

Morgan Stanley

Controlled Acceleration

How Morgan Stanley is Evolving SDLC Controls
for an Agentic World

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Agenda

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Introduction to Morgan Stanley Technology

02

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Four Themes Driving Control Evolution

04

Recap

Introduction to Morgan Stanley Technology

BY THE NUMBERS

23K+

Technologists worldwide

15mm

Annual software builds

10B

Transactions supported annually

WHAT WE DO

From low-latency and algorithmic trading, complex risk calculations and big data analytics to digital and end-user solutions, sophisticated cyber defense and large-scale, global infrastructure management.



Powering Our Market-Leading Platform

Preserving our leading position in electronic equities trading, digitizing sales & trading and harnessing analytics for unique market insights.



Optimizing Client Tools & Insights

AI-driven advisory platforms equip Wealth Management clients and their advisors with the tools to reach their financial goals.



Driving Productivity & Efficiency

AI and machine learning, data analytics and end-user technology let traders, bankers and advisors work faster, front to back.

Source: Morgan Stanley, "Technology," morganstanley.com/about-us/technology

The Challenge

In Financial Services, we cannot choose speed over control. We need both together





**We are not a “go fast and break things” firm.
We are not dinosaurs either!**



Responsible Acceleration
Improving productivity without taking unnecessary risk.

Scaling Code Quality Across a Growing Team

Holding the line on quality and architecture when manual review can no longer keep up



2024 — Joined as Tech Lead

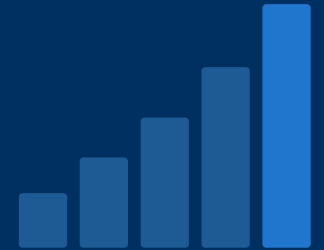
Accountable for SDLC, developer productivity, and the performance and stability of the platform.



Code Reviews Done Manually

Code quality and architecture alignment checked by hand, change by change, review by review.

3× Team Growth



Review becomes the bottleneck

Throughput limited by a handful of reviewers.



Judgement varies

Architectural decisions depend on who reviews.



Standards drift

Consistency erodes quietly as volume grows.



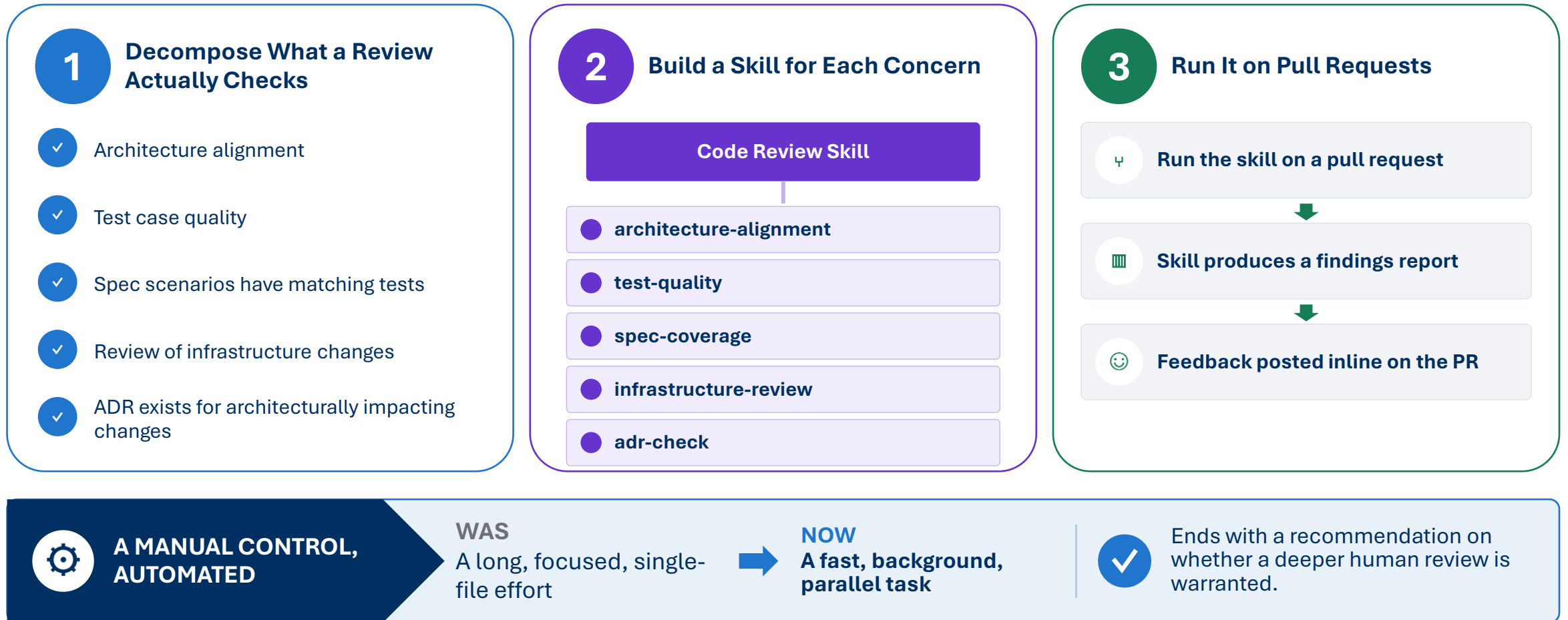
THE CHALLENGE

How do we hold the same quality and architectural controls with a team three times the size?

4 Themes Driving Control Evolution

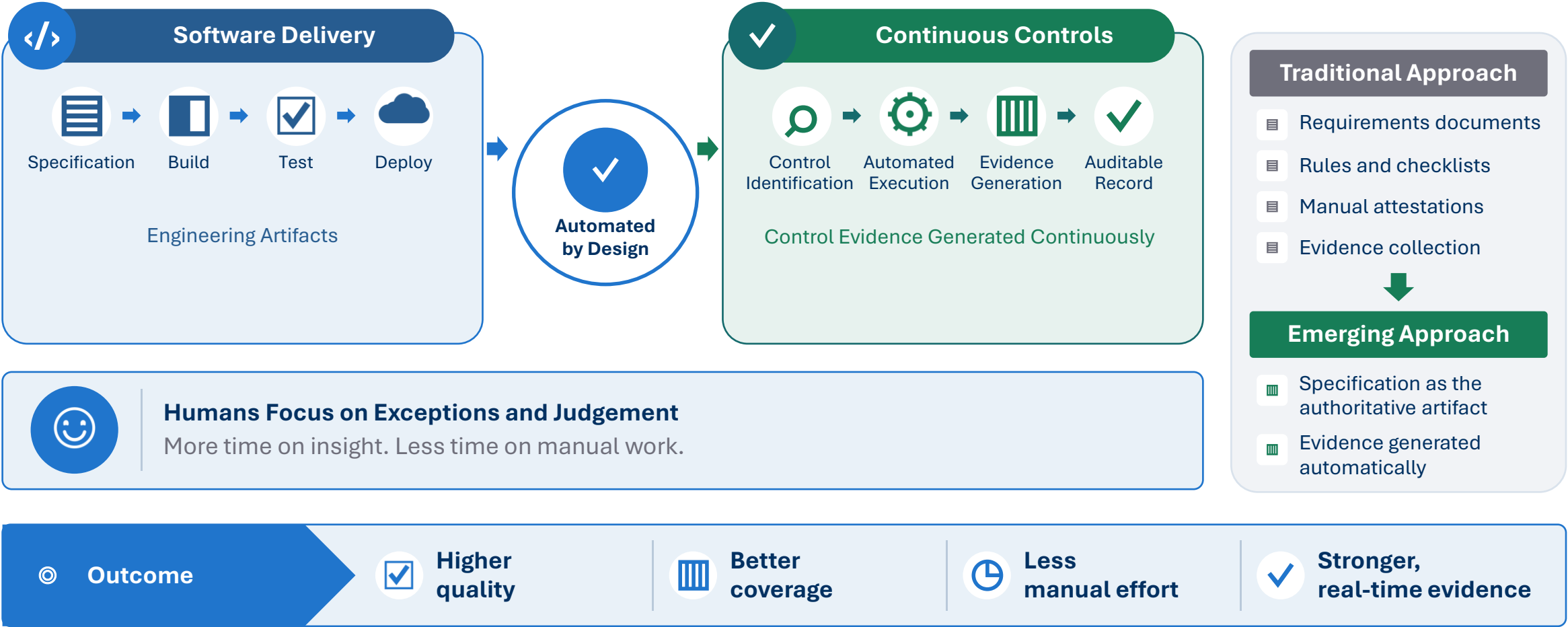
Automating the Review, One Concern at a Time

Codifying what a manual review checks, then running it on every pull request

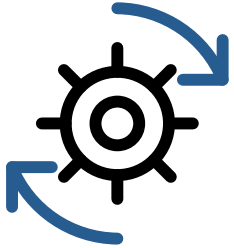


Automate the Control, Not Just the Delivery

Control execution and evidence should be automated whenever possible



4 Themes Driving Control Evolution

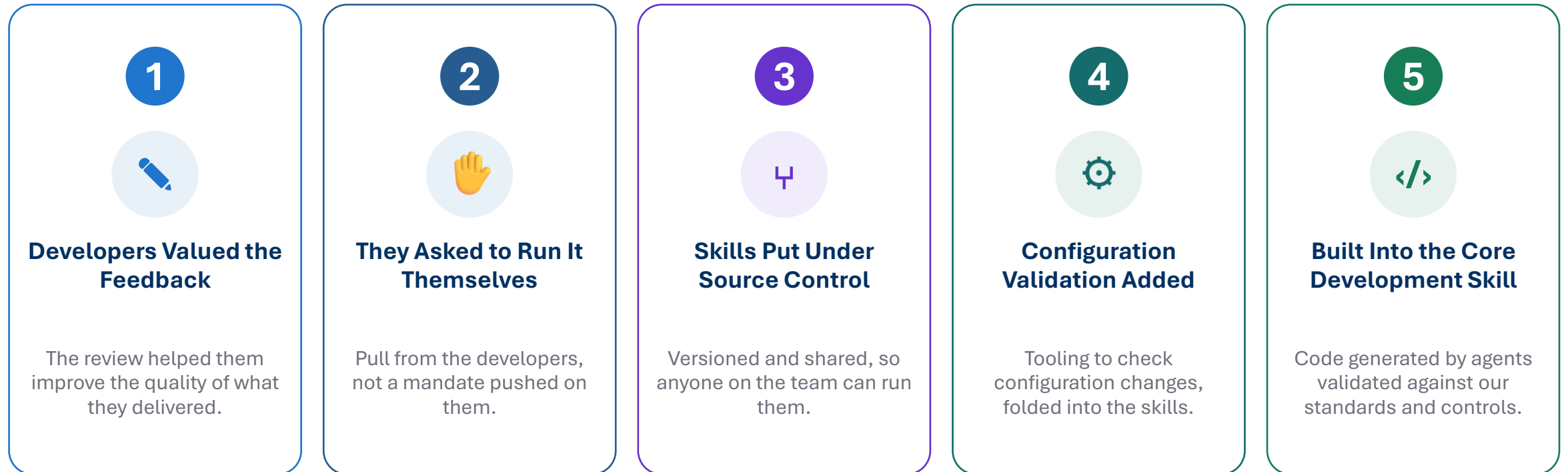


1. Automate the Controls, not just the Delivery

Control execution and evidence should be automated whenever possible

Bringing the Controls to the Developers

From feedback they valued, to controls they run themselves, to standards built into the agent



CONTROLS WHERE DEVELOPERS LIVE

In their agentic terminals and IDEs

Used in the development phase, not only at review.

Fewer back-and-forth iterations
and a shorter cycle time.

Shift Controls into the Developer Workflow

Embed controls in developer solutions, not documents

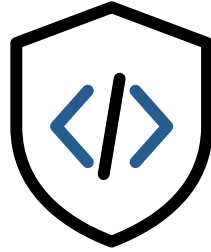


4 Themes Driving Control Evolution



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From Review Skills to Standard Development Skills

Embedding best practice in how we build, so controls become automatable by design



Reverse Engineered From Our Own Code

We read the existing codebase to derive the standards — patterns we want to enforce, and divergences we want to fix.

CODIFIED AS A STANDARD DEVELOPMENT SKILL FOR EACH BUILDING BLOCK



Services



Batch Jobs



Documentation



Testing



Observability



Patterns to enforce

Good practice already proven in our platform, made explicit.



Divergences to fix

Where the code drifted from the standard, now addressable.



Standardization Is What Makes Controls Automatable

One shape to check means one control to automate.



Execute

Controls run automatically, on every change.



Validate

Results checked against the agreed standard.



Evidence

Proof captured for audit and governance.



THE FLYWHEEL

Automation drives standardization

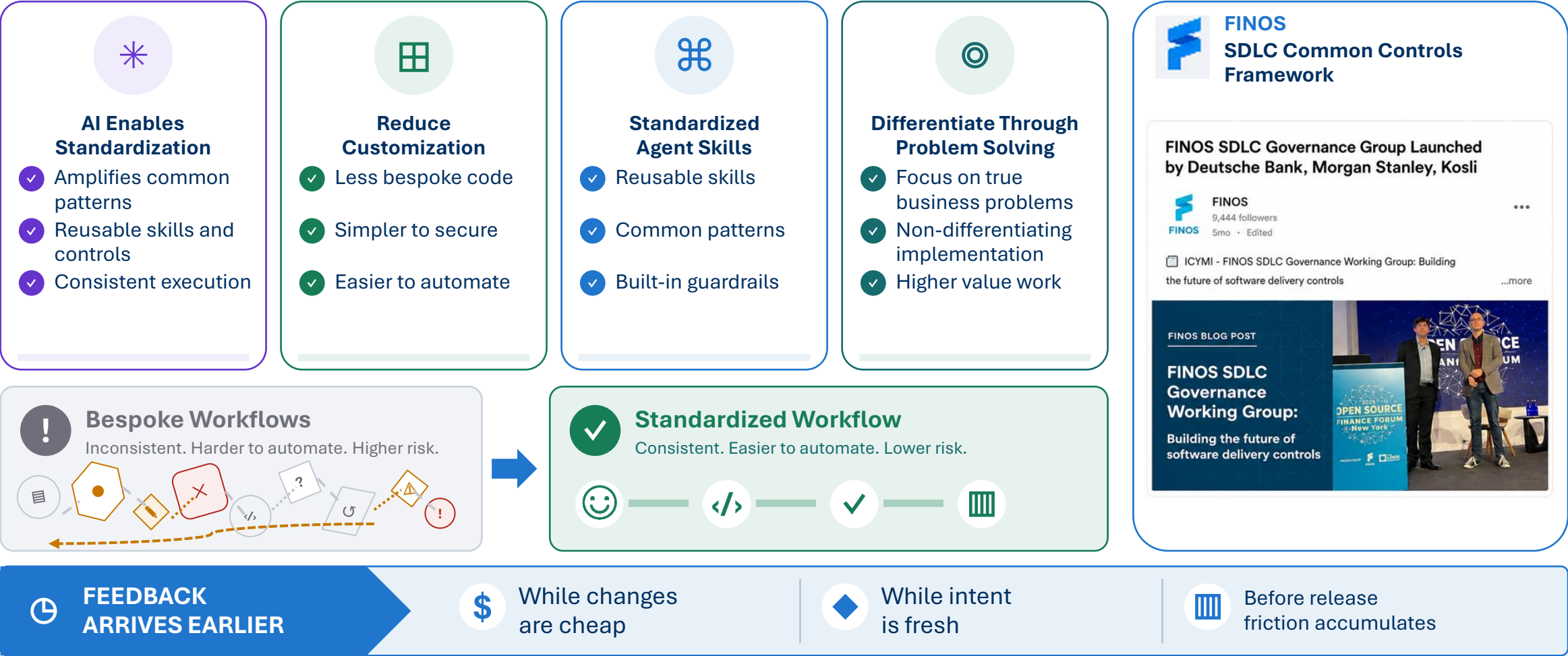
Codifying the work forces one way of doing it.



Standardization simplifies controls implementation and governance.

Standardize Development Practices

Standardization is the bedrock to secure automation



4 Themes Driving Control Evolution



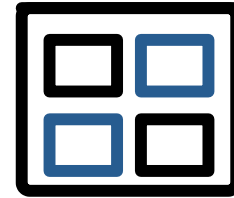
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3. Standardize Development Practices

Standardization is the bedrock to secure automation

Question Everything

The most important over-arching principle for evolving controls

“

There is nothing so useless as doing efficiently that which should not be done at all.

— Peter Drucker



Is this control still
necessary, effective,
and proportionate?



Does the control truly address the risk?
Align control to risk and outcome.



Does the risk still exist?
Risks evolve. Some no longer apply.



Does it need to be a gate?
Reserve gates for the critical decisions.



Are we doing it out of habit?
Keep what matters, retire what does not.



The key to evolving our controls.
Continuously challenge our controls to keep them relevant, proportionate, and focused on what truly matters.



**Stronger
Risk Management**



**Smarter Use of
Human Judgment**



**Better Outcomes,
Less Friction**

4 Themes Driving Control Evolution



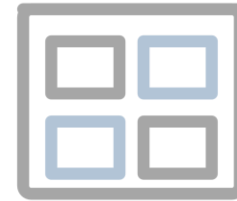
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3. Standardize Development Practices

Standardization is the bedrock to secure automation



4. Question Everything

The most important over-arching principle for evolving controls

What Comes Next

Toward continuous, risk-based governance of every change we ship



CONTROL INVENTORY

- ✓ Risk assessed
- ✓ Quality verified
- ✓ Security validated
- ✓ Configuration checked
- ✓ Policy enforced
- ✓ Standards applied



Standardized PR Risk Score

Review depth and controls scaled to the risk a change carries.



Continuous SDLC Policy Review

Policies revisited continuously for a world where humans no longer write all the code.



Continuous Automated Governance

Solutions validating every change and release through different lenses.

Help, I'm Looking For....

1 Anyone interested in controls engineering

2 Anyone interested in developing a standard PR risk score

3 Anyone facing similar challenges who wants to share pain points and success stories

4 Anyone who wants to learn more about Morgan Stanley's SDLC controls strategy