

Date: April 8, 2025

Agenda Item No. 2(B)(7)
May 20, 2025

To: Honorable Chairman Anthony Rodriguez
and Members, Board of County Commissioners

From: Daniella Levine Cava
Mayor

A handwritten signature in blue ink that reads "Daniella Levine Cava".

Subject: Second Report on Miami-Dade County's Policy on Artificial Intelligence – Directive
No. 231203

Executive Summary

This report is prepared in response to Resolution No. R-659-23, sponsored by Commissioner Eileen Higgins and adopted by the Board of County Commissioners (Board) on July 6, 2023. The Resolution directed the County Mayor or the Mayor's designee to establish guiding principles for Artificial Intelligence (AI) use within County Departments, conduct a thorough AI study, evaluate staffing impacts due to AI adoption, and provide regular updates to the Board. The initial report was presented within 180 days of the resolution's effective date, with subsequent annual reports required thereafter.

Report

Miami-Dade County continues to prioritize accessible and efficient services for residents, recognizing the transformative potential of AI. The 2025 AI report showcases significant progress in implementing Artificial Intelligence across various County departments and initiatives. In response to Resolution R-659-23 and the subsequent 2024 AI Report, this update highlights the County's commitment to leveraging AI responsibly to enhance public services and improve residents' quality of life. The report emphasizes three key focus areas: AI Innovation and Strategic Use Cases, Talent and Workforce Empowerment, and Technology, Governance and Infrastructure.

Over the past year, the Information Technology Department (ITD) has made substantial strides in AI implementation. These include establishing a Research and Development function for AI beta pilots, conducting a comprehensive AI Assessment Survey, launching an AI Advisory Council, developing data governance best practices, assessing workforce impacts, and initiating public-facing AI use cases for beta testing. The County has also restructured its technology website to include a dedicated AI resource hub, enhancing accessibility and transparency.

The 2025 AI report was compiled after conducting various methods of research including surveys, interviews with partners, and thorough reviews of government policies, and industry publications in addition to direct input from the AI Advisory Council Workgroups. This An AI Advisory Council comprising subject matter experts from various County departments oversees the implementation process. This structure includes seven specialized workgroups, each with distinct responsibilities, ensuring a comprehensive approach to AI adoption and management.

The County's technology journey in implementing AI follows a phased approach, aligning with industry-leading research. The first stage, Generative AI Readiness, focused on preparing the enterprise for widespread AI adoption. This includes establishing a GenAI strategy, training and upskilling employees, innovating with AI, and developing governance frameworks. The next stages, Generative AI Acceleration

and Generative AI Advantage, will focus on deploying AI solutions, process reimagination, application modernization, and optimizing AI systems for maximum performance. Planning and development work towards this work is well underway.

In January 2025, under new federal leadership, Executive Order 14179 emphasized removing barriers to American AI innovation while maintaining ethical standards. Miami-Dade County has positioned itself as a leader in adopting AI responsibly by aligning its framework with federal guidelines and emphasizing workforce literacy and training.

In the coming year, ITD remains committed to addressing evolving challenges and considerations. Key focus areas include governance and ethics, transparency and accountability, data privacy and security, workforce impact, infrastructure and technical challenges, and cost management. The County is developing clear guidelines for AI use, ensuring alignment with values and legal requirements, while also investing in employee training and upskilling programs to prepare for AI integration. This work will encompass the third annual report that will be presented to the Board of County Commissioners in the first quarter of 2026.

This report will be placed on the next available Board Agenda pursuant to rule 5.06(j) of the Board's Rules of Procedure. Should you need further information, please contact Margaret Brisbane, ITD Director, at 305-596-8320.

Attachment

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2025 Artificial Intelligence Report: Roadmap and Annual Update

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Letter from the Mayor

Artificial Intelligence (AI) is one of the most transformative technologies of our era, offering unprecedented opportunities for government to enhance public services and improve quality of life for our community. I am pleased to present our comprehensive 2025 AI report, outlining our vision for a future-ready Miami-Dade County. We are committed to harnessing the transformative power of AI to enhance our services, improve efficiencies, and create new opportunities for all.

AI has the potential to revolutionize how we address complex challenges. The strategic approach outlined in this report ensures that we leverage this technology responsibly, ethically, and transparently, while always prioritizing the needs and wellbeing of our community.

This report reflects our commitment to three key focus areas:

1. **AI Innovation and Strategic Use Cases:** We are dedicated to implementing AI solutions that enhance public services, optimize operations, and foster innovation across our County. From improving transit systems to streamlining administrative processes, AI will play an important role in building an even more responsive and efficient government.
2. **Talent and Workforce Empowerment:** Our greatest asset is our people. We are investing in programs to develop AI skills within our county workforce and attract top talent to our region. This initiative will not only create new job opportunities but also ensure that we are at the forefront of technological advancement.
3. **Technology, Governance, and Infrastructure:** We are committed to developing frameworks for the ethical use of AI by ensuring data privacy and building the necessary infrastructure to support these advanced technologies. Our goal is to create a secure, transparent, and trustworthy AI ecosystem that serves all residents of our great County.

As we continue to invest in a future-ready Miami-Dade this year and beyond, we will focus on collaborative projects that demonstrate AI's practical benefits in areas such as public safety, environmental resilience, and economic development. We are excited about the road ahead and committed to ensuring that AI is used to benefit all residents, across all communities.

I invite all residents, businesses, and organizations to join us on this journey. Together, let's embrace this technology with optimism and responsibility, always keeping in mind our ultimate goal to improve the lives of all who call Miami-Dade home.

Sincerely,



Daniella Levine Cava, Mayor
Miami-Dade County



Leveraging AI to Advance the County Mission

In response to Resolution R-659-23 adopted on July 6, 2023, and the subsequent 2024 Artificial Intelligence (AI) Report – Directive No. 231203, this 2025 report serves as an update on our initial exploration of this revolutionary technology. Miami-Dade County is at the forefront of embracing artificial intelligence to enhance public services and improve the quality of life for its residents. AI continues to evolve rapidly, with new developments emerging at an unprecedented pace. This report outlines our approach to AI implementation, governance, and innovation across various County departments and initiatives.

The County is committed to exploring streamlined AI solutions that automate and enhance efficiencies leveraging existing in-house capabilities and vendor systems. As AI becomes increasingly prominent in government operations, the County will embrace its advantages while maintaining a thoughtful strategy to improve efficiency and effectiveness in achieving County goals.

Our approach addresses potential challenges, including ensuring data privacy, maintaining cybersecurity, and managing the ethical implications of AI decision-making and analytics. This document positions our County to enhance operations, provide better services, and govern more efficiently, all while staying true to our commitment to responsible management and public service.

Current State of AI in Miami-Dade County: An Organizational Assessment

The Office of Mayor Daniella Levine Cava and the Information Technology Department (ITD) are spearheading the implementation of Miami-Dade County's comprehensive AI strategy. The approach focuses on forming diverse teams of professionals to leverage technical knowledge and varied skill sets, assessing benefits and impacts, training staff, and fostering collaborations with external partners.

Over the past year, ITD has made significant strides including:

1. **Research and Development (R&D):** Established an R&D function to develop AI beta pilots and create a framework for evaluating departmental AI use cases and projects.
2. **Countywide Assessment:** Conducted a comprehensive AI Assessment Survey and Study to gauge the current state and potential of AI across County departments.
3. **AI Advisory Council:** Launched a council to address security, privacy, and technology considerations, establishing a Community of AI Practice.
4. **Data Governance:** Developed best practices for data governance and updated values, policies, and guidelines to facilitate AI technologies in the County.
5. **Workforce Impact Analysis:** Assessed the impact of AI on the County workforce and established partnerships for upskilling programs to retool staff skill sets.
6. **Procurement Policy:** Developed recommendations for AI-related procurement policies and vendor documentation to ensure ethical and effective AI adoption.
7. **Future-Ready Beta Labs:** Initiated the first public-facing AI use cases for beta testing and community feedback, promoting transparency and public engagement.
8. **AI Resource Hub:** Restructured the County's technology website creating a space dedicated to AI resources, policies, and information, enhancing accessibility and transparency.

Governance and Oversight for AI Implementation

The County established a governance structure to ensure responsible and effective AI implementation. To guide our AI journey, the County formed an AI Advisory Council comprising subject matter experts from across County departments. This structure consists of seven specialized workgroups, each with distinct responsibilities, ensuring a comprehensive approach to AI adoption and management.

AI Executive Steering Workgroup

Policies & Guidelines

Workforce Development & Training

Innovation & Use Cases

Security & Risk Management

Technology & Governance

Procurement & Vendor Management

The workgroups have been instrumental in identifying three (3) key focus areas and associated activities (workstreams) that will guide our roadmap for 2025-2026. This strategic planning aims to implement specific impactful initiatives to meet the diverse needs of County employees, businesses, and residents alike.

Key Focus Areas:

1. AI Innovation and Strategic Use Cases

This area focuses on how AI can transform public services and improve quality of life for Miami-Dade residents. Our efforts encompass streamlining existing processes, piloting innovative programs, and forging partnerships with organizations for advanced AI solutions. The key objective is to identify use cases where AI can drive efficiency, reduce costs, and improve service delivery, thereby enhancing government transparency and accountability.

2. Talent and Workforce Empowerment

Recognizing that our employees are the cornerstone of successful AI adoption, this focus area emphasizes fostering AI skills within our workforce and attracting top talent. We are developing comprehensive training programs, leadership initiatives, and establishing collaborative partnerships with universities to ensure the successful adoption and implementation of AI technologies.

3. Technology, Governance, and Infrastructure

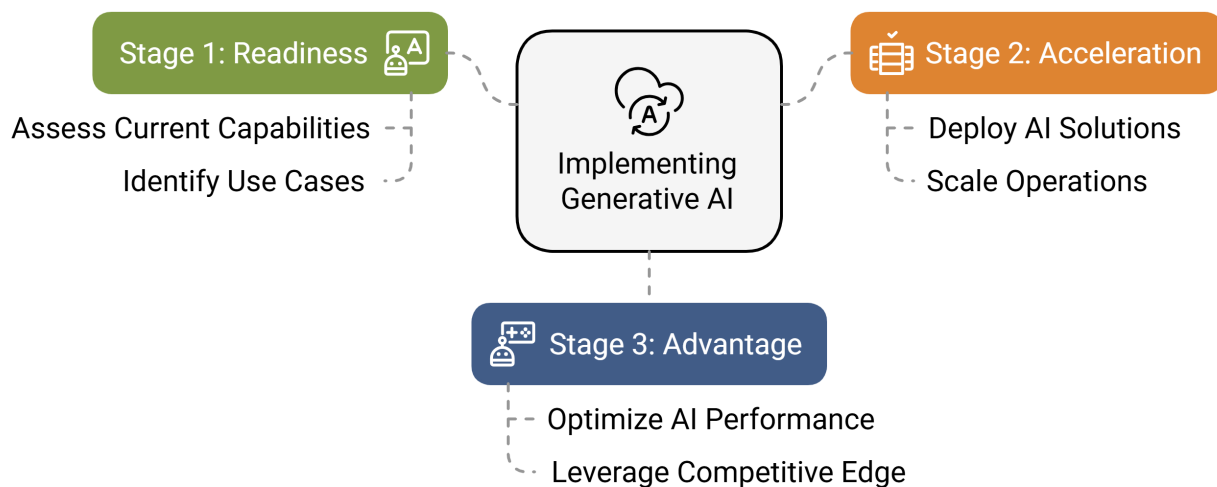
Responsible governance is imperative for AI implementation. The County has established a structure to support governance, policies and standards. This comprehensive framework encompasses data security measures, risk management protocols, procurement guidelines, and initiatives aimed at building public trust through ethical guidelines and standards.

These focus areas are interconnected and mutually reinforcing. By simultaneously advancing innovation, empowering our workforce, and ensuring sound governance, we're creating a culture that will embrace AI in Miami-Dade County. This approach ensures that we're leveraging these technologies in a way that truly benefits our community.

The County Technology Journey: Implementing County AI from 2023 to Today

To achieve the activities within the key focus areas, Miami-Dade County recognizes the need for its technology and infrastructure to keep pace with AI advancements leveraging AI solutions effectively across County operations to enhance services. Therefore, ITD has adopted a phased approach to AI technology maturity and strategy, ensuring responsible implementation while maximizing value. This structured technology approach aligns with industry-leading research, including Deloitte's "Empowering Government with Generative AI" and Gartner's "Artificial Intelligence Primer."

Implementing Generative AI: A Structured Approach



Stage 1. Generative AI Readiness: Mobilizing GenAI Adoption at Speed and Scale

The County's IT Department has focused on this phase prior to the submission of the first report to the Board of County Commissioners in April of 2024. This initial phase was focused on preparing the enterprise for widespread adoption of Generative AI. Key activities included:

- **County GenAI Strategy:** Established cross-departmental AI Advisory Workgroups defining a strategic vision for AI aligning initiatives with County objectives, explored workforce development opportunities and developed a process to identify high-priority use cases.
- **Training and Upskilling:** Established partnerships with national partners and local academic anchor institutions to prepare training programs to equip employees with the skills and knowledge they need to work with AI technologies.
- **Innovating with GenAI:** Conducted an iterative R&D process to prototype and test use cases to address specific challenges and developed a model to receive community feedback.
- **GenAI Model and Governance:** Established a governance framework for AI, including policies, procedures, and security guidelines to ensure responsible and transparent AI deployment.
- **Technology and Data Foundations to Enable GenAI:** Developed the necessary data infrastructure to support AI, including security, data pipelines and anonymization, and integration policies.

Stage 2. Generative AI Acceleration: Driving Value with Resident and Employee GenAI Experiences

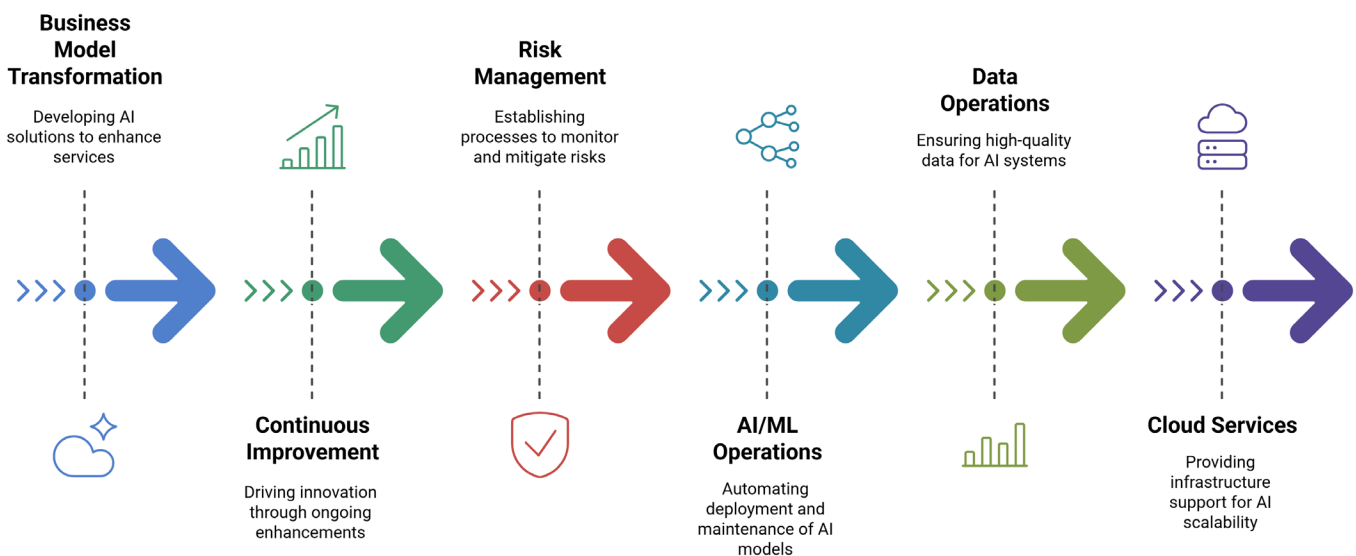
This next phase for the County is focused on R&D, testing and scaling successful AI implementations that create tangible benefits for County residents and employees. Key activities include:

- **Building and Deploying GenAI Solutions:** Deploying AI solutions to improve and enhance services across County departments.
- **Process Reimagination with GenAI:** Evaluating existing processes and workflows, and redesigning them with AI to enhance efficiency, productivity, and service delivery.
- **Application Modernization with GenAI:** Modernizing existing County applications with AI to enhance functionality, improve user experience, and automate tasks.
- **Data and Cloud Transformation:** Implementing modern data management practices, including data governance, data quality, and data integration, to ensure that AI systems have access to reliable and high-quality data. Leveraging cloud technologies to support AI infrastructure and data management, enabling scalability, flexibility, and cost-effectiveness.

Stage 3. Generative AI Advantage: Maximizing GenAI Model and Platform Performance

This final stage is focused on optimizing AI systems, driving innovation, and creating a sustainable competitive advantage for the County. Key activities include:

- **Business Model Transformation and Process Improvement:** We will deploy AI solutions to improve and enhance services. We will be driving innovation through process improvement practices to optimize AI solutions, enhance performance, and ensure we adapt to changing needs of County operations.
- **GenAI Risk Management and Governance Operations:** Establishing risk management and security governance processes to monitor AI systems and mitigate potential risks.
- **AI/ML Operations (AI/ML Ops):** Automating and streamlining the deployment, monitoring, and maintenance of AI and machine learning models to improve efficiency and reliability.
- **Data Operations:** Providing managed services for data management, including data quality, data integration, and data governance, to ensure that AI systems have access to high-quality data.
- **Cloud and Application Managed Services to Support GenAI:** Offering managed services for cloud infrastructure and applications to support AI systems, ensuring scalability, security, and reliability.



Navigating the Landscape of AI: Opportunities and Considerations for Miami-Dade County

As Miami-Dade County embraces AI to enhance its mission, it's essential to address the evolving challenges and considerations accompanying this technology. While AI offers transformative opportunities, the County is committed to navigating its integration thoughtfully and responsibly. This journey is guided by a comprehensive approach that emphasizes ethical implementation, transparency, and community benefit.

Key considerations include:

- **Governance and Ethics:** The County is developing clear guidelines for AI use, ensuring alignment with values, Florida Statutes, and legal requirements. Employees will be regularly trained and provided with resources to ensure countywide adherence to established policies.
- **Transparency and Accountability:** Miami-Dade is committed to fostering public trust through transparent AI decision-making processes. AI will be made available for testing and feedback via online beta testing before the launch of solutions to ensure we are building solutions that make sense.
- **Data Privacy and Security:** The County prioritizes adherence to stringent data privacy standards and regularly conducts comprehensive security assessments, informed by standards from the National Institute of Standards and Technology (NIST). County cybersecurity standards and training have been modified to include the most current industry standards and guidelines, including best practices for securing AI systems and addressing AI-specific threats.
- **Workforce Impact:** Recognizing that our employees are central to our AI strategy, Miami-Dade is investing in strategic academic partnerships and upskilling programs to prepare employees for AI integration, focusing on augmenting employee work rather than replacing it. In partnership with industry and academic organizations, the County provides training to prepare employees with the skills needed to succeed in an AI-driven environment. The County will also explore the creation of cross-departmental innovation teams empowering diverse teams to learn new skills.
- **Infrastructure and Technical Challenges:** The County recognizes the need for sound technical infrastructure to support AI implementation. Investment strategies for cloud infrastructure, data storage, and retirement of legacy systems are well underway, ensuring the County's technological foundation is prepared for the demands of AI. ITD is actively building capabilities to facilitate AI efforts and provide governance and direction.
- **Cost Management and Budgets:** The County will invest strategically in AI solutions that deliver measurable value within budget constraints, understanding the need to find efficiencies and sound solutions to identify cost savings and improve public services.

The Administration remains committed to harnessing the potential of emerging technology, while thoughtfully addressing potential challenges through governance, clearly defined guidelines, workforce development initiatives, and ongoing community engagement.

The goal is to create a more innovative and efficient government for all residents, ensuring that AI serves as a force for positive change throughout Miami-Dade County.

Responsible AI: Policies and Guidelines for County Employee Use of Generative AI Tools

Our updated guidelines enable employees to utilize AI tools effectively, while ensuring that their use aligns to County values. Through implementing clear guardrails and training, we can leverage AI to enhance our operations without compromising our commitment to accountability and public trust. Below are the areas the County policy will focus on.

Authorized Tools

Policy: Use only County-approved generative AI tools for work-related tasks.

Guideline: Stay informed about the County-approved AI tools list, regularly updated and maintained by ITD. Access the most current list and related resources at miamidade.gov/technology.

Collaboration

Policy: Engage with ITD and strategically aligned departments for deployment of AI.

Guideline: Collaborate across departments and consult with ITD when using AI tools to maximize benefits and avoid duplication of efforts. This collaboration is imperative to maximizing benefits, aligning efforts with County-wide AI strategy, ensuring data security and cost efficiencies.

Data Protection

Policy: Adhere strictly to data privacy standards and security protocols as managed by the ITD's Cybersecurity division.

Guideline: Never input sensitive County data, personal information, or confidential materials into public AI tools such as ChatGPT, Perplexity.ai, Grammarly, etc. Protect sensitive information and prevent unauthorized access.

Do not post sensitive information that could put County data in jeopardy.

Content Verification

Policy: Ensure that all AI-generated content undergoes thorough human review and validation before finalization, dissemination, or implementation.

Guideline: Always verify, fact-check, and critically evaluate any content generated by AI tools before using it in official communications, documents, decision-making processes, or public services. AI-generated content should be considered a starting point and not a substitute for professional judgment, expertise, or independent verification.

Ethical Use

Policy: Align all AI use with County ethical standards, policies, and guidelines, prioritizing privacy and responsible innovation.

Guideline: Use AI tools to enhance work, not to replace critical thinking or decision-making.

Respect Copyrights

Policy: Ensure full compliance with all applicable intellectual property laws, copyright regulations, and licensing agreements.

Guideline: Be mindful of potential copyright issues when using AI-generated content, especially for public-facing materials. Conduct thorough research and seek legal guidance when in doubt about the copyright status or permissible use of AI-generated content.

Transparency

Policy: Always cite AI generated content.

Guideline: Disclose the use of AI-generated content in the development of public-facing documents, communications, creative materials, or other outputs, as appropriate.

County AI Trainings and Surveys

Policy: Complete all mandatory employee training programs related to AI and provide constructive feedback to enhance the effectiveness of these programs.

Guideline: Actively participate in County-provided training sessions, workshops, and online modules on responsible AI use, data privacy, cybersecurity best practices, and ethical considerations. Share your insights, suggestions, and concerns through Countywide AI surveys and tool evaluations to contribute to the ongoing improvement of our AI strategy.

Continuous Learning

Policy: Stay consistently updated on the capabilities, limitations, evolving functionalities, and potential risks associated with the AI tools you use.

Guideline: Engage in ongoing education, self-directed learning, and professional development activities to stay abreast of the latest AI advancements, emerging trends, and innovative applications in government services. Participate in relevant workshops, conferences, webinars, and online communities to expand your knowledge and expertise.

Reporting

Policy: Immediately report any unexpected, concerning, unethical, or potentially harmful outputs, behaviors, or results generated by AI tools.

Guideline: Promptly report any unexpected or concerning outputs from AI tools to the IT Department. Provide a detailed email of your issue with screenshots and send to the Incident Response Security Team at ITD-INRES@miamidade.gov.

These policies will evolve as these emerging technologies advance. Adhering to these policies and guidelines ensures Miami-Dade County employees can responsibly harness the power of AI to enhance public services, improve efficiency, and create a more responsive government for County residents.

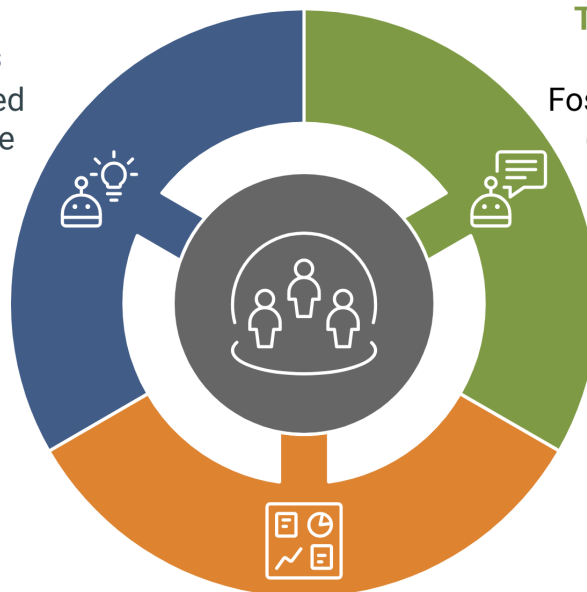
25-26 Roadmap:

Key Focus Areas and Associated Workstreams

Aligned with the structured technology stages (Readiness, Acceleration and Advantage), the County will strategically address three key focus areas and associated workstreams throughout 2025 and 2026 to drive realistic outcomes.

County AI Deployment Strategy

AI Innovation and Strategic Use Cases
Implement AI supported solutions that increase efficiency, reduce costs, and improve service delivery.



Talent and Workforce Empowerment
Fostering AI skills within the existing workforce and attracting top talent.

Technology, Governance, and Infrastructure
Effective governance and foundational infrastructure, combined with technology capabilities to support AI implementation.

Key Focus Area: AI Innovation and Strategic Use Cases

Workstreams

The primary goal for this key focus area is to leverage AI to transform public services and enhance the quality of life for County residents. The objective is to identify and implement AI-driven solutions that increase efficiency, reduce costs, and improve service delivery, ultimately enhancing government transparency and accountability.

1. Innovation Incubation

Establish a sandbox and Future-Ready Innovation Lab to foster collaboration, partnerships, experimentation and development of AI solutions addressing specific government challenges.

2. Public Service Enhancement

Implement AI-powered chatbots for personalized service delivery.

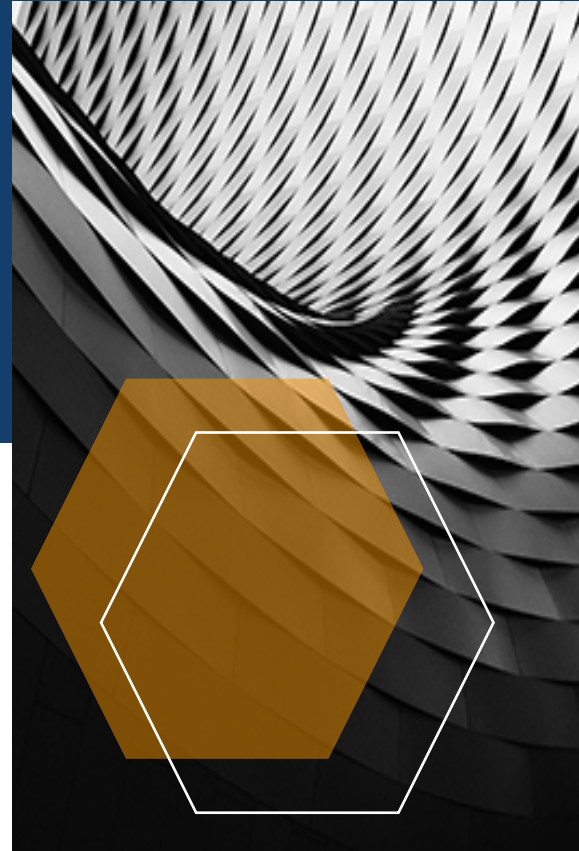
Develop AI-driven predictive maintenance systems for public infrastructure.

3. Operational Efficiency

Utilize AI for automating repetitive administrative tasks, enhancing predictive analytics, and improving decision-making processes.

Implement document automation and automated compliance reporting systems.

AI Use Cases will be released for public testing and feedback at the Future-Ready Beta Labs. For more information, visit miamidade.gov/betalabs.



Action Items

Implement Use Case Intake and Evaluation Process according to the following steps:

Identify (Ideate)

Create a systematic process for identifying high-potential AI opportunities aligned with the County's strategic direction.

Assess (Evaluate)

Evaluate technical feasibility, alignment to mission, and organizational readiness for identified use cases.

Prioritize (Develop)

Develop a ranked portfolio of AI initiatives based on impact, effort, and organizational fit.

Launch (Execute)

Successfully validate, implement, deliver, and measure AI solutions while ensuring compliance and risk management.

Based on our organizational assessment, we have identified several high-priority AI projects that align with County goals and offer significant potential for improving services and operations.

The criteria for scoring and prioritizing AI use cases will be based on 8 key factors that can be found online at miamidade.gov/technology. These methods for prioritization support a systematic approach to identify (Ideate), assess (Evaluate), prioritize for development (Develop) and prepare for public launch (Execute), ensuring AI use cases focus on initiatives that offer the greatest value, align with strategic goals, and adhere to ethical and operational standards. Current use cases are detailed below:

Use Case	Status
Public Benefit AI Assistant <i>Aiding residents in identifying and applying for public benefit programs</i>	Ideate
Agentic Customer Experiences <i>AI-powered experiences that can act on behalf of a customer for 311 service requests.</i>	Ideate
AI-powered Contract Management System <i>Solution that streamlines and automates key aspects of contract management.</i>	Ideate
Vendor Assistance Chatbot <i>Solution that provides those looking to do business with the County with tailored information regarding rules, regulations, and processes.</i>	Ideate
AI-powered Predictive Maintenance <i>Solutions that streamline the preventative maintenance of assets.</i>	Ideate
Crowd Management and Patron Flow <i>Leveraging AI analysis of CCTV for real time updates on special events, crowd assistance, and transportation operations support.</i>	Evaluate
MIA Environmental Analytics AI Tool <i>Solution to enhance environmental data management and gain insights for staff and patrons.</i>	Evaluate
Housing Special Assessment Loan Assistance Pilot <i>Solution to streamline the loan process utilizing Microsoft Copilot and partnership with Google.org CiviForm to automate steps and reduce the backlog of loan requests.</i>	Evaluate
HR Employee Resource Chatbot <i>Chatbot resource to answer common questions related to employee rules and benefits.</i>	Develop
SPD AI Assistant <i>A 24/7 virtual assistant for procurement staff, providing interactive, context-sensitive guidance on complex processes, ensuring consistent policy application, and aiding new hire training.</i>	Develop
Where Assistant <i>Generative AI experience created with ESRI relating to mitigating extreme heat featuring mapped data (water fountain locations, tree coverage, and more).</i>	Execute
Self-Service AI Assistant Interact Voice Response (IVR) <i>Cisco Virtual Agent application utilizing Google AI as a resource to answer questions related to WASH customer service.</i>	Execute
Strive 305 Bot <i>AI Assistant with information on how to start a business, how to work with the County, and more.</i>	Execute
Pawfect Match <i>Chatbot tool that provides pet recommendations from shelter based on adopter preferences.</i>	Execute
Back Office Efficiency AI Solutions <i>Leveraging AI to analyze contracts, long documents, SOPs, Cyber Security Scans and Reviews using Microsoft Azure and Copilot Git Hub to reduce process time.</i>	Execute

Key Focus Area: Talent and Workforce Empowerment

Workstreams

This key focus area is centered on developing AI skills within the existing workforce and attracting top talent to ensure the successful adoption and implementation of AI technologies.

1. Mentorship and Talent Programs

Establish mentor programs to foster idea and knowledge sharing.

Develop strategies to compete with the private sector for top AI talent to support County initiatives.

2. Training and Development

Conduct a comprehensive AI skills gap analysis across all departments, utilizing data analytics to identify specific areas of focus.

Develop a persona-based training strategy based on skill level and career track for employees to develop AI-related competencies. (Awareness, Literacy, and Upskilling)

Offer AI certifications and courses to public-sector employees through partnerships with local educational institutions.

3. Career Path Development

Create clear career paths for County professionals that acquire AI skills to ensure long-term retention and growth within the government sector.

By investing in people, the County aims to foster a culture of AI innovation and expertise, positioning itself as a leader in public sector AI deployment and integration.



Action Items

Implement workforce upskill opportunities and easy to access resources:

Launch InnovateUS

Microsite created to train public servants with basic skills to use generative AI tools.

Promote MS Learning Hub

Leverage existing Microsoft resources to provide self-paced online training.

Enable LinkedIn Learning

With a Library Card using County employee email, all employees can access thousands of online courses.

Promote MDC ENTEC

Train employees how to access free credit courses and certification opportunities.

Launch Developer Courses

Monetize access to vendor training and Pluralsight online courses for technical upskilling.

Key Focus Area: Technology, Governance, and Infrastructure

Workstreams

This focus area emphasizes responsible governance and strong infrastructure to support AI implementation, ensuring data security, risk management, and public trust.

1. Technology Infrastructure Development

Develop and maintain the necessary technology infrastructure to support AI systems, including data storage, processing capabilities, and AI testbeds.

Expand efforts to centralize data.

Ensure compliance with AI-related regulations and standards, adapting existing frameworks where necessary.

2. Risk Management and Oversight

Identify and mitigate risks associated with AI deployment, including cybersecurity threats and data privacy concerns.

Implement AI-driven predictive analytics for enhanced security measures.

3. Accountability and Transparency

Ensure transparency in AI decision-making processes and establish accountability structures for AI use.

Develop metrics to measure the impact and effectiveness of AI procurements and implementations.

Creating a well-defined technology stack optimizes the development process by streamlining workflows, enhancing performance, and ensuring scalability while fostering team efficiency and cost-effectiveness.

Action Items

Establish IT Architecture

Create strategy to modernize infrastructure and plan for a future-state environment.

Develop Technology Stack

Provide a structured set of technologies that developers can use to build and purchase software applications effectively, ensuring consistency, scalability, and efficiency.

Create R&D Sandbox

Provide a safe and controlled environment for experimentation, allowing teams to innovate, validate ideas, and troubleshoot without the risk of impacting live systems or operations.

Retire legacy applications

Utilize low code and AI technology to modernize applications that threaten the security and privacy of County data.

The Future of AI:

What to Expect in the Next 3 to 5 Years

As we look to the horizon of AI in local government, Miami-Dade County stands at the forefront of a technological revolution that promises to reshape public service delivery.

In the next three to five years, Miami-Dade County is poised to experience a transformative shift driven by advancements in AI. These innovations promise to redefine the efficiency of work processes and decision-making. This new generation of AI will be able to make its own plans and carry out tasks to reach goals that users set. This means it can function like a virtual team that helps get work done more efficiently. A well-structured roadmap is essential for achieving success as it provides clear direction, aligns team efforts, and sets measurable goals.

Gartner provides a concise roadmap outlining the key activities the County must undertake to successfully navigate this journey.

AI Roadmap at a Glance

	← Initial activities				Advanced activities →
 AI strategy	Define the AI vision	Analyze external trends	Communicate the AI strategy	Identify priorities for AI portfolio	Establish process to refine AI strategy
	Measure AI maturity	Initiate the AI strategy	Set adoption goals for AI roadmap	Measure AI strategy success	
 AI value	Prioritize initial AI use cases	Run initial AI pilots	Establish process to prioritize AI portfolio	Implement AI FinOps practices	Setup AI value monitoring system
	Define value for initial AI use cases	Track value of initial use cases	Introduce product management practices	Launch an initial AI product	Establish an AI product portfolio
 AI organization	Create an AI resourcing plan	Appoint an AI leader	Establish AI target operating model	Set up process to manage AI partnerships	
	Set up an AI community of practice	Set up an initial AI team/center of excellence	Form initial external AI partnerships		
 AI people & culture	Create an initial AI workforce plan	Create an AI change management plan	Set up process to evaluate AI workforce impact	Define business champions to drive AI literacy	
	Set up process for review of roles and job redesign	Create initial AI awareness campaigns	Launch an AI literacy program	Set up monitoring of employee readiness for AI	
 AI governance	Identify top AI risks and mitigation	Establish AI ethical principles	Set enforcement processes	Set up cross-functional AI governance board	Use AI literacy programs for AI governance
	Define initial AI policies	Gain buy-in for AI governance approach	Define decision rights for AI	Define target governance AI operating model	Pilot AI governance tooling
 AI engineering	Establish build vs. buy framework	Set up a sandbox environment	Define AI reference architecture	Establish MLOps/ModelOps practice	Design and embed AI UI/UX best practices
	Select vendors for initial AI use cases	Develop a library of design patterns	Create an AI vendor and application strategy	Set up an AI observability system	Stand up AI platform engineering
 AI data	Assess data readiness for initial AI use cases	Build data analytics for AI	Extend data governance to support AI	Establish an AI data quality framework	Implement data observability for AI
	Implement data readiness plan	Gain buy-in to evolve data capabilities for AI	Evolve data capabilities for AI	Adapt metadata Practices for AI	

Source: Gartner
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Gartner

A Vision for 2026 and Beyond

AI is advancing at a rapid pace. As the County embraces future possibilities, it remains committed to core principles of delivering easy to access resident services. This AI roadmap and update marks the threshold of a new era in Miami-Dade County. Over the next year, ITD will explore the possibilities of AI with County departments to make these ideas a reality.

1. **AI in Transportation and the Ports:** By harnessing the power of AI and big data analytics, we envision a future where information is tailored to individual needs. This could include AI-driven traffic patterns, optimal routes, and increased efficiency in services, enhancing the overall transportation and port experience.
2. **AI-Enhanced Emergency Response and Disaster Management:** By developing AI systems that can predict natural disasters, we can optimize evacuation routes, and coordinate emergency responses in real-time. These technologies will help us save lives and minimize damage during crisis situations.
3. **AI Agents for 311 and, Social and Public Services:** Building on our current chatbot implementations, we're working towards more sophisticated AI assistants that can handle complex citizen inquiries across multiple departments, providing a seamless and personalized "No Wrong Door" government experience. These AI agents will be able to understand context, access multiple databases, provide comprehensive answers to resident queries, and propagate service requests with one AI conversation.
4. **AI-Powered Environmental Management:** By utilizing AI, we can monitor and manage environmental factors such as water quality, air pollution, and coastal erosion. This technology can help in early detection, optimize resource allocation, and support sustainable development initiatives in the County.
5. **Smart Energy Management:** Deploying AI systems to optimize energy consumption in County buildings, manage renewable energy resources, and develop smart grid solutions. This can lead to significant cost savings and contribute to Miami-Dade County's sustainability goals.
6. **AI in Libraries:** Leveraging AI to enhance educational services in County-run libraries will allow for the enhancement of user experience. This could include personalized learning platforms, AI-driven tutoring systems, and predictive analytics to identify and support our most vulnerable communities.
7. **AI for Economic Development:** Utilizing AI to analyze economic trends, identify growth opportunities, and support local businesses, lends itself to enhanced economic opportunities. This could include AI-driven platforms for connecting local entrepreneurs with resources, predictive models for economic impact assessments, and intelligent systems for attracting and retaining businesses in the County.

Looking ahead to our third report in 2026, we envision Miami-Dade County as a national leader and partner contributing to responsible AI adoption in local government.

We envision a future where:

- **AI-enhanced services seamlessly integrate with residents' daily lives, making government interactions effortless and personalized.**
- **Our workforce is empowered by AI, focusing on high-value tasks that require human creativity, empathy, and strategic thinking.**
- **Data-driven decision-making is utilized, powered by advanced AI analytics, leading to more effective policies and resource allocation.**
- **Miami-Dade County becomes a hub for AI innovation, attracting top talent and fostering a thriving ecosystem of tech startups and research institutions.**

Glossary

The definitions of the following terms referenced in this document are drawn from Executive Order 14110, the Department of Homeland Security, and Gartner unless otherwise specified.

ARTIFICIAL INTELLIGENCE (AI): The term “Artificial intelligence” (AI) meets the definition spelled out in 15 U.S.C. 9401(3): a machine-based system that can, for a given set of human-defined objectives, make predictions, recommendations, or decisions influencing real or virtual environments. Artificial intelligence systems use machine- and human-based inputs to perceive real and virtual environments; abstract such perceptions into models through analysis in an automated manner; and use model inference to formulate options for information or action.

AI ASSISTANT: Generative AI Assistants are AI systems that utilize machine learning models to generate text, images, or other forms of content based on user prompts. These assistants are primarily focused on enhancing user experience by providing relevant information, answering questions, and assisting with tasks.

AGENTIC AI: The term “Agentic AI” represents a more advanced form of artificial intelligence that operates with a degree of autonomy. These systems are capable of making decisions and executing actions based on their programming and learned experiences. Examples of Agentic AI include autonomous vehicles, robotic process automation, and AI systems used in strategic planning and resource management.

AI MODEL: The term “AI model” means a component of an information system that implements AI technology and uses computational, statistical, or machine learning techniques to produce outputs from a given set of inputs.

AI SYSTEMS: The term “AI systems” means any data system, software, hardware, application, tool, or utility that operates in whole or in part using AI.

GENERATIVE AI: The term “generative AI” (or, GenAI) means the class of AI models that emulate the structure and characteristics of input data in order to generate derived synthetic content. This can include images, videos, audio, text, and other digital content.

LARGE LANGUAGE MODEL: The term “large language model” (LLM) means a type of machine learning model that is trained on a broad set of general domain data for the purpose of using that model as an architecture on which to build multiple specialized AI applications.

MACHINE LEARNING: Machine learning (ML) focuses on the development of computer programs that can access data and use it to learn for themselves. In simple words, it is a model or a function that the computer makes itself based on the input we provide corresponding with the output we want.

QUANTUM COMPUTING: Quantum computing is a multidisciplinary field comprising aspects of computer science, physics, and mathematics that utilizes quantum mechanics to solve complex problems faster than on classical computers.

References

This report was developed through a combination of research, interviews, and prompts utilizing tools such as Grammarly, ChatGPT, Gemini, Perplexity AI, and Napkin AI. It heavily drew upon Gartner research, along with the 2024 and 2025 AI primers, and included in-depth discussions with Gartner analysts and experts.

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