

Transforming a fragmented data landscape into a unified platform for innovation, decision-making, and student success

Higher Education – Enterprise Data, AI & Integration Strategy for a major Australian University



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CASE STUDY

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User Stories Captured	Priority Use Cases	Maturity Uplift
550+	6	73%

PROBLEM

This major Australian university faced a critical inflection point. Despite significant investments in technology, its data and analytics capabilities remained fragmented, reactive, and unable to support the institution's ambitious strategic agenda.

Staff and students struggled daily with manual processes, siloed systems, and inconsistent data quality. This created a cascade of operational inefficiencies: duplicate data entry across multiple systems, lengthy report generation cycles, and decision-making hampered by a lack of trusted, timely information.

Key Challenges

- **Fragmented data landscape:** Over 200 disparate systems with no unified data layer, creating information silos across faculties and administrative functions
- **Manual, error-prone processes:** Staff spent up to 40% of their time on data wrangling rather than value-adding analysis and student engagement
- **Reactive analytics culture:** Maturity assessment revealed a score of 2.6 out of 5, indicating the organisation was operating in a largely reactive mode with limited predictive capabilities
- **Integration complexity:** Point-to-point integrations had proliferated, creating technical debt and making system changes increasingly risky and costly
- **Governance gaps:** Inconsistent data ownership, quality standards, and stewardship practices across organisational units

The university recognised that without a comprehensive transformation, it would be unable to deliver on its strategic priorities around student experience, research excellence, and operational efficiency.

Do you have any additional questions, or want to know more?

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SOLUTION

Exposé partnered with the university to develop and deliver a comprehensive Data, AI & Integration Strategy, grounded in evidence and designed for practical implementation. Our approach prioritised stakeholder engagement, ensuring the strategy reflected real user needs rather than theoretical best practice.

Evidence-Based Discovery

We conducted extensive stakeholder engagement across all university divisions, capturing over 550 user stories from academic staff, professional services, students, and executive leadership. This evidence base became the foundation for prioritisation and ensured every recommendation was traceable to genuine business need.

Strategic Framework Development

The strategy was built around four interconnected pillars:

1. **Data Platform Modernisation:** A cloud-native data platform architecture to consolidate data assets, eliminate silos, and enable self-service analytics
2. **Integration Excellence:** An enterprise integration layer to replace point-to-point connections with scalable, governed API-based integration patterns
3. **AI & Analytics Enablement:** Capability uplift in advanced analytics, machine learning, and emerging AI technologies to move from reactive to predictive and prescriptive insights
4. **Governance & Operating Model:** A federated data governance framework with clear accountability, stewardship roles, and quality management practices

Phased Implementation Roadmap

We designed a pragmatic five-year roadmap structured across three phases to balance quick wins with sustainable transformation:

- **Foundational Phase (Year 1-2):** Establish core platform infrastructure, implement governance frameworks, and build internal capability
- **Spotlight Phase (Year 2-3):** Deliver six high-impact use cases selected for strategic alignment and demonstrable value, including student journey analytics, research impact dashboards, and operational efficiency automation
- **Acceleration Phase (Year 3-5):** Scale successful patterns across the enterprise, embed AI capabilities, and transition to a self-sustaining operating model

Executive-Ready Deliverables

We translated the detailed technical strategy into compelling executive materials including visual evidence-based roadmaps, an interactive reference architecture, benefit models, and governance RACI matrices. This enabled effective communication from the project team through to the University Council and ensured sustained executive sponsorship.

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BUSINESS BENEFITS

The strategy positions the university to realise substantial, measurable benefits across student outcomes, staff productivity, and institutional capability.

Projected Benefits

Benefit Category	Expected Impact
Student Experience & Retention	A significant uplift in attraction & retention
Staff Productivity	Up to 25% efficiency gain to be reinvested back into value added activity
Manual Data Handling	30-40% reduction
Data & Analytics Maturity	73% improvement

Strategic Outcomes

Maturity Transformation: Uplift from Reactive to Proactive on the data and analytics maturity scale, representing a 73% improvement

Operational Efficiency: 30-40% reduction in manual data handling through automation and self-service capabilities

Decision Velocity: Faster, more confident decision-making through trusted, unified data and real-time dashboards

Strategic Alignment: Direct traceability between data initiatives and institutional strategic priorities, ensuring sustained investment and executive support

Future-Ready Foundation: Modern, scalable architecture positioned to leverage emerging AI capabilities and respond to evolving regulatory requirements

Investment Profile

The strategy outlined a phased investment over five years, with cost savings from legacy platform decommissioning partially offsetting new capability investments. The phased approach allows the university to validate value at each stage before committing to subsequent investments.

"This strategy gives us a clear path from where we are today to where we need to be. It's grounded in our reality, aligned to our strategic ambitions, and provides a practical roadmap our teams can execute."

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