

# Public Record Office Victoria Report

**Information Management Maturity Assessment Program 2023-24**

## **Report Part Three: Data Management Results By Question**

## IMMAP Report 2023-24 Part 3 Data Management Results Version 2: Deidentified

Document information	
Version	V1.0 FINAL
Approved by	Justine Heazlewood, Director, and Keeper of Public Records
Date	06 June 2025
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Classification	OFFICIAL

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# 1 Introduction

## 1.1 Report overview

The 2023-24 IMMAP Report is divided into the following parts:

- Part One: Consolidated Results: includes recommendations
  - Part One A: Executive Summary
  - Part One B: IMMAP Methodology
  - Part One C: Context
- Part Two: Information Management: by Question
  - Part Two A: Supporting Comments
  - Part Two B: Information Management Questionnaire
- **Part Three: Data Management: by Question (this part)**
  - Part Three A: Supporting Comments
  - Part Three B: Data Management Questionnaire

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 they are.

## 1.2 Scope

**Part Three: Data Management** covers the 23 data management questions asked across the five dimensions of People, Organisation, Lifecycle and Quality, Business Systems and Processes, and Data Integrity (an optional dimension, which DPC and DTF opted out of). There were no corresponding information management questions for Dimension Five.

For each question for dimensions one through four, the following is provided:<sup>1</sup>

- The question/s asked
- Themes and challenges
- Rating by organisation for this round of IMMAP
- Comparison with the rating for information management for this round by organisation
- Rating by question average for both Data Management and Information Management
- Maturity level comparison with that for information management for this round of IMMAP.

Participating organisations provided evidential comments supporting each rating provided, which has been collated by question and is located in **Part Three A: Supportive Comments**. A copy of the questionnaire used by participants to assess their data management maturity through the Information Management Maturity Measurement (IM3) Tool<sup>2</sup> is located in **Part Three B: Data Management Questionnaire**.

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<sup>1</sup> Dimension five contains the majority of the following dot points, except for comparisons with information management.

<sup>2</sup> <https://prov.vic.gov.au/recordkeeping-government/learning-resources-tools/information-management-maturity-measurement-tool-im3>

## 2 D1: People

### Question 1.1 Data literacy and responsibility

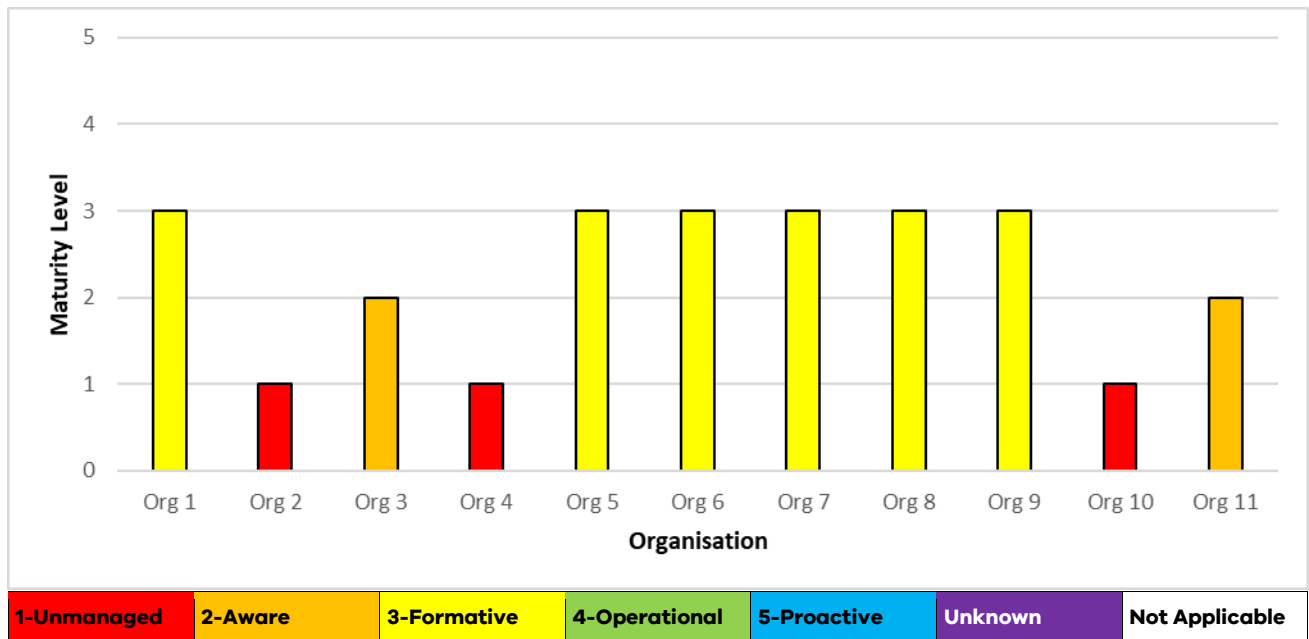
*Do the staff in your organisation demonstrate awareness of their data management responsibilities and are they commensurate to their roles?*

*What is the current level of data literacy held by staff in your organisation?*

*Do staff in your organisation value data as an asset?*

Key Themes	Key Challenges
<ul style="list-style-type: none"> <li>Awareness of data management responsibilities was dependent on the requirements of specific roles across the organisation rather than being held by all staff for most organisations, or was held as part of more general organisation-wide information management and records management responsibilities such as those designated through the information asset register and general policy.</li> <li>Some organisations had set data specific roles within the organisation and had recruited or were in the process of recruiting data management specialists to the roles.</li> <li>Responsibilities were documented and communicated through information asset registers, data catalogues, custodianship models, information security standards, and policies including information asset governance, data quality, privacy, and cyber security.</li> <li>Tools and training to guide staff use and understanding of data included data analytics strategy, data linkage technical specifications, integrated data resource data dictionary, protocol for data collection, data governance framework, eLearning modules, and the Victorian data Access Linkage Trust (VALT) user guide.</li> </ul>	<ul style="list-style-type: none"> <li>Data literacy was relatively new for a number of organisations and therefore was at an early stage of development, or not formally in existence.</li> <li>There were insufficient resources to develop and implement or expand data literacy programs.</li> <li>Levels of data literacy within organisations were inconsistent, as there were individuals or groups with substantial data literacy in some parts of the organisation, while other areas had poor data literacy.</li> </ul>

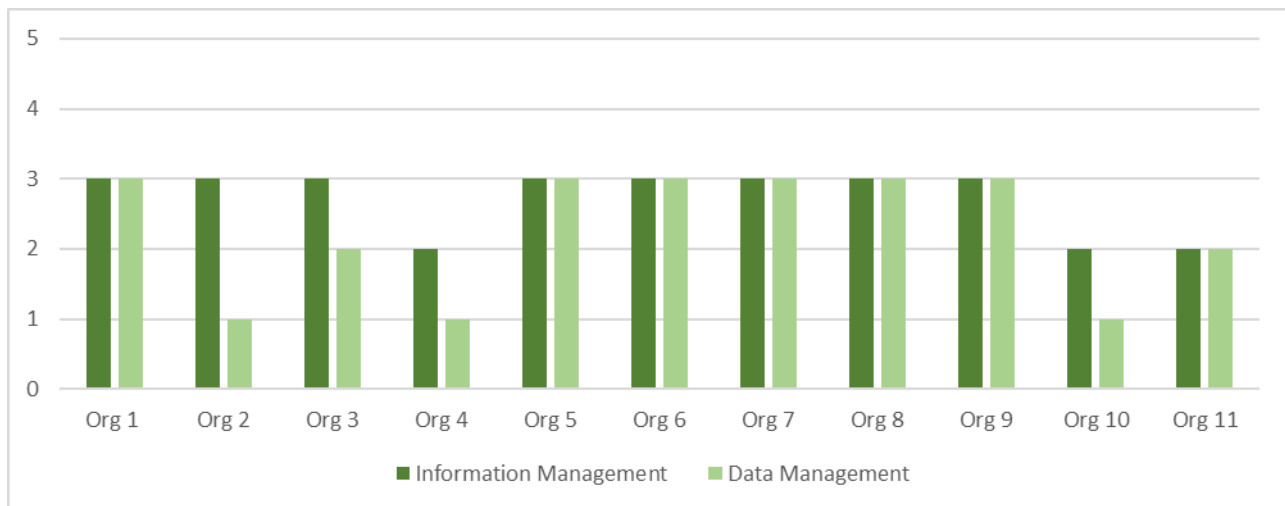
The average maturity level for this question was 2 Aware.



**Chart 3.1a** Question 1.1 rating levels – 2023-24 assessment

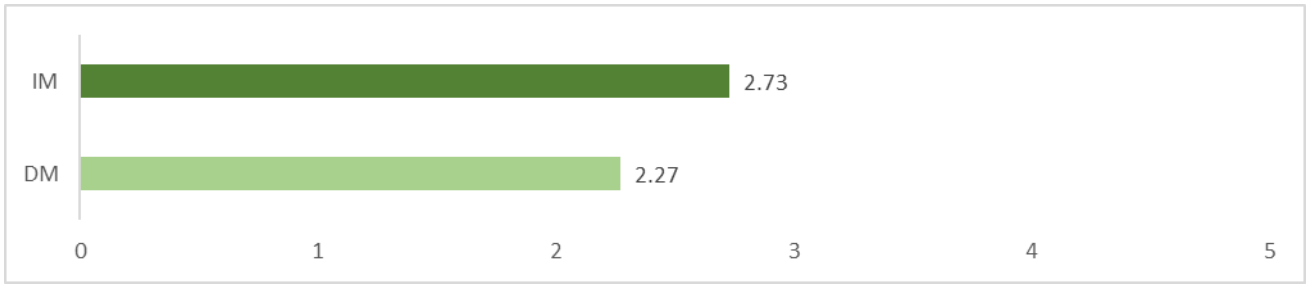
Organisations 1, 5, 6, 7, 8 and 9 all achieved a maturity level of 3 Formative, which was above the average for this question. Supporting comments attribute the higher maturity to a focus on developing and fostering data literacy. Organisations 3 and 11 achieved a maturity level at the average of 2 Aware.

Organisations 2, 4 and 10 held a maturity level of 1 Unmanaged, which was below the average for this question. Comments indicate the lower maturity was likely due to not having data literacy included in eLearning and other training programs.



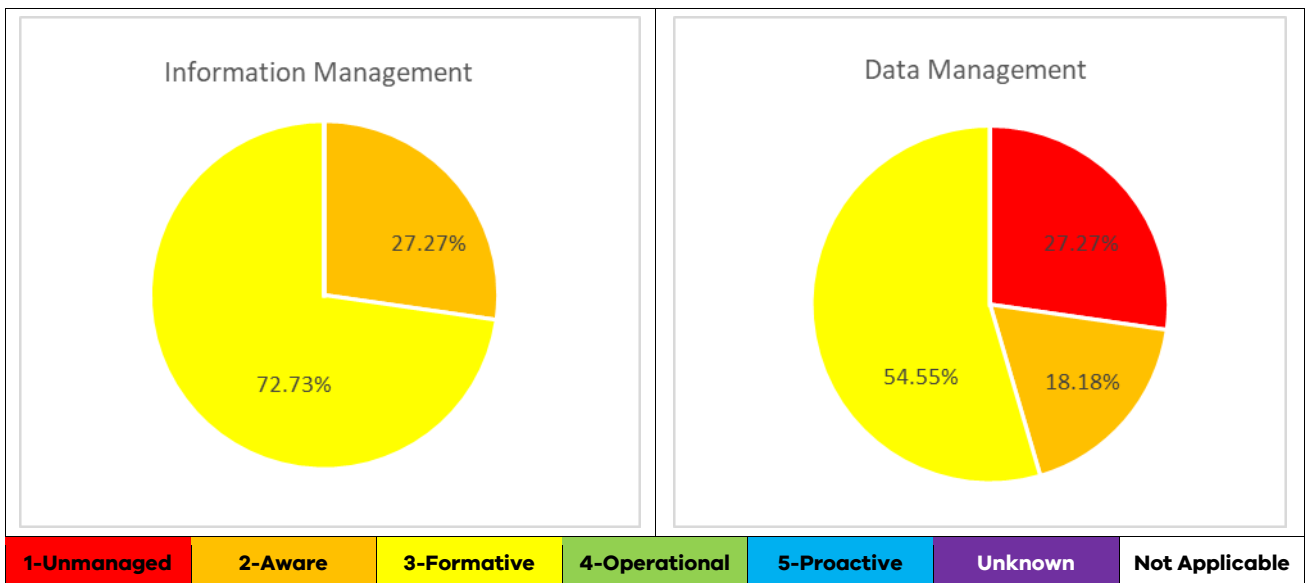
**Chart 3.1b** Question 1.1 rating levels – Information and Data Management comparison

Organisations 1, 5, 6, 7, 8 9 and 11 all achieved the same rating for both information and data management, whereas Organisations 2, 3, 4, and 10 all had a lower data management score.



**Chart 3.1c** Question 1.1 rating levels – average comparison

Comparison of the question average for both data management (DM) and information management (IM) show that, while results for information management were higher, both were within the maturity level of 2 Aware.



**Chart 3.1d** Question 1.1 rating levels– comparison of information and data management by maturity level percentage

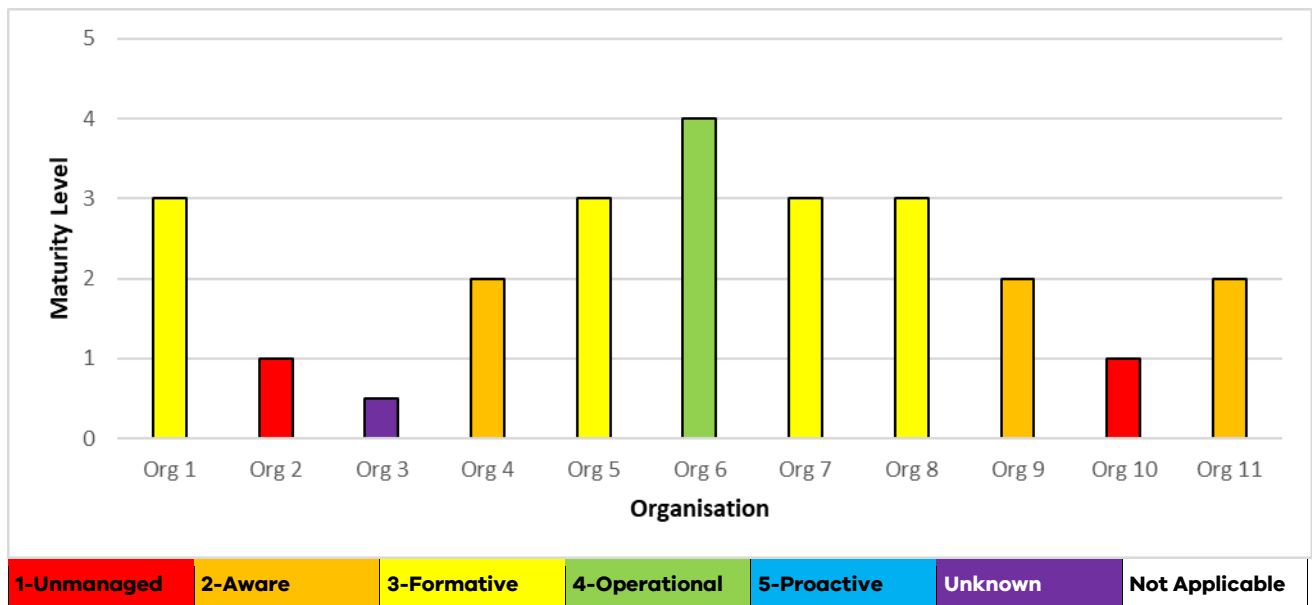
Comparison of the maturity level percentages show that for both, the highest percentage was in 3 Formative.

## Question 1.2 Capability and capacity

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

Key Themes	Key Challenges
<ul style="list-style-type: none"> <li>• Dedicated and skilled specialist data management and analytical staff had been recruited to roles of direct relevance to data management and were able to support data owners and stewards.</li> <li>• Key strategies were in place, such as data governance, analytics, and information management, that directly addressed data capability and capacity.</li> <li>• Capability sets, communities of practice, frameworks, and eLearning modules used to document and promote key skills, knowledge and behaviours, such as those needed for data analytics, privacy, security, and general data literacy.</li> <li>• A range of tools used to support capability and capacity, including analytical models, privacy impact assessments, common data layers, enterprise data catalogues, and other systems, applications, platforms, and products. Tools were used to document and manage data, including data flows, impact assessments, gap analysis, and accessibility statements.</li> </ul>	<ul style="list-style-type: none"> <li>• Data capability and capacity across organisations was inconsistent and siloed. Some parts of an organisation with a subject matter expert had considerable capacity while other areas had little to none, due to limited resourcing being available, a lack of prioritisation for improvement initiatives, and use of general staff for specialist roles.</li> <li>• The level of capability and capacity for data management was either unknown or poorly understood due to there being insufficient resources available to address it, including minimal or no training programs in place, limited governance structures, and an over reliance on existing subject matter experts.</li> </ul>

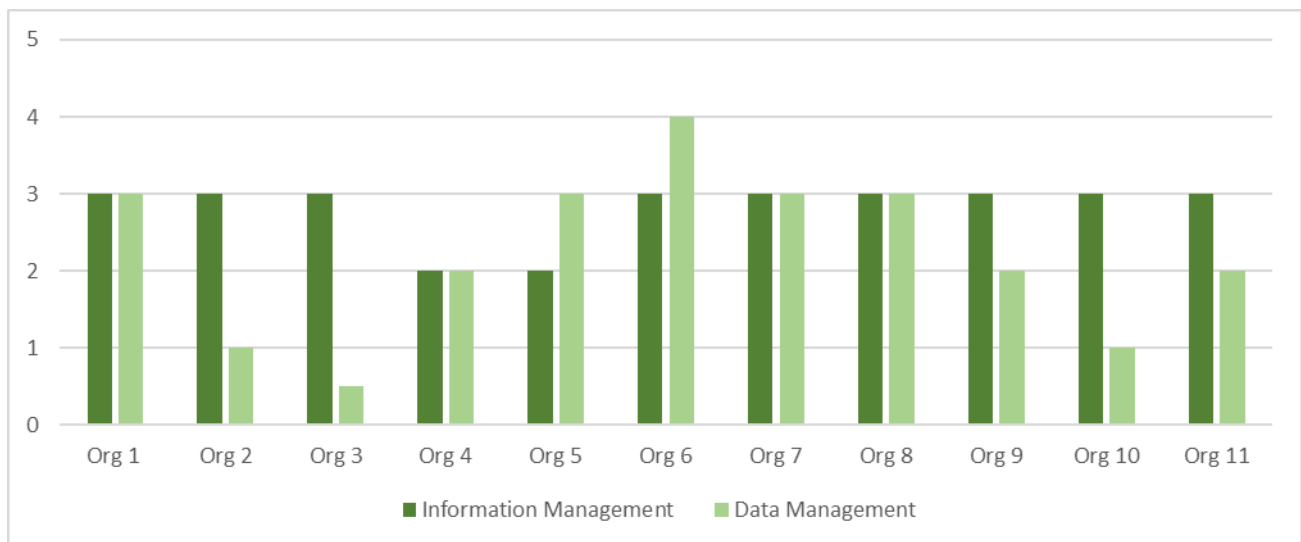
The average maturity level for this question was 2 Aware.



**Chart 3.2a** Question 1.2 rating levels – 2023-24 assessment

Organisation 6 achieved the highest rating of 4 Operational, potentially due to activities that sought to identify and improve data management skills, capabilities, and capacities. Organisations 1, 5, 7, and 8 achieved a maturity level rating of 3 Formative, which was also above the average for this question. Organisations 4, 9 and 11 all held maturity ratings at the average of 2 Aware.

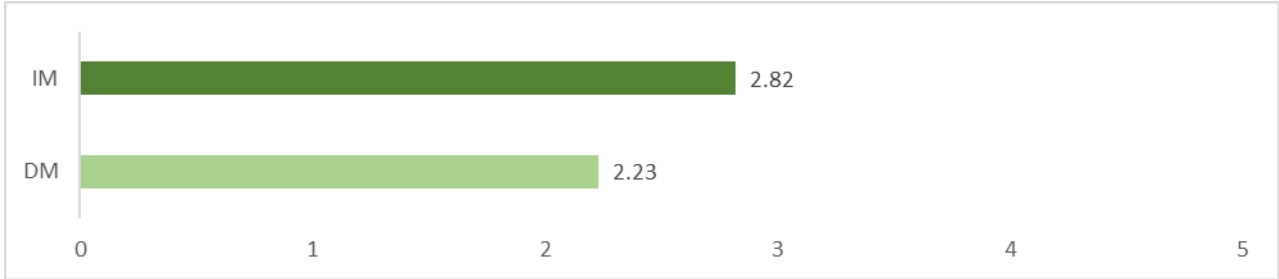
Three organisations held a maturity level rating below the average. Organisation 3 held a rating of Unknown for this question, while Organisations 2 and 10 both held a rating of 1 Unmanaged. Comments supporting ratings provided by Organisations 2 and 10 suggest the low maturity was due to insufficient resources and no formal data management program being in place.



**Chart 3.2b** Question 1.2 rating levels – Information and Data Management comparison

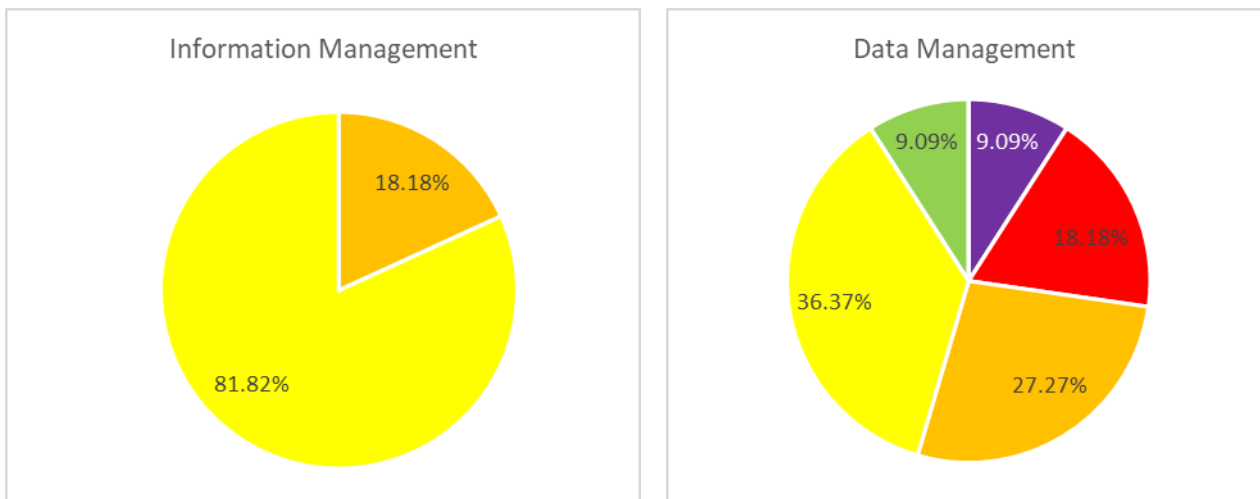
Organisations 5 and 6 both had higher data management ratings than information management ratings for this question.

Organisations 2, 3, 9, 10 and 11 all had lower data management ratings than information management, and for organisations 2, 3 and 10 maturity was significantly lower. This may suggest there was a separation and a lack of engagement between data management and information management staff within the organisation. Alternatively, it may suggest there was a specific focus within the organisation on the professional discipline of information management.



**Chart 3.2c** Question 1.2 rating levels – average comparison

Averages by question rating showed that information and data management responses were both within the maturity level of 2 Aware, although information was nearing the top and data was in early stages.



**Chart 3.2d** Question 1.2 rating levels – comparison of information and data management by maturity level percentage

Comparison by maturity level percentages showed a greater diversity in maturity levels within data management than information management.

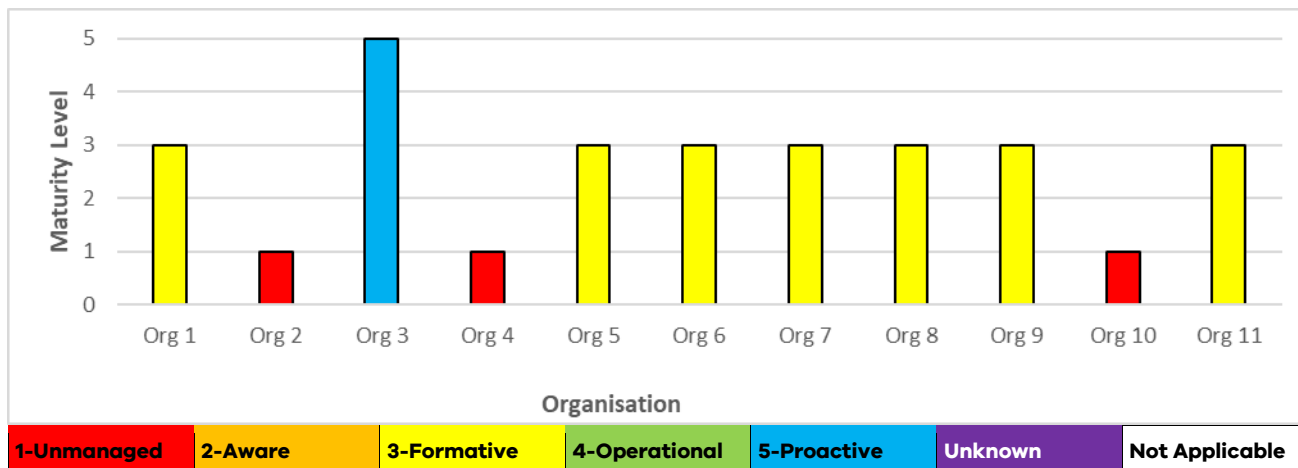
## Question 1.3 Training, support and knowledge sharing

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

Key Themes	Key Challenges
<ul style="list-style-type: none"> <li>• Training provided was mostly role based, where specialists shared their knowledge with people undertaking data roles in the organisation, or training was provided to a staff member with responsibilities for data to enable them to undertake their work effectively. Training was varied and included data security, access and release, data governance, Data Vault Modelling, Databricks Foundation, SQL Analysis, and ESRI Academy as well as meeting policy, procedure and other organisation requirements.</li> <li>• A collaborative approach to training was evident, where knowledge was shared through various communities of practice or networking groups and participants were encouraged to share tips, present on work practices and projects, and as an avenue to requesting advice or assistance.</li> <li>• Central hubs, including SharePoint sites, intranets, guidance products, and Policies, were used to provide resources and references for self-education. This included eLearning modules, tool-based guidance, organisation or sector wide frameworks such as data access and release frameworks, data collection principles, and data quality criteria.</li> <li>• Formal training by recognised experts that were targeted to specific work undertaken across the organisation was provided, and included introduction to data visualisation, introduction to evaluation, fundamentals of program</li> </ul>	<ul style="list-style-type: none"> <li>• No dedicated organisation-wide training program for data management in place, or limited training opportunities.</li> <li>• Lack of resources to undertake the training identified as being required in plans, such as data literacy roadmaps.</li> <li>• Lack of awareness of the training that is available.</li> <li>• A need for centralised responsibility over data governance, management and training.</li> </ul>

monitoring and performance measurement, introduction to ethics, approval processes in evaluation and research, data linkage requirements, information and data security, social engineering, email and phishing, and more general regulatory compliance.

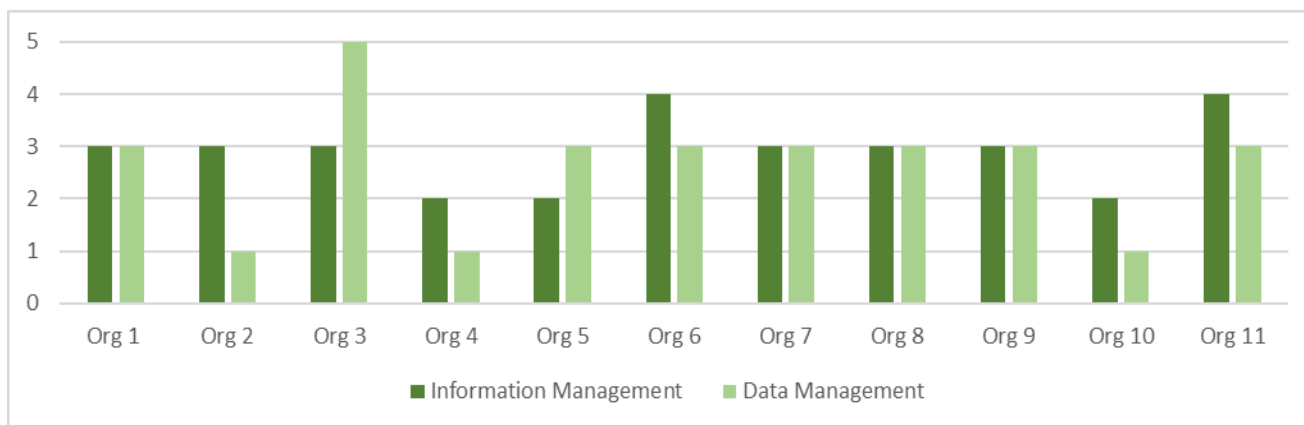
The average maturity level for this question was 2 Aware.



**Chart 3.3a** Question 1.3 rating levels – 2023-24 assessment

The highest rating of 5 Proactive was achieved by Organisation 3, who acknowledged that it related to part of the organisation only and that it was unclear what other business areas had in place regarding data management. Organisations 1, 5, 6, 7, 8, 9, and 11 also achieved maturity levels higher than the average for this question.

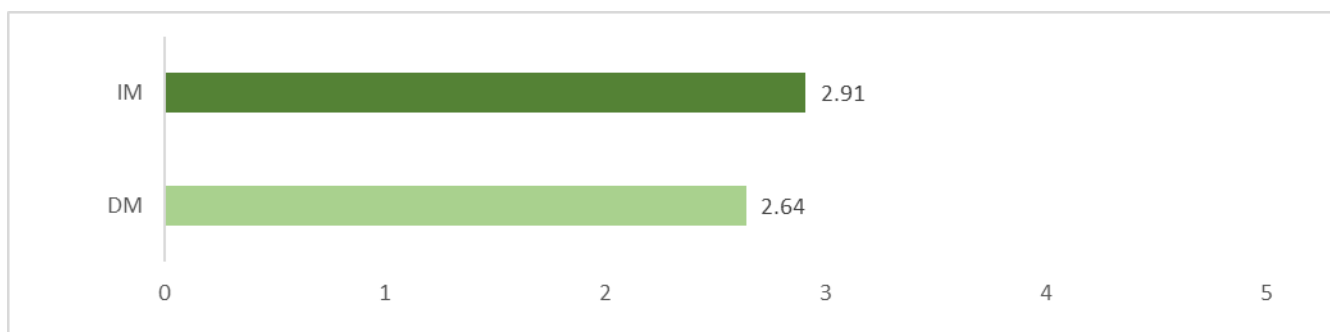
The lowest rating of 1 Unmanaged was held by Organisations 2, 4, and 10. Comments suggested the lower maturity was due to not having a training program in place for data management.



**Chart 3.3b** Question 1.3 rating levels – Information and Data Management comparison

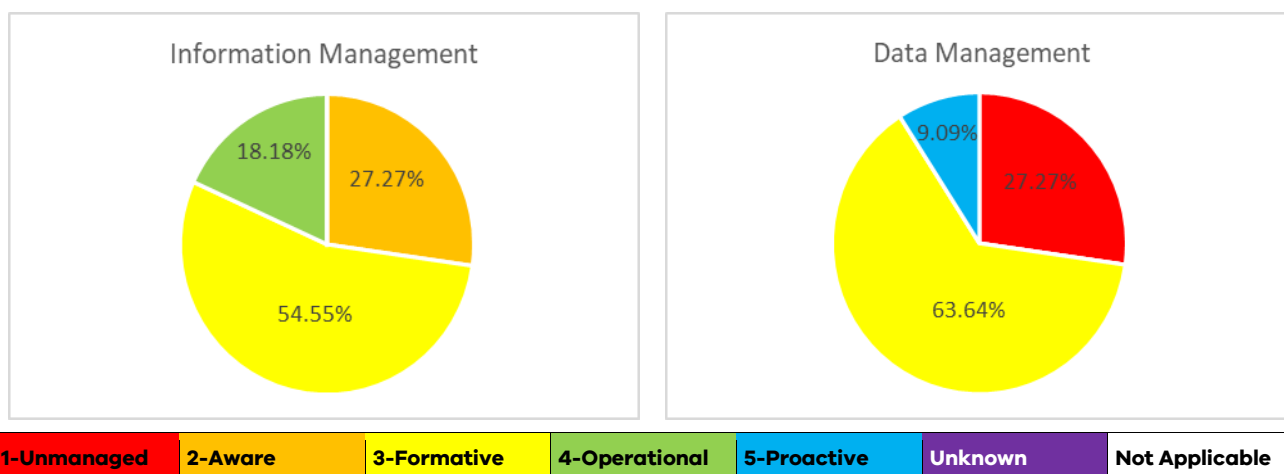
Organisations 3 and 5 both had higher ratings for data management than information management, possibly due to a focused and varied approach to training in data management that aligned with specific work projects and requirements. Organisations 2, 4, 6, 10 and 11 all had lower ratings for data management than information management, which reflected the recognition identified in the evidential comments provided that training in data management was needed.

Organisations 1, 7, 8, and 9 had the same rating for both data and information management, which suggested that their approach to training was aligned across both information and data management needs.



**Chart 3.3c** Question 1.3 rating levels – average comparison

Comparison of question average ratings between information management and data management show that both are in the higher stages of maturity level 2 Aware.



**Chart 3.3d** Question 1.3 – comparison of information and data management by maturity level percentage

Comparison of maturity level percentages show that data management has a higher percentage of 3 Formative results. While information management appeared evenly divided between 3 Formative and a combination of 2 Aware and 4 Operational, data management showed representation at the extremes with ratings of both 1 Unmanaged and 5 Proactive surrounding a large percentage for 3 Formative.

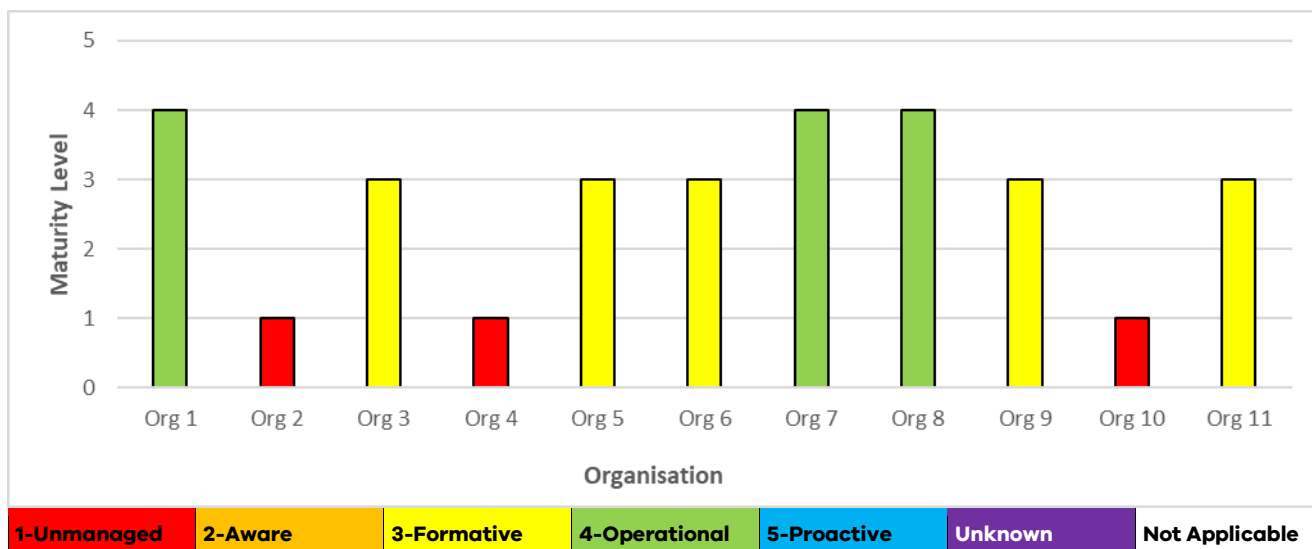
### 3 D2: Organisation

#### Question 2.1 Governance

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

Key Themes	Key Challenges
<ul style="list-style-type: none"> <li>• Governance was shown through formal, executive led or informed committees, councils and groups, that led, monitored and reported on data and technology initiatives across the organisation, encouraged development of common practices, aligned with other key strategies and frameworks such as risk management, and that included subject matter experts from relevant areas of the organisation.</li> <li>• Localised governance structures focused on data governance frameworks on specific parts of the business, such as privacy or security, or specific functional areas, such as health.</li> <li>• Overarching governance models and frameworks were in place to guide and structure how data across the agency was governed, including security access models, policies, use of the information asset register, platform design standards and other standards and solutions designs.</li> </ul>	<ul style="list-style-type: none"> <li>• Not having the appropriate structures, including governance data-related committees, in place to support or progress data management work.</li> <li>• Corporate responsibility for data management including governance not being assigned, or being only partially delegated across the organisation.</li> <li>• Lack of consistency and awareness of existing structures for data governance across the organisation.</li> </ul>

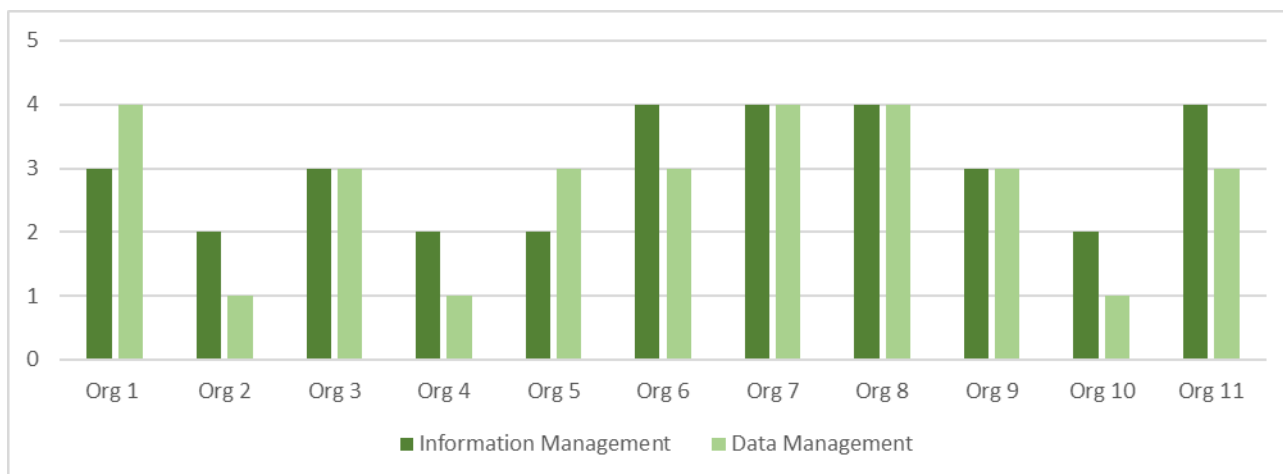
The average maturity level for this question was 2 Aware.



**Chart 3.4a** Question 2.1 rating levels – 2023-24 assessment

Organisations 1, 7 and 8 achieved the highest rating of 4 Operational, which was above the average for this question. Comments suggest the high maturity was due to their having data governance structures in place and implemented. Organisations 3, 5, 6, 9 and 11 also held a maturity rating above the average of 2 Aware.

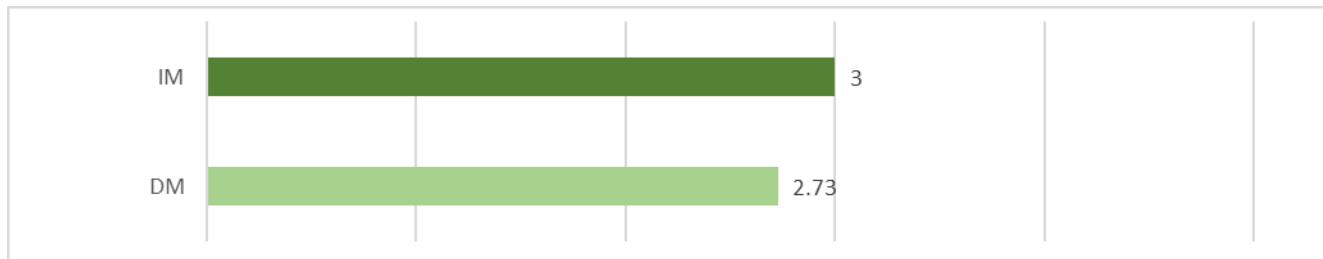
Organisations 2, 4 and 10 held a maturity rating of 1 Unmanaged, which was below the average for this question. Comments suggest this was due to not having data governance structures identified and implemented across the organisation.



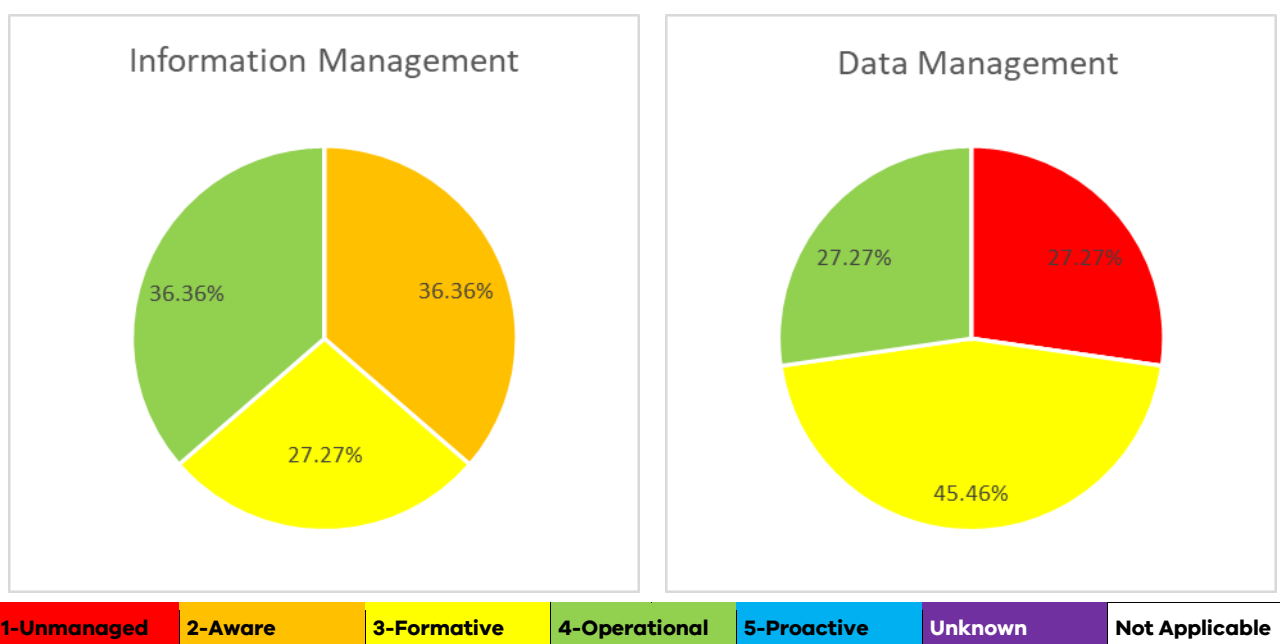
**Chart 3.4b** Question 2.1 rating levels-- Information and Data Management comparison

Organisations 1 and 5 had a higher data management rating than information management, possibly as they had strong data management structures in place and alignment between information, data and technology.

Organisations 2, 5, 6, 10 and 11 had a lower data management rating than information management, potentially due to their information management governance structures being stronger and further developed than their data governance structures.



A comparison of average ratings showed information governance practices at 3 Formative with data governance nearing the top of 2 Aware.



**Chart 3.4d** Question 2.1 rating levels – comparison of information and data management by maturity level percentage

Comparison of maturity level percentages shows a gap in data governance maturity. While information governance demonstrated progression from 2 Aware through to 4 Operational, data governance showed over 70 per cent have either formative or operational level maturity, while almost 30 per cent didn't have data governance in place.

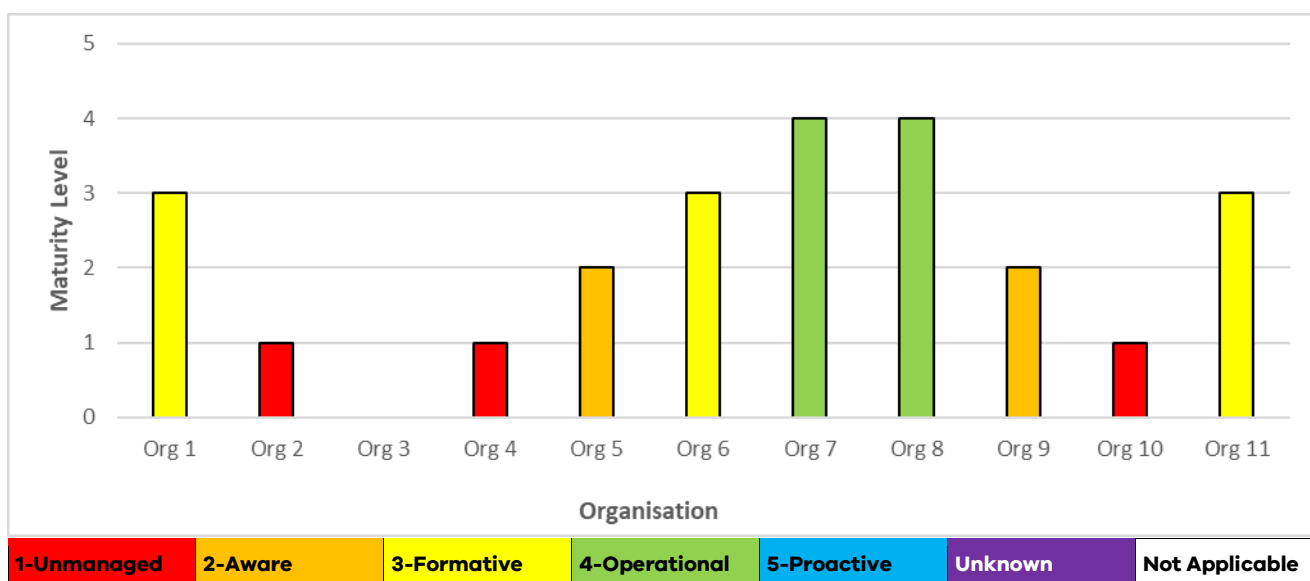
## Question 2.2 Vision and strategy

*Does the organisation have a strategy that provides a roadmap for data management?*

*Has the organisation formulated and articulated its vision for data management?*

Key Themes	Key Challenges
<ul style="list-style-type: none"> <li>• Data specific governance strategies in draft form or newly developed were achieved through collaboration between information management, data, and business representatives to align vision, strategic objectives and business drivers or through executive leadership and vision promoted across the organisation.</li> <li>• The information management strategy includes data management, either generally, or in relation to specific aspects of data management such as access and usage, which highlighted the need for data to be treated as a valuable asset.</li> <li>• Localised visions and strategies that were aligned with specific business areas or functions were used to articulate a roadmap for data, especially in relation to data collection, analytics, access and usage.</li> </ul>	<ul style="list-style-type: none"> <li>• The organisation didn't have a data strategy, roadmap or vision.</li> <li>• While there was a data strategy, roadmap or vision, it didn't provide sufficient clarity for data management or was not widely understood and implemented across the organisation.</li> </ul>

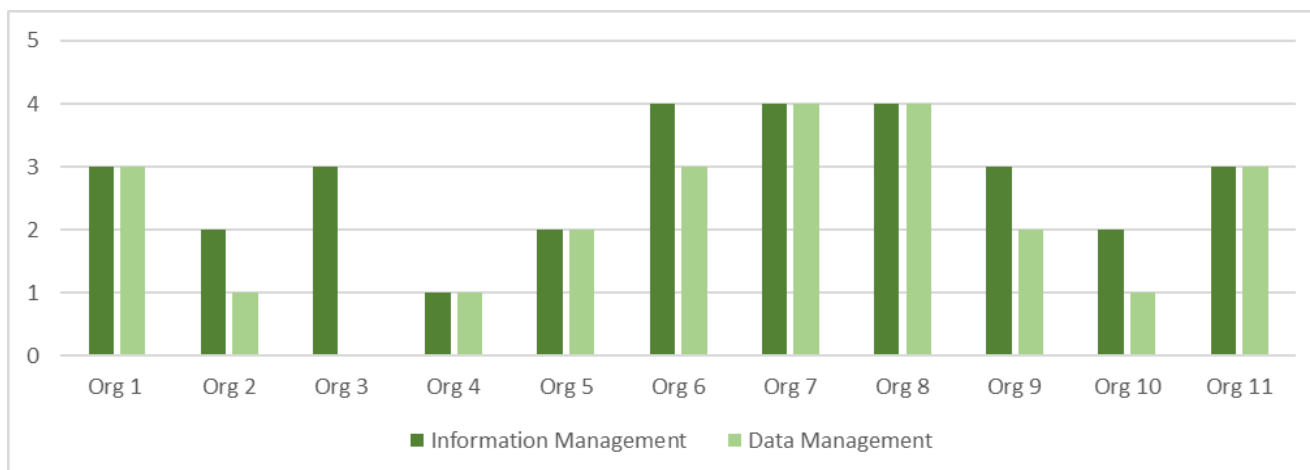
The average maturity level for this question was 2 Aware.



**Chart 3.5a** Question 2.2 rating levels – 2023-24 assessment

Organisations 7 and 8 both achieved the highest maturity level of 4 Operational. Comments suggest this was due to having a governance committee overseeing data strategy and several data related strategies in place. Organisations 1, 6 and 11 were also higher than the average for this question, achieving a maturity level rating of 3 Formative. Organisations 5 and 9 achieved a maturity level at the average of 2 Aware.

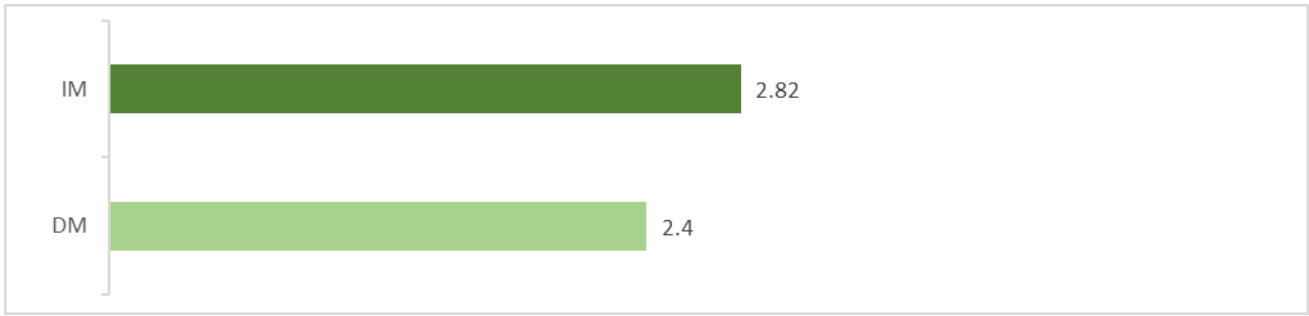
Organisations 2, 4 and 10 held a maturity level of 1 Unmanaged, which was below the average for this question. Comments suggest this was due to not having a data strategy, roadmap or vision in place. Organisation 3 provided a maturity rating of Not Applicable for this question.



**Chart 3.5b** Question 2.2 rating levels– Information and Data Management comparison

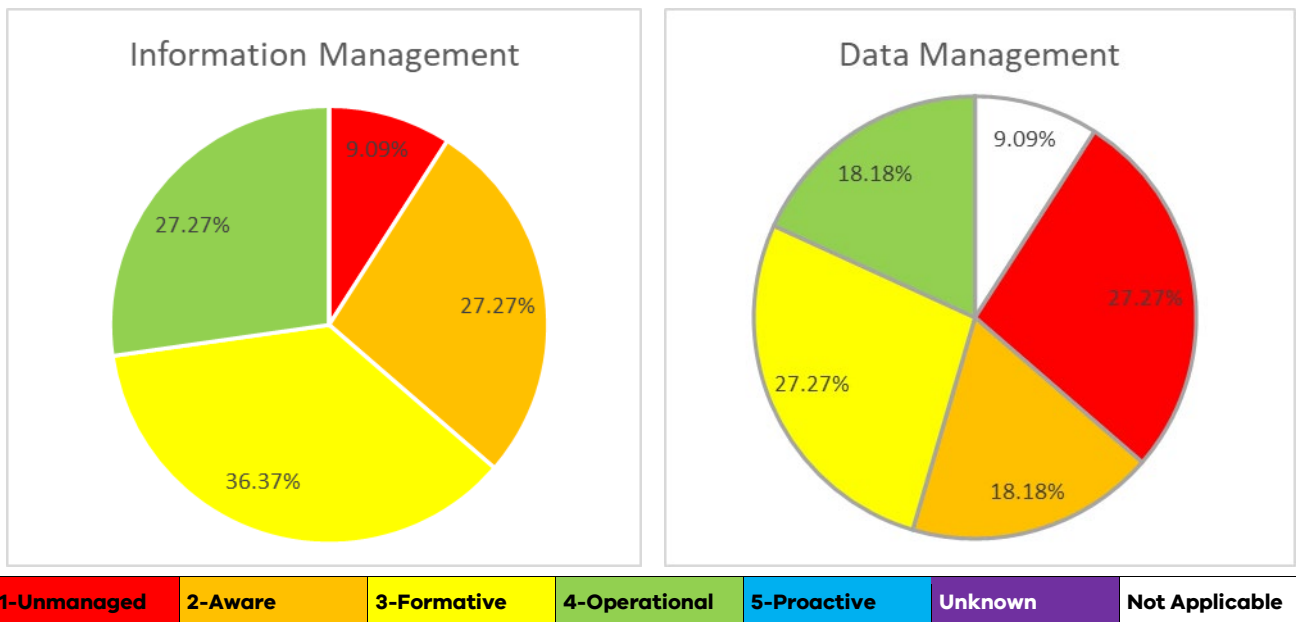
No organisation achieved a higher rating for data management than information management, although Organisations 1, 5, 7, 8, and 11 all achieved the same rating for both information and data management.

Organisations 2, 6, 9, and 10 all achieved a lower rating for data management than information management, while Organisation 3 provided a rating of Not Applicable.



**Chart 3.5c** Question 2.2 rating levels – average comparison

Comparison of question average revealed that vision and strategy for both information and data management sat within 2 Aware. Information vision and strategy was more advanced and reached towards 3 Formative, while data management was further back, nearing the middle of 2 Aware.



**Chart 3.5d** Question 2.2 rating levels – comparison of information and data management by maturity level percentage

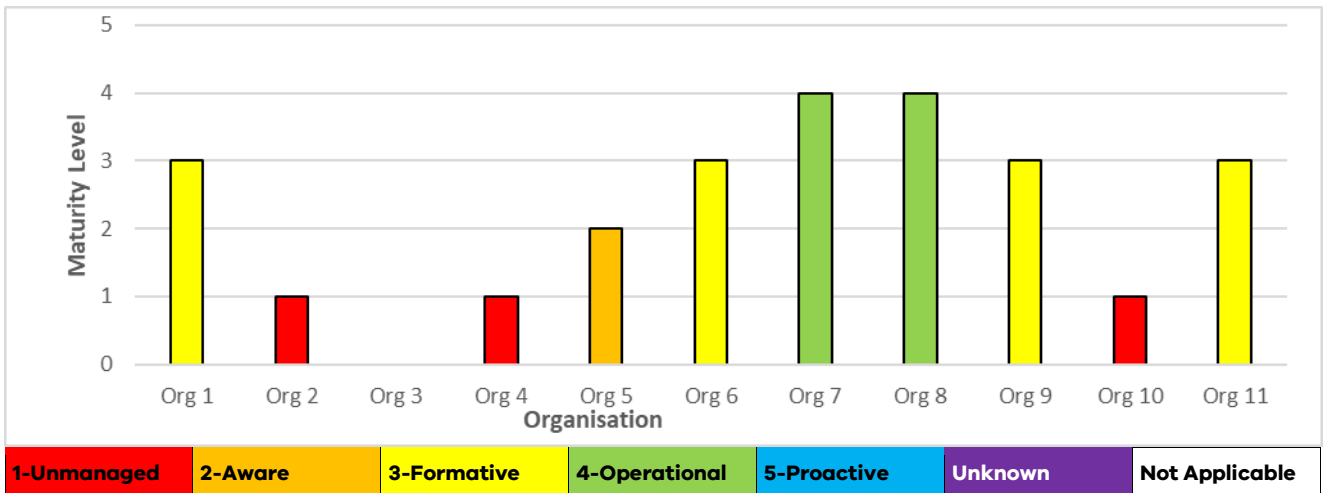
Comparison of the maturity level percentages for both information and data management showed a diversity in maturity from 1 Unmanaged through to 4 Operational. For data, the percentage for 1 Unmanaged was almost 30 per cent and there was a further 9 per cent that received a rating of Not Applicable. This suggested that vision and strategy for data management was actively engaged with by most participants, while several others were at the very beginning of their journey.

## Question 2.3 Strategic alignment

*To what degree is the data management strategy aligned with and incorporated into other strategic planning in your organisation?*

Key Themes	Key Challenges
<ul style="list-style-type: none"> <li>• Data management was part of a broader information management strategy and framework that were supported by information management, data management, security, privacy, technology and other relevant policies.</li> <li>• A data management strategy was implemented as part of a coordinated set of strategies that were united under an organisation-wide or broad business plan to enable centralisation and alignment of actions, projects and other plans. Coordination included broad enterprise architecture principles guiding the architecture used by the organisation to implement the strategy.</li> <li>• Localised data management strategies were designed around specific areas or functions of the organisation and tailored to their specific needs with input from data management subject matter experts.</li> </ul>	<ul style="list-style-type: none"> <li>• No data management strategy, or data management elements in other strategies.</li> <li>• Minimal, ad hoc, or no alignment across the organisation of data management elements.</li> <li>• A prioritisation of cost, ease and timing crowding out other concerns including regulatory requirements.</li> <li>• Lack of awareness regarding the importance of data management strategy across the organisation, including at an executive level.</li> </ul>

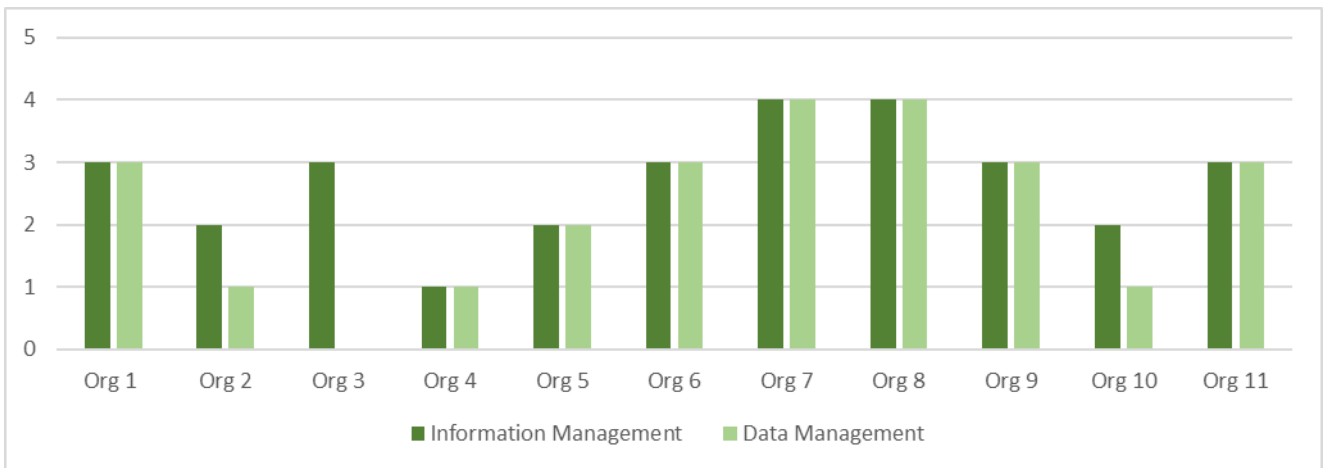
The average maturity level for this question was 2 Aware.



**Chart 3.6a** Question 2.3 rating levels – 2023-24 assessment

Organisations 7 and 8 achieved the highest rating of 4 Operational, which was higher than the average for this question. Comments suggest the higher rating was due to having a data management strategy in place and aligned with other relevant strategies. Organisations 1, 6, 9 and 11 achieved a maturity level of 3 Formative, which was also higher than the average. Organisation 5 held a maturity level at the average of 2 Aware.

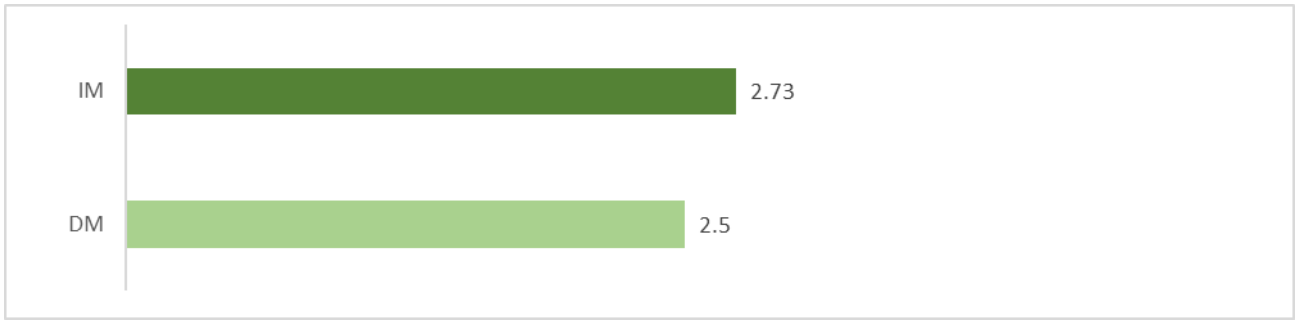
Organisations 2, 4, and 10 held the lowest ratings of 1 Unmanaged, which was below average for this question. Comments state the lower maturity was due to not having a data management strategy. Organisation 3 provided a response of Not Applicable for this question.



**Chart 3.6b** Question 2.3 rating levels– Information and Data Management comparison

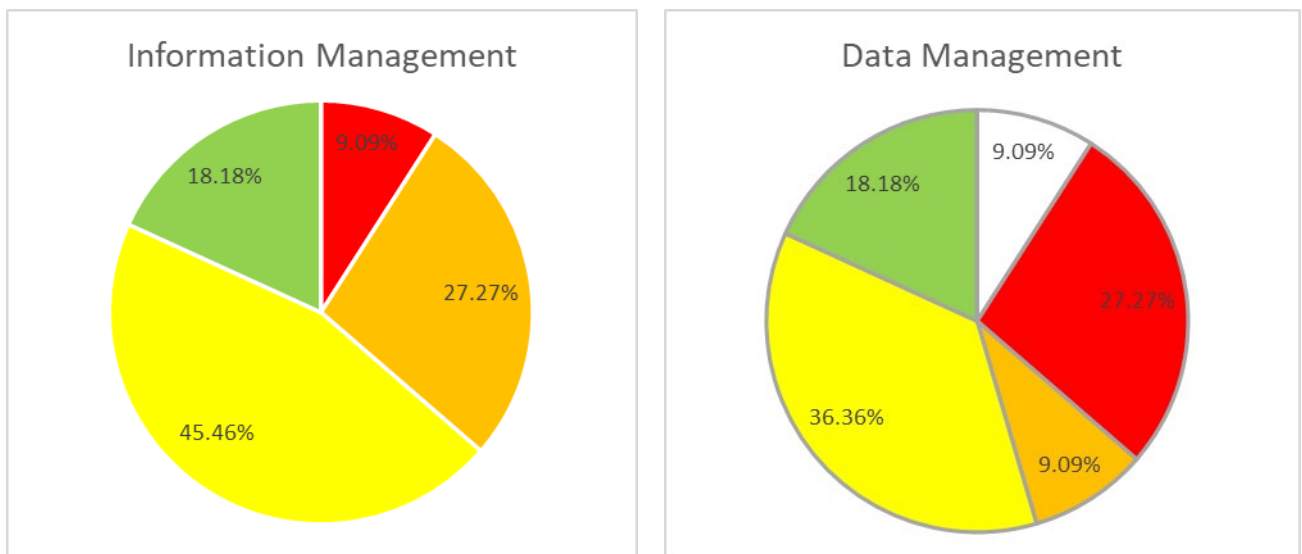
While no organisation’s data management rating was higher than their information management rating, Organisations 1, 4, 5, 6, 7, 8, 9, and 11 all held the same rating for data and information management.

Organisations 2 and 10 both held a lower rating for data management than information management, and organisation 3 only provided a rating for information management as they responded with Not Applicable for data management.



**Chart 3.6c** Question 2.3 rating levels– average comparison

Strategic alignment for both information and data management sat within 2 Aware, however average ratings showed that data management strategic alignment was in the middle of this maturity level while information management was nearing the top.



**Chart 3.6d** Question 2.3 rating levels – comparison of information and data management by maturity level percentage

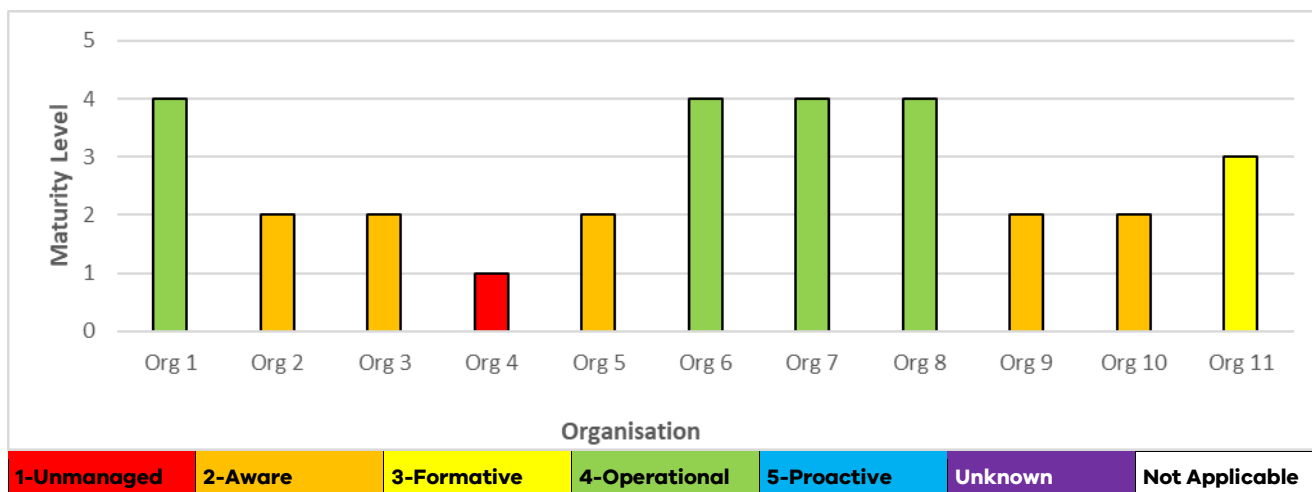
Strategic alignment of data management again showed a division of maturity across organisations, with some organisations not having strategic alignment while others were fairly mature in this space.

## Question 2.4 Data management, advocacy and leadership

*Do all levels of management actively support data management in your organisation?  
Is there executive-level representation and advocacy for data management initiatives?*

Key Themes	Key Challenges
<ul style="list-style-type: none"> <li>Some organisations had central or localised committees that led, monitored and reported on data management activities. Committees often reported to the Executive Board, or were chaired by a member of the executive. Committees usually had representation from various levels of management.</li> <li>Specialist data roles were held by management staff, such as the Chief Information Officer, Chief Information Security Officer, Chief Digital Officer, and Director roles that include data management.</li> <li>Strong awareness and support of data management was demonstrated through incorporation in Risk Management and other frameworks, endorsement and promotion of key policies related to data, and encouragement for staff with data specific responsibilities to develop their skills, knowledge and competencies.</li> </ul>	<ul style="list-style-type: none"> <li>No executive level position, Chief Data Officer, or other primarily role for internal data governance and data management best practice.</li> <li>Lack of consistency in executive level representation and advocacy of data management.</li> </ul>

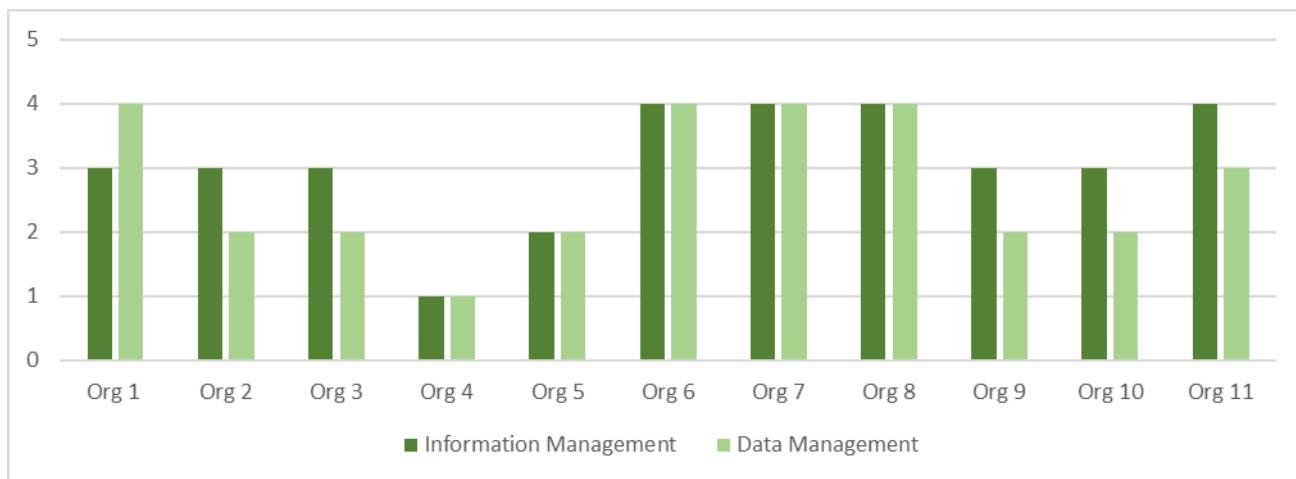
The average maturity level for this question was 2 Aware.



**Chart 3.7a** Question 2.4 rating levels – 2023-24 assessment

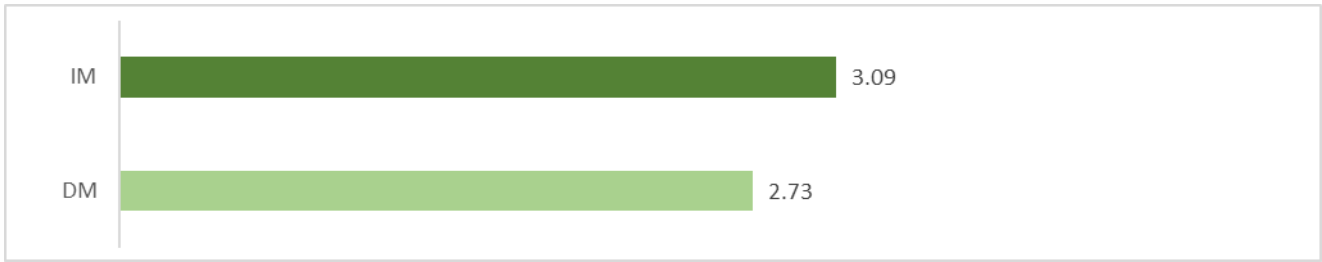
Organisation’s 1, 6, 7 and 8 all achieved the highest rating of 4 Operational, which was above the average for this question. Comments provided indicated the high maturity was due to strong executive level representation and advocacy through specific roles including committee leadership. Organisation 11 achieved a maturity level of 3 Operational, which was also above the average. Organisations 2, 3, 5, 9, and 10 held maturity levels at the average of 2 Aware.

Organisation 4 held the lowest rating of 1 Unmanaged, which was below the average for this question. Comments suggest the low maturity was due to the appropriate leadership structures not yet being in place.



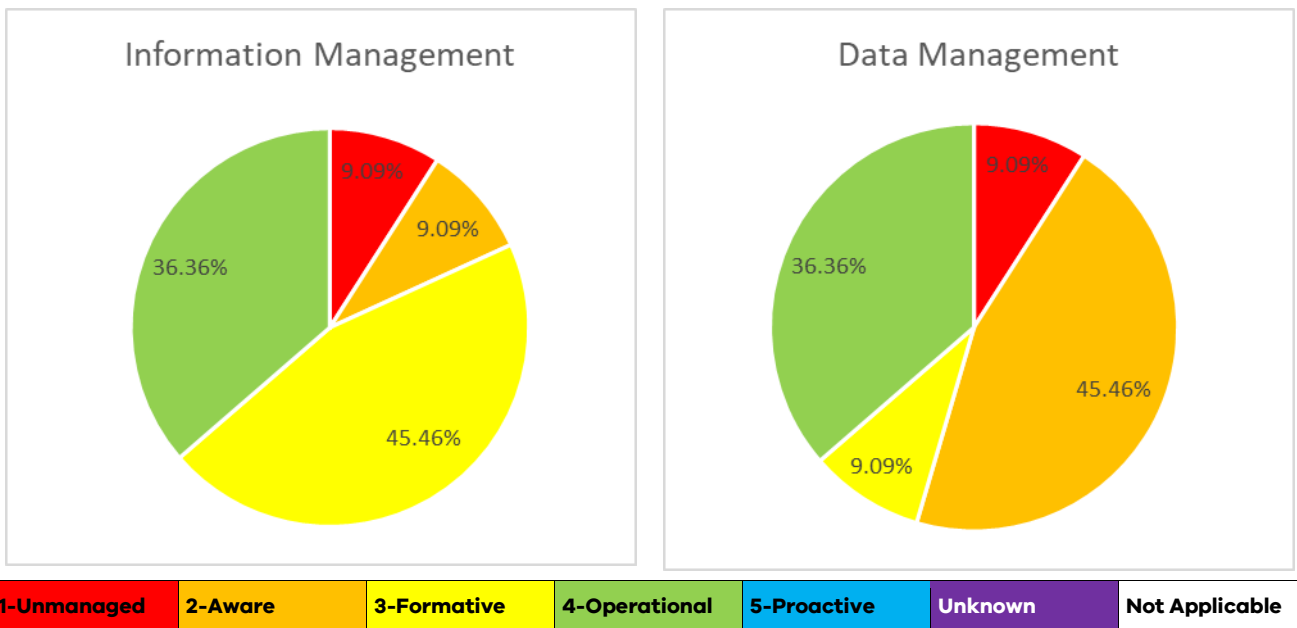
**Chart 3.7b** Question 2.4 rating levels– Information and Data Management comparison

Organisation 1 achieved a higher data management rating than information management potentially due to a strong data focus in programs and training through executive representation and advocacy. Organisations 2, 3, 9, 10 and 11 all had a lower data management rating than information management possibly due to Executive advocacy and representation for information management being well-seasoned and more robust than for data management. The remaining organisations had the same rating for both data and information management.



**Chart 3.7c** Question 2.4 rating levels– average comparison

The average rating for data management, advocacy and leadership was nearing the top of 2 Aware while for information management it was in the early stages of 3 Formative.



**Chart 3.7d** Question 2.4 ratings – comparison of information and data management by maturity level percentage

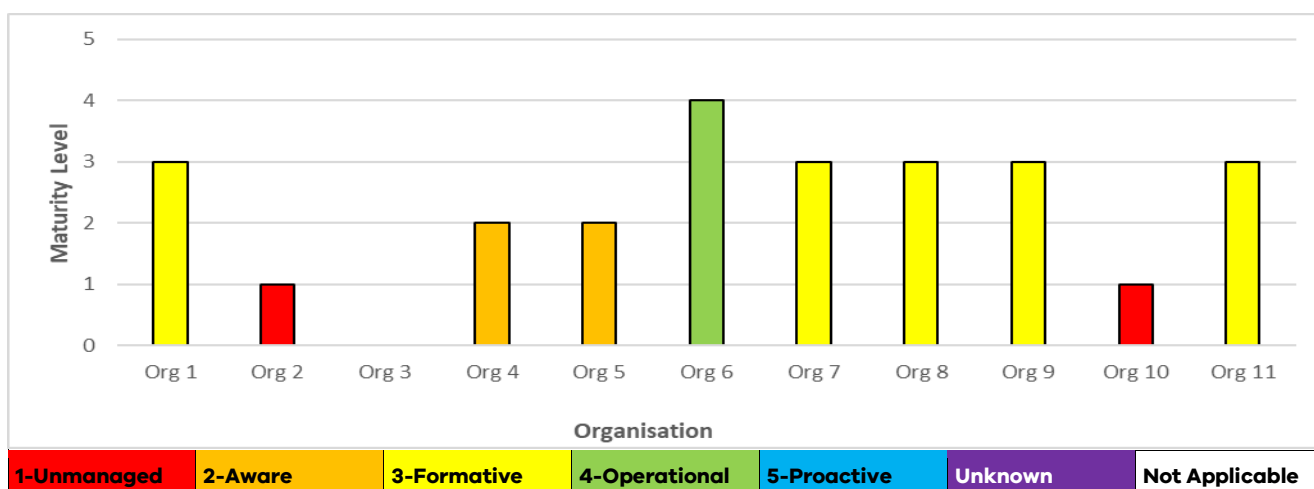
Percentages for data management and information management were very similar for this question, except that percentages for 3 Formative and 2 Aware were reversed. For data management, the figure for 2 Aware was the largest percentage while for information management it was 3 Formative.

## Question 2.5 Audit and compliance

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

Key Themes	Key Challenges
<ul style="list-style-type: none"> <li>• Strong and consistent use of external audit processes was evident, including the Office of the Victoria Information Commissioner (OVIC) attestation process against the Victorian Protective Data Security Standards (VPDSS) and the IM3 reporting process as part of the Information Management Maturity Assessment Program, and where relevant specific audits undertaken by the Victorian Auditor General’s Office (VAGO).</li> <li>• Internal audits were primarily undertaken through the relevant committee, including the Audit and Risk Management Committee, and the Data Governance Council, or the relevant team, including the records management, privacy, cyber security, and data governance teams.</li> <li>• Key tools were used to guide and inform audit and compliance actions, including use of protective markings, relevant information privacy principle, relevant PROV standard, data access and release guides, data sharing agreements, and the essential eight methodology.</li> </ul>	<ul style="list-style-type: none"> <li>• Audit of data management practices undertaken on an as needs basis.</li> <li>• No formal audit and compliance program in place for data management.</li> <li>• A reliance on external audit processes for data management, such as ones conducted by OVIC, VAGO or through the IM3 process.</li> <li>• Difficulty in spreading proper processes for data management due to the size of the organisation, including audit and compliance processes.</li> </ul>

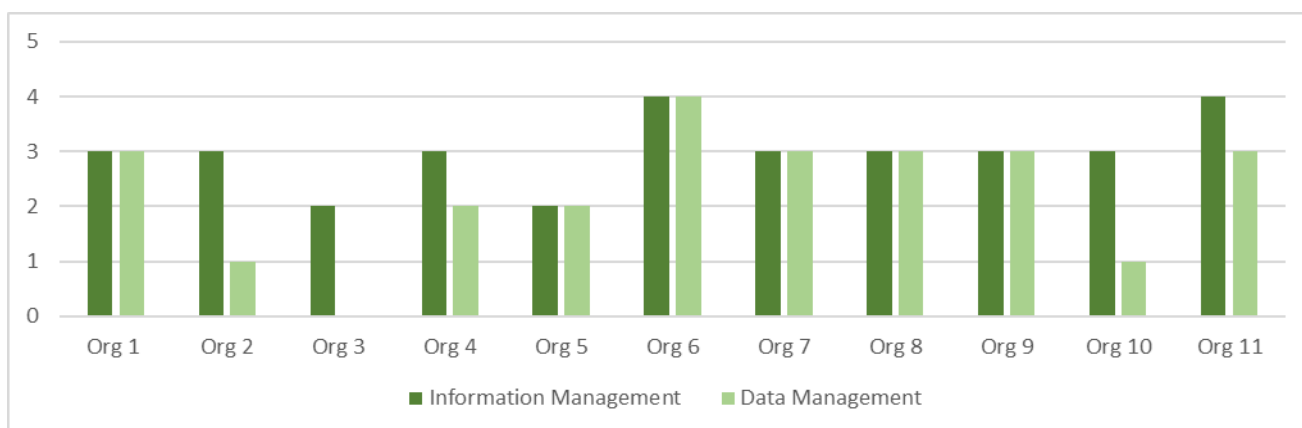
The average maturity level for this question was 2 Aware.



**Chart 3.8a** Question 2.5 rating levels – 2023-24 assessment

Organisation 6 achieved the highest rating of 4 Operational, which was higher than the average for this question. Comments suggest the higher rating was due to maximising both internal and external audit processes through an internal executive level committee. Organisations 1, 7, 8, 9 and 11 achieved a maturity level of 3 Formative, which was also above the average for this question. Organisations 4 and 5 held a maturity level at the average of 2 Aware.

Organisations 2 and 10 held the lowest rating of 1 Unmanaged, which was below the average for this question. Comments indicated this was due to not having a data management audit and compliance program in place. Organisation 3 provided a rating of Not Applicable for this question.

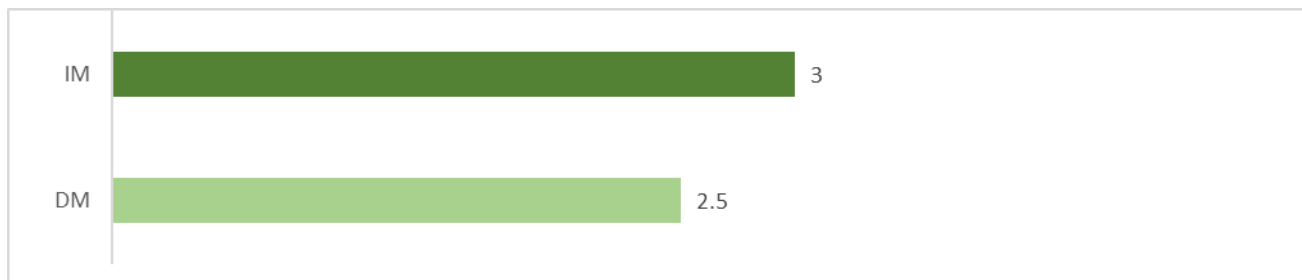


**Chart 3.8b** Question 2.5 rating levels– Information and Data Management comparison

No organisation achieved a higher data management rating than information management. Organisations 2, 4, 10 and 11 all received a lower data management rating than information management, partially due to the data management program being less developed than the information management program in relation to audit and compliance.

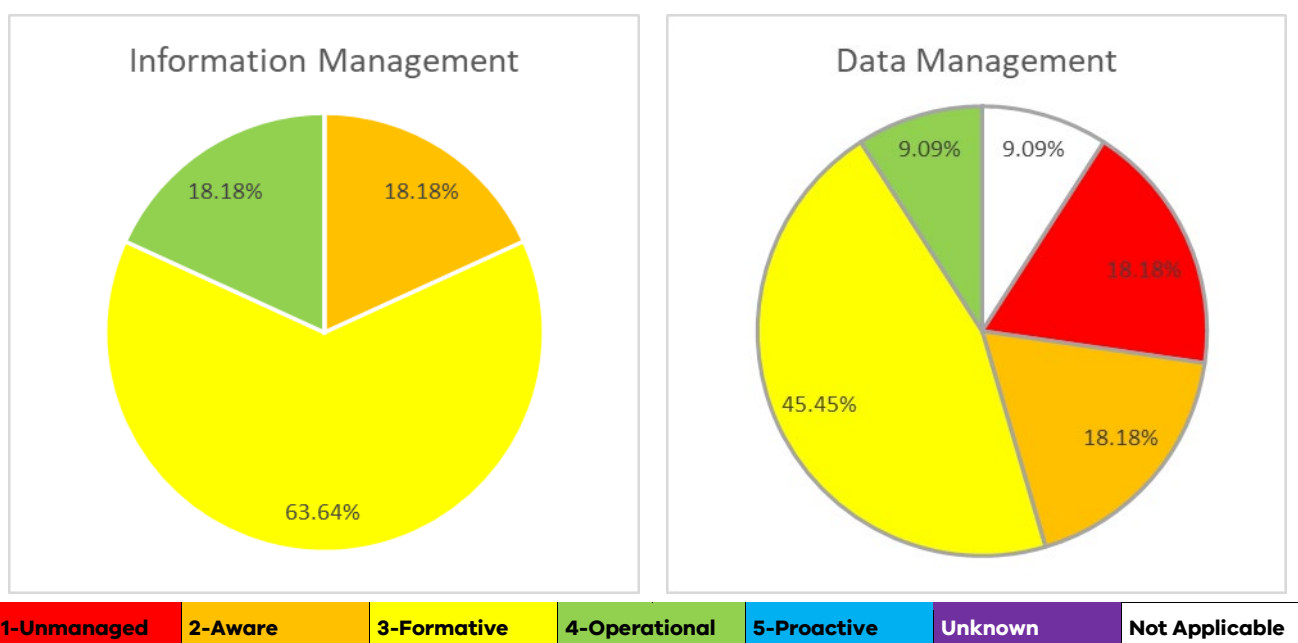
Organisations 1, 5, 6, 7, 8, and 9 all achieved the same ratings for both data management and information management, potentially due to their data and information management programs regarding audit and compliance being in alignment.

Organisation 3 only provided a rating for information management as they responded with Not Applicable for data management.



**Chart 3.8c** Question 2.5 rating levels– average comparison

Question averages show audit and compliance of data management was in the middle of 2 Aware, whereas information audit and compliance sat at 3 Formative by comparison.



**Chart 3.8d** Question 2.5 rating levels – comparison of information and data management by maturity level percentage

Comparison of the maturity level percentages showed that data audit and compliance were on par with information audit and compliance for most of the participating organisations, while for some it had not yet commenced.

## 4 D3: Lifecycle and Quality

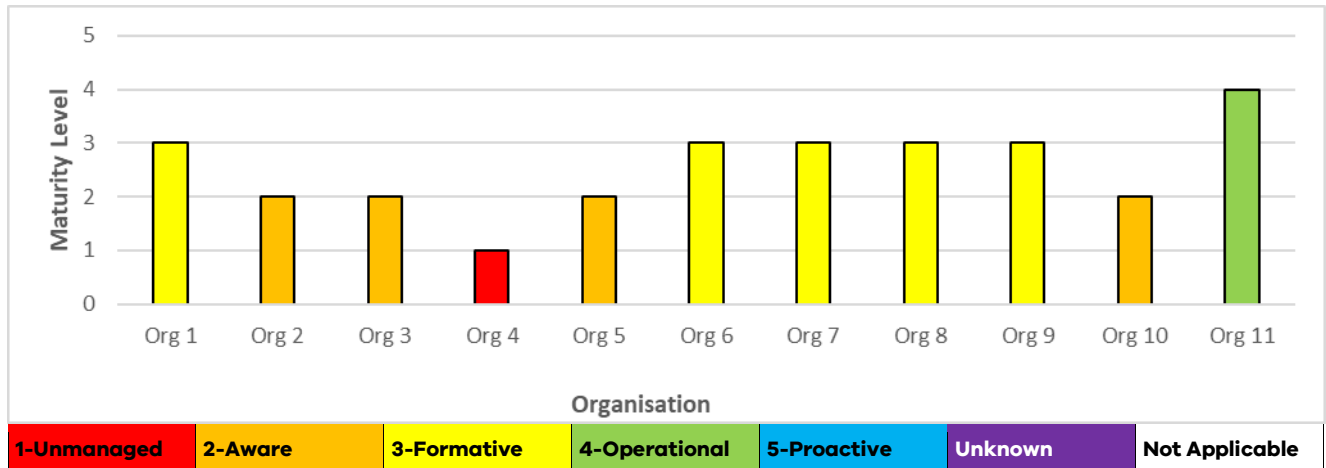
### Question 3.1 Data asset management

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

Key Themes	Key Challenges
<ul style="list-style-type: none"> <li>The information asset register and information asset management programs were used to identify and monitor significant data assets, assign owners, and improve visibility, accessibility and use of data.</li> <li>There was movement towards data specific methods for identifying, managing and storing data (including responsibilities in relation to data) such as a Data Catalogue, a Common Data Layer, linkage maps, trusts and vaults, dedicated virtual machines, or integrated data resources.</li> <li>Roles and responsibilities for data management have been assigned with ownership held by people with sufficient expertise in information and data management. Responsibilities assigned were in relation to discoverability, access and release, useability, quality, security, and privacy.</li> <li>Processes have been put in place to monitor data assets including accreditation of data management processes and training, assessment tools for business systems due to be decommissioned, audit programs relating to data quality, and data management plan templates and strategic roadmaps to help structure</li> </ul>	<ul style="list-style-type: none"> <li>Inconsistent and limited use of tools used to identify, manage and use data where effective management and use was largely based on the awareness and data maturity of specific people and business units rather than the organisation as a whole.</li> <li>A focus on managing information that didn't incorporate the intricacies of data sets, even though data in systems was included as part of information management.</li> </ul>

how data was to be identified, managed and used.

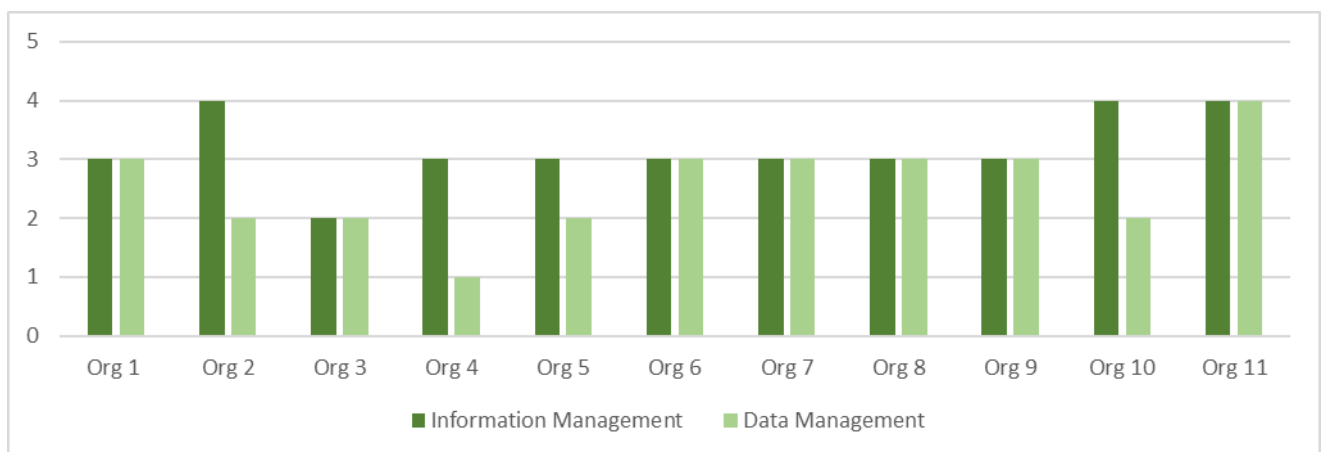
The average maturity level for this question was 2 Aware.



**Chart 3.9a** Question 3.1 rating levels – 2023-24 assessment

Organisation 11 achieved the highest rating of 4 Operational, which was higher than average for this question. Comments provided suggest the higher maturity was due to the completion of an information management review which included identification and update of all information assets, including data. Organisations 1, 6, 7, 8, and 9 achieved a maturity level of 3 Formative, which was also above average. Organisations 2, 3, 5, and 10 held a maturity level at the average of 2 Aware.

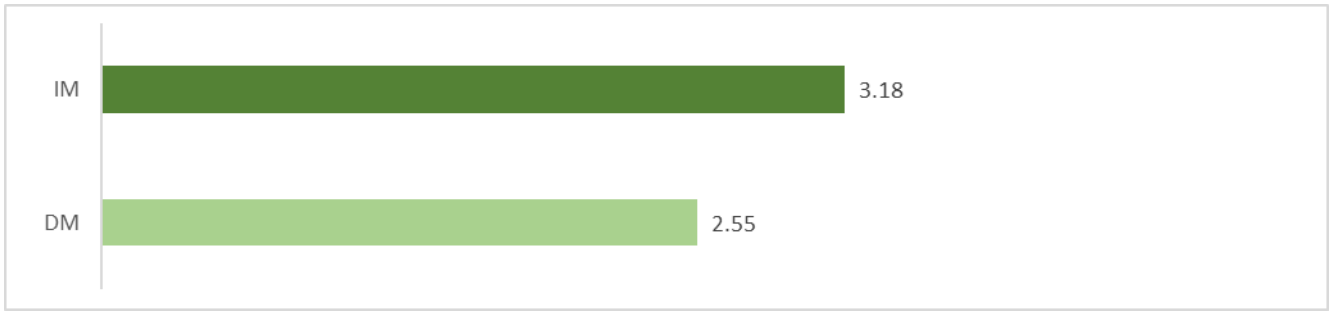
Organisation 4 held the lowest rating of 1 Unmanaged, which was below the average for this question. Comments indicate the lower maturity was due to their information asset management program being in its early stages.



**Chart 3.9b** Question 3.1 rating levels– Information and Data Management comparison

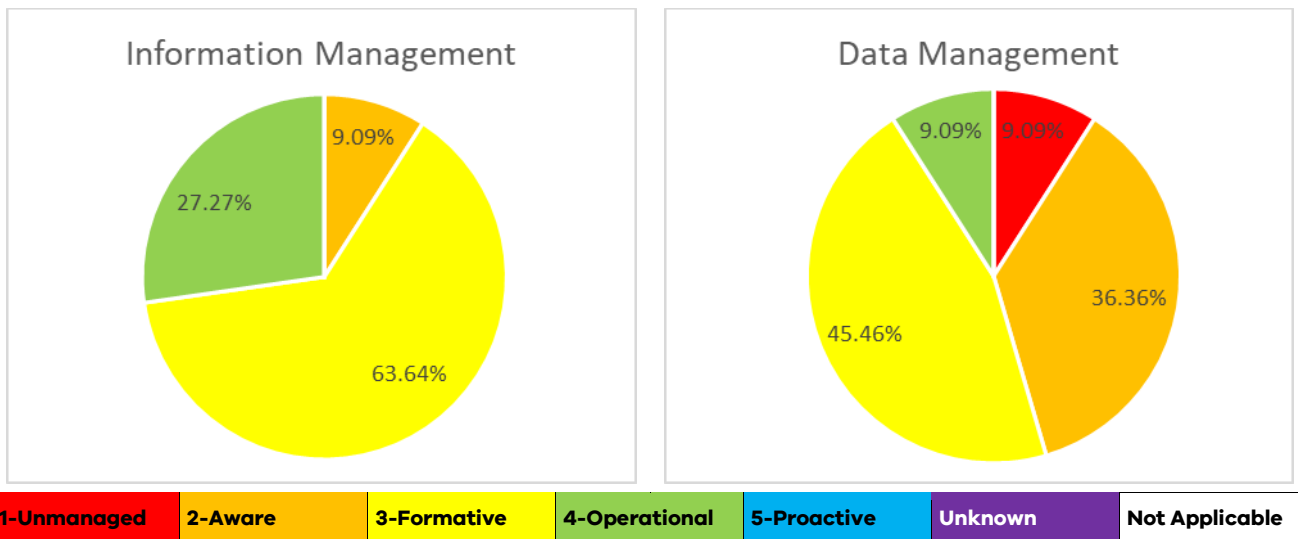
While no organisation has a higher data management rating than information management for data asset management, Organisations 1, 3, 6, 7, 8, 9 and 11 all had the same data management rating as information management.

Organisations 2, 4, 5, and 10 all had lower ratings for data management than information management.



**Chart 3.9c** Question 3.1 rating levels– average comparison

While the average rating for information asset management was 3 Formative, the average rating for data asset management was in the middle of 2 Aware.



**Chart 3.9d** Question 3.1 rating levels – comparison of information and data management by maturity level percentage

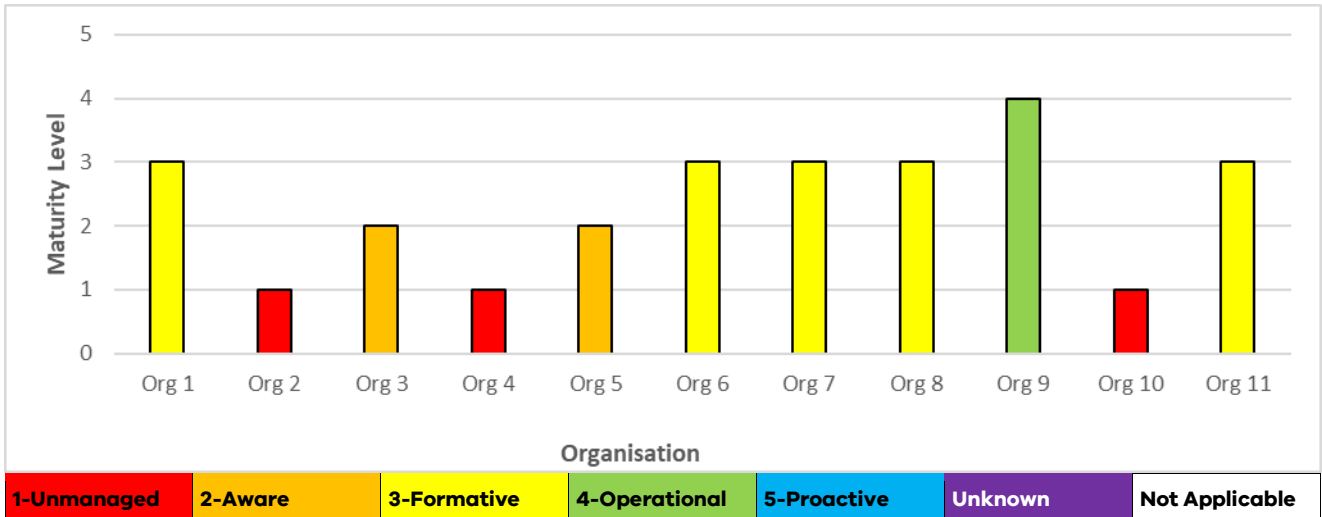
The spread of maturity levels for data management showed that work was being done to set up data asset management practices, with some organisations being further along than others. Information management by comparison was moving from forming good data asset management practices to making them operational as a key part of business practice.

## Question 3.2 Policies and procedures

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

Key Themes	Key Challenges
<ul style="list-style-type: none"> <li>• Key data policies and procedures were up to date, compliant with relevant legislation, available to all staff, and addressed data access and release, data quality, collection, and governance.</li> <li>• There were robust practices relating to data requests, access, release, and use that were compliant with legislation, including the Privacy and Data Protection Act, Health Records Act, and Public Records Act. Practices included development of Privacy Impact Assessments, completion of Information Security Classification, approval by an accredited Human Research Committee, or completion of a Deed of Acknowledgement and Confidentiality.</li> <li>• Existing information management, information security, information asset governance, privacy, and records management policies and procedures were used to address and promote data management requirements across the organisation. Policies and procedures were reviewed as part of a regular cycle of improvement and were available through central hubs, SharePoint sites, and other locations available to all staff.</li> <li>• Localised policies and procedures for data management were embedded in practice and addressed the specific requirements of a group, division or business unit.</li> </ul>	<ul style="list-style-type: none"> <li>• No data specific policies or procedures in place or planned.</li> <li>• Significant gaps in relation to obtaining data management specific advice or support.</li> <li>• Inconsistencies of awareness and compliance across the organisation in relation to data management.</li> </ul>

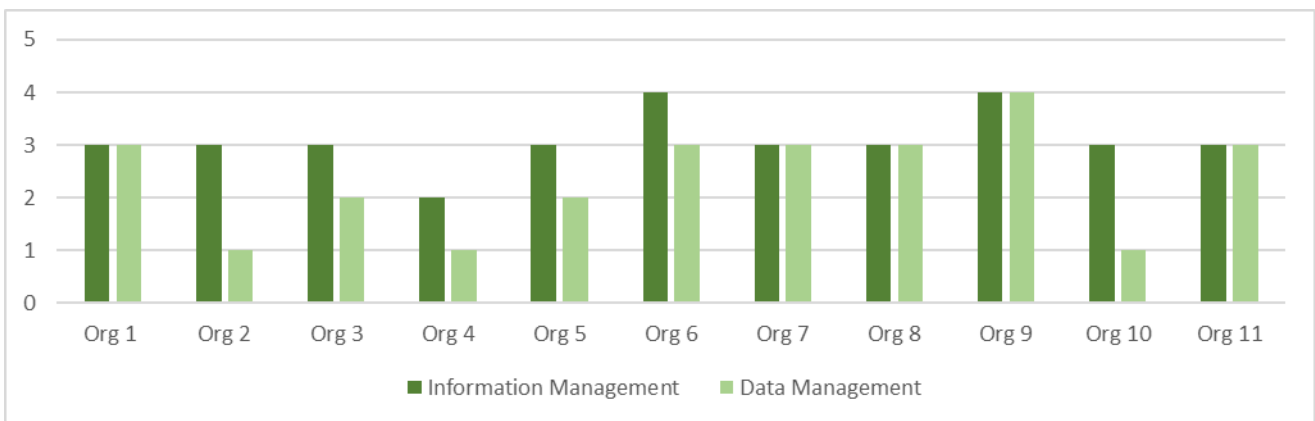
The average maturity level for this question was 2 Aware.



**Chart 3.10a** Question 3.2 rating levels – 2023-24 assessment

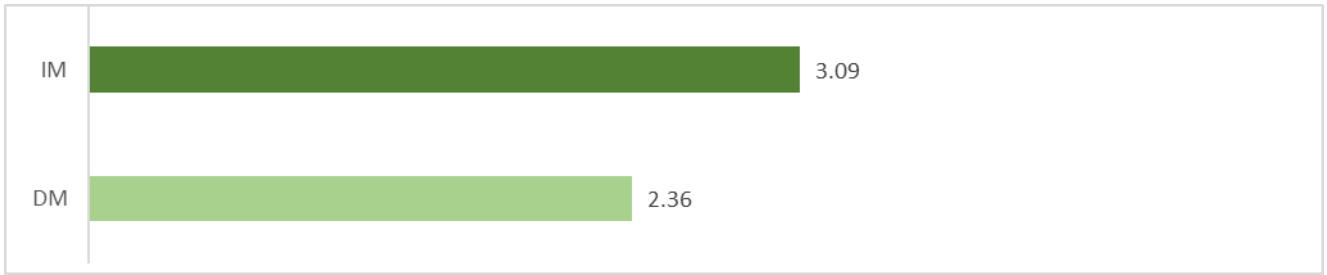
Organisation 9 achieved the highest rating of 4 Operational, which was above the average for this question. Comments provided suggest the higher maturity was due to having policies and procedures in place that are compliant with relevant legislation and part of regular policy review cycles. Organisations 1, 6, 7, and 8 achieved a maturity level of 3 Formative, which was also above average. Organisations 3 and 5 held a maturity level at the average of 2 Aware.

Organisations 2, 4 and 10 held the lowest rating of 1 Unmanaged, which was below the average for this question. Comments indicated the low maturity was due to not having data specific policies and procedures in place, and having data practices that were localised to specific business units with data management expertise rather than across the broader organisation.



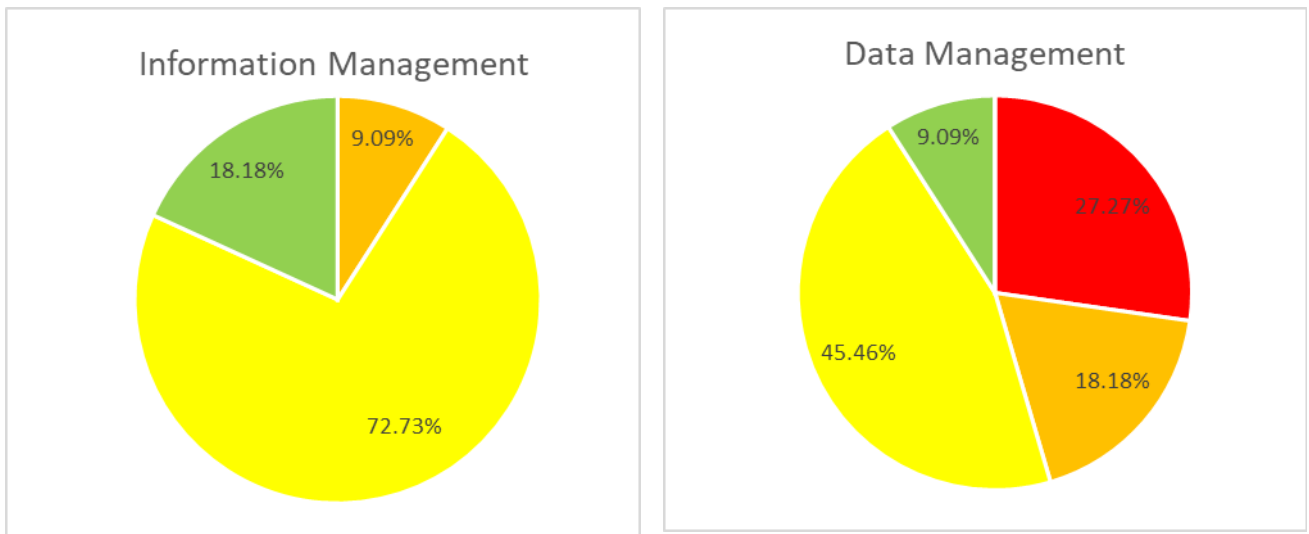
**Chart 3.10b** Question 3.2 rating levels – Information and Data Management comparison

No organisation achieved a higher data management rating than information management for policies and procedures. Organisations 2, 3, 4, 5, 6, and 10 all had a lower data management rating than information management for policies and procedures, while the remaining organisations achieved the same rating for both information and data. For some organisations, the lower rating for data management reflected the absence of data specific policies and procedures while for others it reflected a focus on information management policies and procedures to address data or emerging data specific policies that were in development.



**Chart 3.10c** Question 3.2 rating levels – average comparison

While information management had an average rating of 3 Formative for policy and procedure and data management had a rating of 2 Aware, both were in early stages for that maturity level.



**Chart 3.10d** Question 3.2 rating levels – comparison of information and data management by maturity level percentage

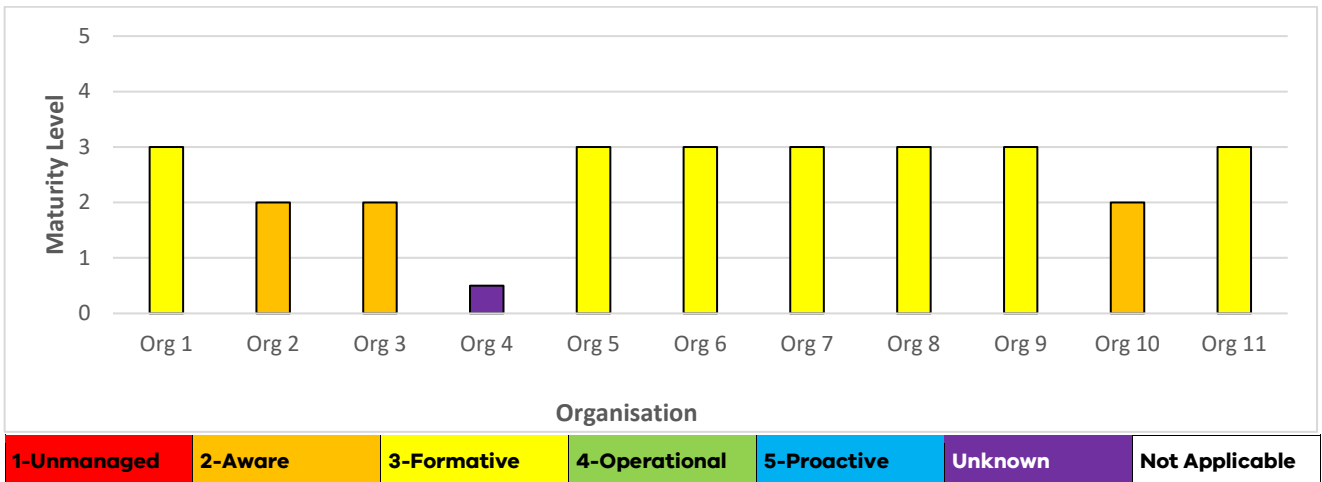
The maturity level percentages for data management show diversity from 1 Unmanaged through to 4 Operational, with each area represented. Both information and data management have 3 Formative as the largest percentage.

### Question 3.3 Meeting business and user needs

*Is data meeting the needs of the business and its users in terms of strategic importance, quality, and accountability?*

Key Themes	Key Challenges
<ul style="list-style-type: none"> <li>• Assessment methods were in place to determine whether data was meeting business needs. Methods included assessing key data collections, providing users with compliance reports on data completeness, assessing data access points in business processes, determining who was using what data when, use of data products designed to address business needs, and analytics work by data specialists.</li> <li>• There was a focus on improving data quality through processes, systems and programs. This included providing data quality statements in user manuals, as well as implementing processes for new applications to ensure accuracy, completeness, currency and consistency of data.</li> <li>• Data access and use was improved through use of tools that enabled relevant data to be locatable and accessible. This includes adding datasets to the Common Data Layer, use of the Purview Data Catalogue, Condition of Release rules, Victorian Linkage Maps, integrated Data Resource, and Data Hub.</li> <li>• Localised processes and structures for data were implemented by specific groups, divisions, teams or individuals with expertise in data that address the specific business needs of that group, division, team or individual.</li> </ul>	<ul style="list-style-type: none"> <li>• No organisation wide quality and availability program or other broader program to assess and monitor data to ensure that business needs were met.</li> <li>• Multiple different systems and sets of practices in place making visibility across the space difficult to assess.</li> <li>• Inconsistencies across the organisation regarding meeting business needs as parts of the organisation had little to no maturity while others had expertise as well as processes and practices in this space that addressed business needs to some degree.</li> <li>• No resources available to analyse, assess and address needs or carry out relevant programs resulting in limitations on the extent that data could be used to successfully address business needs.</li> </ul>

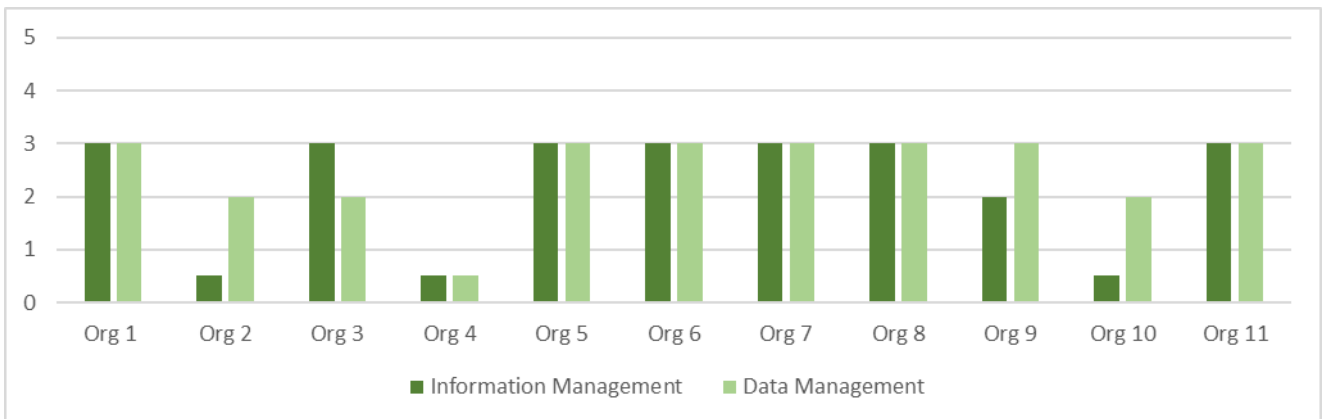
The average maturity level for this question was 2 Aware.



**Chart 3.11a** Question 3.3 rating levels – 2023-24 assessment

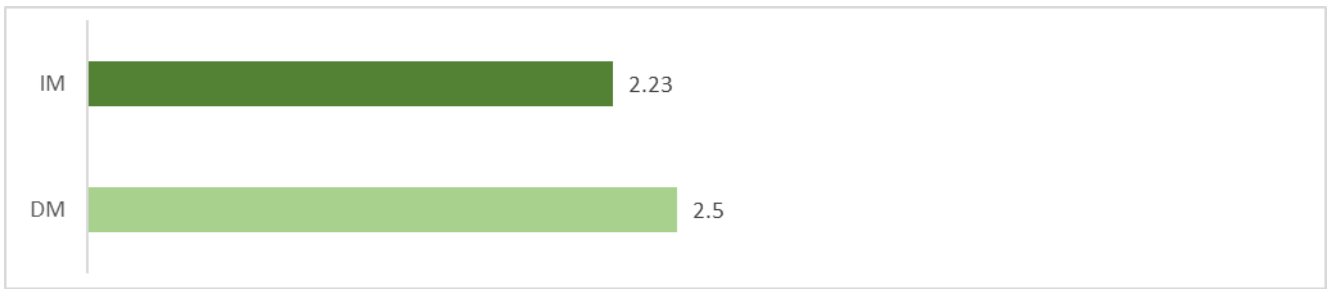
Organisations 1, 5, 6, 7, 8, 9 and 11 all achieved a maturity level rating of 3 Formative, which was higher than the average for this question. Comments provided suggest the higher maturity was due to having frameworks or other structures in place that they were leveraging to understand and manage business needs where practical. Organisations 2, 3, and 10 held a maturity level at the average of 2 Aware.

Organisation 4 provided a maturity level rating of Unknown.



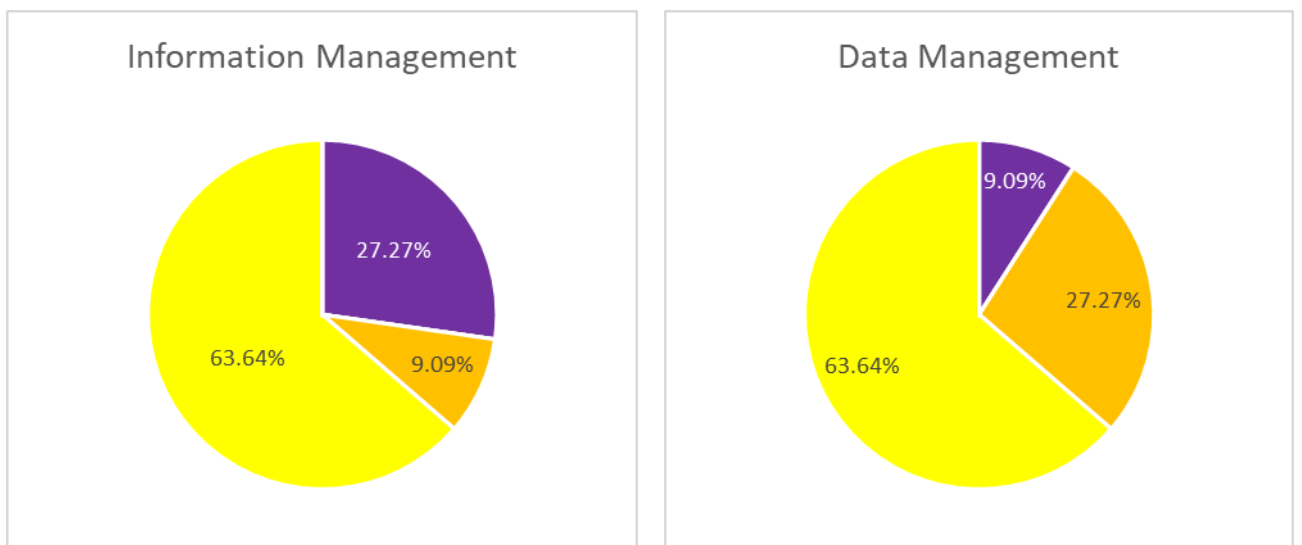
**Chart 3.11b** Question 3.3 rating levels– Information and Data Management comparison

Organisations 2, 9 and 10 had a higher maturity level rating for data management than information management, partially due to having data specific practices to obtain information on business needs. Organisation 3 had a lower data management maturity level rating as data specific practices were undertaken by part of the organisation only and not across the broader organisation. The remaining organisations had the same data management rating as their information management maturity level.



**Chart 3.11c** Question 3.3 rating levels– average comparison

While data management and information management are both within 2 Aware, the average rating for data management is higher than for information management regarding meeting business needs.



**Chart 3.11d** Question 3.3 rating levels – comparison of information and data management by maturity level percentage

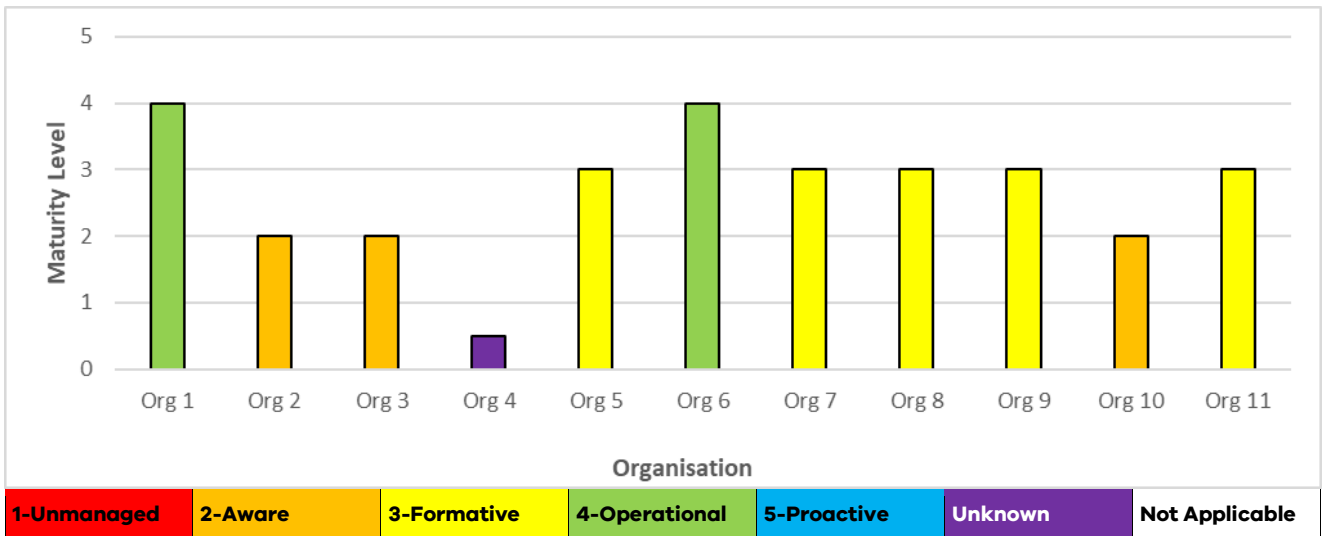
Both information management and data management had the same percentage of 3 Formative. While the other two maturity levels were the same, percentages were reversed with 2 Aware being higher for data management. Both data management and information management had a maturity level of Unknown for meeting business needs.

### Question 3.4 Data accessibility, discoverability and availability

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

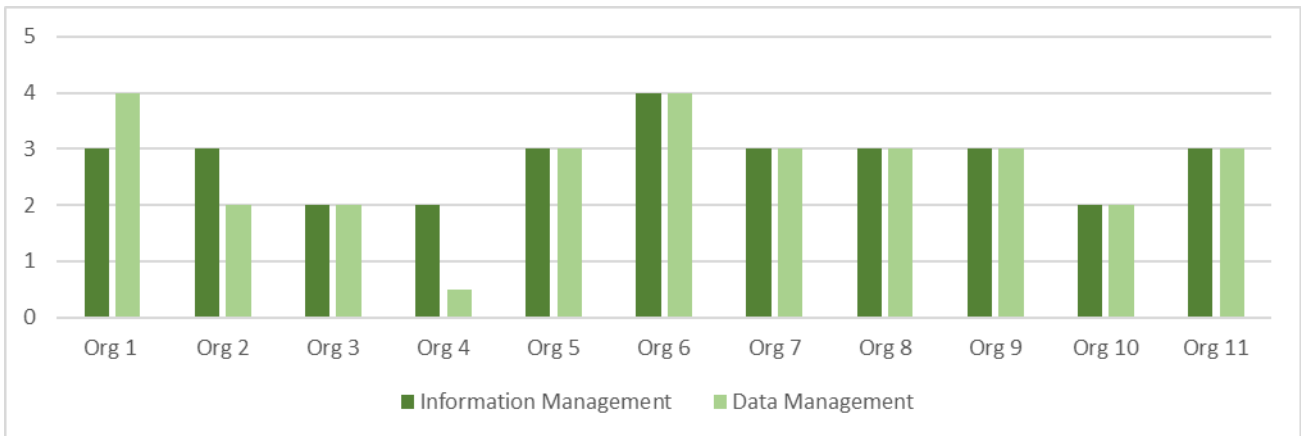
Key Themes	Key Challenges
<ul style="list-style-type: none"> <li>A range of applications and tools were used to aid data accessibility and discovery, including expanding the Information Asset Register, solutions such as Purview Data Catalogue, use of an intranet such as SharePoint sites as a central hub, Victorian Linkage Map, Integrated Data Resource, integrated search and discovery functionality, Data Cubes, and data repositories.</li> <li>There were ways for staff to discover, access and make data available in a manner that complied with legislation (including privacy and security) and that were promoted through use of policies, procedures, processes and strategies. Policies include data access and release, data sharing, and information security / cyber security.</li> <li>Data was stored in systems that were owned and managed by third party providers, and provision of publicly available data to DataVic to be hosted on their website.</li> </ul>	<ul style="list-style-type: none"> <li>No organisation wide data catalogue, data repository, or guidance on metadata best practice.</li> <li>Inconsistencies of practice in place that support data accessibility, discoverability and availability with pockets of good practice in areas where personnel have expertise rather than across the whole organisation.</li> <li>Lack of interoperability between platforms, systems, policies and strategies that limited data availability, discovery and availability.</li> </ul>

The average maturity level for this question was 2 Aware.



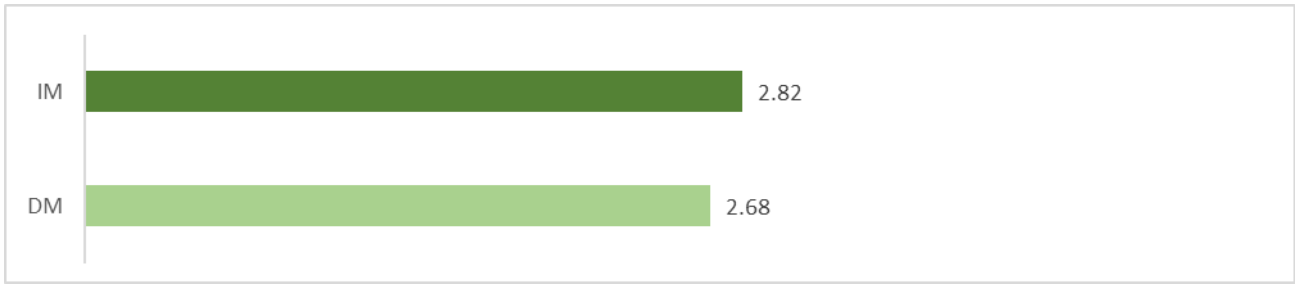
**Chart 3.12a** Question 3.4 rating levels – 2023-24 assessment

Organisations 1 and 6 achieved the highest rating with a maturity level of 4 Operational, which was higher than the average for this question. Comments suggest the higher maturity was due to having multiple applications, tools and processes in place to aid data accessibility, discoverability, and availability. Organisations 5, 7, 8, 9 and 11 achieved maturity levels of 3 Formative, which was also above the average, while Organisations 2, 3 and 10 held maturity levels at the average of 2 Aware with comments acknowledging that more work was needed. Organisation 4 held a rating of Unknown.



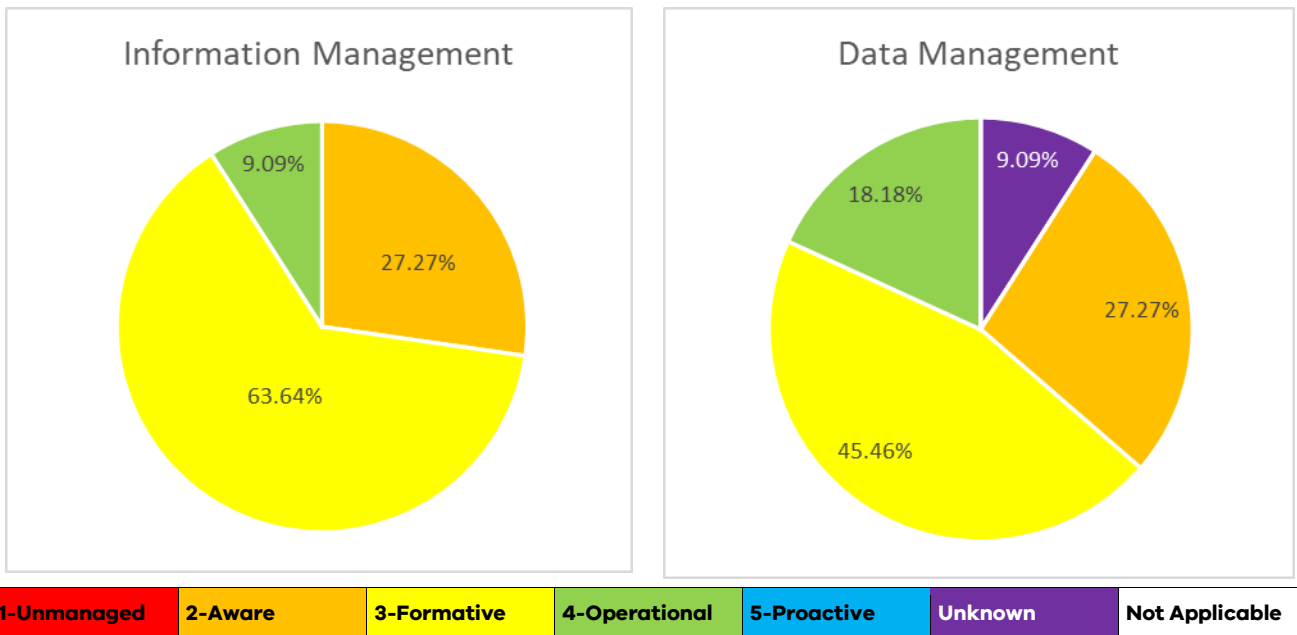
**Chart 3.12b** Question 3.4 rating levels– Information and Data Management comparison

Organisation 1 achieved a higher data management rating than information management, possibly due to their having several tools, processes and practices in place that specifically addressed data accessibility, discoverability and availability. Organisations 2 and 4 both held a lower data management rating than information management, potentially due to information management tools being used to address data accessibility, discoverability and availability.



**Chart 3.12c** Question 3.4 rating levels – average comparison

Average ratings for data management and information management regarding accessibility, discoverability and availability were both nearing the top of 2 Aware. This reflected the focus across Victorian government on ensuring data and information were accessible and available.



**Chart 3.12d** Question 3.4 rating levels – comparison of information and data management by maturity level percentage

The spread of maturity across both information and data management was very similar, with data management having a higher representation in 4 Operational and information management having the higher percentage in 3 Formative.

## Question 3.5 Data use and reuse

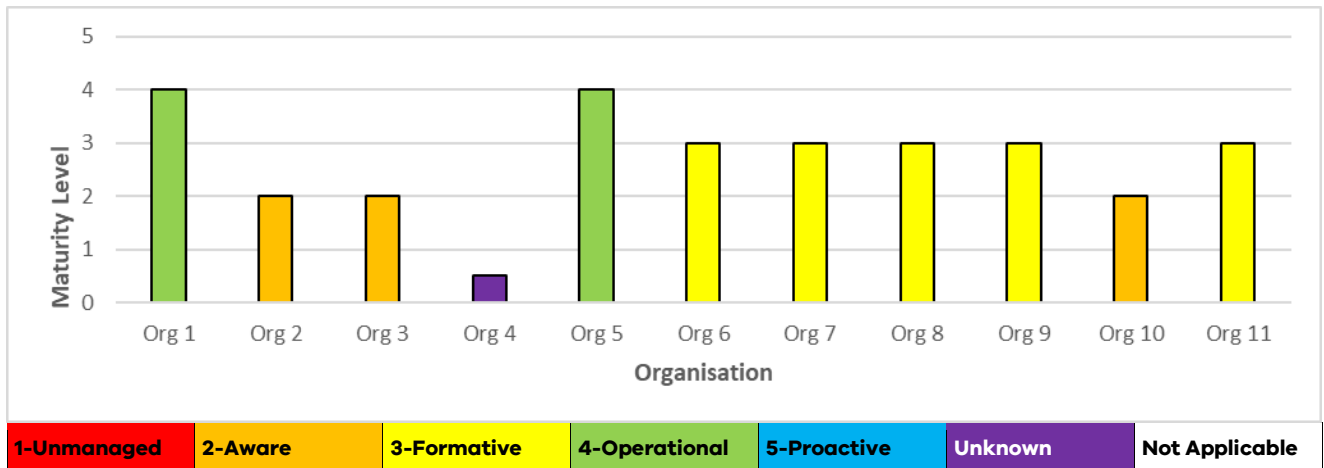
*How usable is the data being produced by the organisation, both now and in the future?*

Key Themes	Key Challenges
<ul style="list-style-type: none"> <li>• Use and reuse of data promoted by releasing datasets supported by quality statements through data sharing arrangements, dedicated applications, and websites. Publicly available datasets were released through DataVic under Creative Commons licences, or through dedicated staff in response to requests. Secure datasets were released through secure data exchange websites or the Victorian Data Access Linkage Trust, along with a data sharing agreement that requires the data to be managed and disposed of in compliance with relevant legislation.</li> <li>• Tools such as the common data layer, enterprise data catalogue, metadata documentation, standard definitions, value domains and classifications, and application programming interfaces were used to aid data use and reuse, as well as pattern-based architecture to inform data integration and exchange.</li> <li>• Rules, policies, and standards regarding the collection and reuse of data were in place, for example to prevent data analyses being shared if there was a risk of identifying individual staff members.</li> <li>• Accreditation processes and guidance regarding data exchanges, collection, and processing were in place to ensure data was fit for purpose and met legislative requirements.</li> <li>• Existing information sharing structures, including policies, standards and strategies were used to aid the sharing</li> </ul>	<ul style="list-style-type: none"> <li>• No documented processes to guide the use and reuse of information or data and no assessment of the legal retention of data.</li> <li>• Use of multiple separate repositories and associated sets of processes and practices that made data visibility difficult.</li> <li>• Inefficient integrations between systems and knowledge used as different groups have different systems, processes, and expertise.</li> <li>• Tools to determine data use and reuse, such as Power BI, were not available or were in the early stages of use.</li> </ul>

of datasets, metadata, and address data collection for reuse.

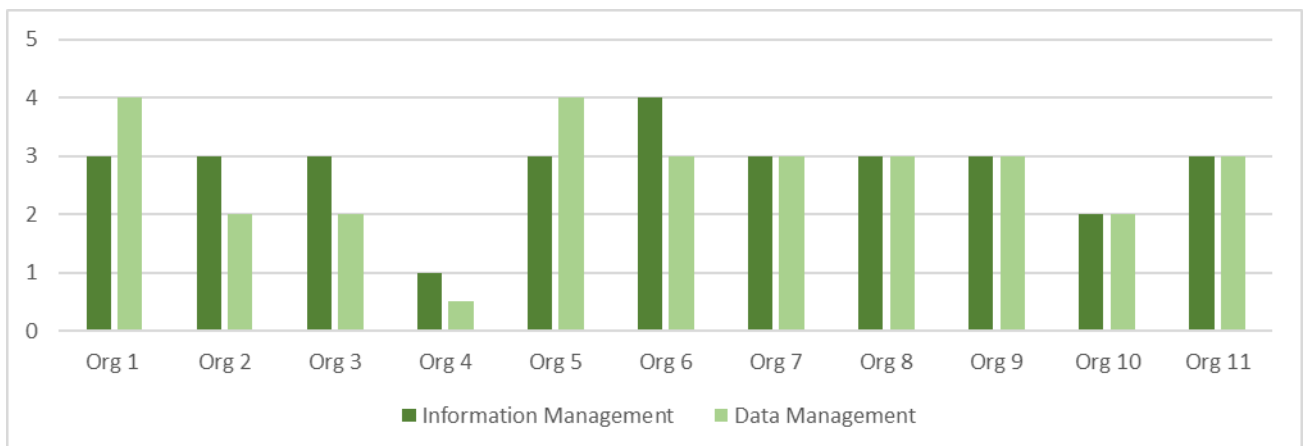
- Localised data collection and analytics were used to support business intelligence and decision making by staff with relevant expertise.

The average maturity level for this question was 2 Aware.

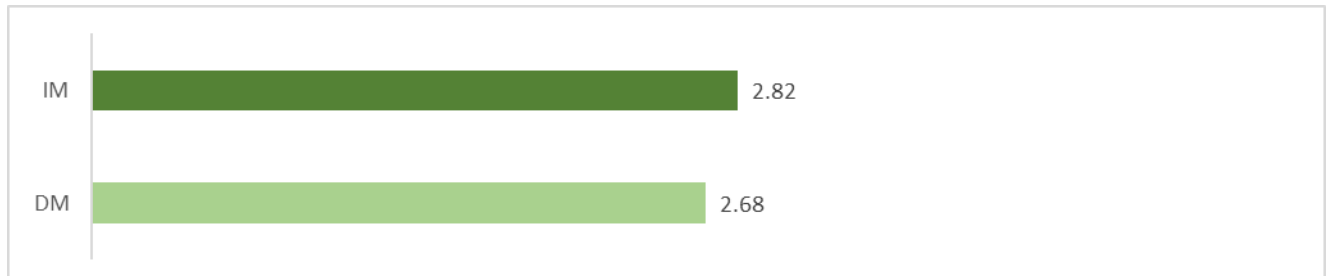


**Chart 3.13a** Question 3.5 rating levels – 2023-24 assessment

Organisations 1 and 5 achieved the highest maturity level rating of 4 Operational, which was above the average for this question. Comments suggest the high maturity was due to having data collection, release and exchange practices and tools in place and well established. Organisations 6, 7, 8, 9, and 11 achieved maturity levels of 3 Formative, which was also above the average. Organisations 2, 3 and 10 held a maturity level at the average of 2 Aware. Comments indicate the lower maturity level was a result of the practices and tools being driven by specific individuals with the relevant expertise rather than a broader organisation-wide strategy. Organisation 4 provided a maturity level rating of Unknown.

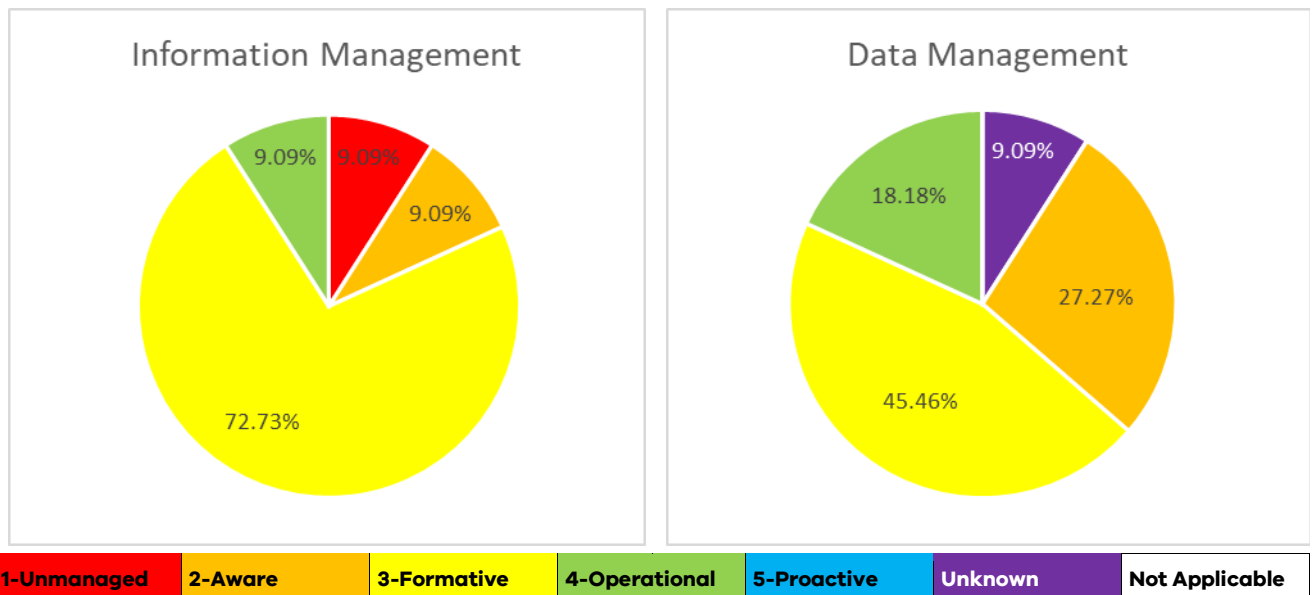


Organisations 1 and 5 both achieved a higher data management rating than information management for use and reuse which may be due to the impact of machinery of government change. Organisations 2, 3, 4 and 6 all held a lower data management rating than information management, which may be due to tools, structures and practices for information management being more well-known and utilised than data-specific ones.



**Chart 3.13c** Question 3.5 rating levels– average comparison

The average ratings for information management and data management regarding use and reuse were both nearing the top of 2 Aware. The similarity of the scores reflected that use and reuse practices and structures covering both information and data were in place and used.



**Chart 3.13d** Question 3.5 rating levels – comparison of information and data management by maturity level percentage

Comparing the spread of maturity, the percentage of maturity levels 4 Operational and 2 Aware were higher for data management, while the maturity level of 3 Formative was higher for information management than data regarding use and reuse. The main difference between the two is that information had a 1 Unmanaged while data had a rating of Unknown.

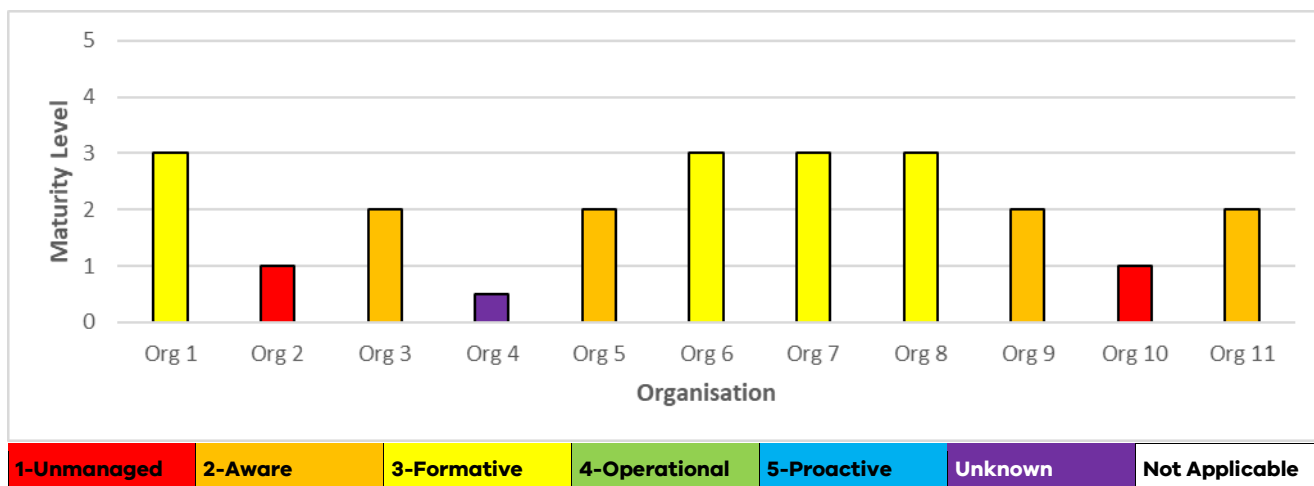
# 5 D 4: Business Systems and Processes

## Question 4.1 Data architecture

*Has the organisation developed a data architecture model? To what degree does it link to other relevant models?*

Key Themes	Key Challenges
<ul style="list-style-type: none"> <li>• Data architecture was being undertaken as part of new implementation projects and processes, including digital roadmaps and associated analysis results, and other ICT related implementations.</li> <li>• Data architecture was supported by specific committees, boards, and subject matter experts, that reviewed business systems, capabilities, and supporting technologies, and advised on gaps and solutions including data architecture.</li> <li>• Localised data architecture models and digital roadmaps were based on the knowledge, capabilities, business needs, and systems used by specific teams, divisions and groups and were at varying degrees of maturity.</li> <li>• The data architecture models were used to embed data management processes including retention and disposal, security, and other compliance requirements.</li> </ul>	<ul style="list-style-type: none"> <li>• Not having a data architecture model in place or having an architecture that was incomplete or in its early stages of developing and movement.</li> <li>• Machinery of government change, staff movements and other resource limitations impacting the ability for projects such as data architecture implementations to be carried out effectively.</li> <li>• Transition and change across Victorian government as data systems became standardised and enabled management of systems across larger entities.</li> <li>• Use of disparate systems at various states of their lifecycle resulting in gaps in data architecture.</li> </ul>

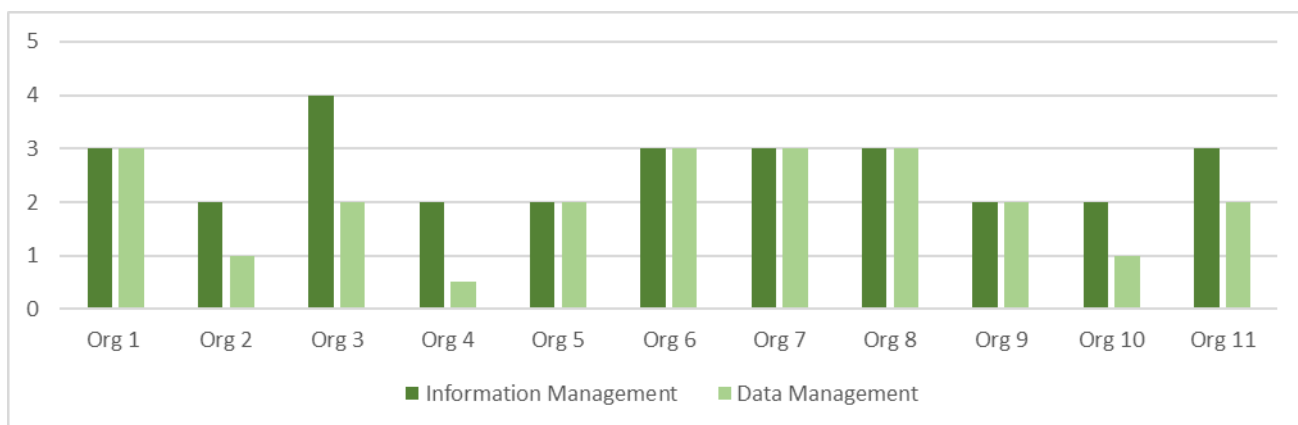
The average maturity level for this question was 2 Aware.



**Chart 3.14a** Question 4.1 rating levels – 2023-24 assessment

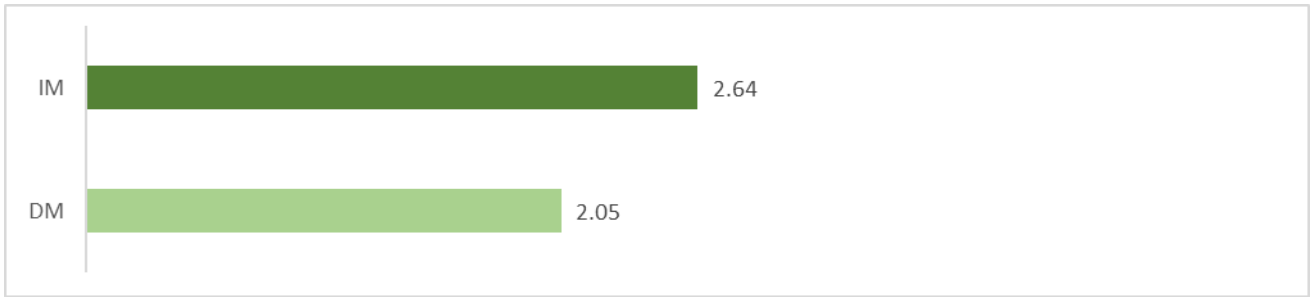
Organisations 1, 6, 7, and 8 all achieved the highest rating of 3 Formative, which was higher than the average for this question. Comments suggest the higher maturity was a result of the organisations being in various stages of data architecture development and implementation. Organisation’s 3, 5, 9 and 11 held a maturity level at the average of 2 Aware.

Organisation’s 2 and 10 held the lowest rating of 1 Unmanaged. Organisation 4 provided a maturity level rating of Unknown.



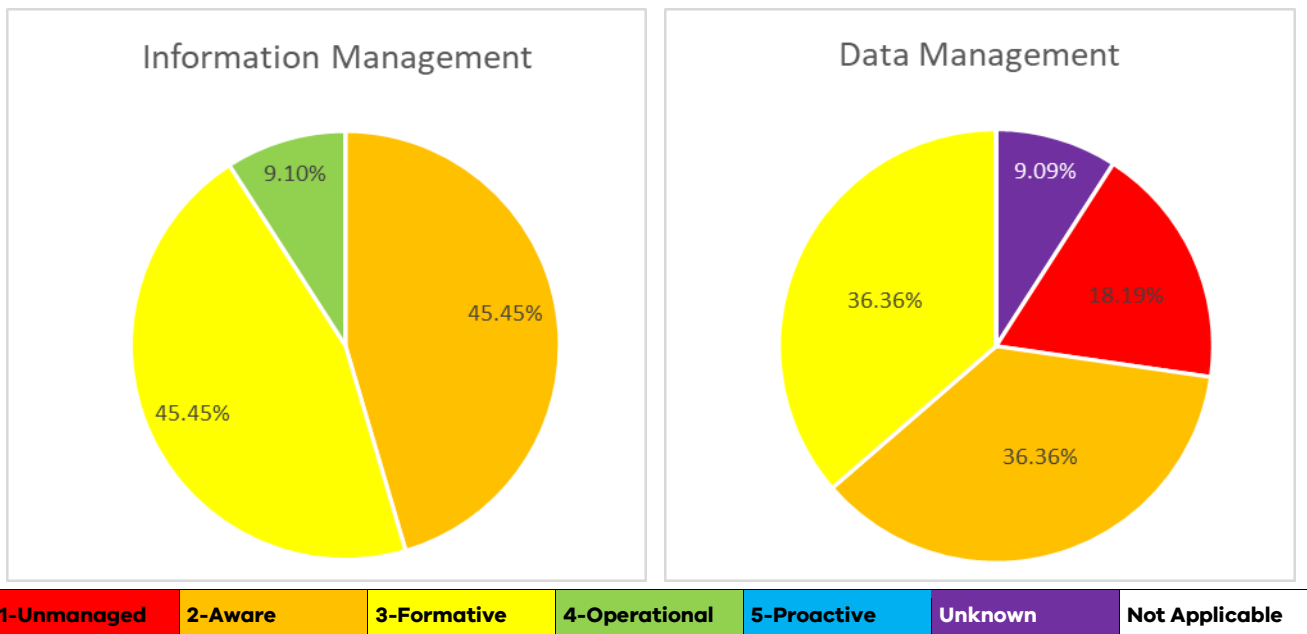
**Chart 3.14b** Question 4.1 rating levels– Information and Data Management comparison

While no organisation reported a higher rating for data than information regarding architecture, Organisations 1, 5, 6, 7, 8, and 9 all held equal ratings for both data and information, suggesting consistency in the development and application of architecture models. Organisations 2, 3, 4, 10 and 11 all provided lower ratings for data than information, possibly due to a focus and awareness of what was needed for information architecture that did not yet address data-specific requirements.



**Chart 3.14c** Question 4.1 rating levels– average comparison

The average rating for information and data shows that information architecture maturity was nearing the top of 2 Aware, while data architecture maturity was in the very early stages of 2 Aware.



**Chart 3.14d** Question 4.1 rating levels – comparison of information and data management by maturity level percentage

Maturity level percentage comparison shows that percentages were equal for both 2 Aware and 3 Formative in both charts. Where information management shows a percentage for 4 Operational, data management holds ratings for 1 Unmanaged and for Unknown.

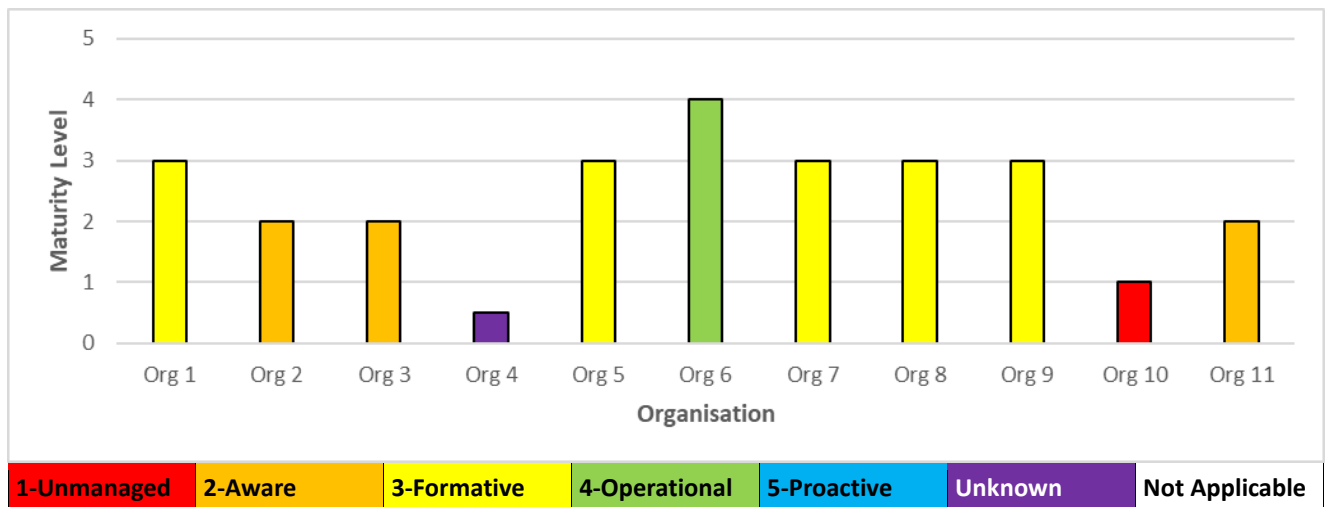
## Question 4.2 Process improvement

*How well have business processes been aligned with data management requirements?*

*Has the organisation identified areas for improvement and eliminated duplicate processes?*

Key Themes	Key Challenges
<ul style="list-style-type: none"> <li>Processes were being improved as part of larger projects and programs, such as when moving from legacy systems to modern platforms, as part of new product rollouts, when implementing new tools such as the common data layer, and as part of system upgrades to streamline processes such as data access, sharing and release.</li> <li>Process improvement activities were based on the knowledge, capabilities, requirements and business needs of specific teams, groups, or divisions so that data management processes matched the contextual environment of work undertaken.</li> <li>Responsibility for data management process improvement was assigned to specific teams and committees containing subject matter experts so that process improvement opportunities and recommendations could be shared and reported on effectively.</li> </ul>	<ul style="list-style-type: none"> <li>Inconsistent practices were noted across the organisation due to differences in knowledge and responsibilities, resulting in patches of good practice regarding process improvement rather than improvement across the whole organisation.</li> <li>The work required to achieve process improvement involved assessment and the re-engineering of business processes, which required resources to be available, executive support and prioritisation.</li> <li>Access (including permissions) and competencies required to achieve data management process improvement were not held by everyone needed to undertake the work and might not have been included in their core roles.</li> <li>Data management processes were in their early stages of implementation and use. Adoption of good practice regarding data management process improvement took time and required active engagement to achieve.</li> </ul>

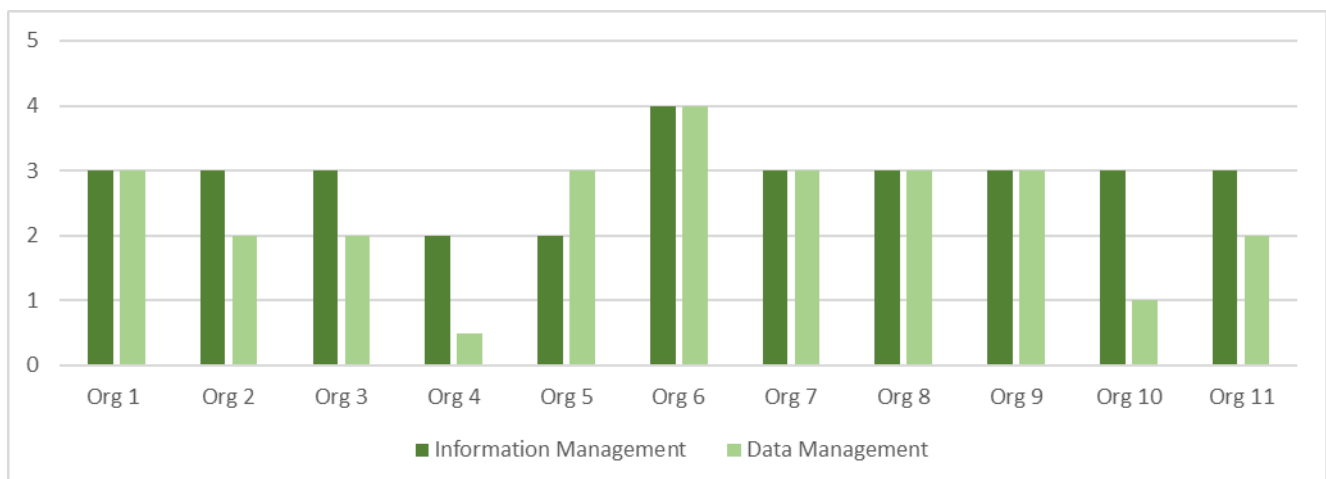
The average maturity level for this question was 2 Aware.



**Chart 3.15a** Question 4.2 rating levels – 2023-24 assessment

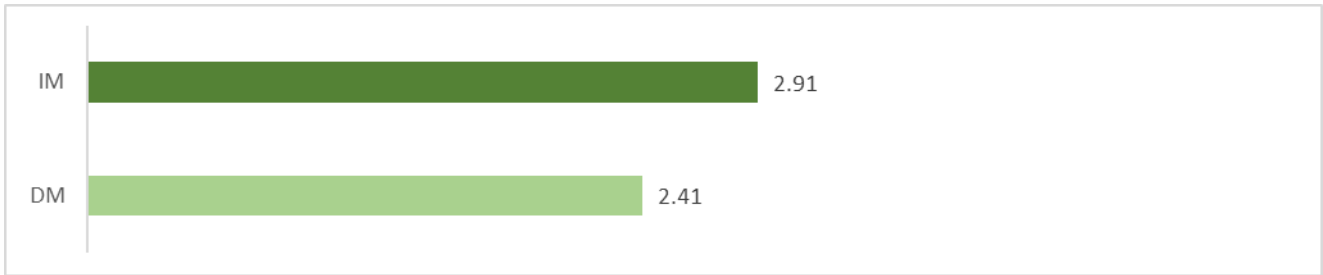
Organisation 6 achieved the highest rating of 4 Operational, which was higher than the average for this question. Comments provided suggested the higher rating was due to process improvement being actively undertaken as part of a current project that involved moving from legacy systems to modern platforms. Organisations 1, 5, 7, 8, and 9 achieved a maturity level of 3 Formative, which was also above average. Organisations 2, 3, and 11 held a maturity level at the average of 2 Aware.

Organisation 10 held the lowest rating of 1 Unmanaged, which was below the average for this question. Organisation 4 provided a rating of Unknown as there had not been a holistic assessment to determine how adjustment of business processes could best address data management needs.



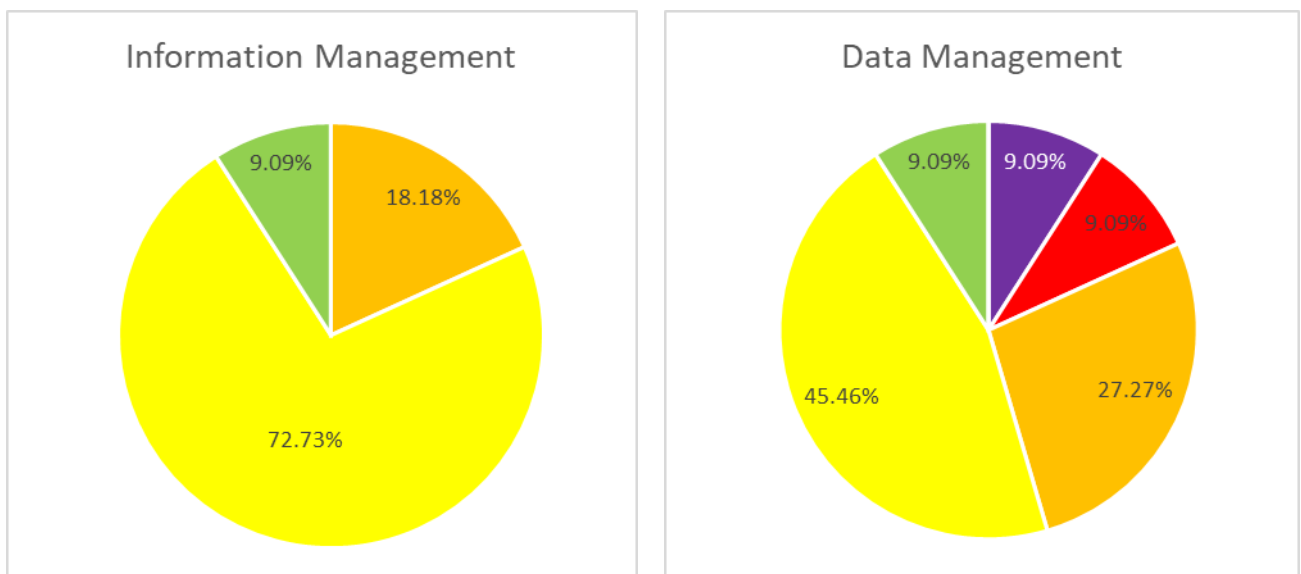
**Chart 3.15b** Question 4.2 rating levels– Information and Data Management comparison

Organisation 5 held a higher data management rating than information for process improvement. Organisations 2, 3, 4, 10, and 11 all held lower data management ratings than information management for process improvement possibly as awareness of what was needed was higher for information.



**Chart 3.15c** Question 4.2 rating levels – average comparison

Average rating comparison shows that both information and data management for process improvement were at maturity level 2 Aware, although information management was nearing the top and data management was well progressed.



**Chart 3.15d** Question 4.2 rating levels – comparison of information and data management by maturity level percentage

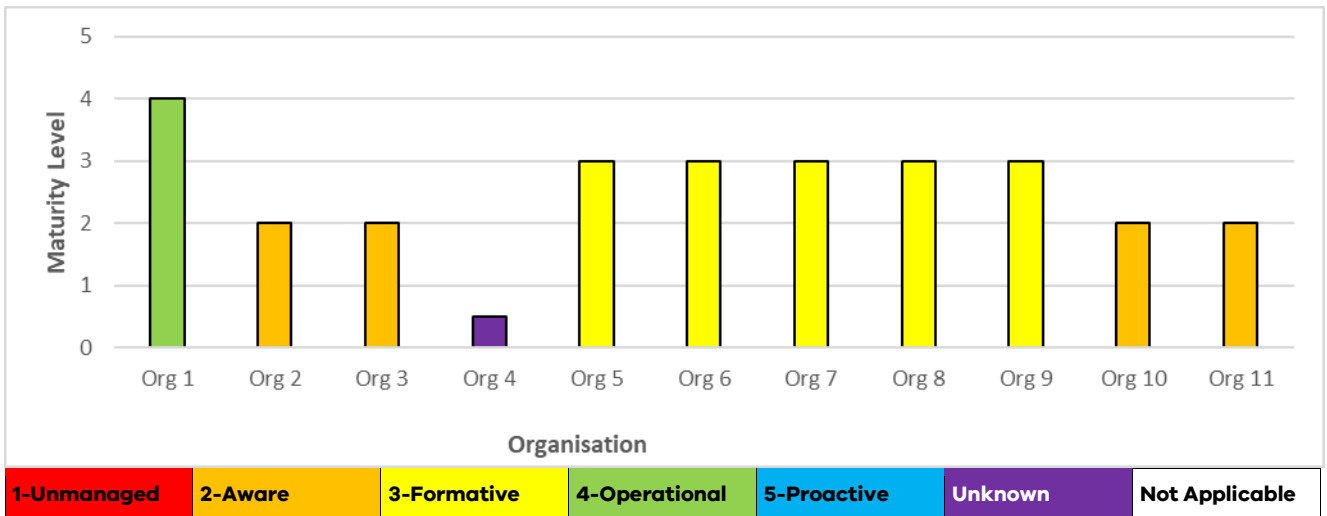
The largest percentage held for both information and data regarding process improvement was at level 3 Formative, although the percentage was considerably higher for information than data. Data management held percentages for both 1 Unmanaged and for Unknown, neither of which were reported for information management.

## Question 4.3 Business systems and tools

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

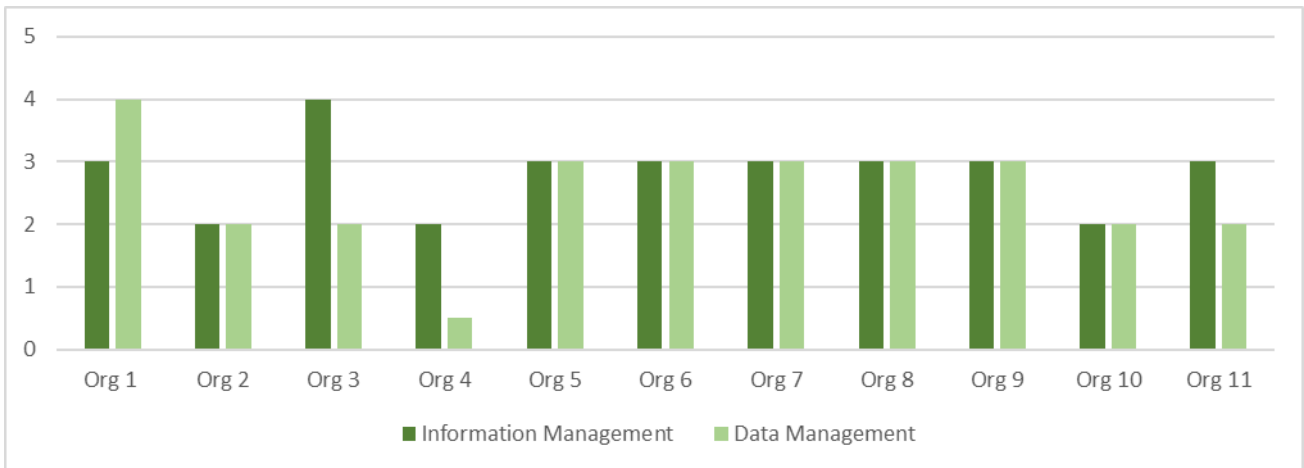
Key Themes	Key Challenges
<ul style="list-style-type: none"> <li>• Strategies, programs, policies, and processes were in place to ensure that data was managed in business systems and tools appropriately, compliantly and consistently, with participating organisations at varied stages of development.</li> <li>• Data management tools and functionality ensured data in systems was managed appropriately. For example, use of metadata, common data layer, data catalogue, secure data exchange tool, Victorian data Access Linkage Trust, and integration management systems to support use of data from multiple systems for analysis and reporting.</li> <li>• Ensuring that data management programs, practices and controls were informed by data management specialists, and that those undertaking data management practices had the required skills, competencies and responsibilities to appropriately undertake them so that data was managed well from creation and capture through to disposal.</li> <li>• Governing bodies, boards and committees were used to assess systems and applications to ensure they conform to relevant standards and requirements.</li> </ul>	<ul style="list-style-type: none"> <li>• There wasn't a holistic program for data management in place to ensure that data was being managed appropriately in systems and tools, or its management was in its early stages of development.</li> <li>• Inconsistent data management implementation across the organisation, where some systems and tools have good data management controls and processes while others don't or were implemented without consulting data specialists.</li> <li>• No or limited assessment of systems to determine compliance with relevant requirements, including those set by PROV, and OVIC.</li> </ul>

The average maturity level for this question was 2 Aware.



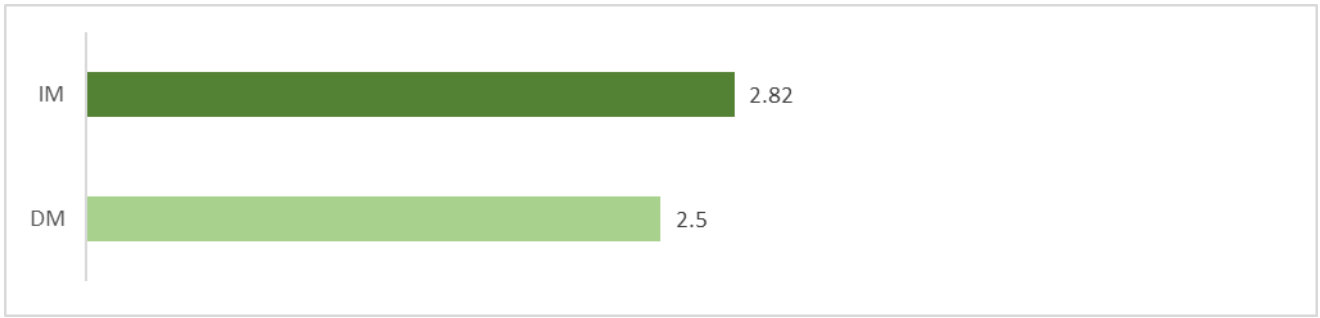
**Chart 3.16a** Question 4.3 rating levels – 2023-24 assessment

Organisation 1 achieved the highest rating of 4 Operational, which is above the average for this question. Comments suggest the higher maturity was due to having in place various systems and tools that addressed data management needs and requirements and an active focus on identifying what capabilities were needed across the data management lifecycle. Organisations 5, 6, 7, 8, and 9 achieved a maturity level of 3 Formative, which was also above average. Organisations 2, 3, 10 and 11 held a maturity level at the average of 2 Aware, potentially due to being in the process of determining and implementing appropriate systems and tools. Organisation 4 reported a maturity level of Unknown.



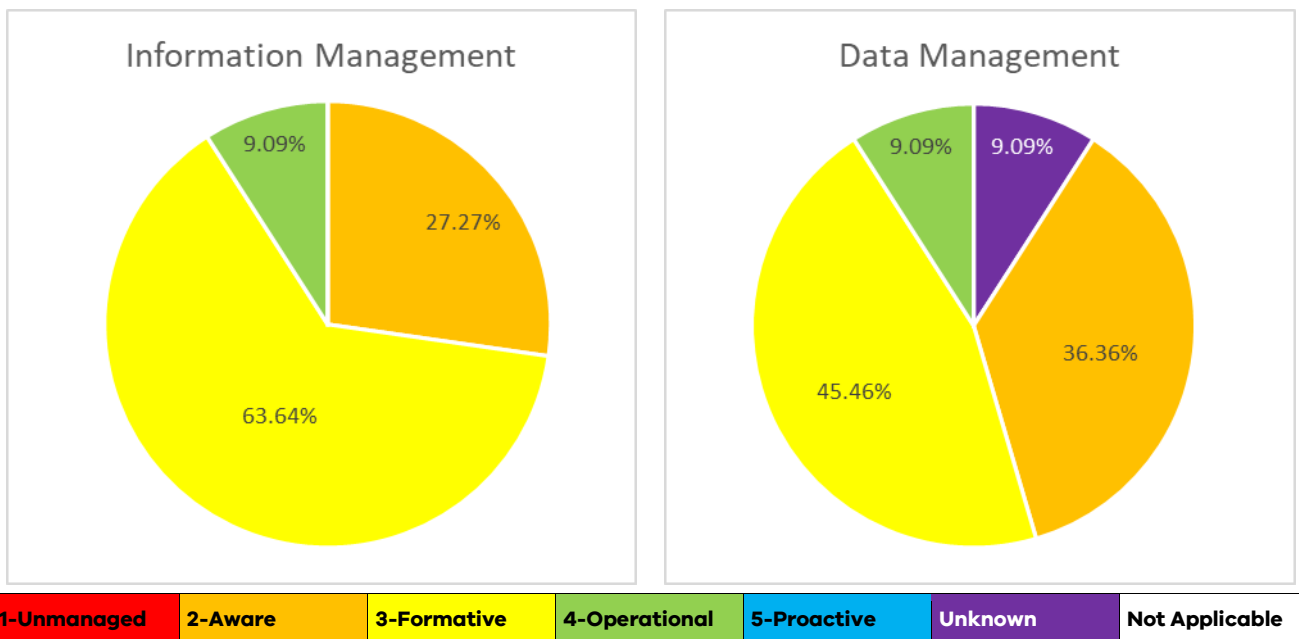
**Chart 3.16b** Question 4.3 rating levels – Information and Data Management comparison

Organisation 1 achieved a higher data management rating than information management regarding business systems and tools, possibly due to having in place a range of tools and functionality addressing data specific needs. Organisations 3, 4, and 11 held lower data management ratings than information management, potentially due to the information specific elements of systems and tools being further along in their maturity than data specific elements.



**Chart 3.16c** Question 4.3 rating levels – average comparison

Question averages show that information and data management were both in 2 Aware, with information management nearing the top and data being well progressed.



**Chart 3.16d** Question 4.3 rating levels -- comparison of information and data management by maturity level percentage

Comparison of the maturity level percentages show the largest and second largest for both as being 3 Formative and 2 Aware. While 3 Formative dominated information management, for data management the percentage for 2 Aware was very close in size to 3 Formative, which reflected the lower overall maturity for data management regarding data capability in business systems and tools.

## Question 4.4 Data privacy and security

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

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

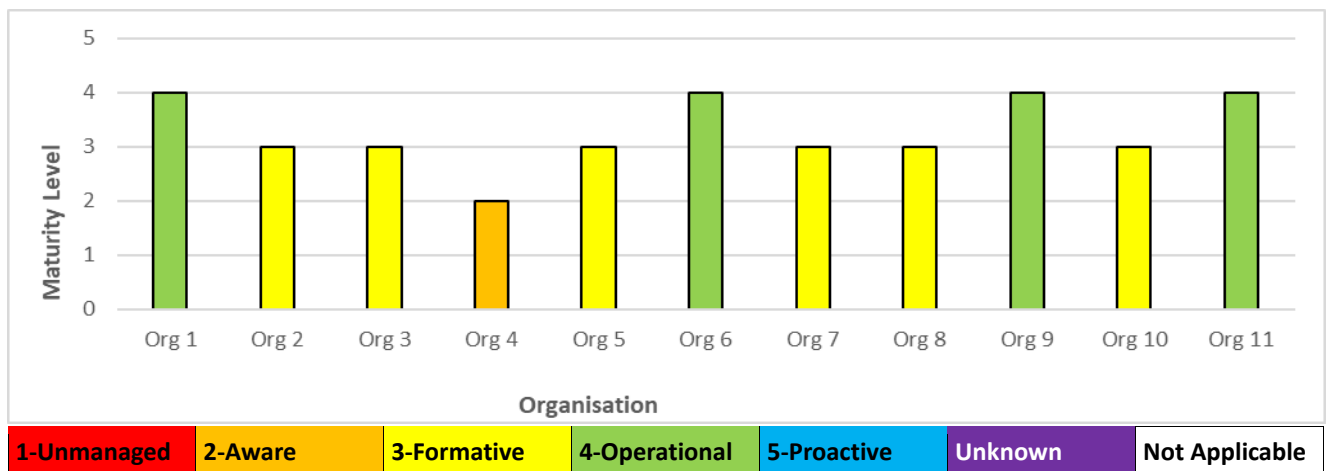
*Is the organisation able to respond to data privacy and security incidents?*

Key Themes	Key Challenges
<ul style="list-style-type: none"> <li>Compliance with the Victorian Protective Data Security Standards and Information Privacy Principles was evident through use of Privacy Impact Assessments, protective markings, regular security assessments, protective data security plan, privacy by design, security by design, incident response plans, and the annual VPDSS attestation process.</li> <li>Assessment and review programs were used to identify gaps and determine what work is needed, including reviews of the data and information security incident management process, penetration test and risk assessment, staff confidentiality and data security, and assessments against the requirements of the Australian Signals Directorate information security manual framework.</li> <li>There was a strong focus on cyber security programs, frameworks, and standards to address security, incident response reporting, maturity measurement and improvement actions. Cyber security was incorporated into project management frameworks and ICT standards, such as those addressing third party solutions. Cyber security programs included use of secure data and metadata controls and tools such as the Victorian data Access Linkage Trust, process review and improvement actions, penetration testing, issue of cyber security alerts, and provision of resources including what is needed to promote working from home securely.</li> <li>There was ongoing training and support, including annual e-Learning sessions that covered privacy awareness, cyber security, and data security requirements and resources such</li> </ul>	<ul style="list-style-type: none"> <li>There were inconsistencies regarding compliant practices being in place and well developed, including smaller data repositories not having Privacy Impact Assessment or not being listed in information asset registers, and compliance with data standards not being well developed.</li> </ul>

as SharePoint hub sites, and use of protective security portfolio holders across the organisation.

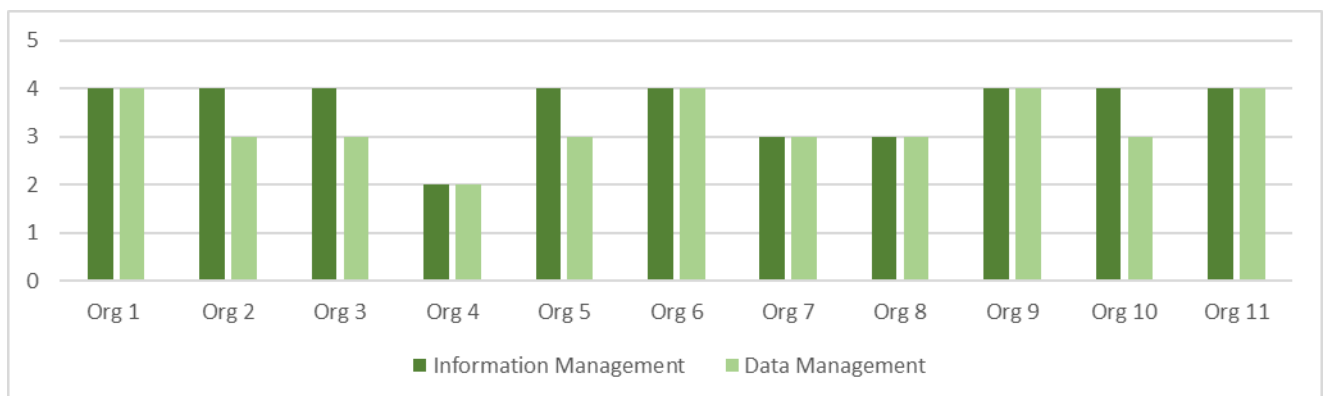
- Specialised committees, teams, and other groups actively engaged with privacy and security as part of their roles and responsibilities.
- There was a focus on setting up strong privacy and security controls as part of new applications, systems and other technology implementations.

The average maturity level for this question was 3 Formative.



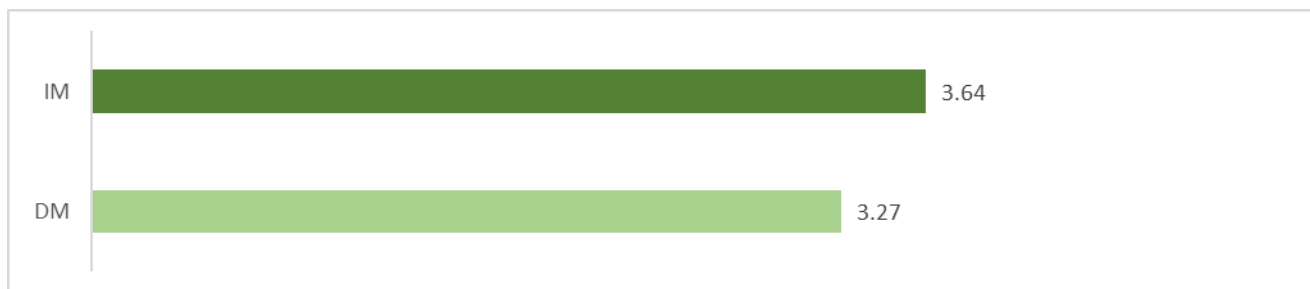
**Chart 3.17a** Question 4.4 rating levels – 2023-24 assessment

Organisations 1, 6, 9, and 11 all achieved the highest rating of 4 Operational, which was above the average for this question. Comments provided suggest the high maturity was due to active implementation, monitoring, and promotion of privacy and data security processes and practices by appropriately skilled personnel. Organisations 2, 3, 5, 7, 8, and 10 held a maturity at the average of 3 Formative. Organisation 4 held the lowest rating of 2 Aware, which was below average. Comments suggested the low maturity was due to developing foundational policies to build on having dedicated Privacy, FOI and Security personnel.



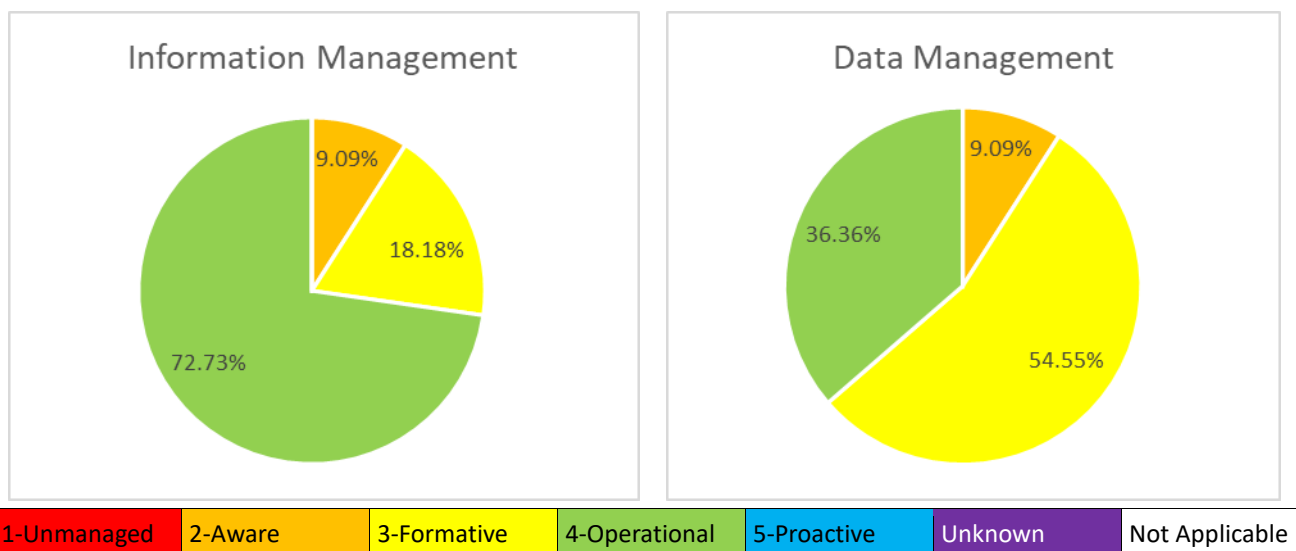
**Chart 3.17b** Question 4.4 rating levels– Information and Data Management comparison

Organisations 1, 6, 7, 8, 9, and 11 all have equal ratings for both information and data management regarding privacy and security. Organisations 2, 3, 5, and 10 all held lower data management ratings than information management, most likely due to the implementation, practices and awareness of information privacy and security processes being further along than those relating to data.



**Chart 3.17c** Question 4.4 rating levels – average comparison

Both information and data management ratings were within 3 Formative, with information management nearing the top and data approaching well progressed. This was the only question to achieve average ratings of 3 Formative.



**Chart 3.17d** Question 4.4 rating levels – comparison of information and data management by maturity level percentage

Comparison of maturity ratings showed both information and data management spread across 4 Operational, 3 Formative and 2 Aware. For information management, almost three-quarters of the chart sat at 4 Operational, while for data management it was a third of the chart. That was the highest percentage of 4 Operational achieved for both information and data this assessment.

## 6 D5: Data Integrity (Optional)

**PLEASE NOTE:**

Dimension Five is an optional dimension, and participation was not required.

- Organisations 2 and 10 did not take up the option to complete Dimension Five.
- Organisation 3 responses applied to specific areas only and not the whole organisation.

### Question 5.1 Data sharing, access, integration, and interoperability

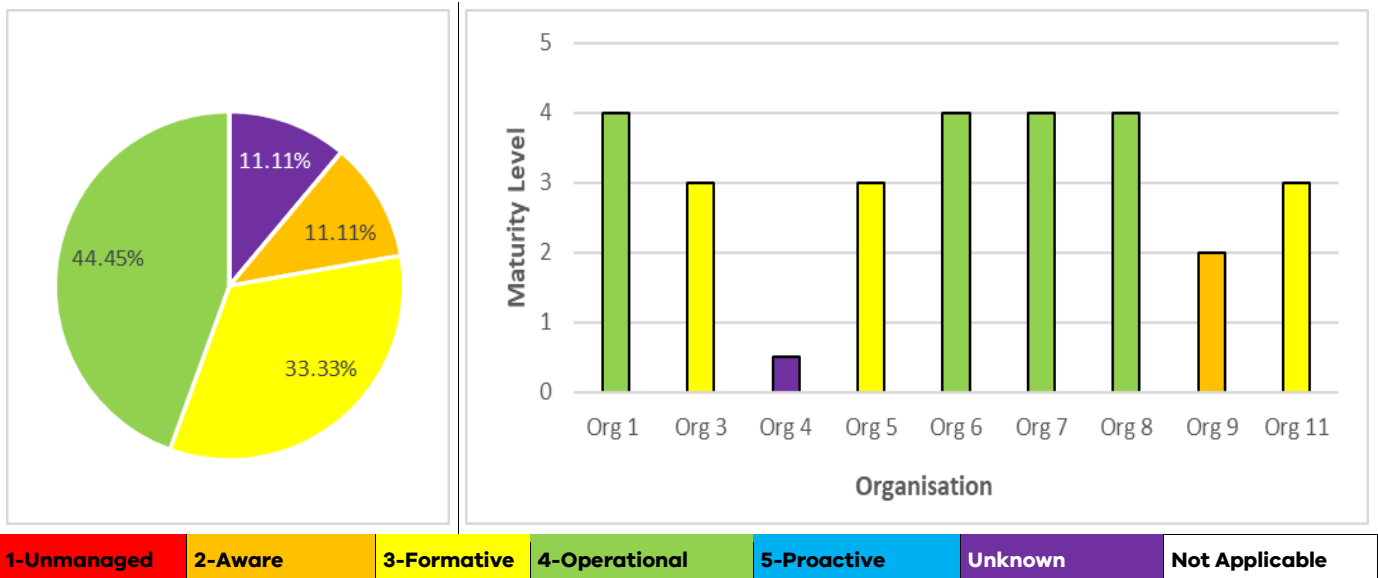
*Are data sharing, integration and interoperability capabilities built into business systems, processes, and tools?*

Key Themes	Key Challenges
<ul style="list-style-type: none"> <li>• Alignment with Victorian government policy and frameworks was evident including use of the VPS Data Sharing Heads of Agreement when sharing data with another party, the VPS data sharing framework, and compliance with privacy and data security requirements.</li> <li>• Governance infrastructure was in place around data sharing, especially in relation to publicly sharing data, including data governance operating model to provide overarching structure, defining and assigning roles and responsibilities, and providing supportive guidance regarding application.</li> <li>• A range of infrastructure was used to support data sharing, access, integration and interoperability, including use of an integration platform that supported data use from multiple systems, data access and release policy and associated guidance, accreditation processes to determine if data was able to be released and who was to authorise, data/information sharing</li> </ul>	<ul style="list-style-type: none"> <li>• Obligations and responsibilities regarding data sharing, access, integration and interoperability were not fully understood across the whole organisation.</li> <li>• Awareness of who was sharing what and how was not fully understood by the organisation as there was no formal process or program in place.</li> <li>• A compliance program assessing adherence to data sharing requirements and recommending improvements had yet to be undertaken as data sharing was not fully mature across the organisation.</li> </ul>

agreement register, and authorised release sites such as DataVic.

- Data sharing and access processes and associated guardrails that applications passed through were implemented, and included legal considerations, risk assessment, conditions of use, interoperability and the use of common application programming interfaces (APIs), recordkeeping requirements, and other obligations.

The average maturity level for this question was 3 Formative.



**Chart 3.18** Question 5.1 rating levels – Maturity Level Percentage

The largest percentage was for 4 Operational, followed by 3 Formative. This showed that overall maturity for data sharing, access, integration and interoperability was well progressed.

Organisations 1, 6, 7, and 8 achieved the highest rating of 4 Operational, possibly due to their having data sharing and data access policies, procedures, and other frameworks in place that aligned with broader Victorian government practices.

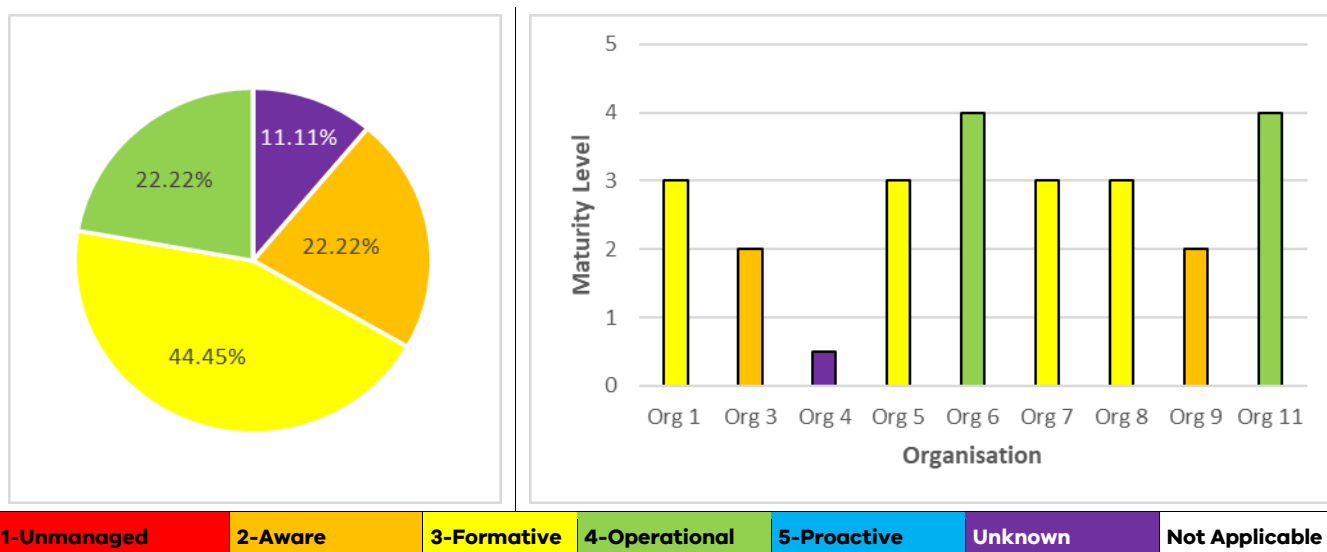
Organisation 9 held the lowest rating of 2 Aware, acknowledging that data sharing and data access was not fully mature across the organisation, and that work was underway to address this area. Organisation 4 reported a rating of Unknown.

## Question 5.2 Open data

*Is the organisation's data release timely and accurate?*

Key Themes	Key Challenges
<ul style="list-style-type: none"> <li>• There was a focus on ensuring as much as possible was publicly available through appropriate sources such as registering data assets on DataVic, making information available on the organisation's website, and ensuring data sets were supported by appropriate metadata to enable improved searchability.</li> <li>• Processes were in place and implemented that enabled review of information and data proposed for public release to ensure suitability and compliance with relevant release standards, legislative requirements, agreements and memorandum of understanding, and other frameworks.</li> <li>• Resources were available to implement release programs and address data requests and reporting requirements.</li> </ul>	<ul style="list-style-type: none"> <li>• Provision of openly available data was currently ad hoc and irregular, primarily released as a response to specific requests with release times impacted by the limited available resources to address the large volume of requests.</li> <li>• Metrics on whether the data release was timely and accurate were unknown as they were not currently collated and reported on.</li> </ul>

The average maturity level for this question was 2 Aware.



**Chart 3.19** Question 5.2 rating levels – Maturity Level Percentage

The largest percentage was for 3 Formative, with percentage levels evenly spread across 4 Operational and 2 Aware. This showed that overall maturity for open data was well progressed.

Organisations 6 and 11 achieved the highest ratings of 4 Operational, possibly due to having agreements and processes for open data including data release in place.

Organisations 3 and 9 held the lowest rating of 2 Aware, which may have been due to data release processes being at an early stage of implementation, or undertaken by part of the organisation only. Organisation 4 reported a rating of Unknown.

## Question 5.3 Data and AI ethics

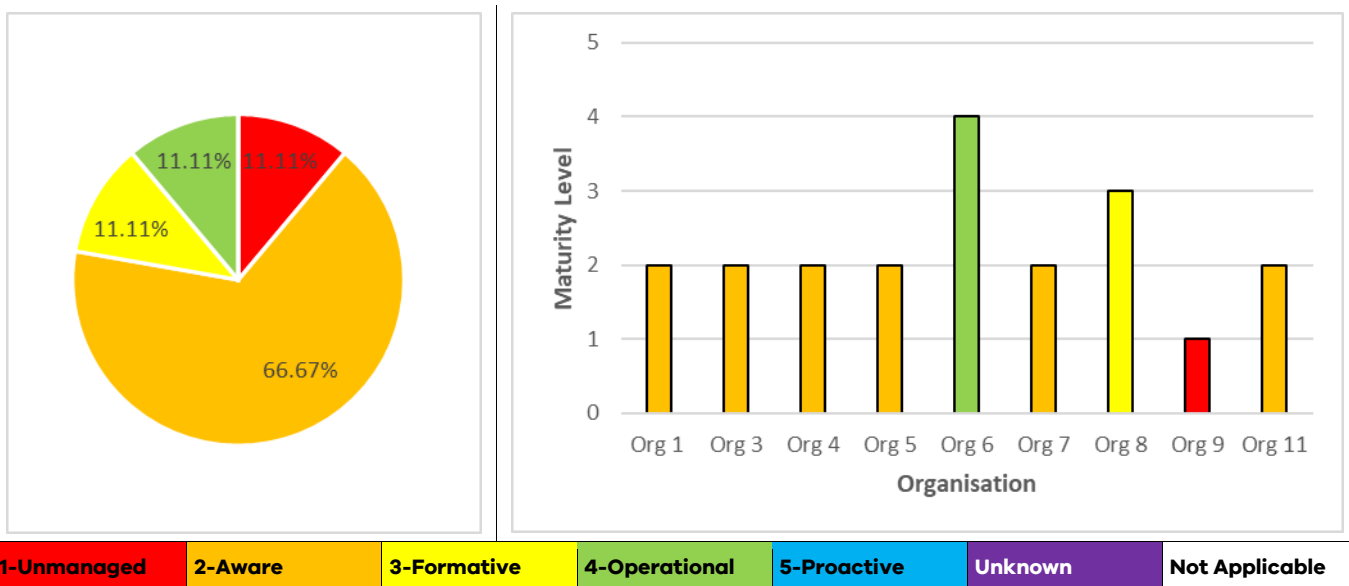
*What is the status of data ethics in the organisation?*

*Do staff have the knowledge and support to ensure the ethical use of data?*

*Is the organisation able to respond to incidents involving the unethical use of data?*

Key Themes	Key Challenges
<ul style="list-style-type: none"> <li>Artificial Intelligence (AI) strategies and policies, primarily in relation to GenAI, were in development or being implemented across the organisation with various levels of maturity and reach.</li> <li>Ethical frameworks existed in relation to data sharing and use, with application for AI being considered as part of specific projects and programs.</li> <li>Some guidance and awareness training was in place, such as instructions of preventing a data breach while using generative AI tools in the workplace, and guidance in line with Victorian government policy on AI.</li> <li>Governance structures were in place to investigate AI tools and capability and to oversee AI use in some organisations, such as feasibility assessments, and proof of concept work to explore options.</li> <li>A VPS AI Assurance Framework has been developed and was in the process of being implemented.</li> </ul>	<ul style="list-style-type: none"> <li>Approaches to using AI had been conservative due to concerns about data integrity, data quality, accuracy of the classification/sensitivity attribution applied, and ethical implications of using AI technologies.</li> <li>There were inconsistencies in awareness and understanding of data and AI ethics across the organisation.</li> <li>AI Policy established but not aligned with other key data and information policies across the organisation, resulting in pockets of understanding that were primarily due to individual expertise and knowledge rather than appropriate and compliant processes and practices.</li> </ul>

The average maturity level for this question was 2 Aware.



**Chart 3.20** Question 5.3 rating levels –Maturity Level Percentage

The largest percentage was for 2 Aware, which showed that the overall level of maturity for data and AI ethics was in its early stages of development.

Organisation 6 achieved the highest rating of 4 Operational potentially due to having an AI strategy in development and incorporating data ethics within general decision-making processes.

Organisation 9 held the lowest rating of 1 Unmanaged, possibly due to immature data quality and governance undermining confidence in application of data ethics.

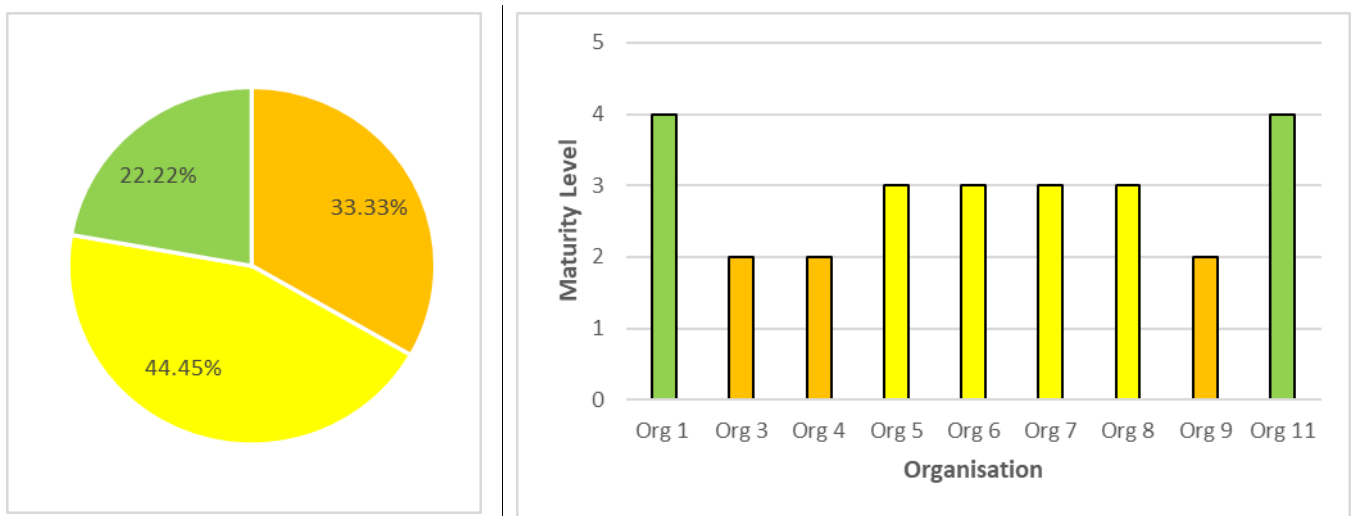
## Question 5.4 Data quality

*How well does the organisation identify, address, and monitor data quality issues?*

*Is the organisations data of high quality?*

Key Themes	Key Challenges
<ul style="list-style-type: none"> <li>• Data quality requirements and guidance were communicated through data quality management frameworks, data quality policies and associated guidance and training, and data quality statements.</li> <li>• There were limitations with understanding and communicating about databases, data repositories, and associated processes that impacted data quality, including balancing what was needed with what was possible and flagging major areas in need of improvement such as identifying data assets in the information asset register.</li> <li>• Practices regarding data quality were improved through educating custodians and administrators on responsibilities and completion of mandatory artefacts, and through ensuring appropriately skilled personnel were assigned responsibility for data quality management.</li> <li>• Identification of areas in need of improvement regarding the identification, capture and classification of data assets.</li> <li>• Monitoring and assessment programs in place to review data quality using tools such as the data quality assessment tool, Databricks, and user testing.</li> </ul>	<ul style="list-style-type: none"> <li>• No evidence of data quality management or inconsistent and patchy data quality management.</li> <li>• Data quality management programs having limited support and backing, depending on the data, data repository, and the expertise of individuals and groups.</li> <li>• Data quality and capture managed using information management practices that didn't incorporate all relevant datasets, or address all relevant data needs.</li> <li>• A lack of auditing and quality control measures resulting in inaccurate data that lacked integrity.</li> </ul>

The average maturity level for this question was 2 Aware.



1-Unmanaged	2-Aware	3-Formative	4-Operational	5-Proactive	Unknown	Not Applicable
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**Chart 3.21** Question 5.4 rating levels –Maturity Level Percentage

The largest percentage was 3 Formative, with the remainder divided between 2 Aware and 4 Operational. This showed that the overall maturity for data quality was well progressed.

Organisations 1 and 11 achieved the highest rating of 4 Operational, possibly due to having processes in place to test data and report on data quality.

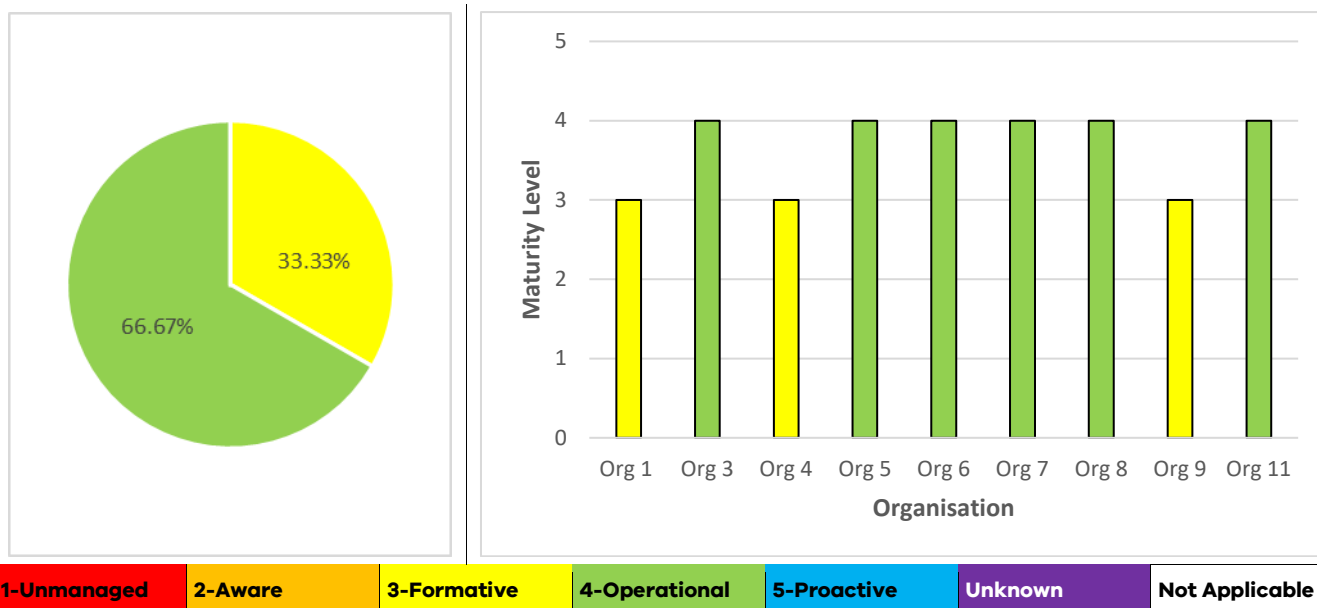
Organisations 3, 4, and 9 held the lowest rating of 2 Aware, which may have been due to inconsistent and ad hoc practices regarding data quality.

## Question 5.5 Data availability

*Is data available to meet the needs of the business and its users?*

Key Themes	Key Challenges
<ul style="list-style-type: none"> <li>• There was a focus on back up and disaster recovery programs, applications and services to protect data availability. This included the Azure platform, redundant systems maintained, making datasets within legacy platforms available through a modern Data Platform, routine and comprehensive backups of data, and disaster recovery plans.</li> <li>• Monitoring processes, tools and programs were implemented to routinely and regularly identify and address issues that could impact data availability, including regular disaster recovery testing and daily back up reporting, daily system checks, and monthly operational reporting.</li> <li>• Use of remediation processes to address availability issues, including escalation path and prioritisation of actions required, as well as security processes to ensure compliance requirements were met.</li> <li>• Data storage, reporting and management were automated through SharePoint, Power Automate Workflows, and Power BI.</li> <li>• Governance structures were in place, including use of boards and committees to oversee actions and mitigate risks.</li> <li>• Having mechanisms and changes to support users in place so that concerns regarding disruptions or maintenance activities affecting data availability as well as clarification requests could be addressed appropriately.</li> </ul>	<ul style="list-style-type: none"> <li>• Inconsistent approach to addressing data availability across the organisation.</li> <li>• Patchy knowledge of datasets and collections with data being siloed, unknown, users not having sufficient permissions to access the data needed, and lack of relevant policies or procedures for managing the data so that it was available.</li> </ul>

The average maturity level for this question was 3 Formative.



**Chart 3.22** Question 5.5 rating levels – Maturity Level Percentage

The largest percentage was 4 Operational, with the remainder being 3 Formative. This shows an overall maturity level of close to nearing the top.

Organisations 3, 5, 6, 7, 8 and 11 all achieved a maturity level rating of 4 Operational, possibly due to having in place strong disaster recovery programs combined with monitoring of what was needed for data availability.

Organisations 1, 4 and 9 held a rating of 3 Formative, which may have been due to use of routine backup practices and addressing legacy system limitations to improve data availability.

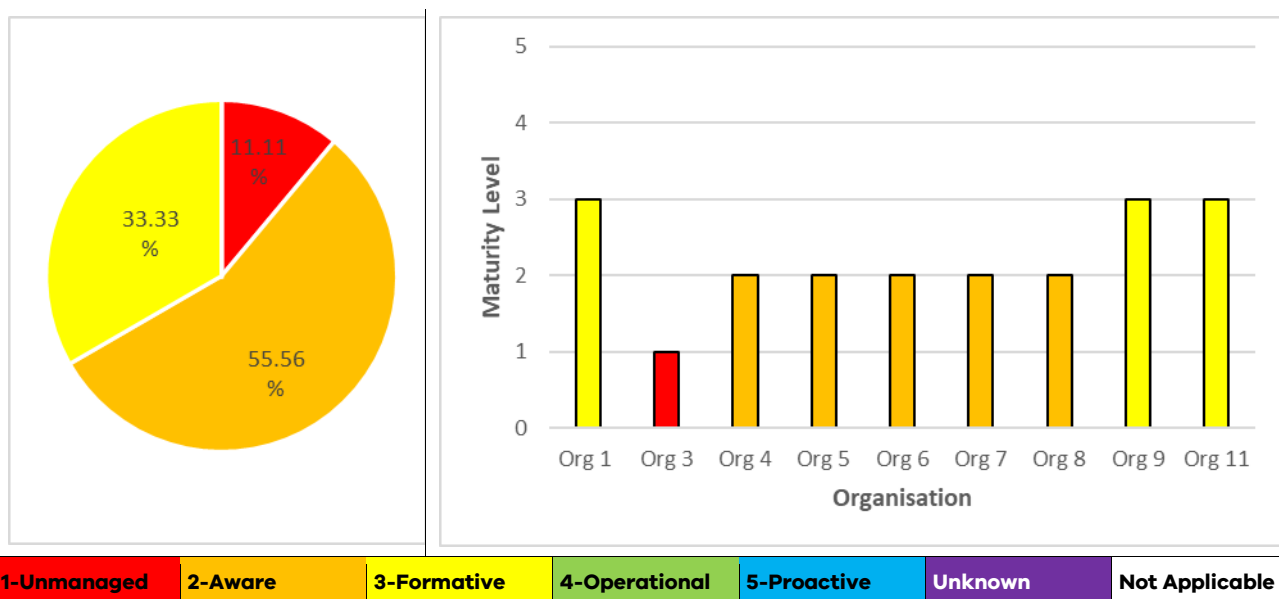
## Question 5.6 Indigenous Data Sovereignty

*Does the organisation have a robust data sovereignty program that safeguards data in accordance with legal and regulatory requirements?*

*Do staff have the knowledge and support to implement data sovereignty initiatives in the organisation, where possible?*

Key Themes	Key Challenges
<ul style="list-style-type: none"> <li>• There was a major focus on development of strategies, workplans, frameworks, pathways and other governance structures to support Indigenous Data Sovereignty in line with the learnings from the Yoorrook Justice Commission Inquiry and which support activities for Treaty preparedness, Truth-telling and Self-determination.</li> <li>• There were dedicated teams, divisions or committees assigned responsibility to lead work required for Indigenous Data Sovereignty.</li> <li>• Communication and engagement mechanisms were in place or under development to enable transparent communication, foster trust, and increase understanding.</li> </ul>	<ul style="list-style-type: none"> <li>• Awareness of Indigenous Data Sovereignty was limited, including what datasets might be of relevance and which business areas were affected.</li> <li>• Implementation of Indigenous Data Sovereignty is in its early stages with some organisations being aware that it needed to be addressed at some future point but not yet having an approach in place.</li> <li>• Identifying relevant data within legacy systems from defunct organisations and government departments was challenging as data could be incomplete and context insufficiently documented.</li> </ul>

The average maturity level for this question was 2 Aware.



**Chart 3.23b** Question 5.6 rating levels – Maturity Level Percentage

The largest percentage was 2 Aware, showing that overall maturity for Indigenous Data Sovereignty was in its early stages of development.

Organisations 1, 9 and 11 all achieved the highest rating of 3 Formative, possibly due to having strategies or programs in place or in development that specifically addressed Indigenous Data Sovereignty along with dedicated roles and responsibilities within the organisation to oversee implementation.

Organisation 3 held the lowest rating of 1 Unmanaged, which might be due to inconsistencies relating to knowledge of some relevant data in a section of the organisation while the majority of the organisation had little awareness of relevant data holdings.