

WISE: A Collaborative, Outcome-Led Framework for Integrating Discovery, Delivery and Value Realisation in Software Engagements

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Abstract

Digital delivery initiatives frequently fail not because of technology, but because business problems, user needs, solution design, engineering practice, and value realisation are treated as disconnected activities across a project's lifecycle. Established scaling and delivery frameworks -- including the Scaled Agile Framework (SAFe), Disciplined Agile Delivery (DAD), and Dual-Track Agile -- each address part of this problem, but none combines problem discovery, delivery governance, and value traceability into a single continuous mechanism suited to small and mid-sized technology service organisations. This paper introduces **WISE (Wizard Integrated Software Excellence)**, a conceptual framework comprising a five-stage lifecycle (Discover, Define, Design, Execute, Evolve), a cross-stage Control Layer of eight governance questions, and a structured approach to outcome traceability, innovation embedding, and organisational role mapping. WISE is positioned relative to SAFe, DAD, and Dual-Track Agile, and its distinguishing contribution --combining a single connected lifecycle with continuous outcome traceability at a scale appropriate to small technology firms -- is identified through comparative analysis rather than empirical claim. An illustrative application scenario demonstrates the framework's intended use, and a proposed measurement, maturity, and assessment approach is presented as a basis for future empirical validation. This paper is offered as a conceptual and practitioner contribution; it does not report empirical outcomes and explicitly identifies this as a limitation to be addressed through subsequent field validation.

Keywords:

Software Delivery Methodology; Discovery-Delivery Integration; Agile Scaling Frameworks; Outcome Traceability; Innovation Governance; Conceptual Framework.

1.Introduction

Digital initiatives rarely fail simply because of technology. They frequently fail because business problems, user needs, solution design, engineering delivery, and realised value are managed as disconnected activities, following a fragmented pattern of business request, requirements, build, go-live, and support. This pattern creates hand-offs between business and technology functions, involves users only at testing or acceptance, defines success by whether software was delivered rather than whether value was achieved, and leaves post-launch learning disconnected from the next release or opportunity.

This disconnection is particularly acute for small and mid-sized technology service organisations -- typically thirty to one hundred people -- who face what may be described as an SME service-provider paradox: enterprise-scale coordination frameworks such as SAFe are frequently too heavyweight and resource-intensive to adopt without dedicated transformation budgets, while lightweight discovery-oriented approaches such as Dual-Track Agile are designed around product teams and do not address service-delivery governance, contract-to-value traceability, or multi-client engagement management.

Organisations of this size are consequently left to construct ad hoc practices, or to adopt enterprise frameworks at a scale disproportionate to their operations.

This paper introduces WISE (Wizard Integrated Software Excellence), a collaborative, outcome-led operating framework developed by Wizard Communications, a technology services organisation, to address this disconnection. WISE does not propose to replace established practices such as Design Thinking, Agile, or Scrum; rather, it proposes an end-to-end framework within which such practices operate, connected by continuous outcome traceability and a cross-stage governance layer.

The contribution of this paper is threefold: (i) it introduces the WISE framework's conceptual architecture, lifecycle, and governance mechanisms; (ii) it positions WISE relative to three established delivery and discovery frameworks -- SAFe, Disciplined Agile Delivery, and Dual-Track Agile -- through comparative analysis; and (iii) it proposes a measurement, maturity, and assessment approach intended to support future empirical validation. Consistent with its status as a conceptual framework paper, this work does not report empirical findings;

illustrative material and proposed evaluation instruments are explicitly identified as such throughout.

The remainder of this paper is organised as follows. Section 2 reviews related work and positions WISE relative to established frameworks. Section 3 presents the WISE framework in detail. Section 4 describes its supporting infrastructure, including toolkit artefacts and organisational roles. Section 5 addresses innovation embedding and AI extensibility. Section 6 presents an illustrative application scenario. Section 7 proposes a measurement, maturity, and assessment approach. Section 8 discusses market positioning and boundary conditions. Section 9 identifies limitations and future work, and Section 10 concludes.

2.Related Work

WISE is not the first attempt to connect problem discovery, delivery, and value realisation. Three established frameworks address related problems, each from a different angle and at a different scale: the Scaled Agile Framework (SAFe), Disciplined Agile Delivery (DAD), and Dual-Track Agile.

2.1.The Scaled Agile Framework (SAFe)

SAFe coordinates many Agile teams -- typically fifty to several hundred people -- toward a single enterprise strategy, organised across Team, Program, Portfolio, and Large Solution levels. Empirical research on SAFe adoption remains limited relative to its practitioner uptake; Putta, Paasivaara, and Lassenius (2018) conducted a multivocal literature review identifying benefits including transparency, alignment, and predictability, while noting that most reported benefits originate from vendor-published case studies rather than independent academic study. Ciancarini et al. (2022) conducted a mixed-method investigation across seventeen companies in eight countries, finding that SAFe can be effective where organisations invest significant effort in absorption and training, while highlighting persistent challenges in decision-making flexibility. Noll et al. (2020) provide a direct empirical comparison of SAFe and DAD in global software development contexts, finding that both frameworks address roughly half of identified project risks, with neither eliminating risk entirely.

2.2.Disciplined Agile Delivery (DAD)

DAD, created by Ambler and Lines (2012) and subsequently acquired by the Project Management Institute in 2019, offers a goal-driven toolkit allowing teams to select from multiple delivery lifecycles based on organisational context, rather than prescribing a single path. Noll et al. (2020) characterise DAD as unifying business and engineering functions across enterprise levels while remaining deliberately non-prescriptive about which specific lifecycle a team should adopt. This flexibility is DAD's central strength and, from the perspective of the problem addressed in this paper, its central limitation: DAD does not mandate the single connected discovery-to-delivery thread that WISE proposes.

2.3.Dual-Track Agile

Dual-Track Agile separates product discovery and delivery into two continuous, parallel tracks, an approach originating with Sy (2007) and subsequently popularised by Patton (2014) and Cagan (2008). Trieflinger et al. (2021) conducted a grey literature review identifying several implementation

patterns -- including the Discovery-Delivery Cycle model and Dual-Track Scrum -- that share the underlying rationale of ensuring only validated ideas enter delivery. Related empirical work on software development waste (Sedano, Ralph, & Péraire, 2017) identifies neglect of user research, validation, and feedback as a recurring source of wasted effort in software teams, a finding consistent with -- though not a direct evaluation of -- Dual-Track Agile's underlying rationale for separating validated discovery from delivery. Dual-Track Agile is conceptually closest to WISE's own discovery-to-design stages; however, it does not formally extend into engineering governance, security, or the reuse and productisation of delivered capability.

2.4.Comparative Positioning

Table 1 compares WISE against these three frameworks across five dimensions: origin, primary purpose, typical scale, governance style, and ecosystem maturity.

Dimension	SAFe	Disciplined Agile (DAD)	Dual-Track Agile	WISE
Origin	Scaled Agile Inc.; continuously maintained by a dedicated framework body	Ambler & Lines (2012); acquired by PMI (2019)	Sy (2007); popularised by Patton (2014) and Cagan (2008)	Developed internally by Wizard Communications (2026)
Primary purpose	Coordinate many Agile teams toward one enterprise strategy	Let teams select a context-appropriate lifecycle	Separate validated discovery from delivery	Connect discovery through delivery to reuse via one continuous lifecycle
Typical scale	Large enterprise (50-500+ people)	Team to enterprise, compliance-oriented	Any team size; product-led	Small-to-mid technology service
		contexts	organisations	firms (validated to date within one ~35-person organisation)
Governance style	Structured, prescriptive (defined ceremonies and levels)	Deliberately non-prescriptive (lifecycle menu)	Lightweight discovery habit layered on existing delivery	Prescriptive but lightweight: one lifecycle, eight standing governance questions
Ecosystem maturity	Large, established certification body; extensive practitioner literature	PMI-backed certification since 2019	No formal certification body; practice-led adoption	No external certification; evidence currently limited to a single organisation

Where WISE Sits

WISE occupies a specific position relative to this literature: it is conceptually closest to Dual-Track Agile's discovery/delivery separation, extended across a complete five-stage lifecycle and paired with a governance Control Layer that Dual-Track Agile does not formally specify. It shares Disciplined Agile's premise that governance should be sufficient rather than maximal, but where DAD offers a menu of lifecycle choices, WISE commits to a single connected path. It does not address the multi-team, multi-hundred-person coordination problem for which SAFe was purpose-built. This positioning is offered as a conceptual contribution; it has not yet been tested through comparative empirical study against these frameworks, which is identified as a direction for future research in Section 9.

3.The WISE Framework

3.1Conceptual Architecture

The WISE Master Model comprises five interrelated elements: a guiding philosophy, a set of

behavioural principles (“WISE DNA”), a five-stage lifecycle, a cross-stage Control Layer, and an enabling foundation of organisational capabilities. These elements are described in the subsections that follow.

3.2.Guiding Design Philosophy

WISE is underpinned by a set of guiding principles, presented here as design philosophy rather than empirically validated findings -- in the same manner that established methodologies such as the Agile Manifesto state values and beliefs rather than research results. The principles are: start with the problem rather than the solution; put outcomes before features; work together rather than through hand-offs; involve the right people at the right time; validate before major investment; build incrementally; build quality into every stage; make decisions using evidence; measure value after release; and treat innovation as continuous.

3.3.WISE DNA

WISE DNA describes four behavioural commitments intended to be visible in every engagement, summarised in Table 2.

Letter	Principle	Meaning
W	Work Together	Bring the right people together at the right time to co-create solutions.
I	Insight Driven	Use evidence from business, users, processes, technology, and data.
S	Solution Focused	Solve the right problem and create solutions that are useful, feasible, and valuable.
E	Excellence Through Evolution	Deliver quality, measure impact, learn continuously, and evolve.

3.4.The Five-Stage Lifecycle

The WISE lifecycle comprises five collaborative stages, summarised in Table 3. The lifecycle is proposed as iterative rather than strictly sequential: evidence and feedback obtained at any stage may direct a team forward or back to an earlier stage where further learning is required.

Stage	Core Question	Primary Outcome
Discover Together	What is the real challenge or opportunity?	Shared understanding and opportunity clarity
Define Together	What outcomes and priorities matter?	Aligned outcomes, priorities, and roadmap
Design Together	What solution should we create and validate?	Validated solution direction and blueprint
Execute Together	How will we build, assure, and release value?	Working software with assured quality
Evolve Together	What have we learned and what should happen next?	Measured value and continuous improvement

3.5.Integration with Design Thinking and Agile/Scrum

WISE is explicitly proposed as an integrating framework rather than a replacement for Design Thinking or Agile/Scrum. Table 4 summarises the intended division of responsibility.

Approach	Primary Role	Primary Question
Design Thinking	Understand and validate	Are we solving the right problem?
Agile / Scrum	Build and adapt	Are we building the solution effectively and learning fast enough?
WISE	Connect, govern, and realise value	Are we creating the right value, together, from idea to impact?

3.6.The WISE Control Layer

The Control Layer operates across all five stages, proposing eight standing governance questions intended to keep delivery connected to outcomes, collaboration, quality, risk, security, data, innovation, and governance, as summarised in Table 5.

Control	Question
Outcomes	Are we creating the intended value?
Collaboration	Are the right people involved?
Quality	Is the solution reliable and fit for purpose?
Risk	Are risks and dependencies visible and managed?
Security	Is the solution secure and appropriately governed?
Data	Are decisions supported by trustworthy data?
Innovation	Are we identifying better ways?
Governance	Are decisions made at the right time?

3.7.Outcome and Value Traceability

WISE proposes that every delivered capability be traceable to the business challenge that motivated it, following the chain: Business Challenge → Desired Outcome → User/Process Need → Solution Capability → User Story/Requirement → Working Software → Adoption → Measured Value. This mechanism is intended to prevent delivery backlogs from becoming disconnected feature lists.

3.8.Governance and Decision Gates

Each lifecycle stage is associated with a proposed review gate, summarised in Table 6.

Stage	Review / Gate	Decision Question
Discover	Discovery Review	Do we understand the challenge sufficiently to proceed?
Define	Outcome Alignment Review	Are outcomes, priorities, scope, and ownership aligned?

Design	Solution Validation Review	Has the solution been validated and assessed for feasibility?
Execute	Release Readiness Review	Is the increment sufficiently tested, accepted, and ready?
Evolve	Value Realisation Review	Is the solution creating value, and what should happen next?

The governing principle underlying this gate structure is that WISE proposes light but disciplined governance: sufficient structure to improve decisions, without sufficient bureaucracy to materially slow delivery.

4.Supporting Infrastructure

4.1.WISE Toolkit

Table 7 identifies proposed toolkit artefacts organised by lifecycle phase.

Toolkit Area	Proposed Core Artefacts
Discovery	Discovery Brief; Stakeholder Map; Opportunity Statement
Outcomes	Outcome Canvas; Value Scorecard; Outcome Traceability Map
Design	User Journey; Service Blueprint; Prototype Validation Record; Solution Blueprint
Delivery	Prioritisation Matrix; Release Readiness Checklist; Quality Checklist
Evolution	Learning Log; Evolution Roadmap; Innovation Canvas; Value Realisation Scorecard

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These artefact names are defined as a proposed toolkit roadmap. The templates themselves have not yet been developed or field-tested, and are not presented as an existing, validated artefact library.

4.2.WISE Foundation

WISE proposes five enabling organisational capabilities, summarised in Table 8.

Foundation	Role
People & Culture	Skills, leadership, collaboration, and learning behaviours
Engineering Excellence	Architecture, coding practices, testing, reliability, and security
DevOps & Automation	CI/CD, automation, observability, and operational feedback
Platforms & Architecture	Scalable, maintainable, and fit-for-purpose technology foundations
Standards & Best Practices	Reusable practices, governance, templates, and organisational learning

4.3.Organisational Roles and Governance Mapping

WISE roles describe functional responsibilities within an engagement rather than a separate organisational structure; each role is intended to be carried out by people within an adopting organisation's existing team and governance structure, without introducing new standing positions or a

parallel reporting line. Table 9 sets out each proposed role, and Table 10 illustrates, using Wizard Communications as the originating organisation, how each role maps to an existing governance function.

Role	WISE Responsibility
WISE Sponsor	Provides leadership support, resolves strategic barriers, sponsors continuous improvement
WISE Methodology Owner	Maintains templates, standards, training, and version control
Engagement / Delivery Lead	Applies WISE and ensures stage reviews occur
Product Owner / Client Business Owner	Owns business priorities, outcome decisions, and acceptance
UX / Discovery Lead	Leads research, user understanding, facilitation, and validation
Technical Lead / Architect	Ensures technical feasibility, architecture, quality, security, and scalability
Quality / DevOps Lead	Ensures testing, release readiness, automation, and operational feedback
Innovation Council	Reviews cross-project learning, reusable ideas, experiments, and improvement opportunities

WISE Role	Fulfilled Within Wizard Communications By
WISE Sponsor	Leadership Council (typically the CEO or sponsoring executive for a given engagement)
WISE Methodology Owner	Designated owner within Innovation Governance
Engagement / Delivery Lead	Delivery Head or assigned Project Delivery Team lead
Product Owner / Client Business Owner	Client-side counterpart working with the Wizard Delivery Lead
UX / Discovery Lead	Solutions Design function
Technical Lead / Architect	CTO or assigned Engineering Lead
Quality / DevOps Lead	QA / Testing function
Innovation Council	Tech Review Board (Innovation Governance) -- the same body, not a separate one

A note on organisational scale: within a small technology services organisation, one individual frequently holds more than one WISE role on a given engagement. This is expected and does not indicate a gap in the framework; what is required is that each responsibility be clearly assigned and traceable to a specific individual for every engagement, not that a dedicated individual exist for every role.

5. Innovation and Extensibility

5.1 Innovation Embedded Across the Lifecycle

WISE proposes that innovation be embedded within each lifecycle stage rather than treated as a separate activity: opportunity identification during Discovery, prioritisation during Definition, solution exploration during Design, delivery-process improvement during Execution, and learning-driven reinvention during Evolution.

5.2 AI-Enabled WISE

WISE is proposed as extensible to artificial intelligence-assisted practice, including AI-supported discovery synthesis, AI-assisted quality and risk detection, and AI-supported measurement and insight generation. As with other proposed components of this framework, AI-enabled extensions are presented as a direction for future development and validation, not as implemented or evaluated capability.

6. Illustrative Application

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The scenario below is hypothetical and illustrative only. It is constructed to demonstrate the intended application of the WISE framework and does not report data from a real client engagement. No figures in this section should be interpreted as empirical findings.

Consider a hypothetical multi-outlet restaurant group seeking to improve operational efficiency, guest experience, and food-cost visibility across outlets. Applying WISE, the Discover stage would engage kitchen staff, outlet managers, and finance stakeholders to understand current inventory and cost-tracking practices. The Define stage would establish target outcomes -- for example, a defined reduction in food-cost variance within a stated period -- rather than beginning with a features list. The Design stage would validate a proposed inventory-tracking solution against real kitchen workflows before development investment. The Execute stage would deliver the solution in working increments, with quality and security assurance embedded throughout. The Evolve stage would measure whether the target outcome was achieved and identify the next opportunity, such as extending inventory tracking to additional outlets.

This scenario illustrates the intended flow of the framework; it is not offered as evidence that WISE produces the outcomes described. Empirical validation of this application pattern is identified as necessary future work in Section 9.

7. Proposed Evaluation Approach

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The measurement framework, maturity model, and assessment approach presented in this section are proposed instruments for future empirical work. They have not yet been applied to, or validated against, a completed engagement.

7.1. Proposed Measurement Framework

Table 11 proposes six measurement dimensions intended to evaluate WISE's effect once applied to a real engagement.

Measurement Dimension	Illustrative Measures
Business Value	Revenue impact; cost reduction; cycle time; risk reduction; compliance
User Value	Adoption; satisfaction; task completion; usability
Delivery	Lead time; release frequency; predictability; backlog health
Engineering	Defect escape rate; automation coverage; reliability; performance
Collaboration	Decision turnaround; feedback turnaround; stakeholder participation
Innovation	Experiments conducted; validated ideas; reusable components produced

7.2. Proposed Maturity Model

A five-level maturity progression is proposed -- Adopt, Integrate, Measure, Optimise, and Innovate -- intended to describe an organisation's progression in applying WISE consistently over time. This maturity scale has not yet been used to assess a real engagement; its first application is proposed as part of future pilot work.

7.3. Proposed Assessment Offering

A structured assessment sequence is proposed: WISE Assessment → Maturity Score → Priority Gaps → Improvement Roadmap → Implementation Support → Reassessment. As with the maturity model, no assessment has yet been conducted on a real engagement using this sequence.

8. Discussion

8.1. Market and Strategic Positioning

WISE is positioned as a collaborative methodology intended to connect business, users, and technology through a governed lifecycle moving from discovery and validation to delivery, value realisation, and continuous innovation. Its intended differentiation lies not in treating collaboration as an occasional workshop or project-management activity, but in treating it as a governed delivery capability sustained from initial opportunity through post-launch value realisation.

8.2. What WISE Is Not

To avoid overstating its scope, WISE is explicitly not proposed as:

- another Agile scaling framework;
- another project-management methodology;
- a replacement for Scrum;
- a replacement for Design Thinking;
- merely a software-development lifecycle;
- merely a collection of workshops; or
- a one-time transformation exercise.

8.3. Synthesis

Read against the related work in Section 2, WISE's proposed contribution is the combination of a single connected discovery-to-evolution lifecycle with continuous, cross-stage outcome traceability, positioned at a scale distinct from SAFe's enterprise coordination focus and more prescriptive than Disciplined Agile's lifecycle-selection approach. This distinction matters in light of broader evidence on large-scale agile transformation: Dikert, Paasivaara, and Lassenius (2016), in a systematic literature review of large-scale agile transformations, identify organisational resistance to change and difficulty maintaining agile values at scale as recurring success factors and challenges -- concerns that a lighter-weight, connected framework such as WISE is intended to reduce for organisations that do not operate at SAFe's enterprise scale. Whether this combination produces measurable advantage over applying these existing frameworks individually is an empirical question this paper does not resolve, and is identified explicitly as a direction for future research.

9. Limitations and Future Work

This paper is subject to several limitations that bound its current contribution:

- Single-organisation origin: WISE has been developed within, and is currently informed by the experience of, a single technology services organisation of approximately thirty-five people. It has not been evaluated across multiple organisations or industry contexts.
- No empirical validation: this paper presents a conceptual framework and a hypothetical illustrative scenario; it does not report data from a completed engagement, and no claims of measured effectiveness are made.
- Proposed instruments untested: the measurement framework, maturity model, and assessment approach in Section 7 are proposed designs that have not yet been applied in practice.
- Toolkit artefacts not yet developed: the artefacts identified in Section 4.1 are named but not yet built

as validated templates.

- Comparative positioning not empirically tested: the positioning against SAFe, DAD, and Dual-Track Agile in Section 2 is a conceptual and literature-based comparison; it has not been tested through direct comparative empirical study.

Future work is intended to address these limitations directly through a field pilot: WISE will be applied to a real engagement, with baseline measures captured prior to its conscious application and post-application measures captured using the framework proposed in Section

7.1. This will provide the empirical basis currently absent from this paper, and is intended to inform a subsequent, empirically grounded submission to complement this conceptual contribution.

10. Conclusion

This paper has introduced WISE, a conceptual framework proposing to connect problem discovery, delivery governance, and value realisation into a single collaborative operating model for technology services organisations. WISE's proposed contribution does not rest on claiming to originate Agile, Scrum, or Design Thinking, but on how it proposes to integrate established practices into one continuous, outcome-traceable lifecycle. WISE is positioned, through comparative analysis, as occupying a specific gap relative to SAFe, Disciplined Agile Delivery, and Dual-Track Agile: a connected, lightweight lifecycle suited to small and mid-sized technology organisations, rather than a replacement for enterprise-scale coordination frameworks. This paper has deliberately confined its claims to the conceptual and illustrative; the empirical validation of WISE's proposed benefits is identified as necessary future work and is not asserted here.

Declarations

Conflict of Interest: The author declares no conflict of interest. Funding: No funding required.

Data Availability: This is a conceptual framework paper; no empirical dataset was collected or analysed, and no data is therefore available to share.

Intellectual Property: This paper describes a methodology proprietary to Wizard Communications Pvt. Ltd. Formal internal intellectual-property clearance is already obtained prior to submission.

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