



the dpsa

Department:
Public Service and Administration
REPUBLIC OF SOUTH AFRICA

DETERMINATION AND DIRECTIVE ON THE IMPLEMENTATION OF KNOWLEDGE AND DATA MANAGEMENT IN THE PUBLIC SERVICE

TABLE OF CONTENTS

| | |
|---|----|
| 1. INTRODUCTION AND BACKGROUND | 7 |
| 2. PURPOSE | 11 |
| 3. AUTHORISATION | 11 |
| 4. SCOPE OF APPLICATION..... | 11 |
| 5. REGULATORY FRAMEWORK..... | 11 |
| 6. IMPLEMENTATION OF THE DETERMINATION AND DIRECTIVE..... | 11 |
| 7. NON- COMPLIANCE MANAGEMENT | 12 |
| 8. DATE OF IMPLEMENTATION..... | 12 |
| 9. GOVERNANCE OF KNOWLEDGE MANAGEMENT AND DATA MANAGEMENT | 12 |
| 10. KNOWLEDGE MANAGEMENT IMPLEMENTATION | 13 |
| 10.1.KNOWLEDGE MANAGEMENT GUIDING PRINCIPLES | 13 |
| 10.2.INSTITUTIONAL MECHANISMS..... | 14 |
| 11. TECHNOLOGY | 17 |
| 11.1.KNOWLEDGE DATABASE..... | 17 |
| 12. KNOWLEDGE PROCESSES | 18 |
| 12.1.KNOWLEDGE CREATION AND HARVESTING | 18 |
| 12.2.KNOWLEDGE SHARING AND DISSEMINATION..... | 19 |
| 13. DATA MANAGEMENT IMPLEMENTATION | 19 |
| 13.1.DATA MANAGEMENT GOALS..... | 19 |
| 14. DATA MANAGEMENT APPROACH..... | 20 |
| 15. CHANGE MANAGEMENT | 23 |
| 16. MONITORING AND EVALUATION | 24 |
| REFERENCES | 25 |
| REFERENCES | 26 |

DEFINITIONS OF TERMS

| TERM | DEFINITION |
|------------------------|--|
| CHANGE MANAGEMENT | Collective term for all approaches to prepare, support, and help individuals, teams, and organisations in making organisational change. It includes preparing and supporting employees, establishing the necessary steps for change, and monitoring pre- and post-change activities to ensure successful implementation. |
| DATA | Data is a set of elements gathered and stored for future use. These elements may include figures, pictures, images, statistics etc. |
| DATA CLASSIFICATION | Refers to a process of organising data by relevant categories so that it may be used and protected more efficiently. |
| DATA GOVERNANCE | The exercise of authority, control, and shared decision-making (planning, monitoring, and enforcement) over the management of data asset. |
| DATA MANAGEMENT | The development, execution, and supervision of plans, policies, programs, and practices that deliver, control, protect and enhance the value of data and information assets throughout their lifecycle (DAMA, 2017). |
| DEPARTMENT | Means a national department, a national government component, the Office of the Premier, a provincial department or a provincial government component. |
| EVIDENCE | Evidence is information or data used to support (or contradict) management decisions that inform policy development; programmatic interventions and to evaluate results of programme implementation. |
| HEAD OF DEPARTMENT | The incumbent of a post mentioned in column 2 of Schedule 1, 2, or 3 of the Public Service Act, 1994 and includes any employee acting in such a post. |
| 4IR | The 4th industrial revolution is a vision or visionary of the future involving further developments of information and communication technology, biotechnology, and an array of related developments. It is less about technology than change in human routines and practice in the use of technology. |
| INFORMATION | Information is data that has been analysed and processed to give it meaning within a particular context. Information is presented and visualized in different ways e.g., infographics to summarize findings from large data sets. |
| INFORMATION MANAGEMENT | It is an activity that includes collecting, collation, capturing, storing, retrieval and dissemination of information from external and internal resources. |
| KNOWLEDGE CREATION | Knowledge is created either through exploitation, exploration or codification. |
| KNOWLEDGE EXPERT | A person who is very knowledgeable about or skilful in a particular area. |

| TERM | DEFINITION |
|---------------------------------|---|
| KNOWLEDGE HARVESTING | It is the process of capturing and transferring the know-how in an expert's head into information assets that can be used to improve corporate performance and develop an institutional memory. |
| KNOWLEDGE | <p>Knowledge is a body of various types of evidence to improve understanding and skills that are constructed by people through both formal learning and practical experience which enhances their decision-making capacity. There is no single and agreed definition of knowledge as knowledge has different facets:</p> <ul style="list-style-type: none"> - Explicit Knowledge - Articulated Knowledge - Operational Knowledge - Know-how - Know-who - Know-what - Tacit Knowledge <p>Knowledge is information that changes something or somebody — either by becoming grounds for action or by making an individual (or an institution) capable of different or more effective action” – Peter F. Drucker</p> |
| KNOWLEDGE MANAGEMENT | For the purpose of the National Knowledge Management Strategy Framework (NKMSF): Knowledge Management (KM) is a key organisational function, with processes and activities that involve collecting, collation, sharing, packaging, dissemination and use of knowledge (understanding and skills) in decision-making and enhancing organisational learning for improved service delivery within Departments. |
| KNOWLEDGE MANAGEMENT SYSTEM | Consist of KM culture, structure governance and leadership, roles and responsibilities, planning, technology, processes, and operation. |
| KNOWLEDGE MANAGEMENT PRINCIPLES | Are a constant or long-lasting set of guiding beliefs or truths that are established by an organisation as a foundation for managing knowledge within that organisation. |
| KNOWLEDGE PROCESSES | The way in which an organisation manages knowledge, including its capture, storage, organisation, verification, security, distribution, and use. |
| KNOWLEDGE SHARING PLATFORM | It is a space that enables employees to interact with each other and exchange knowledge. It can be physical or online space where subject matter experts can contribute towards the development of the intellectual assets of the organisation. |
| LEARNING ORGANISATION | A learning organisation is an organisation that is constantly evolving and adapting to the changing needs of its customers. It is an organisation that learns from its mistakes and uses this knowledge to improve its performance. It also learns from the feedback it receives from its customers. The main goal of a learning organisation is to create an |

| TERM | DEFINITION |
|--------------------|---|
| | environment where employees are encouraged to learn, grow, and develop their skillsets, so the company can succeed in an ever-changing world. |
| PUBLIC SERVICE | Means all national departments; national government components listed in Part A of Schedule 3 to the Public Service Act; provincial departments which mean the office of a premier listed in Schedule 1 to the Public Service Act; and provincial departments listed in Schedule 2 to the Public Service Act; and provincial components listed in Part B of schedule 3 to the Public Service Act and their employees. |
| RECORD | Recorded information regardless of form or medium. |
| RECORDS MANAGEMENT | It is the systematic control of the creation, receipt, maintenance, use, and disposition of records including the processes for capturing and maintaining evidence of information about business activities and transactions. |

ACRONYMS

| ACRONYM | DEFINITION |
|---------|--|
| COP | Community of Practice |
| DAMA | Data Management Association |
| DM | Data Management |
| DMBOK | Data Management Body of Knowledge |
| DPSA | Department of Public Service and Administration |
| EXCO | The Departments Executive Management Committee |
| HOD | Head of Department |
| ICT | Information Communication Technology |
| KM | Knowledge Management |
| KMC | Knowledge Management Committee |
| KMMA | Knowledge Management Maturity Assessment |
| MISS | Minimum Information Security Standards |
| MPSA | Minister of Public Service and Administration |
| NKMSF | National Knowledge Management Strategy Framework |

1. INTRODUCTION AND BACKGROUND

- 1.1. The MPSA is responsible for establishing uniform norms and standards to improve the effectiveness and efficiency of the Public Service and its service delivery to the public in line with sections 3(1)(f), (g) and (i) of the Public Service Act, 1994 as amended.
- 1.2. Departments are increasingly required to determine, define, develop and set service delivery targets to meet the needs of their citizens. It is therefore essential for employees to understand the context within which problems arise and identify possible interventions that can be made to resolve these problems.
- 1.3. Knowledge Management generates critical knowledge resources within a Department over time for organisational effectiveness. It facilitates decision-making, enhancement of core business processes and improved efficiency of service delivery within the Public Service, thereby adding public value.
- 1.4. Knowledge Management relies on accurate and effective management of data, information and records from which to draw baseline and monitoring data which must be combined with human experience to provide contextual intelligence. Contextual intelligence can be used to develop, modify and adjust service delivery mechanisms to deal with service delivery challenges, *see figure 1*.

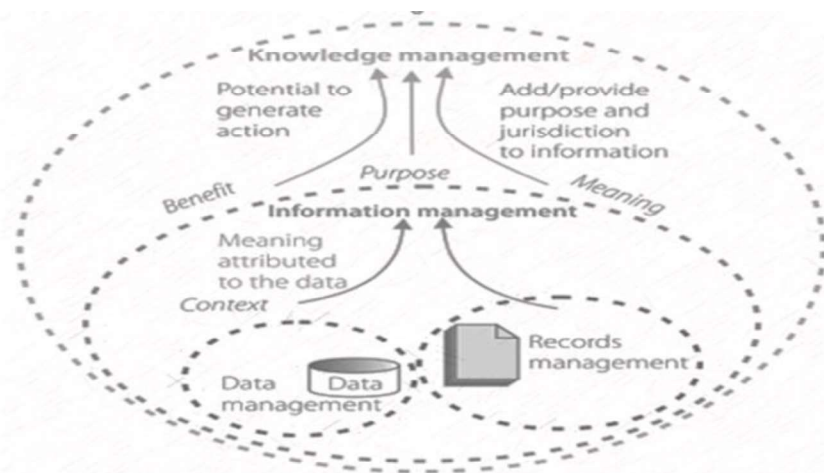


Figure 1 Relationships: Data Information Knowledge

- 1.5. Knowledge Management focuses on the creation, sharing, and effective use of knowledge within an organisation utilising the KM in processes of capturing, organizing, storing, and sharing knowledge and information within an organisation. It aims to make knowledge accessible to everyone who needs it, in a right context at the right time.

- 1.6. Data management involves the processes namely: of collection, processing, storage, and analysis of data. This data can be used to identify patterns and trends, which can help an organisation make informed decisions and improve its services.
- 1.7. Knowledge Management and Data Management are two distinct but interrelated concepts that can significantly improve service delivery in an organisation. Knowledge Management and Data Management are key to facilitating innovation within service delivery organisations by providing teams with the information and insights they need to identify new opportunities and develop creative solutions to problems. For example, KM can enable service delivery teams to access best practices and case studies from other organisations, while Data Management can help to identify trends and patterns in customer behaviour that can inform new service offerings.
- 1.8. To enable Knowledge Management, the advent of the Fourth Industrial Revolution (4IR) also necessitates departments to develop new data-driven digital transformation strategies to improve the quality of services provided to service beneficiaries. These strategies can only succeed if the data is well understood, managed, and is of excellent quality. Therefore, effective data management and governance practices ensure that data is consistent, trustworthy, and not misused.
- 1.9. Departments should be learning organisations, as a result, the empowerment of employees with operational knowledge is key in building a capable state. Furthermore, the subject of managing knowledge, leveraging on it for learning, and sharing in government can lead to better planning and decision making thus resulting in improved service delivery.
- 1.10. As indicated in **figure 2**, Knowledge Management implementation should be anchored on foundational pillars as prescribed in the National Knowledge Management Strategy Framework, **see Annexure A** for ease of reference.

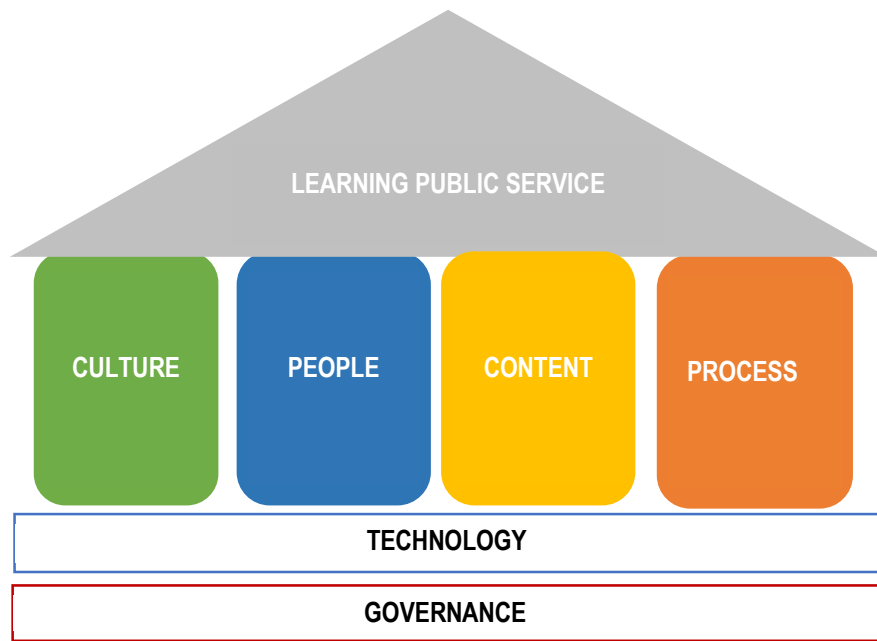


Figure 2: Foundation and Pillars of KM

- 1.11. The Determination and Directive addresses the implementation gaps identified by the KMMA that was conducted by the DPSA during the period 2018 – 2022. The assessment results indicated that the Public Service is at **Level 1** (Reaction Phase) of KM Maturity.
- 1.12. The focus is on the implementation of KM Maturity levels to ensure that the Public Service attains a **Level 2** (Initiation Phase) of maturity as compared to the current state as defined in the KMMA model *see figure 3*.
- 1.13. The **Level 2** (Initiation Phase) of Knowledge Management Maturity will enable Departments to place systems and processes in place for the management of knowledge.

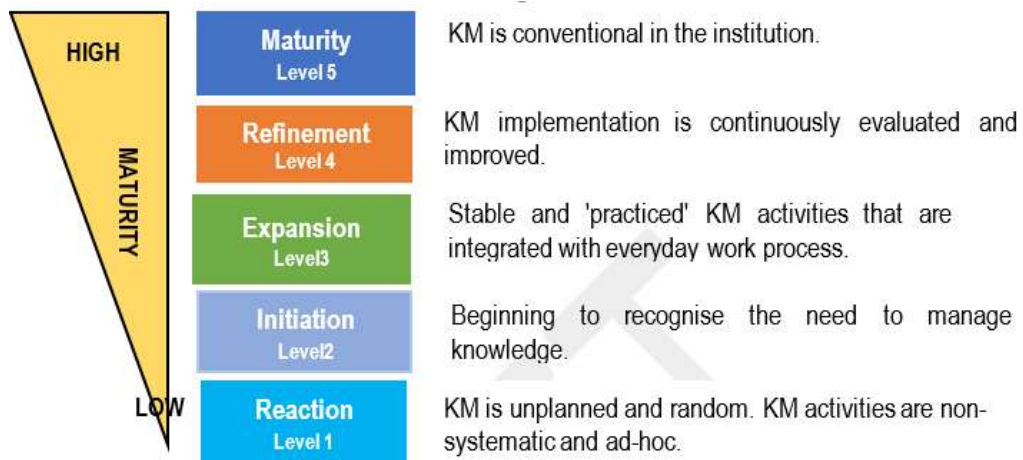


Figure 3 KM Maturity Levels

1.14. In the Public Service, data assets impact most Departments' operations since they deal with increasingly diverse data at higher speeds and volumes, and keeping track of data has become essential because it helps make informed decisions.

1.15. As shown below in **figure 4**, the best practice in data governance suggests adopting a data management framework as a foundation of all data management knowledge areas **see Annexure B**.

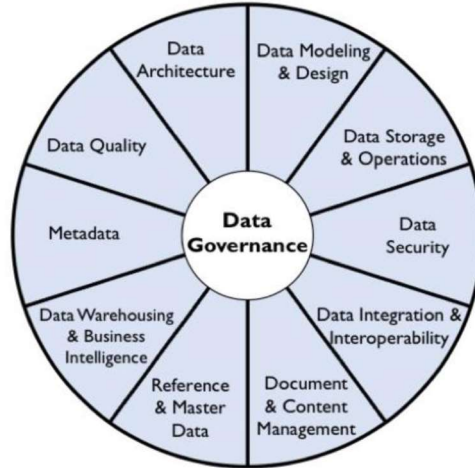


Figure 4: DAMA DMBOK2 Data Management Framework (Source: DAMA)

1.16. The adoption of data management practices in the Public Service is underpinned by the Public Service Data Management Framework, as depicted in figure 5 below.

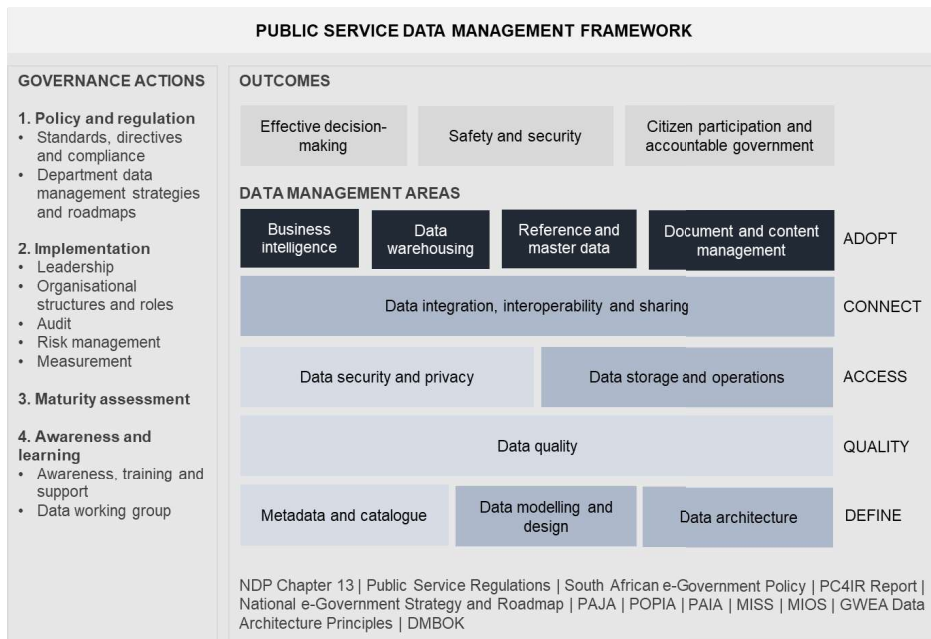


Figure 5: Public Service Data Management Framework

2. PURPOSE

2.1 The Determination and Directive aims to provide direction on institutionalising and standardising the implementation of Knowledge Management (KM) to attain at a minimum level 2 (Initiation Phase) of maturity supported by Phase 1 foundational Data Management (DM) knowledge areas in the Public Service.

3. AUTHORISATION

3.1. This Determination and Directive is issued by the MPSA in terms of sections 3(1)(f), (g) and (i) of the Public Service Act, 1994.

4. SCOPE OF APPLICATION

4.1. This Determination and Directive applies to all employees employed in terms of the Public Service Act, 1994, and the members of the services only in as far as the provisions are not contrary to the laws governing their employment as contemplated in the Public Service Act, 1994.

5. REGULATORY FRAMEWORK

- 5.1. Minimum Information Security Standard (MISS);
- 5.2. Minimum Interoperability Standards (MIOS);
- 5.3. National Archives and Records Service of South Africa, 1996 (Act No. 43 of 1996);
- 5.4. National Development Plan (NDP) Vision 2030;
- 5.5. Promotion of Access to Information Act, 2000 (Act No. 2 of 2000);
- 5.6. Protection of Personal Information Act, 2013 (Act No. 4 of 2013);
- 5.7. Public Service Regulations, 2016;
- 5.8. Spatial Data Infrastructure Act, 2003 (Act No. 54 of 2003);
- 5.9. State Information Technology Act, 1998 (Act No. 88 of 1998);
- 5.10. The Constitution of the Republic of South Africa, 1996 (Act No. 108 of 1996);
- 5.11. The Electronic Communications and Transactions Act, 2002 (Act No. 25 of 2002);
- 5.12. The Public Service Act, 1994 (Proclamation No. 103 of 1994), (as amended);

6. IMPLEMENTATION OF THE DETERMINATION AND DIRECTIVE

- 6.1. The prescripts herein must be applied to all knowledge and data identified, created, processed, stored and shared in the public service.
- 6.2. The HOD must ensure that all requirements of this Determination and Directive are met within 12 months of the approval and publication. Departments that have implemented Knowledge and Data

Management practices before the approval date of this Determination and Directive, must ensure alignment with the provisions herein.

7. NON-COMPLIANCE MANAGEMENT

7.1. Failure to comply with this Determination and Directive will be dealt with in line with the provisions of sections 16A and 16B of the Public Service Act.

8. DATE OF IMPLEMENTATION

8.1. This Determination and Directive shall come into effect on the date of signature by the MPSA.

9. GOVERNANCE OF KNOWLEDGE MANAGEMENT AND DATA MANAGEMENT

9.1. The HOD must ensure that the Executive Committee (EXCO) plays an oversight role in the implementation of knowledge and data management in the Department. At a minimum EXCO must:

- (a) Recommend the approval of related knowledge and data strategies and policies to the HOD;
- (b) Provide support to the functioning of the Knowledge Management Committee (KMC);
- (c) Monitor and evaluate the performance of the KMC; and
- (d) Review and ratify quarterly KMC reports.

9.2. The HOD must establish a multi-disciplinary KMC to provide oversight and support the Knowledge Management System of the Department. The KMC should comprise of representatives from the following functions:

- (a) Data and Information Management;
- (b) Records Management;
- (c) Human Resources;
- (d) Information and Communication Technology;
- (e) Strategy and Planning;
- (f) Programme Monitoring;
- (g) Policy and Research; and
- (h) One (1) representative per programme in the Department.

At a minimum, the KMC must be responsible for:

- (a) Overseeing the development, implementation, and maintenance of an effective Knowledge Management Strategy;
- (b) Overseeing the development, implementation, and maintenance of an effective Knowledge Management Policy;

- (c) Overseeing the effective implementation and maintenance of the Knowledge and Data Management practices within the Department;
- (d) Monitoring that the Change Management program is instituted to facilitate effective Knowledge and Data implementation and maintenance;
- (e) Monitoring and mitigating Knowledge and Data management risks;
- (f) Reviewing and recommending the Knowledge Management and Data Management departmental policies for EXCO to endorse;
- (g) Provision of quarterly reports and recommendations to EXCO on the implementation of KM and DM.

9.3. The HOD must appoint a suitable designated senior manager who is an EXCO member to chair the KMC.

10. KNOWLEDGE MANAGEMENT IMPLEMENTATION

10.1. KNOWLEDGE MANAGEMENT GUIDING PRINCIPLES

10.1.1. Establishing Knowledge Management Principles is critical to ensuring a successful Knowledge Management System. The following Knowledge Management Principles as outlined in the NKMSF must underpin the establishment of Knowledge Management Systems by Departments.

| PRINCIPLE | DEFINITION |
|---|---|
| Business Alignment and Integration | The KM strategy must be aligned to and be supportive of the business strategy and priorities/programme of action of Government. KM must also be integrated into day-to-day business processes and policies. |
| Knowledge Exchange and Flow | Knowledge must be mobilized through an exchange between suppliers of knowledge and users of knowledge within the department for knowledge sharing. |
| Knowledge Supply and Demand | Knowledge sharing must seek to match the supply of knowledge to the demand for knowledge in specific areas or topics and at a specific level or degree required. |
| Knowledge Value | Value is created through translating knowledge resources into assets which can be utilised for better decision-making. |

| PRINCIPLE | DEFINITION |
|------------------------------------|---|
| Knowledge Enablement | <p>The Knowledge Management System must be supported by four key enablers; namely:</p> <ul style="list-style-type: none"> • Technology • Roles and responsibilities; • Knowledge Processes and Tools; and • Governance. |
| Knowledge Assets Management | <p>The storage, classification, security, and accessibility, as well as integrity of key strategic organisational knowledge, must be managed in line with accepted prescripts on data, information records management, and security standards.</p> |
| Organisational Learning | <p>Recognition of informal knowledge-sharing initiatives that enhance learning and development should promote effectiveness and efficiency.</p> |

10.2. INSTITUTIONAL MECHANISMS

10.2.1. The HOD must ensure the implementation of the Knowledge Management System which consists of KM culture, structure, governance and leadership, roles and responsibilities, planning, technology, processes, and operations in their respective Departments, as illustrated in the **figure 6** below.

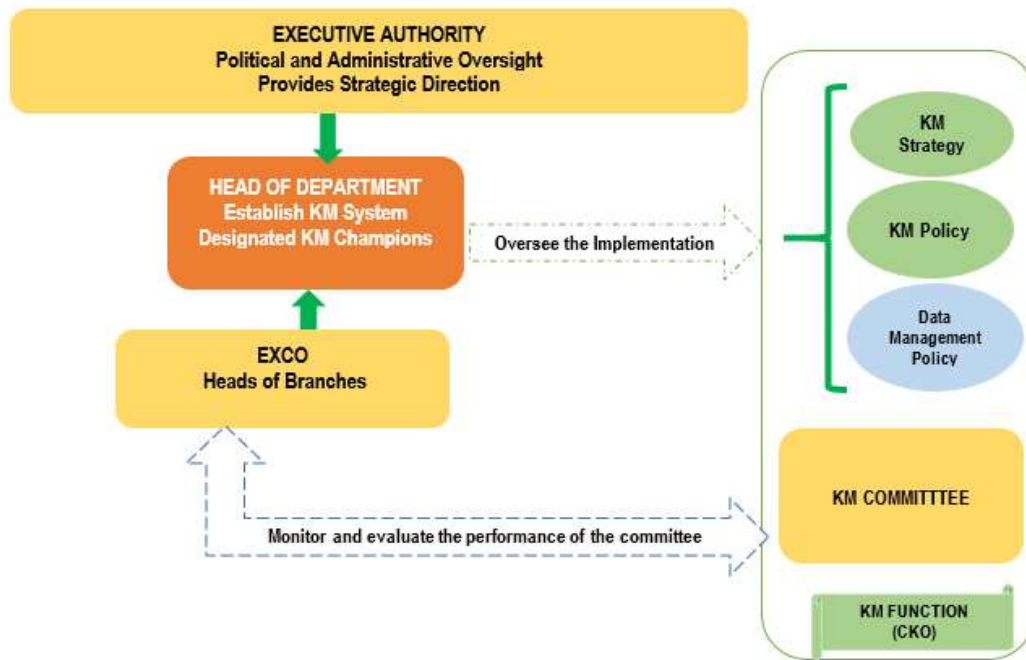


Figure 6 Reporting Structure Diagram

10.2.2. The HOD must ensure that the KMMA is conducted in line with the DPSA maturity assessment tool, **see Annexure C**.

10.2.3. The HOD must ensure the development of a Knowledge Management Strategy as an instrument to guide KM implementation in support of the organisational goals and mandate. At a minimum, the KM Strategy must include:

- (a) Vision and mission statement for KM;
- (b) Key objectives (or outcomes) of the KM Strategy;
- (c) Situational analysis based on KMMA;
- (d) Strategic areas of focus for KM activities;
- (e) KM roadmap detailing short-term and long-term goals; and
- (f) Implementation plan with action items.

10.2.4. The HOD must ensure that a Departmental Knowledge Management Policy is developed as an instrument to implement the determination and directive within the department. The KM Policy should be aligned with other internal and external relevant policies. At a minimum, the policy must include:

- (a) The policy statement that defines the intention;
- (b) The policy objectives for the implementation of KM;
- (c) The guiding principles embedding KM Practices;

- (d) The legislative and regulatory framework that provides context;
- (e) The identification of policies that support the implementation (e.g. records management policy, data management policy, information management policy; content management policy etc.);
- (f) The KM processes and practices that define a set of activities and its application (**see paragraph 12**);
- (g) Governance structures with clear roles and responsibilities, composition as well as reporting arrangements between structures (e.g. Executive Committee (EXCO), Knowledge Management Committee (KMC));
- (h) The roles and responsibilities of key role players (e.g. Head of the Department, Senior Managers and KM Champions);
- (i) Change Management to ensure adoption of the approved KM approach in terms of culture and behaviour; and
- (j) Measures to monitor and evaluate KM performance as outlined in paragraph 10.2.5 under the role of Chief Knowledge Officer (CKO).

10.2.5. The HOD must assign the role of CKO to a suitable designated senior manager responsible for the knowledge management function in the department. At a minimum, the role of the CKO must include:

- (a) Ensuring the development and implementation of the KM Strategy in alignment with organisational strategy;
- (b) Ensuring the development and implementation of the Departmental Knowledge Management Policy;
- (c) Ensuring the development and implementation of a Change Management program for KM;
- (d) Ensuring the development of a three year KM Implementation Plan;
- (e) Ensuring the development of a Knowledge Management Annual Operational Plan (AOP) reflecting the intent to implement the strategic plan over the financial year; and
- (f) Provision of quarterly executive summary reports to the KMC on the implementation of KM.

10.2.6. The HOD must ensure that knowledge Management practitioners within the existing KM function are responsible for implementation. At a minimum responsibilities should include:

- (a) Conducting of the KMMA in line with the DPSA maturity assessment tool **see Annexure C**.

- (b) Development and implementation of the KM Strategy in alignment with organisational strategy;
- (c) Development and implementation of the Departmental Knowledge Management Policy and procedures;
- (d) Development and implementation of a Change Management program for KM ;
- (e) Development of a three year KM Implementation Plan in line with the DPSA implementation plan tool, **see Annexure D**;
- (f) Development of a Knowledge Management Annual Operational Plan (AOP) reflecting the intent to implement the strategic plan over the financial year; and
- (g) Provision of quarterly reports to the CKO on the implementation of KM.

11. TECHNOLOGY

11.1. KNOWLEDGE DATABASE

The HOD must establish a Knowledge Management database that will cater for knowledge management processes. The department should scan existing technology platforms and determine if they are aligned to KM requirements. The database should adhere to both records management and information security prescripts. At a minimum, the knowledge database functionalities must include:

- (a) Capturing of explicit information and knowledge from various sources;
- (b) Classification and indexing of information and knowledge;
- (c) Mapping of knowledge (taxonomy);
- (d) Storage of knowledge;
- (e) Search and retrieval capabilities;
- (f) Enable collaboration and sharing of knowledge;
- (g) Enable the dissemination of knowledge;
- (h) Serve as an expertise locator system;
- (i) Accessible via multiple platforms;
- (j) Retention periods of information and knowledge in line with prescripts;
- (k) Disposal of information and knowledge in line with prescripts; and
- (l) Classification of information and knowledge in line with prescripts.

12. KNOWLEDGE PROCESSES

The implementation of knowledge processes is in line with the NKMSF, **see figure 7** below:

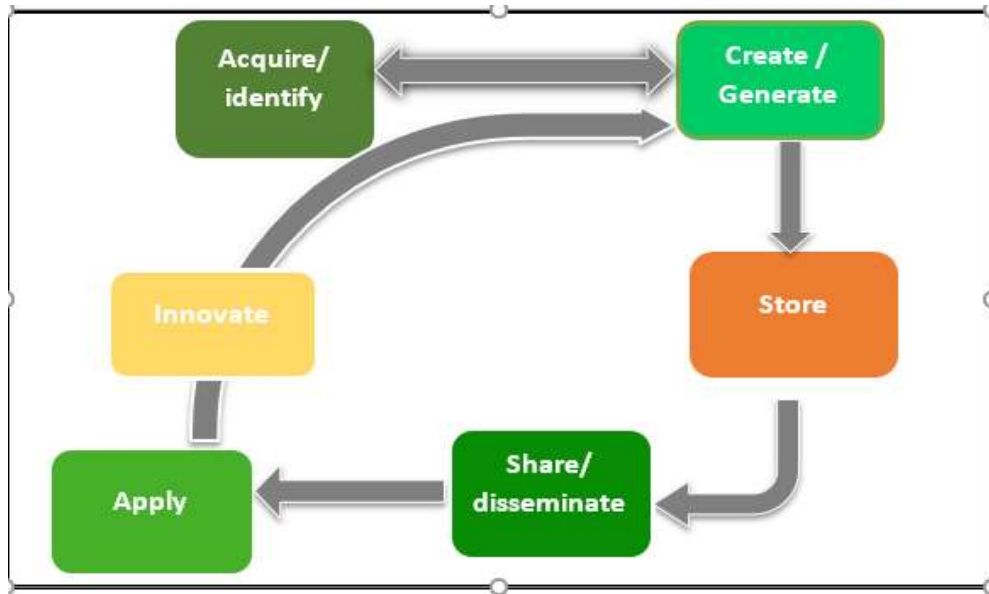


Figure 7 Knowledge Management Life Cycle

12.1. KNOWLEDGE CREATION AND HARVESTING

The HOD must ensure that **knowledge creation and harvesting** of the know-how of experts is conducted for a wider usage within the organisation. At a minimum, knowledge creation and harvesting should include:

- (a) Identification of key business processes for knowledge harvesting;
- (b) Outlining specific knowledge and expertise for harvesting;
- (c) Assessment and classification of identified knowledge;
- (d) Identification of knowledge gaps;
- (e) Identification of target audience(s) for the harvested knowledge;
- (f) Identification of knowledge locations;
- (g) Identification and mapping of experts with critical knowledge;
- (h) Defining methods of harvesting (COP, learning networks etc.);
- (i) Developing questionnaire and expertise inventory;
- (j) Scheduling of knowledge creation and harvesting sessions;
- (k) Harvesting and recording of knowledge;
- (l) Documentation of captured knowledge; and
- (m) Publishing secondary knowledge products in different formats (manuals; reports; podcasts etc).

12.2. KNOWLEDGE SHARING AND DISSEMINATION

12.2.1. The HOD must ensure that platforms for **knowledge sharing and dissemination** are established. At a minimum, platforms should have terms of reference that detail the following:

- (a) Purpose of the sharing platform(s);
- (b) Objectives of the platform(s);
- (c) Composition: cross-cutting teams across all level and units;
- (d) Roles and responsibilities;
- (e) Meeting protocols;
- (f) Expected output; and
- (g) **Refer to paragraph 12.1** for the process on knowledge creation and harvesting.

12.2.2. The HOD must ensure that organisational information and knowledge is made available to all who need it in support of knowledge sharing and dissemination. At a minimum, dissemination can be done through:

- a) Internal publications;
- b) Internal digital and mobile platforms (including Intranet, web portals etc.); and
- c) Departmental forums (COPs; learning networks, lunch and learns and brown bag sessions etc.)

13. DATA MANAGEMENT IMPLEMENTATION

13.1. DATA MANAGEMENT GOALS

13.1.1. The implementation of the Data Management foundational phase must achieve the following goals:

| KNOWLEDGE AREA | GOAL |
|--|--|
| Data Governance | To define, approve, communicate, and implement principles, policies, procedures, metrics, tools, and responsibilities for data management. |
| Data Quality Management | To develop a governed approach to make data fit for purpose based on data consumers' requirements. |
| Metadata Management and Catalogue | To provide an organisational understanding of business terms and usage and a detailed inventory of all data assets. |
| Data Security and Privacy | To understand and comply with all the relevant regulations and policies for privacy, protection, and confidentiality. |

13.1.2. The implementation of the Data Management Framework is prioritized in the Public Service, as depicted in **figure 8** below. This is a phased approach given the maturity of the public service's data management practices, skills, and capacity constraints, as confirmed by the data management maturity assessment that was conducted with selected departments revealing that existing data management practices in the public service are fragmented and lack maturity.

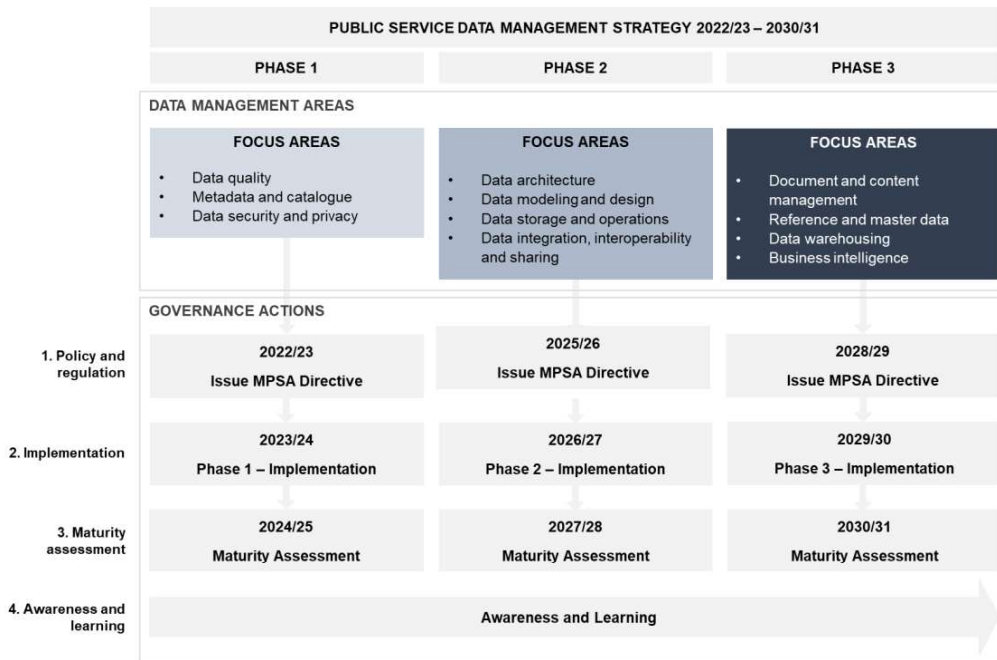


Figure 8: Public Service Data Management Strategy

14. DATA MANAGEMENT APPROACH

14.1. The HOD must identify and assign the role of the Data Manager (DM), an official who must be responsible for department-wide data management practices. At a minimum, the role of the DM includes:

- (a) Developing a Data Management policy supported by the KMC;
- (b) Aligning data requirements with available ICT and business resources;
- (c) Establishing data governance policies, procedures, and standards for effective data management;
- (d) Conducting maturity assessments of the data management practices based on the best practice; and
- (e) Advocating the importance of good data management principles to internal and external stakeholders.

- 14.2. The HOD must ensure that the Government Information Technology Officer (GITO) provides technical data management expertise and support to the DM. At a minimum, the role of the GITO includes:
- (a) Designing, developing, and modifying data infrastructure to accelerate the processes of data analysis and reporting;
 - (b) Integrating new technologies and initiatives into data standards and structures;
 - (c) Assessing system performance and making recommendations for hardware, software, and data storage improvements; and
 - (d) Ensuring data and information security by integrating and upholding digital security systems.
- 14.3. The HOD must ensure that the DM develops a Data Management Policy to manage the use of data across the department. At a minimum, the Data Management Policy includes:
- (a) A compelling vision and mission for data management;
 - (b) Guiding principles and practices on:
 - i. data ownership;
 - ii. data collection;
 - iii. data processing;
 - iv. data usage;
 - v. data retention; and
 - vi. data disposal;
 - (c) Proposed measures to assess the maturity of data management practices;
 - (d) Long-term goals to achieve the targeted data management maturity level;
 - (e) Short-term (12-24 months) data management program objectives that are SMART (specific, measurable, actionable, realistic, and time-bound);
 - (f) Description of data management roles and responsibilities of those who manage data, as well as the processes and plans for managing data; and
 - (g) A Data Management Implementation Roadmap with projects and action items.
- 14.4. The HOD must ensure that the Data Management Implementation Roadmap includes the following mandatory foundational data management knowledge areas:
- 14.4.1. Data Quality - the degree to which data is accurate, complete, timely, consistent with all requirements and business rules, and relevant for a given use. At a minimum, data quality mechanisms include:
- (a) Define high-quality data – fit for the purposes of data users;

- (b) Define a data quality strategy – how to organize for data quality and how to leverage data quality tools;
- (c) Identify critical data and business rules – prioritization of data based on regulatory requirements, financial value, and direct impact on service beneficiaries. Identify business rules that describe expectations about the quality characteristics of data;
- (d) Perform initial data quality assessment – learn about the data to define an actionable plan for improvement;
- (e) Identify and prioritize potential improvements – identify data issues that impact stakeholders and follow up with the analysis of the business impact of those issues;
- (f) Define goals for data quality improvement – set specific, achievable goals based on consistent quantification of the business value of the improvements to data quality;
- (g) Develop and deploy data quality operations – develop a plan that allows the team to manage data quality rules and standards, monitor data's ongoing conformance with rules, identify and manage data quality issues, and report on quality levels.

14.4.2. Metadata - data that defines and describes the characteristics of other data used to improve both business and technical understanding of data and data-related processes. At a minimum, metadata includes:

- (a) Metadata standards to provide guidelines on naming conventions, custom attributions, security, visibility, and processing documentation;
- (b) Documented metadata requirements detailing what metadata is needed at what level;
- (c) Types of metadata to categorize between business, technical, and operational metadata;
- (d) Metadata repositories with the physical tables in which metadata is stored;
- (e) Sources of metadata defining different sources where metadata is collected;
- (f) Business intelligence (BI) tools to produce various types of metadata relevant to the BI design;
- (g) Business glossary to document and store an organisation's business concepts and terminology, definitions, and the relationships between those terms; and
- (h) Data dictionary defining the structure and contents of data sets used to manage the names, descriptions, structure, characteristics, storage requirements, default values, relationships, uniqueness, and other attributes of every data element in a model.

14.4.3. Data Security and privacy – data safety from unauthorized and inappropriate access or change. The measures taken to prevent unauthorized access, use, modification, or destruction of data. Departments must ensure that all data is secure and monitored for security regularly according to applicable prescripts, legislation, policies, and standards such as

Minimum Information Security Standard, Departmental Information Security Policy, and Directive on Public Service Information Security. At a minimum, these measures must include:

- (a) Identification of data security requirements linked to the business and regulatory requirements;
- (b) Data confidentiality levels detailing how users are granted access privileges;
- (c) Data access control guiding the granting of access and privileges to authorized users; and
- (d) Data security standards to support data management policies by providing additional detail to achieve policy objectives.

15. CHANGE MANAGEMENT

15.1. The HOD must ensure the development of a change management plan to ensure effective Knowledge and Data implementation. At a minimum the change management plan should include:

- (a) Training and capacity building of departmental officials on Knowledge and Data Management. At a minimum, the training should include:

KNOWLEDGE MANAGEMENT:

- (a) Cover principles and processes as prescribed in the NKMSF;
- (b) Cover principles as outlined in ISO: 30401:2019 and ISO: ISO 9001:2015;
- (c) Capacitate departmental employees with basic knowledge management skills; and
- (d) Capacitate senior managers with strategic knowledge management skills to support and implement practices for improved service delivery.

DATA MANAGEMENT:

- (a) Cover goals and principles as prescribed in the Public Service Data Management Framework, **see Annexure E**;
- (b) Cover principles as outlined in ISO/IEC 38500: 2015 and ISO/IEC 38505-1: 2017;
- (c) Capacitate departmental employees with basic data management skills
- (d) Capacitate senior managers with data management skills to support and implement practices for improved service delivery;
- (e) Knowledge management awareness initiatives to ensure the adoption of Knowledge Management in the organisation through:
 - i. Internal Publications;
 - ii. Internal digital and mobile platforms (including Intranet, Web Portals);
 - iii. Departmental forums and committees (Induction process, Management Meetings etc.)

- (f) The establishment of a recognition and reward system for knowledge sharing behaviour that will entrench a culture of learning and knowledge dissemination.

16. MONITORING AND EVALUATION

- 16.1. The HOD must ensure that a three (3) year Knowledge Management Implementation Plan is submitted to the DPSA (*see paragraph 10.2.6 (d)*).
- 16.2. The HOD must ensure the submission of quarterly Knowledge Management implementation reports to the DPSA in line with the KM implementation reporting tool (*see paragraph 10.2.6(f)*).
- 16.3. The DPSA will conduct an annual assessment on the implementation of the knowledge and data management requirements twelve (12) months after the issuing of this Determination and Directive.

APPROVED BY THE MINISTER FOR PUBLIC SERVICE AND ADMINISTRATION

Sincerely



Ms N Kiviet, MP

Minister for the Public Service and Administration

Date: 14/02/24