

# 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:	<hr/>					
Organization type:	<input type="checkbox"/> State DOT	<input type="checkbox"/> City/County DOT	<input type="checkbox"/> Transit Agency	<input type="checkbox"/> MPO	<input type="checkbox"/> Toll Authority	<input type="checkbox"/> Other <hr/>
Primary transportation modes supported: <i>(check all that apply)</i>	<input type="checkbox"/> Roadway	<input type="checkbox"/> Transit	<input type="checkbox"/> Freight	<input type="checkbox"/> Rail	<input type="checkbox"/> Parking	<input type="checkbox"/> Aviation
	<input type="checkbox"/> Maritime	<input type="checkbox"/> Other <hr/>				
Primary AI drivers: <i>(rank top 3)</i>	<input type="checkbox"/> Safety	<input type="checkbox"/> Mobility	<input type="checkbox"/> Asset Mgmt	<input type="checkbox"/> Operations Efficiency	<input type="checkbox"/> Customer Experience	<input type="checkbox"/> Resiliency
	<input type="checkbox"/> Other <hr/>					

# 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.

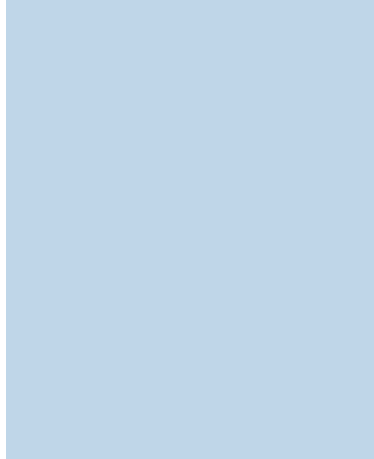
# MATURITY SCALE

## 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

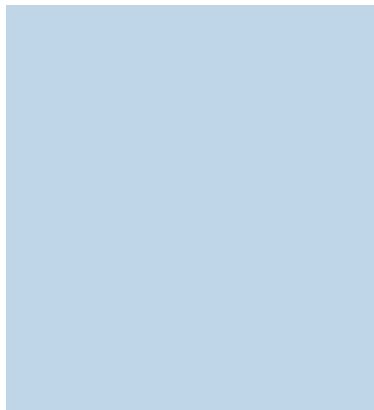
AI operations are scaled for enterprise-level deployment.

#### 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

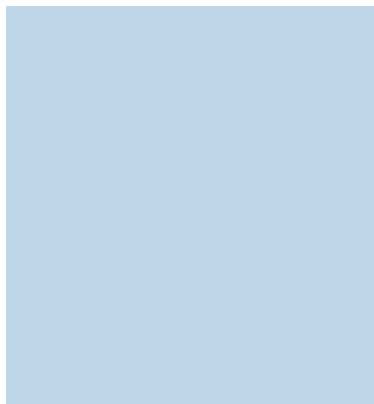
Governance and assurance processes are consistently applied across AI deployments.

#### 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

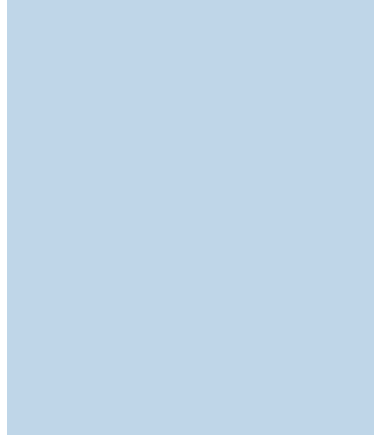
Workforce capabilities are advanced internally and across the broader ecosystem.

# 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)
 <p>Move from interest to intent</p>	<ul style="list-style-type: none"> <li>Fragmented pilots</li> <li>Vendor-driven decisions</li> <li>No ownership or accountability</li> </ul>	<ul style="list-style-type: none"> <li>Identify 3-5 priority AI use cases aligned with transportation goals</li> <li>Conduct an organizational AI readiness and gap assessment</li> <li>Designate an executive sponsor for AI</li> <li>Socialize Responsible AI principles internally</li> </ul>
<p><b>Evidence to Produce</b></p> <ul style="list-style-type: none"> <li>Initial AI opportunity list</li> <li>Gap assessment summary</li> <li>Executive sponsorship confirmation</li> </ul>		


### STAGE 2 — PLANNING

Primary Objective	Key Risks at This Stage	Required Next Actions (6-12 months)
 <p>Create structure &amp; direction</p>	<ul style="list-style-type: none"> <li>Strategy without execution</li> <li>Governance on paper only</li> <li>Training not connected to roles</li> </ul>	<ul style="list-style-type: none"> <li>Approve an organization-wide AI strategy</li> <li>Establish an AI Governance Group with defined roles</li> <li>Define AI governance and assurance policies</li> <li>Launch role-based AI and Responsible AI training</li> <li>Link proofs of concept (PoCs) to strategic goals and KPIs</li> </ul>
<p><b>Evidence to Produce</b></p> <ul style="list-style-type: none"> <li>AI strategy or roadmap</li> <li>Governance charter / RACI</li> <li>Training plan and participation records</li> </ul>		


### STAGE 3 — FOUNDATION BUILDING

Primary Objective	Key Risks at This Stage	Required Next Actions (12-18 months)
 <p>Enable safe, scalable execution</p>	<ul style="list-style-type: none"> <li>Data and tech bottlenecks</li> <li>Inconsistent assurance</li> <li>Workforce capacity lagging deployment</li> </ul>	<ul style="list-style-type: none"> <li>Integrate DataOps, DevOps, and AI Ops with governance</li> <li>Implement AI risk and assurance processes (monitoring, KPIs)</li> <li>Establish AI use-case and risk registries</li> <li>Expand workforce training across operational teams</li> <li>Design and launch AI pilots with assurance embedded</li> </ul>
<p><b>Evidence to Produce</b></p> <ul style="list-style-type: none"> <li>AI Risk Management Policy</li> <li>RRRROperational KPIs</li> <li>Pilot evaluation reports</li> </ul>		

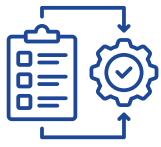
### STAGE 4 — DEPLOYMENT

Primary Objective	Key Risks at This Stage	Required Next Actions (18-24 months)
 <p>Scale responsibly</p>	<ul style="list-style-type: none"> <li>Technical debt</li> <li>Governance drift</li> <li>Loss of public trust</li> </ul>	<ul style="list-style-type: none"> <li>Scale AI solutions across systems and programs</li> <li>Enforce governance and assurance consistently</li> <li>Integrate AI into IT/OT operations</li> <li>Formalize monitoring, incident response, and reporting</li> <li>Establish continuous workforce upskilling cycles</li> </ul>
<p><b>Evidence to Produce</b></p> <ul style="list-style-type: none"> <li>Scaled AI deployments</li> <li>Governance compliance reviews</li> <li>Monitoring and incident reports</li> </ul>		

# STAGE 5 — OPTIMIZATION

Primary Objective	Key Risks at This Stage	Required Next Actions ( <i>ongoing</i> )
 <p><b>Sustain, adapt, &amp; lead</b></p>	<ul style="list-style-type: none"><li>• Complacency</li><li>• Legacy systems</li><li>• Emerging AI risks</li></ul>	<ul style="list-style-type: none"><li>• Continuously refine AI strategy and governance</li><li>• Update assurance processes for new AI technologies</li><li>• Optimize data and technology architectures</li><li>• Plan for AI system upgrades and decommissioning</li><li>• Share lessons learned across the transportation ecosystem</li></ul>
<b>Evidence to Produce</b>	<ul style="list-style-type: none"><li>• Strategy updates</li><li>• Governance and assurance revisions</li><li>• Decommissioning and lifecycle plans</li></ul>	

## 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