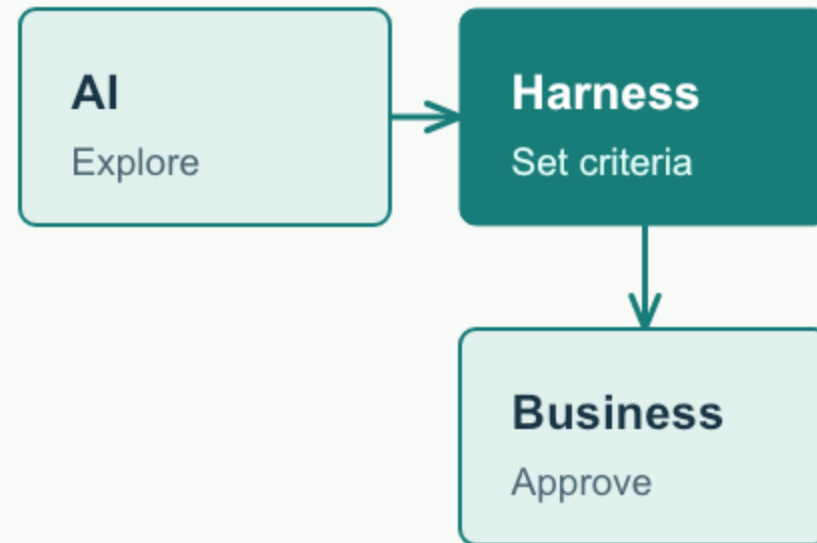


AI Development Harness

Making AI-driven development practical

Connect AI exploration to
business rules and quality



How AI changes software development

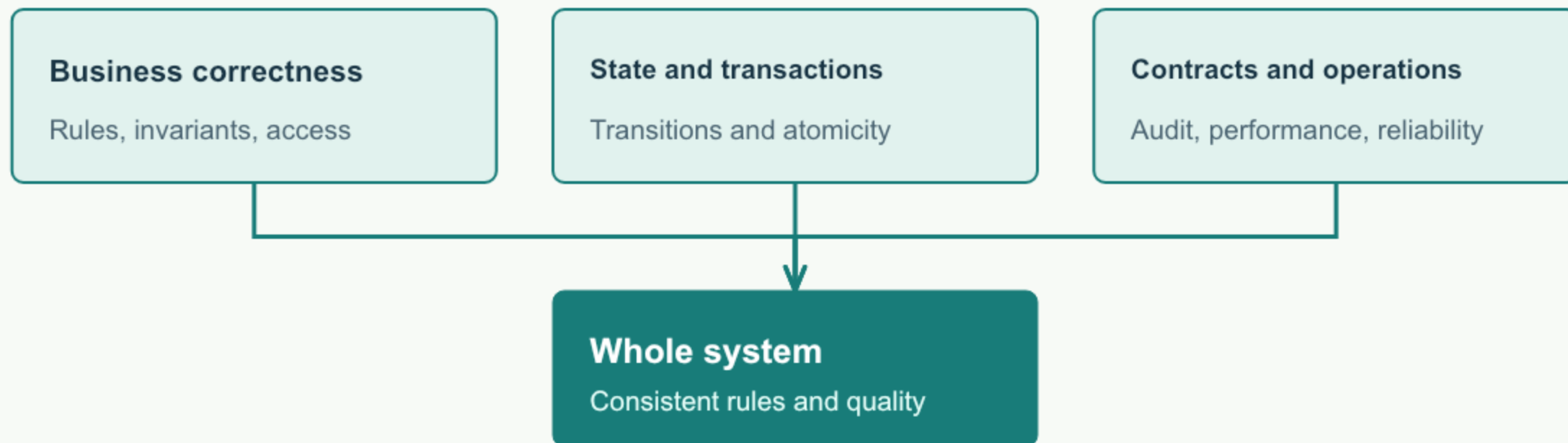
Speed and scale let us rebuild programs and try alternatives quickly



Repeat inference, technical exploration, implementation, and experimentation in short cycles.

Requirements of business applications

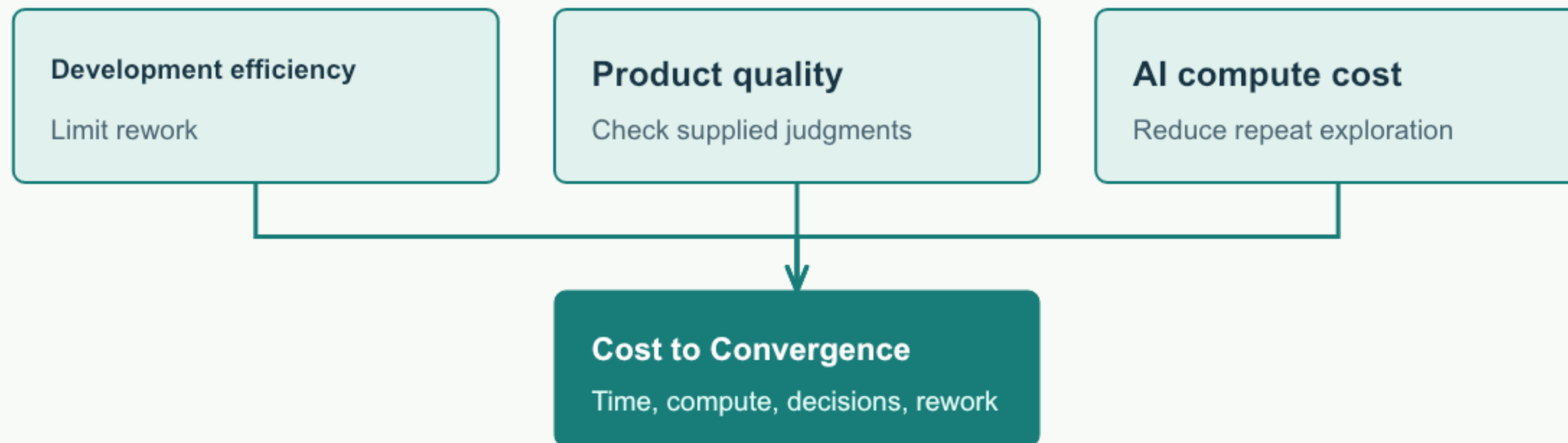
Core business applications need consistent rules and quality across the system



Individual features must work within system-wide rules and operational requirements.

Three challenges for adoption

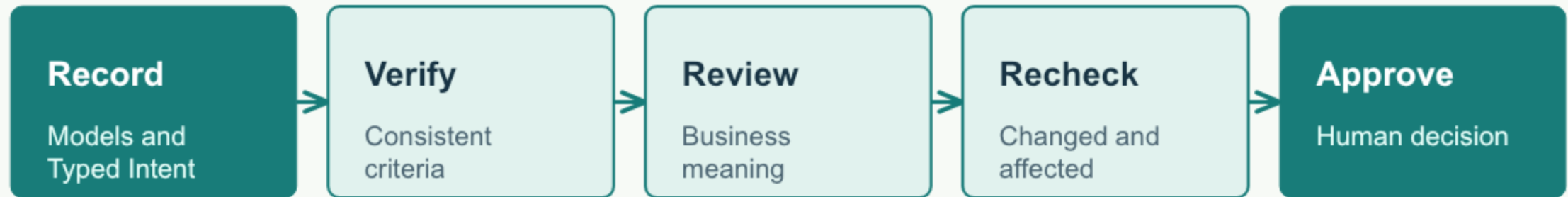
Evaluate the path from candidate generation to human approval



More candidates can also mean more review, correction, and regeneration.

What the harness does

Retain criteria; connect checks, review, and reverification to approval



Reusing criteria limits rework; scoped rechecks reduce unnecessary AI computation.

Harnesses across development

Harnesses put software engineering results to work across development

Model

Capture requirements

Architecture

Set roles and boundaries

Programming

Constrain implementation

Runtime

Execute meaning

Verification

Check outcomes

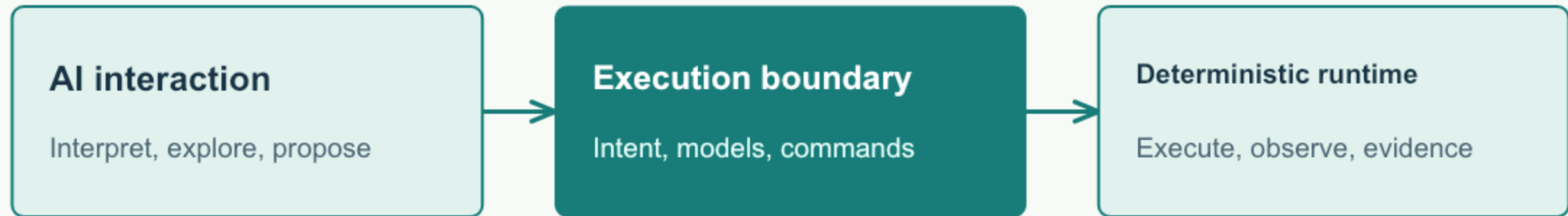
Knowledge

Organize references

Skills and tools for generative AI are one form; the series covers a broader range.

AI interaction and execution

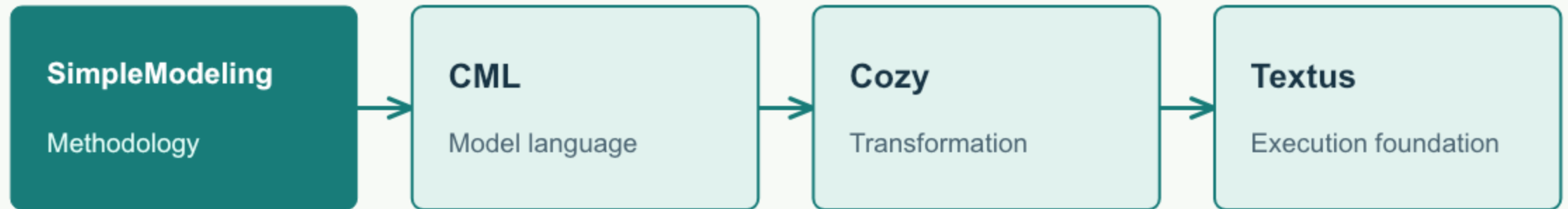
Think nondeterministically; execute deterministically



Programs and runtimes perform state changes according to explicit meaning.

Technologies and products in the series

The series uses concrete examples from methodology to runtime



AI helps with implementation choices that transformation rules cannot determine.

Ten installments in four parts

From problem definition through models and realization to evidence-based review



Next: Model Harness turns natural-language intent into reviewable models.

AI Development Harness

Connecting AI exploration to business correctness and quality

Strengths of AI development

- Infer what natural-language specifications omit
- Explore and apply technical knowledge
- Generate at speed and scale; iterate quickly

Business application requirements

- Business rules, invariants, and state changes
- Authorization, transactions, and auditability
- Performance, reliability, and security

AI Development Harness

Structures criteria, artifacts, execution boundaries, verification, evidence, and approval

Makes software engineering results usable by AI through explicit inputs and constraints

Model

Architecture

Programming

Runtime

Verification

Knowledge

From judgment to approval

1

Record judgments



2

Verify consistently



3

Review business meaning



4

Reverify impact



5

Human approval

Reuse criteria, check quality, reduce rework and unnecessary AI computation