

Matrix – connecting Data lifecycle, FAIR Principles, Competence and Knowledge indications

According to earlier publications, two levels of Data Stewardship are distinguished:

- FAIR Data Steward Level A: Organisational, coordinating, policy-oriented function.
- FAIR Data Steward Level B: Operational, supporting and project-oriented function.

FAIR Data Steward Level A – Policy focus

Focus	Responsibilities	Mapping			
		Data Lifecycle	FAIR Principle	Competence	DM Body of Knowledge
1-Policy, Strategy	Responsible for advice on and development, implementation and monitoring of a data management policy and strategy for the organisation, which includes the complete data life cycle, and supports FAIR data, in alignment with the relevant stakeholders and within financial and legal constraints, within the organisation and in the context of the organisation. The policy is the basis for data management plans.	1	F	3	1
		2	A	4	11
		3	I	8	
		4	R		
		5			
		6			
2-Compliance	Responsible for compliance of the DM policy to the General Data Protection Regulation (GDPR), as well as continuous alignment with legal and ethical standards.	1	F	3	1
		2	A	4	5
		3	I	8	11
		4	R	12	
		5			
		6			
3-FAIR alignment	Responsible for compliance to FAIR data.	1	F	3	1
		2	A	4	11
		3	I	8	
		4	R		
		5			
		6			
4-Services	Responsible for the availability of sufficient support on DM, in staff or services, for the users and user support staff of the organisation.	1	F	3	1
		2	A		
		3	I		
		4	R		
		5			
		6			
5-Infrastructure	Responsible for the availability of adequate data and e-infrastructure and tools for DM to comply with the organisation's DM policy and alignment to (inter)national data and e-infrastructures.	1	F	1	1
		2	A	3	2
		3	I		
		4	R		
		5			
		6			

FAIR Data Steward Level A – Policy focus (continued)

Focus	Responsibilities	Mapping			
		Data Lifecycle	FAIR Principle	Competence	DM Body of Knowledge
6-Knowledge	Responsible for an adequate level of knowledge and skills on DM within the organisation in order to comply with the organisation's DM policy.	1	F	3	1
		2	A	4	11
		3	I	8	
		4	R	12	
		5			
		6			
7-Network	Responsible for obtaining and maintaining a network of aligned expertise areas and relevant departments and organisations inside and outside the organisation, with regard to DM.	1	F	3	1
		2	A	4	11
		3	I	8	
		4	R	12	
		5			
		6			
8-Data Archiving	Responsible for FAIR and long-term archiving of data of the organisation, stored internally as well as externally, and for sustainable and legitimate access to data sources of the organisation, for the required period	4	F	1	1
		5	A	3	4
		6	I R	7 9 12	11
9-Supervision	Responsible for the supervision of staff commissioned with the execution of and/or support for the organisation's DM policy (data managers, data steward level B, etc.), if applicable.	1	F	3	1
		2	A	4	
		3	I	8	
		4	R	12	
		5			
		6			

Legenda:

<p>Data Lifecycle stages:</p> <ul style="list-style-type: none"> 1 – Create 2 – Process 3 – Analyse 4 – Preserve 5 – Share 6 – Reuse 	<p>FAIR Principles:</p> <ul style="list-style-type: none"> Findable Accessible Interoperable Reusable
<p>Competences:</p> <ul style="list-style-type: none"> 1 – Database and formats 2 – Discovery and acquisition of data 3 – Data management and organisation 4 – Quality assurance 5 – Data conversion and interoperability 6 – Metadata 7 – Curation and reuse 8 – Cultures of practice 9 – Data preservation 10 – Data analysis 11 – Data visualisation 12 – Ethics, including citation of data 	<p>DM Body of Knowledge:</p> <ul style="list-style-type: none"> 1 – Governance 2 – Architecture 3 – Modelling and design 4 – Storage and operations 5 – Security 6 – Integration and interoperability 7 – Documents and content 8 – Reference and master data 9 – Data warehousing and BI 10 – Metadata 11 – Data Quality

FAIR Data Steward Level B – Project focus

Focus	Responsibilities	Mapping			
		Data Lifecycle	FAIR Principle	Competence	DM Body of Knowledge
1-Policy, Strategy	Responsible for the development and implementation of a data management plan (DMP) for departments, projects, or data collections within the institute, in line with the institute's DM policy and within financial and legal constraints, that supports FAIR data.	1	F	3	1
		2	A	4	11
		3	I	8	
		4	R		
		5			
		6			
2-Compliance	Responsible for monitoring compliance of the project or data collection with the DMP, the General Data Protection Regulation (GDPR), as well as continuous alignment with legal and ethical standards.	1	F	3	1
		2	A	4	5
		3	I	8	11
		4	R	12	
		5			
		6			
3-FAIR alignment	Responsible for facilitating and supporting FAIR data.	1	F	3	1
		2	A	4	11
		3	I	8	
		4	R		
		5			
		6			
4-Services	Responsible for delivering sufficient support and services on DM for the involved users and scientist.	1	F	3	1
		2	A		
		3	I		
		4	R		
		5			
		6			
5-Infrastructure	Responsible for monitoring the department's or project group's needs regarding e-infrastructure and tools for DM, including supporting adequate access, in accordance with the DMP	1	F	1	1
		2	A	3	2
		3	I		
		4	R		
		5			
		6			
6-Knowledge	Responsible for an adequate level of knowledge and skills on DM within the department or project group.	1	F	3	1
		2	A	4	11
		3	I	8	
		4	R	12	
		5			
		6			

FAIR Data Steward Level B – Project focus (continued)

Focus	Responsibilities	Mapping			
		Data Lifecycle	FAIR Principle	Competence	DM Body of Knowledge
7-Network	Responsible for liaison and alignment of DM within the department or project group and with relevant stakeholders outside the department or project group.	1	F	3	1
		2	A	4	11
		3	I	8	
		4	R	12	
		5			
		6			
8-Data Archiving	Responsible for FAIR and long term internal and/or external archiving of data of the department or project group by users, including selection of data, and sustainable and legitimate access to data sources of the department or project group, for the required period.	4	F	1	1
		5	A	3	4
		6	I	7	11
			R	9 12	
9-Supervision	Not applicable	-	-	-	-

Legenda:

Data Lifecycle stages: 1 – Create 2 – Process 3 – Analyse 4 – Preserve 5 – Share 6 – Reuse	FAIR Principles: Findable Accessible Interoperable Reusable
Competences: 1 – Database and formats 2 – Discovery and acquisition of data 3 – Data management and organisation 4 – Quality assurance 5 – Data conversion and interoperability 6 – Metadata 7 – Curation and reuse 8 – Cultures of practice 9 – Data preservation 10 – Data analysis 11 – Data visualisation 12 – Ethics, including citation of data	DM Body of Knowledge: 1 – Governance 2 – Architecture 3 – Modelling and design 4 – Storage and operations 5 – Security 6 – Integration and interoperability 7 – Documents and content 8 – Reference and master data 9 – Data warehousing and BI 10 – Metadata 11 – Data Quality