WS1: Result

20 Jul 2018 21:54:26

# Purpose

Workshop 1 focussed on identifying the major stakeholders and their primary drivers and then linking these to corresponding goals and requirements.

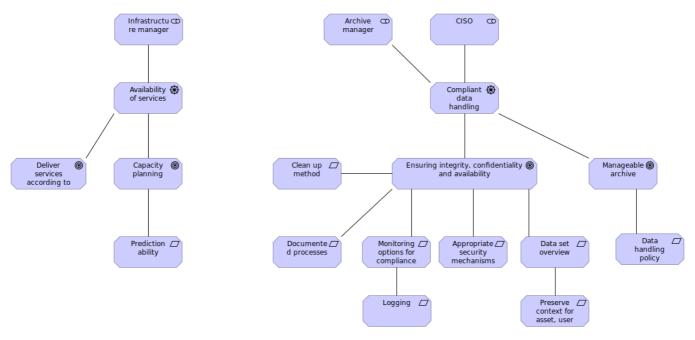
At AAU we have modelled drivers, goals and requirements for some of the stakeholders and presented these in some views. You are invited to both expand on these and/or make similar models for the other stakeholders.

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# **Views**

# Archiving, administration

# Motivation viewpoint

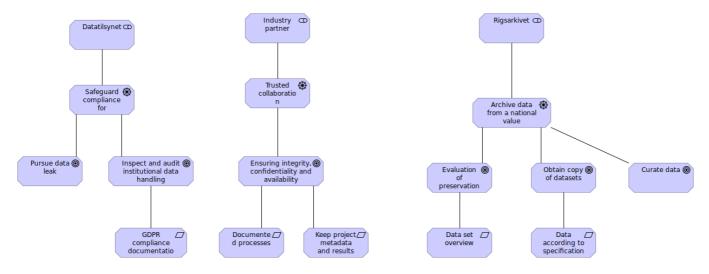


### **Elements**

Туре
Requirement
Stakeholder
Driver
Goal
Stakeholder
Requirement
Driver
Requirement
Requirement
Goal
Requirement
Goal
Stakeholder
Requirement
Goal
Requirement
Requirement
Requirement

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# Archiving, external No viewpoint

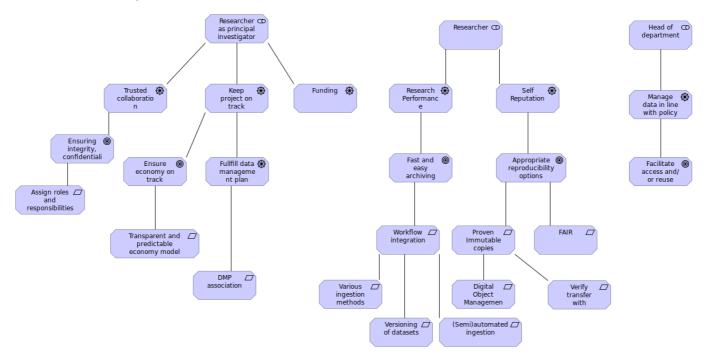


# **Elements**

Element	Туре
Archive data from a national value perspective	Driver
Curate data	Goal
Data according to specification	Requirement
Data set overview	Requirement
Datatilsynet	Stakeholder
Documented processes	Requirement
Ensuring integrity, confidentiality and availability	Goal
Evaluation of preservation value	Goal
GDPR compliance documentation	Requirement
Industry partner	Stakeholder
Inspect and audit institutional data handling	Goal
Keep project metadata and results secret	Requirement
Obtain copy of datasets	Goal
Pursue data leak	Goal
Rigsarkivet	Stakeholder
Safeguard compliance for lawfulness	Driver
Trusted collaboration	Driver

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# Archiving, researchers Motivation viewpoint



### **Elements**

Туре
Requirement
Goal
Requirement
Requirement
Requirement
Goal
Goal
Goal
Requirement
Goal
Driver
Driver
Stakeholder
Driver
Driver
Requirement
Driver
Stakeholder
Stakeholder
Driver
Requirement
Driver
Requirement

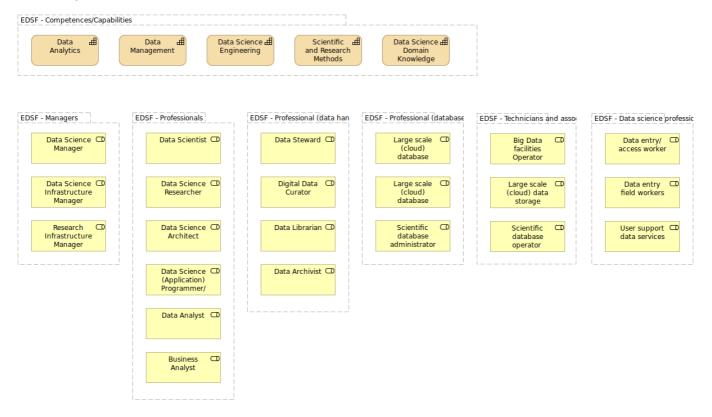
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Element	Туре
Verify transfer with checksum	Requirement
Versioning of datasets	Requirement
Workflow integration	Requirement

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# **EDISON**

# No viewpoint



### **Elements**

Element	Туре
Big Data facilities Operator	Business Role
Business Analyst	Business Role
Data Analyst	Business Role
Data Analytics	Capability
Data Archivist	Business Role
Data entry field workers	Business Role
Data entry/access worker	Business Role
Data Librarian	Business Role
Data Management	Capability
Data Science (Application) Programmer/Engineer	Business Role
Data Science Architect	Business Role
Data Science Domain Knowledge	Capability
Data Science Engineering	Capability
Data Science Infrastructure Manager	Business Role
Data Science Manager	Business Role
Data Science Researcher	Business Role
Data Scientist	Business Role
Data Steward	Business Role
Digital Data Curator	Business Role
EDSF - Competences/Capabilities	Grouping
EDSF - Data science professional profiles	Grouping

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Element	Туре
EDSF - Managers	Grouping
EDSF - Professional (data handling/management)	Grouping
EDSF - Professional (database)	Grouping
EDSF - Professionals	Grouping
EDSF - Technicians and associate professionals	Grouping
Large scale (cloud) data storage operator	Business Role
Large scale (cloud) database administrator	Business Role
Large scale (cloud) database designer	Business Role
Research Infrastructure Manager	Business Role
Scientific and Research Methods	Capability
Scientific database administrator	Business Role
Scientific database operator	Business Role
User support data services	Business Role

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# Strategy Layer

### **Data Analytics**

# Туре

Use appropriate statistical techniques and predictive analytics on available data to deliver insights and discover new relations

-- EDISON Data Science Framework (EDSF)

Capability

#### Data Management

#### **Type** Capability

Develop and implement a data management strategy for data collection, storage, preservation, and availability for further processing.

-- EDISON Data Science Framework (EDSF)

### Data Science Domain Knowledge

#### **Type** Capability

Use domain knowledge (scientific or business) to develop relevant data analytics applications, and adopt

general Data Science methods to domain specific data types and presentations, data and process

models, organizational roles and relations

-- EDISON Data Science Framework (EDSF)

### **Data Science Engineering**

#### **Type** Capability

Use engineering principles to research, design, develop and implement new instruments and

applications for data collection, analysis and management

-- EDISON Data Science Framework (EDSF)

#### Scientific and Research Methods

Туре	Capability

Create new understandings and capabilities by using the scientific method (hypothesis, test/artefact,

evaluation) or similar engineering methods to discover new approaches to create new knowledge and

WS1: Result 9 / 35

achieve research or organizational goals

-- EDISON Data Science Framework (EDSF)

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# **Business Layer**

# Big Data facilities Operator

#### **Type**

**Business Role** 

Manages daily operation of facilities, resources, and responds to customer requests. Includes all operations related to data management and data lifecycle.

-- EDISON Data Science Framework (EDSF)

#### **Business Analyst**

#### **Type**

**Business Role** 

Analyses large variety of data Information System for improving business performance.

-- EDISON Data Science Framework (EDSF)

### Data Analyst

#### **Type**

**Business Role** 

Analyses large variety of data to extract information about system, service or organisation performance and present them in usable/actionable form.

-- EDISON Data Science Framework (EDSF)

### Data Archivist

#### **Type**

Business Role

Maintain historically significant collections of datasets, documents and records, other electronic data, and seek out new items for archiving.

-- EDISON Data Science Framework (EDSF)

# Data entry field workers

#### **Type**

**Business Role** 

The same work (as a data access worker) done on field when collecting data from disconnected sensors or doing direct counting or reading.

-- EDISON Data Science Framework (EDSF)

#### Data entry/access worker

#### Type

**Business Role** 

Enter data into data management systems directly reading them from source, documents or obtained from people/users.

-- EDISON Data Science Framework (EDSF)

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#### **Data Librarian**

#### Type

**Business Role** 

Data librarians perform or support one or more of the following: acquisition (collection development), organization (cataloguing and metadata), and the implementation of appropriate user services. Data librarians apply traditional librarianship principles and practices to data management, including data citation, digital object identifiers (DOIs), ethics and metadata.

-- EDISON Data Science Framework (EDSF)

### Data Science (Application) Programmer/Engineer

#### **Type**

**Business Role** 

Designs/develops/codes large data (science) analytics applications to support scientific or enterprise/business processes.

-- EDISON Data Science Framework (EDSF)

#### Data Science Architect

#### **Type**

**Business Role** 

Designs and maintains the architecture of Data Science applications and facilities. Creates relevant data models and processes workflows.

-- EDISON Data Science Framework (EDSF)

## Data Science Infrastructure Manager

#### **Type**

**Business Role** 

Designs and maintains the architecture of Data Science applications and facilities. Creates relevant data models and processes workflows.

-- EDISON Data Science Framework (EDSF)

#### Data Science Manager

#### Type

**Business Role** 

Proposes, plans and manages functional and technical evolutions of the data science operations within the relevant domain (technical, research, business).

-- EDISON Data Science Framework (EDSF)

#### Data Science Researcher

#### Type

**Business Role** 

Data Science Researcher applies scientific discovery research/process, including hypothesis and hypothesis testing, to obtain actionable knowledge related to scientific problem, business process, or reveal hidden relations between multiple processes.

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-- EDISON Data Science Framework (EDSF)

#### **Data Scientist**

#### **Type**

**Business Role** 

Data scientists find and interpret rich data sources, manage large amounts of data, merge data sources, ensure consistency of data-sets, and create visualisations to aid in understanding data. Build mathematical models, present and communicate data insights and findings to specialists and scientists, and recommend ways to apply the data.

-- EDISON Data Science Framework (EDSF)

#### **Data Steward**

#### **Type**

**Business Role** 

Plans, implements and manages (research) data input, storage, search, presentation; creates data model for domain specific data; support and advice domain scientists/ researchers. Creates data model for domain specific data, support and advice domain scientists/researchers during the whole research cycle and data management lifecycle.

-- EDISON Data Science Framework (EDSF)

#### Digital Data Curator

#### **Type**

**Business Role** 

Finds, selects, organises, shares (exhibits) digital data collections, maintains their integrity, up-to- date status and freshness, discoverability.

-- EDISON Data Science Framework (EDSF)

# Large scale (cloud) data storage operator

#### **Type**

**Business Role** 

Manages daily operation of cloud storage, including related to data lifecycle, and responds to requests from storage users.

-- EDISON Data Science Framework (EDSF)

### Large scale (cloud) database administrator

#### **Type**

**Business Role** 

Designs and implements, or monitors and maintains large scale cloud databases.

-- EDISON Data Science Framework (EDSF)

# Large scale (cloud) database designer

Type	Business Role
IVDE	BUSINESS ROIE

WS1: Result 13 / 35

Designs/develops/codes large scale data bases and their use in domain/subject specific applications according to the customer needs.

-- EDISON Data Science Framework (EDSF)

### Research Infrastructure Manager

#### **Type**

**Business Role** 

Proposes plans and manages functional and technical evolutions of the research infrastructure within the relevant scientific domain.

-- EDISON Data Science Framework (EDSF)

#### Scientific database administrator

#### Type

**Business Role** 

Designs and implements, or monitors and maintains large scale scientific databases.

-- EDISON Data Science Framework (EDSF)

# Scientific database operator

#### **Type**

**Business Role** 

Manages daily operation of scientific databases, including related to data lifecycle, and responds to requests from database users.

-- EDISON Data Science Framework (EDSF)

#### User support data services

#### **Type**

**Business Role** 

Provides support to users to entry their data into governmental service and user facing applications.

-- EDISON Data Science Framework (EDSF)

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# **Motivation**

### (Semi)automated ingestion

**Type** Requirement

Like Submission Information Package (SIP) in the OAIS model with e.g. automated metadata extraction.

### Access management

**Type** Requirement

Access option

**Type** Requirement

The possibility to have a copy of what is within the archive.

Access to institutional memory

**Type** Driver

Appropriate reproducibility options

**Type** Goal

Appropriate security mechanisms

**Type** Requirement

Archive data from a national value perspective

**Type** Driver

Archive manager

**Type** Stakeholder

Assign roles and responsibilities

**Type** Requirement

Auditing capability

**Type** Requirement

Availability of services

**Type** Driver

Capacity planning

**Type** Goal

WS1: Result 15 / 35

**CFO** 

**Type** Stakeholder

Chief Financial Officer

**CISO** 

**Type** Stakeholder

Clean up method

**Type** Requirement

CoC compliance

**Type** Goal

Code of Conduct

Compliance

**Type** Goal

Compliant data handling

**Type** Driver

Covers compliance with rules and regulations according to Danish and international law, with laws like GDPR, Arkivloven, rules governing asset management etc.

Confidentiality

**Type** Goal

Control data

**Type** Driver

Creditable journal submissions

**Type** Goal

Curate data

**Type** Goal

Curation options

**Type** Requirement

Data according to specification

**Type** Requirement

Data can be accessed

**Type** Goal

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Data can be found

**Type** Goal

Data can be shared

**Type** Goal

Data curation

**Type** Driver

Data handling policy

**Type** Requirement

Data preservation

**Type** Driver

Data set overview

**Type** Requirement

Datatilsynet

**Type** Stakeholder

Dean for research

**Type** Stakeholder

Deliver services according to SLA

**Type** Goal

Digital Object Management according to CoreTrustSeal

**Type** Requirement

### R.7. CoreTrustSeal

#### Guidance:

The repository should provide evidence to show that it operates a data and metadata management system

suitable for ensuring integrity and authenticity during the processes of ingest, archival storage, and data access.

Integrity ensures that changes to data and metadata are documented and can be traced to the rationale

and originator of the change.

Authenticity covers the degree of reliability of the original deposited data and its provenance, including the

relationship between the original data and that disseminated, and whether or not existing relationships

between datasets and/or metadata are maintained.

WS1: Result 17 / 35

For this Requirement, responses on data integrity should include evidence related to the following:

- Description of checks to verify that a digital object has not been altered or corrupted (i.e., fixity checks).
- Documentation of the completeness of the data and metadata.
- Details of how all changes to the data and metadata are logged.
- Description of version control strategy.
- Usage of appropriate international standards and conventions (which should be specified).

Evidence of authenticity management should relate to the follow questions:

 Does the repository have a strategy for data changes? Are data producers made aware of this

strategy?

- Does the repository maintain provenance data and related audit trails?
- Does the repository maintain links to metadata and to other datasets? If so, how?
- Does the repository compare the essential properties of different versions of the same file? How?
- Does the repository check the identities of depositors?

This Requirement covers the entire data lifecycle within the repository, and thus has relationships with

workflow steps included in other requirements—for example, R8 (Appraisal) for ingest, R9 (Documented

storage procedures) and R10 (Preservation plan) for archival storage, and R12-R14 (Workflows, Data

discovery and identification, and Data reuse) for dissemination. However, maintaining data integrity and

authenticity can also be considered a mindset, and the responsibility of everyone within the repository.

https://www.coretrustseal.org/wp-

content/uploads/2017/01/Core\_Trustworthy\_Data\_Repositories\_Requirements\_01\_00 .pdf

#### DMP association

Туре	Requirement

### Documentation of lawfullness of processing

Туре	Requirement
- 7	

### Documentation of purpose

Type	Paguiroment
Туре	Requirement

#### Documented data

Type	Requirement
IVDE	Reduiteffield

#### Documented processes

<u> </u>		
Туре	Requirement	

WS1: Result 18 / 35

Documenting practice

**Type** Goal

**DPO** 

**Type** Stakeholder

Easy data access / process

**Type** Driver

Ensure economy on track

**Type** Goal

Ensure short / mid term preservation

**Type** Goal

Ensure that "national" data is on the right spot

**Type** Goal

Ensuring integrity, confidentiality and availability

**Type** Goal

Maybe split in to the individual parts

Evaluation of preservation value

**Type** Goal

Facilitate access and/or reuse

**Type** Goal

**FAIR** 

**Type** Requirement

FAIR data

**Type** Driver

Fast and easy archiving

**Type** Goal

Finance and account department

**Type** Stakeholder

Fullfill data management plan

**Type** Driver

WS1: Result 19 / 35

**Funding** 

**Type** Driver

Funding agency

**Type** Stakeholder

**GDPR** compliance

**Type** Goal

GDPR compliance documentation

**Type** Requirement

Good metadata

**Type** Goal

Good research ethics

**Type** Driver

Government

**Type** Stakeholder

Head of department

**Type** Stakeholder

High FAIR data rate

**Type** Goal

Industry partner

**Type** Stakeholder

Infrastructure manager

**Type** Stakeholder

Inspect and audit institutional data handling

**Type** Goal

Institutional Reputation

**Type** Driver

IT

**Type** Stakeholder

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IT CEO

**Type** Stakeholder

Journal editors

**Type** Stakeholder

Keep project metadata and results secret

**Type** Requirement

Keep project on track

**Type** Driver

Knowledge sharing

**Type** Goal

Law department

**Type** Stakeholder

Library

**Type** Stakeholder

Library; data curators

**Type** Stakeholder

Logging

**Type** Requirement

Manage data in line with policy

**Type** Driver

Manageable archive

**Type** Goal

Management

**Type** Stakeholder

Maximize funding outcome

**Type** Driver

Monitoring options for compliance

**Type** Requirement

WS1: Result 21 / 35

Obtain copy of datasets

**Type** Goal

**Open Science** 

**Type** Goal

Ownership verification

**Type** Requirement

PhD Supervisor

**Type** Stakeholder

Praksisudvalg

**Type** Stakeholder

Prediction ability

**Type** Requirement

Preserve context for asset, user etc.

**Type** Requirement

E.g. preserving the organisational affiliation for the user at a given time.

Prevent data loss

**Type** Goal

Proof of data security

**Type** Goal

Prove institutional compliance

**Type** Driver

Prove institutional compliance

**Type** Goal

Proven Immutable copies

**Type** Requirement

Proven integrity

**Type** Goal

Pursue data leak

**Type** Goal

WS1: Result 22 / 35

**RDM Team** 

**Type** Stakeholder

Research is progress

**Type** Driver

Research Performance

**Type** Driver

Researcher

**Type** Stakeholder

Researcher as principal investigator

**Type** Stakeholder

Researcher outside own institution

**Type** Stakeholder

Reviewers

**Type** Stakeholder

Rigsarkivet

**Type** Stakeholder

Rigsrevisionen

**Type** Stakeholder

Safeguard compliance for lawfulness

**Type** Driver

**Self Reputation** 

**Type** Driver

Service provider

**Type** Stakeholder

Sponsorship from senior management

**Type** Requirement

Transparent and predictable economy model

**Type** Requirement

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### Trusted collaboration

Туре	Driver
Type	Diver

Collaboration between the researcher in the role of PI and other partners, whether this is university partners, industy partners etc.

# Trusted data

Туре	Driver
- 7	

# Understand data types

Type	Goal
1 ype	doal

### Understand kinds of data

Туре	Driver	
Type	Driver	

# Various ingestion methods

Туре	Requirement
IJPC	regalienene

# Verify transfer with checksum

Type	Requirement
IVDE	Neuullelliell

# Versioning of datasets

Type	Requirement
Type	Requirement

# Workflow integration

	Туре	Requirement
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# Other

# EDSF - Competences/Capabilities

**Type** Grouping

The EDISON Data Science Framework is a collection of documents that define the Data Science profession. Freely available, these documents have been developed to guide educators and trainers, emplyers and managers, and Data Scientists themselves. This collection of documents collectively breakdown the complexity of the skills and competences need to define Data Science as a professional practice.

-- EDISON Data Science Framework (EDSF)

### EDSF - Data science professional profiles

**Type** Grouping

EDSF - Managers

**Type** Grouping

EDSF - Professional (data handling/management)

**Type** Grouping

EDSF - Professional (database)

**Type** Grouping

**EDSF** - Professionals

**Type** Grouping

EDSF - Technicians and associate professionals

**Type** Grouping

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# Relations

# Composition relation

Туре	Composition relation
Source	EDSF - Professional (data handling/management)
Target	Digital Data Curator

# Composition relation

Туре	Composition relation
Source	EDSF - Technicians and associate professionals
Target	Large scale (cloud) data storage operator

# Composition relation

Туре	Composition relation
Source	EDSF - Data science professional profiles
Target	Data entry/access worker

# Composition relation

Туре	Composition relation
Source	EDSF - Competences/Capabilities
Target	Scientific and Research Methods

# Composition relation

Туре	Composition relation
Source	EDSF - Professionals
Target	Data Science Researcher

# Composition relation

Туре	Composition relation
Source	EDSF - Professional (data handling/management)
Target	Data Archivist

# Composition relation

Туре	Composition relation
Source	EDSF - Data science professional profiles
Target	User support data services

# Composition relation

Туре	Composition relation
Source	EDSF - Professionals
Target	Data Science (Application) Programmer/Engineer

# Composition relation

Tyne	Composition relation
Type	Composition relation

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Source	EDSF - Managers
Target	Research Infrastructure Manager

# Composition relation

Туре	Composition relation
Source	EDSF - Competences/Capabilities
Target	Data Science Domain Knowledge

# Composition relation

Туре	Composition relation
Source	EDSF - Technicians and associate professionals
Target	Big Data facilities Operator

# Composition relation

Туре	Composition relation
Source	EDSF - Managers
Target	Data Science Manager

# Composition relation

Туре	Composition relation
Source	EDSF - Managers
Target	Data Science Infrastructure Manager

# Composition relation

Туре	Composition relation
Source	EDSF - Professional (data handling/management)
Target	Data Steward

# Composition relation

Туре	Composition relation
Source	EDSF - Professional (database)
Target	Large scale (cloud) database designer

# Composition relation

Туре	Composition relation
Source	EDSF - Competences/Capabilities
Target	Data Science Engineering

# Composition relation

Туре	Composition relation
Source	EDSF - Professionals
Target	Business Analyst

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# Composition relation

Туре	Composition relation
Source	EDSF - Data science professional profiles
Target	Data entry field workers

# Composition relation

Туре	Composition relation
Source	EDSF - Competences/Capabilities
Target	Data Management

# Composition relation

Туре	Composition relation
Source	EDSF - Competences/Capabilities
Target	Data Analytics

# Composition relation

Туре	Composition relation
Source	EDSF - Technicians and associate professionals
Target	Scientific database operator

# Composition relation

Туре	Composition relation
Source	EDSF - Professionals
Target	Data Science Architect

# Composition relation

Туре	Composition relation
Source	EDSF - Professional (data handling/management)
Target	Data Librarian

# Composition relation

Туре	Composition relation
Source	EDSF - Professionals
Target	Data Scientist

# Composition relation

Туре	Composition relation
Source	EDSF - Professional (database)
Target	Scientific database administrator

# Composition relation

Туре	Composition relation
Source	EDSF - Professionals
Target	Data Analyst

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# Composition relation

Туре	Composition relation
Source	EDSF - Professional (database)
Target	Large scale (cloud) database administrator

# Association relation

Туре	Association relation
Source	CISO
Target	Compliant data handling

### Association relation

Туре	Association relation
Source	Compliant data handling
Target	Ensuring integrity, confidentiality and availability

# Realization relation

Туре	Realization relation
Source	Monitoring options for compliance
Target	Ensuring integrity, confidentiality and availability

# Association relation

Туре	Association relation
Source	Ensuring integrity, confidentiality and availability
Target	Documented processes

### Association relation

Туре	Association relation
Source	Ensuring integrity, confidentiality and availability
Target	Monitoring options for compliance

# Association relation

Туре	Association relation
Source	Ensuring integrity, confidentiality and availability
Target	Data set overview

# Association relation

Туре	Association relation
Source	Researcher
Target	Self Reputation

### Association relation

Туре	Association relation
Source	Self Reputation

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Appropriate reproducibility options	Target	Appropriate reproducibility options
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Туре	Association relation
Source	Appropriate reproducibility options
Target	Proven Immutable copies

### Association relation

Туре	Association relation
Source	Appropriate reproducibility options
Target	FAIR

# Association relation

Туре	Association relation
Source	Researcher
Target	Research Performance

# Association relation

Туре	Association relation
Source	Research Performance
Target	Fast and easy archiving

# Association relation

Туре	Association relation
Source	Fast and easy archiving
Target	Workflow integration

### Association relation

Туре	Association relation
Source	Researcher as principal investigator
Target	Keep project on track

# Association relation

Туре	Association relation
Source	Keep project on track
Target	Ensure economy on track

# Association relation

Туре	Association relation
Source	Ensure economy on track
Target	Transparent and predictable economy model

# Association relation

Type Association relation	
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Source	Ensuring integrity, confidentiality and availability
Target	Appropriate security mechanisms

Туре	Association relation
Source	Keep project on track
Target	Fullfill data management plan

# Association relation

Туре	Association relation
Source	Researcher as principal investigator
Target	Funding

# Association relation

Туре	Association relation
Source	Industry partner
Target	Trusted collaboration

# Association relation

Туре	Association relation
Source	Trusted collaboration
Target	Ensuring integrity, confidentiality and availability

# Association relation

Туре	Association relation
Source	Proven Immutable copies
Target	Digital Object Management according to CoreTrustSeal

# Association relation

Туре	Association relation
Source	Rigsarkivet
Target	Archive data from a national value perspective

# Association relation

Туре	Association relation
Source	Archive data from a national value perspective
Target	Evaluation of preservation value

# Association relation

Туре	Association relation
Source	Archive data from a national value perspective
Target	Obtain copy of datasets

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Туре	Association relation
Source	Evaluation of preservation value
Target	Data set overview

# Association relation

Туре	Association relation
Source	Obtain copy of datasets
Target	Data according to specification

# Association relation

Туре	Association relation
Source	Auditing capability
Target	Documentation of lawfullness of processing

### Association relation

Туре	Association relation
Source	Auditing capability
Target	Documentation of purpose

# Association relation

Туре	Association relation
Source	Fullfill data management plan
Target	DMP association

# Association relation

Туре	Association relation
Source	Infrastructure manager
Target	Availability of services

# Association relation

Туре	Association relation
Source	Availability of services
Target	Capacity planning

### Association relation

Туре	Association relation
Source	Capacity planning
Target	Prediction ability

# Association relation

Туре	Association relation
Source	Researcher as principal investigator
Target	Trusted collaboration

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Туре	Association relation
Source	Data set overview
Target	Keep project metadata and results secret

# Association relation

Туре	Association relation
Source	Monitoring options for compliance
Target	Logging

### Association relation

Туре	Association relation
Source	Archive data from a national value perspective
Target	Curate data

# Association relation

Туре	Association relation
Source	Versioning of datasets
Target	Workflow integration

# Association relation

Туре	Association relation
Source	Ensuring integrity, confidentiality and availability
Target	Keep project metadata and results secret

### Association relation

Туре	Association relation
Source	Ensuring integrity, confidentiality and availability
Target	Assign roles and responsibilities

### Association relation

Туре	Association relation
Source	Availability of services
Target	Deliver services according to SLA

# Association relation

Туре	Association relation
Source	Data set overview
Target	Preserve context for asset, user etc.

### Association relation

Туре	Association relation
Source	Trusted collaboration

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Туре	Association relation
Source	Workflow integration
Target	Various ingestion methods

### Association relation

Туре	Association relation
Source	Head of department
Target	Manage data in line with policy

# Association relation

Туре	Association relation
Source	Manage data in line with policy
Target	Facilitate access and/or reuse

# Association relation

Туре	Association relation
Source	Archive manager
Target	Compliant data handling

# Association relation

Туре	Association relation
Source	Ensuring integrity, confidentiality and availability
Target	Clean up method

### Association relation

Туре	Association relation
Source	Compliant data handling
Target	Manageable archive

# Association relation

Туре	Association relation
Source	Manageable archive
Target	Data handling policy

# Association relation

Туре	Association relation
Source	Workflow integration
Target	(Semi)automated ingestion

# Association relation

Type Association relation	
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Source	Proven Immutable copies
Target	Verify transfer with checksum

Туре	Association relation
Source	Datatilsynet
Target	Safeguard compliance for lawfulness

# Association relation

Туре	Association relation
Source	Safeguard compliance for lawfulness
Target	Inspect and audit institutional data handling

# Association relation

Туре	Association relation
Source	Safeguard compliance for lawfulness
Target	Pursue data leak

# Association relation

Туре	Association relation
Source	Inspect and audit institutional data handling
Target	GDPR compliance documentation

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