



**INFINITE
LAMBDA**

2023 Budapest Data Forum

MOVING TOWARDS EVENT- DRIVEN DATA MESH

ENGINEERING THAT EMPOWERS PEOPLE

www.infinitelambda.com

MARTON HUBAY

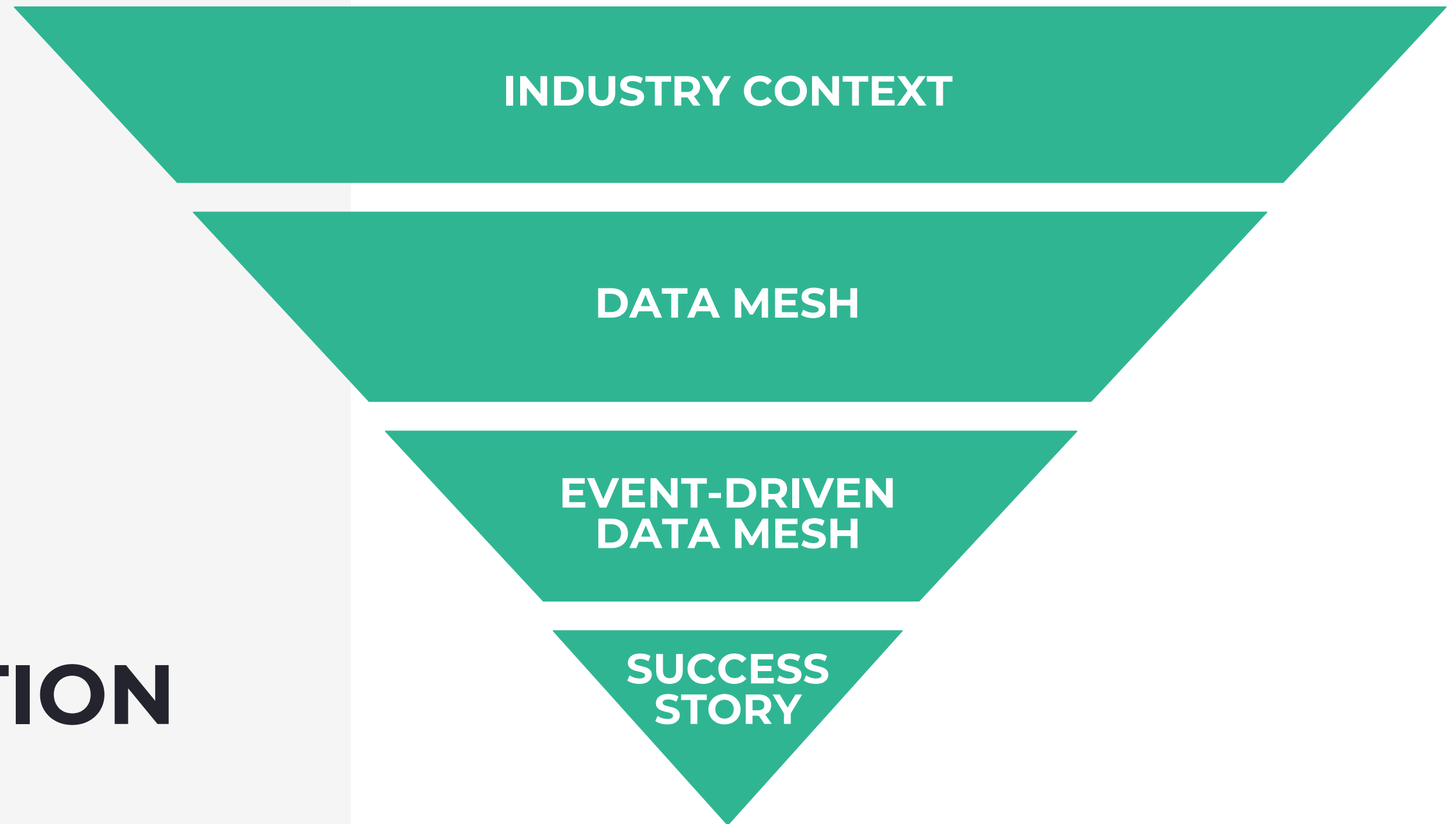
CTO and Co-Founder, Infinite Lambda

Introduction

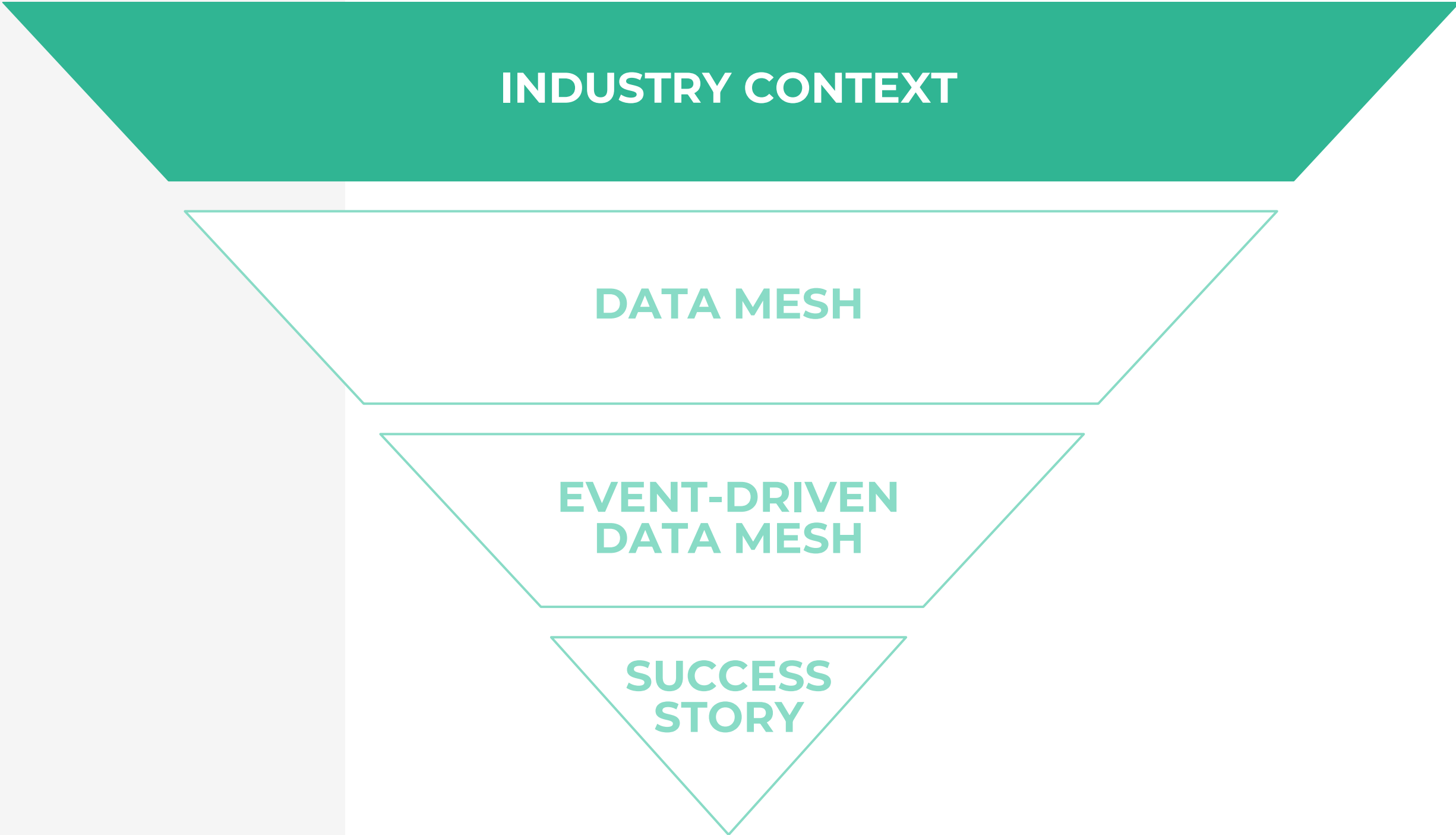
Infinite Lambda is UK based data and cloud consultancy



PRESENTATION FLOW



1



Technology

IMPACT

Organisation

Mindset

THE IMPACT OF TECHNOLOGY ON THE ORGANISATION

Demand for big data

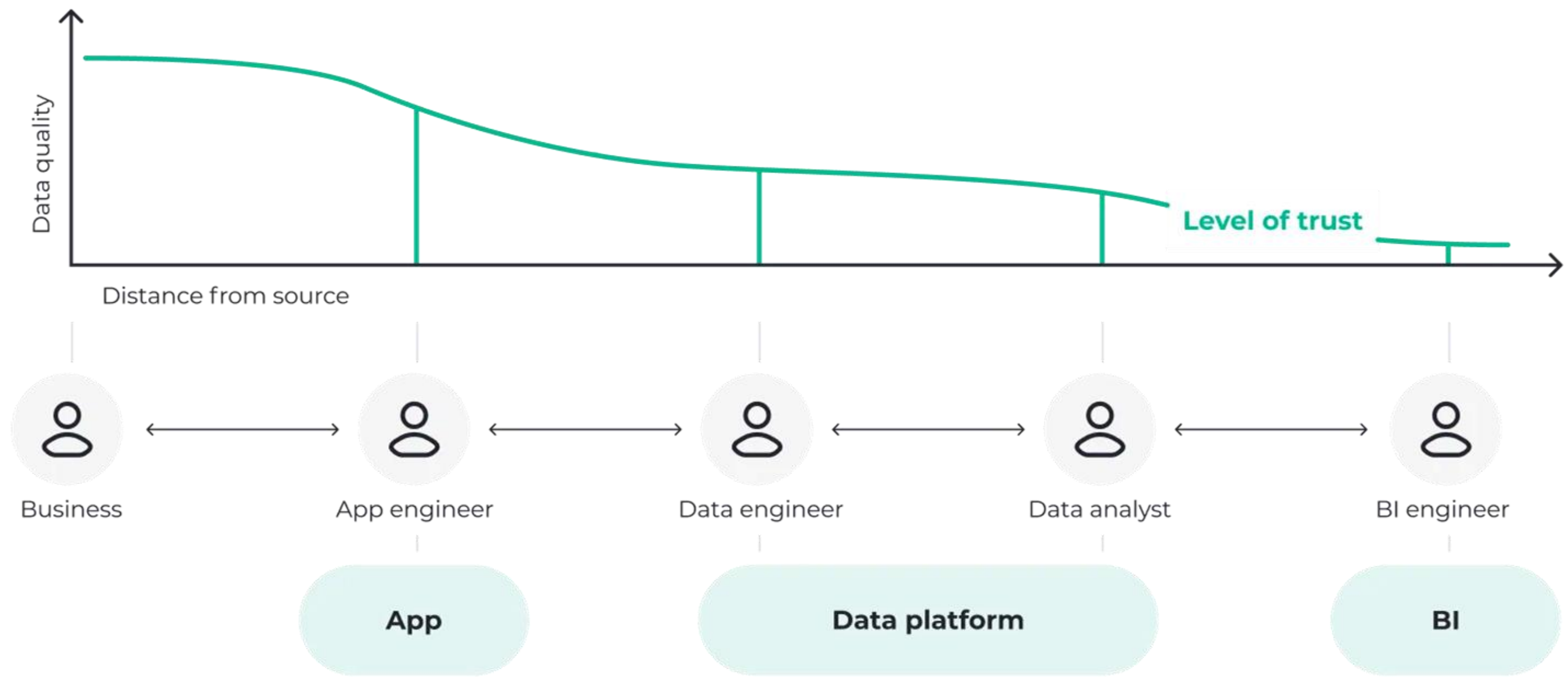
Hadoop and data lake

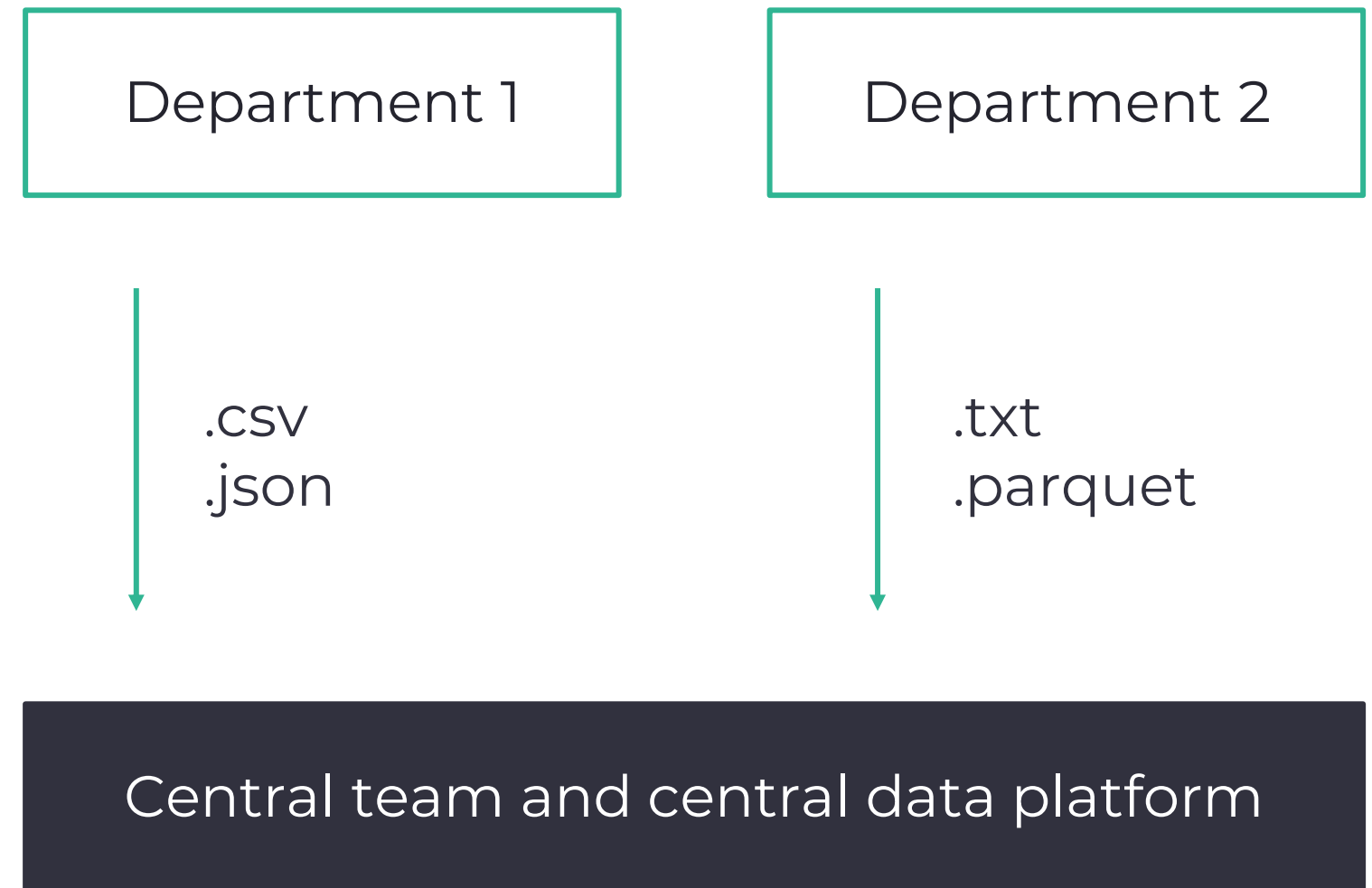
Companies started to “experiment”

Impact on the job market

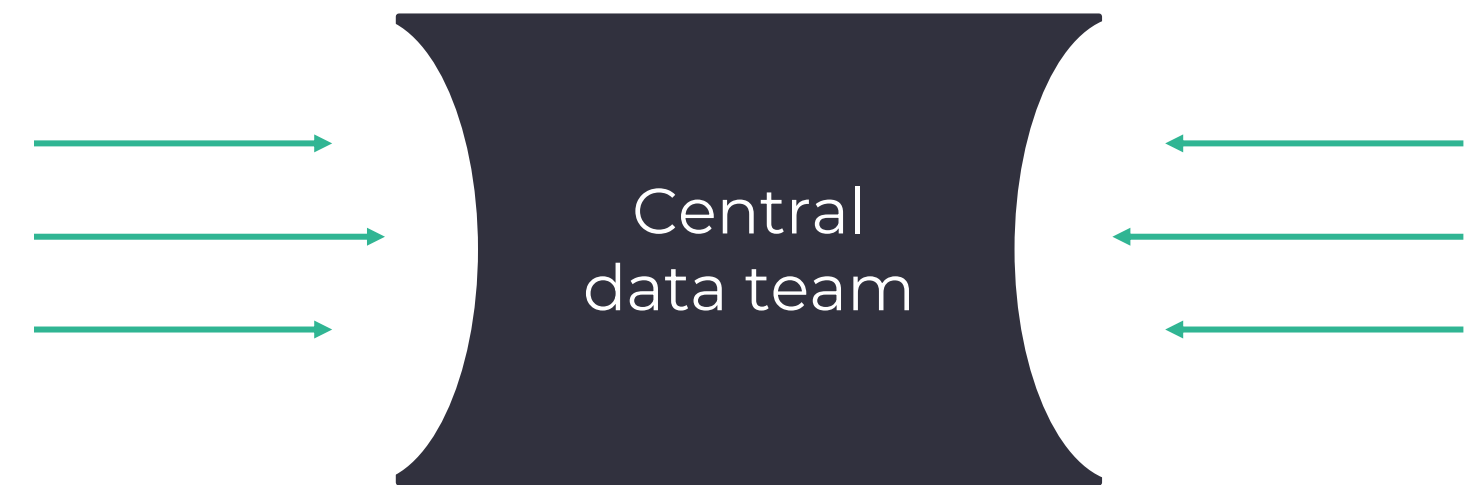
Segregated professions

Impact on the org structure



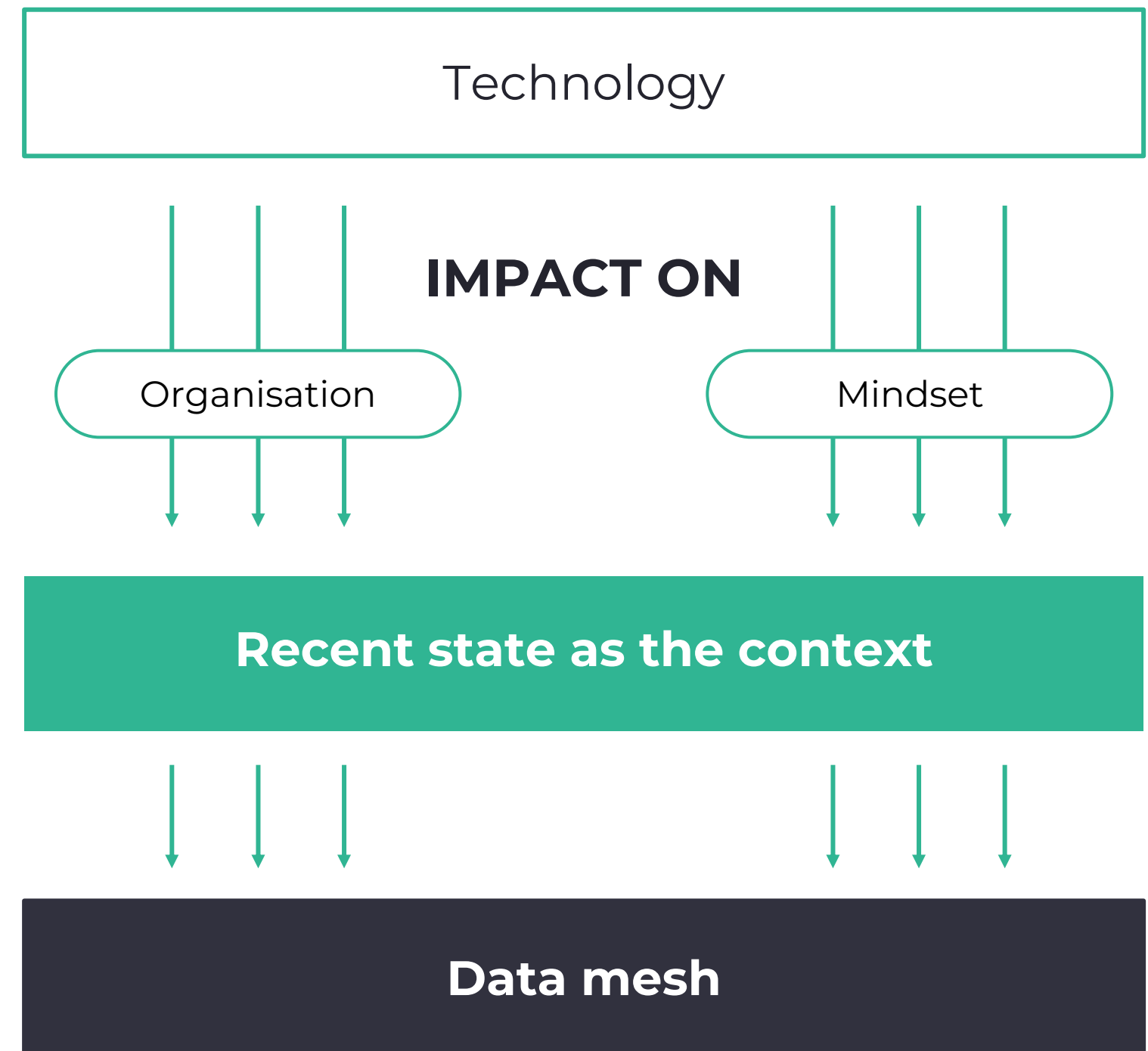


- Lost domain knowledge
- Mammoth backlog
- Central team became bottleneck
- Data is “2nd class citizen”

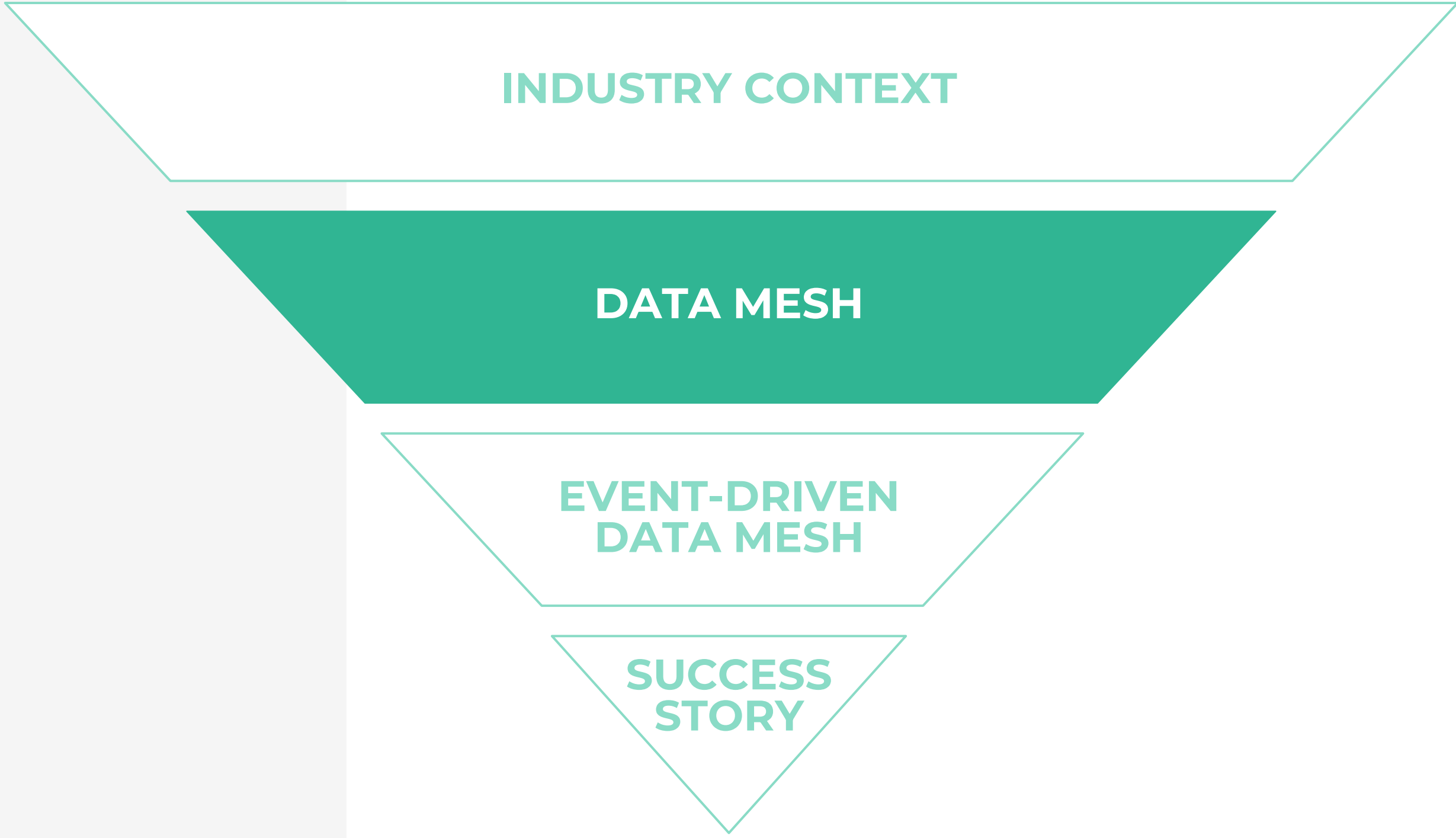


“Dump all the data in to figure out later”

HOW DID DATA MESH COME TO BE?



2



DATA MESH

...is a concept and not just an architectural recommendation.

...approaches the problem in a distributed, autonomous way, placing emphasis on ownership and prevention of silos.

...has 4 pillar principles.

4 PILLARS OF DATA MESH

Domain-driven

Keep knowledge close to data producers

Follow organisation structure

Avoid bottleneck

Data as a Product

Evangelise ownership

Think as a product

Separate business values

Federated governance

Prevent silos

Ensure discoverability & standardisation

Support product lifecycle, quality, SLA

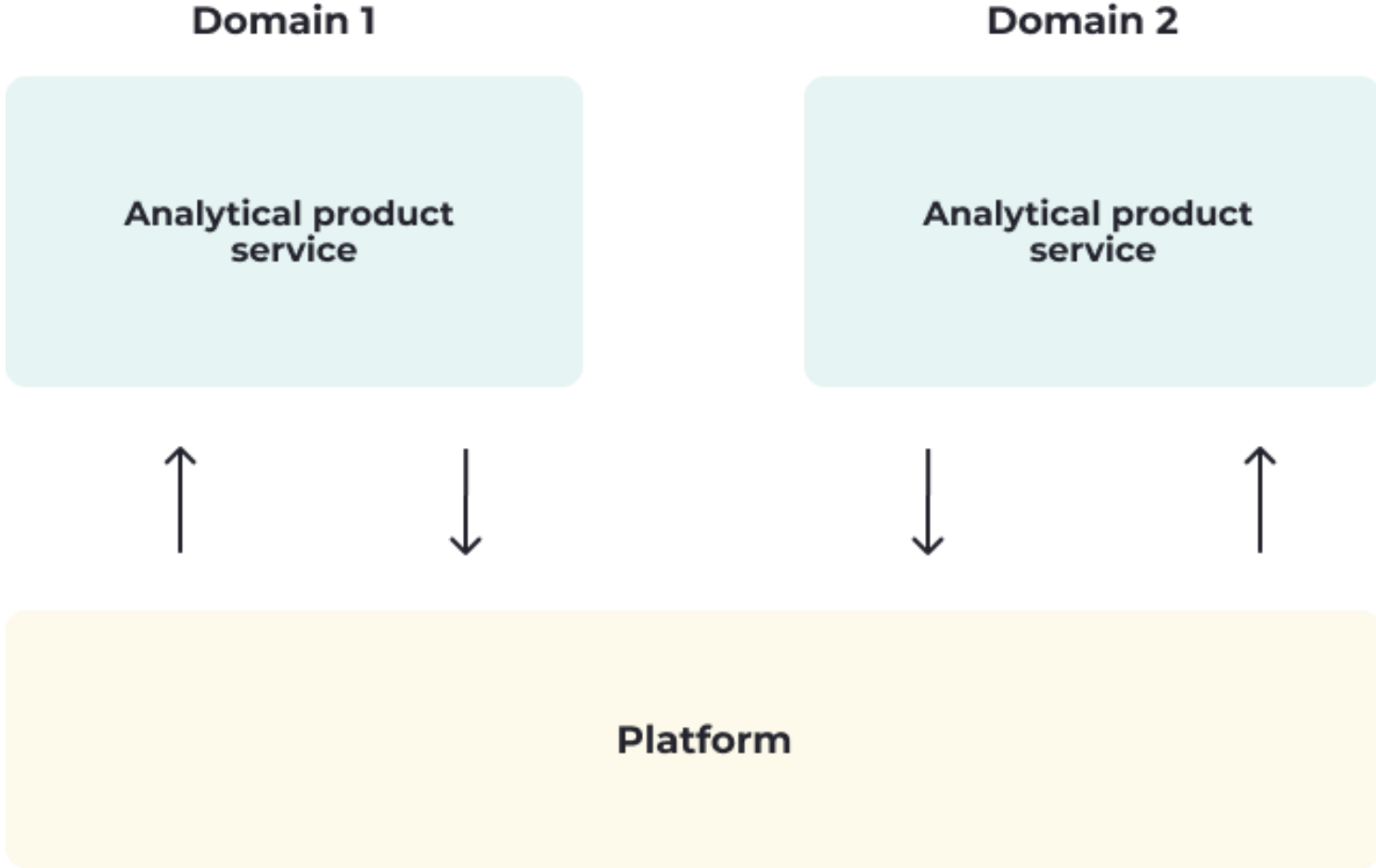
Self-service platform

Consumers want to find & extract data to their domain

Producers want self-service compute & storage to publish product

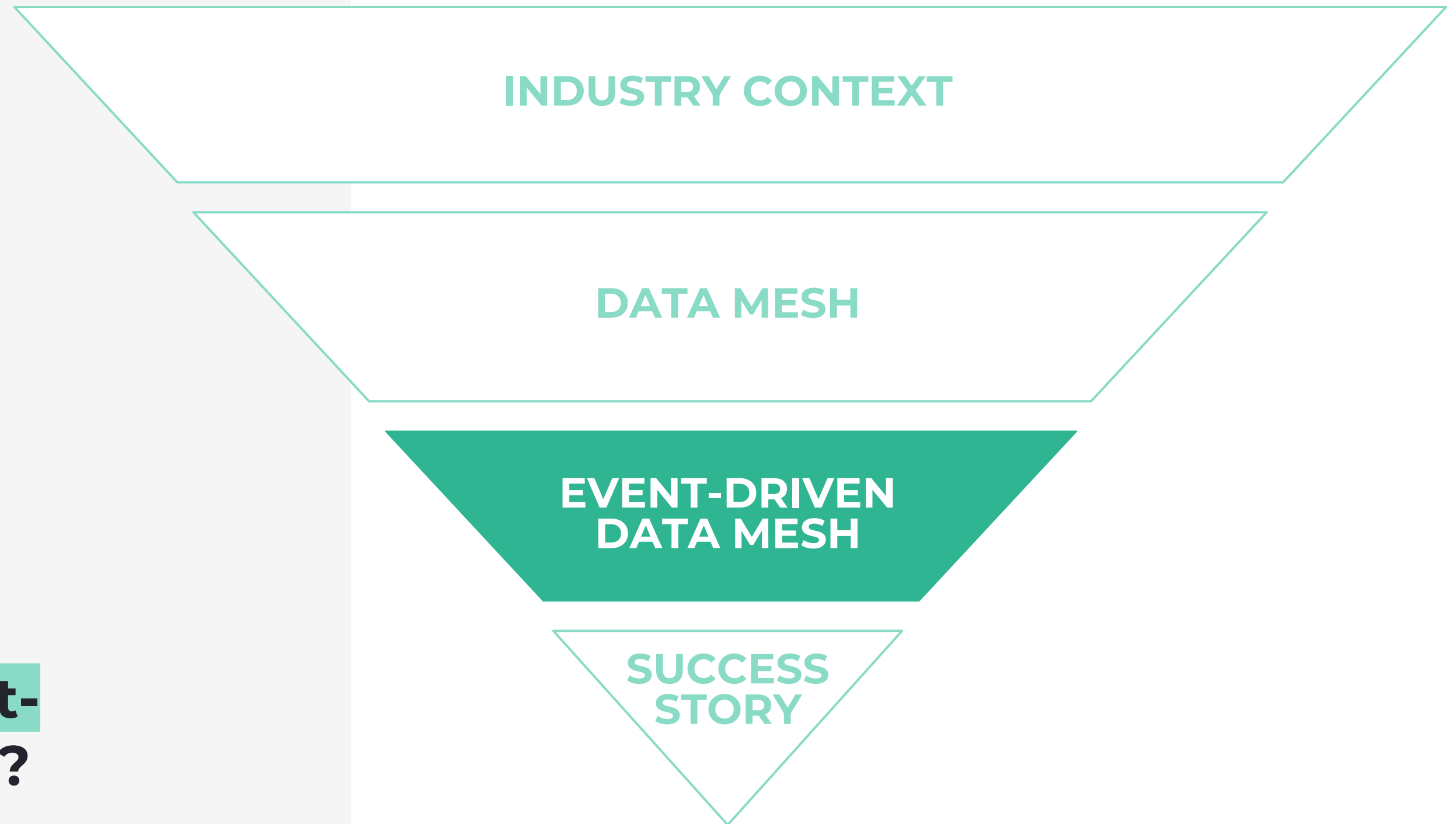
Owners want to manage product lifecycle, notify customers, issue guidance, manage alerts

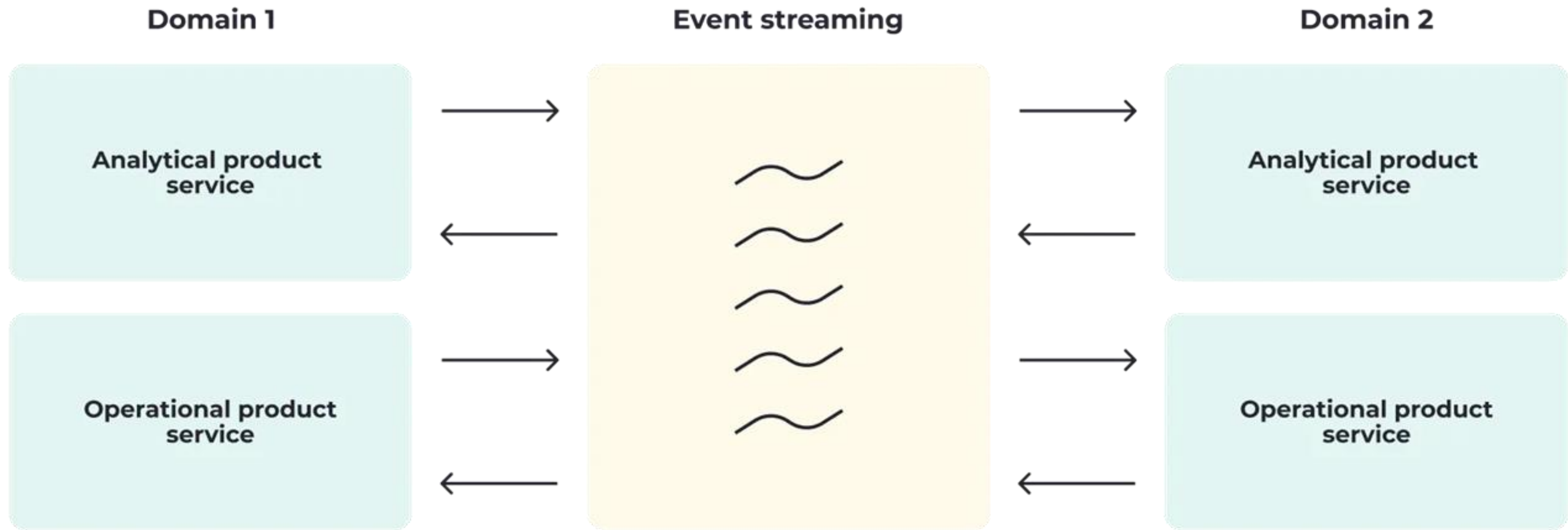
HIGH-LEVEL OVERVIEW



3

What about **event-driven data mesh**?





EVENT-DRIVEN DATA MESH

Offer immutable, appendable, durable, replayable for **ALL consumers**;

Fundamental **source of truth** for operational and analytical plane;

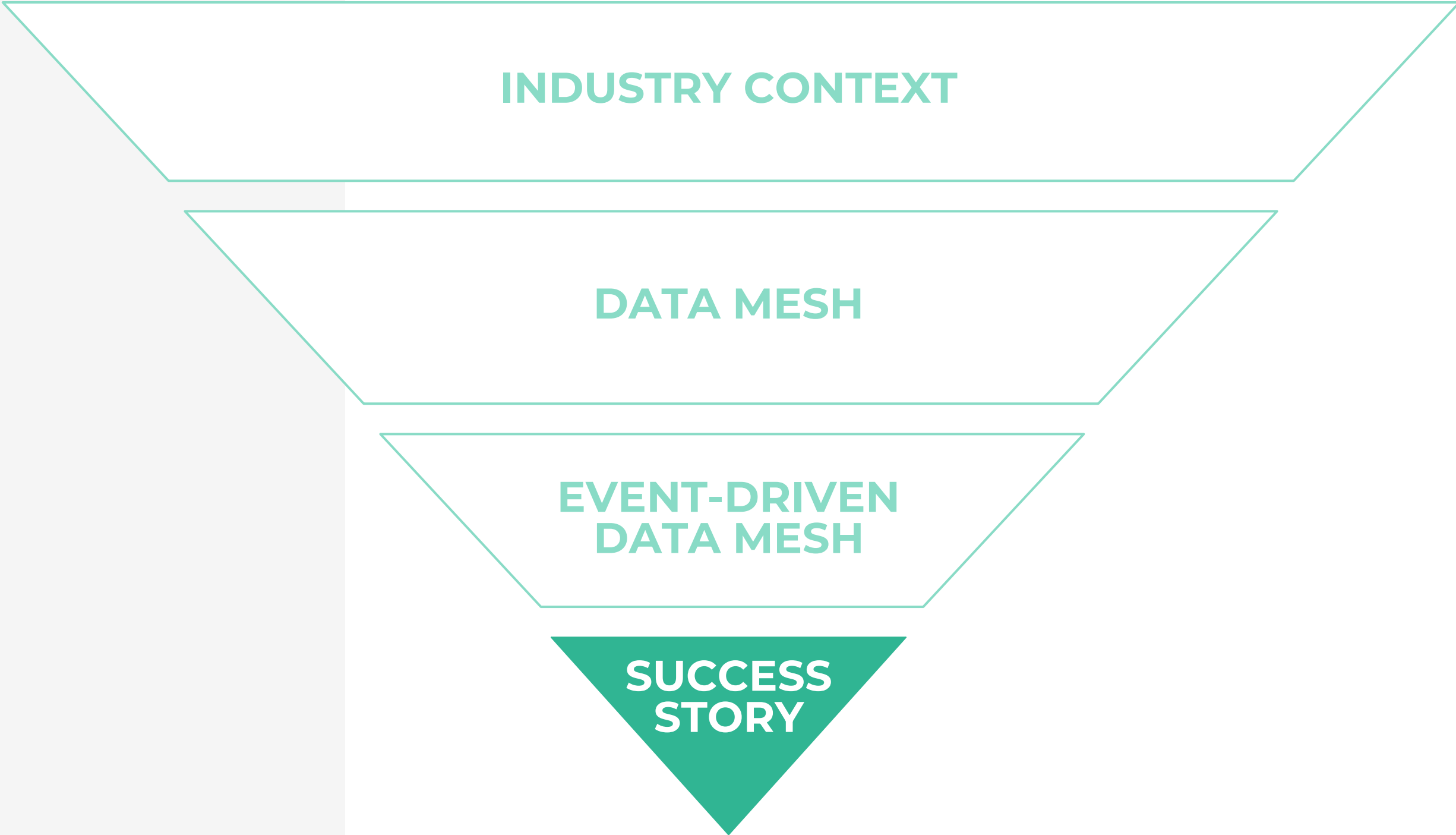
Analytical and operational planes can be merged:

“Consider an ecommerce retailer that wants to advertise shoes based on current inventory (operational), previous user purchases (analytical), and the user’s real-time estimated shopping session intentions (analytical and operational).”

— Adam Bellemare, Building an Event-Driven Data Mesh

Give the **real first-class citizen** right to data products

4



Industry: Travel

Product: Deliver airport lounge experience, insurance, customer engagement

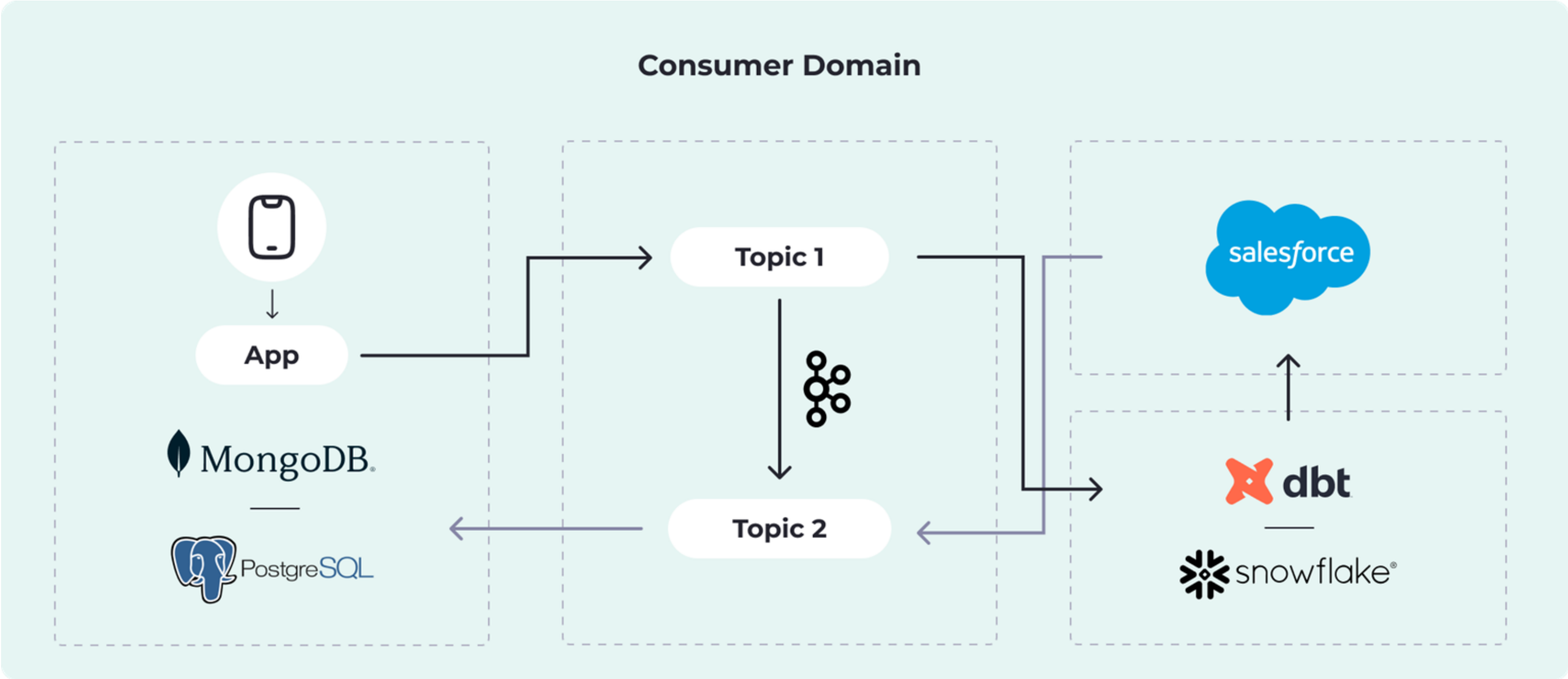
Market: UK-based but global product

Size: 1500<

Business functions in each region:

- **Consumer app: B2C**
- **Partners: Lounge owners**
- **Clients: Payment providers**
- **Finance, customer service, etc.**

1 DOMAIN IN DETAIL



MULTIPLE SIMILAR DOMAINS

Business driven functions:

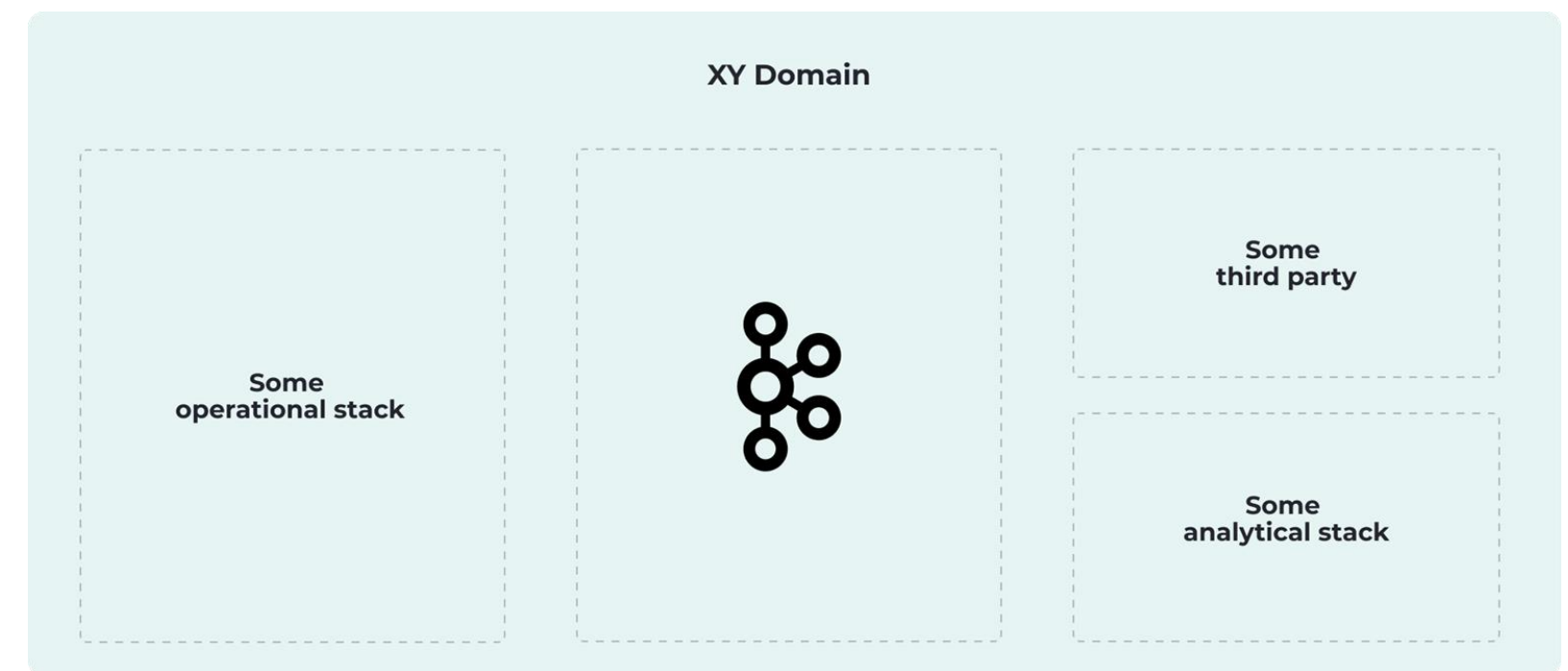
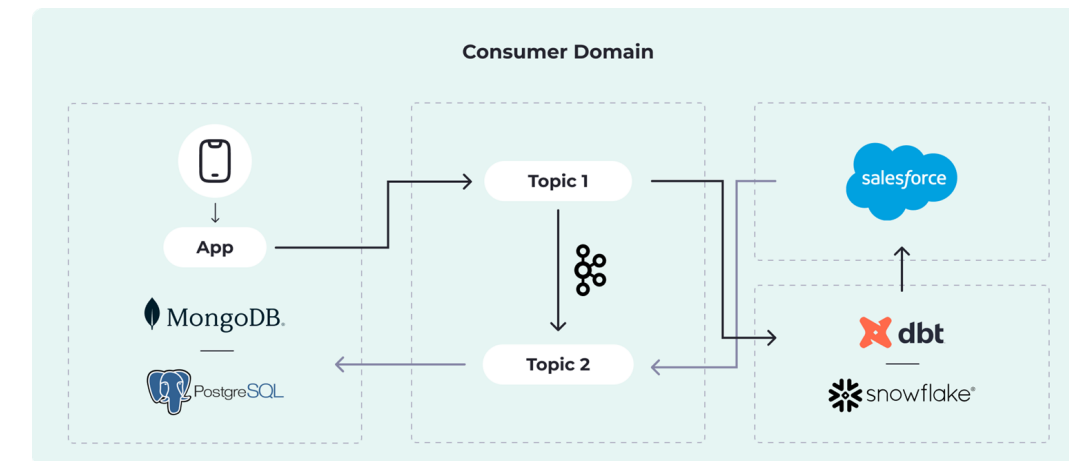
- Consumer
- Partner
- Clients

Internal functions:

- Finance
- Marketing

Regions:

- Continent
- Legal entities



and many more..

SUMMARY

- Tech evolution's impact on **organisations & mindset**
- The right environment for **data mesh** to be born
- **Event-driven data mesh** enabling the real integrated experience with data



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THANK YOU

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