enabling rights holders to have control over the use of content they produce. The UK is falling behind.

It is also essential that we act now to ensure sector regulators are fit for the age of AI. In particular, government should:

25. **Commit to funding regulators to scale up their AI capabilities, some of which need urgent addressing.** Government should also ensure all sponsor departments demonstrate how they are funding this capability within their budgets through the Spending Review process.

26. **Ensure all sponsor departments include a focus on enabling safe AI innovation in their strategic guidance to regulators.** AI will touch every aspect of the economy and so it is essential that all regulators are prioritising understanding its impacts in their domains and considering how best to encourage its safe adoption.

27. **Work with regulators to accelerate AI in priority sectors and implement pro-innovation initiatives like regulatory sandboxes.** These should be targeted in areas with regulatory challenges but high-growth potential, such as products which integrate AI into the physical world like autonomous vehicles, drones and robotics.

28. **Require all regulators to publish annually how they have enabled innovation and growth driven by AI in their sector.** To ensure accountability, this should include transparent metrics such as timelines to publish guidance, make licence decisions and report on resources allocated to AI-focused work. Even with these initiatives, individual regulators may still lack the incentives to promote innovation at the scale of the

[14] DSIT, 'Cyber security sectoral analysis 2024', 2024 (accessed 15 October 2024)

government's ambition. If evidence demonstrates that is the case, government should consider more radical changes to our regulatory model for AI, for example by empowering a central body with a mandate and higher risk tolerance to promote innovation across the economy. Such a body could have expertise and statutory powers to issue pilot sandbox licences for AI products that override sector regulations, taking on liability for all related risks. This approach could initially be explored and piloted for specific AI applications at small scale.

Alongside investing in pro-innovation regulation, the government should:

29. **Support the AI assurance ecosystem to increase trust and adoption by:**

- **Investing significantly in the development of new assurance tools, including through an expansion to AISI's systemic AI safety fast grants programme, to support emerging safety research and methods.**
- **Building government-backed high-quality assurance tools that assess whether AI systems perform as claimed and work as intended.**

As part of taking forward the recommendations in this Action Plan, government should:

30. **Consider the broader institutional landscape and the full potential of the Alan Turing Institute to drive progress at the cutting edge, support the government's missions and attract international talent.**

2. Change lives by embracing AI

2.1 AI Adoption is core to delivering the government's missions

The adoption of high-performing, trustworthy AI at scale will be critical to the government fulfilling the five missions. AI should become core to how we think about delivering services, transforming citizens' experiences, and improving productivity. As well as strengthening the foundations - data, skills, talent, IP, and assurance measures set out above - government should also focus on its role as a major user and customer of AI and how it uses its powers to catalyse private sector adoption:

Though we are still early in the development of the AI application layer – and all AI use should be tailored appropriately to the specific setting or sector in which it will be deployed. For example, AI use in health and care will raise different considerations than in advanced manufacturing. Indeed there are already great examples of AI use-cases driving tangible benefits across the private and public sectors:

- **Using AI assistants** to do repetitive tasks better and faster, freeing up to 20% of an employee's time.[15] For example, it is helping some teachers cut down the 15+ hours a week they spend on lesson planning and marking in pilots.
- **Drafting structured reports and forms with AI** can cut final document production times by 20-80% in professional services.[16] Trials are underway exploring how these methods can save time for clinical practitioners in the NHS.
- **Automated threat and anomaly detection** is already being responsibly deployed by police forces across the country and used to clean up social media.
- **Assessment and diagnosis** can be improved through the use of AI. For example, through the £21m AI Diagnostics fund, DHSC is supporting the deployment of technologies in key, high-demand areas such as chest X-Ray and chest CT scans to enable faster diagnosis and treatment of lung cancer in over half of acute trusts in England. Assessments can be done better, cheaper, and more quickly across multiple sectors. We also anticipate that AI will be a useful tool for assessment in the education sector. For example, the Department for Education's generative AI and rules-based

[15] Business leader interviews, August 2024
[16] Business leader interviews, August 2024

marking tool showed 92% accuracy in a pilot with teachers on year 4 literacy work when drawing from appropriately coded educational data and content.[17]

2.2 Adopt a "Scan → Pilot → Scale" approach in government

While there are instances of AI being used well across the public sector, often they are at small scale and in silos. Scaling these successes is essential, but will require us to think differently about procurement, especially if this activity is to support the domestic startup and innovation ecosystem. As the digital centre of government, DSIT should support public sector partners where needed to "move fast and learn things".

Government should generally employ a flexible "Scan → Pilot → Scale" approach:

SCAN – investing in building a deep and continually updated understanding of AI capabilities mapped to their highest impact challenges and opportunities. This will require:

31. **Appointing an AI lead for each mission to help identify where AI could be a solution within the mission setting, considering the user needs from the outset.**
32. **A cross government, technical horizon scanning and market intelligence capability who understands AI capabilities and use-cases as they evolve to work closely with the mission leads and maximise the expertise of both.**
33. **Two-way partnerships with AI vendors and startups to anticipate future AI developments and signal public sector demand.** This would involve government meeting product teams to understand upcoming releases and shape development by sharing their challenges.

PILOT – rapidly developing prototypes or fast light-touch procurement to spin up pilots in high-impact areas, robust evaluation and publishing results. This will require:

34. **Consistent use of a framework for how to source AI – whether to build in-house, buy, or run innovation challenges – that evolves over time, given data, capability, industry contexts and evaluation of what's worked.** Where appropriate, the government should support open-source solutions that can be adopted by other organisations and design processes with startups and other innovators in mind.
35. **A rapid prototyping capability that can be drawn on for key projects where needed, including technical and delivery resource to build and test proof of concepts, leveraging in-house AI expertise, together with specialists in design and user experience.**

[17] Department for Education, 'Use Cases for Generative AI in Education - Building a proof of concept for Generative AI feedback and resource generation in education contexts: Technical report', 2024 (accessed 03 December 2024)

36. **Specific support to hire external AI talent.** Creation of a technical senior civil servant stream, benchmarking of internal AI-related role pay to at least 75% of private-sector rate and a technical AI recruitment screening process.[18]

37. **A data-rich experimentation environment including a streamlined approach to accessing data sets, access to language models and necessary infrastructure like compute.**

38. **A faster, multi-stage gated and scaling AI procurement process that enables easy and quick access to small-scale funding for pilots and only layers bureaucratic controls as the investment-size gets larger.** Multi-staged "Competitive Flexible Procedures" should be encouraged,[19] and startups compensated for the rounds they make it through.

SCALE – identifying successful pilots that can be applied in different settings to support citizens (e.g. to reduce waiting lists or minimise time and cost to complete paperwork) and rolling them out beyond organisational boundaries. Scale is essential if AI is to have a meaningful impact on productivity, effectiveness and citizen experience, as well as maximising government spending power. Moreover, doing this well and procuring in a way that benefits innovators is a powerful lever for upending the cliché that the UK is good at invention, but poor at commercialisation. It will require:

39. **A scaling service for successful pilots with senior support and central funding resource.** The government should support a select number of proven pilots to scale – with central finance and tools available to avoid fragmentation across systems and budgets – and achieve up to national level reach.

40. **Mission-focused national AI tenders to support rapid adoption across de-centralised systems led by the mission delivery boards.** An example of tendering to enable scale is the NHS's AI Diagnostic Fund allocating £21 million to 12 imaging networks, covering 66 NHS trusts across England, significantly speeding up the roll out of AI diagnostic tools nationwide.[20] However, these tenders should be designed to encourage new entrants, avoiding reliance on commercial frameworks where possible.

41. **Development or procurement of a scalable AI tech stack that supports the use of specialist narrow and large language models for tens or hundreds of millions of citizen interactions across the UK.**

42. **Mandating infrastructure interoperability, code reusability and open sourcing.** The AI infrastructure choice at-scale should be standardised, tools should be built with reusable modular code components, and code-base open-sourcing where possible.

[18] Tony Blair Institute, 'Governing in the Age of AI: A New Model to Transform the State', 2024 (accessed 15 October 2024)
[19] Cabinet Office, 'Guidance: Competitive Tendering Procedures', 2024 (accessed 15 October 2024)
[20] NHS England, 'AI Diagnostic Fund', 2024 (accessed 15 October 2024)

2.3 Enable public and private sectors to reinforce each other

The public and private sectors should play mutually reinforcing roles in AI adoption. To get the most from working together, government should:

43. **Procure smartly from the AI ecosystem as both its largest customer and as a market shaper.** Innovative AI suppliers from the UK and around the world should be engaged to support demand and encourage investment. Procurement contract terms should set standards (e.g. quality), requirements, and best practice (e.g. performance evaluations). “Contemplation” clauses should be included in contracts to ensure the government remains agile to a rapidly changing AI ecosystem by mandating that contractors regularly assess and adopt newer technologies.

44. **Use digital government infrastructure to create new opportunities for innovators.** For example, an approach akin to Jeff Bezos’s API mandate at Amazon could be adopted. This required all teams’ data and functionality to be exposed through APIs (Application Programme Interfaces). All standard documentation interactions, like compliance or planning, could be done through APIs, to which companies could connect their own tools. Similarly, mandating e-Invoices from government suppliers could automate billing, speed up payments and reduce fraud.

45. **Publish best-practice guidance, results, case-studies and open-source solutions through a single “AI Knowledge Hub”** accessible to technical and non-technical users across private and public sectors as a single place to access frameworks and insights.

46. **In the next three months, the Digital Centre of Government should identify a series of quick wins to support the adoption of the scan, pilot scale approach and enable public and private sector to reinforce each other.**

2.4 Address private-sector-user-adoption barriers

AI adoption could grow the UK economy by an additional £400 billion by 2030 through enhancing innovation and productivity in the workplace.[21] Safe, effective and swift AI adoption has the potential to enhance the international competitiveness of sectors of UK strength and unlock new growth opportunities across the whole economy, including for SMEs. To capture the benefits of AI adoption across the private sector, the government should:

47. **Leverage the new Industrial Strategy. The development of a new Industrial Strategy presents an opportunity to drive collective action to support AI adoption across the economy.** The Industrial Strategy will need to set out how AI adoption can best be supported in key industries, noting particular use cases that could boost productivity and present a particular competitive advantage while also identifying possible regulatory barriers and specific skills needs that need to be addressed. DSIT

[21] Public First, ‘Google’s Impact in the UK 2023’, 2024 (accessed 15 October 2024)

and others with AI expertise within government can play a critical role in combining with those who have a deep understanding of their sectors to engage business leaders, identify high-potential use cases, co-design targeted interventions to promote them and overcome barriers to adopting them.

48. **Appoint AI Sector Champions in key industries like the life sciences, financial services and the creative industries to work with industry and government and develop AI adoption plans.**

49. **Drive AI adoption across the whole country.** Widespread adoption of AI can address regional disparities in growth and productivity. To achieve this, government should leverage local trusted intermediaries and trade bodies to support business leaders, and also consider opportunities to accelerate AI adoption by working across supply chains. A particular focus should be put on supporting SMEs and the specific challenges they face.

3. Secure our future with homegrown AI

By the end of the decade, having national champions at the frontier of AI capabilities may be a critical pillar of our national and economic security. Government should use the full powers it has available to ensure this happens.

AI systems are increasingly matching or surpassing humans across a range of tasks. Today's AI systems have many limitations, but industry is investing at a scale that assumes capabilities will continue to grow rapidly. Frontier models in 2024 are trained with 10,000x more computing power than in 2019, and we are likely to see a similar rate of growth by 2029. If progress continues at the rate of the last five years, by 2029 we can expect AI to be a dominant factor in economic performance and national security.

Many of us have become familiar with the remarkable capabilities of large language models across a broad set of domains. Leading AI companies continue to push this frontier, and we are also seeing stunning progress in other modalities, including breakthroughs in video and image generation, robotics, mathematics, and scientific discovery. To take one example, DeepMind's AlphaFold – which predicts protein structures – is estimated to have saved the equivalent of 400 million years of researcher time. We can imagine the impact on science, medicine and the broader economy if we see this sort of success in other domains.

Given the pace of progress, we will also very soon see agentic systems – systems that can be given an objective, then reason, plan and act to achieve it. The chatbots we are all familiar with are just an early glimpse as to what is possible.

The economic consequences of continued progress in these areas could be enormous. Just as with previous technological revolutions, the people and countries who make decisions about how these systems operate and what values they reflect – including their approach to safety – will have huge influence over our lives.

If this is to benefit the UK we must be an AI maker, not just an AI taker: **we need companies at the frontier that will be our UK national champions.**

We have all the raw ingredients to make this possible. AI research and product development is a UK strength rooted in world-class engineering talent coming out of our excellent universities and local AI winners such as DeepMind and Wayve. Our position between the US and Europe, and convenient time-zone, make the UK an ideal place for international founders to collaborate.

Sections 1 and 2 of this Action Plan above are critical to building on this. Section 1 covered the policy and infrastructure needed for the growth of the domestic AI sector. Section 2 covered the policies needed for widespread AI adoption – a necessary condition for a world-leading AI application ecosystem.

We should assume that most advanced economies will soon be doing much of the above. If we aspire to be one of the biggest winners from AI and drive national renewal, we need to go further.

Given the lead the current frontier firms enjoy, we cannot expect the market to solely underwrite a new challenger, especially in the next two to three years. But government holds critical levers for the next stage of AI development. Generating national champions will require a more activist approach and something more akin to Japan's MITI or Singapore's Economic Development Board in the 1960s, not the "invisible hand".

The government must maximise its ambition and ensure the UK has national champions at the frontier of economically and strategically important capabilities. This means government needs to:

- Ensure that research and development of frontier AI capabilities takes place in the UK – both in the current foundation model paradigm and in emerging spaces such as AI for science, robotics, and "embodied AI".
- Ensure that the UK maximises both its economic upside from and influence on these capabilities as they advance.

Achieving this will require bold, concerted and coherent action, using all the levers of the state to make the UK the best place in the world to build and scale frontier AI companies. While I don't want to understate how difficult this will be, I am confident that with the right focus and backing, the UK can do this.

To this end, the government should:

50. **Create a new unit, UK Sovereign AI, with the power to partner with the private sector to deliver the clear mandate of maximising the UK's stake in frontier AI.**

Public-private collaboration will be at the heart of this unit. It will support the private and academic sectors in doing what they do best, with the ability to collaborate internationally, create joint ventures, as well as invest in, incubate and spin out AI companies – refining its strategy and approach as the technology matures.

To achieve this, the unit must develop a clear position on which areas of AI research are strategically important for the future of the technology and make concentrated bets in these areas. This could involve supporting entrepreneurs to create new companies, backing startups to scale or partnering with existing AI companies that are already at the frontier to maximise the UK's upside however the technology develops.

With a clear and powerful mandate the unit will play a critical coordinating role, able to remove barriers and make deals to maximise the UK's chance of growing globally competitive national champions. It will need to be able to draw on the resources of government to act quickly and decisively. If it is to succeed, it will require support from other government organisations. Especially important will be Innovate UK, which should make AI a top priority and support the unit through the funding it provides to promising start-ups.

Early tolerance for scientific and technical risk can be hugely valuable. For example, the unit or its public sector partners might join funding rounds or provide advanced market commitments to credible and ambitious startups in emerging fields of AI. AI for science is an area with the potential to be particularly important because of its economic value and security implications; the UK's existing talent strengths; and the particularly high value of the state's assets in this space.

The use of these non-financial assets, alongside capital and procurement, will be critical to the unit's offer. **UK Sovereign AI should lead the delivery of a government offer to new and existing frontier AI companies that includes:**

- Direct investment into companies, including promising start-ups as well as joint ventures with other commercial partners.
- Delivering appropriate sites for compute in the UK, including through AI Growth Zones, and international partnerships to guarantee compute access from appropriate allies.
- Packaging and providing responsible access to the most valuable UK-owned data sets and relevant research.
- Supporting UK-based AI organisations working on national priority projects to bring in overseas talent and headhunting promising founders or CEOs (and their teams) by convincing them to relocate to the UK.
- Facilitating deep collaboration with the national security community.

In exchange, UK Sovereign AI should ensure economic upside from, and influence on, governance of frontier AI for the UK.

AI may well be the most important technology of our time. Now is the moment to act boldly and with vision so that the UK helps to shape AI's course and our citizens' share in its upside.

Conclusion

The Action Plan I have set out will require the government to both take a long-term view and take action immediately. It will need to commit to securing the physical infrastructure and human capital that will underpin all future AI developments. Government should also have the self-confidence and ambition to set an example for the rest of the economy. This will require a novel approach involving close collaboration with industry to ensure the whole of society can benefit from the opportunities offered by AI.

Business-as-usual is not an option. Instead, government will need to be prepared to absorb some risk in the context of uncertainty.

This will require a whole of government commitment, with senior and visible leadership and a relentless focus on driving progress.

This is no small task. Nevertheless, the benefits are likely to be transformational, not just to support economic growth, but to people’s lives across the whole of the UK.

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