DATA MESH READINESS ASSESSMENT

This readiness assessment guides organization through the several stages determining the readiness for a Data Mesh implementation in a stepwise manner.



Assess the reason to change

Problem identification

Need

- Need for greater autonomy of domain teams
- Need for greater flexibility of data platform
- Need for greater scalability of data platform
- Need for a data strategy
- Need for shorter lead times from operational teams to data analytics teams
- Need for more upstream data responsibility and ownership
- Needfor reduced cognitive load of data engineering teams



Assess the ability to change

High-level requirements

Willingness to Change

- Desire to transition
- Learning culture
 Innovation culture
- Vision
- Clearly defined objectives
- Clearly defined value statement

Business Case

Business & IT alignment

Leadership

 Top-management engagement

Enterprise Ability

- Ability to decentralize the business into domains
- Ability to decouple business applications
- Ability to work in domain teams



Assess the preparedness for change

Formal rules & guidelines

Accountability

 Clearly defined roles and responsibilities

Governance

- Data privacy policy
- Data security policy
- Data documentation policy
- Interoperability policy

Workable Approach

- Communication guidelines
- Data literacy guidelines
- Knowledge sharing platform

IT Capacity

- CI/CD standards
- Automation standards
- Data product publication standards

Enterprise Capacity

- Agile way of working
- Team structures aligned with business domains



Determine the readiness

Complete set of forces

Data Mesh building blocks

- Self-organizing and autonomous domain teams enabled by self-serve platform
- Central platform IT team
- Domain representatives in governance team
- Self-serveplatform
- Central data catalog with discoverable, accessible, trustworthy, secure, interoperable and selfdescribing data products

1: ASSESS THE REASON TO CHANGE

the organizational needs that point towards Data Mesh solutions

NEED

Factor	Description	Input assessor
Need for greater autonomy of domain teams	Indication whether there is a need for domain teams to be able to do their own data analysis. • Can they be independent in how they address their own domain analytics?	
Need for more upstream data responsibility and ownership	Indicate whether there is a need for greater knowledge over the data that is worked with, in terms of the fact that the people that work with the data are the people that know the data. • Do the data engineers know the value and quality of their own data sets? • Are the domain experts involved in delivering their data to the data analysts?	
Need for shorter lead times	Indication whether there is a need for shorter waiting times for the analytics team to have their requests to the engineering team processed.	
Need for greater scalability of the data platform	Indication whether there is a need for the platform to process bigger amounts of data through the data platform in the near future. • What is the possibility and ease of adding business units to the data platform?	
Need for greater flexibility of data platform	 Indication whether there is a need to ease making changes on the existing IT system/data platform. Is the platform build on premise or is it easily accessible by others? Is the platform changeable, or is it too complex to be changeable? Is there siloed information or siloed data in the platform? 	
Need for a data strategy	 Indication of the existence of a coherent data strategy. Are the data engineers rebuilding the same platforms? Are the data engineers and data analysts aware of each other's needs and purposes? 	
Need for understanding of the domain complexity	Indication whether there is a need for the lessening of the current domain complexity, in terms of the existence of comprehensibility of inner domain processes and understandability of the end to end processes. • Do the domains understand what they contribute to? • How many data sets exist in the domains? • Do the domains implement their processes independently and in a siloed manner?	
Need for reduced cognitive load of data engineering teams	Indicate whether there is a need for healthier working conditions for the data engineering teams. Is the team always full? Is the data engineering team causing a bottleneck in the data processes? Are the data engineering teams satisfied?	

2: ASSESS THE ABILITY TO CHANGE

the required organizational factors that need to be in place before moving onto the next stage

WILLINGNESS TO CHANGE

Desire to transition	Indicate whether there exists a commonly shared desire to transition to a Data Mesh within the organization as a whole and among the individuals within the organization. • Are they willing to take the efforts needed to establish this transition? • Is there a willingness to adapt and change?	
Learning culture	Indicate whether there exists a culture that supports learning.Are the people motivated to learn new procedures, such as working Agile?	
Innovation culture	 Indicate whether there exists a culture that supports innovation. Do the people have interest in working with data more efficiently? Are the people open for adapting to new technologies such as DevOps and DataOps? Is the organization as a whole data-driven? 	

VISION

Clearly defined objectives	 Indicate whether the objectives for migration to Data Mesh are clearly defined. Why does the organization wants to migrate to a Data Mesh? What are the needs that are addressed by the migration to a Data Mesh? 	
Clearly defined value statement	 Indicate whether the value of a Data Mesh to the organization is clearly stated. What is the value that it will bring to the organization? What will be the returns on investment? 	

BUSINESS CASE

Business & IT alignment

LEADERSHIP

Topmanagement engagement

Indicate to what extend the top-management of the organization is engaged with the migration to a Data Mesh.

- Does the migration align with their interests?
- Do the business leaders understand the Data Mesh?
- Do they understand the need for a Data Mesh?

ENTERPRISE ABILITY

Ability to decentralize the business into domains	 Indicate to what extend the organization is able to decentralize its central architecture into different domains. Are the domains eager to be autonomous? Does the organization understand the domain driven design principles? Can the organization map its business into different domains? 	
Ability to decouple business applications	 Indicate to what extend the existing business applications can be decoupled into the domain-oriented teams. Can the organization appoint the existing tables and pipelines to domain teams? Can the existing monolith be splitted up into smaller systems? Is the organization very much application focused, so that they don't break well into domains? Are the business processes very much centralized in ERPs? 	
Ability to work in domain teams	 Indicate to what extend the domain teams understand the new domain-oriented way of working. Do the data analysts, that were primarily focused on getting insights from the data, understand how to maintain data pipelines? Do the domain teams understand their extra responsibilities? Do they understand the concept of a Data Mesh? Do they understand the data-as-a-product thinking? Do they understand data products? Do they understand how to work together? 	

3: ASSESS THE PREPAREDNESS FOR CHANGE

the factors that act as preparation for a Data Mesh after realizing the ability to migrate - the priorities are indicated in the factor boxes

ACCOUNTABILITY

Clearly defined roles and responsibilities [priority 1]

Indicate to what extend the roles and responsibilities are correctly described.

- Do all the domains have a data product manager?
- Do the domains have data engineers, and are they given space to spend more time understanding the data?
- Do there exist data ownership guidelines?

GOVERNANCE

Data privacy policy [priority 1]	Indicate whether there exists a data privacy policy that ensures the processed data to be GDPR compliant.	
Interoperability policy [priority 1]	Indicate whether there exists an interoperability policy, that states how to enable interoperability between domains and their domain related data-products.	
Data security policy [priority 2]	Indicate whether there exists a data security policy.	
Data documentation policy [priority 2]	Indicate whether there exists a data documentation policy, that states how to document what a data product means and how to define a domain.	

WORKABLE APPROACH

Data literacy guidelines [priority 1]	Indicate whether there exist guidelines that enhance the data literacy among the people in the organization, in order for them to work autonomously on data products without the need for data engineers. • Does it state what tools to use for their data products and how do these tools work? • Does it state how to understand the data? • Does it state how to publish the data products?	
Communication and collaboration guidelines [priority 2]	 Indicate whether there exist guidelines that enable and ease communication and collaboration between the various domain teams. Does it state how to enable cross-domain collaboration through data exchange? Does it state how to collaborate on a data product? 	

IT CAPACITY

Data product publication standards [priority 1]	 Indicate whether there exist standards that state how and when to publish data products. What is the standard publication format? What needs to be in a data product? Are there technology standard with which people should build a data product? 	
CI/CD standards [priority 2]	Indicate whether there exist CI/CD standards that enable continuous integration and continuous delivery.	
Automation standards [priority 2]	Indicate whether there exist automation standards for standard software procedures like data quality checking, pipeline creation, etc. Is the organization able to automate software and data processes?	

ENTERPRISE CAPACITY

Agile way of working [priority 2]	Indicate whether the organization supports and encourages an Agile way of working throughout the organization.	
Team structures aligned with business domains [priority 2]	 Indicate whether the domain teams are business aligned, in terms of that they have responsibility for a certain part of the business. Are the domain teams not too far away from the business cases? Does the organizational structure support a Data Mesh way-of-working? 	

If you have any comments or questions regarding this stage, you can state them here:

4: DETERMINE DATA MESH READINESS

the executable building blocks of an entire Data Mesh that can be implemented after accomplishing Data Mesh readiness in the former stages

DATA MESH BUILDING BLOCKS

Self-organizing domain teams enabled by self- serve platform	Indicate whether the organization has established self- organizing domain teams, that are able to cross-collaborate with other domain teams and that are enabled to autonomously work on their own data products via the self- serve platform.	
Central platform IT team	Indicate whether the organization has established a central platform IT team that bears responsibility over performing and maintaining the self-serve platform.	
Domain representatives in governance team	Indicate whether the organization has established a central governance team consisting of domain representatives, that administrates the policies and standards required for the performance of a Data Mesh.	
Self-serve platform	Indicate whether the organization has developed a self-serve platform, maintained by the central platform IT team, that enables the domain teams to work autonomously on their data products and collaborate with other domain teams.	
Central data catalog	Indicate whether the organization has developed a central data catalog which enables the sharing, discovering and accessing of trustworthy, secure and self-describing data products throughout the organization.	