

AI in Software Engineering

From Strategy to Execution



From Zero to AI. From AI to Impact.

AI Executing Work Is the Opportunity

Reliability Is the Constraint

What
changed

Execution
creates speed,
scale, and
leverage

AI now
executes real
workflows, not
just assists
humans

Reliability
determines whether
that leverage compounds
or collapses



The Demo to Production Gap

Capability is Everywhere



Production Trust is Not AI demos optimize for impressiveness

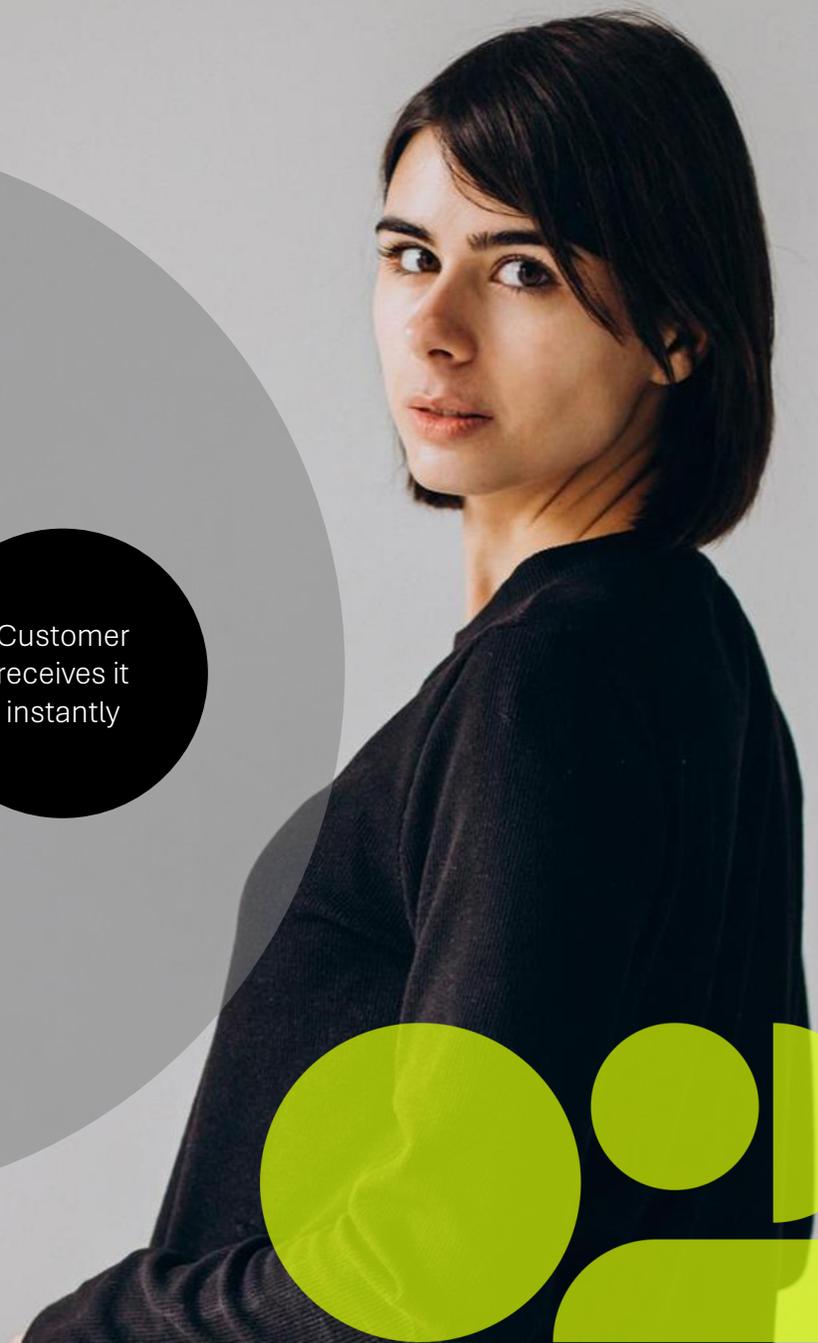
Production systems demand repeatability and control

Only **10 to 15 percent of AI pilots scale long term**

Source: Forrester

Assistance vs Delegation

Very Different Risk Profiles



The SMB Reality

Leading Adoption, Least Room for Error

89%
of SMBs are AI active
Source:
Intuit, 2026

Fewer buffers when things go wrong

Small teams rely on **automation to scale**



The Abandonment Curve

High Adoption Does Not Mean Sustainability

40%

of agentic initiatives projected
to be abandoned by 2027

Source: Gartner

Primary reasons

Integration
complexity

Unclear
ownership

Weak ROI
visibility



The Engineer Mindset Shift

Developers Are Now Reliability Architects

New responsibilities
when AI executes

**Define
boundaries**
for action

Design
safe failure
paths

**Build
controls**
that work at
2 a.m.

**Make
decisions**
auditable

Governance gap

Deloitte reports rapid agent
adoption expectations
while oversight lags

The Five AI System Decisions

Execution Requires Explicit Design Choices

What decisions are AI agents allowed to make

At what confidence level does it escalate?

What actions require dual confirmation?

Can I replay and audit its decisions?

What happens when the AI agent is uncertain?



The Real Opportunity

Mastering Reliable Autonomy



AI execution is inevitable

Deliberate systems create compounding leverage

Accidental systems hide risk

Engineering is the control layer