AI PI Enterprise Delivery Analysis

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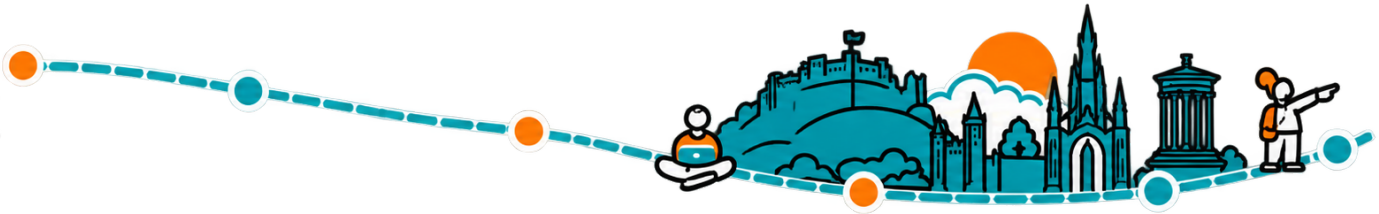

The questions

- Analysing Pre and Post Program Increment delivery and RAID data in a Scaled Agile Environment
- What was the status of delivery and RAID prior to PI?
- What was the status post PI?
- How can Rovo AI help organisations better understand enterprise data at scale in a scaled agile delivery context?
- How can we derive lessons learned from a historical trend?

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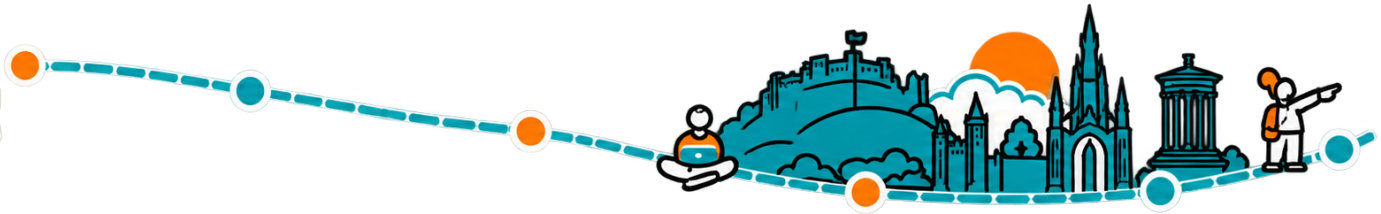

Executive Summary

- **Scope expanded significantly:** Total tracked portfolio volume increased from 4,145 to 7,877 items, a 90.0% increase. Stories grew from 2,061 to 3,374, indicating substantial decomposition and refinement during PI5.
- **Delivery throughput improved:** Done items increased from 533 to 803, a 50.7% increase. However, 3,280 delivery items remain To Do or Open, representing 68.5% of delivery scope.
- **RAID growth was controlled:** RAID volume increased by 15.9%, materially slower than delivery scope growth of 47.0%.
- **Dependency management matured:** 228 dependencies reached Accepted status and 95 were Closed or Resolved. However, 86 remain Contested and 110 remain Requested.
- **Assumption governance remains a material gap:** No assumptions were formally recorded at either checkpoint.

Pre and Post PI5 Comparison

Measure	Pre-PI5	Post-PI5	Change	Implication
Total tracked scope	4,145	7,877	+3,732 (+90.0%)	Significant elaboration, new intake, and additional enablement work.
Delivery scope	3,259	4,791	+1,532 (+47.0%)	More work was decomposed into executable increments during PI5.
Outcomes	9	9	0 (0.0%)	Strategic intent remained stable.
Portfolio epics	204	235	+31 (+15.2%)	Moderate growth in structural and enabling work.
Features	985	1,173	+188 (+19.1%)	Functional scope expanded in a controlled manner.
Stories	2,061	3,374	+1,313 (+63.7%)	High levels of story elaboration occurred during execution.
Done / Closed	533	803	+270 (+50.7%)	Throughput improved materially.
In Progress	450	708	+258 (+57.3%)	WIP and context-switching risk increased.
To Do / Open	2,276	3,280	+1,004 (+44.1%)	Backlog remains large relative to completed scope.
Total RAID	886	1,027	+141 (+15.9%)	Governance volume grew more slowly than delivery scope.
Dependencies	722	818	+96 (+13.3%)	Dependencies remain the dominant RAID category.
Risks	123	156	+33 (+26.8%)	Risk exposure increased with portfolio scale.
Issues	41	53	+12 (+29.3%)	More active remediation is required.
Assumptions	0	0	0	Formal assumption management is not embedded.

Workstream Analysis

Workstream	Post-PI5 delivery	Post-PI5 RAID	Assessment
Alpha	2,339	259	Largest delivery footprint, representing approximately 48.8% of delivery scope.
Delta	805	115	Delivery scope more than doubled, reflecting major platform and tooling expansion.
Beta	571	92	Relatively stable scope with controlled RAID growth.
Gamma	429	224	High coordination burden, although RAID-to-delivery balance improved.
Epsilon	165	15	Rapid proportional growth from a smaller baseline.
Zeta	83	76	Governance-heavy work remains a defining characteristic.
Eta	47	89	Dependency exposure remains disproportionately high relative to delivery.
Iota	243	38	New scope emerged during PI5, including gateway and agent-tooling work.

Overall assessment: PI5 demonstrated improved execution throughput, but efficiency was constrained by scope influx, high WIP, and unresolved cross-workstream dependencies.

- **Throughput:** Done items increased by 50.7%, showing that teams delivered more work than at the Pre-PI5 checkpoint.
- **Scope absorption:** Story growth of 63.7% outpaced completion growth. This indicates that teams were still discovering, decomposing, or re-baselining work during execution.
- **Backlog pressure:** 68.5% of delivery items remain To Do or Open. The completion percentage therefore remained broadly stable despite higher absolute throughput.
- **WIP exposure:** 708 items were In Progress. High concurrent WIP increases context switching, delays feedback, and makes completion less predictable.
- **Dependency conversion:** Of 818 dependencies, 228 were Accepted and 95 were Closed. This shows progress in alignment and retirement, but 196 items remained Requested or Contested.

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AI Suggestions

Efficiency priorities

1. Reduce work entering execution after PI planning.
2. Set squad-level WIP limits and prioritise finishing over starting.
3. Resolve Contested and Requested dependencies before they affect sprint commitments.
4. Track cycle time, ageing WIP, throughput, and blocked time alongside volume metrics

Team Maturity

The portfolio shows mature visibility and decomposition practices, but not yet mature flow control. Teams appear capable of identifying and structuring work, while governance is less effective at preventing late scope introduction or converting uncertainty into explicit assumptions.

Dimension	Assessment	Evidence
Backlog decomposition	STRONG	Clear hierarchy from Outcomes through epics, features, and stories.
RAID visibility	STRONG	Dependencies, risks, and issues are actively recorded at scale.
Dependency commitment	DEVELOPING	Accepted and Closed dependencies increased, but 86 remain Contested.
Scope control	NEEDS IMPROVEMENT	Delivery scope increased by 47.0% between checkpoints.
Assumption management	IMMATURE	No assumptions were formally logged.

Lessons Learned

1. **Dependency commitment must precede delivery commitment.** Contested and Requested dependencies create avoidable uncertainty for downstream teams.

2. **Platform work needs earlier sequencing.** The major expansion in Delta demonstrates that foundational capabilities can become execution-critical unexpectedly.

3. **Discovery and delivery need clearer separation.** High story growth during execution suggests that refinement, estimation, and acceptance criteria were not consistently complete before PI start.

4. **Assumptions must be treated as governed objects.** Zero recorded assumptions does not mean zero assumptions; it indicates that important premises are likely implicit.

5. **Decommissioning requires integrated planning.** Migration, licensing, testing, funding, and operational readiness should be managed as a single cutover plan rather than isolated activities.

Recommendations for PI6

1. Introduce a Pre-PI dependency gate requiring Accepted or Closed status for critical cross-workstream dependencies.
2. Create a weekly forum for resolving Contested dependencies, with escalation owners and target resolution dates.
3. Set a formal threshold for post-planning scope additions and require impact assessment for exceptions.
4. Make assumption capture a mandatory part of refinement, architecture review, and dependency assessment.
5. Reduce concurrent WIP by prioritising completion of ageing items before starting new work.
6. Add flow metrics to the dashboard: cycle time, blocked days, ageing WIP, throughput, scope change, and dependency lead time.
7. Define cutover readiness criteria for major migrations, including test evidence, operational acceptance, funding, licensing, and rollback plans.

Conclusion

- PI5 shows a portfolio that is becoming more transparent and better able to process work, but whose efficiency is limited by late scope elaboration, high WIP, and unresolved dependencies.
- The next maturity step is to move from visibility to predictability: stabilise scope before execution, make assumptions explicit, limit concurrent work, and resolve dependencies through enforceable commitments.