AI-Native Maturity Assessment for Engineering Organizations

In practice, almost everything collapses into two questions:

1. **Are we creating real outcomes?** — not just shipping features, but delivering business value
2. **Are we increasing leverage?** — producing better outcomes without linearly increasing human effort

AI-Native transformation tends to increase output first. If you treat increased output as the goal, the cost of creating outcomes grows proportionally—leading to organizational exhaustion and ultimately higher costs.

What matters is: assuming output will increase, optimize the entire value stream to convert that output into outcomes. And transform organizational structures and processes to maximize leverage—including the shift to small, autonomous team structures.

How This Framework Is Structured

This framework consists of three phases. Each phase has **prerequisites** and **execution**.

Many organizations focus only on execution (tool adoption, process optimization) while neglecting prerequisites (direction-setting, evaluation criteria, ways of working). The result: teams default to output-focus, AI remains a support tool rather than a force multiplier, and leadership eventually enters the "trough of disillusionment."

This is a leadership failure. Without prerequisites in place, execution alone won't deliver the expected results.

Phase 1: Foundation

The stage where the organization commits to AI-Native transformation. Leadership must set direction and practice it themselves.

Prerequisites (Leadership)

The rise of AI agents has changed what's required of engineering leadership. Past success patterns alone won't generate effective policies. Only when leaders personally practice AI-augmented development can they set direction with sufficient resolution. Policies without practice are seen through by teams and become empty words.

- ☐ Clear organizational direction for AI-Native development has been articulated
- ☐ Leaders responsible for the engineering organization use AI agents as a matter of course, articulating Why/What rather than How

Execution (Individuals & Teams)

- ☐ Basic understanding of how to use AI agents
- ☐ Understanding of how to interact with AI agents effectively (beyond prompt syntax)
- ☐ Initiatives are in place to establish AI agents across the engineering organization

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Phase 2: Delivery Process Optimization

The stage where AI agent usage becomes established at individual and team levels, and development processes are optimized. Leadership must establish outcome-oriented evaluation criteria and new ways of working.

Prerequisites (Leadership)

As AI agents increase output productivity, traditional "how much did you produce" evaluation criteria can no longer measure genuine value creation. Leadership must shift evaluation toward outcomes.

- ☐ Evaluation criteria that measure outcomes rather than output have been established

When AI agents handle execution, human-to-human communication becomes the bottleneck. The more people involved in a single component, the higher the coordination cost—negating AI productivity gains. Shifting to small, autonomous team structures becomes essential.

- ☐ Commitment to smaller, autonomous team structures has been established as policy

Note: Designing Evaluation Criteria

Many engineering organizations have historically emphasized individual technical skills while struggling with outcome-based goals—because individual developers can't fully control team outcomes.

Traditional practice tied outcome expectations to seniority: as grade increases, so does scope of impact, and outcome-focus grows accordingly. To accelerate AI-Native transformation, incorporate "outcomes" and "impact on team systems" into evaluation criteria earlier. This creates conditions where people aim for "maximizing outcomes through influence on team systems" rather than "influence through individual excellence alone."

Execution (Individuals)

- ☐ Understands AI agent characteristics and can differentiate, adapt, and optimize usage
- ☐ Views development as teamwork and provides context that enables AI agents to complete work autonomously

Execution (Teams)

- ☐ LLM-oriented documentation is maintained in team repositories
- ☐ Beyond documentation, task procedures and rules are captured as context in repositories
- ☐ Quality assurance is integrated into AI development workflows

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Phase 3: Organizational Permeation

The stage where Agentic Workflows permeate the organization and outcome-orientation takes root at the frontline level.

Prerequisites (Frontline Mindset)

Through Phase 2, leadership was responsible for establishing prerequisites. In Phase 3, those prerequisites must be internalized by the frontline. Not because leadership said so, but because individuals and teams autonomously orient toward outcomes and make independent decisions—this is the prerequisite for this phase.

- [ ] Frontline individuals and teams are outcome-oriented and can make autonomous decisions without top-down direction

Execution (Individuals)

- [ ] Principles for quality work are codified and provided as sufficient context for AI agents

Execution (Teams)

- [ ] Governance mechanisms for AI-augmented development are designed and operated
- [ ] Context and workflow improvement has become an ongoing team practice

Execution (Organization)

- [ ] Knowledge and practices are shared across the engineering organization, leading to systematization and efficiency gains
- [ ] Organizational structure and policies have been changed to advance AI-Native transformation

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Beyond This Framework (Out of Scope)

This framework focuses on Agentic transformation in development processes within product delivery. Beyond this lies optimization of the entire value stream:

- Business requirements
- Product discovery
- **Product delivery** ← scope of this framework
- Quality assurance

- Feedback loops

Value stream optimization has been a goal long before AI, yet few organizations have achieved it. There's no silver bullet. It requires ongoing dialogue with stakeholders across processes, shared understanding, codification, and embedding into organizational practice.

This framework limits scope to product delivery and its surroundings—not because the rest doesn't matter, but because attempting everything at once is unrealistic. Engineering leaders should recognize that full value stream optimization is necessary, take responsibility for optimizing their own domain, and focus on dialogue at the interfaces with adjacent processes.

How to Use This Framework

Intended Users and Purpose

What matters is aligning the entire organization's direction—otherwise, humans simply become the bottleneck again, just in a different place. Team alignment is a critical leadership responsibility—so leaders responsible for organizational strategy and policy should first use this framework to assess current state, take action, and clarify direction.

Then, engage frontline leaders with the same perspective, set goals, build conviction, and drive transformation.

- Use this framework for initial diagnosis and current-state assessment
- Define direction and create a concrete roadmap
- Dialogue with frontline leaders based on the roadmap to set goals (half-yearly, quarterly—given AI's rapid evolution, quarterly stretch goals are recommended)
- Review progress against goals and roadmap, and determine next actions

Balance of Prerequisites and Execution

In each phase, if execution advances while prerequisites remain unmet, prerequisites become the bottleneck. When assessing your organization, check prerequisite fulfillment first.

On Phase Sequencing

Phases generally progress in order, but depending on organizational context, you may work on multiple phases in parallel or return to strengthen earlier phases. What matters isn't advancing

phases for its own sake, but continuous improvement toward business goals.

Maturity models face criticism that "advancing levels becomes the goal, disconnected from real improvement." This framework carries the same risk. Filling checkboxes isn't the goal—continuously asking whether outcomes and leverage are actually improving is what matters. If advancing phases doesn't result in better outcomes or leverage, you're moving in the wrong direction—even if all boxes are checked.