



Trust Through Transformation: Navigating the Data and Artificial Intelligence (AI) Maturity Journey in Tertiary Education

Presented by Bluebird Advisory

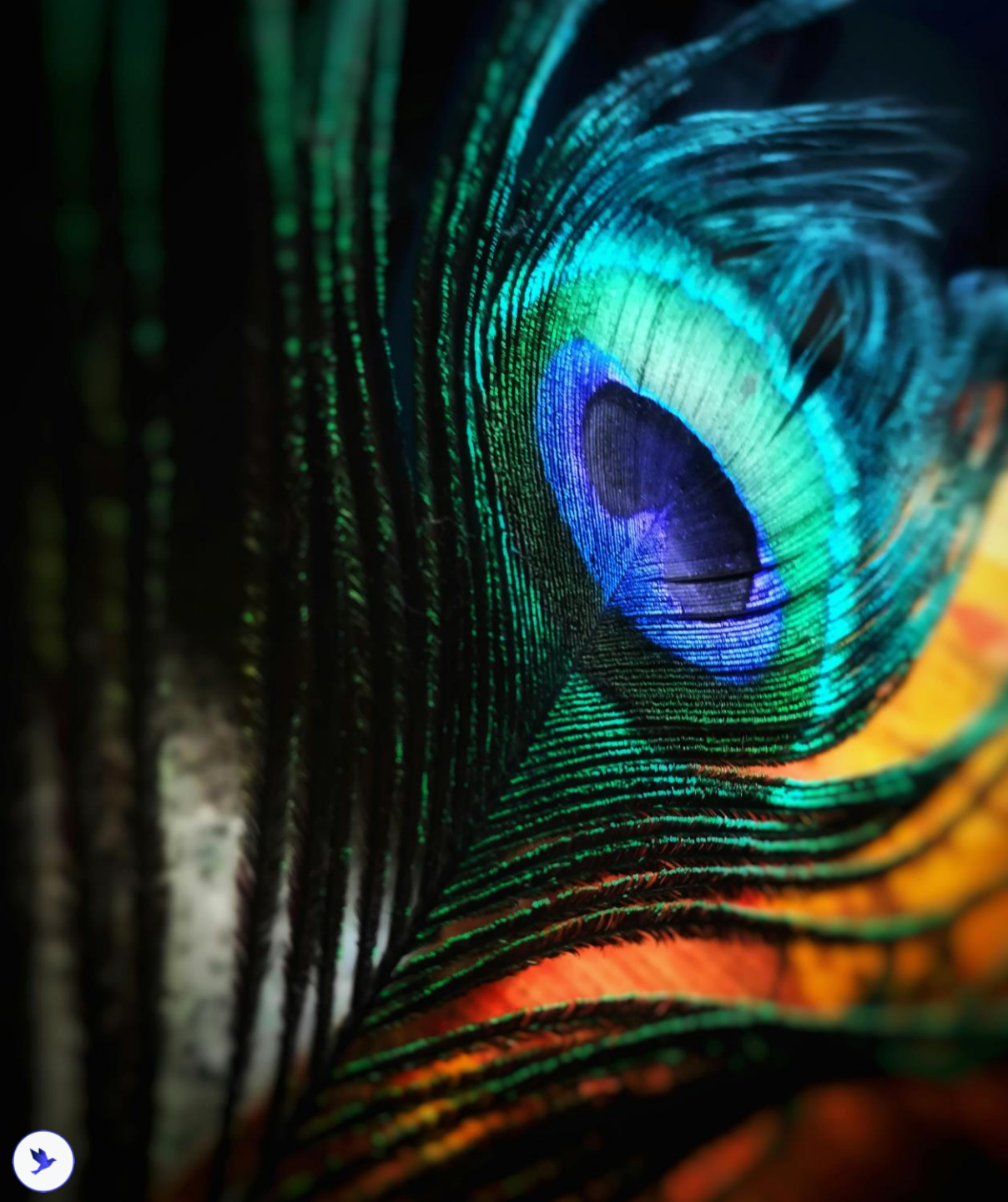
27 November 2024 | 1pm – 2pm AEST | Zoom



CAUDIT
PROCUREMENT
VENDOR

ACKNOWLEDGEMENT OF COUNTRY

”In the spirit of reconciliation CAUDIT acknowledges the Traditional Custodians of Country throughout Australasia and their connections to land, sea and community. We pay our respect to their elders past and present and extend that respect to Aboriginal, Torres Strait Islander, Māori and all first nation peoples today.”



Presenters



Matt Carmichael
Chief Information Officer
University of Canberra



Dr Ed Young
Executive Director
Bluebird Advisory



Agenda

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|----|--|---------|
| 1. | Tertiary Education Sector Macro Concerns | 10 mins |
| 2. | Perspectives | 15 mins |
| 3. | Experience | 15 mins |
| 4. | Offer | 5 mins |
| 5. | Q&A | 5 mins |
| 6. | Next Steps | 5 mins |



1

Tertiary Education Sector Macro Concerns



CAUDIT's 2024 Top Ten Topics

The Council of Australasian University Directors of Information Technology (CAUDIT) Top Ten Topics reflect institutions priorities for leveraging digital technologies to enhance education quality, assure security and improve experience – satisfaction and success – for learners.

The CAUDIT 2024 Top Ten Topics published in August 2024, ranked by 43 member institutions, emphasise the importance of **trusted data**.

Key themes include leveraging data and data assets to:

- Achieve operational efficiencies.
- Enhance cyber security and prevent data breaches.
- Facilitate better support for learners and learning outcomes.
- Uncover previously unknown indicators that can inform key decisions.

Digital Strategy	Operational Efficiency	Data Governance	Enterprise Architecture	Insights Driving Actions
Secure Digital Environment	Identity and Access Management	Holistic Learner Experience	AI for Teaching, Learning and Research	Research Support

100%

Of CAUDIT's 2024 Top Ten topics specifically identify the importance of data or AI in Education.

Source: CAUDIT 2024 Top Ten Report, August 2024.



Sector macro concerns

The importance of trusted data is emphasised throughout the [Australian Universities Accord](#) (Accord) and the [National Planning Level](#) (NPL) policy.

Accord

Contains 47 recommendations for Government consideration and aims to create a long-term reform plan for the higher education sector to meet Australia's future skills needs.



The Accord emphasises the importance of **trusted data** through advocating for evidence-based policy-making and transparent reporting to ensure accountability and informed decision-making in higher education

NPL

Provides predictability and certainty for international education providers and safeguard the quality of Australia's international education offerings, from 2025.



The NPL relies on **accurate and reliable data** to manage learner numbers effectively.

68.4%

Of respondents believe data governance needs to be addressed within the next five years.

Source: CAUDIT 2024 Top Ten Report, August 2024.



The Accord

CAUDIT's Top Ten Topics emphasise the need to use data to facilitate better support for learners and uncover previously unknown indicators that can inform key decisions.

This aligns with the Accord's recommendations to use data to:

1. Better measure learner pathways and outcomes.
2. Answer policy questions, identify emerging issues and monitor long-term learner experience – satisfaction and success.
3. Measure and report research quality and impact.

Trusted data is the foundation to realise these recommendations.

The Accord underlines that Artificial Intelligence (AI) is considered a means to improve quality learning and teaching, including using AI (both creative generative and predictive non-generative) to:

- Enhance teaching practices, as well as increase accessibility for people with disabilities.
- Personalise learning to an individual learner's needs, abilities and interests.
- Boost research productivity and quality.

78.9%

Of respondents view Secure Digital Environment (including data protection) as an ongoing priority.

Source: CAUDIT 2024 Top Ten Report, August 2024.

5 of 47

Recommendations highlight the **need for trusted data** as long-term reform initiatives.

Source: The Australian Universities Accord Final Report, Australian Government, Department of Education, February 25 2024.



NPL

CAUDIT's Top Ten Topics highlight the need for data to inform enrolments and operational efficiencies. Trusted data can be used to forecast the implications of NPL limits, as well as enable institutions to manage the limits more effectively through:

- **Enrolment management** – Analysing historic enrolment data to predict trends and plan intake accordingly to stay within the NPL limits.
- **Course demand analysis** – Identify high-demand courses among international learners, to allocate resources efficiently while managing the limits set by the NPL.
- **Performance monitoring** – Learner performance data to identify areas required for additional support and at risk to assure the standards of learning outcomes.
- **Compliance reporting** – Tracking data to manage compliance with the NPL limits continuously to avoid potential breaches.

“When data governance is in place, institutions can more easily meet compliance and privacy regulations and users can find the information they need more quickly to yield the results they are looking for.”

Source: CAUDIT 2024 Top Ten Report, August 2024, 9.

\$1.1 billion

revenues loss from international student fees projected for 2025 because of new NPL limits, “dramatically bad” for the economy.

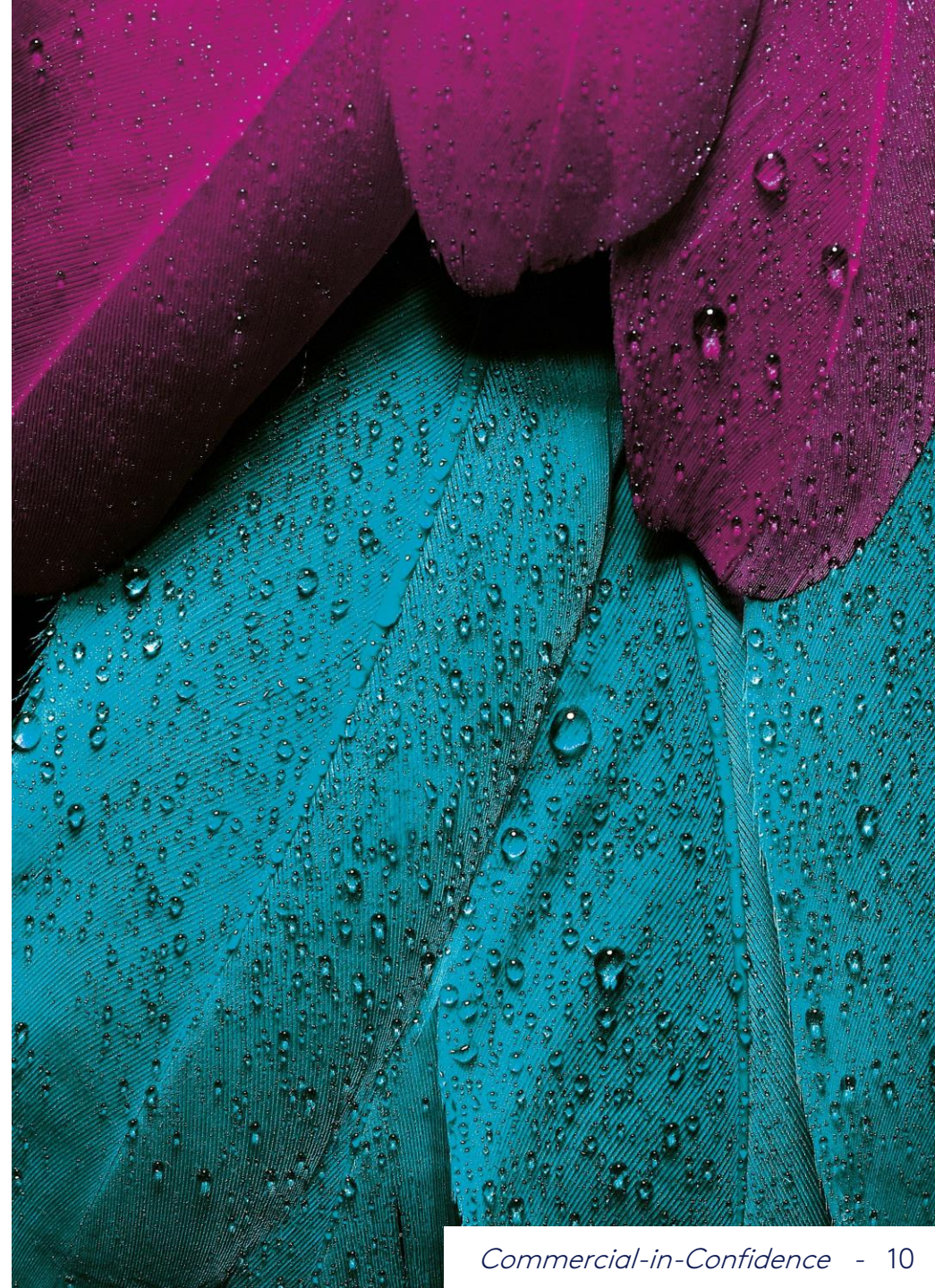
Source: Australian Financial Review, August 28, 2024.



Poll #1 – Industry Data Concerns

Please answer the following questions:

- 1) How significantly do you expect the Australian Department of Education's findings and 47 recommendations in the Australian Universities Accord will influence your data strategy and plan to build trust?
- 2) How do you expect the National Planning Level limits of 270,000 for new overseas learners commencements for the 2025 calendar year to influence your data strategy and plans to build trust?





Perspectives



Data & AI Maturity Journey

Education institutions recognise the need for trusted data but are at different stages of maturity when leveraging it and AI to operate.

52.6%

Of respondents indicated that data governance requires immediate attention within the next two years.

Source: CAUDIT 2024 Top Ten Report.

'Despite operating within a data-rich and data-reliant environment, the capacity of higher education IT departments to analyse their data and transform their findings into organisational value is not keeping pace with the need to innovate and the amount of data generated.'

Source: CAUDIT 2024 Top Ten Report, 11

'To harness the true potential of AI in the higher education and research sector, leaders, educators, administrators, researchers and students all need to build their AI knowledge and literacy.'

Source: CAUDIT 2024 Top Ten Report, 17

73.7%

Of respondents believe AI for teaching, learning and research needs to be addressed within the next five years.

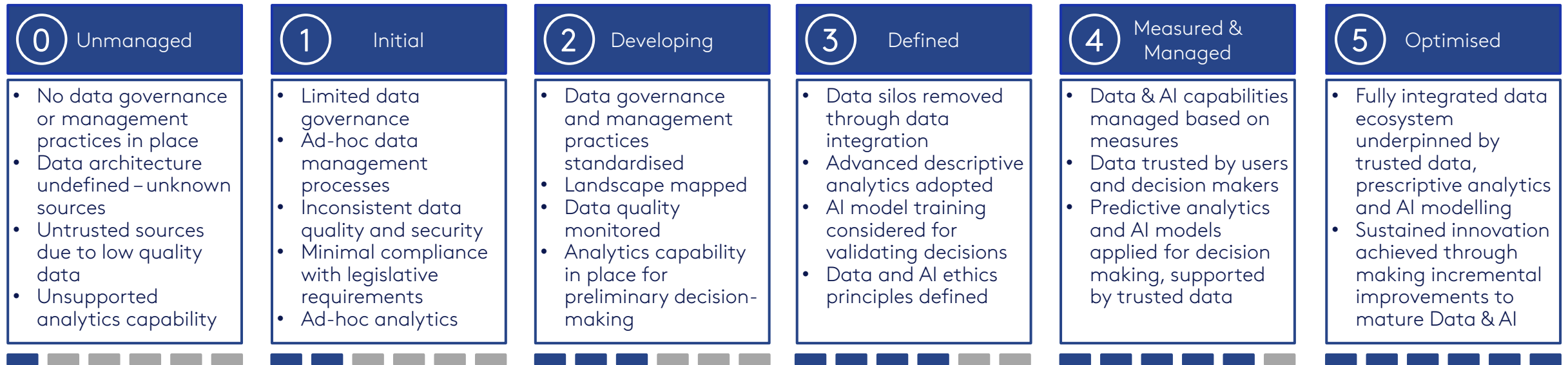
Source: CAUDIT 2024 Top Ten Report.



Data & AI Maturity Journey

For institutions to effectively fulfil the potential of their data, build trust and achieve better learner and teaching outcomes, it is important to identify where they are along their Data and AI Maturity Journey.

Data & AI Maturity Journey Stages



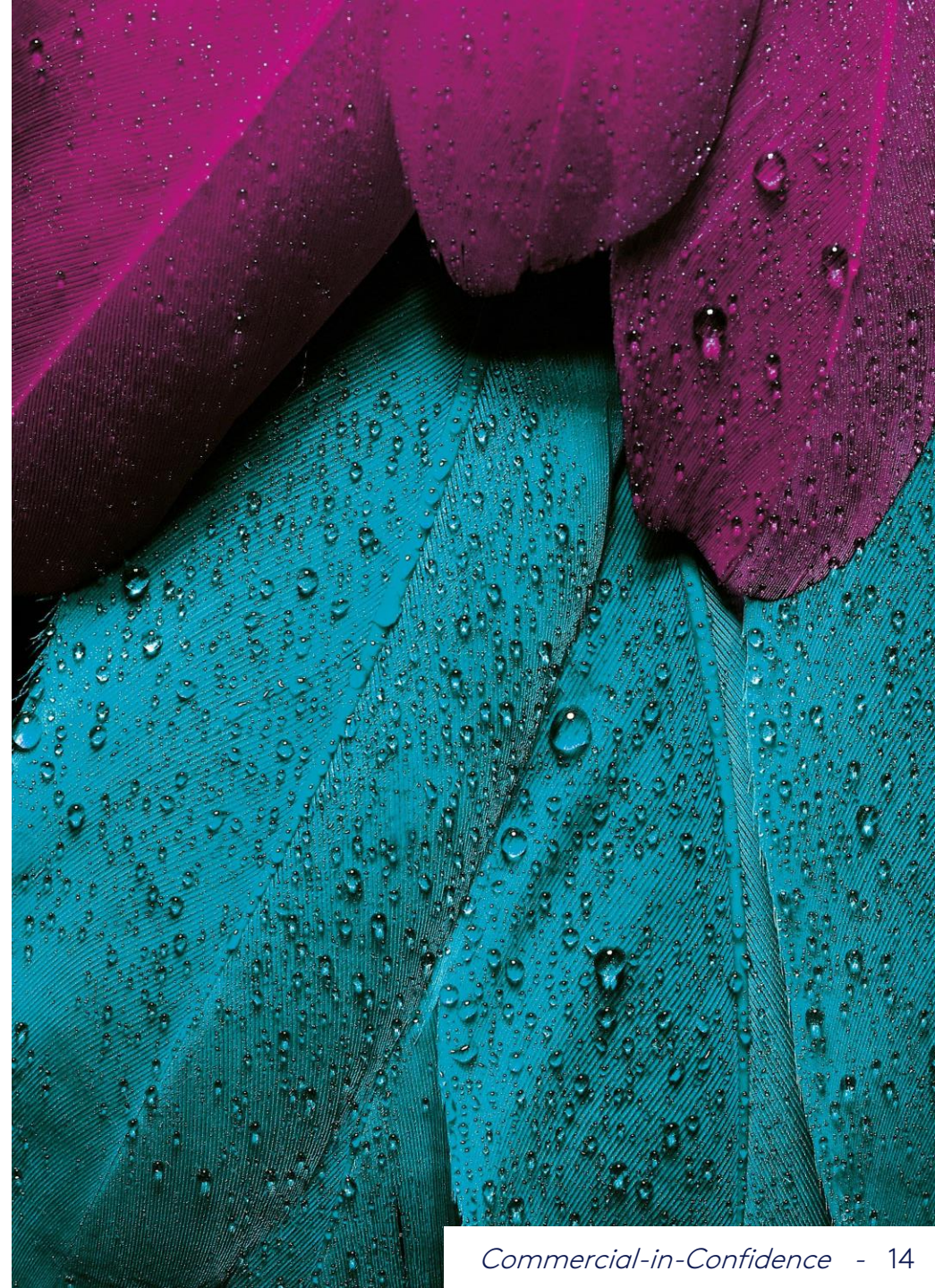
Actions

- | | | | | | |
|--|---|---|--|---|---|
| <ul style="list-style-type: none"> Assess Data & AI maturity Develop data strategy and horizon roadmap Establish data governance Discover data sources | <ul style="list-style-type: none"> Develop data architecture and operating model Conduct data compliance audits and determine action Conduct a security assessment | <ul style="list-style-type: none"> Develop Data Quality framework Define data integration needs Establish a central trusted data analytics and AI platform | <ul style="list-style-type: none"> Establish reference and master data management Establish a repeatable Data Analytics Process and Governance | <ul style="list-style-type: none"> Adopt Automation and AI Measure and report on Data & AI maturity | <ul style="list-style-type: none"> Celebrate Data & AI culture as fundamental Iterate, learn and refine |
|--|---|---|--|---|---|

Poll #2 – Data & AI Maturity Journey Stage

Please answer the following questions:

- 1) Which Stage do you believe you are at on your Data & AI Maturity Journey?
- 2) Which Stage do you plan to achieve in the next 12 months?





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Experience



Experience across the education sector



Matt Carmichael

Chief Information Officer,
University of Canberra



Bluebird Advisory

Experience working with
education sector clients



The Challenge

- University of Canberra (UC) was on the 'Initial' Data & AI maturity stage (Stage 1).
- They identified high risks in non-compliance with legislative requirements to retain and/or dispose records, exposing themselves to potential data breaches.
- They had challenge in determining the definition of compliance with respect to legislative requirements.
- To overcome the challenge, UC required a Program of Work to remediate compliance gaps and uplift their records management practices into the future (Stage 2).



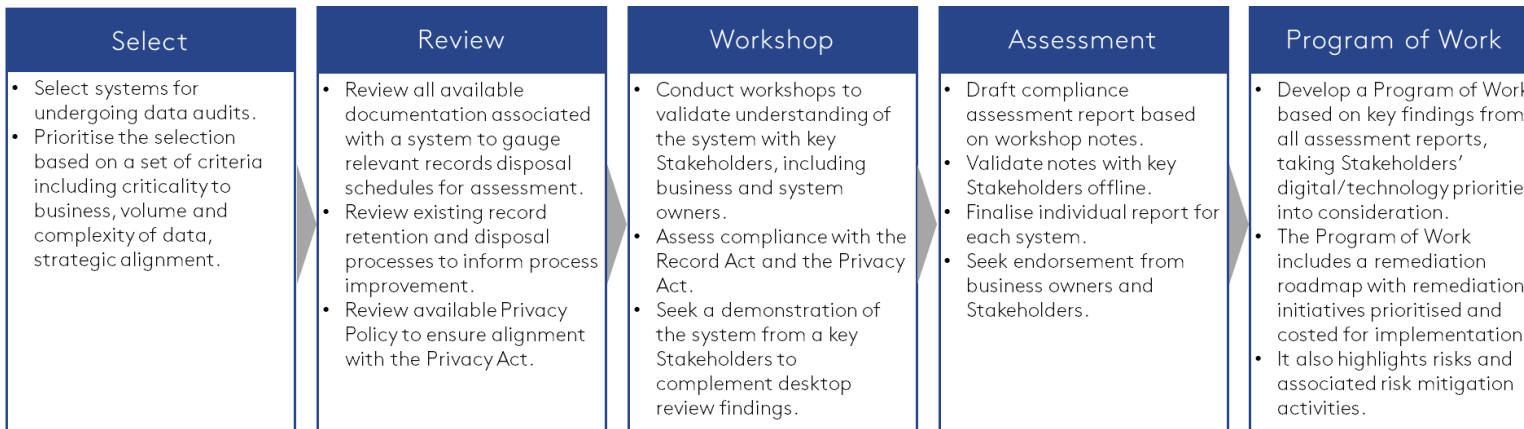
Matt Carmichael
Chief Information Officer
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What We Did

- Bluebird Advisory determined relevant record disposal schedules and privacy principles for assessing compliance.
- Conducted a desktop review for each system to understand the current state of record management practices.
- Designed a data audit framework and a repeatable process for conducting assessment workshops.
- Formulated in-depth assessment reports for each system with detailed remediation recommendations.
- Prioritised initiatives to align with UC's overarching digital priorities and visualised them via a roadmap, with associated investment to inform effort required for implementation.

Methodology



Assessment Tool

Report ID	System name	System description	System criticality	Overall compliance maturity	Overall compliance score	No. of RDS	No. of RCS Functions	No. of RCS activities
1	System 1		1 Mission critical	Medium	51.1%	1	1	1
2	System 2		2 Business critical	Low	43.1%	1	1	1
3	System 3		2 Business critical	Medium	53.7%	2	2	4
4	System 4		1 Mission critical	Low	48.9%	1	1	1
5	System 5		1 Mission critical	Low	46.3%	3	3	9
6	System 6		1 Mission critical	NA				
7	System 7		1 Mission critical	Medium	51.7%	2	2	5
8	System 8		1 Mission critical	High	100.0%	1	1	1
9	System 9		1 Mission critical	Medium	52.8%	1	1	1
10	System 10		2 Business critical	Medium	50.8%	2	2	19
11	System 11		2 Business critical	Medium	51.6%	1	1	5
12	System 12		1 Mission critical	Low	49.8%	3	3	15
13	System 13		2 Business critical	Medium	53.7%	2	2	9

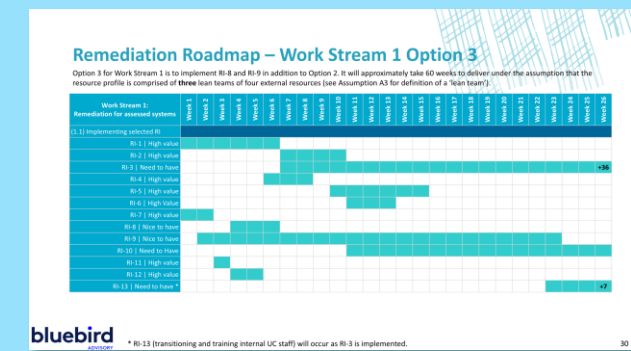
Compliance Assessment Report Product

Compliance Assessment Results Summary

Out of the 13 systems, a total of 11 systems requires remediation. Four systems have been assessed as low in compliance maturity, seven as medium, one as high (i.e., fully compliant) and one is N/A due to the system not holding any records.

ID	System name	Overall compliance maturity	Overall compliance score	No. of 784 2002 requirements met	No. of 49 1988 requirements met	No. of 6237 requirements met
1	System 1	Medium	51.1%	0/1	5/6	7/10
2	System 2	Low	43.1%	0/1	4/5	5/8
3	System 3	Medium	53.7%	0/8	5/5	7/9
4	System 4	Low	48.9%	0/1	4/5	4/6
5	System 5	Low	46.3%	0/11	5/6	5/9
6	System 6	NA	NA	NA	NA	NA
7	System 7	Medium	51.7%	0/6	4/5	6/8
8	System 8	High	100.0%	1/1	6/6	7/7
9	System 9	Medium	52.8%	0/1	5/6	6/8
10	System 10	Medium	50.8%	0/26	6/7	6/9
11	System 11	Medium	51.6%	0/26	5/6	5/7
12	System 12	Low	49.8%	0/20	6/7	7/11
13	System 13	Medium	53.7%	0/10	5/6	7/9

Program of Work



The Outcome

- Bluebird Advisory identified compliance gaps in 92% of the systems audited and highlighted the critical risks of over retention of data, making UC vulnerable to potential data breaches and cyber attacks.
- We provided remediation recommendations to enable UC to close the gaps.
- Our Program of Work contributed significantly to the case for change for remediation of the assessed systems and further data audits for remaining business critical systems.
- We provided three costing options that placed varying degrees of emphasis on process and policy improvements, and technical uplifts.
- UC was able to leverage the repeatable process to complete further audits independently.

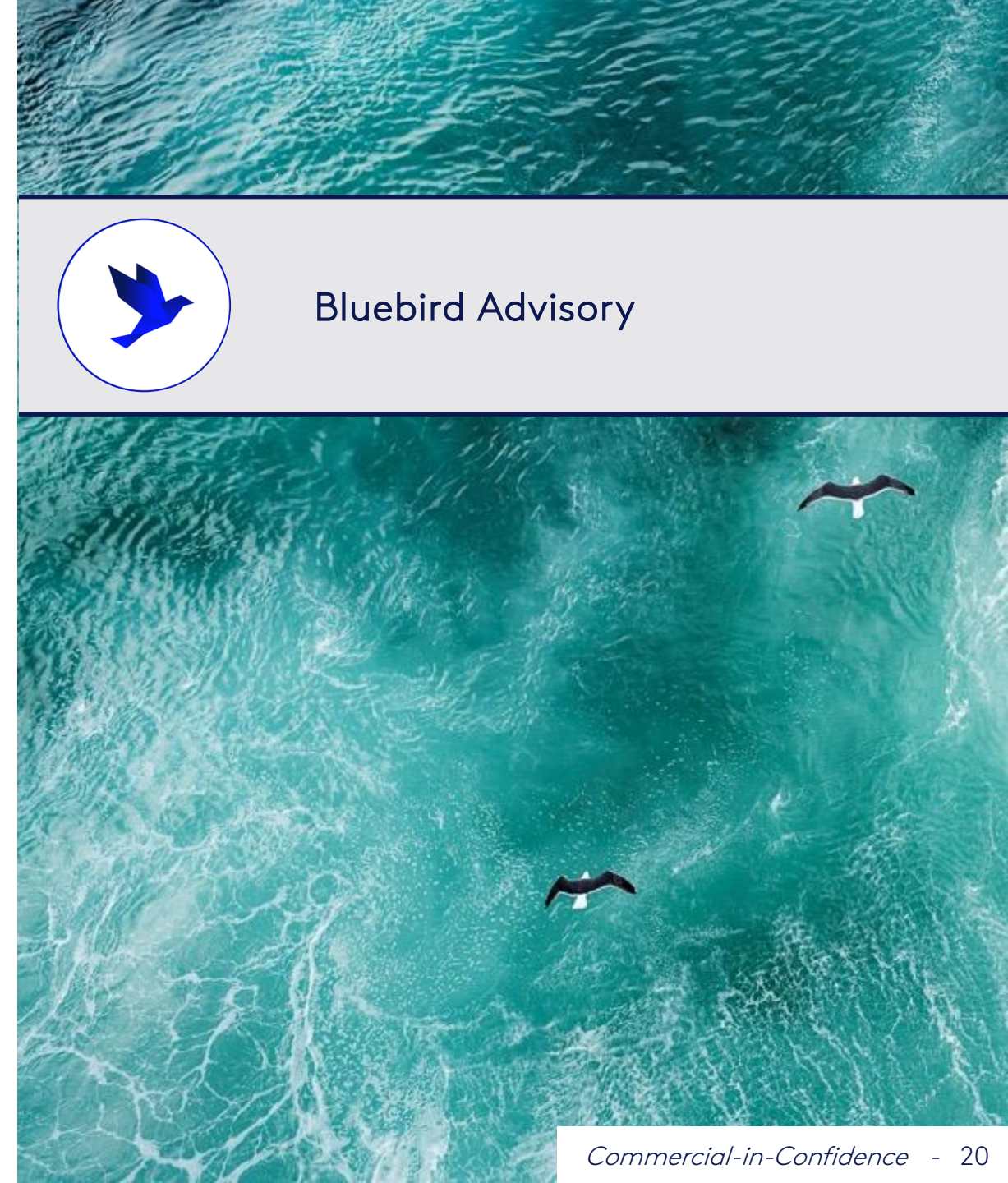


Selected education and research sector experience

- Supported the Commonwealth Scientific and Industrial Research Organisation (CSIRO) with conducting Data Maturity Assessment and developed a Transformation Roadmap for maturing their Data & AI capabilities.
- Assisted CSIRO with establishing an Enterprise Data Inventory to uplift their Data & AI maturity.
- Appointed as the change and delivery partner by the Australian National University (ANU) to prepare their launch of the Zero Trust Network and Firewall Migration.
- Supported the Department of Employment and Workplace Relations (DEWR) with an ICT Second Pass Business Case to enable them to fund the case for change for the VET Student Loans (VSL) platform.
- Worked closely with the ACT Education Directorate to address the social impact of Occupational Violence in ACT Public Schools.
- Assisted the Department of Education, Skills and Employment (DESE) assure the quality of their Learn Hub.



Bluebird Advisory





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Offer



CAUDIT Member Single System Data Audit



Value

~~\$15,000 AUD excluding GST~~

FREE

for first five respondents.



Pre-requisites

- Stakeholder availability.
- Documentation on the system.
- Data and compliance policies.



Product

- A detailed assessment report to uncover compliance gaps.
- Recommendations for risk remediation.



Options

- The data audit can be scaled for multiple systems.
- The data audit criteria can be tailored to support your institution's unique environments including storage, retention and disposal.





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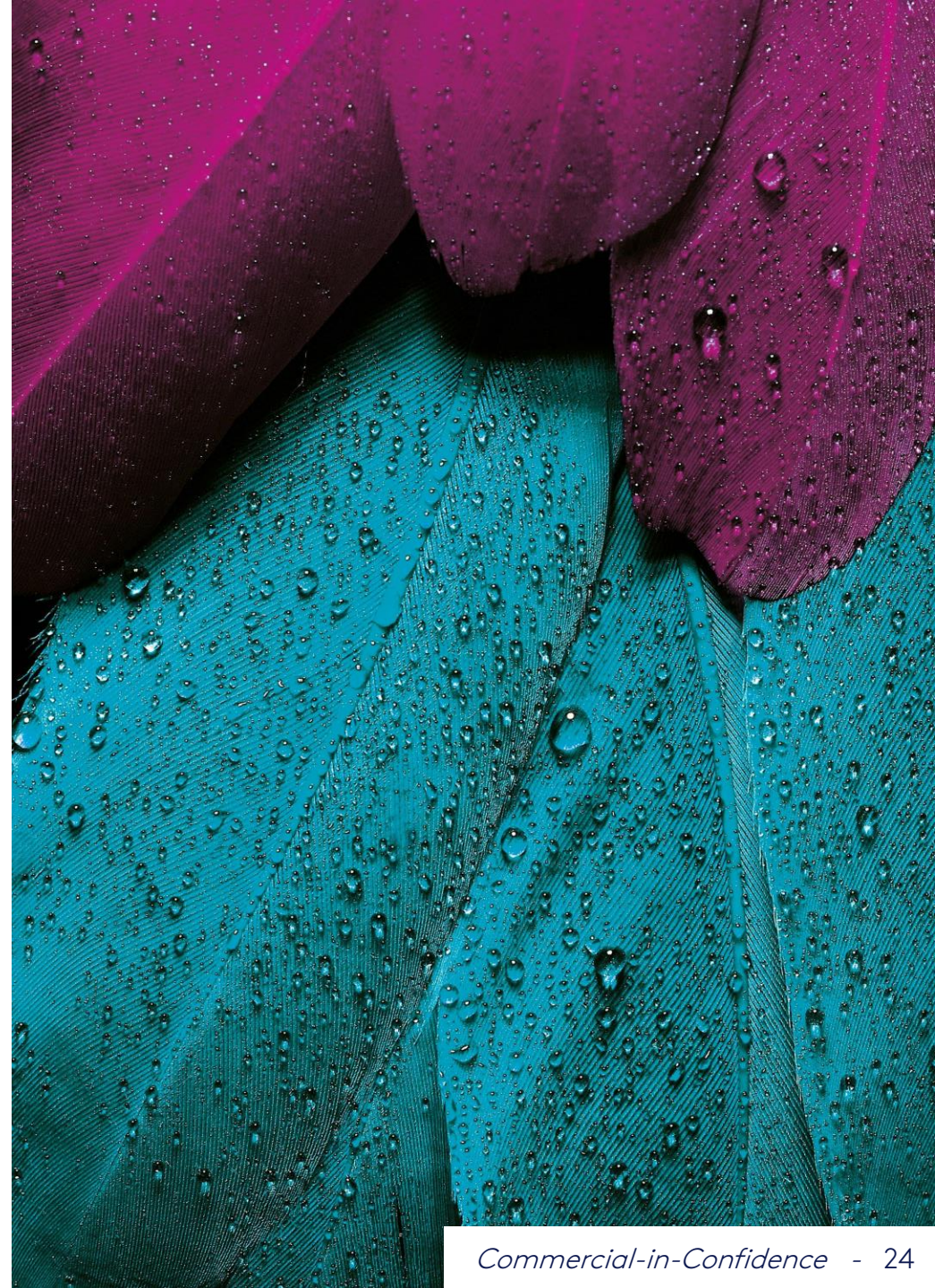
Q&A



Poll #3 – Data & AI Maturity Journey Progress

Please indicate the extent to which you agree with the following statements:

- 1) “I feel that I have sufficient internal support from my institution (VC, CEO, departments, schools, ...) to progress on my Data & AI Maturity Journey.”
- 2) “I am confident that I have sufficient resources and budget to progress on my Data & AI Maturity Journey to where I would like to be in 6/12/24 months.”





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Next Steps



Contact us

- Please reach out via contact@bluebirdadvisory.com.au or contact Dr Ed Young via ed@bluebirdadvisory.com.au or +61 (0) 409 414 294.
- For offline Webinar attendees, please complete the poll after viewing the recording:
https://forms.office.com/pages/responsepage.aspx?id=nl_daDztFkWioZpUE5rB1MvD2GtPAopHu2SuM1YriFpUQ1dZODkyUkdUN1M4V0w4MERMWExOWE45SS4u&route=shorturl





Thank You

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ADVISORY

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