Australian Government

# APS Data Capability Framework

## User Guide

Version 2

# ACKNOWLEDGMENTS

The APS Data Profession acknowledges and thanks Stats NZ for the use of their Data Capability Framework. The APS Data Capability Framework (DCF) has drawn upon this framework, with additional themes included and amendments made to align with the APS context and Data Profession requirements.

This new iteration draws inspiration from the Skills Framework for the Information Age (SFIA), leveraging several data-specific SFIA skill descriptors to anchor the DCF's capability themes, capability items and levelling approaches.

We also thank the following agencies who have been pivotal in developing and testing this framework:

Attorney-General's Department

Australian Bureau of Statistics

Australian Financial Security Authority

Australian Public Service Commission

Australian Taxation Office

Commonwealth Grants Commission

Department of Agriculture, Fisheries and Forestry

Department of Defence

Department of Foreign Affairs and Trade

Department of Health, Disability and Aging

Department of Home Affairs

Department of Industry, Science and Resources

Department of Social Services

Department of Veteran's Affairs

Geoscience Australia

National Archives Australia

National Indigenous Australians Agency

Services Australia

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# INTRODUCTION

Data is a strategic asset across the Australian Public Service (APS), underpinning evidence-based policy, service delivery, and regulatory functions. As demand for professional data capabilities continues to grow, the importance of establishing the APS Data Profession to source, develop, and mobilise data expertise across the service has been crucial.

The APS Data, Digital and Cyber Workforce Plan 2025-30 aligns with broader government strategies and provides a coordinated approach to attract, develop and retain people with skills in these areas of growing need. Building a strong connection between data, digital and cyber is needed. This new iteration of the APS Data Capability Framework (DCF) draws inspiration from the Skills Framework for the Information Age (SFIA) to encourage greater collaboration across the APS and with industry and academia. By doing this, we hope to be better positioned to tackle shared capability challenges and build a strong future workforce.

The DCF primarily focuses on professional data capability requirements, while also recognising that data literacy is a foundational skill for all APS employees. All APS staff are encouraged to access appropriate data literacy resources to build their confidence and capability in working with data. As such, the DCF helps data professionals:

- recognise their current data capabilities and identify areas of strength or growth
- guide their capability measurement, development, performance, and career progression.

While not an exhaustive list of all data-related responsibilities, the framework outlines essential data competencies commonly required by APS data roles across agencies.

A key expectation for all APS data professionals is a strong understanding and application of data ethics – the principles guiding how data is collected, generated, analysed, and shared, and how these processes impact individuals and communities. Data professionals are expected to abide by:

- Their agency's data and information management policies
- The APS Data Ethics Framework
- Relevant laws, regulations, standards, and best practices

Additionally, data professionals should consider other important frameworks and policies, such as the:

- Framework for Governance of Indigenous Data which provides guidance in improving governance practices for data related to Aboriginal and Torres Strait Islander people; and
- National Agreement on Closing the Gap which highlights the importance of partnerships with Aboriginal and Torres Strait Islander people, including shared decision-making and improved access to data.

The DCF supports these commitments by helping to build an APS workforce that is skilled in ethical and effective data use.

# WHAT IS THE APS DATA CAPABILITY FRAMEWORK?

## WHAT IS THE APS DATA CAPABILITY FRAMEWORK?

The DCF outlines 22 capability areas associated with working with data in the APS. Each has capability indicators (covering skills, knowledge and behaviours) that span across 7 levels of responsibility. The DCF has been designed to be flexible.

It focuses solely on data capabilities, and is designed to complement rather than duplicate existing frameworks in use, such as:

- The Integrated Leadership System
- Skills Framework for the Information Age
- The Office of the National Data Commissioner's Foundational Four

## WHO IS THE DCF FOR?

The DCF is relevant to all APS employees, managers and agencies.

## HOW CAN WE USE THE DCF?

The DCF has touchpoints across several elements of the employee lifecycle and can be used to guide activities across the following:

- Attraction and recruitment
- Learning and performance
- Career development
- Engagement and retention

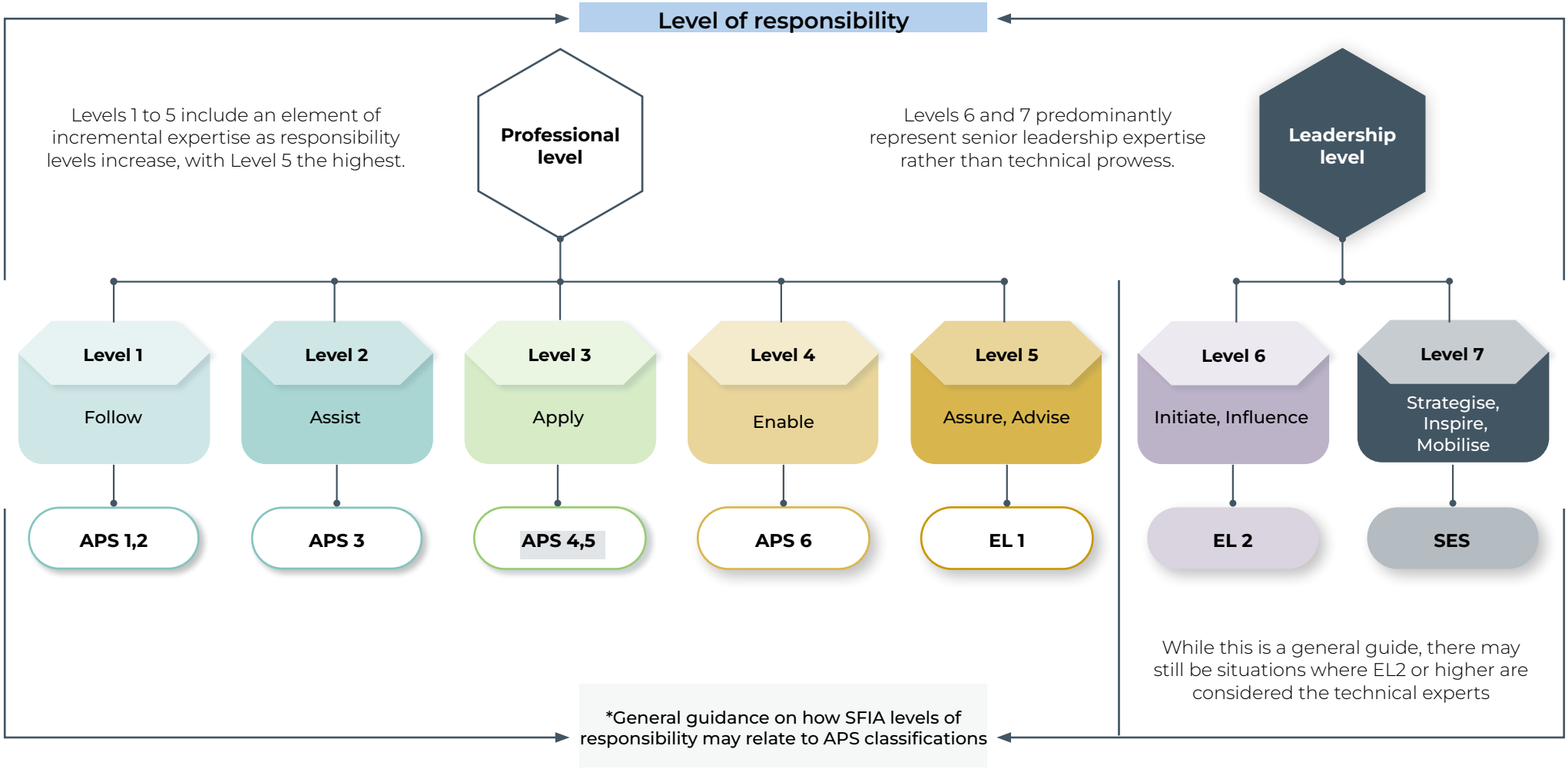
Agencies can use the DCF for a range of human resource management activities, including:

- Data capability assessment and baselining
- Mapping data capability resources and courses to the DCF to inform agency and employee learning choices
- Recruitment activities
- Workforce planning and mobility initiatives
- Incorporating the data capabilities into their existing people capability framework

# GENERAL GUIDE TO HOW PROFICIENCY LEVELS MAY RELATE TO APS LEVELS

## THE 7 LEVELS OF RESPONSIBILITY

Although the level descriptors include some elements of expertise, their primary focus is on work-related behavioural examples that reflect levels of responsibility and consider factors such as autonomy, influence, work complexity and accountability.



# EXAMPLES OF USE

## DEVELOPMENT CONVERSATIONS AND PLANNING

**Employees and managers** can use the DCF as a tool to support individual and team development conversations and planning. The DCF can help all employees (whether generalists or data specialists) identify particular data capability needs or strengths, and prioritise training and development resource allocation.

### APS Employee

The DCF is a tool I can use when thinking about my development, performance, and career goals. After determining what data capabilities are relevant to my work, I can look at these in more detail to identify my areas of strength, as well as set development goals for myself.

### APS Manager

I can use the DCF when considering my team's development and performance. It helps me identify the capability areas relevant to our work so I can look closer at the capabilities to consider my team's strengths and development needs. This allows me to make informed decisions regarding where to focus development, as well as consider ways to help individuals in my team practise a particular skill, or coach and mentor others to broaden proficiency across the team.

### APS Human Resource Manager

#### Learning and development

The DCF is a resource I can use when partnering with managers and teams in my agency to identify their data capability needs and target development opportunities that address these.

I can look at the entire set of capabilities in the DCF when reviewing our current development offerings, or collating a learning and development catalogue of data related courses, resources and programs.

#### Recruitment

I can use the capabilities in the DCF to create targeted and consistent role descriptions and advertisements, referencing specific data capabilities required in certain roles.

I can also use the capabilities in the DCF to create questions to draw out specific data capabilities during a selection process.

#### Workforce Management (strategic and operational)

I can incorporate the DCF into our existing people capability framework to gain an expanded view of the capability requirements for my agency.

I can use the DCF to better understand agency data capability strengths, needs and gaps when considering succession planning, as well as when identifying secondment priorities and opportunities within my agency and beyond.

# CASE STUDIES

1. Organisational planning and strategy
2. Capability assessment – agency level
3. Self-assessment survey approach

## ORGANISATIONAL PLANNING AND STRATEGY

The following is an example of how the National Measurement Institute (NMI) used the DCF to plan how it will continue to build data capabilities and resources as a data-driven organisation.

### Need

The NMI needed to understand the data use, skills, and capabilities of its employees, to inform strategies and initiatives to drive digital and data transformation.

### Approach

Using a human-centred design approach, the NMI interviewed employees across each branch and complemented this with desktop research and analysis to develop journey maps and functional personas.

Each persona described a 'day in the life of' including pain points and challenges, as well as how the persona interacts with data. The data skills and capability requirements of each persona were mapped against the DCF to describe current skill requirements and identify potential upskilling opportunities. Only a subset of capabilities from the DCF were mapped as not all capabilities were relevant to the personas.

### Results

NMI developed a list of relevant and current training options for each capability. Staff are enabled to undertake training to develop their own skills and capabilities aligned with their persona. These results will feed into strategies and initiatives to drive digital and data transformation within NMI, and create a baseline for future review.

## CAPABILITY ASSESSMENT – AGENCY LEVEL

The following is an example of how the Commonwealth Fraud Prevention Centre (the Centre) used the DFC to develop a beta Fraud Data Capability Assessment tool.

### Need

Stakeholder engagement in 2021 identified the core problems experienced in countering fraud, one of which was a lack of effective tools and processes to find and deal with the fraud they likely experience. Also noted was a lack of collaboration and information sharing across the APS on preventing fraud.

### Approach

This led to the Centre developing a Fraud Data Capability Assessment tool that aligns with the DFC. APS entities can use the assessment tool to identify fraud data capabilities, strengths, areas of improvement, and enhance their fraud data analytic capabilities by identifying activities and training opportunities.

The assessment tool includes a series of questions designed to measure and identify an entity's current fraud data analytics proficiency against each of the capabilities in the DFC. The questionnaire is divided into eight categories that aligns with the Centre's Fraud Data Analytics Framework, addressing risk assessment and requirements, data acquisition, analysis, visualisation, and consumption.

### Results

The Centre analyses the questionnaire results and provides the entity a report which outlines proficiency levels against DFC capabilities. Entities can use this to identify areas where they might like to build capacity, and the report provides information about resources that can assist with capability uplift, linking entities with other capability building activities happening across the Commonwealth.

## SELF-ASSESSMENT SURVEY APPROACH

The following is an example of how the Australian Bureau of Statistics (ABS) developed the Data Capability Census, a survey to assess data capability, using the DFC.

### Need

The ABS wanted to better understand the current levels of data capability across the organisation and offer its employees an opportunity to reflect on their data capability strengths and areas for development.

### Approach

The ABS developed the survey using the DFC as a foundation, engaging with internal partners to adapt it to ABS needs and context. The ABS removed some capability areas that weren't relevant, and created an additional two to accommodate their needs. The online self-assessment was developed using an ABS survey tool and asks respondents to rate their proficiency across 24 data capability areas. Guidance notes are provided to help participants select their responses. These guidance notes are based on the proficiency indicators outlined in the DCF.

### Results

The ABS will use the results of the Data Capability Census to help identify priorities for future development initiatives and capability building. Respondents will have an opportunity to use their response from the survey to inform planning their development and career goals.