ITS AMERICA

PATH TO AI MATURITY

SELF-ASSESSMENT WORKSHEET

PURPOSE

This self-assessment worksheet is designed to **help organizations evaluate their current state and readiness for AI implementation.** By working through the guide, your team will align expectations and gain a clear understanding of **how AI maturity is shaped** by your organization's unique context and risk profile, especially in the field of transportation. **Use this tool to identify strengths, pinpoint areas for improvement, and inform your next steps toward responsible, effective AI adoption.**

DIRECTIONS

Bring together a cross-functional team for **a focused 60–90 minute session.**

Work collaboratively through each section, discussing evidence and perspectives as you rate your organization's maturity.

Use your scores and insights to **develop a clear action roadmap for the next 12 months.**

Refer to the ITSA AI Implementation Guide for more details on these concepts as you complete this self-assessment.

ORGANIZATION CONTEXT — *Organization Profile*

Organization name: _____

Organization type:

☐ State DOT ☐ City/County DOT ☐ Transit Agency
☐ MPO ☐ Toll Authority ☐ Other _____

Primary transportation modes supported:
(check all that apply)

☐ Roadway ☐ Transit ☐ Freight ☐ Rail ☐ Parking
☐ Aviation ☐ Maritime ☐ Other _____

Primary AI drivers:
(rank top 3)

☐ Safety ☐ Mobility ☐ Asset Mgmt ☐ Operations Efficiency
☐ Customer Experience ☐ Resiliency ☐ Other _____

MATURITY SCALE

SECTION A — EXECUTIVE FUNCTION

Strategic Direction, Governance, and Culture

Which statement best describes your organization's use of AI today?

A1. AI Strategy & Leadership

EVIDENCE
(policy, plan, KPI, meeting)

☐ **1 – Aspirational**

We have identified potential AI opportunities aligned with transportation goals, but no formal strategy exists.

☐ **2 – Planning**

Leadership has approved or is developing an AI strategy aligned with organizational goals.

☐ **3 – Foundation Building**

Leadership actively monitors progress against an AI strategy using defined goals or KPIs.

☐ **4 – Deployment**

Leadership regularly evaluates AI maturity and adjusts strategy based on performance and outcomes.

☐ **5 – Optimization**

AI strategy is continuously refined to address emerging technologies, risks, and opportunities.

A2. Governance & Accountability

EVIDENCE

☐ **1 – Aspirational**

Roles and responsibilities for AI are informal or undefined.

☐ **2 – Planning**

A formal AI governance structure (e.g., governance group or lead) has been established.

☐ **3 – Foundation Building**

Governance coordination across executive, operational, and delivery functions is in place.

☐ **4 – Deployment**

Governance effectiveness is reviewed and improved based on lessons learned.

☐ **5 – Optimization**

Governance frameworks are updated proactively to address new AI risks and scaling needs.

A3. Responsible AI Culture

EVIDENCE

☐ **1 – Aspirational**

Responsible AI principles are acknowledged but not operationalized.

☐ **2 – Planning**

Leadership has defined an approach to Responsible AI adoption.

☐ **3 – Foundation Building**

Responsible AI principles are embedded into organizational practices.

☐ **4 – Deployment**

Responsible AI outcomes are measured and reported.

☐ **5 – Optimization**

Responsible AI practices are continuously refined to improve trust and outcomes.

MATURITY SCALE

SECTION B — OPERATIONAL FUNCTION

Governance, Assurance, Data, Technology, and Workforce

B1. Technical & Data Readiness

EVIDENCE

☐ **1 – Aspirational**

We have assessed AI technical readiness and identified data/infrastructure gaps.

☐ **2 – Planning**

A program exists to address data, technology, and infrastructure needs.

☐ **3 – Foundation Building**

DataOps, DevOps, and AI Ops are aligned with governance and security frameworks.

☐ **4 – Deployment**

AI operations are scaled for enterprise-level deployment.

☐ **5 – Optimization**

Data and technology resources are continuously updated to support AI improvement.

B2. AI Governance & Assurance Processes

EVIDENCE

☐ **1 – Aspirational**

We are learning from best practices but lack formal AI governance or assurance processes.

☐ **2 – Planning**

AI governance and assurance policies have been defined.

☐ **3 – Foundation Building**

KPIs are monitored to ensure compliance with AI policies and assurance requirements.

☐ **4 – Deployment**

Governance and assurance processes are consistently applied across AI deployments.

☐ **5 – Optimization**

Governance and assurance frameworks evolve continuously with new risks and standards.

B3. Workforce Skills & Capacity

EVIDENCE

☐ **1 – Aspirational**

We have assessed workforce skills related to AI and digital systems.

☐ **2 – Planning**

Responsible AI and AI-related training programs have begun.

☐ **3 – Foundation Building**

AI training and upskilling are scaled across the organization.

☐ **4 – Deployment**

Continuous learning cycles exist to keep pace with AI advancements.

☐ **5 – Optimization**

Workforce capabilities are advanced internally and across the broader ecosystem.

MATURITY SCALE

SECTION C — DELIVERY FUNCTION — *Proofs of Concept, Pilots, and Scaling*

C1. Learning & Early Exploration

EVIDENCE

☐ **1 – Aspirational**

We actively learn from peer agencies and industry AI deployments.

☐ **2 – Planning**

Proofs of concept (PoCs) are linked to organizational AI strategy and safety principles.

☐ **3 – Foundation Building**

Pilots incorporate assurance, KPIs, and partnerships for safety and security.

☐ **4 – Deployment**

AI solutions are implemented at scale with governance and monitoring integrated.

☐ **5 – Optimization**

Resilient, cybersecure, safety-by-design AI systems are maintained across their full lifecycle, including decommissioning.

SCORING RUBRIC & NEXT-ACTION MAPPING

Path to AI Maturity in Transportation

1 How to Calculate Scores

***Step 1** — Section Scores*

For each section, **record the numeric value (1–5)** selected.

Executive Function Score	Operational Function Score	Delivery Function Score
Average of A1, A2, A3	Average of B1, B2, B3	Score from C1

Rounding Rule

- 1.0–1.4 → 1
- 1.5–2.4 → 2
- 2.5–3.4 → 3
- 3.5–4.4 → 4
- 4.5–5.0 → 5

***Step 2** — Overall Organizational AI Maturity*

Take the **lowest** of the three function scores.

Why: AI maturity is constrained by the weakest function (consistent with the guide's emphasis on coordination across Executive, Operational, and Delivery functions).

Overall Maturity Interpretation

Overall Score	Maturity Stage	What This Means
1	Aspirational	AI interest exists, but foundations are not yet in place
2	Planning	Strategy and structures are forming, but not operational
3	Foundation Building	Core governance, data, and skills are being established
4	Deployment	AI is being implemented at scale with controls in place
5	Optimization	AI is continuously improved, resilient, and trusted

2 Next-Action Mapping by Maturity Stage

For additional guidance

*on assessing key risks and identifying next actions based on your organization's maturity stage, refer to ITSA's **Guide to Practical Next Steps for AI Implementation**.*

STAGE 1 — ASPIRATIONAL

Primary Objective	Key Risks at This Stage	Required Next Actions *(0–6 months)*
Move from interest to intent	• Fragmented pilots • Vendor-driven decisions • No ownership or accountability	• Identify 3–5 priority AI use cases aligned with transportation goals • Conduct an organizational AI readiness and gap assessment • Designate an executive sponsor for AI • Socialize Responsible AI principles internally

Evidence to Produce

- Initial AI opportunity list
- Gap assessment summary
- Executive sponsorship confirmation

STAGE 2 — PLANNING

Primary Objective	Key Risks at This Stage	Required Next Actions *(6–12 months)*
Create structure & direction	• Strategy without execution • Governance on paper only • Training not connected to roles	• Approve an organization-wide AI strategy • Establish an AI Governance Group with defined roles • Define AI governance and assurance policies • Launch role-based AI and Responsible AI training • Link proofs of concept (PoCs) to strategic goals and KPIs

Evidence to Produce

- AI strategy or roadmap
- Governance charter / RACI
- Training plan and participation records

STAGE 3 — FOUNDATION BUILDING

Primary Objective	Key Risks at This Stage	Required Next Actions *(12–18 months)*
Enable safe, scalable execution	• Data and tech bottlenecks • Inconsistent assurance • Workforce capacity lagging deployment	• Integrate DataOps, DevOps, and AI Ops with governance • Implement AI risk and assurance processes (monitoring, KPIs) • Establish AI use-case and risk registries • Expand workforce training across operational teams • Design and launch AI pilots with assurance embedded

Evidence to Produce

- AI Risk Management Policy
- RRRROperational KPIs
- Pilot evaluation reports

STAGE 4 — DEPLOYMENT

Primary Objective	Key Risks at This Stage	Required Next Actions *(18–24 months)*
Scale responsibly	• Technical debt • Governance drift • Loss of public trust	• Scale AI solutions across systems and programs • Enforce governance and assurance consistently • Integrate AI into IT/OT operations • Formalize monitoring, incident response, and reporting • Establish continuous workforce upskilling cycles

Evidence to Produce

- Scaled AI deployments
- Governance compliance reviews
- Monitoring and incident reports

STAGE 5 — OPTIMIZATION

Primary Objective	Key Risks at This Stage	Required Next Actions *(ongoing)*
Sustain, adapt, & lead	• Complacency • Legacy systems • Emerging AI risks	• Continuously refine AI strategy and governance • Update assurance processes for new AI technologies • Optimize data and technology architectures • Plan for AI system upgrades and decommissioning • Share lessons learned across the transportation ecosystem

Evidence to Produce

- Strategy updates
- Governance and assurance revisions
- Decommissioning and lifecycle plans

FUNCTION-SPECIFIC "WHAT TO FIX FIRST" GUIDANCE

If Executive Score is Lowest

focus first on:

- Strategy approval
- Governance ownership
- KPIs and accountability

If Operational Score is Lowest

focus first on:

- Data readiness
- Assurance processes
- Workforce capacity

If Delivery Score is Lowest

focus first on:

- Linking PoCs to strategy
- Pilot design with assurance
- Business cases for scaling