



Department of the Interior

Artificial Intelligence Strategy

Setting the Vision

The Department of the Interior (DOI/the Department) envisions a future where Artificial Intelligence (AI) is integrated across our mission areas while maintaining the highest standards of safety, accountability, and public trust. This vision aligns with Executive Order (EO) 14179, “Removing Barriers to American Leadership in Artificial Intelligence,” EO 14277, “Advancing Artificial Intelligence Education for American Youth,” and Office of Management and Budget Memorandum M-25-21 “Accelerating Federal Use of AI through Innovation, Governance, and Public Trust,” among other applicable authorities governing AI use in the federal government. Together, these directives guide federal agencies to adopt AI responsibly by removing unnecessary barriers to innovation, ensuring appropriate safeguards, and leading with transparency.

The Department is acting now because technological change is rapid, AI is reshaping public services, and the American people expect government to use modern tools.

By harnessing the power of AI, the Department will improve stewardship of America’s public lands and waters, strengthen America’s energy future by unleashing American energy dominance, streamline regulation, conserve lands and wildlife, and engage with Tribal Nations.

AI will be integrated into Department operations to generate insights, automate business processes and operations, and improve decision-making. This will allow us to use our scientific and cultural data more effectively. This investment will direct resources to areas with the highest public benefit and support our workforce with tools that increase efficiency and accuracy.

This strategy establishes a path for the Department to deliver sustainable economic growth, conservation, and community resilience. It ensures accountability in how we use AI and strengthens public trust in our stewardship responsibilities.

Strategic Goals

To achieve the Department’s vision, we will pursue three enterprise-wide goals that guide every bureau and office in adopting Artificial Intelligence.

Transform Mission Operations

Strategic Goal: Integrate AI into mission delivery to improve decision-making, increase efficiency, and support both enterprise and frontline operations.

The Department will apply AI across its operations to improve stewardship of natural, cultural and energy resources, accelerate scientific advancement, and streamline DOI’s services for the

Artificial Intelligence

A machine-based system that can, for a given set of human-defined objectives, make predictions, recommendations or decisions influencing real or virtual environments. AI systems use machine and human-based inputs.

public while ensuring appropriate human oversight for all AI use cases consistent with OMB M-25-21. Harnessing AI for the Department's operations will enable faster, data-driven decision-making, reduce duplication, and streamline workflows. It will allow resources to be directed where they have the greatest impact. This transformation extends to frontline operations, equipping rangers, scientists, engineers, inspectors, Tribal liaisons, and other professionals with tools that increase effectiveness in serving the public.

Invest in AI Capabilities

Strategic Goal: Build responsible, trustworthy, and transparent AI capabilities that safeguard data, strengthen public trust, and deliver measurable value to the mission.

The Department will invest in AI that is secure, ethical, and transparent. Every investment will be assessed against mission outcomes and public service value. Systems will be designed to protect data and privacy while maintaining accountability in how AI is applied. These safeguards will strengthen trust with employees, partners, and the American public.

Develop and Train the Workforce

Strategic Goal: Establish an AI-ready workforce through training, collaboration, and continuous learning so employees at every level can use AI responsibly to advance the mission.

The Department will provide comprehensive, skill-appropriate training and professional development to ensure employees at every level can use AI responsibly and effectively. Training will address topics such as AI capabilities and limitations, identifying potential adverse impacts within results including bias, discrimination, and civil rights concerns, ethical considerations, legal requirements, and the critical importance of human oversight in AI-assisted decision-making. To ensure employees keep pace with AI technologies as they develop, continuous learning and cross-Bureau training will be critical, with particular attention given to emerging AI capabilities, evolving risks, changing regulatory requirements, and best practices learned from AI implementation across the federal government.

Strategic Objectives

AI Safety and Risk Management

Safe and responsible use of AI is central to the Department's approach and required by federal law and policy. Every system must protect the public, the workforce, and the natural and cultural resources entrusted to the Department.

The Department will establish appropriate, risk-based safeguards across the AI lifecycle that promote responsible innovation while removing unnecessary bureaucratic barriers to AI adoption, consistent with EO 14179 and OMB M-25-21. Cybersecurity protections will secure models and data against malicious use, including unauthorized access to AI systems and their outputs. Risk assessments, testing, and ongoing validation will confirm reliability, identify and prevent algorithmic bias, ensure resilience, and verify performance against mission objectives. Ethical and legal compliance will remain mandatory, consistent with federal law, civil rights protections, and the Department's trust responsibilities to Tribal Nations and the American public.

Transparency will be embedded in each deployment through comprehensive documentation of AI system capabilities, limitations, intended uses, and decision-making processes. For high-impact AI use cases (where the output serves as a principal basis for decisions or actions that have a legal, material, binding, or significant effect on rights or safety, per OMB M-25-21), the Department will provide clear explanations of how AI influences decisions and maintain audit trails sufficient to support accountability and oversight. Governance processes will document and monitor AI systems throughout their lifecycle, and use cases or applications will be tracked to ensure they remain aligned with mission needs and risk thresholds.

Meaningful human oversight will remain central to AI-assisted decision-making, with particular emphasis on high-impact use cases where humans must retain the ability to intervene and maintain accountability for AI system outputs. Training and awareness programs will reinforce this accountability, ensuring employees understand their responsibilities in AI-assisted decisions, as safety and accountability ultimately depend on informed human judgment.

Maintaining Modern and Secure Capabilities

The Department will maintain AI capabilities that are modern, secure, and cost-efficient. The Chief Information Officer will lead the creation of an enterprise AI platform that provides safe, tested access to models and tools across the Department.

The platform will separate internal data from model capacity wherever possible, ensuring that mission-critical data remains secure while models evolve. It will enable both enterprise operations and specialized mission needs, while providing access to approved internet-connected models with appropriate safeguards.

Continuous monitoring will prevent model drift and outdated results. Centralized governance will control costs, promote scalability, and eliminate duplication across bureaus. By maintaining secure, modern capabilities, the Department will ensure its AI systems remain effective, accountable, and adaptable.

Maximizing Mission Value

The Department will focus AI investments where they deliver the greatest mission and public value. Every deployment will be tied to measurable outcomes that improve efficiency, support decision-making, and enhance service to the American people.

High-impact use cases or applications will be identified, documented, and tracked in accordance with OMB reporting requirements. The Department will maintain a public-facing use case inventory to highlight applications, increase transparency, and enable feedback. Lessons learned will be shared across bureaus to accelerate adoption and avoid duplication.

Workforce Development and Training

Maximizing value requires a workforce that understands and trusts AI. The Department will provide training and professional development to ensure employees at every level can use AI responsibly. These programs will build the skills needed to identify opportunities, manage risks, and integrate AI into mission delivery.

Cross-bureau collaboration and knowledge-sharing will spread expertise, encourage innovation, and strengthen adoption. Continuous learning will ensure employees remain current as AI technologies evolve. By building an AI-ready workforce, the Department will ensure that employees can safely and effectively apply AI to the nation's most pressing challenges.

DOI AI Strategy Supplemental

Highlighted DOI AI Use Cases

The Department is already applying Artificial Intelligence to improve mission delivery, increase efficiency, and strengthen public service. These applications support Administration priorities and demonstrate the Department's commitment to responsible innovation.

The Department will maintain an annual inventory of AI use cases across all bureaus and offices, consistent with OMB Memorandum M-25-21. This inventory will be published at www.doi.gov/ai to provide transparency and accountability. Each published use case will document how AI is used, its mission impact, and the safeguards in place to ensure compliance with law, policy, and ethical standards.

AI Success stories include:

- **Harnessing AI to Secure America's Critical Minerals:** The U.S. Geological Survey (USGS) and our partners launched a new effort to use AI to speed up how we find and assess critical minerals. These minerals are essential to America's future. Breakthroughs in these fields have the potential to spark entirely new industries and revolutionize the way we live and work. Harnessing the power of AI, USGS is reducing the time it takes to analyze mineral resources from years to weeks. Working side by side with experts, the team built and tested AI tools that can digitize maps, model mineral deposits, and identify areas with mineral potential, always subject to geologists' review and validation.

The results show what is possible as these new AI tools proved successful and are now ready to strengthen how we map and secure America's critical minerals. By boosting our ability to source these materials at home, this effort supports domestic manufacturing, reduces reliance on foreign adversaries, and will usher in a new era of economic competitiveness and national security for the American people.

- **Streamlining Wildland Fire Intelligence with AI:** At the National Interagency Coordination Center (NICC), meteorologists and fire analysts begin each day with a "trapline"—a routine of visiting dozens of websites to gather maps, images, and data needed to assess wildfire conditions across the country. This process, while essential, is time-consuming and repetitive. To improve efficiency, NICC is developing tools to automate the collection of fire weather data and generate draft weather summaries for expert review and dissemination. The team is building scripts that replicate complex website interactions, reducing the time analysts spend on manual tasks.

The results are promising. By using these AI tools, NICC staff anticipate saving over 200 hours of expert time annually, allowing them to focus on higher-value tasks, such as analysis and decision support. These improvements enhance the quality and timeliness of critical wildland fire products, such as the Incident Management Situation Report, which is viewed more than 850,000 times each year by federal, state, tribal, and military partners. This effort is currently in the pilot phase, with prototypes being refined and tested. Once finalized, the tools will be shared with all 10 Geographic Area Coordination Centers, expanding the impact across the national wildfire management community. This project demonstrates how AI can enhance operational intelligence, reduce routine workload, and improve the speed and consistency of information delivered to decision-makers at all levels.

- **Modernizing Grant Oversight with AI:** The Office of Grants Management (PGM) pioneered an innovative effort to apply artificial intelligence to strengthen oversight of financial assistance awards. These awards fund vital programs across the country, and ensuring their accuracy and transparency is key to public accountability. Using a custom-built AI language model, PGM transformed how it reviews award descriptions for clarity and compliance before public release. What once required hundreds of hours of manual effort can now be completed in a matter of hours. In one instance, the model analyzed over 8,000 awards in just four hours—work that would have taken more than 500 hours by hand. AI helps PGM deliver faster, more consistent reviews, improved data quality, and timely feedback to bureaus and offices across the Department. This initiative not only enhances internal controls but also sets a precedent for how emerging technologies can improve the stewardship of public resources.
- **An Unlikely AI Innovator at the National Park Service:** At the National Park Service (NPS), a facilities employee faced a familiar challenge: preparing funding paperwork for routine maintenance, like replacing carpet tiles, could take two to three days. With AI training and use of approved DOI tools, that same employee built a simple tool that changed everything. Using a custom AI assistant, the employee created a form that asked targeted questions about the project's scope, safety standards, and regulatory requirements. The tool then

automatically generated a complete funding request document, which supervisors could then quickly review for accuracy and compliance before submission. What once took days now takes just a few hours.

Empowering frontline staff with AI can unlock massive efficiency gains: the tool is now being used for facilities projects across the country, and NPS estimates it could save more than 7,000 labor days each year. Innovation doesn't always start at the top. Sometimes, it begins with a single employee, a real-world problem, and the right tools to solve it.

These examples show that AI supports both enterprise operations and frontline mission delivery. By documenting and sharing use cases, the Department will promote innovation, reduce duplication, and enable bureaus to apply proven approaches across the enterprise.

Artificial Intelligence Maturity in the Department of the Interior

The Department is building the foundation for enterprise-wide use of Artificial Intelligence. The goal is to move from bureau-specific pilots to a mature, coordinated capability that supports the full lifecycle of AI development and deployment. The Department's AI Strategy contributes directly to the 2026–2030 Strategic Plan and sets clear milestones for progress.

Where we are today:

- AI is in use across bureaus, with promising pilots in redacting personal information from documents before they are posted to public websites or summarizing 8000 pages of grants documentation.
- Early applications are showing great promise in making workflows more efficient and producing faster reviews, but they are not yet standardized across the Department.
- Initial workforce training has begun related to desktop and cloud tools and emerging communities of practice are forming, but more opportunities are being planned.

Where we are going:

- **Infrastructure:** To effectively support AI development and deployment, the Department will adopt a hybrid infrastructure strategy that leverages both secure, FedRAMP-authorized commercial cloud services and federally managed on-premises resources, such as High-Performance Computing (HPC) centers. Commercial cloud solutions will enable responsible, scalable adoption of generative AI and allow DOI to capitalize on market-driven innovations for general-purpose applications. At the same time, on-premises resources will provide cost-effective environments for specialized, sensitive, or compute-intensive workloads. This hybrid approach will be integrated with DOI's enterprise data and cloud environments, ensuring that AI systems remain secure, compliant, and continuously monitored throughout their lifecycle.
- **Data:** The Department will implement data governance practices within all AI systems to ensure data quality; make data traceable, shareable, and reusable; address potential algorithmic bias in data sources; and maintain appropriate privacy protections consistent with applicable law. A modernized data architecture that will manage structured and unstructured data will enable faster innovation.
- **Workforce:** Tiered training will be tailored to roles and skill levels. AI champions will be identified across bureaus and offices. Hiring will target skills in data science, ethics, systems engineering, and mission delivery.
- **Research and Partnerships:** The Department will invest in collaborative AI research and development through partnerships with industry, academia, and other agencies to accelerate learning and expand mission impact.

- **Governance and Risk Management:** Oversight will align with minimum risk-management practices required by OMB M-25-21, and will be informed by best-practice frameworks such as the National Institute of Standards and Technology (NIST) AI Risk Management Framework 1.0 (NIST AI 100-1) and NIST Generative AI Profile (NIST AI 600-1), embedding transparency, accountability, and safety into every stage of development and deployment.

The Department will establish key performance indicators tied to mission objectives to guide investments, track progress, and prioritize high-value initiatives. By linking AI maturity directly to the 2026–2030 Strategic Plan, the Department will demonstrate how AI enhances operational efficiency and strengthens mission outcomes.

Building AI-Enabling Infrastructure Across the Lifecycle

The Department is laying the foundation for a robust AI infrastructure that supports the full lifecycle of AI—from development and testing to deployment and continuous monitoring. This infrastructure will provide flexible platforms, secure data environments, and automated monitoring systems that evolve alongside emerging technologies. It will strengthen decision-making across stewardship, science, conservation, energy, and service to the public.

Development and Testing

The Department is investing in AI platforms that provide developers with specialized computing resources, open-source libraries, and software tools for rapid prototyping and model training. Integration with Major Tiered Data Centers and approved cloud services will ensure scalability, resiliency, and security. Pre-deployment testing protocols, including validation, benchmarking, and risk assessments, will confirm that AI tools are accurate, reliable, and ready for mission use.

Deployment

AI tools will be deployed through agile, centralized platforms that maximize reuse and reduce duplication. The Department will work towards rapid implementation of new and specialized models while keeping internal and sensitive information secure and not be used in commercial model training purposes. Shared platforms will manage access to internet-connected models and live data sources, ensuring that systems remain current, cost-effective, and aligned with mission requirements.

Continuous Monitoring

Trust in AI requires continuous oversight. The Department will deploy automated tools to track model performance, detect drift, and flag anomalies in real time. Monitoring will be paired with human review, periodic re-validation, and impact assessments to ensure transparency, accountability, and mission alignment. Cybersecurity protections and audit logging will provide an additional layer of safeguards. These measures will ensure AI systems remain accurate, reliable, and secure throughout their lifecycle, providing high-quality inputs into decisions that affect people, lands, waters, and resources.

Enabling High-Quality, Traceable, and Shareable Data for AI

Trustworthy AI depends on trustworthy data. The Department will ensure every AI system is built on accurate, consistent, and secure data. This commitment spans the full data lifecycle—from acquisition and governance to sharing, explainability, archiving, and responsible deletion. By strengthening data integrity, the Department reinforces the quality of data-informed decisions and safeguards public trust.

Ensuring Access to Quality Data and Traceability

The Department will strengthen enterprise data governance to ensure accuracy, consistency, and security. Data Stewards will manage data portfolios, enforce quality standards, and apply

FAIR (Findable, Accessible, Interoperable, Reusable) principles. Enterprise-wide standards and metadata practices will support consistency across structured and unstructured sources, ensuring AI outputs remain transparent, traceable, and defensible.

Promoting Data and AI Asset Sharing

Modernized data architecture, including shared data platforms and a centralized marketplace for machine learning features, will enable data sharing and reuse across bureaus. Shared resources—such as catalogs, code repositories, and data-sharing agreements—will be developed on open, machine-readable standards. This approach will reduce duplication, accelerate innovation, and comply with federal records management requirements.

Advancing Explainability and Traceability in AI

All AI systems will be designed for traceability and interpretability. Documentation will capture data inputs, decision processes, and outputs. Regular reviews, AI impact assessments, and independent evaluations will ensure decisions are explainable, aligned with ethical principles, and understandable to employees, stakeholders, and the public.

Building an AI-Ready Workforce

The Department's AI strategy depends on a workforce equipped with the skills and confidence to use AI responsibly. Every employee will have access to training, tools, and support at the level needed for their role.

Tiered Training and AI Literacy

Training will be delivered through a tiered model. All staff will receive foundational instruction on how to use AI responsibly. Employees in technical roles will have access to advanced training in data science, machine learning, and AI ethics. Training will be integrated into professional development programs and supported by digital learning platforms.

AI Champions and Communities of Practice

The Department will build a network of AI champions across bureaus to connect technical expertise with mission needs. Champions will identify use cases, share lessons learned, and promote responsible adoption. Internal communities of practice will enable collaboration and knowledge sharing across bureaus.

Career Growth and Recruitment

The Department will recognize employee contributions to AI initiatives and expand career pathways for staff to build expertise. Recruitment will target skills in data science, machine learning, systems engineering, and AI ethics, aligned with evolving mission requirements.

Culture of Responsibility and Trust

The Department is investing in our people by ensuring every employee has the tools, training, and support to use AI confidently and responsibly. These programs will build the skills needed to identify AI opportunities, manage risks appropriately without creating unnecessary barriers, and integrate AI into mission delivery in ways that augment rather than replace human expertise for better, faster, and more informed decisions. Building this culture of responsibility will ensure AI strengthens decision-making while reinforcing the Department's mission.

Advancing AI Research and Development (R&D)

The Department supports a forward-looking AI R&D environment, investing in applied research, prototyping, and collaborative experimentation to ensure AI solutions are effective, trustworthy, and scalable. These efforts are grounded in the Department's mission: stewardship of lands and

waters, management of energy resources, conservation of ecosystems, engagement with Tribal Nations, and service to communities.

Trustworthy and Responsible Innovation

All AI systems developed or tested must be traceable, evaluated, and aligned with ethical principles. Safeguards for privacy, civil rights, and civil liberties will be mandatory, along with measures to reduce bias and promote fairness. Transparency will be embedded from concept to deployment, requiring documentation of data sources, decision processes, and outcomes. Independent evaluations will confirm reliability before systems scale.

Partnerships and External Expertise

The Department will expand R&D capacity through partnerships with academia, industry, and federal agencies. These collaborations will bring specialized expertise, co-develop mission-focused solutions, and align Departmental innovation with national priorities. Cooperative agreements and innovative funding mechanisms will be pursued to accelerate adoption and reduce costs.

Accelerating Learning Across the Department

Lessons from R&D will not remain in pilots. Prototypes, trials, and partnerships will be captured, documented, and shared across bureaus to prevent duplication, shorten deployment timelines, and ensure enterprise-wide benefit.

Advancing Enterprise AI Readiness Through Governance

AI represents both a technological and organizational shift. To manage this change, the Department will strengthen governance across leadership, operations, and policy.

Centralized Leadership and Oversight

The Department has established an AI Governance Board chaired by the Deputy Secretary and vice-chaired by the Chief AI Officer (CAIO). This board will include senior representatives from the Department's Office of the Chief Information Officer, Policy, Management and Budget, Procurement, Human Capital, Ethics, Solicitor, and others, as appropriate. The Board will set policy direction, prioritize investments, and ensure accountability across the enterprise.

The Department will establish a Chief AI Officer (CAIO) to lead responsible AI innovation and governance. The CAIO will ensure AI use aligns with legal requirements and government-wide guidance, providing strategic counsel and participating in executive decision-making, including coordination with the Chief AI Officer Council. Externally, the CAIO will represent the DOI in AI-related bodies, standards organizations, and international forums, promoting alignment of AI efforts across the federal government.

Operational Coordination

A centralized AI Program within the Office of the Chief Information Officer will serve as the technical and strategic hub. This Program will coordinate training, communications, application development, and compliance with federal mandates, while advising the Governance Board on emerging risks and opportunities.

Bureau-Level Implementation and Accountability

Each bureau will designate an AI Coordinator to manage use cases, conduct risk assessments, and support audits. Coordinators will ensure enterprise policies are applied consistently while elevating bureau innovations for broader use. By embedding accountability at the bureau level, the Department will create a two-way bridge: enterprise policies will be applied consistently across the Department, and bureau innovations can scale up to benefit the entire enterprise.

Enterprise Risk Management for AI

The Department will embed risk management into every stage of the AI lifecycle, aligned with the NIST AI Risk Management Framework and OMB M-25-21.

Testing, Evaluation, and Monitoring

All AI systems must undergo standardized pre-deployment testing to validate accuracy, reliability, and compliance with mission needs. Post-deployment systems will be monitored continuously for performance, data drift, and vulnerabilities. Structured re-validation cycles and cybersecurity integration will ensure resilience and trustworthiness.

Audit, Privacy, and Incident Response

AI-specific audits will track systems throughout their lifecycle. Privacy will be safeguarded through “privacy by design” and mandatory Risk Impact Assessments for high-impact use cases. Incident response protocols will address AI-specific risks, such as adversarial attacks or unintended outcomes, and will integrate with Departmental cybersecurity frameworks.

Governance, Operations, and Internal Coordination

The Department will strengthen enterprise readiness by embedding risk management, operational safeguards, and internal coordination across the AI lifecycle. An AI Safety Board will coordinate enterprise risk, cybersecurity, and privacy. Secure development environments, audit logging, and monitoring systems will be implemented to ensure traceability and accountability. Coordination across data governance, IT, and cybersecurity functions will enforce ethical and secure integration of AI.

Planning and Facilitating Future AI Investments

The Department will align AI investments with agency priorities and mission outcomes. Decisions will be data-driven, cost-conscious, and guided by shared enterprise needs.

Agile and Compliant Procurement

Procurement processes will align with federal guidance, including OMB Memorandum M-25-22. The Department will prioritize open-source and American-made solutions, pursue cooperative agreements, and leverage other funding mechanisms.

Policy and Workforce Readiness

AI-specific policies and training programs will strengthen staff awareness, promote responsible use, and ensure risks are managed effectively. Workforce readiness will be embedded into governance, ensuring employees have the skills and accountability needed to apply AI to mission delivery.

The Path Forward

Through this strategy, the Department is laying the foundation for the responsible, enterprise-wide use of AI. By combining innovation with accountability, AI will strengthen decision-making, empower the workforce, and enhance mission delivery in every bureau and field operation.

As technology evolves, the Department will adapt with transparency and responsibility. AI will be applied to protect the lands, waters, wildlife, cultural resources, and trust responsibilities entrusted to our care. This strategy ensures the Department not only keeps pace with change but delivers lasting public value for generations to come.

For more details on AI implementation across the Department visit the Department of the Interior AI Compliance plan at www.doi.gov/ai.