



# DATA GOVERNANCE AND MASTER DATA MANAGEMENT CONFERENCE EUROPE

11 - 14 March 2024 | London, UK

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# On the Necessity and impossibility of Master Data in Data Mesh

by Ole Olesen-Bagneux, Chief Evangelist, PhD

# About me



## Ole Olesen-Bagneux

Chief Evangelist

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Ole Olesen-Bagneux is a globally recognized thought leader on data catalogs and enterprise data management. He has written 'The Enterprise Data Catalog' published by O'Reilly. He holds a Ph.D. from the University of Copenhagen, in Library- and Information Science. His expertise of data management and -mesh is that of a specialist, a leader and an architect. After a rich experience as Enterprise Architect with GN Store Nord, he recently joined Zeenea as Chief Evangelist.



ole-olesen-bagneux

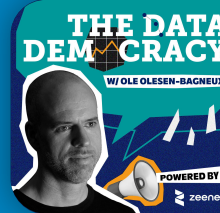


## The Enterprise Data Catalog

Book

EN [🔗](#)

PT [🔗](#)



## The Data Democracy Podcast

Podcast





# THE NECESSITY AND IMPOSSIBILITY

The impossibility:

The analytical potential of the data mesh is hydrated by the ubiquitous languages of the domains. This can sound awfully academic, but it's really not. It simply means, that the semantic sprawl that characterizes data throughout a company is something that holds analytical value in and of itself. Central to data mesh is the fact, that if we reduce this sprawl into a harmonized body of master data, the analytical potential disappears or diminished dramatically at least. The entire point of the mesh is lost.

The necessity:

It's impossible to function, as company, if multiple versions of the same truth exists. Semantic sprawl makes it impossible to execute the value chain and report on it, with BI tools.

so... what to do? How should we understand this? How can we make Master Data work in a Data Mesh?

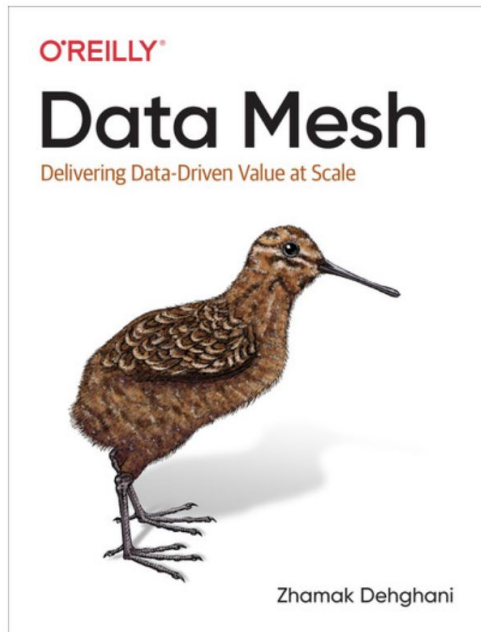


# Two warnings with subtle differences (I/II)

## WARNING

*I strongly caution you against creating ambitious aggregate domain data—aggregate domain data that attempts to capture all facets of a particular concept, like **listener 360**, and serve many organization-wide data users. Such aggregates can become too complex and unwieldy to manage, difficult to understand and use for any particular use case, and hard to keep up-to-date. In the past, the implementation of Master Data Management (MDM) [5](#) has attempted to aggregate all facets of shared data assets in one place and in one model. This is a move back to single monolithic schema modeling that doesn't scale. Data mesh proposes that end consumers compose their own fit-for-purpose data aggregates and resist the temptation of highly reusable and ambitious aggregates.*

Zhamak Dehghani, *Data Mesh*, Chapter 2



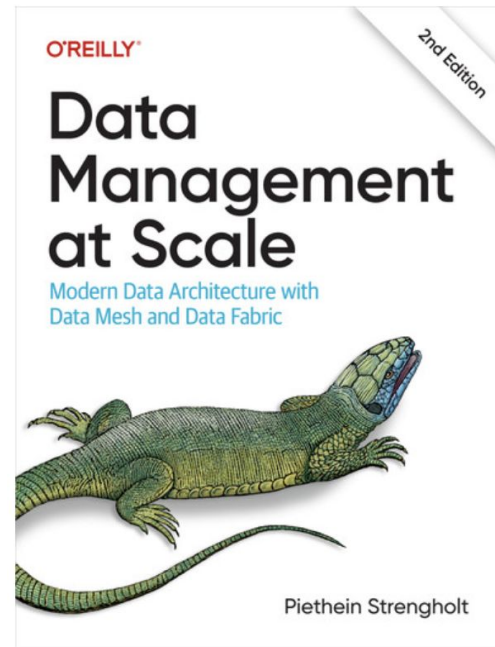


# Two warnings with subtle differences (II/II)

## WARNING

*It's easy to fall into the trap of enterprise data unification: widening your scope and mastering too much data requires more effort to integrate, govern, and coordinate data dramatically. Use metadata to decide what to include. Analyzing lineage, data models, and data contracts can reveal overlap and common areas of interest between domains and thus determine which data should be subject to MDM. In general, data elements that are used within only a single domain shouldn't be within MDM's scope. Data elements shared by numerous domains, however, are candidates.*

Piethein Strengholt, *Data Management at Scale*, Chapter 10



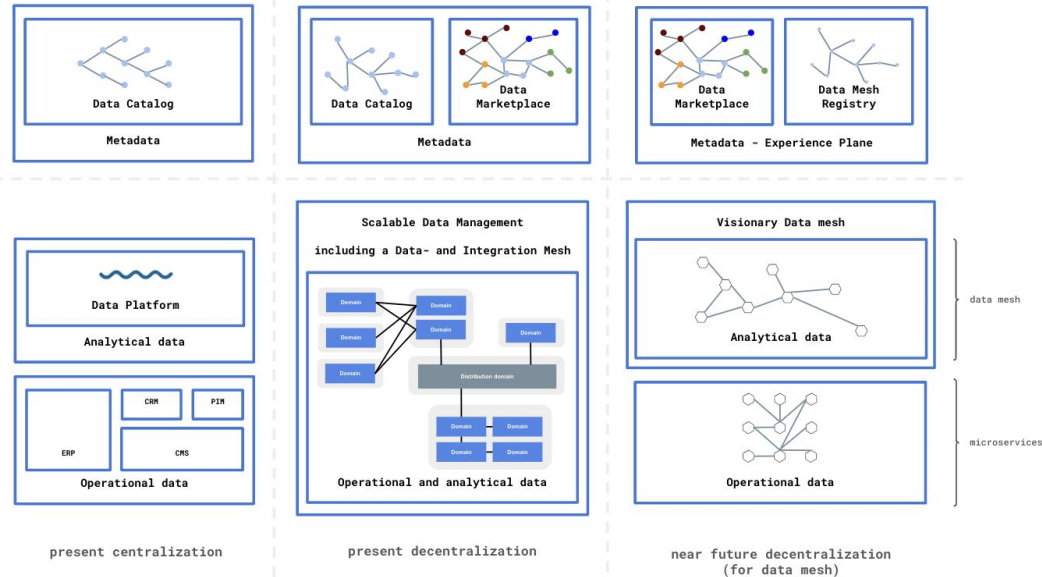


# Two types of data mesh

Piethein Strangholt suggests a mesh that blend operational data and analytical data

Zhamak Dehghani suggests a mesh that is purely built with analytical data

Blending operational and analytical data requires more Master Data definitions



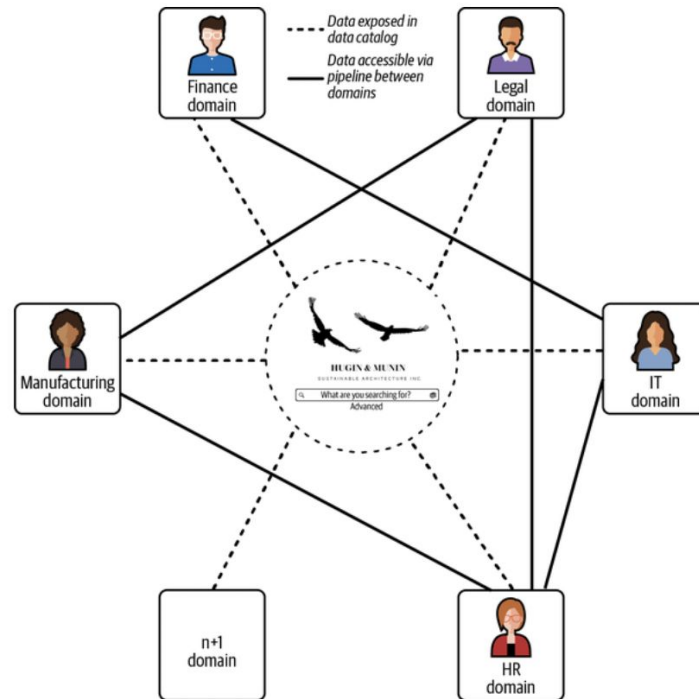


# The Key is the Understanding of *Shared*

When exactly to do master data?

if a domain shares unique data on the mesh, then, this data is *not subject to master data*

if a domain shares data with another domain, and this data is then shared on the mesh, then it *becomes subject to master data*.





## To Sum Up:

Master Data understands itself as necessary, but in the case of data mesh, that is not necessarily so.

Many organizations suffer from too rigid master data management and this is a challenge: it makes it impossible to scale data architectures as suggested by data mesh.

The really difficult part is understanding that master data is still necessary, when it is shared between more domains.

Perspective: To master data, you need metadata.



**Thank you**



# Q&A



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