

Document Information	
Version	V1.0 FINAL
Approved by	Alison McNulty, Senior Manager Standards and Policy
Date	22/05/2023
Business Owner	Alison McNulty, Senior Manager Standards and Policy
Authors	Xander Hunter, Senior Officer Standards and Policy
Classification	FOR OFFICIAL USE ONLY

Copyright Statement

© State of Victoria through Public Record Office Victoria 2023



Except for any logos, emblems, and trademarks, this work (*Information Management Maturity Assessment Program 2021-22 Report, Version 2: De-identified Data*) is licensed under a Creative Commons Attribution 4.0 International license, to the extent that it is protected by copyright. Authorship of this work must be attributed to the Public Record Office Victoria. To view a copy of this license, visit https://creativecommons.org/licenses/by/4.0/legalcode.



Table of Contents

2.1 The IMMAP process 2.2 Participants 2.3 IM3 tool 2.4 Data collection and analysis 2.5 Reporting IMMAP results 3 IMMAP 2021-22 Results 3.1 Dimension ratings 3.2 Participant ratings 3.3 Common themes 3.4 Factors that affected scores 4 Results analysis 4.1 Comparative analysis 4.2 Results by Question 4.3 Recommendations 4.4 Ongoing challenges 5 Conclusion Appendix A: Table of IMMAP Results Appendix B: Table of Supporting Comments Appendix C: Challenges identified in the 2021-22 IMMAP Challenge 1: COVID and remote working Challenge 2: Data Management and Information Management Challenge 3: Increasingly complex policy space Appendix D: Revisions to the IMF	1	Int	roduction	4
2 Method 2.1 The IMMAP process 2.2 Participants 2.3 IM3 tool 2.4 Data collection and analysis 2.5 Reporting IMMAP results 3 IMMAP 2021-22 Results 3.1 Dimension ratings 3.2 Participant ratings 3.3 Common themes 3.4 Factors that affected scores 4 Results analysis 4.1 Comparative analysis 4.2 Results by Question 4.3 Recommendations 4.4 Ongoing challenges 5 Conclusion Appendix A: Table of IMMAP Results Appendix B: Table of Supporting Comments Appendix C: Challenges identified in the 2021-22 IMMAP Challenge 2: Data Management and Information Management Challenge 3: Increasingly complex policy space Appendix D: Revisions to the IMF		1.1	Overview and acknowledgements	2
2 Method 2.1 The IMMAP process 2.2 Participants 2.3 IM3 tool 2.4 Data collection and analysis 2.5 Reporting IMMAP results 3 IMMAP 2021-22 Results 3.1 Dimension ratings 3.2 Participant ratings 3.3 Common themes 3.4 Factors that affected scores 4 Results analysis 4.1 Comparative analysis 4.2 Results by Question 4.3 Recommendations 4.4 Ongoing challenges 5 Conclusion Appendix A: Table of IMMAP Results Appendix B: Table of Supporting Comments 5 Appendix C: Challenges identified in the 2021-22 IMMAP Challenge 2: Data Management and Information Management Challenge 3: Increasingly complex policy space Appendix D: Revisions to the IMF		1.2	Background	4
2.1 The IMMAP process 2.2 Participants 2.3 IM3 tool 2.4 Data collection and analysis 2.5 Reporting IMMAP results 3 IMMAP 2021-22 Results 3.1 Dimension ratings 3.2 Participant ratings 3.3 Common themes 3.4 Factors that affected scores 4 Results analysis 4.1 Comparative analysis 4.2 Results by Question 4.3 Recommendations 4.4 Ongoing challenges 5 Conclusion Appendix A: Table of IMMAP Results Appendix B: Table of Supporting Comments Appendix C: Challenges identified in the 2021-22 IMMAP Challenge 1: COVID and remote working Challenge 2: Data Management and Information Management Challenge 3: Increasingly complex policy space Appendix D: Revisions to the IMF		1.3	Purpose	5
2.2 Participants 2.3 IM3 tool 2.4 Data collection and analysis 2.5 Reporting IMMAP results 3 IMMAP 2021-22 Results 3.1 Dimension ratings 3.2 Participant ratings 3.3 Common themes 3.4 Factors that affected scores 4 Results analysis 4.1 Comparative analysis 4.2 Results by Question 4.3 Recommendations 4.4 Ongoing challenges 5 Conclusion Appendix A: Table of IMMAP Results Appendix A: Table of Supporting Comments Appendix C: Challenges identified in the 2021-22 IMMAP Challenge 1: COVID and remote working Challenge 2: Data Management and Information Management Challenge 3: Increasingly complex policy space Appendix D: Revisions to the IMF	2	Me	ethod	6
2.3 IM3 tool 2.4 Data collection and analysis 2.5 Reporting IMMAP results 3 IMMAP 2021-22 Results 3.1 Dimension ratings 3.2 Participant ratings 3.3 Common themes 3.4 Factors that affected scores 4 Results analysis 4.1 Comparative analysis 4.2 Results by Question 4.3 Recommendations 4.4 Ongoing challenges 5 Conclusion Appendix A: Table of IMMAP Results Appendix B: Table of Supporting Comments Appendix C: Challenges identified in the 2021-22 IMMAP Challenge 1: COVID and remote working Challenge 2: Data Management and Information Management Challenge 3: Increasingly complex policy space Appendix D: Revisions to the IMF		2.1	The IMMAP process	6
2.4 Data collection and analysis 2.5 Reporting IMMAP results 3 IMMAP 2021-22 Results 3.1 Dimension ratings 3.2 Participant ratings 3.3 Common themes 3.4 Factors that affected scores 4 Results analysis 4.1 Comparative analysis 4.2 Results by Question 4.3 Recommendations 4.4 Ongoing challenges 5 Conclusion Appendix A: Table of IMMAP Results Appendix B: Table of Supporting Comments Appendix C: Challenges identified in the 2021-22 IMMAP Challenge 1: COVID and remote working Challenge 2: Data Management and Information Management Challenge 3: Increasingly complex policy space Appendix D: Revisions to the IMF		2.2	Participants	6
2.5 Reporting IMMAP results 3 IMMAP 2021-22 Results 3.1 Dimension ratings 3.2 Participant ratings 3.3 Common themes 3.4 Factors that affected scores 4 Results analysis 4.1 Comparative analysis 4.2 Results by Question 4.3 Recommendations 4.4 Ongoing challenges 5 Conclusion 5 Conclusion Appendix A: Table of IMMAP Results Appendix B: Table of Supporting Comments Appendix C: Challenges identified in the 2021-22 IMMAP Challenge 1: COVID and remote working Challenge 2: Data Management and Information Management Challenge 3: Increasingly complex policy space Appendix D: Revisions to the IMF		2.3	IM3 tool	7
3 IMMAP 2021-22 Results 3.1 Dimension ratings 3.2 Participant ratings 3.3 Common themes 3.4 Factors that affected scores 4 Results analysis 4.1 Comparative analysis 4.2 Results by Question 4.3 Recommendations 4.4 Ongoing challenges 5 Conclusion 5 Conclusion 5 Appendix A: Table of IMMAP Results Appendix B: Table of Supporting Comments Appendix C: Challenges identified in the 2021-22 IMMAP Challenge 1: COVID and remote working Challenge 2: Data Management and Information Management Challenge 3: Increasingly complex policy space Appendix D: Revisions to the IMF		2.4	Data collection and analysis	8
3.1 Dimension ratings 3.2 Participant ratings 3.3 Common themes 3.4 Factors that affected scores 4 Results analysis 4.1 Comparative analysis 4.2 Results by Question 4.3 Recommendations 4.4 Ongoing challenges 5 Conclusion 5 Conclusion Appendix A: Table of IMMAP Results Appendix B: Table of Supporting Comments 5 Appendix C: Challenges identified in the 2021-22 IMMAP Challenge 1: COVID and remote working Challenge 2: Data Management and Information Management Challenge 3: Increasingly complex policy space Appendix D: Revisions to the IMF		2.5	Reporting IMMAP results	g
3.2 Participant ratings 3.3 Common themes 3.4 Factors that affected scores 1 4 Results analysis 4.1 Comparative analysis 4.2 Results by Question 4.3 Recommendations 4.4 Ongoing challenges 5 Conclusion Appendix A: Table of IMMAP Results Appendix B: Table of Supporting Comments 5 Appendix C: Challenges identified in the 2021-22 IMMAP Challenge 1: COVID and remote working Challenge 2: Data Management and Information Management Challenge 3: Increasingly complex policy space Appendix D: Revisions to the IMF	3	IM	MAP 2021-22 Results	10
3.3 Common themes 3.4 Factors that affected scores 1 4 Results analysis 4.1 Comparative analysis 4.2 Results by Question 4.3 Recommendations 4.4 Ongoing challenges 5 Conclusion 5 Conclusion 5 Appendix A: Table of IMMAP Results Appendix B: Table of Supporting Comments 5 Appendix C: Challenges identified in the 2021-22 IMMAP Challenge 1: COVID and remote working Challenge 2: Data Management and Information Management Challenge 3: Increasingly complex policy space Appendix D: Revisions to the IMF		3.1	Dimension ratings	10
3.4 Factors that affected scores 4 Results analysis 4.1 Comparative analysis 4.2 Results by Question 4.3 Recommendations 4.4 Ongoing challenges 5 Conclusion 5 Conclusion 5 Appendix A: Table of IMMAP Results Appendix B: Table of Supporting Comments Appendix C: Challenges identified in the 2021-22 IMMAP Challenge 1: COVID and remote working Challenge 2: Data Management and Information Management Challenge 3: Increasingly complex policy space Appendix D: Revisions to the IMF		3.2	Participant ratings	10
4.1 Comparative analysis 4.1 Comparative analysis 4.2 Results by Question 4.3 Recommendations 4.4 Ongoing challenges 5 Conclusion 5 Appendix A: Table of IMMAP Results Appendix B: Table of Supporting Comments Appendix C: Challenges identified in the 2021-22 IMMAP Challenge 1: COVID and remote working Challenge 2: Data Management and Information Management Challenge 3: Increasingly complex policy space Appendix D: Revisions to the IMF		3.3	Common themes	11
4.1 Comparative analysis 4.2 Results by Question 4.3 Recommendations 4.4 Ongoing challenges 5 Conclusion 5 Appendix A: Table of IMMAP Results 5 Appendix B: Table of Supporting Comments 5 Appendix C: Challenges identified in the 2021-22 IMMAP Challenge 1: COVID and remote working Challenge 2: Data Management and Information Management Challenge 3: Increasingly complex policy space Appendix D: Revisions to the IMF		3.4	Factors that affected scores	12
4.2 Results by Question 4.3 Recommendations 5.4 Ongoing challenges 5.5 Conclusion 5.6 Appendix A: Table of IMMAP Results 6.6 Appendix B: Table of Supporting Comments 7.6 Appendix C: Challenges identified in the 2021-22 IMMAP 7.7 Challenge 1: COVID and remote working 7.7 Challenge 2: Data Management and Information Management 7.7 Challenge 3: Increasingly complex policy space 7.7 Appendix D: Revisions to the IMF	4	Re	sults analysis	14
4.3 Recommendations 4.4 Ongoing challenges 5 Conclusion Appendix A: Table of IMMAP Results Appendix B: Table of Supporting Comments Appendix C: Challenges identified in the 2021-22 IMMAP Challenge 1: COVID and remote working Challenge 2: Data Management and Information Management Challenge 3: Increasingly complex policy space Appendix D: Revisions to the IMF		4.1	Comparative analysis	14
4.4 Ongoing challenges 5 Conclusion Appendix A: Table of IMMAP Results Appendix B: Table of Supporting Comments Appendix C: Challenges identified in the 2021-22 IMMAP Challenge 1: COVID and remote working Challenge 2: Data Management and Information Management Challenge 3: Increasingly complex policy space Appendix D: Revisions to the IMF		4.2	Results by Question	17
5 Conclusion Appendix A: Table of IMMAP Results Appendix B: Table of Supporting Comments Appendix C: Challenges identified in the 2021-22 IMMAP Challenge 1: COVID and remote working Challenge 2: Data Management and Information Management Challenge 3: Increasingly complex policy space Appendix D: Revisions to the IMF		4.3	Recommendations	52
Appendix A: Table of IMMAP Results Appendix B: Table of Supporting Comments 53 Appendix C: Challenges identified in the 2021-22 IMMAP Challenge 1: COVID and remote working Challenge 2: Data Management and Information Management Challenge 3: Increasingly complex policy space Appendix D: Revisions to the IMF		4.4	Ongoing challenges	54
Appendix B: Table of Supporting Comments Appendix C: Challenges identified in the 2021-22 IMMAP Challenge 1: COVID and remote working Challenge 2: Data Management and Information Management Challenge 3: Increasingly complex policy space Appendix D: Revisions to the IMF	5	Со	nclusion	55
Appendix C: Challenges identified in the 2021-22 IMMAP Challenge 1: COVID and remote working Challenge 2: Data Management and Information Management Challenge 3: Increasingly complex policy space Appendix D: Revisions to the IMF	Ар	pen	dix A: Table of IMMAP Results	56
Challenge 1: COVID and remote working Challenge 2: Data Management and Information Management Challenge 3: Increasingly complex policy space Appendix D: Revisions to the IMF	Ар	pen	dix B: Table of Supporting Comments	57
Challenge 2: Data Management and Information Management Challenge 3: Increasingly complex policy space Appendix D: Revisions to the IMF 7 7 7 7 7 7 7 7 7 7 7 7 7	Ар	pen	dix C: Challenges identified in the 2021-22 IMMAP	72
Challenge 3: Increasingly complex policy space Appendix D: Revisions to the IMF 7		Cha	llenge 1: COVID and remote working	72
Appendix D: Revisions to the IMF		Cha	llenge 2: Data Management and Information Management	73
••		Cha	llenge 3: Increasingly complex policy space	75
Appendix E: IM3 Questions 79	Ар	pen	dix D: Revisions to the IMF	78
	Δn	pen	dix E: IM3 Questions	79



1 Introduction

1.1 Overview and acknowledgements

This is the fourth round of the Information Management Maturity Assessment Program (IMMAP). Content supplied since its commencement by the participating organisations can now be seen within a broader context, providing extra depth to this year's analysis. Consequently, this report contains an additional appendix that examines broader issues and challenges the Victorian government sector is addressing. Broader analysis enables stronger planning for information and data management.

From the results of this IMMAP round, we can see a clear movement from 2 Aware to 3 Formative across the sector. There are fluctuations in maturity achieved, but these are often due to broader issues including:

- navigating COVID-19 responses
- the increased use of Microsoft 365 implementations as a central hub
- continuing machinery of government change
- resource challenges
- the separation of data management from information management as a specific professional area of expertise.

Recommendations from this report are focused on three key areas of importance that have strongly impacted this round of assessment results. They are provided in more detail in section 4.3 and cover the following areas:

- coordination of Information and data management
- information and data management by design
- sufficient and ongoing resources.

Public Record Office Victoria (PROV) would like to acknowledge the continuing support and engagement of the participating organisations in IMMAP. Without their willingness to bring honest evaluations of their information and data management maturity to the table, the IMMAP reports would not be the valuable resource and planning tools that they are.

1.2 Background

PROV administers the IMMAP every two years to analyse and report on information and data management maturity in Victorian government. The program is based on the *Information Management Framework*¹ (IMF) as developed by the Victorian government Information Management Group (IMG). ² Information and data management maturity assessments are completed by participating organisations using PROV's Information Management Maturity Measurement (IM3) tool³.

This report looks at the findings of the IMMAP conducted during 2021-22. This is the fourth round of the IMMAP: The previous three were undertaken during the 2015-16, 2017-18 and 2019-20 financial years. In this version of the report, the IMMAP participants are *de-identified*.

Due to machinery of government (MOG) changes, the number of departments increased this assessment to nine. The completion date for the IMMAP 2021-22 was October 2022. Extensions into November were provided upon request.

³ The IM3 tool can be downloaded from https://prov.vic.gov.au/recordkeeping-government/learning-resources-tools/information-management-maturity-measurement-tool-im3





¹ Department of Premier and Cabinet, 2016 (revised 2021), Information Management Framework for the Victorian Public Service

² The IMG is the governance body for information management coordination and leadership for the Victorian government. It is a sub-committee of the CIO Leadership Group.

1.3 Purpose

The IMMAP is designed to provide:

- a high-level overview of information and data management maturity for participating Victorian government departments and agencies
- a mechanism for identifying and initiating information and data management enhancement opportunities in Victorian government
- an evidence-base to inform the strategic direction and priorities for information and data management decision makers across Victorian government.

The program also assists individual organisations within Victorian government to:

- self-assess their performance against information and data management requirements and best practice
- gain valuable insights and evidence into their own information and data management trends and gaps
- develop potential internal and collaborative information and data management opportunities and initiatives.



2 Method

2.1 The IMMAP process

IMMAP assists individual Victorian government organisations to self-assess their performance against information and data management requirements and best practice. The evidence gathered provides an opportunity to gain valuable insights into organisational information and data management trends and gaps, and also seeds the development of collaborative information and data management projects and initiatives.

2.1.1 IMMAP stages and timing

IMMAP is administered by PROV every two years. The program is delivered in four stages. Figure 1 outlines the stages of the 2021-22 IMMAP.

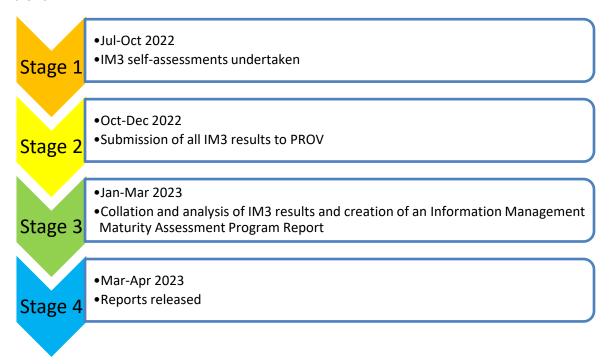


Figure 1 2021-22 IMMAP Stages

2.2 Participants

As outlined in *IM STD 03 Information Management Governance Standard*⁴, it is a requirement for all Victorian government departments and Victoria Police to participate in the IMMAP. PROV also accepted submissions from other agencies in Victorian government who have previously participated.⁵

⁵ PROV is aware that other agencies across government use the IM3 tool, but currently these are not tracked or in scope of the IMMAP.





Information Management Maturity Assessment Program 2021-22 Report, Version 2: De-identified Data | MAY 2023

⁴ IM STD 03 Information Management Governance Standard is available for download here: https://www.vic.gov.au/information-management-policies-and-standards#information-management-governance-standards

Of the eleven organisations that participated in 2021-22, all but one was required to participate under IM STD 03, and all have participated in previous IMMAPs:⁶

2.2.1 Participant complexity

PROV recognises that the participants of the IMMAP operate in varied and complex environments, which include:

- the nature, risk profile and complexity of functions and services (e.g. policy development, citizen service delivery)
- the number of Ministers
- the number of business units and/or statutory authorities
- the number of sites and their distribution (e.g. metropolitan, regional)
- the number of staff.

IMMAP does not collect and report on participants' operating and legislative contexts. Information not collected includes the number of subject matter experts in each of the organisations and the number or type of areas they service (such as corporate only, specific functional areas, and subordinate entities).

2.3 **IM3** tool

IMMAP reports on data gathered from self-assessments completed by participants using PROV's IM3 tool. The tool was developed by PROV and members of the IMG in 2013 and has been updated prior to each assessment. It is composed of a self-assessment questionnaire (MS Excel Spreadsheet) and support documents presented around four key dimensions (see Figure 2).

IM3 content is based on the IMF, which is a navigational tool administered by the Digital Strategy and Transformation (DST) branch of the Department of Premier and Cabinet (DPC)⁷ and co-developed by the IMG. The framework contains standards, policy, and guidelines that provide strategic and comprehensive direction on information and data best practice for organisations.

⁷ Please note that as of 1 January 2023 DST is part of Department of Government Services.





⁶ Please note that the names and structures of some departments have changed because of machinery of government changes. To enable comparative results, mapping existing organisations to relevant previous organisations was undertaken. For example, if a department was divided into two, both new departments are mapped to the data of their previous parent department.

PEOPLE



How the knowledge, skills, experience, and attitudes of staff contribute to good information and data management.

ORGANISATION



How information and data management operate within the organisation and whether it receives support from senior management.

 INFORMATION LIFECYCLE AND QUALITY



How information assets are managed in the organisation and whether there is a common view to long term access to quality information.

BUSINESS SYSTEMS
 AND PROCESSES



How business systems and processes (both electronic and manual) support information and data management practices.

Figure 2 IM3 Dimensions

The IM3 was updated to incorporate the changes made to the IMF by the IMG⁸. References to information management were adjusted to information and data management throughout the assessment. This was in response to feedback that data be explicitly included. Percentage and progress markers to help record the complexity of information and data management across each organisation were included for each question. An additional text-based question on what is needed to improve was added to assist with continuous improvement, innovation programs and business planning.

2.4 Data collection and analysis

Data for the IMMAP was collected using results from a common set of questions found in the IM3 tool. (See **Appendix E** for the IM3 questions). Each participant downloaded the IM3 tool, completed the questionnaire and submitted results to PROV. For each question, the organisation selected their current 'maturity level' using a scale of one to five, with one being the least developed and five the most developed (See Figure 3 below).

Due to variations in participant size, structure, resourcing, and capability, each organisation was responsible for determining the most suitable assessment methodology for its environment and selecting an appropriate maturity level rating. Methods used to complete the assessment included surveys, workshops, and interviews.⁹

Once the organisation completed all questions, the IM3 generated a table and graph of results. Responses were emailed to PROV for analysis and summary reporting.

PROV compared the maturity level ratings submitted by participants across all questions. Average rating levels were calculated for each participant and information and data management dimension addressed in the IM3 questionnaire. Patterns and trends were identified in the results to determine themes and challenges and provide recommendations.

Each question in the IM3 tool provides a section for documenting the reasons for the selected rating and the provision of evidence. Some of this information is noted in the individual question ratings (see Section 4). **Appendix B** collates some of the comments used by participants to support the rating provided for each question and divides them into strengths and challenges.

⁹ Some methods are described in the guideline *Developing Information Management in your Organisation*, which accompanies the IM3 tool (https://prov.vic.gov.au/recordkeeping-government/learning-resources-tools/information-management-maturity-measurement-tool-im3).





⁸ Please refer to **Appendix D: Revisions to the IMF** for details.

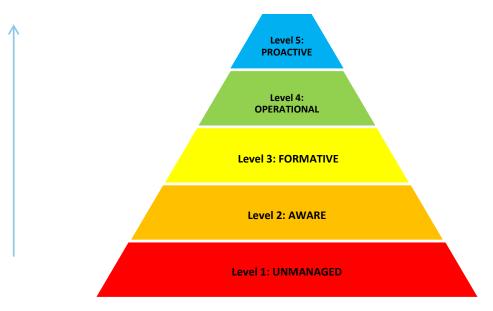


Figure 3 IM3 Maturity Levels

2.5 Reporting IMMAP results

PROV collated 2021-22 results from participating organisations and reports the results to relevant government bodies as well as the wider information and data management community. Results are utilised by the IMG for work planning purposes.

Two versions of the report are made available, as outlined in Table 1. This version of the report, **Version 2**, outlines **de-identified** results of the IMMAP participants.

Report Version	Description	Submitted to
Version 1	Report presents data that identifies the IM3 results for individual organisations who participated in the IMMAP.	IMMAP participants; Information Management Group (IMG); Chief Information Officer Leadership Group (CIO LG); Digital Strategy and Transformation, DGS; applicable DGS executives; Deputy Secretary Committees; and Public Records Advisory Council (PRAC).
Version 2 (This report)	Report presents de-identified IM3 result data.	IMG members; information and records management communities via publication on the PROV website and promotion in government enewsletters.

Table 1 Versions of the IMMAP Report

3 IMMAP 2021-22 Results

The tables below summarise the rating levels reported for this round of IMMAP. See **Section 4** for an in-depth analysis of results, and a table that summarises the results is in **Appendix A**.

3.1 Dimension ratings

Table 2 provides the average rating level for each of the four information and data management dimensions examined. Organisation is the first dimension to achieve a rating of 3 Formative since the commencement of IMMAP.

Dimension	2015-16		2017-18		2019-20		2021-22
1. PEOPLE	AWARE	=	AWARE	=	AWARE	=	AWARE
2. ORGANISATION	AWARE	=	AWARE	=	AWARE	1	FORMATIVE
3. INFORMATION LIFECYCLE AND QUALITY	AWARE	=	AWARE	=	AWARE	=	AWARE
4. BUSINESS SYSTEMS AND PROCESSES	AWARE	=	AWARE	=	AWARE	=	AWARE

 Table 2 Dimension ratings, comparison between 2015-16, 2017-18, 2019-20 and 2021-22

3.2 Participant ratings

Table 3 (below) provides overall ratings for each of the participants. Factors leading to improvement or decrease are provided in Tables 4 and 5.

De-identified name	Abbreviated name	2019-20		2021-22	Score
Organisation 1	Org1	Formative	=	Formative	3.24
Organisation 2	Org2	Aware	1	Formative	3.47
Organisation 3	Org3	Formative	\	Aware	2.29
Organisation 4	Org4	Aware	=	Aware	2.88
Organisation 5	Org5	Formative	=	Formative	3.24
Organisation 6	Org6	Aware	=	Aware	2.76
Organisation 7	Org7	Aware	1	Formative	3.29
Organisation 8	Org8	Formative	=	Formative	3.06
Organisation 9	Org9	Aware	=	Aware	2.76
Organisation 10	Org10	Formative	=	Formative	3.12
Organisation 11	Org11	Aware	=	Aware	2.00

Table 3 Participant ratings, comparison between 2019-20 and 2021-22

3.3 Common themes

The following common themes were identified through analysis of the IMMAP results:

1. COVID-19 has changed the way we work, bringing through swift transitions to digital workplaces including working in cloud environments.

When COIVID-19 became a pandemic, organisations first focused on enabling staff to be able to work remotely. Some organisations had already transitioned to a digital workplace and had effective remote working practices in place. Those organisations yet to transition found themselves negotiating information and data management as best they could. Sometimes this meant implementing information and data management practices retrospectively. Organisations are progressing with becoming fully digital by first moving across areas that transition easily. Areas that are more challenging due to the business function or the culture are then worked through, including transition away from paper-based environments, and reminding staff of their individual responsibilities.

2. Microsoft 365 / Office 365 has become a central platform for organisations to both enable and control remote working.

Microsoft 365 enables remote working in a controlled and flexible environment, but ensuring it contains appropriate recordkeeping governance is still a work in progress. In some instances, information and data is being managed through integration between Microsoft 365 and EDRMS or other systems. In other instances, information and data management occurs within Microsoft 365 itself. Information and data are being created, shared, used, and accessed in various ways through the range of applications the platform provides (especially through SharePoint, Yammer, and Teams). Automation of key processes using Power Automate is being explored.

3. Data is increasingly being managed as a separate body of knowledge to information.

The Data Management Body of Knowledge¹⁰ and the IMF both recognise that 'data' and 'information' are interchangeable terms that refer to aspects of the same thing. They also acknowledge that information and data have different areas of focus. Organisations are beginning to set up structures to manage data that are often separate to those used to manage information. These separations can cause competing priorities, resources, and areas of work across organisations, or can be done in collaboration with each other as part of an overarching strategy. How data is managed in an organisation has impacted IMMAP ratings in this round, causing some scores to decrease and others to increase.

4. Machinery of government change continues to impact effective management of information and data, primarily through requiring resources to incorporate systems into existing processes and practices.

MOG changes result in staff members having to navigate multiple information systems and networks. This increases the time required to find relevant information and data, competing with current project resourcing and adding complexity to the information and data management environment.

5. IMMAP results appear to be in tune with a four-year cycle, which suggests they are aligned with implementation cycles for information and data management and associated corporate plans and strategies.

Chart 3, in section 4 below, shows a distinct repeating pattern for three of the four dimensions every two rounds of IMMAP, which would equate with a four-year cycle. The IMMAP results by question show similar fluctuations in ratings every two rounds of IMMAP, especially in the dimension of business systems and processes. Different stages of implementation affect resourcing, tools, and visibility available to achieve the desired results, and therefore whether the desired results can be achieved. Results also reflect information and data being managed by project with resources

¹⁰ DAMA, 2nd edition, DAMA - *DMBOK: Data management body of knowledge*, Technics Publications, New Jersey





Information Management Maturity Assessment Program 2021-22 Report, Version 2: De-identified Data | MAY 2023 that dry up once the project ends rather than continuing to address ongoing business needs: especially as projects often are designed to fit within strategic planning cycles.

3.4 Factors that affected scores

Factors leading to improvement in IMMAP scores

Awareness

(e.g. having an awareness of what is being done well and what needs work, as well as visibility of information and data management across the organisation)

Appropriate Skills and knowledge

(e.g. specialist roles, subject matter experts, governance committees, and training programs)

Management by design

(e.g. building information and data management into business processes and drivers, policy, and procedure structures, and major projects being placed through a governance forum to ensure that all aspects are looked at and addressed from design to solution)

Active compliance monitoring

(e.g. targeting of specific systems and processes for compliance review including system checks for legacy system, compliance with PROV standards, checks for records storage and transfer activities, use of protective marking in email and other documents, and remediation of audit actions)

Maximising key tools

(e.g. Microsoft 365 / Office 365 platforms as a central hub for information and data management, and using information asset registers / data catalogues as tools to aid discoverability)

Active implementations

(e.g. greater awareness of gaps, increased visibility of key processes and tools, actively resourced, driven by continuous improvement)

Sufficient resources

(e.g. funding for projects as well as ongoing information and data management tasks, including tools and system adjustments, and timely receipt of resources)

Inclusion

(e.g. information and data management specialists consulted for policy and strategy development, procurement, and design of key projects including IT projects)

Table 4 - Factors leading to improvement in IMMAP scores



Factors leading to a decrease in IMMAP scores

Lack of resources

(e.g. no funding, the loss of key personnel, no resources to implement key initiatives or to ensure that material is up to date, and resources not made available within an appropriate timeframe)

No governance committee

(e.g. the disbanding of governance committees, gap areas in existing committees, and committees that prioritise IT over information and data)

No strategies and associated structures

(e.g. yet to be designed or implemented, use of short-term contractors, no specific function within the organisation, minimal interaction between information and data management specialists with the organisation, and not including life cycle and retention management requirements in everything)

No visibility

(e.g. unsure who to obtain specialist advice from, no awareness of key tools such as information asset registers, inconsistent information and data practices and processes, uncertainty regarding which system or tool to use, and difficulty in being able to locate relevant information and data)

No collaboration

(e.g. divisions between information and data requiring new data management processes to be developed and implemented, lack of coordination across systems, and perception of information and data management as being a burden or inconvenient)

No active engagement

(e.g. an environment where information and data need to be actively engaged with for staff members to action key policies, procedures, and processes, implementation of policies that do not include performance audits against them to ensure staff members are aware of and interacting with content)

No monitoring or compliance assessment programs

(e.g. not having in place processes to address quality issues, nor analysis to determine whether business needs are being met)

Ad hoc reactive implementations

(e.g. digital processes being implemented quickly during the COVID-19 response within an organisation with a mostly paper-based recordkeeping regime, requiring gaps and challenges to be identified and addressed after implementation)

Table 5 - Factors leading to a decrease in IMMAP scores



4 Results analysis

4.1 Comparative analysis

Chart 1 provides the summary results in the context of the IMMAP rounds conducted so far. This clearly shows some participants on a path of constant growth, and others fluctuating or on a declining path.



11

¹¹ Machinery of government changes have affected the figures over time. To enable comparative results, mapping existing organisations to relevant previous organisations was undertaken. For example, if a department was divided into two, both new departments are mapped to the data of their previous parent department. If a new department is formed and it absorbs an agency that has participated in IMMAP, the new department's data is mapped to the agency's data.





Chart 2 shows the average results by agency for the 2021-22 round of IMMAP. Half of the participants sit at the maturity level rating of 3 Formative and half at a rating of 2 Aware.

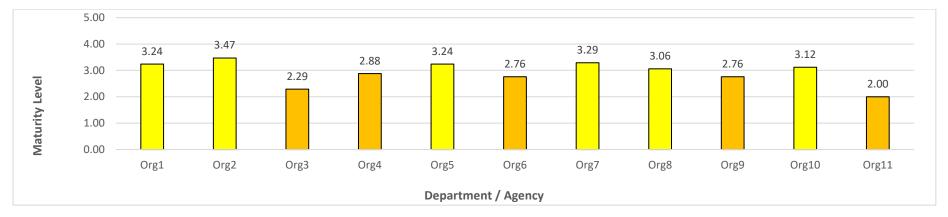


Chart 2: 2021-22 Average maturity level by organisation

Chart 3 explores the average by dimension for each round of IMMAP. For the first time, we have very strong progression in the dimension of People, which has sat at a score of 2.0 for the first three rounds of IMMAP. Also, for the first time, the dimension of Organisation has achieved an average result of more than 3 (3.02) This makes Organisation the first dimension to move from 2 Aware to 3 Formative. The result for Business Systems and Processes dimension is a little less than last time, but if we look at the overall comparison, we see a repeat of the pattern formed by the first two rounds of IMMAP for that dimension.

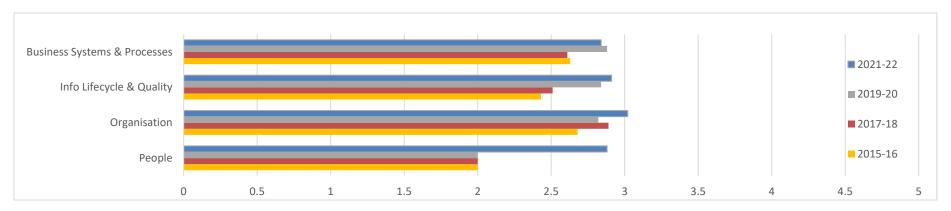


Chart 3 – Average response by dimension

Public Record Office Victoria



Chart 4 illustrates the percentage of participants at each maturity level for each round of IMMAP. This shows a clear progression as a sector from 2 Aware to 3 Formative. In the 2015-16 IMMAP round 87.5% of participants sat at 2 Aware, while in 2021-22 round of IMMAP this has dropped to 45.45% and 3 Formative has risen to 54.55%.

The following section (4.2 Results by Question) uses similar charts to explore the results for each of the 17 questions asked in IM3. Also explored are key themes that arise from the responses for each of the questions, challenges that have been raised, and where there is a contrast a possible reason for the change.

This exploration sought to answer why some participants are on a path of constant growth while others are on the decline. Responses provided to each of the 17 questions included a selected maturity level score and the provision of evidence to support the score selected. Some information was drawn from the charts that capture the scores in the context of other participants and other IMMAP rounds. Some information was taken from the comments provided as evidence. Other information considered was the responses provided in other questions that appeared to be of relevance and patterns emerging from the responses provided. Please note that comments for each question are in **Appendix B**.

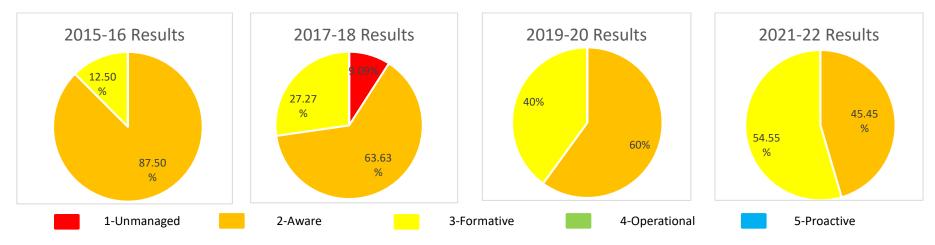


Chart 4: Overall maturity level comparison from 2015-16 to 2021-2212





¹² To aid comparative data, only those organisations who participated in this round of IMMAP have been included. Org6 commenced IMMAP in 2017-18 and so has been counted as a non-submitting agency in the first round.

4.2 Results by Question

In this section, each question in the IM3 tool is examined. Rating levels for each participant are provided, including a comparison of 2021-22 against 2015-16, 2017-18, and 2019-20 results (where available).

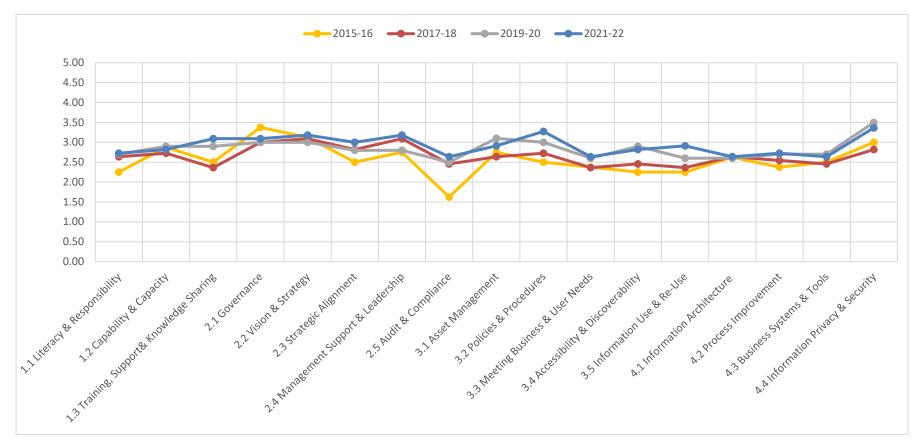


Chart 5 – Average response by question





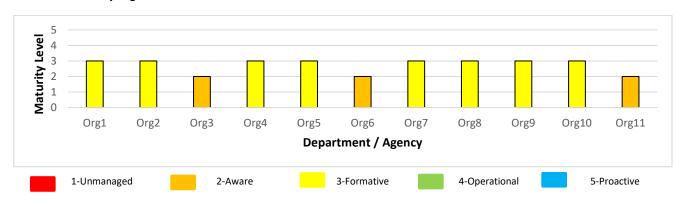
Question 1.1 Information Literacy & Responsibility

Are staff in your organisation aware of their information and data management responsibilities? What is the capacity for staff in your organisation to exploit information and data? Do staff in your organisation value information and data as assets?

Key themes included:

- a broadening of awareness of responsibilities within the information and data space to include data management, privacy, cyber security awareness, benefits of good information and data practice, and Code of Conduct requirements
- use of tools to increase awareness and promote literacy, such as information asset registers, data catalogues and custodianship models, data visualisation guides, SharePoint sites as information and data management hubs, and informal knowledge share groups such as Yammer
- promotion of information and data as something to be valued through use of information asset registers to improve discoverability, of Enterprise Data Catalogues to improve contextual understanding of data sets and including information and data literacy in key strategies
- identification of gap areas and plans to address them, such as through updating key strategies, modifying guidance, and expanding training materials (such as the need post-COVID for staff to be more aware of cyber security and their responsibilities to keep work secure when working remotely).

2021-22 results by organisation



Most participants remain at a maturity level of 3 Formative. The exceptions are Org11, Org3 and Org6 who are at a level of 2 Aware.

Org2 and Org9 increased one maturity level, both having an awareness of what is being done well and what needs work as part of new information management strategy implementations. Org11 and Org3 both dropped one level, flagging the immaturity of data management within the organisation, a lack of resources, the absence of a governance committee, and blurred lines of responsibility, as being major factors.

Comparative results by organisation

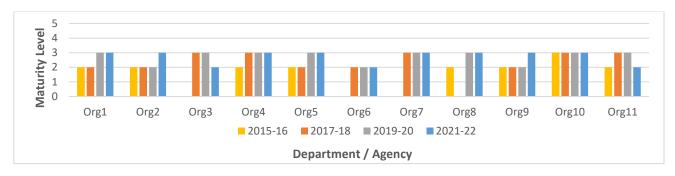


Chart 6b Question 1.1 rating levels – biyearly comparison

/ | | Public Record
Office Victoria



Information Management Maturity Assessment Program 2021-22 Report, Version 2: De-identified Data | March 2023 Challenges¹³ identified by participants included:

- a lack of resources to implement key initiatives and to ensure that material is up to date
- the impact of COVID-19 and remote working on staff awareness of information and data, and on information and data management needs
- non-compliant behaviour due to perception of information and data management as being a burden, or inconvenient
- the impact of machinery of government change, resulting in multiple information systems and networks in place that need to be navigated
- the acknowledgement that the existence of material (such as policies) does not mean that staff are aware of, or consider, the information contained within them.

Comparative results by question average

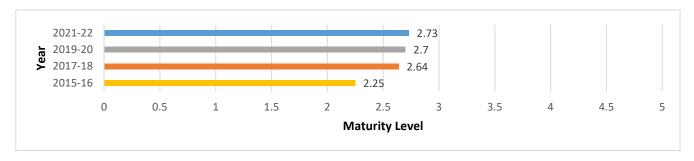


Chart6c Question 1.1 rating levels – average comparison

Comparison of the averages for this question since the commencement of IMMAP shows a steady progression towards 3 Formative. This demonstrates that, although progress is slow, it is occurring.

Comparative results by IMMAP assessment

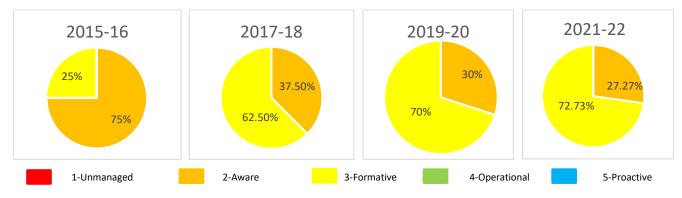


Chart 6d Question 1.1 rating levels – comparison by IMMAP assessment

This progression is easier to see when we look at the comparative results by IMMAP assessment. In 2015-16, 75% of participants were at a maturity level of 2 Aware. Now almost 75% are at a level of 3 Formative.



¹³ See <u>Appendix B: Table of supporting comments</u> for a more comprehensive list of responses.

Question 1. 2 Capability & Capacity

Is the organisation's information and data capability and capacity sufficient to support and develop good information and data management?

Key themes included:

- identifying and filling specialist knowledge roles across the organisation, including ensuring that resources are sufficient and timely for the organisation's needs
- introducing and upskilling teams, groups, and champions to support information and data management across the organisation to improve capacity and capability
- increased use of tools such as Privacy Impact Assessments, Data Capability Sets, and analytical and predictive models to promote and improve information and data management capacity and capability
- ongoing engagement across the organisation with information and data management specialists as specialists in their fields contributing to and informing key projects.

2021-22 results by organisation

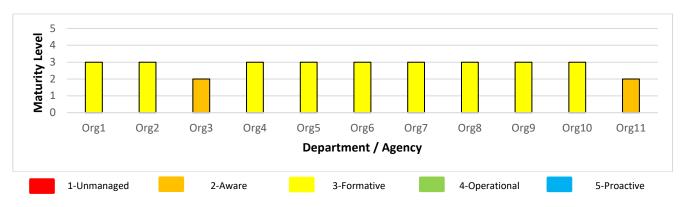


Chart 7a Question 1.2 rating levels - 2021-22 assessment

Most participants remain at a maturity level of 3 Formative. Org2 and Org9 both rose one level from the previous assessment thanks to implementing aspects of their information and data management strategies. Both Org11 and Org3 dropped one level from the previous assessment and are now at 2 Aware. Lack of resources, including the loss of key personnel, was cited as being the main contributor to the lower score. Org10 also dropped a level from 4 Operational to 3 Formative, flagging gaps in capability and capacity due to the implementation of Office 365 as a contributing factor.

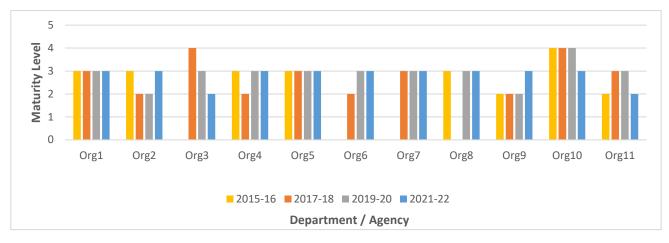


Chart 7b Question 1.2 rating levels – biyearly comparison

- insufficient resources and skills due to people taking up early retirement, staff numbers being insufficient to implement business initiatives, and organisational restructures requiring new roles to be filled
- lack of coordination between information and data through use of short-term contractors, no specific information and/or data function within the organisation, or minimal interaction between information and data management teams or specialists with the organisation
- a lack of interest in taking up the capability initiatives that are provided.

Comparative results by question average

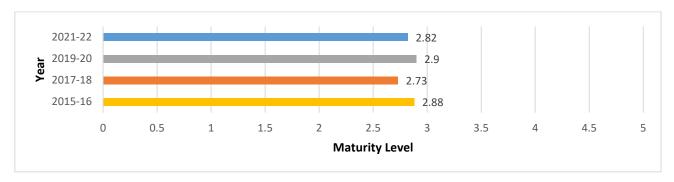


Chart 7c Question 1.2 rating levels – average comparison

Comparison of this IMMAP with previous rounds shows an ongoing fluctuation in this space. This may be due to the evolving and changing nature of information and data management requiring active management of skills and knowledge. That the fluctuation appears to be a repeating pattern suggests it is influenced by business planning cycles.

Overall comparison since IMMAP commencement

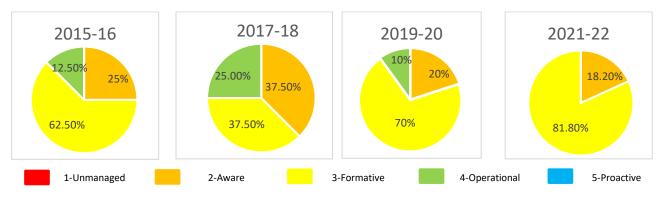


Chart 7d Question 1.2 rating levels - comparison by IMMAP assessment

The overall comparison reveals that beneath this ongoing fluctuation, the sector is steadily improving.

Public Record Office Victoria



Question 1. 3 Training, Support & Knowledge Sharing

What training, support or knowledge sharing is available to staff in your organisation to assist them in meeting their information and data management responsibilities?

Key themes included:

- the promotion of information and data through knowledge sharing groups (such as Yammer), information and data champions, and awareness campaigns
- a range of training courses and material that targets specific information and data areas of relevance, including use
 of specific software and systems, cyber security and privacy, code of conduct requirements, general information
 and data management skills, and specific recordkeeping activities
- regular review programs and resulting update of both training materials and methods to deliver training including
 the use of SharePoint sites as information and data knowledge sharing hubs, Yammer groups and other
 communities of practice, online eLearning modules, job specific information and data management advice through
 help desks, and more formal training courses
- sufficient and timely resources to deliver the training function and to develop accurate and relevant training material, including the collation of guidance, manuals, fact sheets, and other supportive documentation that can be accessed and used by staff as needed.

2021-22 results by organisation

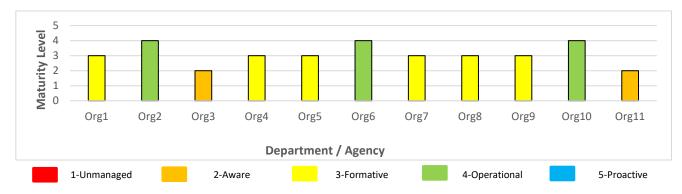


Chart 8a Question 1.3 rating levels - 2021-22 assessment

Org2, Org10 and Org6 have achieved a maturity level of 4 Operational. Most participants are at a maturity level of 3 Formative, while Org11 and Org3 are at a maturity level of 2 Aware.

Org4, Org7, Org2 and Org6 have all achieved a rating of one maturity level higher than the previous IMMAP round, due to the roll out of a range of targeted training and support resources. Org11 and Org3 scored a rating of one maturity level lower than previous, due to resource constraints and the need to update and implement new training modules.

Comparative results by organisation

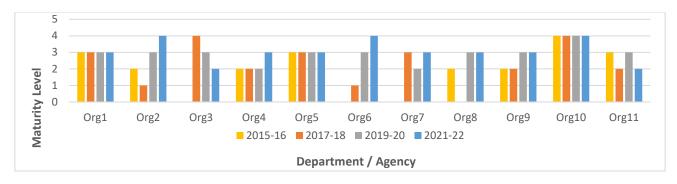


Chart8b Question 1.3 rating levels – biyearly comparison



- insufficient resources to develop and deliver dedicated and tailored training
- functionality and other constraints that meant access to training modules was not monitored
- changes in the information and data environment resulting in the need for new training materials to be developed and made available.

Comparative results by question average

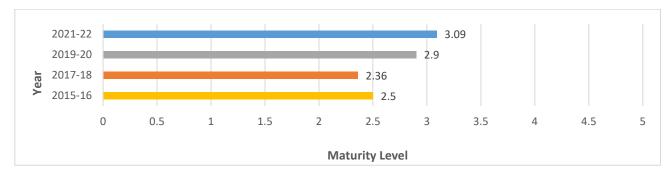


Chart 8c Question 1.3 rating levels – average comparison

Comparison of this round of IMMAP with previous ones demonstrates a steady progression, with the average rating reaching 3 Formative for the first time.

Overall comparison since IMMAP commencement

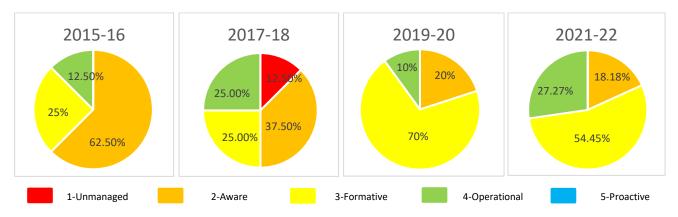


Chart 8d Question 1.3 – comparison by IMMAP assessment

The overall comparison also shows a steady increase in maturity across the sector.

Question 2.1 Governance

To what degree is information and data management formally governed in your organisation?

Key themes included:

- having one or more active formal governance committees that oversee information and data management projects
 and activities, are chaired by one or more members of the executive, include members with the relevant expertise
 and experience, and ensure the coordination and reporting of key information and data projects
- structures in place, such as road maps, frameworks, policies, and strategies, that describe and outline governance tools, accountabilities, and lines of authorisation, and which link organisational governance re information and data to external regulatory and legislative requirements where relevant
- the existence of specialist governance areas (where needed) for specific kinds of information and data management, such as privacy, security, access, data, knowledge, records management, freedom of information, risk management, specific business groups, key projects, and specific business systems. Governance of specialist areas is more effective when they are connected in with an overarching governance committee.

2021-22 results by organisation

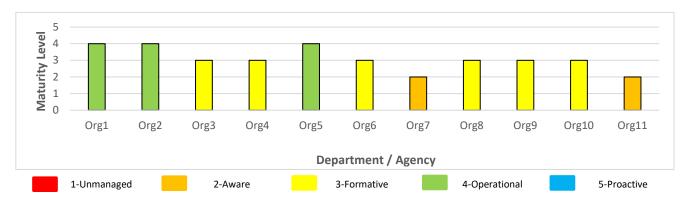


Chart 9a Question 2.1 rating levels – 2021-22 assessment

Org1, Org5 and Org2 have achieved a maturity level of 4 Operational, with most other organisations achieving a level of 3 Formative. Both Org11 and Org7 were at a level of 2 Aware.

Both Org2 and Org9 moved up one maturity level since the previous round of assessments, citing the filling of specialist roles in alignment with new strategies and the setting up of new authorities (such as the Enterprise Design Authority and Solutions Design Authority) to oversee information and data governance areas. Org8, Org11, Org7 all moved down one maturity level, in some instances due to the disbanding or suspension of governance committees, and others to the existence of information and data management gap areas that are not currently covered by existing committees.

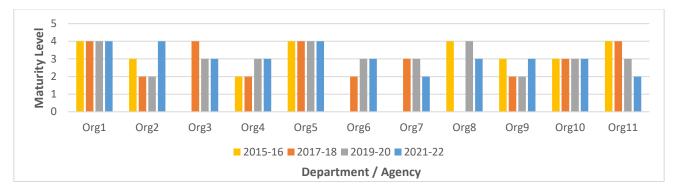


Chart 9b Question 2.1 rating levels-biyearly comparison

- · key governance committees being disbanded, suspended, or non-existent
- governance committees being IT committees that prioritise funding for IT projects and enhancements, and which have limited interest in information and data governance
- limited and inconsistent governance of information and data due to there being no centralised mechanism for the approval of strategies, policies, and standards in either information or data management.

Comparative results by question average

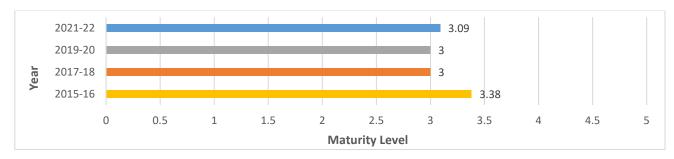


Chart 9c Question 2.1 rating levels – average comparison

Comparison with previous rounds shows a move forward after two rounds at the same level.

Overall comparison since IMMAP commencement

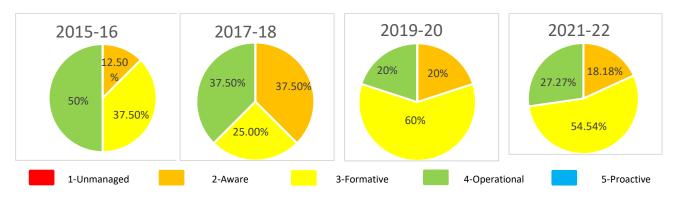


Chart 9d Question 2.1 rating levels - comparison by IMMAP assessment

The overall comparison shows a progressive move away from 2 Aware, while the move into 4 Operational continues to fluctuate. This suggests that while the sector continues to improve in information and data governance, there is a fluctuation in executive level support that results in a decline after a burst of activity.

Question 2.2 Information Management Vision & Strategy

Does the organisation have a strategy that provides a roadmap for information and data management? Has the organisation formulated and articulated its vision for information and data management?

Key themes included:

- executive endorsed strategies that are aligned with other strategies across the organisation, and which set out clear objectives and timeframes to improve information and data management (including records management)
- vision statements developed and agreed on through consultation with representatives across the organisation that
 express the desired future for information and data management, and which are aligned with other organisational
 strategies and governance processes
- regular review processes that include stakeholder consultation and which are overseen by the relevant governance committee as part of overarching information and data management frameworks or roadmaps
- support structures, including additional strategies, policies, and peer-driven business area strategies.

2021-22 results by organisation

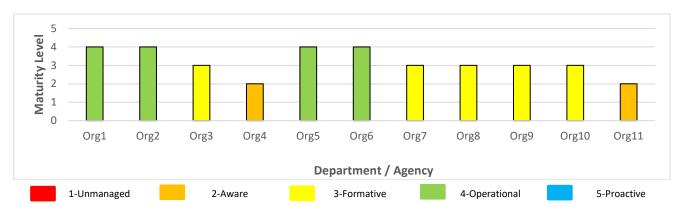


Chart 10a Question 2.2 rating levels – 2021-22 assessment

Org1, Org5, Org2 and Org6 all achieved a maturity level rating of 4 Operational. The remaining participants achieved a rating of 3 Formative, expect for Org4 and Org11, who both achieved a rating of 2 Aware.

Both Org2 and Org9 moved up one maturity level, in part due to new strategic plans, road maps and visions that are aimed at transitioning their organisations to an improved information and data management environment. Org11 dropped one maturity level, due to not having an information and data management governance framework resulting in various business driven local data frameworks that are not aligned.

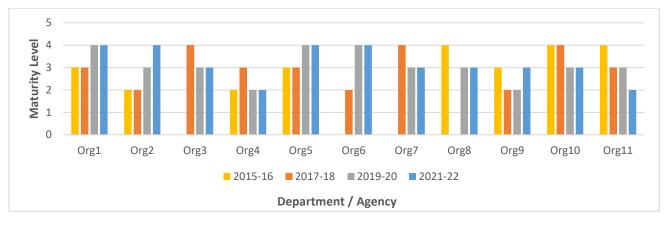


Chart 10b Question 2.2 rating levels—biyearly comparison

- a lack of relevant and up-to-date strategies and frameworks for information and data management
- a lack of visibility and traction for an information and data management strategy or framework, meaning that, although it exists, it is not built into business approaches or taken up by staff
- a lack of resourcing and support for data management
- a lack of coordination across the organisation that means that some areas of information and data management are managed, while others are either not managed or managed differently, creating confusion.

Comparative results by question average

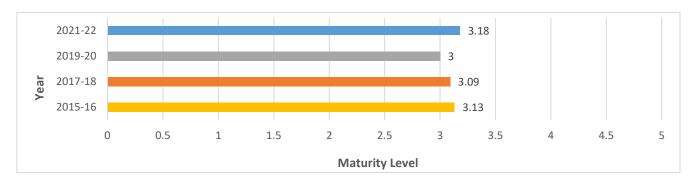


Chart 10c Question 2.2 rating levels— average comparison

After several cycles of a reduction in maturity levels, the comparative results show a significant turn around and are stronger than any previous cycle.

Overall comparison since IMMAP commencement

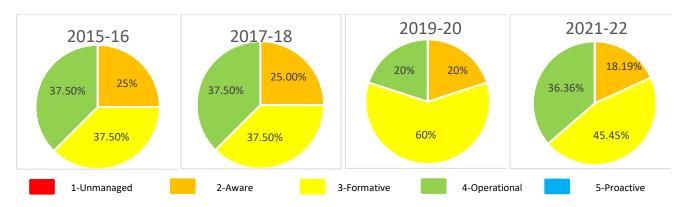


Chart 10d Question 2.2 rating levels – comparison by IMMAP assessments

The overall comparison shows that the sector is stable regarding information and data vision and governance. The drop in 4 Operational levels during 2019-20 is interesting but appears to have been a temporary setback as the percentage for 2021-22 has returned to almost the same as previous levels.

Question 2.3 Strategic Alignment

To what degree is the Information and Data Management Strategy aligned with and incorporated into other strategic planning in your organisation?

Key themes included:

- formal information management strategies and/or data management strategies that are related to other information and data management strategies and frameworks
- · alignment of information and data management strategies with other organisational strategies and plans
- involvement of information and data management specialists in major information or data related projects and business planning
- use of policies and principles to broadcast strategic direction, obligations, and their relation to business operation.

2021-22 results by organisation

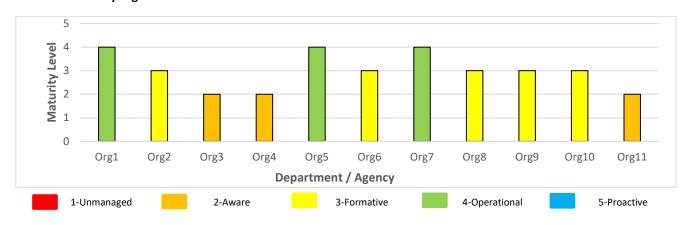


Chart 11a Question 2.3 rating levels – 2021-22 assessment

Org1, Org7 and Org5 all recorded a maturity level rating of 4 Operational. The remaining agencies are at 3 Formative, except for Org4, Org11 and Org3 which are at 2 Aware.

Org7, Org2, and Org9 all went up one maturity level from last assessment. This was partially due to the implementation of new information and data management strategies, the establishment of a Data Strategy Team and building information and data management into key business processes and drivers. Org4 and Org11 both dropped one maturity level from last assessment, partially due to the need to build or implement data strategies and associated structures.

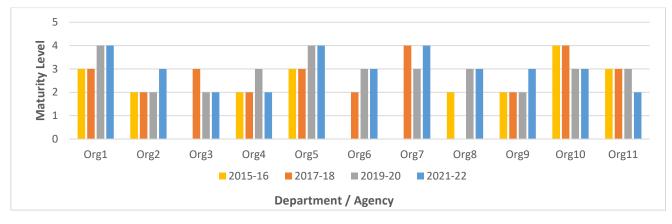


Chart 11b Question 2.3 rating levels- biyearly comparison

- information and data management not being fully acknowledged strategically across the organisation as
 requirements are not in key organisational policies, built into the business, or included in new projects, other than
 information and data specific ones
- minimal strategic alignment, with strategies focusing on core activities, and only some specifically including
 information and data management. New projects not identifying information management implications,
 dependencies, or synergies. Data management strategies emerging and, in some instances, separated from
 information management ones
- inefficient practices as some key processes and drivers do not adequately address information and data management. Unless they are part of information and data specific strategies and processes, information and data actions or impacts are not specified.

Comparative results by question average

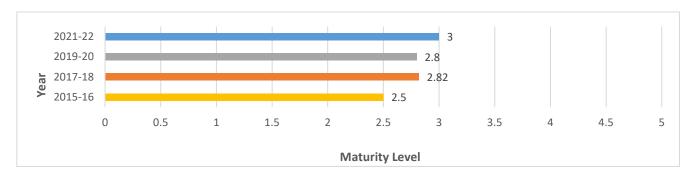


Chart 11c Question 2.3 rating levels— average comparison

Comparative results since the commencement of IMMAP show a slow progression. Evidence provided by the participants suggest this may be due to the duration of strategic cycles and the need to match strategic direction with the evolving information and data management environment.

Overall comparison since IMMAP commencement

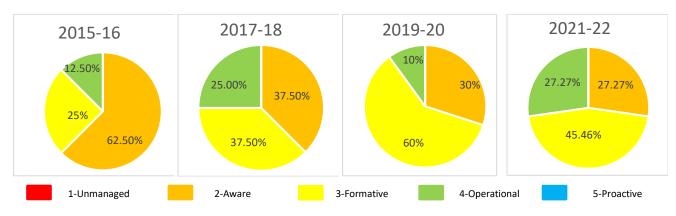


Chart 11d Question 2.3 rating levels – comparison by IMMAP assessment

Looking at the maturity level coverage since the commencement of IMMAP, the progression becomes more apparent and shows a slow but steady reduction of 2 Aware and expansion of 4 Operational.

Question 2.4 Management Support & Leadership

Does management support information and data management in your organisation? Is there executive-level representation for information and data management initiatives?

Key themes included:

- executive and senior management awareness of information and data management needs and issues due to representation on key committees and in relation to the reporting and mitigation of associated risks
- the existence of information and data governance committees, the appointment of an executive level chief information officer or data officer tasked with leading information and data management initiatives, as well as reporting and contributing to the organisation's strategic direction
- the review and update of strategies, policies, and other relevant tools to lead the direction the organisation takes in relation to its creation, capture, use and management of information and data.

2021-22 results by organisation

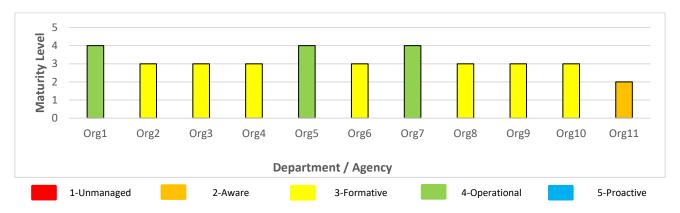


Chart 12a Question 2.4 rating levels – 2021-22 assessment

Org1, Org7 and Org5 all achieved a maturity level rating of 4 Operational. The remaining agencies achieved a level of 3 Formative, except for Org11 which recorded a level of 2 Aware.

Org3, Org9 and Org6 all move up one maturity level from last assessment. Contributing factors to this were the ability to report up due to the existence of committees or specialist roles that included or championed information and data management. Org11 dropped one maturity level, due to the lack of a dedicated information and data governance committee and to a lack of clarity regarding who to obtain specialist advice from, resulting in inconsistent advice and practices.

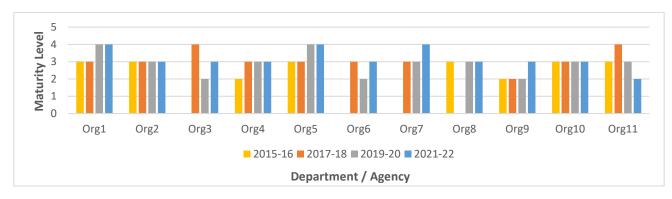


Chart 12b Question 2.4 rating levels-biyearly comparison

- no information and data governance committee to bring together subject matter experts, ensure alignment of strategies and policies, or report to executive management about information and data management
- inconsistent messaging regarding good practices for information and data management due to no clear outline of leadership roles
- no specialist information officer or data officer role to lead and report on information and data management at an executive level
- no clarity as to whether executive leadership understands information and data management issues and practices.

Comparative results by question average

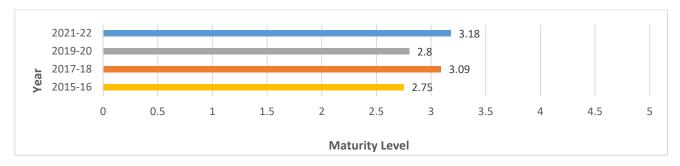


Chart 12c Question 2.4 rating levels— average comparison

Comparison with average results from previous assessments reveals a fluctuation in terms of management support and leadership. A possible reason for this could be the environment within which committees and specialist roles are created, adjusted, and revised. When the roles and committees are in place, management support and leadership improve. The repeated pattern may indicate that scores are impacted by corporate strategy implementations.

Overall comparison since IMMAP commencement

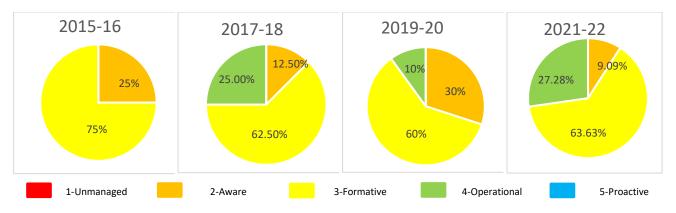


Chart 12d Question 2.4 ratings – comparison by IMMAP assessment

The fluctuation is quite evident when comparing the overall maturity levels achieved since commencement of IMMAP.

Question 2.5 Audit & Compliance

How well does your organisation monitor compliance with your own information and data management standards and with Victorian government-mandated legislation and requirements?

Key themes included:

- use of existing audit and risk committees to regularly assess and report on compliance against internal policies and requirements, and regulatory requirements (including PROV's Standards and OVIC's VPDSS)¹⁴; with findings used to inform future strategies and plans
- participation in mandatory compliance assessment and reporting programs, including the OVIC's Protective Data Security Plan and associated Attestation, privacy assessments, and IMMAP
- use of audit and compliance tools, including the Privacy Impact Assessment, integrity and risk pulse checks, and penetration tests
- targeting of specific systems and processes for compliance review, including system checks for legacy systems, compliance with PROV standards, checks for records storage and transfer activities, and use of protective marking in emails and other documents.

2021-22 results by organisation

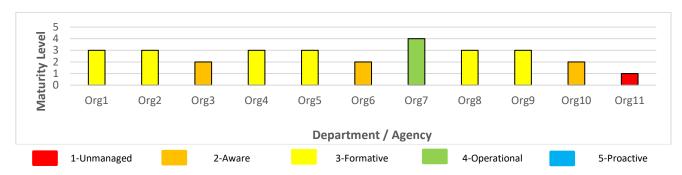


Chart 13a Question 2.5 rating levels - 2021-22 assessment

Org7 achieved a maturity level rating of 4 Operational. Org4, Org8, Org1, Org5, Org2, and Org9 achieved 3 Formative. Org10, Org3 and Org6 achieved a level of 2 Aware, and Org11 moved to a maturity level of 1 Unmanaged.

Org7 rose two maturity levels from the previous assessment, due to a proactive approach to conducting compliance audits that included the remediation of audit actions and steps to improve compliance with external standards. Org4, Org2, and Org9 rose one maturity level, due to internal audit programs being in place, campaigns to raise awareness of compliance, and using external mandatory reporting assessments to implement a program of regular audit and compliance assessment. Both Org11 and Org3 dropped two maturity levels from the previous assessment due to a lack of resources and skills to implement an audit and compliance program for information and data management.

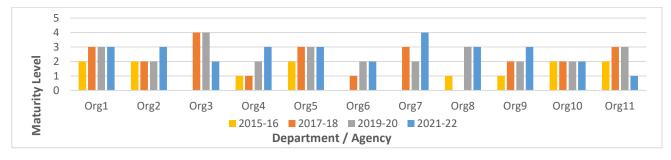


Chart 13b Question 2.5 rating levels-biyearly comparison

¹⁴ Office of the Victorian Information Commissioner's Victorian Protective Data Security Standards: https://ovic.vic.gov.au/information-security/standards/





- a lack of resources and skills preventing process compliance audits and other recordkeeping audits from being completed, and initiatives to address identified gaps being completed
- audits and compliance assessments being done on an 'as needs' basis rather than as part of a regular program
- no audit or monitoring program being in place to monitor compliance, and no consequences for non-compliance
- doubt that the current audit and compliance program in place is sufficient to address information and data risks, particularly with regards to proactive or comprehensive monitoring of policy compliance.

Comparative results by question average

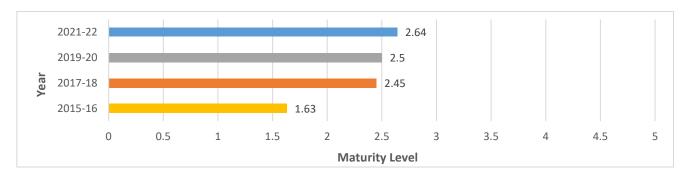


Chart 13c Question 2.5 rating levels- average comparison

Comparison with previous IMMAP assessment results reveals a slow but steady progression since 2017-18.

Overall comparison since IMMAP commencement

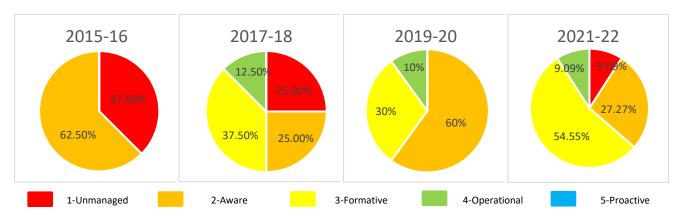


Chart 13d Question 2.5 rating levels – comparison by IMMAP assessment

The overall maturity level comparison shows that there has been considerable fluctuation regarding the levels of maturity across the sector. This suggests that audit and compliance is a reactive space rather than one that is strategically planned.

Question 3.1 Asset Management

How well does the organisation identify, manage, and monitor their significant information and data assets? Have information and data management roles and responsibilities been defined in the organisation to properly manage information and data assets?

Key themes included:

- information asset registers in place as a central component to identifying, managing, and ensuring awareness of information assets
- some participants included data asset management in the information asset register, while others had implemented or were in the process of developing data catalogues, common data layers and other data specific tools to identify and manage data assets
- some information and data asset management systems included methods for monitoring the quality of the information and data while most focused on its existence, management, and use
- governance structures included lines of custodianship, responsibility, and / or authority, with some aligning with risk management and other related governance.

2021-22 results by organisation

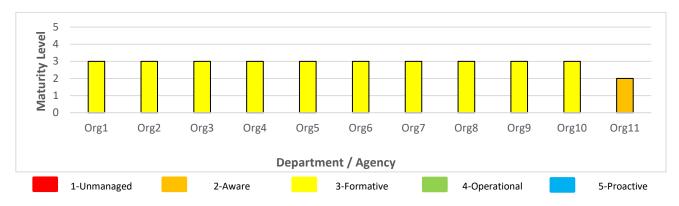


Chart 14a Question 3.1 rating levels – 2021-22 assessment

All participants achieved a maturity level rating of 3 Formative, except for Org11 who achieved a level of 2 Aware.

Org2 increased one maturity level from previous assessments to 3 Formative, having implemented a new information asset register and data catalogue tool and associated processes. Org11 dropped two maturity levels to 2 Aware, due to divisions between information and data requiring new data management processes to be developed and implemented. Org3 dropped one maturity level to 3 Formative, due to a lack of visibility of the information asset register affecting take up and use.

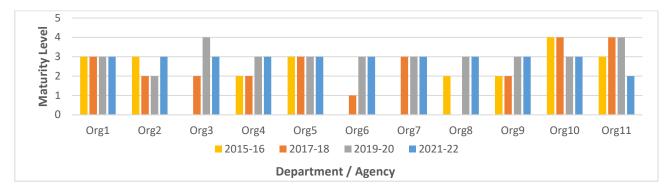


Chart 14b Question 3.1 rating levels- biyearly comparison

- a lack of resources undermining the functionality and impact of the information asset register (or data catalogue or common data layer), requiring some to be maintained manually
- a lack of visibility and awareness of the information asset register limiting its effectiveness and usefulness
- minimal or no custodianship models in place, hampering the accuracy and relevance of the information asset register
- lack of take up by those assigned custodian roles, meaning they require constant prompting to ensure information and data assets are appropriately registered and maintained.

Comparative results by question average

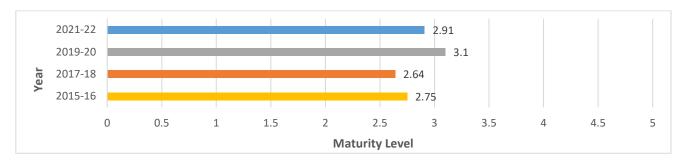


Chart 14c Question 3.1 rating levels— average comparison

Comparative results by average show a fluctuation in scores, and a steady progression. This aligns with cycles of management where a refresh or new implementation has the momentum to improve practice, which then flows in a different direction once implementation has occurred.

Overall comparison since IMMAP commencement

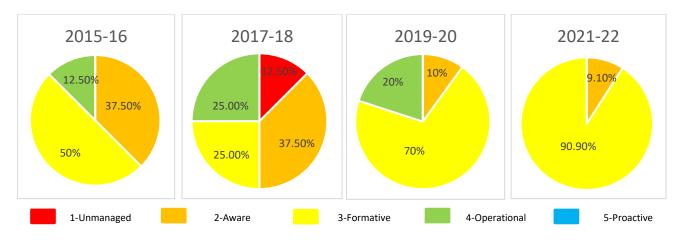


Chart 14d Question 3.1 rating levels – comparison by IMMAP assessment

The overall comparison results illustrate the fluctuation in more detail.

Question 3.2 Policies & Procedures

Does the organisation have fully developed and implemented information and data management policies that align to relevant legislation and standards? Are these policies supported by documented procedures?

Key themes included:

- a range of information and data related policies in place, implemented, and aligned with other relevant policies across the organisation
- policies aligned with key legislation, regulations, and standards (including relevant information and data standards such as those set by PROV and OVIC), and which are endorsed or approved by relevant governance committees or executive
- policies aligned with strategies and governance structures, used to turn strategic direction into business operation
- policies supported by procedures, guidance, training, tools, and processes.

2021-22 results by organisation

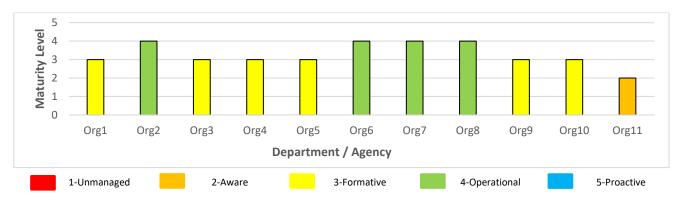


Chart 15a Question 3.2 rating levels - 2021-22 assessment

Org8, Org7, Org2 and Org6 all achieved a maturity level rating of 4 Operational. The remaining participants achieved a rating of 3 Formative, except for Org11 who achieved a level of 2 Aware.

Org4, Org8, Org7, Org2 and Org6 all increased one maturity level from the previous round. A contributor to this is that all have robust and active policy and procedure structures in place that are part of broader structures and processes. Org11 and Org3 both dropped one maturity level from the previous round, due to a lack of resources, the absence of a governance committee to approve procedures and policies, and the policy and procedure environment for information and data being passive and needing to be engaged with to be effective.

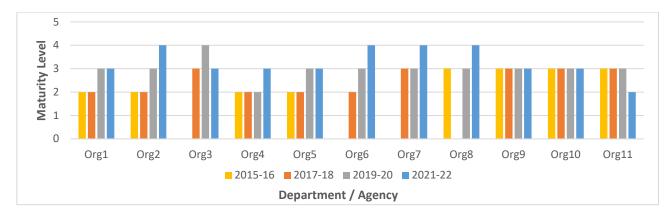


Chart 15b Question 3.2 rating levels—biyearly comparison

The main challenge noted by participants was in relation to breaches of policy and procedure, including that they were not always addressed or prosecuted.

Comparative results by question average

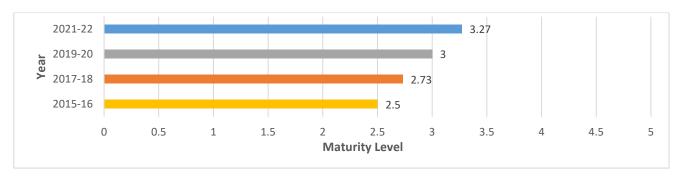


Chart 15c Question 3.2 rating levels—average comparison

The comparative results by average show a clear and steady progression. This may be due to policy and procedure being well known and common tools for information and data management, with decades of best practice examples and experience to draw from. Policy and procedures are also effective tools, regardless of the technology or environment they are implemented within.

Overall comparison since IMMAP commencement

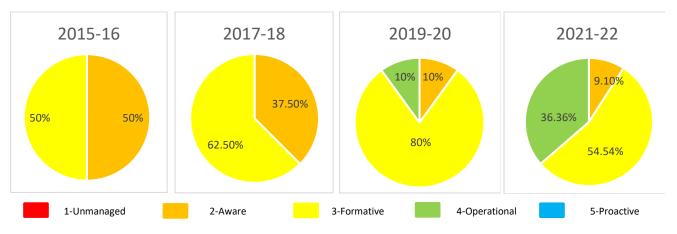


Chart 15d Question 3.2 rating levels – comparison by IMMAP assessment

The clear and steady progression through maturity levels is easily seen in the overall comparison charts.

Question 3.3 Meeting Business Needs

Are information and data meeting the needs of the business and its users in terms of strategic importance, quality, and availability?

Key themes included:

- analysis used to assess information and data management strategies, identify gaps in coverage for legislative and regulatory requirements and business obligations, and determine whether information and data management tools that are being used across the organisation address business need
- recognition that business needs are always in flux due to changes in software, systems, people, and approaches to the business environment
- a focus on good information and data management practice so that processes are in place to identify and address business needs, if resources and appetite exist
- quality audits and data quality tools used to assess and improve the quality of information and data
- increased use of Microsoft 365 across the business and transition towards it being a central recordkeeping platform
- central repositories such as the information asset register, common data layer, data catalogue, and business classification schemes used to aid discoverability and ensure information and data are available and relevant.

2021-22 results by organisation

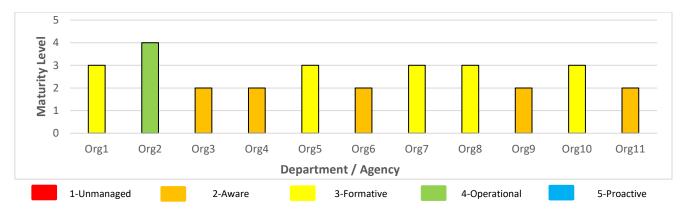


Chart 16a Question 3.3 rating levels – 2021-22 assessment

Org2 achieved a maturity level rating of 4 Operational, while the remaining participants were divided between a rating of 3 Formative and 2 Aware.

Org2 increased one maturity level rating this round, potentially due to implementing processes to improve data management and quality. Org3 dropped one maturity level rating due to not having in place processes to address quality issues, nor analysis to determine whether business needs are being met.

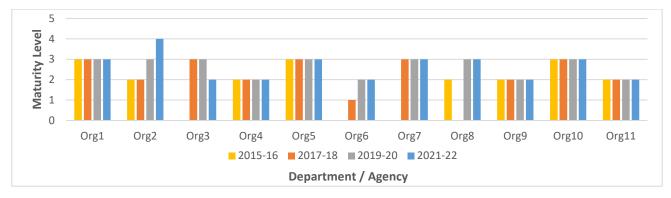


Chart 16b Question 3.3 rating levels—biyearly comparison

- the impact of COVID-19 on ways of working, including the flow-on effect on information and data management, such as user expectations, accessibility requirements, and ensuring integrity
- ensuring that Microsoft 365 use and management includes recordkeeping governance
- awareness that information and data are often over collected and retained for longer than required
- a lack of formal analysis methods to determine whether information and data management are meeting business needs, accountability requirements and community expectations
- a lack of a formal method or program to assess and improve the quality or availability of information and data
- difficulty in being able to locate relevant information and data, due to multiple systems and repositories in use.

Comparative results by question average

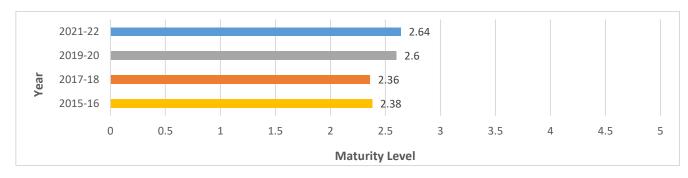


Chart 16c Question 3.3 rating levels— average comparison

While the comparative results by question average show a gradual increase in maturity level score, the comparative results by agency show that there has been minimal movement in this area since the commencement of IMMAP.

Overall comparison since IMMAP commencement

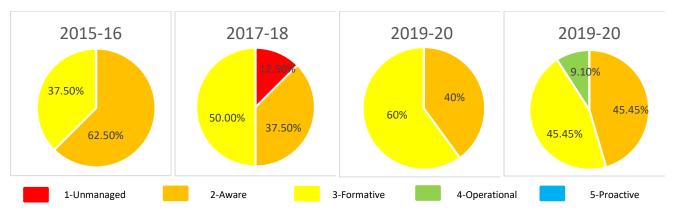


Chart 16d Question 3.3 rating levels – comparison by IMMAP assessment

The overall comparison charts show minimal movement back and forth between 2 Aware and 3 Formative, which would reflect changes in the business environment (such as transition to a digital work environment or addressing machinery of government change) that would impact on business needs and the means to address them.

Question 3.4 Accessibility & Discoverability

How easy is it for organisation staff and other parties to find the information or data they are looking for? Is critical information and data able to be found in a timely manner when it is needed?

Key themes included:

- a range of tools in place to assist with being able to find the right information in a timely manner, including information asset registers, enterprise data catalogues, business classification schemes, common data layers, information and data services, and processes such as capture into authorised systems and repositories
- Microsoft 365 and Office 365 implementations providing central hubs and enabling remote access to information and data, including use of SharePoint sites
- documentation including policies, procedures, and guides to inform staff how to capture information and data in ways that ensure it can be found when needed
- use of existing or new enterprise content management systems, electronic records and document management systems, and other business systems that include recordkeeping functionality, capture metadata, access provisions, security provisions and other controls to aid discoverability of information and data.

2021-22 results by organisation

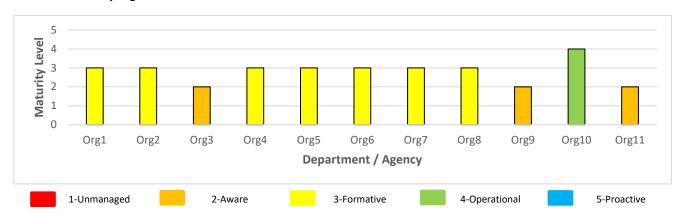


Chart 17a Question 3.4 rating levels - 2021-22 assessment

Org10 have achieved a maturity level of 4 Operational with the remaining participants being at a maturity level of 3 Formative, except for Org11, Org3 and Org9 who are at 2 Aware.

Org6 increased one maturity level, due to the roll out of a new EDRMS and associated analysis, metadata, security, and privacy controls, and focus on collaboration. Org3 dropped two maturity levels, potentially due to a lack of coordinated systems, reduced faith in and uptake of existing ECMS, poor application of recordkeeping initiatives including naming conventions reducing the ability to identify and find relevant information easily.

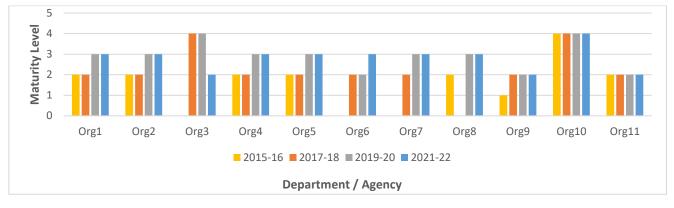


Chart 17b Question 3.4 rating levels-biyearly comparison



- being able to locate the right information when needed as access to information has been increased and there is more information available to search through
- multiple repositories and systems without an overarching search engine increasing the number of searches required to find the right information as searches must be conducted in multiple places
- information and data repositories and planning not being compliant with requirements so not including mechanisms that make information and data easier to find and access appropriately
- reliance on staff knowledge to locate the right information and data at the right time
- localised information repositories combined with silos within the organisation so that teams only search information and data repositories within their area rather than across the organisation
- not complying with information and data policies and procedures so that information and data is not always catalogued or searchable.

Comparative results by question average

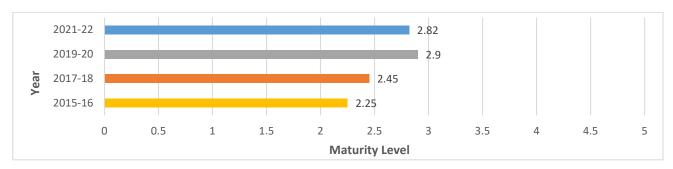


Chart 17c Question 3.4 rating levels— average comparison

Comparative results by question average show a slight decline after a period of growth, supporting participant comments that the environment has recently changed and is being renegotiated.

Overall comparison since IMMAP commencement

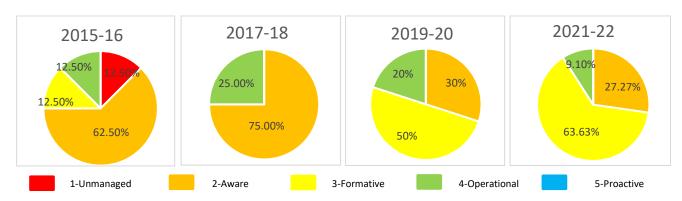


Chart 17d Question 3.4 rating levels – comparison by IMMAP assessment

The overall comparison shows a continued steady growth in maturity level.

Question 3.5 Information Use & Re-Use

How usable is the information and data being produced by the organisation, both now and in the future?

Key themes included:

- information and data sharing agreements, information asset registers, policies covering the use and reuse of information and data, platforms that support analytics and reporting across multiple systems, enterprise data catalogues, and other tools, systems, policies, and processes that enable useability
- architecture and planning tools to explore how data and information is being used and therefore how it may be used in the future
- wholistic approaches to information and data, focusing on digital transformation and organisation-wide practices to assess and address information and data usage needs.

2021-22 results by organisation

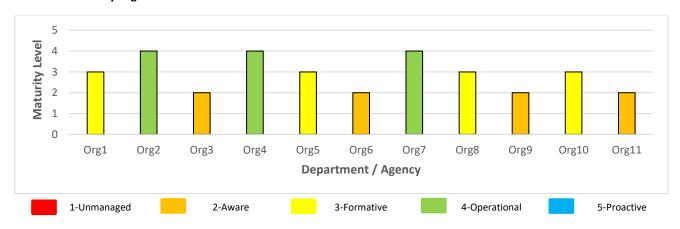


Chart 18a Question 3.5 rating levels – 2021-22 assessment

Org4, Org7 and Org2 all achieved a maturity level rating of 4 Operational. Org8, Org1, Org5 and Org10 achieved a rating of 3 Formative, and Org11, Org3, Org9, and Org6 achieved 2 Aware.

Org7 and Org2 both increased maturity by two levels from the previous assessment due to the identification and addressing of gaps as part of their information and data management strategies. Org4 increased by one maturity level, due to their focus on improving data management in the organisation. Org11, and Org6 both dropped one maturity level from the previous assessment, due to inconsistent information and data practices and processes. Org11 noted that their data management was not adequately addressed in the previous assessment due to the absence of resources as there was no information and records management team at the time.

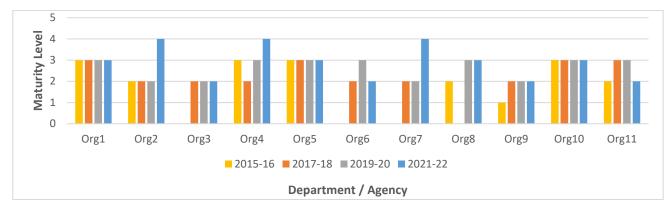


Chart 18b Question 3.5 rating levels—biyearly comparison



- resource limitations preventing policies and strategies to be fully implemented
- a lack of visible information and data tools and associated awareness, minimising take up and use of information and data policies and practices
- corporate management not including life cycle and retention management requirements in everything, including MOUs, agreements and other non 'record specific' documents
- a lack of coordination resulting in the same data and information being collected multiple times across different business units, systems, and platforms
- the need for more information on what could be done to improve usability of information and data.

Comparative results by question average

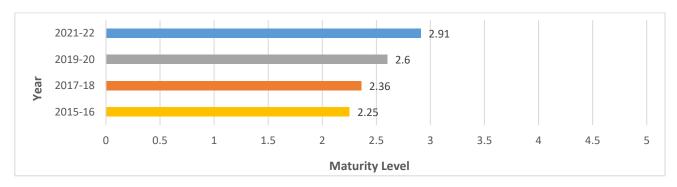


Chart 18c Question 3.5 rating levels- average comparison

The comparative results by question average shows a steady progression in maturity level since the commencement of IMMAP.

Overall comparison since IMMAP commencement

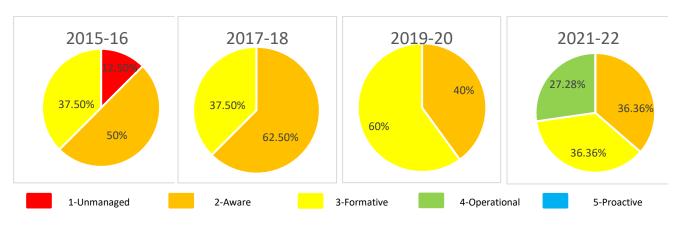


Chart 18d Question 3.5 rating levels – comparison by IMMAP assessment

This progression is supported by the overall comparison charts, which shows steady improvement.

Question 4.1 Information Architecture

Has the organisation developed an information and data architecture model? To what degree does it link to other relevant models?

Key themes included:

- various information or enterprise architecture models, some are localised and supportive of the needs of specific applications or groups, and others are organisation wide
- specialist positions, teams or committees that are designed to oversee, support, and maintain the information architecture
- review processes whereby key architectural components (such as those for recordkeeping and security) of new systems or projects are first assessed by a committee that has oversight of information architecture
- implementations at different stages, with some organisations in the processes of developing information architecture, and others building on or strengthening the relevance of existing information architecture
- information or enterprise architectures as part of a broader information and data governance structure, such as a framework, strategy, or roadmap.

2021-22 results by organisation

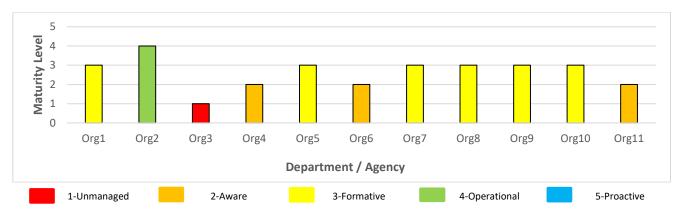


Chart 19a Question 4.1 rating levels - 2021-22 assessment

Org2 achieved a maturity rating of 4 Operational, with most other participants achieving a level of 3 Formative. Exceptions were Org4, Org11 and Org6 who achieved 2 Aware and Org3 on 1 Unmanaged.

Org2 and Org10 both increased one maturity level, due to their implementing new or refreshed information architecture frameworks. Org4 and Org3 both dropped one maturity level for not currently having an information architecture model in place.

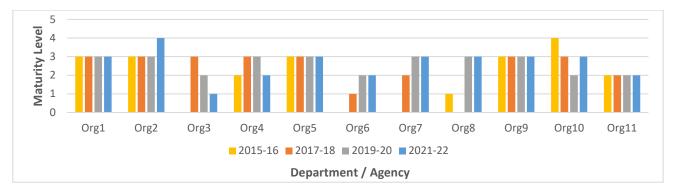


Chart 19b Question 4.1 rating levels- biyearly comparison



- not having architecture for information and data in place or mapped
- limitations on the effectiveness of existing information architecture due to the number of business systems and complexity of the environment, resulting in multiple sets of architectures for specific kinds of domains
- not including subject matter experts when developing and implementing information or enterprise architecture for information and data, hampering its accuracy, effectiveness, and use
- end users not engaging with or supporting information architecture models used due to concerns about security and potential overclassifying security.

Comparative results by question average

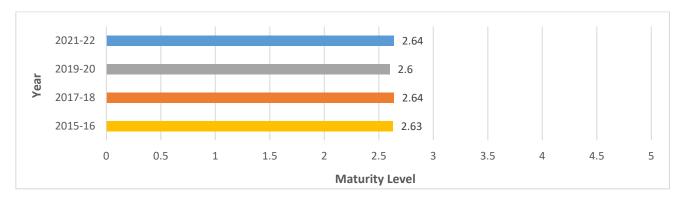


Chart 19c Question 4.1 rating levels— average comparison

The comparative analysis by question average shows little movement since commencement of IMMAP.

Overall comparison since IMMAP commencement

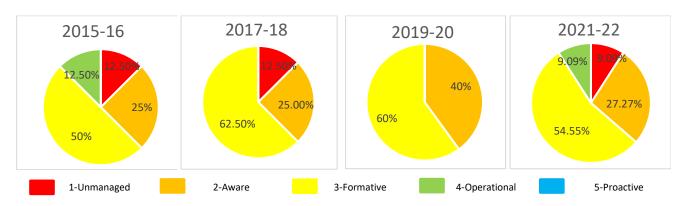


Chart 19d Question 4.1 rating levels – comparison by IMMAP assessment

The overall comparison shows that the maturity level spread since commencement of IMMAP has also remained stable, ranging most rounds from 1 Unmanaged to 4 Operational across similar percentages. Based on responses, it is likely that the environment for information / enterprise architectures for information and data is complex and covers multiple areas of expertise, including information technology. The needs for information and data are not always considered, and the space is constantly changing to include new systems, structures, technologies and so on.

Question 4.2 Process Improvement

How well have business processes been aligned with information and data management requirements? Has the organisation identified areas for improvement and eliminated duplicate processes?

Key themes included:

- SharePoint / Microsoft 365 used to standardise and streamline processes, especially collecting and managing the metadata required for good records
- different levels of improvement across organisations as processes are localised to specific teams or groups
- information and data management strategy as a central part of ensuring processes are implemented consistently
- the impact of COVID-19, including an initial focus on being able to work digitally, with information and data management being worked out afterwards
- progressing towards becoming fully digital in stages, starting with areas that can easily be fully digital and then through areas that have challenges due to the business function, culture, and associated work practices
- automation viewed as central to moving forward regarding process improvement, especially within Microsoft 365 using SharePoint and Power Automate
- successful deduplication of processes in relation to brief management.

2021-22 results by organisation

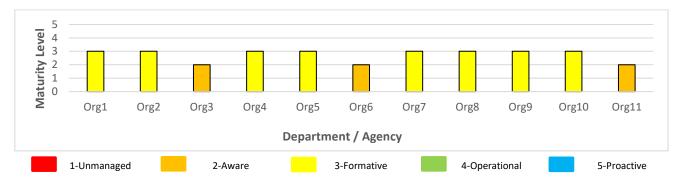


Chart 20a Question 4.2 rating levels - 2021-22 assessment

Most organisations achieved a maturity level rating of 3 Formative, except for Org11, Org3 and Org6 who achieved 2 Aware.

Org9 obtained one maturity level rating higher than previous assessments, due to their translation of stakeholder stories and pain points into business requirements to target and address improvements as part of a new systems implementation. Org11 dropped one maturity level rating from previous assessments, due to a combination of digital processes being implemented quickly during the COVID-19 response and large parts of the organisation having a paper-based recordkeeping regime.

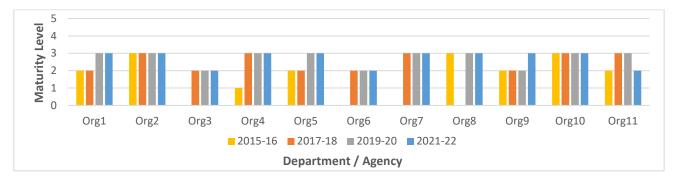


Chart 20b Question 4.2 rating levels—biyearly comparison

- operating in a paper-based environment and uncertainty of how lawful replacing paper with electronic records is, which has limited the process improvements available
- a lack of resources and funding to address the limitations of older and legacy systems
- no centralised approach to integrating information and data management processes into business processes
- a lack of governance structures, resulting in information and data issues being addressed on an ad hoc basis rather than as part of business processes.

Comparative results by question average

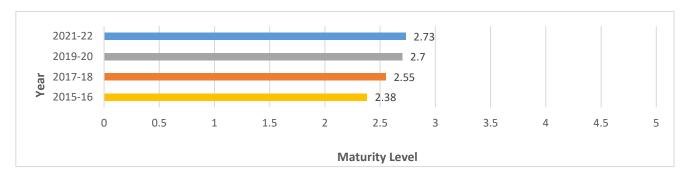


Chart 20c Question 4.2 rating levels— average comparison

The comparative results by question average show a slow but steady progression in this space.

Overall comparison since IMMAP commencement

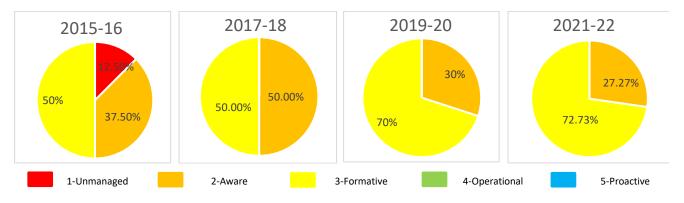


Chart 20d Question 4.2 rating levels – comparison by IMMAP assessment

The overall comparison charts show improvements on a four-year cycle (i.e. every two IMMAP rounds), suggesting that improvements may be coming as part of an organisation's strategic business planning cycle.

Question 4.3 Business Systems & Tools

Are information and data management capabilities built into business systems and tools?

Key themes included:

- implementations of Microsoft 365, Office 365, enterprise data platforms, and EDRMS support information and data management capabilities by design
- a focus on systems lifecycle from procurement and implementation through to decommissioning to ensure that all phases of a business system are considered from an information and data management perspective
- consulting a range of specialists, including security, risk, technology, and enterprise architecture, to identify and address potential gaps
- alignment with PROV, OVIC and other legislative and regulatory requirements, when procuring, implementing, and managing business systems and tools.

2021-22 results by organisation

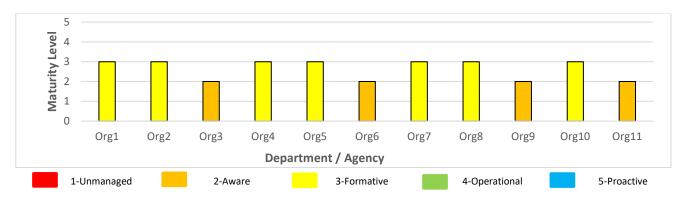


Chart 21a Question 4.3 rating levels - 2021-22 assessment

Most participants achieved a maturity level rating of 3 Formative, except for Org11, Org3, Org9 and Org6 who achieved 2 Aware.

Org2 increased one maturity level from the previous assessment, due to major projects being placed through a governance forum to ensure that all aspects are looked at and addressed from design to solution. Org11 and Org3 both dropped one maturity level from the previous assessment, due to either uncertainty regarding which system or tool to use creating duplication of content across systems, or gaps where only some systems are currently capable of meeting information and data requirements.

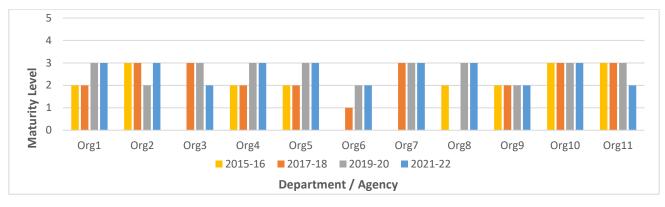


Chart 21b Question 4.3 rating levels—biyearly comparison

- difficulty in determining and obtaining consensus that progress has been made regarding information and data management
- critical areas not being covered or being overlooked, including in relation to PROV requirements, decommissioning, and some contractor solutions
- differences in take up of systems that are aligned with PROV and OVIC requirements, impacting on their practical application
- poor understanding and minimal collaboration between information management specialists and data management specialists within the organisation, impacting the success of overall information and data management
- lack of consultation with information and data management specialists by technology teams, including considering storage of information from a technological perspective rather than a records management perspective.

Comparative results by question average



Chart 21c Question 4.3 rating levels— average comparison

The comparative score by average shows some fluctuation in results, which appears to repeat every two cycles of IMMAP.

Overall comparison since IMMAP commencement

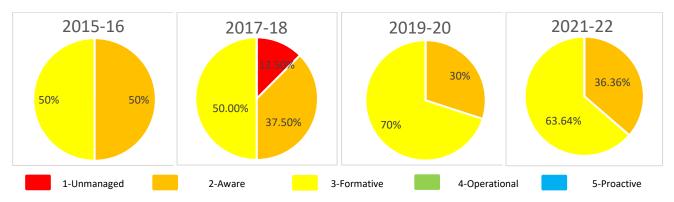


Chart 21d Question 4.3 rating levels – comparison by IMMAP assessment

The overall comparison charts show some fluctuation across each round of IMMAP. Change seems to occur every four years (i.e. every two rounds of IMMAP).

Question 4.4 Information Privacy & Security

What is the status of information and data privacy and security in the organisation?

Do staff have the knowledge and support to protect information and data and ensure their confidentiality, integrity, and availability?

Is the organisation able to respond to information and data privacy and security incidents?

Key themes included the following:

- well documented information privacy and security requirements, appearing in strategy, policy, legislation, procedures, covered by regular training, and good awareness of responsibilities across the organisation
- privacy and security requirements designed into systems and processes, with clear procedures regarding impact and other assessments to be done as part of business as usual
- regular VPDSS assessments with results feeding into a program of work to improve privacy and security
- dedicated privacy and security roles, including governance committees, with specified areas of expertise that are widely acknowledged across the organisation
- clear processes regarding breaches of privacy and security, with lessons learnt embedded into business processes to prevent reoccurrence.

2021-22 results by organisation

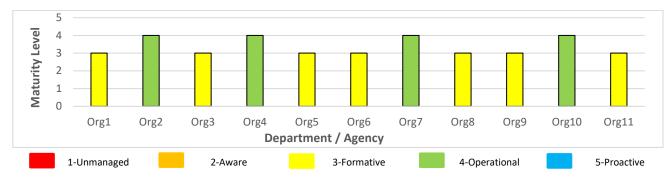


Chart 22a Question 4.4 rating levels – 2021-22 assessment

Org4, Org7, Org2 and Org10 have all achieved a maturity level rating of 4 Operational, with the remaining participants all achieving 3 Formative.

Org2 increased its maturity level rating by two, due to the level of resourcing and the range of tools and processes for privacy and security management and reporting. Org4 increased its maturity level rating by one and has a strong program in place with clear governance and monitoring aspects. Org3 dropped its maturity level rating by two. They are currently implementing a program of work in line with the requirements outlined in the VPDSS. Some aspects, such as e-learning modules, privacy impact assessments, and information security incident reporting, are in place. Org8 and Org11 dropped their maturity level rating by one, due to gap areas with email, lack of awareness of information security policy, and uncertainty regarding the application of protective security markers.

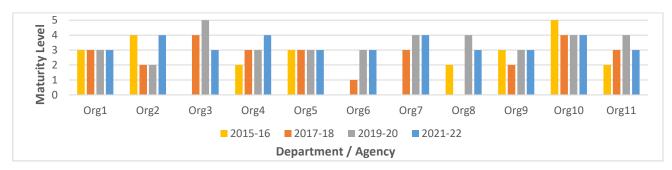


Chart 22b Question 4.4 rating levels—biyearly comparison



- a lack of awareness of information security policy and associated requirements such as the application of protective security classifications (including not using protective markings for email), although the existence of the security classifications is widely noted
- a lack of resources, including funding, not filling key information and data management roles related to information privacy and security implementation and management, lack of personnel to implement information privacy and security policy and associated projects.

Comparative results by question average

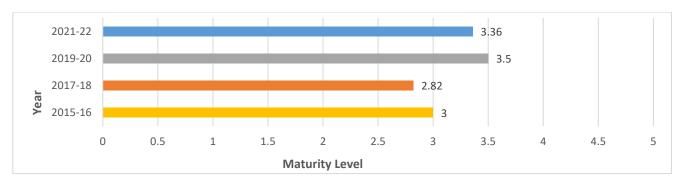


Chart 22c Question 4.4 rating levels— average comparison

The comparative results by question average show a fluctuation with a slight downturn every second round of IMMAP.

Overall comparison since IMMAP commencement

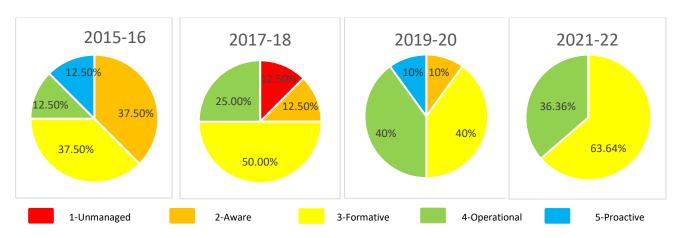


Chart 22d Question 4.4 rating levels – comparison by IMMAP assessment

The overall comparison charts reveal this question to be the only one where participants have scored a maturity level of 5 Proactive during the first and third IMMAP rounds. Once again, there appears to be a cycle of change every two IMMAP rounds.

4.3 Recommendations

The following recommendations address low maturity ratings and flag enhancement opportunities for information and data management performance in Victorian government.



• Information management and data management within an organisation should be coordinated so that strategies, plans, and practices are aligned.

IMMAP results have demonstrated that strong ratings occur when information and data management are strategically coordinated across the organisation. Similarly, lower ratings occur when there is disconnect between data and information.

Information and data management have begun to be managed separately in organisations. This can cause gaps in the overall management of information and data if they are not managed well. That is because resources can be competed for, processes may duplicate effort, and policies and requirements may contradict each other.

For example, an information asset register is a log or index of information assets that can be expanded to include additional detail of relevance. A data catalogue is a collection of metadata combined with data management and search tools. Both seek to enable the identification and management of information and data, but due to the differences between information and data, different tools are needed. See Appendix C (below) for a discussion on data management and information management in relation to the Information Management Framework¹⁵ and Data Management Body of Knowledge. ¹⁶



• Information and data management be designed into new systems and processes and actively maintained.

Good information and data management often requires users to be aware of their responsibilities and expectations, and to use the relevant tools, processes, and practices to ensure that information and data are managed appropriately.

IMMAP results have demonstrated that managing information and data by design improves practice and results in higher ratings. Lower ratings occur with practices that require individual members of an organisation to manually apply good information and data practice. Some will do it well, while others will do it poorly, resulting in inconsistencies across the organisation and lower maturity level ratings.

¹⁶ DAMA, 2nd edition, DAMA - DMBOK: Data management body of knowledge (DMBOK2), Technics Publications, New Jersey





¹⁵ Department of Premier and Cabinet, 2016 (revised 2021), Information Management Framework for the Victorian Public Service (IMF).

Recommendation

 Sufficient and ongoing resources be provided to enable information and data to be managed well, in line with legislative and regulatory requirements, and business needs.

Information and data management requires sufficient, timely, and ongoing funding and skilled staff to be done well. In many instances resources are allocated by project, for a finite period only. Managing resources by project does not acknowledge the ongoing costs required to manage information and data due to factors such as the implementation or evolution of new systems, ongoing storage costs, and so on.

Situations, such as machinery of government change leading to legacy systems needing to be addressed, or large-scale disposal projects due to a backlog of hardcopy files and storage constraints, for example, tend to be managed as standalone projects. Such situations will engage a specific set of skills and knowledge for a specific task as if it will only need to be done once rather than as part of a continual cycle of evolving tools and systems.

Competition for resources can also occur if different teams manage information and data, especially as data management tools and information tools need to co-exist in the same spaces.

IMMAP results have clearly demonstrated that organisations without appropriate funding have lower results than those with sufficient funding. This includes the timeliness of resources being made available.

4.4 Ongoing challenges

Challenges have long-term implications for information and data management across Victorian government and impact multiple organisations. Analysis of the results from this round of IMMAP assessments suggest that there are several major challenges for information and data management across Victorian government that should be considered as part of future planning. They are:

Challenge

1

- •The impact of COVID-19 requiring the ability to work remotely while ensuring that Victorian government services continue to operate smoothly, and that regulatory requirements are met; this includes the increased take up of Microsoft 365 as part of a solution.
- •This is a challenge because it has irreversibly changed the way that staff within organisations work, including how information and data are collected, stored, managed, and accessed. Ongoing and future plans will need to factor in remote working and Microsoft 365, along with other areas that have become the new normal.

Challenge

2

- •The specialisation of data management as a distinct area of practice that is separate to, but aligned with, information management, including the common alignment of data with IT and information with records management.
- •This is a challenge because separating information and data practices without coordination and strategic planning can result in competition for resources, conflicting practices, and confusing messages. This combination results in poor overall management of information and data.

Challenge

3

- •The increasing complexity of the information and data management environment, and by extension its policy environment, and the broader impact of this on solutions.
- •This is a challenge because it is the policy environment that guides actions and decision making, and more complex environments require more flexible and adaptive solutions. Methods and common practices used to implement information and data management solutions are based on a common understanding that is expressed through policy.

Each of these challenges are explored in more detail in Appendix C.

5 Conclusion

This is the fourth round of IMMAP assessments since the program commenced in 2015. Comparative analysis of the results is now possible and can be used for additional layers of analysis, including projections and inferences regarding the future needs of information and data management.

For the first time since the commencement of the assessments we can see progression in the dimension of People. This may reflect the need to focus on ensuring individuals within the organisation knew how to manage information and data effectively when working remotely during the COVID-19 pandemic. Comparative analysis reveals that IMMAP results fluctuate in a common pattern every two rounds, which roughly equates with four years.

The highest ratings as a sector were for:

- information privacy and security (3.36 Formative)
- policies and procedures (3.27 Formative)
- management support and leadership (3.18 Formative)
- vision and strategy (3.18 Formative).

The lowest ratings as a sector (each achieving 2.64 Aware) were for:

- business systems and tools
- information architecture
- meeting business and user needs
- audit and compliance.

The results clearly demonstrate that there is a lot of work happening in the information and data management space, but that this is not necessarily reflected in the scores achieved. Fluctuations in maturity level ratings this round of IMMAP in comparison with the previous rounds occurred due to:

- navigating COVID-19 responses
- addressing the increased use of Microsoft 365 implementations as a central hub
- managing continuing machinery of government change
- the separation of data management from information management as a specific professional area of expertise and resulting changes in focus within organisations.

Recommendations from this report are focused on three key areas of importance that have strongly impacted this round of assessment results. They are:

- information management and data management within an organisation should be coordinated so that strategies, plans, and practices are aligned
- information and data management be designed into new systems and processes and actively maintained
- sufficient and ongoing resources be provided to enable information and data to be managed well, in line with legislative and regulatory requirements, and business needs.

Moving forward, the following challenges should be considered when planning and designing information and data management programs:

- the impact of COVID-19 on working environments, including a major increase in working remotely
- the specialisation of data management as a distinct area of practice that is separate to, but aligned with, information management
- the increasing complexity of the information and data management environment, and by extension its policy environment, and the broader impact of this on solutions.

Appendix A: Table of IMMAP Results

Dimension	Question	Org1	Org2	Org3	Org4	Org5	Org6	Org7	Org8	Org9	Org10	Org11	2021-22	2019-20	2017-18	2015-16
1. PEOPLE	1.1 Information Literacy & Responsibility	3	3	2	3	3	2	3	3	3	3	2	2.73	2.70	2.64	2.25
	1.2 Capability & Capacity	3	3	2	3	3	3	3	3	3	3	2	2.82	2.90	2.73	2.88
	1.3 Training, Support & Knowledge Sharing	3	4	2	3	3	4	3	3	3	4	2	3.09	2.90	2.36	2.5
2. ORGANISATION	2.1 Governance	4	4	3	3	4	3	2	3	3	3	2	3.09	3.00	3.00	3.38
	2.2 Information Management Vision & Strategy	4	4	3	2	4	4	3	3	3	3	2	3.18	3.00	3.09	3.13
	2.3 Strategic Alignment	4	3	2	2	4	3	4	3	3	3	2	3.00	2.80	2.82	2.5
	2.4 Management Support & Leadership	4	3	3	3	4	3	4	3	3	3	2	3.18	2.80	3.09	2.75
	2.5 Audit & Compliance	3	3	2	3	3	2	4	3	3	2	1	2.64	2.50	2.45	1.63
3. INFORMATION	3.1 Asset Management	3	3	3	3	3	3	3	3	3	3	2	2.91	3.10	2.64	2.75
LIFECYCLE AND	3.2 Policies & Procedures	3	4	3	3	3	4	4	4	3	3	2	3.27	3.00	2.73	2.5
QUALITY	3.3 Meeting Business Needs	3	4	2	2	3	2	3	3	2	3	2	2.64	2.60	2.36	2.38
	3.4 Accessibility & Discoverability	3	3	2	3	3	3	3	3	2	4	2	2.82	2.90	2.45	2.25
	3.5 Information Use & Re-use	3	4	2	4	3	2	4	3	2	3	2	2.91	2.60	2.36	2.25
4. BUSINESS	4.1 Information Architecture	3	4	1	2	3	2	3	3	3	3	2	2.64	2.60	2.64	2.63
SYSTEMS AND	4.2 Process Improvement	3	3	2	3	3	2	3	3	3	3	2	2.73	2.70	2.55	2.38
PROCESSES	4.3 Business Systems & Tools	3	3	2	3	3	2	3	3	2	3	2	2.64	2.70	2.45	2.50
	4.4 Information Privacy & Security	3	4	3	4	3	3	4	3	3	4	3	3.36	3.50	2.82	3.00
AVERAGES	2021-22	3.24	3.47	2.29	2.88	3.24	2.76	3.29	3.06	2.76	3.12	2.00				
	2019-20	3.24	2.47	3.06	2.71	3.24	2.59	2.88	3.12	2.29	3.12	2.94				
	2017-18	2.76	2.18	3.29	2.29	2.76	1.65	2.94	NA	2.12	3.35	2.94				
	2015-16	2.71	2.53	NA	2.00	2.71	NA	NA	2.35	2.12	3.47	2.59				

Table 6 2019-20 IMMAP results with comparison against 2015-16, 2017-18, and 2019-20 averages. 17

¹⁷ Machinery of government changes have affected the figures over time. To enable comparative results, mapping existing organisations to relevant previous organisations was undertaken. For example, if a department was divided into two, both new departments are mapped to the data of their previous parent department.





Appendix B: Table of Supporting Comments

Responding organisations¹⁸ provided supporting explanatory text for assigned ratings. The following table contains examples of the supporting comments provided. Responses are divided into strengths and challenges for each question.

Questions	Strengths	Challenges
People: 1.1: Information Literacy & Responsibility	 Staff across some functions have an increased understanding of the benefits of good information management practices and actively address its governance in projects and services. Data visualisation guides for developers and consumers and IM principles in practice promoted during IAM22. The definition of an information asset is defined so that we register our most valuable information assets to improve discoverability of key data within the register. The Enterprise Data Catalogue enables the organisation to create and maintain an inventory of data assets, providing context to understand datasets. Information Security Tips (such as Phishing and sending secure emails) and other supporting information and training are available on the intranet and Cyber Security SharePoint. Data literacy and custodianship have been identified as key elements of the IM Strategy, which is in the process of implementation. We are building data e-learns for data literacy and creating an awareness campaign to enhance the awareness and maturity within the organisation for the wider reach. 	 Noting that our COVID-19 surge workforce were less aware of privacy and security risks and mitigations, and this needs to be improved. Corporate responsibility over data governance and management, is currently devolved; we have identified some operational roles (e.g., Data Steward, record/data owner/custodian, etc) and are in the early stages of developing and applying corporate definitions and appropriate required skillsets to these roles as they evolve, including a framework defining corporate roles and responsibilities for data and information management and governance across the organisation. Majority of employees acknowledge that their roles involve a certain amount of recordkeeping however, this is often viewed as a burden given IM is not embedded into BAU practices. There are continuing residual challenges with MOG changes in 2020 with organisation staff continuing to operate on different networks. While responsibilities are documented in policy (Including the Information and Records Management Policy, the Information Management Framework etc.), feedback indicates not all staff are aware of information related policies.
People: 1.2: Capability &	 Each team has a champion/network to assist with building capability out in the business. 	 Resources are stretched in these teams making it difficult to implement business initiatives.
Capacity	 Several Groups have dedicated data and/or information management functions to support their responsibilities and have employed information and data specialists into dedicated roles. • Capability sets are available for information management professionals and data analytics professionals that document the key skills, knowledge and 	 Some short-term contractors are hired for some IT projects, but they work in isolation for the specific projects without the overall organisational data perspective. Resource and skills gaps have been identified across some areas. Program of work to address gaps in information, but data management is still a gap. IM/RM specialists have been recruited and are consulted for many projects, but there is

¹⁸ Please note that references to Department or a specific agency in the comments have been adjusted to Organisation, otherwise any de-identifying changes made to the comments are placed in square brackets [].





Information Management Maturity Assessment Program 2021-22 Report, Version 2: De-identified Data | APRIL 2023 Questions Strengths Challenges behaviours required of these no data management function within the professionals in the organisation, and organisation, and this was deprioritised by others with information management Executive under the IM Strategy - so data and data analytics accountabilities. management issues are being addressed on a 'best efforts' basis by IM and some ITS staff. Business units who are seeking a technology solution undertake an There is expert capability available to support information security classification staff to develop good information exercise to inform the security management practices but take up is classification of the information, which inconsistent. in turn guides the solution requirements Information and data management is and the information handling performed by multiple disparate teams requirements. across the organisation. People: 1.3: Knowledge is shared at monthly The organisation has appointed specialists in reference and data governance group supporting roles to assist staff and provide Training & advice but the ability to deliver dedicated meetings. Support All staff undergo mandatory training and tailored training has been impeded by resource availability. and eLearning around their recordkeeping, security, and New Content Manager users are sent an Information Management obligations. email with links to online training modules and CM Tips etc, however access to these are The Security Awareness, Code of **Conduct and Privacy Awareness** not monitored. The organisation has mandatory induction eLearning modules are part of the organisation's Compliance training training requirements for all aspects of information and records management which suite, mandatory for all staff. Refresher is currently under review resultant from the training is required to be undertaken every two years. move from paper to digital information There is a comprehensive suite of management. training opportunities and methods to support use of the organisation's enterprise content management system. (including contact information, training videos, reference guides and a service catalogue). All training is formal, mandatory, maintained and reviewed regularly and all records of training are captured against individuals. Staff have access to both e-learning modules and regular training sessions, as well as identified teams for advice and support provided through the intranet and services portal. Organisation: The organisation has an overall Organisation used to undertake Information 2.1: governing body that reports to its Security Governance Committee. Last Executive Board on data and technology meeting was in March 2022 with CISO. Next Governance meeting has not been planned yet but is on including information and records management. This governing body is the agenda. chaired by a Deputy Secretary and IT steering committee is focussed on funding membership is drawn from the and prioritisation of IT



projects/enhancements. Some governance

Technology Forum for new activities and

committees. There is no overarching body

through some project/product steering

occurs through the Architecture &



organisation's senior executives.

An Information and Data Governance

Framework has been developed with

wide consultation and endorsed by the

Information Management Technology

Questions Strengths

Challenges

- Committee. Information and data governance initiatives have been further identified as a priority area under the IM Strategy.
- The Information and Data Management team also consult and provide advice on data governance initiatives for various parts of the organisation, for example, Corporate Services BI system. They are involved in all ICT projects that include data and ensure that good data management and governance processes are applied.
- An Enterprise Design Authority has been established to lead, review, monitor and provide architectural decisions that meets the quality, cost, and speed needs of the organisation.
- The organisation's Architecture Review Board assesses solution designs which must incorporate records management as a mandatory requirement.

- with a core focus on information and data management at an organisational level.
- There is no current centralised mechanism for the approval of strategies, policies, and standards in either information or data management resulting in limited and inconsistent governance of information and data management across the organisation.
- The current gap No IM Governance Committee at the organisation.
- Organisation's Information Governance Committee was disbanded and is not yet replaced.

Organisation: 2.2:

Information Management Vision & Strategy

- Every division in the organisation has a digital roadmap outlining their current IT landscape, planned projects, and presents possible gaps and opportunities for where digital solutions can improve the division's capability, capacity, and productivity.
- The Information Management Strategy 2021-24 provides a framework and guidance to strengthen the departments' ability to use, manage and analyse data and information across its lifecycle. Structured around the WoVG IMF information management domains.
- Digital Transformation Strategy drafted and being socialised internally and externally with regulators. This strategy will support our modernisation journey and will align with WoVG vision for digital government services while increasing alliance on access to real time quality information.
- A Technology, Data and Cyber Strategic Plan has been developed, being implemented, and endorsed and approved by the Secretary. Its purpose to uplift current technologies and guide investment in new ones. This plan, and the accompanying roadmap, will support the organisation to deliver on the Corporate Strategic Plan 2021-25.
 The plan is underpinned by eight

- Current organisational reform activities have delayed the development of new information and data management strategies.
- There is currently no organisational data management governance framework.
 Business areas with large volumes of data have created their own local frameworks (FES, CAV), which focus more on uses. This has left a gap in relation to life-cycle management and data retention.
- There is no organisation information management strategy or data strategy, or a department-wide information management framework.
- The organisation developed a data strategy in 2018 but it wasn't implemented due to lack of funding. The organisation will commence a refresh of the unfunded data strategy in the second half of the 2022-23 financial year.
- There is an Information management strategy, but it's not available across the business, so staff are not aware of it. The strategy has not yet been built into business approaches.
- One program of work has not commenced due to lack of support for resourcing data management.



Questions Strengths Challenges strategic pillars which will transform and transition technology as they evolve over three years. Organisation: Information and data management Information and Data Management is built 2.3: planning have been incorporated into into key processes and business drivers. Used Information Management and in many processes but not yet fully efficient. Strategic Technology Division (IMTD) strategic EG. Procurement Process, PDP, Security Alignment planning, notably in the areas of Reviews. integration, cloud infrastructure and The information management strategy was information security. Outside of IMTD developed in line with Organisation strategic there is less alignment of strategic planning; however, its requirements are not planning with information and data yet built into the business via policies and strategy. This is an area of long-term projects. New projects do not identify focus for both IMTD and the IM information management implications, Strategy. dependencies, and synergies. The IM strategy is being refreshed for Information management requirements are the next 3 years to align with the not currently widely acknowledged in key FOREFront digital strategy. An IM organisational policies. Framework was developed also which Other organisational strategies are generally includes a three-year workplan to focused on the core activities of its functions. improve governance across all domains. Where appropriate those strategies may only New capability has been established identify IM as part of those activities. which includes a Data Strategy Team who looks at information and data dependencies for major projects and contracts. Our information management approach is appropriate to our business outcomes, needs, corporate culture, technological environment, risk exposure and reflects the needs of clients and stakeholders. The Technology, Data and Cyber Strategy was developed by taking into consideration the Strategic Plan 2021-25; the Victorian Government ICT Strategy, Digital Strategy, and transformation statements of direction; global transport sector technology trends; and a number of organisation's business group and divisional business plans. It highlights organisation-wide information management issues, major risks, and the desired results. Organisation: Information management accountabilities In roads continue to uplift IM capability 2.4: including a successful business case to and issues are reported to executives on an fund an enterprise EDRMS. The project "as needs" basis due to the absence of an Management has commenced and is supported by an Information Management and Data Support & Executive Sponsor, Business Sponsor, Governance Committee.

Leadership

- Senior Responsible Officer that feeds into the Project Advisory Group and Project Control Board.
- The Data Governance and Information Technology (DGIT) subcommittee is comprised of senior management
- No CIO or CDO, however issues are represented at executive level by Chief Legal Counsel.
- Management and leadership are demonstrated via sponsorship and participation in the Information Management



representatives across the organisation and Administrative Offices. It provides stewardship of the organisation's business technology and information management related matters.

- Management has appropriate knowledge of our information management, access to information and information privacy issues and practices, and generally seeks support and advice when required.
- The organisation has appointed a Chief Information Officer, who is the executive director of the Information Management and Technology Division, and a standing member of the Information and Technology Committee, which provides executive level oversight and consideration of information and data management planning and issues, as well as endorsing information and data management policies and standards.
- Chief Data Officer (CDO) appointed in March 2018; The CDO is a member of the WoVG Information Management Group, chairing it from July 2020 - June 2022, and will be a member of the WOVG CDO Leadership Group when formed.

- Steering Committee. It is currently unknown whether leadership understands information management issues and practices.
- There is not consistent clarity cross the organisation on who to approach for specialist advice in information and data management which can lead to inconsistent advice and practice.

Organisation: 2.5:

Audit & Compliance

- The organisation's Audit and Risk Management Committee provides advice on the organisation's risk management framework and controls and verifies compliance with the requirements of the Victorian Government Risk Management Framework to support risk management attestation.
- The organisation's strategic and annual internal audit program considers information technology risks through penetration tests mimicking threat actors (targeted at legacy systems and applications hosted in the MS Azure environment), cyclical review of controls identified in the ACSC's Essential 8 as critical risk mitigations and ad hoc reviews requested by management and / or Audit and Risk Management Committee.
- Under the current environment of resource constraints, the following auditing and compliance is occurring: 1)

- Process compliance audits and other recordkeeping audits are currently not undertaken due to universal skills shortages and current resourcing constraints.
- Records Standards compliance gap analysis
 was first completed in 2013 and initiatives to
 address gaps have been developed in the IM
 team Workplans. Progress has been slow due
 to limited resources and extensive IM
 Systems projects.
- There is limited auditing of information management or record management practices. It is carried out on a needs or request basis.
- There is no ongoing auditing or monitoring program or processes in place. There is no monitoring of noncompliance. There are no consequences for identified non-compliance. Focus to date has been on training and awareness.
- The executive level Audit and Risk Committee oversees the Internal Audit Plan, which incorporates the Information Management Technology Audit Strategy, and conducts



New Line of Business Systems, (LoBS), are audited against compliance elements as part of the approval to use process. This includes Architectural Review Committee approval and independent reviews coming directly from the business requesting to use existing systems as repositories. 2) Records transferred to storage or destruction are audited against PROV RDAs and the PROV Storage Standard; 3) Security and Privacy do bi-annual attestations to OVIC.

- Organisation is proactive in conducting audits issued by external parties. Audit actions are remediated when necessary. Steps are being taken to improve compliance to standards such as VPDSS (Victorian Protective Data Security Standards).
- Records Management have begun internal auditing activities which is a key activity outlined in its strategy. We communicate all applicable compliance requirements across the organisation.

compliance audits to address compliance and risks, including information and data management risks. Integrity and Risk Pulse Checks also include questions about information handling. In addition to this are mandatory reporting activities that assess compliance with OVIC, financial management and legislative requirements. Subject matter experts differed on whether this level of auditing was sufficient to manage information and data risks, particularly with regards to proactive or comprehensive monitoring of policy compliance.

Info Lifecycle & Quality: 3.1:

Asset Management

- The organisation's significant and critical information and data assets have been identified within an Information Asset Register which is established and maintained.
- The Common Data Layer is a secure, managed central location where organisation datasets are stored, discovered, used, and shared. It provides easier access to data across the organisation, by decoupling the operational systems, environments, and integration from the sharing of the data from these systems. It also stores commonly used enterprise reference or master data, or curated datasets.
- A survey was conducted in response to a VPDSS internal audit report to identify unknown information assets across the organisation namely, systems/apps, databases and spreadsheets used widely as part of BAU for reporting and sharing purposes. All unknown assets have been captured in the IAR and will be assessed to determine their value and risks around BAU. Any new assets identified through the End-to-End ICT project delivery process are captured in

- The IAR maintenance lacks resourcing and currently relies upon manual maintenance. It is the responsibility of the asset owner to inform the IAR of any changes which presents challenges in keeping this information up to date. We make our IAR available to relevant staff in some areas of the organisation. There is general acknowledgement that information assets could be better managed.
- The Register is not currently known widely across the organisation.
- There is no custodianship model in place.
- We have informal arrangements for custodians for some information assets. We have no formal custodianship policy or defined roles and responsibilities for custodians.
- The organisation's Information Asset Register is central to its efforts to make information easy to find, access and use, and is available to all staff within the organisation via the Our Information SharePoint. It includes the Protective Marking and Business Impact Levels, and names of governance role holders, however custodians do not yet register and maintain information assets unless prompted to do so.



Audit programs relating to the data quality are being conducted for some

Info Lifecycle & Quality: 3.2:

Policies & Procedures

Organisation has a number of information and records related policies and procedures – the Information and Records Management Policy, the Information Management Framework and a range of system specific advice and guidance (related to Content Manager).

data collections.

- Policies and procedures that align to legislation and standards are in place and are endorsed. These are supported by training. These will be due for a review in 2023 to explicitly address the EDRMS.
- These policies are generally approved and endorsed by the Information Management Technology Committee, an executive level committee.
- All teams have associated procedures developed in accordance with their regulator's requirements. The Information and Records Management Team have begun reviewing their procedures to ensure readability, currency and reflecting modern work practices. Examples include a simplified corporate Digitisation Plan, and Local Operating Procedures.
- Staff generally conduct records and information management procedures in line with organisation policy and to a reasonably consistent standard. Policy and procedures are appropriate to the organisation's business and periodically reviewed for improvement. Current policies and standards are published on the intranet with accompanying information sent out to applicable employees in order to launch and promote the policy.

- Breaches of policy are addressed when a significant or critical vulnerability is evident, however not all policy breaches are prosecuted on every occasion.
- CiC records procedures, endorsed by VSB, are followed though some breaches occur.



Questions Strengths Challenges Info Lifecycle & A dedicated business analysis team The current reform program coupled with Quality: 3.3: exists within the Information the new ways of working through the COVID Management and Technology Division, period have impacted on information and Meeting which contributes to the assessment of data management in terms of accessibility, **Business Needs** business requirements and informs the integrity, and over retentiveness. development of information There is evidence that staff have difficulty in management technology solutions to searching for and identifying information and business problems. this is primarily due to staff being able to Business need informed the obtain a single and comprehensive source of organisation's Information information (records). There is no organisation wide quality and Management Strategy. With well progressed policy of internal availability program. and external audits, many business Organisation does not currently have areas are actioning the audit findings to established processes or programs to address align the business accountabilities and information quality issues. requirements. No analysis of information assets has been A strategic review of IM was completed conducted to see if information is meeting in 2014 to address the gaps in IM business needs, accountability requirements compliance and quality. Operations and community expectations. branch work plans continue to address Organisation does have a well-developed PROV Recordkeeping Standards Information Asset Register and update compliance and identified initiatives to schedule. Information Asset Registers address gaps. These are being identify where information assets are located progressively implemented. at a very high level and who to contact for Microsoft 365 is providing an more information, however a gap exists opportunity to unify all recordkeeping when assessing business needs. into a single platform and organisation Only a couple of systems have data quality is working strategically to transition to statements. that platform. Recordkeeping No program or processes to address governance is being actively addressed information and data quality issues. by policy development and information Some work has been done to improve data architecture design. availability and ensuring data is fit for There has been a developed Data purpose/meeting business needs, but this is Quality Tool that checks the quality of not done in a coordinated way. the data in Finance, Procurement, Work The organisation has a devolved model of force and E-briefings, potential to scale responsibility. We are currently working and include other domains as per towards the development of corporate business needs. programs and/or processes around Locally established processes and/or information and data quality, remediation, programs are being implemented in integrity, and life cycle and retention Groups to meet their needs for management, including validating the need information and data quality. to collect, and store various pieces Information is largely captured in information or data. There is evidence that authorised systems and is regularly the organisation may be over collecting and accessed by all staff to complete their over storing information and data. work. Info Lifecycle & The Records Management Unit There are still some limitations, including Quality: 3.4: continues to reinforce its policy reliance on the knowledge of staff, difficulties statement relating to capture of records searching the intranet, and variable levels of Accessibility & into compliant records management proficiency in the use of SharePoint (on Discoverability systems in parallel to the use of which the enterprise content management



system is based).



and Teams.

collaboration tools such as SharePoint

 The Information Asset Register was migrated to SharePoint to improve discoverability. It also makes it easier for Custodians to register and maintain the metadata, which in turn assists other staff to discover information sources within the organisation.

- The Common Data Layer (CDL) is a secure, managed central location where organisation datasets are stored, discovered, used, and shared. It can also store commonly used enterprise reference or master data, or curated datasets. Access to data is managed to ensure that data and information are shared or protected as appropriate.
- The Business Classification Scheme is in place to ensure records are easily found, identified, and retrieved.
- Controlled information has been defined and specific access controls have been implemented across the organisation where technologies and capabilities allow. Sufficient metadata is provided to correctly identify and locate information.
- The emerging M365 platforms are being adopted and there is high level discovery access available across that platform.
- Organisation uses CM EDRMS as core information repository with a number of other approved line of business systems such as CBM, Salesforce, FinCloud etc. Corporate Information access and capture in CM is promoted as a requirement for all staff and training is mandatory. CM Information is organised on a functional basis.
- The implementation of Office 365 has increased our access to information and made it more available. It has presented a challenge for discoverability of the right information. Work has begun to implement further information management controls into the environment, for example metadata, and the procurement of additional tools to allow for enterprise search and records management.

- The organisation addresses the needs of people with disabilities through an Accessibility Action Plan however the key actions regarding auditing accessibility across ICT systems are yet be resourced or planned.
- The organisation is aware of multiple noncompliant information repositories and planning is underway to seek better process to achieve discoverability, accessibility, and compliance.
- The organisation has 2 approved EDRMS' alongside other corporate approved information repositories and operate across 2 separate networks. This presents obstacles for the organisation in the finding, sharing and reuse of information.
- The implementation of Office 365 has increased our access to information and made it more available. It has presented a challenge for discoverability of the right information.
- Majority of the business units are using SharePoint as their repositories instead of using it as teams' documents collaboration tool.
- The ability to conduct thorough and diligent searches successfully with absolute confidence is compromised when not all information is catalogued or searchable. This leads to workarounds and shadow IT.
- The discovery of information in stored in various sources is difficult to find e.g., documents for Royal Commissions, FOI requests, subpoenas, and legal cases.
 Consequently, substantial resources and expense are required to conduct extensive searches and to conduct cross checks across multiple systems and formats.
- While Content Manager (CM) is the organisation's enterprise approved information and records repository it is no longer a system of choice for staff as it lacks the ability to support collaboration and easy sharing of information. There are therefore currently several locations in which staff work and store information (including Teams, Outlook and increasingly SharePoint), in additional to Line of Business Systems. These systems are not connected, and the organisation lacks federated search capability. The result is that staff may only have access to the information in their own area, with staff needing to rely on certain people and their knowledge to access certain



information. Poor application of consistent and meaningful Naming Conventions means files and folders and difficult to locate by searching. Heavy access controls, particularly in CM, also hinder searching.

Info Lifecycle & Quality: 3.5:

Information Use & Re-Use

- A substantial number of organisational datasets are released publicly either through data sharing arrangements or through dedicated applications or websites. These are supported by quality statements that support decisions about the usability of the data. Data available through DataVic is provided under Creative Commons licences.
- A process is in place to archive and reuse SharePoint sites across the department. Policies that target the use, share and release of data e.g., Privacy, FOI, records management etc. can be easily accessed on the intranet.
- An accreditation process for units that routinely share data has been instituted and requires units to undergo an assessment of their data management processes and training.
- There are information sharing agreements and data management tools in place.
- There is future planning underway for new technologies in data management. Information and data assets are shared and re-used across the organisation and with external stakeholders as appropriate.
- Data integration and exchange starting to follow pattern-based architecture as outlined in target-state architecture.
- The IM Strategy will deliver an enterprise data platform that will significantly increase the organisation's capability to govern and re-use significant data collections.
- Whilst the organisation has established patterns for data exchange, the current patterns are being reviewed and over the next 12 months will be refined to improve our patterns and standards.
- The organisation employs specialist in digital strategy and wayfinding to implement a whole organisation digital strategy.

- Data use and reuse is considered in some areas, but the application varies. There is a planned approach to improving this through the rollout of the EDRM.
- The Information Management and Records
 Policy includes instructions on the systems
 that are appropriate for the storage of
 information (i.e., Content Manager and
 O365). However, the use of personal storage
 and network drives means locating
 information and therefore use and re-use
 of information is difficult. Duplication due to
 information storage siloes also makes use
 and re-use difficult.
- More work is required to promote information sharing, re-use, and collaboration across organisation. FOI searches are able to be performed in a timely manner
- The organisation faces challenges around multiple systems which may impact on information quality and the ability to support informative decision making. There is a known need to decommission and consolidate systems and information from different sources but resourcing this work is an ongoing obstacle.
- Whilst data sharing and MOUs exist in some areas, they are not managed from a corporate perspective and often don't include life cycle and retention management requirements. This results in the same data being collected and stored by separate business units in various systems and platforms.
- The organisation operates a devolved model where information access is closed and based on a "need to know" basis. Whilst this model exists for information security policy purposes, it can inhibit internal use and reuse of information outside of the business unit, as often others are unaware of the existence of the information asset.
- Standards have been endorsed in the areas of Information Sharing, Release and Data Exchange, in alignment with Victorian government policies, however due to



resourcing limitations these have not been fully implemented.

Business
Systems &
Processes: 4.1:

Information Architecture

- An Information Architecture framework was originally completed as part of IM Strategic review in 2014. As part of the ongoing digital transition that commenced in 2020 a new model is being developed to reflect the new digital platforms and ways of working. There is an understanding of the multiple repositories and how they relate. The IA model is being developed in conjunction with the disciplines of enterprise and solutions architecture. The architecture discipline has been resourced by 2xFTE.
- The organisation has a developed organisation Information Architecture that brings the principles of design and architecture to the digital landscape and has been implemented. The IA is an integral part of the organisation's overall Enterprise Architecture and is managed and resourced accordingly.
- An Enterprise Information Model has been developed and will be used as a foundation for the data architecture of the enterprise data platform to be delivered through the IM Strategy.
- Several business groups across have plans and projects in place for data architecture.
- There are local architectures that support the needs of specific applications or Groups.
- The organisation has an Enterprise
 Architecture team that provides expert
 architectural advisory services for major
 IT investments and projects and
 business needs drive the information
 architecture across the organisation.

- Information Architecture is a dedicated function, but its effectiveness cannot be optimised due to the large number of systems in use across the organisation and a fragmented operational environment.
 Decisions tend to occur in silos with limited stakeholder engagement or input from subject matter experts across various disciplines.
- The organisation does not have an enterprise information architecture model.
- There is technology and application architecture that is being progressively built/implemented, however this is no information and data architecture model.
- An information architecture of intranet content has been developed to inform the migration and refresh of the organisation's intranet. Subject matter experts not directly involved in this work had limited visibility on it.
- Organisation does not currently have an information and/or data architecture model mapped.
- From an end user perspective, many business units indicated that they were uncertain about systems being adequately secured, and there is evidence in some areas of the organisation may be over classifying security.
- Considering the size and complexity of the organisation's operations, a full enterprise architecture is not realistic, or useful. The organisation's approach is to address this by domain. for example, data architecture [for some] and ecosystem architectures [for others] that include data flows and models.

Business Systems & Processes: 4.2:

Process Improvement

- Microsoft 365 is being progressively implemented which is leading to a streamlined approach to managing information.
- SharePoint Architecture provides a standardised approach to IM in O365, incorporating standard metadata.
- Stakeholder stories and pain points have been identified and are reflected
- Process improvement is done on an ad hoc basis and has not yet progressed to a systematic approach.
- As there is not data governance program, data quality issues tend to be addressed after the fact rather than targeting the source process of the data.
- [Some business areas] continue to operate largely in a paper-based environment. Some



> in the business case for the implementation of an enterprise IM program of work.

- Groups develop their own arrangements for aligning business processes with their data/information management requirements.
- The IM Strategy, currently undergoing implementation, seeks to incrementally enable data-driven process improvement as business systems are migrated onto the enterprise data platform under development.
- COVID forced the majority of the organisation to work digitally. Processes associated with working digitally are currently being addressed.
- Information management framework is being updated and formalised which includes guidelines for information and data management processes, sharing and releasing of information as well as records management. Data Strategy is being created which will inform data management processes.
- The roll out of O365 across organisation (SharePoint and Power Automate specifically) will provide tools that support the automating of processes; a program to assess current business processes and build them as automated processes will be required.
- Systems in place in eBriefings to avoid duplication of cabinet data. A number of projects underway to improve data/information quality and remove duplication, in particular that relate to critical systems (HR, Oracle, e-cabinet) across the Corporate Services Group.

of this is due to older/legacy systems supporting these functions, which would take major funding and resourcing to address. There is also some uncertainty in the business around the legality of replacing paper with electronic records.

- No enterprise approach to integrating information management processes into business processes has been undertaken.
- Documentation of business processes is ad hoc and is not consolidated.

Business Systems & Processes: 4.3:

Business Systems & **Tools**

- Evidence that this domain is being actively addressed was provided by noting that information management specialists supported the recent transition to the Microsoft 365 suite, including the intranet migration, and are increasingly involved in IT projects with significant information and data management implications.
- New systems during procurement stages are security assessed prior to the selection and security is integrated into the design of new systems during
- There has been some guidance included in ITS governance (Architecture & Technology forum) but engagement with IM by ITS usually only occurs when new system proposals are well progressed and in final stages of design. Sometimes this is too late to address issues properly. Information migration is considered from a storage perspective, but not from a records management perspective.
- Content Manger is the only system with capabilities that fulfil PROV requirements for compliance.



Questions Strengths

> implementation and penetration testing undertaken prior to 'Go live'.

- The IM strategy under implementation includes the planned delivery of an enterprise data platform, which will be used to enhance the information and data management capabilities of key business systems as they are migrated onto the platform. The implementation of other enterprise technology platforms are also enabling incremental uplift of information and data management capabilities of business systems.
- Managing records in a business system due for decommissioning guide developed.
- All new major scale solutions are put through a governance forum from design to solution. This pipeline ensures systems and tools meet the quality, cost, and speed needs of the department and to normalise governance across the solution continuum. It provides alignment to the organisation's architecture principles, guidelines, and IT operational landscape requirements. However, some critical information is overlooked in this process relating to PROV requirements and decommissioning. The organisation is aware of smaller outdated solutions and the use of contractor solutions to store information which fail at meeting our IM requirements.
- The organisation's Architecture Review Board ensures that new applications and systems are conforming to the organisation's records and information management standards.

- Challenges
 - IM is typically overlooked and reactive resulting in a silo approach to the management of records and data. There is minimal collaboration between IM and data management specialists due to existing barriers and a lack of understanding as to how both disciplines overlap.
 - Information management capabilities, including alignment to requirements of PROV, OVIC etc, are built into the organisation's enterprise content management system. Take up of the system is not uniform which impacts on the application of these requirements in practice.
- Subject matter experts disagreed as to the organisation's progress in this space, indicating the existence of significant gaps and ongoing backlog.
- Uncertainty about which tool to use when often results in multiple instances of duplication of content between systems.
- All new major scale solutions are put through a governance forum from design to solution. This pipeline ensures systems and tools meet the quality, cost, and speed needs of the organisation and to normalise governance across the solution continuum. It provides alignment to the organisation's architecture principles, guidelines, and IT operational landscape requirements. However, some critical information is overlooked in this process relating to PROV requirements and decommissioning. The organisation is aware of smaller outdated solutions and the use of contractor solutions to store information which fail at meeting our IM requirements.

Business Systems & Processes: 4.4:

Information Privacy & Security

The organisation employs privacy by design, aiming for privacy to be 'built in' to any activities or initiatives that may have privacy implications. Facilitated by staff doing Privacy Impact Assessments (PIA) as part of a project, for example the ICT Project Complexity Assessment tool – a key document required at the department's Project Initiative Assessment Group (PIAG), indicates whether a Threshold Privacy Assessment or PIA is required dependant on inputs received from the

- Information and cyber security is mostly implemented, according to the requirements of the ISMF and OVIC, and updated regularly. There is inconsistent use of protective markings across the organisation particularly core information systems.
- Only barrier to progressing further is a lack of funding support for the Cybersecurity strategy.
- Established processes are in place to manage privacy and information security incidents. Subject matter experts indicated that there were still significant gaps, particularly around



user as to whether the project is dealing with client or clinical information. The organisation's PIAs are designed to be consistent with OVIC requirements, and include formal, written assessments of privacy, information security and (as relevant) record-keeping obligations in relation to projects that involve the collection, use or disclosure of personal information. Completed PIAs identify privacy 'to do' items for project proponents to implement.

- Actively implementing requirements outlined in Victorian Protective Data Security Standards, Information Privacy Principles and Victorian Government Cyber Incident Management Plan. Organisational information privacy and security strategies are in place including an assurance program to manage privacy and security risks.
- Dedicated information security and privacy teams are in place that develop policy and provide guidance and support for the handling of information security and privacy issues in alignment with legislation and Victorian government requirements, including the Victorian Protective Data Security Standards, the Information Privacy Principles, and the Victorian Government Cyber Incident Management Plan.
- Business units that propose projects
 that involve the collection, use or
 disclosure of personally identifying
 information (or changes to existing
 projects that do these things) are
 required to draft a Privacy Threshold
 Assessment and/or a Privacy Impact
 Assessment describing the data flows
 for the project, and they are assisted to
 identify privacy and information
 security requirements for the project by
 legal, Information and Digital Solutions
 (IDS) information security and (as
 relevant) Records Management Unit
 and Procurement.
- There is a central process in place aligned with relevant WoVG schemes to report security/cyber, privacy breaches and incidents supported by internal policies. Protective security measures

- the handling of emails, although noted that the protective marking project will address this.
- Due to a recruitment freeze brought about by the state fires and the COVID-19 pandemic, for a period there was no dedicated Privacy Officer or a resource to deliver education programs to staff. As a result, there is a backlog and funds are being sought to put in place a cyber security program of work to reduce our risks associated with security threats and incidents
- Most Record Liaison Officers were unaware
 of the information security policy, the VPDSF
 and the Justice Security Manual, (JSM).
 However, a high percentage of personnel are
 aware of the information classifications and
 how to apply them, but not all were sure of
 when to apply these classifications.



Questions	Strengths	Challenges
	 are embedded in day-to-day processes to prevent breaches. The organisation has, in line with the Vic Gov Cyber Incident Mgmt. Plan, a Cyber Incident response plan and dedicated, resourced, and monitored information privacy and security program. The organisation is proactive and conducts regular compliance measurements and reporting using tools such as the Privacy Impact Assessment (PIA). The organisation also participates in the Victorian Government Digital Capability Baseline Surveys. A review of the Information Security Incident Management process has been completed and findings from that review will inform uplift to incident reporting and management. 	

 Table 7 Strengths and Challenges from IMMAP 2021-22 assessment submissions

Appendix C: Challenges identified in the 2021-22 IMMAP

Results from this round of IMMAP assessments reflect several major challenges for information and data management across Victorian government. They are:

- the impact of COVID-19, which required the ability to work remotely while ensuring that Victorian government services continued to operate smoothly, and that regulatory requirements were met; this included the increased take up of Microsoft 365 as part of a solution
- the specialisation of data management as a distinct area of practice that is separate to, but aligned with, information management, including the common alignment of data with IT and information with records management
- the increasing complexity of the information and data management environment, and by extension its policy environment, and the broader impact of this on solutions.

Each of these challenges are explored in more detail below.

Challenge 1: COVID and remote working

In March 2020, the COVID-19 pandemic irreversibly changed the information and data management space due to:

- many public sector employees working from home
- the requirement for health and other essential data to be securely exchanged between agencies and across jurisdictions quickly
- the requirement for Victorian government services to continue to operate and be accessible remotely.

There was no specific question on whether the COVID-19 pandemic impacted information and data management in the 2021-22 IMMAP. Some organisations did mention COVID-19 and its impact in the evidence provided, for example:

- 'Noting that our COVID-19 surge workforce were less aware of privacy and security risks and mitigations, and this
 needs to be improved'.
- 'Tailored advice/assistance is provided by the Information and Data Management (IDM) team, such as the COVID-19 response guide for information use'.
- 'COVID saw the rapid rollout of M365, and we are currently addressing this and other tools with regards to the management of electronic information'.
- 'Greater use of analytical data and information for COVID-19 Response, and the Head of Office initiated development of an Emergency Department Demand dashboard (initiated by the Head of Office)'.
- 'In managing the response to the COVID-19 pandemic in the 2020-21 year, the organisation has created more than 35 new data collections and developed more than 50 new applications by using consistent, repeatable methods and applying the principles of the Strategy'.
- 'The current reform program coupled with the new ways of working through the COVID period have impacted on information and data management in terms of accessibility, integrity, and over retentiveness.'
- 'COVID forced the majority of the organisation to work digitally. Processes associated with working digitally are
 currently being addressed. [Some business areas within the organisation] still continue to operate largely in a
 paper-based environment. Some of this is due to older/legacy systems supporting these functions, which would
 take major funding and resourcing to address. There is also some uncertainty in the business around the legality of
 replacing paper with electronic records.'
- 'Due to a recruitment freeze brought about by the state fires and the COVID-19 pandemic, for a period there was no dedicated Privacy Officer or a resource to deliver education programs to staff. As a result, there is a backlog and funds are being sought to put in place a cyber security program of work to reduce our risks associated with security threats and incidents.'

Organisations that were fully or mostly digital, already operated in a cloud environment, and who were used to managing multiple locations, tended to be able to quickly transition to employees working remotely. Those organisations that for various reasons had a more office-based technical, data and information management environment (for example, a paper-based recordkeeping environment) had a more challenging time.





Technical workarounds to enable remote working were a priority, with data and information management controls being implemented later. Microsoft 365 increasingly became the main suite of products used to manage information, with some organisations participating in a shared tenancy and others sitting outside of this tenancy. Other business systems and information stores that sat outside of the Microsoft 365 environment either had their own portals to enable remote use or continued to operate from specific office locations.

A staged implementation of controls was often required as personnel came to terms with how to appropriately manage information and data in their new environment. This included addressing the following questions:

- What requirements need to be met, and of these, which are not being met?
- What can be done with the current functionality?
- What can be achieved through adjusting configurations?
- What needs something else to ensure data / information is managed, and what would be the best solution?
- Can the needed solution be appropriately resourced and effectively implemented?

Challenge 2: Data Management and Information Management

Records management has always included the management of data. When records management was hardcopy based, classification schemes and indexing were used to identify, classify, and therefore manage data. These methods were introduced to the electronic records management space and transformed to meet the requirements and limitations of the new environment. Methods expanded to include metadata specifications and key words, amongst others.

Information management as a specific discipline came out of this transition, working alongside information technology to ensure business records are managed, and understood within an electronic environment. With the increased focus on data due to cyber security, privacy, and re-use, came the need to manage data more effectively. Data management is now its own discipline, alongside information management and information technology.

IMMAP is part of the *Information Management Framework* (IMF), which was first issued in 2016 and included Data Management as the second enabler. ¹⁹ The appendix of the IMF expanded Data Management to include data architecture and modelling, metadata management, data quality management, reference and master data management, and data standards. It includes the following on the use of information in the IMF (parenthesis added):

In this framework, 'information' means 'information and data' (and data ownership and governance is covered by the information governance enabler). Focusing on the practice of data management specifically highlights the importance of data as a tactical and strategic asset and as an enabler of insight and business transformation.²⁰

Revisions made to the IMF in 2021 included the expansion of Information to explicitly include data (i.e. from 'information' to 'information and data' – see Table 10, in **Appendix D**, below). This was after discussion within the IMG about correlations between the IMF and the *Data Management Body of Knowledge* and the need to ensure that differences in the way that data and information are implemented and managed were covered by IMF.

Data management is the development, execution, and supervision of plans, policies, programs, and practices that deliver, control, protect, and enhance the value of data and information assets throughout their lifecycles.²¹

The *Data Management Body of Knowledge* (DMBOK2) ²² also discusses information and data as both being referred to using the one term (parenthesis added):

Within an organisation, it may be helpful to draw a line between information and data for purposes of clear communication about the requirements and expectations of different uses by different stakeholders. Recognizing data and information need to be prepared for different purposes drives home a central tenet of data management: Both data and information need to be





¹⁹ Department of Premier and Cabinet, 2016 (revised 2021), *Information Management Framework for the Victorian Public Service (IMF)*

²¹ DAMA, 2nd edition, DAMA - DMBOK: Data management body of knowledge (DMBOK2), Technics Publications, New Jersey, p17

²² DMBK2

managed. Both will be of higher quality if they are managed together with uses and customer requirements in mind. Throughout the DMBOK, the terms will be used interchangeably.²³

Recently, information management and data management have begun to be considered different roles and areas of expertise. This has resulted in data management programs being implemented alongside information management ones in larger organisations. In some organisations, information and data management sit in different teams. Both information and data are managed using lifecycle management, but the focus and details of lifecycle management differ across the two disciplines.

Information Management Lifecycle	Data Management Lifecycle		
'Lifecycle management is about developing a better	'It includes processes that create or obtain data, those		
understanding of how information is created, managed,	that move, transform and store it and enable it to be		
and used. It looks at ways to reduce inefficiencies and	maintained and shared, and those that use or apply it, as		
prioritise usefulness over time. ²⁴	well as those that dispose of it. ²⁵		

Table 8: Information and Data Management Lifecycles

IMMAP results were affected this round by how organisations managed their data. Organisations that had data management programs fared better than those with an information management program, but no specific data management one (or a data management program in its infancy). As the IM3 tool is based on the IMF, its use of 'information' is in accordance with the IMF's definition and therefore includes data. Participants have been submitting IMMAP responses through use of the IM3 tool since IMMAP began, and therefore should have been addressing data as well as information in their responses. It should also be noted that both data and information are records under the *Public Records Act 1973* (see the definition of 'record' in s2). For example, when transferring permanent records to PROV, the context of the records is often found in the associated metadata which becomes part of the record to be transferred.

The difference in the results this round were surprising, and some IMMAP responses specifically mentioned challenges regarding managing data in their organisations. For example:

- 'Information and data management is performed by multiple disparate teams across the organisation.'
- 'Some short-term contractors are hired for some IT projects, but they work in isolation for the specific projects without the overall organisational data perspective.'
- 'IM/RM specialists have been recruited and are consulted for many projects, but there is no data management function within the organisation, and this was deprioritised by Executive under the IM Strategy so data management issues are being addressed on a 'best efforts' basis by IM and some ITS staff.'
- 'Resource and skills gaps have been identified across some areas. Program of work to address gaps in information, but data management is still a gap.'
- 'There is currently no departmental data management governance framework. Business areas with large volumes of data have created their own local frameworks (FES, CAV), which focus more on uses. This has left a gap in relation to life-cycle management and data retention.'
- 'The organisation developed a data strategy in 2018 but it wasn't implemented due to lack of funding. The organisation will commence a refresh of the unfunded data strategy in the second half of 2022-23'.
- 'Some programs of work under the IMS have progressed well. One program of work has not commenced due to lack of support for resourcing data management.'
- 'No program or processes to address information and data quality issues.'
- 'Some work has been done to improve data availability and ensuring data is fit for purpose/meeting business needs, but this is not done in a coordinated way.'
- 'Whilst data sharing and MOUs exist in some areas, they are not managed from a corporate perspective and often
 don't include life cycle and retention management requirements. This results in the same data being collected and
 stored by separate business units in various systems and platforms.'
- 'Organisation does not currently have an information and/or data architecture model mapped.'
- 'As there is not data governance program, data quality issues tend to be addressed after the fact rather than targeting the source process of the data.'

²³ DMBK2 p20

²⁴ IMF p11

²⁵ DMBOK2 p28

• 'IM is typically overlooked and reactive resulting in a silo approach to the management of records and data. There is minimal collaboration between IM and data management specialists due to existing barriers and a lack of understanding as to how both disciplines overlap.'

Challenge 3: Increasingly complex policy space

Comparative analysis of IMMAP results since its commencement reveal that, although organisations are doing a lot of work in this space, it is not being recognised as clear progression in the ratings. It is only this round that any dimension's average has moved up from 2 Aware (Organisation has only just moved into 3 Formative). Looking at the ratings and evidence provided for every round, those managing information and data have been very busy. So why is it taking so long to move beyond 2 Aware? A possible reason for the slow move beyond the maturity level of Aware is the increasing complexity of the environment that information and data are being managed within.

Actions within a Victorian government context occur in line with strategy and policy. Strategy describes an agreed vision or direction for an organisation, while policy sets out the agreed position and guiding principles to do something. Therefore, policy influences what actions are done, when, and how they are done. Information and data management occurs within an environment that is governed by policy.

The Institute for Public Administration in Australia (IPAA) defines policy as being

'a purposive course of action (or inaction) designed to have a positive impact in the community.'26

The table of factors leading to the decrease in IMMAP scores (Table 5 in section 3.4, above) does not mention the policy environment specifically. That is because the table came directly from the comments provided within the IMMAP submissions, which are in relation to the implementation of information and data management within a specific organisational context.²⁷

This report and its analysis are conducted by PROV, a records management and archival authority. It is the business of PROV to think broadly about records and how they are managed, including information and data (as they fit within the definition of records under the *Public Records Act 1973*). This broader context is a public policy space that focuses on a big picture perspective rather than individual instances of implementation.

The suggestion that an increasingly complex policy environment for information and data management is an underlying challenge for Victorian government organisations comes from broader analysis applied through PROV's policy lens.

The IPPAA policy professional capability standard expands on their definition of policy as follows:

'Policy is an activity of government which is a process of decision making and realisation of government intent.²⁸'

The Cynefin framework was developed by Snowden and Boone to enable decision makers to tailor their approach so that it fits the complexity of circumstances faced. ²⁹ It is used by IPAA as a tool that can be used to help analyse and design public policy. ³⁰ The Cynefin framework divides complexity into:

- Simple contexts: the domain of best practice
- Complicated contexts: the domain of experts
- Complex contexts: the domain of emergence
- Chaotic contexts: the domain of rapid response.

As complexity was a factor that was emerging during analysis of IMMAP 2021-22 results, the Cynefin framework provided a useful tool to approach a broader analysis.





²⁶ IPAA Policy Professional Capability Standard, 2014, p2, https://www.ipaa.org.au/resources/publications/

²⁷ Section 2.2.1 Participant Complexity of this report (above) outlines the varying complexities that participants operate within.

²⁸ IPPA Policy Professional Capability Standard, 2014, p2

²⁹ David J Snowden & Mary E Boone *A Leader's Framework for Decision Making*, Harvard Business Review November 2007 pp 1-9

³⁰ IPAA and The Nous Group, Gain the Policy Edge 2017

Table 9 (below) uses the Cynefin framework to outline the policy environment for information and data management in terms of complexity. Looking at how records (and by expansion information and data) have been managed over time, a progression from the simple context of managing paper records through to more complicated and complex contexts can be seen.

Environment	Information and Data Management				
Paper	Risks and mitigation are well known and readily available.				
	Policies are simple and reflect a solution that requires:				
	1- identifying the risk				
	2- applying the correct best practice solution.				
	Solutions are specific with a clear set of tasks and outcomes that almost everyone can apply				
	consistently.				
Electronic records	Risks are not always known, and some analysis is required to determine effective mitigation				
solutions	strategies. Policies are complicated and involve:				
	1- assessing what the risks might be and whether there is an effective mitigation strategy				
	2- determining what controls can be put in place, what needs to be managed through				
	other means and what those other means are				
	3- understanding and addressing the challenges and limitations of the system involved,				
	including whether its functionality enables effective management of information				
	(including data) and what kind of configuration would be required.				
	Solutions are flexible, can be tailored to the specific environment and require expertise of				
	both the technological environment and information (including data) management				
	requirements.				
Multi-system /	Risks are often unknown and require extensive analysis to determine effective mitigation				
SAAS solutions	strategies. Policies are complex and involve:				
	1- multiple disciplines, including records management, information management,				
	information technology, and data management				
	2- different areas across the organisation working together on implementing				
	information and data management strategies				
	3- reaching business areas that may sit outside of information and data and yet require				
	active management of information and data, including data security, privacy, and				
	information technology, contracting and procurement, public access personnel, and				
	risk management				
	4- multiple systems and software with different kinds of functionality. Some will be				
	evergreen and therefore in a constant state of flux				
	5- maintaining information formats that could be made up of structured or				
	unstructured data				
	6- an increasing amount of information and data needing to be managed in a way that				
	enables the right information and data to be located, read, and used at the right time				
	7- multiple advisory bodies and associated legislative and regulatory requirements to				
	comply with that cover aspects of the same space.				
	Solutions are adaptable and flexible to address the specific contexts involved. They need to				
	first consider what the 'record' might be as different kinds of information require different				
	management solutions.				

 $\textbf{Table 9} \ \textit{Outline of the information and data management policy environment} \\ ^{31}$

³¹ Based on the theory in David J Snowden & Mary E Boone A Leader's Framework for Decision Making, Harvard Business Review November 2007 pp 1-9





At the height of the COVID-19 pandemic, information management was operating in a space that fluctuated between the complex and the chaotic.³² Initially, solutions came from finding a way to work remotely, with managing information appropriately often an ad-hoc afterthought. Controls that existed in an office environment were not always able to be applied in a home environment, and a work around solution had to be found.

As things stabilised, information and data management practices normalised. Where needed, additional controls were imposed to ensure information was managed in accordance with business, legislative and regulatory need. This included an increase in software-as-a-service (SAAS) solutions, such as Microsoft 365. Such solutions enabled services to be continued, information to be created, shared, and managed in an accessible form, and came with extensive controls that could be applied remotely.

Organisational submissions described throughout this report (and in previous reports) contain various factors that point to the current environment being a complex policy environment for information and data management. For example:

- Every round of IMMAP discusses machinery of government change that occurred since the last round. This requires information and data, along with the systems that hold and manage them, to be moved from one organisation to another, who then must ensure that it fits within their organisation's resources, strategic plans, and business practices.
- Organisations are at different stages of moving away from a paper-based environment towards a digital one, which requires resources, strategic plans, and business practices to be adjusted.
- Organisations have multiple business systems to navigate, with differing functionality and limitations.
- COVID-19 occurred, which meant that business practices had to change very quickly to support remote working / disparate workspaces with information and data management needing to be done either quickly, at the same time, or afterwards. Resources had to prioritise this work ahead of any other plans.
- Microsoft 365 implementations became a central hub for many organisations, which is a green fields environment
 and a third-party space that manages information and data differently to common Australian practices, with
 different methods and terms to learn and to align with existing good practice and business systems.

What this means is that managing information (including data) now requires multiple bodies of knowledge and expertise and increased flexibility. The same level of management is unlikely to be applied across all information due to the level of resourcing required. Decisions on what is to be managed and to what degree need to be made. Identification and prioritisation of risk, ways for risk to be mitigated, and ways to address emerging risk constantly need to be reassessed and negotiated. With more government services being done through third party or contracted services, information and data management needs must be factored in from the planning and procurement phases.

Making headway in a complex policy environment requires resources, collaboration, and flexibility.

The changing face of records and information management has seen the revision of PROV's recordkeeping standards to incorporate high level principles that are flexible and adaptable to different situations. Requirements are primarily technical and specified where there is need rather than being aspirational. Policies have also been introduced to help with the implementation of PROV's standards in a complex public policy environment. For example, the *Value and Risk Policy*³³ provides PROV's position on taking a value and risk-based approach to resourcing and implementing records management programs and initiatives.

³³ PROV *Value and Risk Policy* 2022: https://prov.vic.gov.au/recordkeeping-government/document-library/value-risk-policy





³² For a discussion on the application of complexity science to a public administration context, see David J Snowden & Mary E Boone *A Leader's Framework for Decision Making*, Harvard Business Review November 2007 pp 1-9

Appendix D: Revisions to the IMF

Prior to the 2021-22 IMMAP assessment, the IMG revised the *Information Management Framework* and associated *Information Management Policy*. These revisions included the expansion of 'Information' to 'Information and Data' throughout, revision and adjustment of the diagram illustrating the IMF (see Figure 3, below), and revision and expansion of the policy statements from five to seven (see Table 10, below). The revised framework structure and policy statements were approved by the Chief Information Officer Leadership Group (CIOLG) towards the end of 2021. Structural and other changes occurring at the time meant that the revised versions have yet to be uploaded to the main *Information Management Framework* web page.

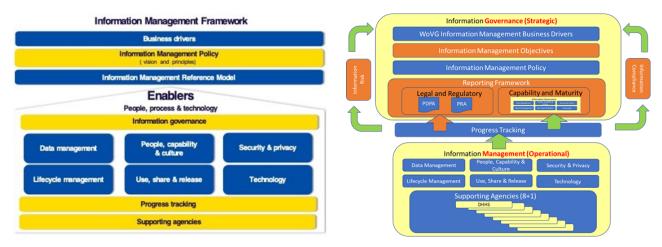


Figure 3 2016 Information Management Framework (left) and CIOLG Approved 2021 revised framework (right)

2016 Information Management Policy Statements	2021 Revised IM Policy Statements
Principle 1 : Information ³⁴ is valued and governed as an	Principle 1: Information and data are valued, classified,
asset.	managed, and governed as assets.
Principle 2 : Information is created and managed digitally.	Principle 2: Information and data are created and
	managed digitally.
Principle 3: Information is fit for its intended purposes	Principle 3: Information and data are fit for purpose,
and is easy to find, access and use.	easy to use, access and discover.
Principle 4: Information is shared and released to the	Principle 4: Information and data are collected once and
maximum extent possible.	released and shared securely to the maximum extent
	possible.
Principle 5: Information management capability is	Principle 5: Information and data management capability
fostered and embedded into how the government does	and literacy is fostered and embedded into how the
its work.	government does its work.
	Principle 6: Information and data are effectively and
	securely managed across their lifecycle.
	Principle 7: Maintain social license and citizen public
	trust, managing information and data according to
	community expectations.

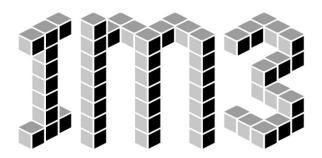
 Table 10 Information Management Policy Statement comparison 2016 - 2021

 $^{^{34} \}textit{Information Management Policy} \textit{ version 2016-Note:} \textit{ For the purpose of this policy, 'information' refers to both 'information' and 'data''}$





Appendix E: IM3 Questions



Information Management **Maturity Measurement**

Questionnaire

Version 1.8, March 2022

Copyright Statement

© State of Victoria 2022



Except for any logos, emblems, and trademarks, this work is licensed under a Creative Commons Attribution 4.0 International license, to the extent that it is protected by copyright. Authorship of this work must be attributed to the Public Record Office Victoria. To view a copy of this license, visit https://creativecommons.org/licenses/by/4.0/legalcode

Disclaimer

The State of Victoria gives no warranty that the information in this version is correct or complete, error free or contains no omissions. The State of Victoria shall not be liable for any loss howsoever caused whether due to negligence or otherwise arising from the use of this Questionnaire.



How to use this Questionnaire

The following is recommended when undertaking an IM3 assessment using this questionnaire

- Circulate this questionnaire to representatives across your organisation. Different parts of an
 organisation may have different levels of information management maturity and different issues to
 contend with.
- Ensure that recordkeeping, information management and data management perspectives are
 included. This may be achieved by having a panel of people from each discipline discussing what score
 should be applied and why.
- Use the Percentage box in the scoring table for each question to flag any differences in maturity across the organisation. For example, 50% of the agency is Aware, 10% Unmanaged and 40% Formative.
- Use the **Progress** score box in the scoring table for each question to flag how progressed the agency is in that maturity level. For example, for Aware the agency may be 2-Well Progressed, Unmanaged may be 3 at the top and Formative may be 1 early stages.
- Use the combination to determine an overall maturity level rating. For example, from looking at the
 combined percentages and progress scores outlined above, the scores are clustered around the
 maturity level of Aware. While some of the organisation is Unmanaged, it is only 10% and they are at
 the top of that maturity level. While some of the organisation is Formative, even though this is 40% of
 the organisation, they are in the early stages of that maturity level. This would most likely result in an
 overall score of Aware.

Following the scoring table and overall rating box are two other spaces to record additional information for each question.

- The first is a space to record the evidence used to support the maturity level rating assigned.
- The second is a space to record what is required for your organisation to move to the next level.

The responses provided for each question can be used to flag what has been achieved so far and to plan next steps that build on those achievements.

Dimension 1: People

The questions in this section ask you to think about the extent to which the knowledge, skills, experience, and attitude of staff in the organisation contribute to good information and data management.

Question 1.1: Literacy & Responsibility

Are staff in your organisation aware of their information and data management responsibilities? What is the capacity for staff in your organisation to exploit information and data? Do staff in your organisation value information and data as assets?

EXAMPLE OUTCOMES / EVIDENCE MAY INCLUDE:

A custodianship model has been deployed that identifies the responsibilities of staff in relation to the organisation's information and data assets. Staff are aware of the importance of information and data management to the organisation and of their responsibilities in relation to it. Staff information and data management responsibilities are defined in documentation such as policies and job descriptions. Staff act in accordance with the Victorian Public Sector Code of Conduct requirements for information and data. Staff manage information and data in line with organisational requirements. Staff are encouraged to exploit information and data to the fullest. They actively engage in new information and data management initiatives and seek better understanding of the organisation's information and data assets. Staff receive training to improve their information and data literacy and to manage information and data in line with their role within the organisation.

Maturity Level	Maturity Statement	%	1 - early stages2 - well progressed3 - nearing the top
Unmanaged	The organisation is either unaware or has taken no steps to address information and data literacy and responsibility		
Aware	The organisation has an awareness of information and data literacy and responsibility, but that there is little practical evidence of action.		
Formative	The organisation is actively addressing information and data literacy and responsibility. There will be evidence of a planned approach, even if it is not fully implemented in some areas.		
Operational	The organisation has completed implementation of planned initiatives regarding information and data literacy and responsibility, and the initiatives are operating to a reasonable standard.		
Proactive	The organisation has a dedicated commitment to achieving information and data literacy and responsibility through innovation and/or learning based on ongoing monitoring and review.		
Unknown			
Not Applicable			

Overall Maturity Level Rating (unmanaged, aware, formative, operational, proactive &c)
Evidence to support selected rating
What is needed to reach the next maturity level rating?

Question 1.2: Capability & Capacity

Is the organisation's information and data capability and capacity sufficient to support and develop good information and data management?

EXAMPLE OUTCOMES / EVIDENCE MAY INCLUDE:

Strategies and/or programs of work have been implemented to address any gaps in information and data management skills, capability, and capacity.

The organisation gives priority to recruiting specialists to help develop the organisation's information and data management capability. The human resource requirements for information and data management are regularly assessed in terms of capacity, skills, and knowledge.

Information and data management specialists are respected professionals who are consulted in the development and implementation of business initiatives. Information and data management specialists have been appointed into dedicated roles.

There are enough staff employed in information and data management roles in the organisation. Information and data management projects and initiatives are adequately resourced and funded within the organisation.

Maturity Level	Maturity Statement	%	1 - early stages2 - well progressed3 - nearing the top
Unmanaged	The organisation is either unaware or has taken no steps to address information and data management capability and capacity.		
Aware	The organisation has an awareness of information and data management capability and capacity, but that there is little practical evidence of action.		
Formative	The organisation is actively addressing information and data management capability and capacity. There will be evidence of a planned approach, even if it is not fully implemented in some areas.		
Operational	The organisation has completed implementation of planned initiatives regarding information and data management capability and capacity, and the initiatives are operating to a reasonable standard		
Proactive	The organisation has a dedicated commitment to achieving information and data management capability and capacity through innovation and/or learning based on ongoing monitoring and review		
Unknown			
Not Applicable			

Overall Maturity Level Rating (unmanaged, aware, formative, operational, proactive &c)
Evidence to support selected rating
What is needed to reach the next maturity level rating?

Question 1.3: Training, Support & Knowledge Sharing

What training, support or knowledge sharing is available to staff in your organisation to assist them in meeting their information and data management responsibilities?

EXAMPLE OUTCOMES / EVIDENCE MAY INCLUDE:

The organisation has established initiatives to help build a positive information and data management culture and educate staff on their information and data management responsibilities.

Staff have access to a range of internal or external information, data, and records management courses and/or knowledge sharing tools relevant to their job role. Training is regularly reviewed and updated to suit needs. Formal training has been established and is regularly maintained to build practical skills and knowledge. Staff are in place to deliver and maintain quality training.

Documentation/tools such as contact information, manuals and reference guides are available to staff.

Maturity Level	Maturity Statement	%	1 - early stages2 - well progressed3 - nearing the top
Unmanaged	The organisation is either unaware or has taken no steps to address information, data and records management training, support, and knowledge sharing		
Aware	The organisation has an awareness of information, data and records management training, support, and knowledge sharing, but that there is little practical evidence of action.		
Formative	The organisation is actively addressing information, data and records management training, support, and knowledge sharing. There will be evidence of a planned approach, even if it is not fully implemented in some areas.		
Operational	The organisation has completed implementation of planned initiatives regarding information, data and records management training, support and knowledge sharing, and the initiatives are operating to a reasonable standard.		
Proactive	The organisation has a dedicated commitment to achieving information, data and records management training, support and knowledge sharing through innovation and/or learning based on ongoing monitoring and review.		
Unknown			
Not Applicable			

Overall Maturity Level Rating (unmanaged, aware, formative, operational, proactive &c)
Evidence to support selected rating
What is needed to reach the next maturity level rating?

2. Organisation

The questions in this section ask you about the organisational context in which Information Management operates and the support IM receives from management.

Question 2.1: Governance

To what degree is information and data management formally governed in your organisation?

EXAMPLE OUTCOMES / EVIDENCE MAY INCLUDE:

An internal Information and Data Management Governance Committee (IDMGC), or similar has been established to lead, monitor, and report on information and data management activities. The IDMGC ensures coordination, visibility and appropriate sponsorship of information and data management activities within the organisation. The IDMGC is chaired by an executive-level officer, reports to the department head (or a peak executive body chaired by the department head) and has representation from key business areas of the organisation.

The organisation head supports and values the work of the IDMGC

Maturity Level	Maturity Statement	%	1 - early stages 2 - well progressed 3 - nearing the top
Unmanaged	The organisation is either unaware or has taken no steps to address information and data management governance.		
Aware	The organisation has an awareness of information and data management governance, but that there is little practical evidence of action.		
Formative	The organisation is actively addressing information and data management governance. There will be evidence of a planned approach, even if it is not fully implemented in some areas.		
Operational	The organisation has completed implementation of planned initiatives regarding information and data management governance, and the initiatives are operating to a reasonable standard		
Proactive	The organisation has a dedicated commitment to achieving information and data management governance through innovation and/or learning based on ongoing monitoring and review.		
Unknown			
Not Applicable			

Overall Maturity Level Rating (unmanaged, aware, formative, operational, proactive &c)
Evidence to support selected rating
What is needed to reach the next maturity level rating?

Does the organisation have a strategy that provides a roadmap for information and data management? Has the organisation formulated and articulated its vision for information and data management?

EXAMPLE OUTCOMES / EVIDENCE MAY INCLUDE:

An information and data management strategy (or strategies) has been developed, implemented, and endorsed to outline the organisation's vision for the systematic approach to the management of information and data. The Strategy adequately highlights organisation-wide information and data management issues, major risks, desired results, and the resource implications.

Strategy development was achieved through collaboration between information and data management and business representatives to align to the organisation's vision, strategic objectives, and business drivers.

The information and data management strategy is assessed for improvement on an annual basis.

The initiatives of the information and data management strategy are resourced and funded.

Other strategic documents are in place in the organisation, which adequately cover information and data management needs and initiatives.

Maturity Level	Maturity Statement	%	1 - early stages 2 - well progressed 3 - nearing the top
Unmanaged	The organisation is either unaware or has taken no steps to address information and data management vision and strategy.		
Aware	The organisation has an awareness of information and data management vision and strategy, but that there is little practical evidence of action.		
Formative	The organisation is actively addressing information and data management vision and strategy. There will be evidence of a planned approach, even if it is not fully implemented in some areas		
Operational	The organisation has completed implementation of planned initiatives regarding information and data management vision and strategy, and the initiatives are operating to a reasonable standard.		
Proactive	The organisation has a dedicated commitment to achieving information and data management vision and strategy through innovation and/or learning based on ongoing monitoring and review		
Unknown			
Not Applicable			

Overall Maturity Level Rating (unmanaged, aware, formative, operational, proactive &c)
Evidence to support colected voting
Evidence to support selected rating
What is needed to reach the next maturity level rating?

To what degree is the Information and Data Management Strategy aligned with and incorporated into other strategic planning in your organisation?

EXAMPLE OUTCOMES / EVIDENCE MAY INCLUDE:

Information and data management obligations are identified and acknowledged in other key organisation policies.

The information and data management strategy is aligned with and/or integrated with other strategic planning in the organisation (e.g., risk, privacy, FOI, ICT, procurement, or environmental management strategies).

Information and data management capabilities are built into the business through strategy, policy, and projects.

New organisation projects and initiatives identify information and data management implications, dependencies, and synergies.

Maturity Level	Maturity Statement	%	1 - early stages 2 - well progressed 3 - nearing the top
Unmanaged	The organisation is either unaware or has taken no steps to address information and data management strategic alignment.		
Aware	The organisation has an awareness of information and data management strategic alignment, but that there is little practical evidence of action.		
Formative	The organisation is actively addressing information and data management strategic alignment. There will be evidence of a planned approach, even if it is not fully implemented in some areas		
Operational	The organisation has completed implementation of planned initiatives regarding information and data management strategic alignment, and the initiatives are operating to a reasonable standard.		
Proactive	The organisation has a dedicated commitment to achieving information and data management strategic alignment through innovation and/or learning based on ongoing monitoring and review.		
Unknown			
Not Applicable			

Overall Maturity Level Rating (unmanaged, aware, formative, operational, proactive &c)
Evidence to support selected rating
Evidence to support science ruting
What is needed to reach the next maturity level rating?

Question 2.4 Management Support & Leadership

Does management support information and data management in your organisation? Is there executive-level representation for information and data management initiatives?

EXAMPLE OUTCOMES / EVIDENCE MAY INCLUDE:

The organisation has appointed an executive level Chief Information Officer and/or Chief Data Officer (or equivalent).

Information and data management interests and issues are represented at executive level and are given appropriate consideration.

Information and data management policies and practices are actively supported by Senior Management and Middle Management.

Leadership understands information and data management issues and practices and seek additional specialist information and data when needed.

Maturity Level	Maturity Statement	%	1 - early stages2 - well progressed3 - nearing the top
Unmanaged	The organisation is either unaware or has taken no steps to address information and data management support and leadership.		
Aware	The organisation has an awareness of information and data management support and leadership, but that there is little practical evidence of action.		
Formative	The organisation is actively addressing information and data management support and leadership. There will be evidence of a planned approach, even if it is not fully implemented in some areas		
Operational	The organisation has completed implementation of planned initiatives regarding information and data management support and leadership, and the initiatives are operating to a reasonable standard.		
Proactive	The organisation has a dedicated commitment to achieving information and data management support and leadership through innovation and/or learning based on ongoing monitoring and review.		
Unknown			
Not Applicable			

Overall Maturity Level Rating (unmanaged, aware, formative, operational, proactive &c)
Evidence to support selected rating
What is needed to reach the next maturity level rating?

Question 2.5 Audit & Compliance

How well does your organisation monitor compliance with your own information and data management standards and with Victorian Government-mandated legislation and requirements?

EXAMPLE OUTCOMES / EVIDENCE MAY INCLUDE:

The organisation has an internal audit process/program in place to work towards achieving compliance against information and data management relevant legislation, policies, and standards (such as those issued by Public Record Office Victoria and Office of the Victorian Information Commissioner). Information and data management compliance requirements are known, communicated, and applied within the organisation.

Corrective actions have been implemented to address causes of non-compliance. Opportunities to improve information and data management compliance are explored and implemented.

Maturity Level	Maturity Statement	%	1 - early stages 2 - well progressed 3 - nearing the top
Unmanaged	The organisation is either unaware or has taken no steps to address information and data management auditing and compliance.		
Aware	The organisation has an awareness of information and data management auditing and compliance, but that there is little practical evidence of action.		
Formative	The organisation is actively addressing information and data management auditing and compliance. There will be evidence of a planned approach, even if it is not fully implemented in some areas.		
Operational	The organisation has completed implementation of planned initiatives regarding information and data management auditing and compliance, and the initiatives are operating to a reasonable standard.		
Proactive	The organisation has a dedicated commitment to achieving information and data management auditing and compliance through innovation and/or learning based on ongoing monitoring and review		
Unknown			
Not Applicable			

Overall Maturity Level Rating (unmanaged, aware, formative, operational, proactive &c)
Evidence to support selected rating
What is needed to reach the next maturity level rating?

3. Information Lifecycle & Quality

The questions in this section ask you about the management of specific information assets in your organisation, with a view to long-term access to quality information.

Question 3.1: Asset Management

How well does the organisation identify, manage, and monitor their significant information and data assets? Have information and data management roles and responsibilities been defined in the organisation to properly manage information and data assets?

EXAMPLE OUTCOMES / EVIDENCE MAY INCLUDE:

The organisation's significant information and data assets (i.e., discrete collections of data or information that is recognised as valuable) and critical information and data assets (i.e., subsets of significant information assets that are considered high value/high risk or vital) have been identified. An Information Asset Register (IAR) has been established and maintained to document at minimum, the organisation's significant information and data assets. A custodianship model is in place so that assets have an assigned owner and custodian (or equivalent). The custodianship model supports work with information and data users to actively maintain assets and improve the accessibility, usability and sharing of information and data as required. Users can assess if assets are fit for their intended purpose.

Maturity Level	Maturity Statement	%	1 - early stages2 - well progressed3 - nearing the top
Unmanaged	The organisation is either unaware or has taken no steps to address information and data asset management		
Aware	The organisation has an awareness of information and data asset management, but that there is little practical evidence of action		
Formative	The organisation is actively addressing information and data asset management. There will be evidence of a planned approach, even if it is not fully implemented in some areas.		
Operational	The organisation has completed implementation of planned initiatives regarding information and data asset management, and the initiatives are operating to a reasonable standard.		
Proactive	The organisation has a dedicated commitment to achieving information and data asset management through innovation and/or learning based on ongoing monitoring and review		
Unknown			
Not Applicable			

Overall Maturity Level Rating (unmanaged, aware, formative, operational, proactive &c)
Evidence to support selected rating
Evidence to support science ruting
What is needed to reach the next maturity level rating?

Does the organisation have fully developed and implemented information and data management policies that align to relevant legislation and standards? Are these policies supported by documented procedures?

EXAMPLE OUTCOMES / EVIDENCE MAY INCLUDE:

The organisation has established information and data management policies that align to relevant legislation and standards (such as those issued by Public Record Office Victoria and Office of the Victorian Information Commissioner).

The policies have been approved and endorsed by the Secretary or an executive level board/officer. The policies are actively communicated and available to all staff.

Information and data management procedures have been established and implemented within the organisation.

Policy and procedures are appropriate to the organisation's business and are reviewed for improvement as required. Breaches of policy are actively addressed and rectified.

Maturity Level	Maturity Statement	%	1 - early stages2 - well progressed3 - nearing the top
Unmanaged	The organisation is either unaware or has taken no steps to address information and data management policies and procedures.		
Aware	The organisation has an awareness of information and data management policies and procedures, but that there is little practical evidence of action.		
Formative	The organisation is actively addressing information and data management policies and procedures. There will be evidence of a planned approach, even if it is not fully implemented in some areas.		
Operational	The organisation has completed implementation of planned initiatives in regard to information and data management policies and procedures, and the initiatives are operating to a reasonable standard.		
Proactive	The organisation has a dedicated commitment to achieving information and data management policies and procedures through innovation and/or learning based on ongoing monitoring and review.		
Unknown			
Not Applicable			

Overall Maturity Level Rating (unmanaged, aware, formative, operational, proactive &c)
Evidence to support selected rating
What is needed to reach the next maturity level rating?

Question 3.3: Meeting Business and User Needs

Are information and data meeting the needs of the business and its users in terms of strategic importance, quality, and availability?

EXAMPLE OUTCOMES / EVIDENCE MAY INCLUDE:

The organisation has established processes and/or a program to address information and data quality issues (ensuring information and data is accurate, consistent, complete, and current).

An analysis of information and data assets has been conducted to determine if information and data is meeting business needs, accountability requirements and community expectations.

Data quality statements have been developed for at least the significant (including critical) information and data assets.

Remediation processes are in place to address information and data quality and/or availability issues.

Overall, information and data are fit for purpose and/or can be tailored to meet business needs.

Maturity Level	Maturity Statement	%	1 - early stages2 - well progressed3 - nearing the top
Unmanaged	The organisation is either unaware or has taken no steps to address information and data business and user needs.		
Aware	The organisation has an awareness of information and data business and user needs, but that there is little practical evidence of action.		
Formative	The organisation is actively addressing information and data business and user needs. There will be evidence of a planned approach, even if it is not fully implemented in some areas.		
Operational	The organisation has completed implementation of planned initiatives regarding information and data business and user needs, and the initiatives are operating to a reasonable standard.		
Proactive	The organisation has a dedicated commitment to achieving information and data business and user needs through innovation and/or learning based on ongoing monitoring and review.		
Unknown			
Not Applicable			

Overall Maturity Level Rating (unmanaged, aware, formative, operational, proactive &c)				
Evidence to support selected rating				
What is needed to reach the next maturity level rating?				

Question 3.4: Accessibility & Discoverability

How easy is it for organisation staff and other parties to find the information or data they are looking for? Is critical information and data able to be found in a timely manner when it is needed?

EXAMPLE OUTCOMES / EVIDENCE MAY INCLUDE:

An organisation-specific information and data repository and/or search applications have been developed and are used by staff.

Information and data are collected and stored with access and discoverability in mind.

Definitions and standards are used to increase the findability of information and data.

Sufficient metadata is provided to correctly identify and locate information.

Access to controlled information and data sources have been defined and implemented.

Procedures have been implemented for information and data capture, the application of metadata, information and data access, storage, and retrieval

Maturity Level	Maturity Statement	%	1 - early stages2 - well progressed3 - nearing the top
Unmanaged	The organisation is either unaware or has taken no steps to address information and data accessibility and discoverability.		
Aware	The organisation has an awareness of information and data accessibility and discoverability, but that there is little practical evidence of action.		
Formative	The organisation is actively addressing information and data accessibility and discoverability. There will be evidence of a planned approach, even if it is not fully implemented in some areas.		
Operational	The organisation has completed implementation of planned initiatives regarding information and data accessibility and discoverability, and the initiatives are operating to a reasonable standard.		
Proactive	The organisation has a dedicated commitment to achieving information and data accessibility and discoverability through innovation and/or learning based on ongoing monitoring and review.		
Unknown			
Not Applicable			

Overall Maturity Level Rating (unmanaged, aware, formative, operational, proactive &c)
Evidence to support selected rating
Evidence to support science ruting
What is needed to reach the next maturity level rating?

Question 3.5: Information Use & Re-Use

How usable is the information and data being produced by the organisation, both now and in the future?

EXAMPLE OUTCOMES / EVIDENCE MAY INCLUDE:

Organisation standards/procedures have been introduced to facilitate consistent information and data collection, description, and organisation, and to prevent duplication.

Digital continuity strategies are in place. Information and data assets are shared and re-used across the organisation and with external stakeholders as appropriate.

The organisation applies appropriate licences and quality statements when sharing information and data. Where appropriate, information and data are released to the public.

Custodians work with information and data users to support the usability of information and data.

The organisation can leverage their information and data for business intelligence and analytics.

Data exchanges occur using standard interfaces and formats

Maturity Level	Maturity Statement	%	1 - early stages 2 - well progressed 3 - nearing the top
Unmanaged	The organisation is either unaware or has taken no steps to address information and data use and re-use		
Aware	The organisation has an awareness of information and data use and re-use, but that there is little practical evidence of action		
Formative	The organisation is actively addressing information and data use and re-use. There will be evidence of a planned approach, even if it is not fully implemented in some areas.		
Operational	The organisation has completed implementation of planned initiatives regarding information and data use and re-use, and the initiatives are operating to a reasonable standard.		
Proactive	The organisation has a dedicated commitment to achieving information and data use and re-use through innovation and/or learning based on ongoing monitoring and review.		
Unknown			
Not Applicable			

Overall Maturity Level Rating (unmanaged, aware, formative, operational, proactive &c)
Evidence to support selected rating
What is needed to reach the next maturity level rating?

4. Business Systems & Processes

The questions in this section ask you about the systems and processes (both digital and manual) that support the organisation's Information Management practices.

Question 4.1: Information Architecture

Has the organisation developed an information and data architecture model? To what degree does it link to other relevant models?

EXAMPLE OUTCOMES / EVIDENCE MAY INCLUDE:

The organisation has developed an information and data architecture model which provides an overview and description of the organisation's information and data, and their relationships to:

- business requirements, systems, and processes
- applications and technology, and
- strategies, standards, and legislation.

The model is managed, resourced, and maintained accordingly. The information and data architecture aligns to other models such as the IT and data architectures.

Maturity Level	Maturity Statement	%	1 - early stages2 - well progressed3 - nearing the top
Unmanaged	The organisation is either unaware or has taken no steps to address an information and data architecture		
Aware	The organisation has an awareness of information and data architectures, but that there is little practical evidence of action.		
Formative	The organisation is actively addressing an information and data architecture. There will be evidence of a planned approach, even if it is not fully implemented in some areas.		
Operational	The organisation has completed implementation of planned initiatives regarding an information and data architecture, and the initiatives are operating to a reasonable standard.		
Proactive	The organisation has a dedicated commitment to achieving an information and data architecture through innovation and/or learning based on ongoing monitoring and review.		
Unknown			
Not Applicable			

Overall Maturity Level Rating (unmanaged, aware, formative, operational, proactive &c)
Evidence to support selected rating
What is needed to reach the next maturity level rating?

How well have business processes been aligned with information and data management requirements? Has the organisation identified areas for improvement and eliminated duplicate processes?

EXAMPLE OUTCOMES / EVIDENCE MAY INCLUDE:

Information and data management practices have been incorporated into business processes. Efforts have been made to look at where business processes can be re-engineered to improve efficiencies and reduce duplication of information and data.

Process issues impacting information and data management are directed to appropriate staff or working groups for action.

Process owners are open to making changes to improve process and information and data management outcomes and develop/update process documentation accordingly.

Maturity Level	Maturity Statement	%	1 - early stages2 - well progressed3 - nearing the top
Unmanaged	The organisation is either unaware or has taken no steps to address an information and data management process improvement		
Aware	The organisation has an awareness of information and data management process improvement, but that there is little practical evidence of action.		
Formative	The organisation is actively addressing information and data management process improvement. There will be evidence of a planned approach, even if it is not fully implemented in some areas.		
Operational	The organisation has completed implementation of planned initiatives regarding information and data management process improvement, and the initiatives are operating to a reasonable standard.		
Proactive	The organisation has a dedicated commitment to achieving information and data management process improvement through innovation and/or learning based on ongoing monitoring and review.		
Unknown			
Not Applicable			

Overall Maturity Level Rating (unmanaged, aware, formative, operational, proactive &c)
Evidence to support colected voting
Evidence to support selected rating
What is needed to reach the next maturity level rating?

Are information and data management capabilities built into business systems and tools?

EXAMPLE OUTCOMES / EVIDENCE MAY INCLUDE:

Information and data management specialists works together with IT and risk management specialists as required to manage existing and/or implement new systems and tools.

Information (including data and records) managed within the organisation's business systems and tools is effectively managed according to requirements from the Department of Premier and Cabinet, Public Record Office Victoria, and Office of the Information Commissioner.

The organisation encourages and adopts improvements to system and tool information and data management capabilities. Systems and tools are effectively managed over their life, from acquisition to decommissioning, to ensure their integrity, reliability, and performance.

Maturity Level	Maturity Statement	%	1 - early stages2 - well progressed3 - nearing the top
Unmanaged	The organisation is either unaware or has taken no steps to address building information and data management capabilities into business systems and tools		
Aware	The organisation has an awareness of building information and data management capabilities into business systems and tools, but that there is little practical evidence of action.		
Formative	The organisation is actively addressing building information and data management capabilities into business systems and tools. There will be evidence of a planned approach, even if it is not fully implemented in some areas.		
Operational	The organisation has completed implementation of planned initiatives regarding building information and data management capabilities into business systems and tools, and the initiatives are operating to a reasonable standard.		
Proactive	The organisation has a dedicated commitment to building information and data management capabilities into business systems and tools through innovation and/or learning based on ongoing monitoring and review.		
Unknown			
Not Applicable			

Overall Maturity Level Rating (unmanaged, aware, formative, operational, proactive &c)
Evidence to support selected rating
What is needed to reach the next maturity level rating?

Question 4.4: Information Privacy & Security

What is the status of information and data privacy and security in the organisation? Do staff have the knowledge and support to protect information and data and ensure their confidentiality, integrity, and availability? Is the organisation able to respond to information and data privacy and security incidents?

EXAMPLE OUTCOMES / EVIDENCE MAY INCLUDE:

The organisation is actively implementing requirements outlined in the *Victorian Protective Data Security Standards*, the *Information Privacy Principles*, and the *Victorian Government Cyber Incident Management Plan*.

The organisation has information and data privacy and security strategies in place and an assurance program in place to manage privacy and security risks. The organisation has conducted Privacy Impact Assessments and Security Risk Assessments. The organisation has appropriate plans in place which are reviewed and maintained (such as a *Protective Data Security Plan* and *Cyber Incident Response Plan*). The organisation has clear procedures and points of contact to seek out guidance regarding information and data privacy and security, and cyber security. Protective measures are embedded in day-to-day processes to prevent privacy and security breaches and incidents. If incidents occur within the organisation, they are reported in alignment to requirements of the *Information Security Incident Notification Scheme*.

Maturity Level	Maturity Statement	%	1 - early stages 2 - well progressed 3 - nearing the top
Unmanaged	The organisation is either unaware or has taken no steps to address information and data privacy and security management.		
Aware	The organisation has an awareness of information and data privacy and security management, but that there is little practical evidence of action		
Formative	The organisation is actively addressing information and data privacy and security management. There will be evidence of a planned approach, even if it is not fully implemented in some areas.		
Operational	The organisation has completed implementation of planned initiatives regarding information and data privacy and security management, and the initiatives are operating to a reasonable standard.		
Proactive	The organisation has a dedicated commitment to information and data privacy and security management through innovation and/or learning based on ongoing monitoring and review.		
Unknown			
Not Applicable			

Overall Maturity Level Rating (unmanaged, aware, formative, operational, proactive &c)
Evidence to support selected rating
What is needed to reach the next maturity level rating?