The Framework by Category

The following tables show the capabilities in one of the 7 possible categories (i.e., capabilities get repeated across the categories as applicable). This view is useful if you want to focus in on a particular category to assess an individual or a team.

Category: Analyse

In this part of the lifecycle, the data is analysed, i.e., explored and interpreted.

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	
Integrate data		New	• *Has a basic understanding of how data can be linked with other data and the value of that operation.*
		Proficient	• *Can perform data integration using standard tools and can implement quality controls.* • *Knows where to obtain expert advice on data integration as needed.*
		Expert	• *Can perform and provide expert advice on data integration.*
Use data processing methodologies		New	• *Is aware of the proper processing methodology for the data being used and understands its application.* • *Knows where to obtain advice on processing methodology as required.*
		Proficient	• *Can make and justify suggestions for improvements in how data is processed.* • *Understands how processing methodology affects the quality of the outputs.*

Capability		Levels	
		Expert	• *Is consulted regularly by others about processing methodology and can assess it critically to identify improvements.* • *Can explain how processing methodology relates to the quality of data outputs.*
Perform data exploratory data analysis		New	• *Can choose from data analysis techniques.* • *Can use (or learn how to use) appropriate analytical tools to investigate data.*
		Proficient	• *Can identify and implement suitable techniques and tools for exploratory analysis on large/complex datasets.* • *Can validate unexpected results.*
		Expert	• *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.*
Conduct business intelligence data analysis		New	• *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	• *Can use business intelligence applications to create complex reports and dashboards.*
		Expert	• *Exhibits expertise in multiple business intelligence applications.* • *Can train others in developing outputs using those applications.*

Capability		Levels	
Conduct statistical data analysis		New	• *Understands basic statistical measures and their application to data.*
		Proficient	• *Can use specialist statistical applications for statistical models.* • *Can write custom scripts and code in a statistical computing language to conduct complex analytical tasks.*
		Expert	• *Contributes to the development of new functionality for statistical analysis applications, which enables new ways of doing analysis.*
Conduct specialist data analysis		New	• *Understands the need for special data analysis methods and tools in some situations (e.g., time series forecasting or spatial).*
		Proficient	• *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	• *Innovates in developing new methods in a specialist data area (e.g., new approaches to time series forecasting).*
Understand and apply data editing methods		New	• *Knows where to access relevant methods and understands the basics of those methods.* • *Knows who to consult for expert knowledge.*
		Proficient	• *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.*

Capability		Levels	
		Expert	*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.*
Use data quality assurance measures		New	*Understands the concept of data quality and its importance.* *Knows where to access data quality measures for the data they use.*
		Proficient	*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.*
		Expert	*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.* *Can advise others on the use of data quality measures to make accurate assessments of data fitness-for-purpose.*
Employ data and information management concepts		New	*Can access data and information management principles and associated guidelines.* *Knows where to obtain advice on the application of good data and information management practice.*

Capability		Levels	
		Proficient	• Has a comprehensive knowledge of the organisation's data and information management principles and guidelines and can apply them to support good data practice. • Can advise others on the proper application of data and information management concepts.
		Expert	• Is an expert resource for implementing and shaping the organisation's strategic use of data and information management good practice, and can advise others. • Represents a point of contact for data and information management leads in other organisations.