

The Framework by Capability

The following table shows all 25 capabilities together, in no particular order. This view is useful if you want to get a complete view of the Framework, without concerned to the categories in which they fit.

The levels:

- New: has a basic understanding of the subject or process.
- Proficient: has enough experience to work independently and source additional expertise as needed.
- Expert: can innovate in the subject or process and guide others via mentoring or training.

	Capability	Levels	
1	Employ data coding and classification principles	New	<ul style="list-style-type: none"> • <i>Is aware of relevant data classifications and coding protocols, and their proper application to data in general.</i> • <i>Knows who to consult for expert knowledge.</i>
		Proficient	<ul style="list-style-type: none"> • <i>Has a comprehensive knowledge of data classifications and coding protocols.</i> • <i>Knows where to obtain expert advice about coding and classifications as needed.</i>
		Expert	<ul style="list-style-type: none"> • <i>Is consulted regularly by others about data classifications and coding protocols.</i> • <i>Can employ conceptual frameworks in support of data classification and coding.</i>
2	Integrate data	New	<ul style="list-style-type: none"> • <i>Has a basic understanding of how data can be linked with other data and the value of that operation.</i>
		Proficient	<ul style="list-style-type: none"> • <i>Can perform data integration using standard tools and can implement quality controls.</i> • <i>Knows where to obtain expert advice on data integration as needed.</i>
		Expert	<ul style="list-style-type: none"> • <i>Can perform and provide expert advice on data integration.</i>

	Capability	Levels	
3	Use data processing methodologies	New	<ul style="list-style-type: none"> • <i>Is aware of the proper processing methodology for the data being used and understands its application.</i> • <i>Knows where to obtain advice on processing methodology as required.</i>
		Proficient	<ul style="list-style-type: none"> • <i>Can make and justify suggestions for improvements in how data is processed.</i> • <i>Understands how processing methodology affects the quality of the outputs.</i>
		Expert	<ul style="list-style-type: none"> • <i>Is consulted regularly by others about processing methodology and can assess it critically to identify improvements.</i> • <i>Can explain how processing methodology relates to the quality of data outputs.</i>
4	Contribute to data outputs, products or service production	New	<ul style="list-style-type: none"> • <i>Is aware of the steps of the data output process and understands the decisions made at each of those steps.</i> • <i>Knows where to obtain advice on data outputs as required.</i>
		Proficient	<ul style="list-style-type: none"> • <i>Is responsible for the production of a data output or service.</i> • <i>Can communicate effectively about the data output process, including explaining decisions made at all stages.</i>
		Expert	<ul style="list-style-type: none"> • <i>Has expert knowledge about the production of a data output or service.</i> • <i>Is consulted regularly about their knowledge.</i> • <i>Can train others in the delivery of the associated process.</i>

	Capability	Levels	
5	Perform exploratory data analysis	New	<ul style="list-style-type: none"> • Can choose from data analysis techniques. • Can use (or learn how to use) appropriate analytical tools to investigate data.
		Proficient	<ul style="list-style-type: none"> • Can identify and implement suitable techniques and tools for exploratory analysis on large/complex datasets. • Can validate unexpected results.
		Expert	<ul style="list-style-type: none"> • Is highly competent at performing exploratory analysis on large/complex datasets. • Can communicate findings to a range of audiences. • Can train others in exploratory data analysis techniques.
6	Conduct business intelligence data analysis	New	<ul style="list-style-type: none"> • Can use common applications to generate basic analysis outputs like tables with calculations and static charts. • Understands reports and dashboards created with business intelligence tools.
		Proficient	<ul style="list-style-type: none"> • Can use business intelligence applications to create complex reports and dashboards.
		Expert	<ul style="list-style-type: none"> • Exhibits expertise in multiple business intelligence applications. • Can train others in developing outputs using those applications.
7	Conduct statistical data analysis	New	<ul style="list-style-type: none"> • Understands basic statistical measures and their application to data.
		Proficient	<ul style="list-style-type: none"> • Can use specialist statistical applications for statistical models. • Can write custom scripts and code in a statistical computing language to conduct complex analytical tasks.

	Capability	Levels	
		Expert	<ul style="list-style-type: none"> Contributes to the development of new functionality for statistical analysis applications, which enables new ways of doing analysis.
8	Conduct specialist data analysis	New	<ul style="list-style-type: none"> Understands the need for special data analysis methods and tools in some situations (e.g., time series forecasting or spatial).
		Proficient	<ul style="list-style-type: none"> Can develop, fit, diagnose, and troubleshoot a model in a new data analysis scenario that requires a specialist method (e.g., time series forecasting or spatial statistics).
		Expert	<ul style="list-style-type: none"> Innovates in developing new methods in a specialist data area (e.g., new approaches to time series forecasting).
9	Identify and understand data availability	New	<ul style="list-style-type: none"> Is aware of available data (both internal and external).
		Proficient	<ul style="list-style-type: none"> Can identify and evaluate internal and external sources of data, including understanding any limitations and gaps. Can use suitable techniques to evaluate new sources of data.
		Expert	<ul style="list-style-type: none"> Is an expert resource for seeking out new sources of data or identifying new ways of using existing sources of data. Provides expertise in techniques to evaluate possible new sources of data. Researches new techniques to assess data availability.
10	Employ data collection methodology	New	<ul style="list-style-type: none"> Is aware of relevant data collection methodologies. Knows where to obtain advice on those methodologies as required.

	Capability	Levels	
		Proficient	<ul style="list-style-type: none"> • <i>Has a comprehensive knowledge of relevant data collection methodologies.</i> • <i>Can make and justify recommendations for various modes of collection.</i>
		Expert	<ul style="list-style-type: none"> • <i>Is consulted regularly by others about data collection methodology.</i> • <i>Can make justifiable recommendations to address data collection issues and communicate these recommendations to a wide range of audiences.</i>
11	Contribute to data access design	New	<ul style="list-style-type: none"> • <i>Can use the range of available options to access common data sources.</i>
		Proficient	<ul style="list-style-type: none"> • <i>Has a comprehensive knowledge of protocols associated with data access.</i>
		Expert	<ul style="list-style-type: none"> • <i>Can mitigate issues arising from different access approaches.</i> • <i>Can make and justify recommendations for data access.</i> • <i>Can provide actionable strategic advice on data access.</i>
12	Contribute to the sourcing and use of administrative data	New	<ul style="list-style-type: none"> • <i>Is aware of the data obtained from administrative sources and the use of administrative data.</i> • <i>Knows where to obtain advice about administrative data sources and use as required.</i>
		Proficient	<ul style="list-style-type: none"> • <i>Is knowledgeable about various sources of administrative data and can explain their limitations.</i> • <i>Understands the advantages and disadvantages of using administrative data, including in relation to survey data.</i> • <i>Can assess the utility of different sources for a particular purpose.</i>

	Capability	Levels	
		Expert	<ul style="list-style-type: none"> • <i>Is knowledgeable about multiple sources of administrative data and helps maintain a good working relationship with the suppliers.</i> • <i>Can advise on how the data has been used to produce new insights.</i> • <i>Provides expertise to identify new sources of administrative data as well as uses for that data.</i>
13	Understand and contribute to data collection process design	New	<ul style="list-style-type: none"> • <i>Understands the role of data collection and the value propositions of different collection approaches.</i>
		Proficient	<ul style="list-style-type: none"> • <i>Has a comprehensive knowledge of the full range of data collection options, including understanding costs and benefits.</i> • <i>Knows how to mitigate issues arising from different collection modes.</i>
		Expert	<ul style="list-style-type: none"> • <i>Is an expert resource in all aspects of data collection, including understanding why data is collected, and the roles associated with collection.</i> • <i>Can make justifiable decisions about how data is collected.</i>
14	Describe and summarise data	New	<ul style="list-style-type: none"> • <i>Understands that there are different ways to summarise data and has a basic understanding of commonly used options.</i>
		Proficient	<ul style="list-style-type: none"> • <i>Can use various summary options to effectively describe data, and explain and justify those choices.</i>

	Capability	Levels	
		Expert	<ul style="list-style-type: none"> • Can use innovative approaches to improve the process of summarising data into meaningful narratives. • Can effectively incorporate data summaries into compelling communication, including for new, large, and complex datasets.
15	Understand and apply data editing methods	New	<ul style="list-style-type: none"> • Knows where to access relevant methods and understands the basics of those methods. • Knows who to consult for expert knowledge.
		Proficient	<ul style="list-style-type: none"> • Has a comprehensive knowledge of the different editing methods at their disposal. • Understands why different methods are used and can describe the limitations of each method. • Knows where to find expert advice about data editing as required.
		Expert	<ul style="list-style-type: none"> • Is an expert resource on different methods of data editing and is consulted regularly by others. • Can assess current editing methods critically. • Can train others on data editing concepts and methods.
16	Use data quality assurance measures	New	<ul style="list-style-type: none"> • Understands the concept of data quality and its importance. • Knows where to access data quality measures for the data they use.
		Proficient	<ul style="list-style-type: none"> • Can describe and produce data quality measures for the outputs they produce. • Has a comprehensive knowledge of relevant data quality measures and can use them to make accurate assessments of data fitness-for-purpose.

	Capability	Levels	
		Expert	<ul style="list-style-type: none"> • <i>Is an expert resource in the use of measures for data quality assurance, the interaction of those measures, and their application in conjunction with one another.</i> • <i>Can advise others on the use of data quality measures to make accurate assessments of data fitness-for-purpose.</i>
17	Identify and evaluate data intelligence	New	<ul style="list-style-type: none"> • <i>Has a general understanding of the subject matter area associated with data use (e.g., small business, healthcare, rural sector, etc.).</i>
		Proficient	<ul style="list-style-type: none"> • <i>Has a comprehensive knowledge of the subject matter area associated with the data use and can readily identify the parameters of the subject matter that influence the use of the data.</i> • <i>Can effectively communicate the relationship between the data and the context in which it is used.</i>
		Expert	<ul style="list-style-type: none"> • <i>Is an expert resource on the subject matter area associated with data use, including understanding and influencing the effective use of the data within that subject matter area and the relationship between that use and other data use contexts.</i>
18	Improve data processes/systems/products	New	<ul style="list-style-type: none"> • <i>Can identify a successful process/system/product.</i> • <i>Can identify deficiencies in current processes/systems/products.</i>
		Proficient	<ul style="list-style-type: none"> • <i>Can identify deficiencies in current processes/systems/products, gain the required approval to make changes, and lead the implementation of those changes.</i>

	Capability	Levels	
		Expert	<ul style="list-style-type: none"> • <i>Thinks strategically to assess current processes/systems/products across a broad context.</i> • <i>Develops improvements where needed and encourages others to think critically about processes/systems/products relevant to them.</i> • <i>Advises those leading changes to processes/systems/products, measures resultant benefits, and makes recommendations.</i>
19	Identify research questions	New	<ul style="list-style-type: none"> • <i>Can formulate research questions with guidance and consider the appropriate approaches and measures to resolve those questions.</i>
		Proficient	<ul style="list-style-type: none"> • <i>Can identify and structure relevant research questions for specific needs, and develop the approach and specific measures to resolve those questions.</i>
		Expert	<ul style="list-style-type: none"> • <i>Uses a range of techniques to assess data needs and identify gaps, towards the formulation of appropriate research questions.</i> • <i>Can communicate research questions to a range of audiences.</i> • <i>Can collaborate with stakeholders and users to develop approaches to resolve those questions.</i>
20	Apply data governance guidance	New	<ul style="list-style-type: none"> • <i>Is aware of data governance frameworks and policies.</i> • <i>Knows where to obtain advice on governance as required.</i>
		Proficient	<ul style="list-style-type: none"> • <i>Can contribute to the creation of internal policies in support of data governance.</i> • <i>Can educate others in the importance of good data governance practice.</i>

	Capability	Levels	
		Expert	<ul style="list-style-type: none"> • <i>Is consulted regularly about data governance.</i> • <i>Can formulate and advise on data governance policies and contribute to the structure of organisational data governance frameworks.</i> • <i>Can provide data governance thought leadership across broader data use contexts.</i>
21	Value organisational data as assets	New	<ul style="list-style-type: none"> • <i>Is familiar with organisational data assets relevant to their work.</i> • <i>Understands how those assets contribute value to the organisation.</i>
		Proficient	<ul style="list-style-type: none"> • <i>Has extensive knowledge of the organisation's data assets, including a comprehensive understanding of how their fitness for purpose translates to value for the organisation.</i>
		Expert	<ul style="list-style-type: none"> • <i>Has a comprehensive understanding of the data assets available to the organisation and understands how those assets contribute strategic value.</i> • <i>Looks for new ways to obtain value from those assets.</i> • <i>Can advise on how organisational data assets contribute value in broader data contexts.</i>
22	Employ statistical concepts and methodologies	New	<ul style="list-style-type: none"> • <i>Is familiar with statistical methodologies relevant for their work.</i> • <i>Maintains a basic understanding of the concepts underpinning those methodologies.</i>
		Proficient	<ul style="list-style-type: none"> • <i>Has a comprehensive understanding of a wide range of statistical concepts, methodologies, and their appropriate application.</i> • <i>Can explain their proper use to others.</i>

	Capability	Levels	
		Expert	<ul style="list-style-type: none"> • <i>Is consulted regularly by others for their understanding of statistical concepts and their advice on the proper use of statistical methods.</i> • <i>Leads efforts to apply good statistical practice.</i> • <i>Can develop statistical training for others.</i>
23	Enable others to use and re-use data	New	<ul style="list-style-type: none"> • <i>Understands that the data they work with can be used more widely.</i> • <i>Is familiar with basic open data measures to support the re-use of their data by others.</i>
		Proficient	<ul style="list-style-type: none"> • <i>Understands and can articulate the value of data in terms of use and re-use.</i> • <i>Implements a variety of techniques to ensure data is open and can be used beyond the specific purpose for which it was collected.</i> • <i>Can advise others on approaches to make data re-usable.</i>
		Expert	<ul style="list-style-type: none"> • <i>Is consulted regularly as a leading strategic adviser on the use of organisational data assets.</i> • <i>Is consulted on the design and management of those assets as open data, to promote re-use and ongoing value across wider contexts.</i>
24	Employ data and information management concepts	New	<ul style="list-style-type: none"> • <i>Can access data and information management principles and associated guidelines.</i> • <i>Knows where to obtain advice on the application of good data and information management practice.</i>

	Capability	Levels	
		Proficient	<ul style="list-style-type: none"> • <i>Has a comprehensive knowledge of the organisation's data and information management principles and guidelines and can apply them to support good data practice.</i> • <i>Can advise others on the proper application of data and information management concepts.</i>
		Expert	<ul style="list-style-type: none"> • <i>Is an expert resource for implementing and shaping the organisation's strategic use of data and information management good practice, and can advise others.</i> • <i>Represents a point of contact for data and information management leads in other organisations.</i>
25	Visualise data	New	<ul style="list-style-type: none"> • <i>Can interpret basic data visualisations like standard charts and explain them to others.</i>
		Proficient	<ul style="list-style-type: none"> • <i>Can readily produce a range of data visualisation outputs and can critically assess and enhance those produced by others.</i> • <i>Can advise others on data visualisation options and the best options to present data results.</i>
		Expert	<ul style="list-style-type: none"> • <i>Innovates the development of new approaches to, and options for, data visualisation, and can incorporate a range of techniques, including automation, interactivity, and animation.</i> • <i>Can train others in data visualisation.</i>