

INNOQ Technology Day / 20.10.2025

Datenarchitektur für die Applikations- entwicklung

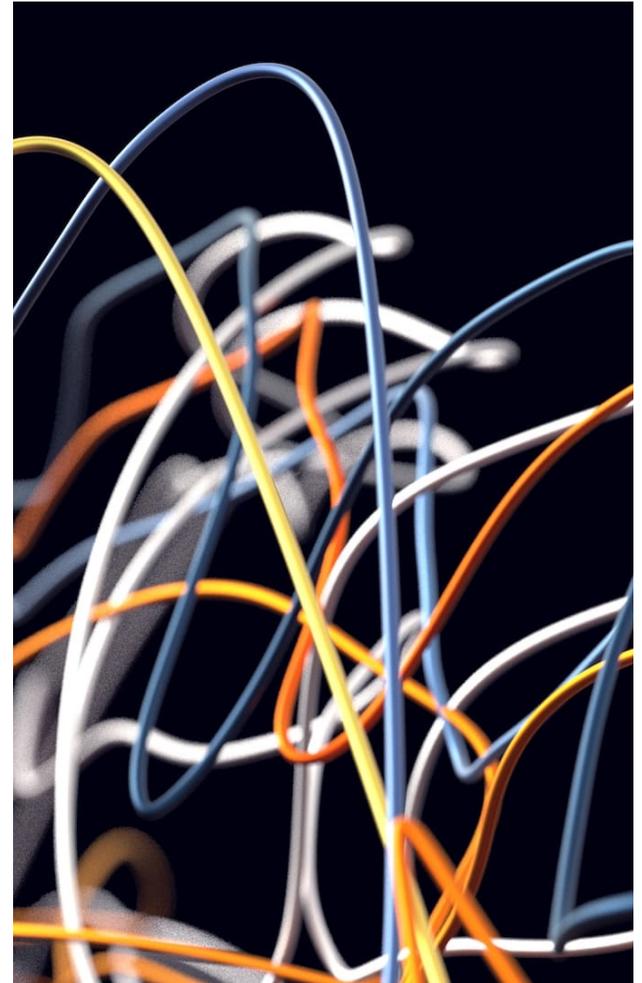
INNOQ



Hristiyan Pehlivanov
Senior Consultant

Agenda

- Lokale Optimierung
 - Data Driven
 - Fachliche Metriken
- Globale Optimierung
 - Data Products
 - Data Contracts
 - Data Governance
 - Data Catalog vs Marketplace
 - ETL vs ELT vs Streaming
 - Moderne Datenplattformen
 - Data & AI



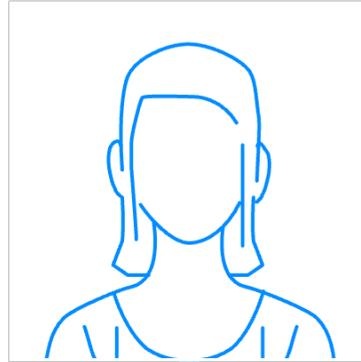
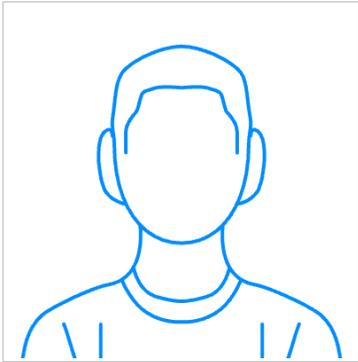
Was ist Architektur?

- "Software architecture is about maximizing the happiness and effectiveness of everyone who interacts with the system."*

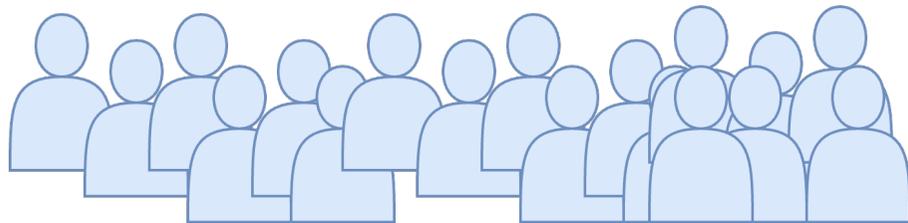
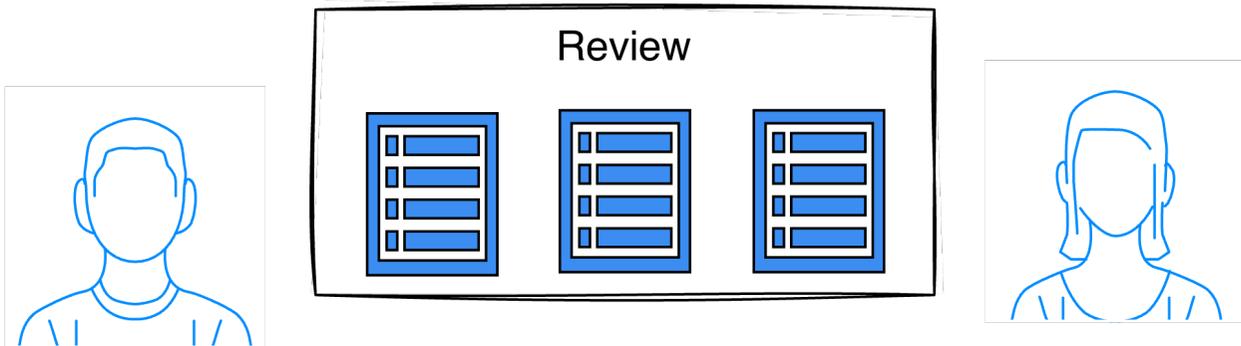
*Citation needed



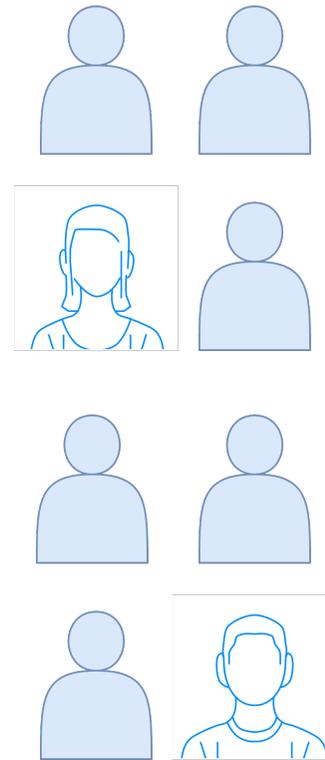
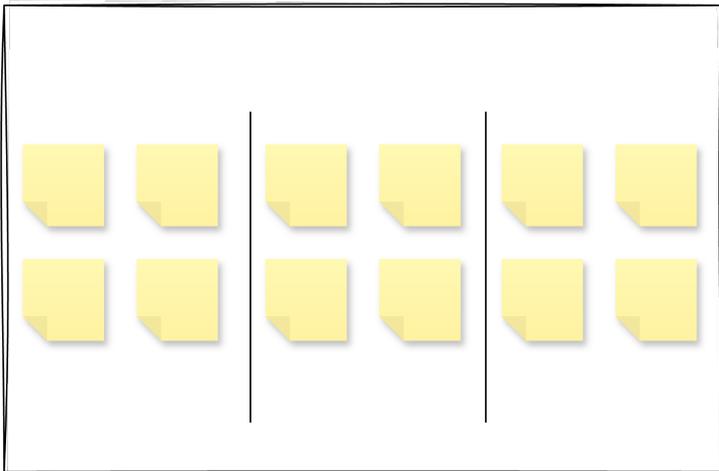
Anna und Max



Review



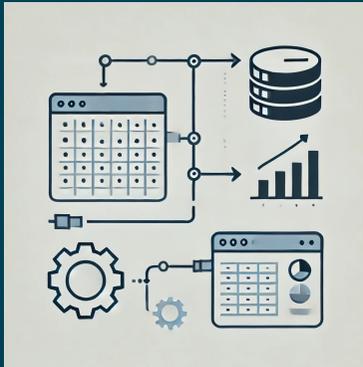
Retro



80/20-Regel

- "A Standish study found that 45% of features were never used and only 20% of features were used often or always."

<https://martinfowler.com/articles/xp2002.html>



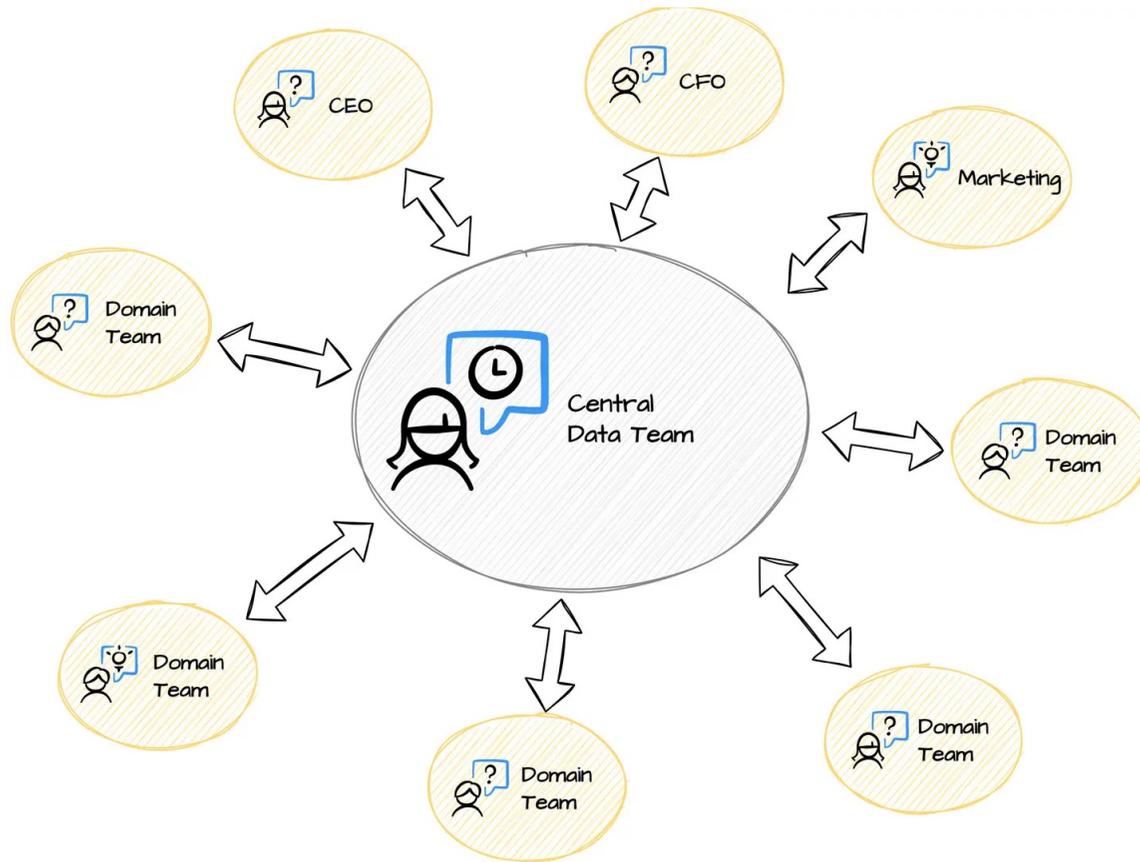
**Reporting
(past/present)**



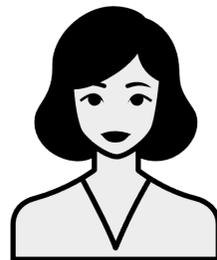
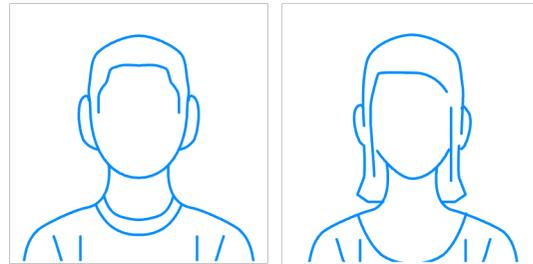
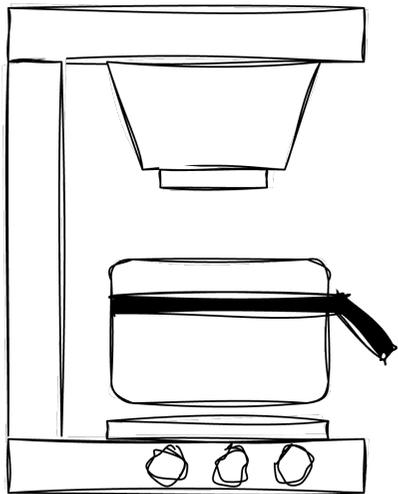
**Machine Learning
(future)**

Data Analytics

Das Data-Team



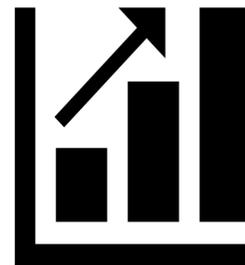
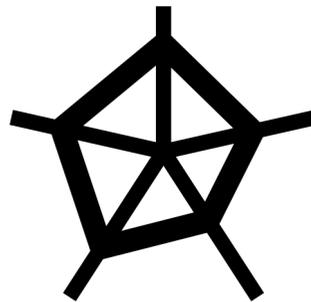
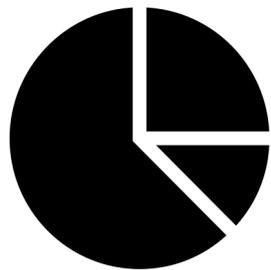
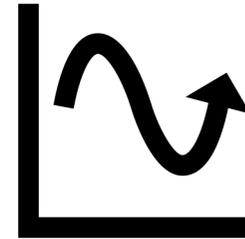
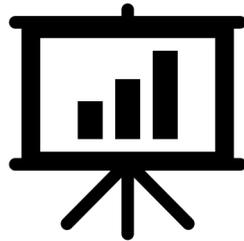
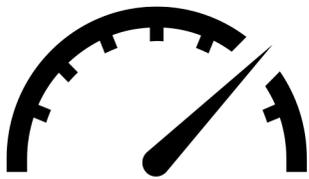
Der Flaschenhals



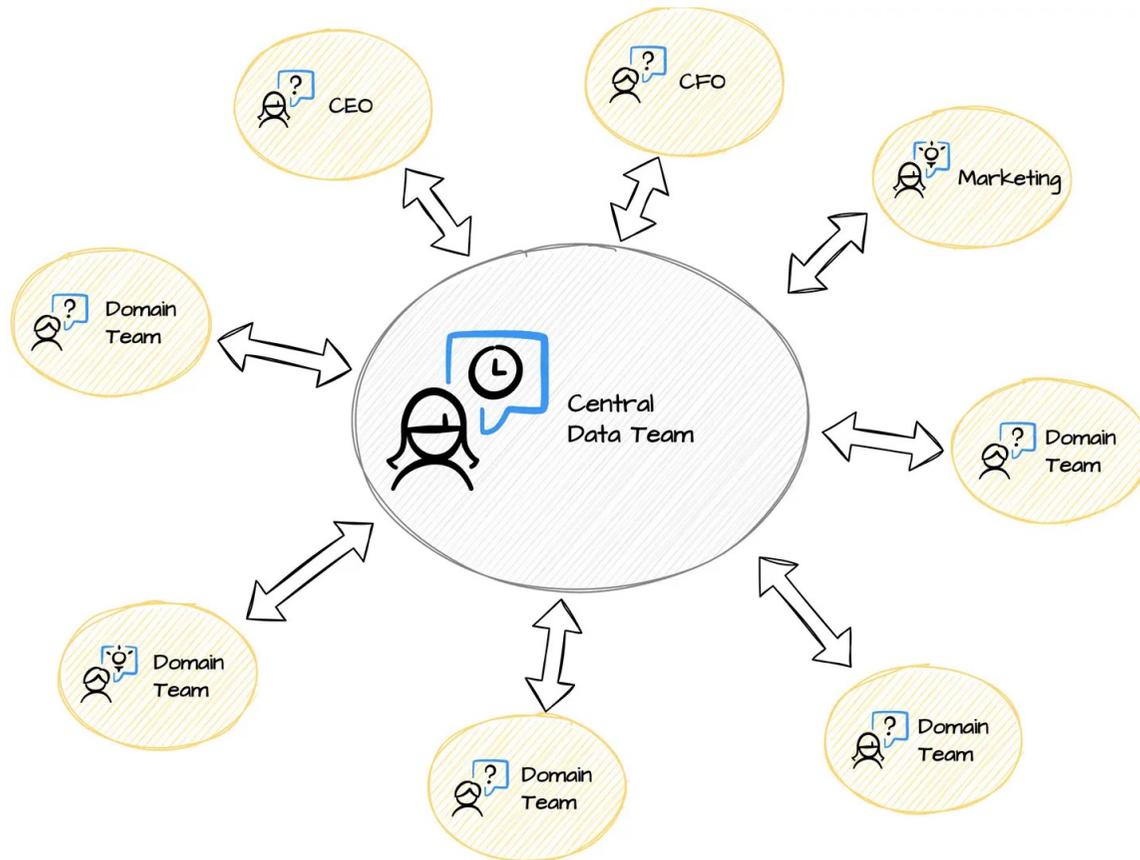
Fachliche Metriken

- Conversion Rate
- Stornoquote
- Aktive Nutzer
- Kontoeröffnungen pro Tag
- Verbundene Geräte
- On-Time Delivery Rate
- Wartezeiten für Kunden

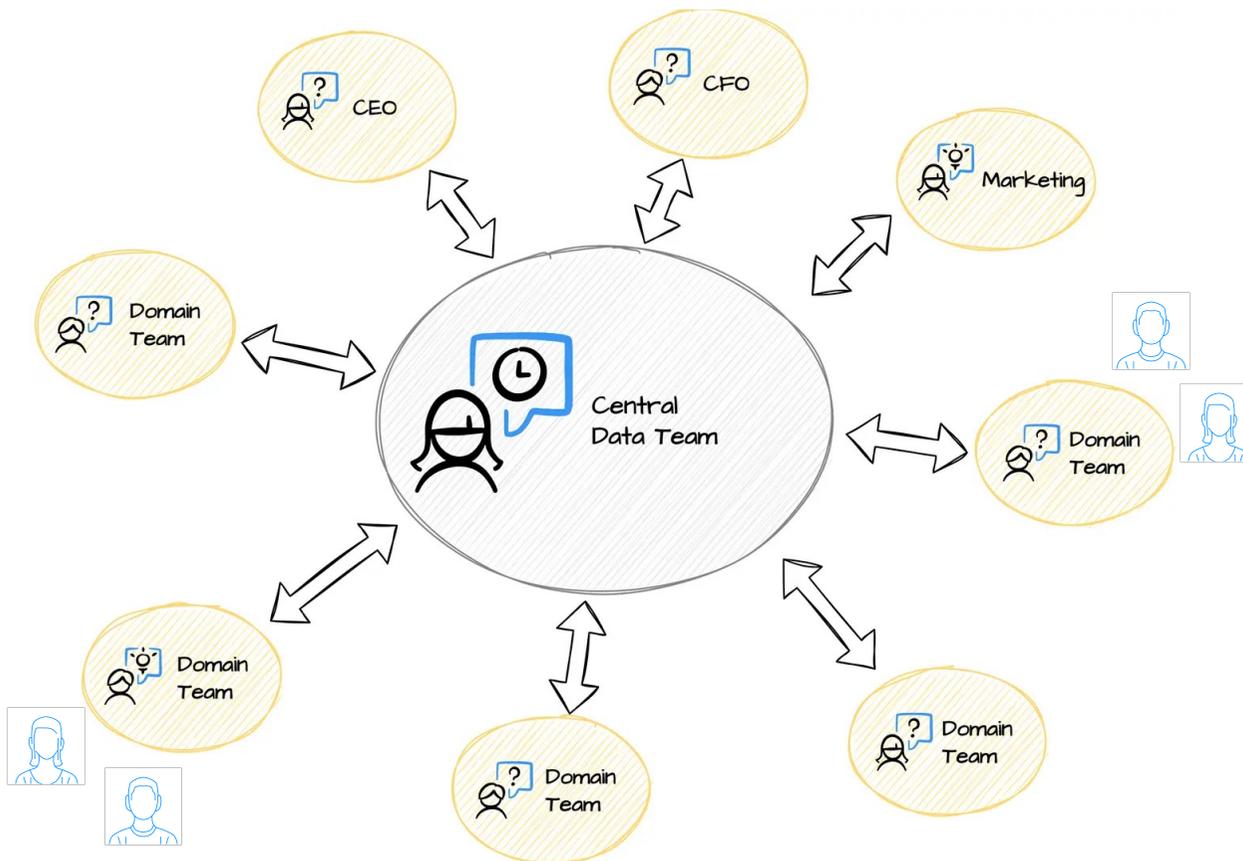
Visualisierung



Lokale vs globale Optimierung

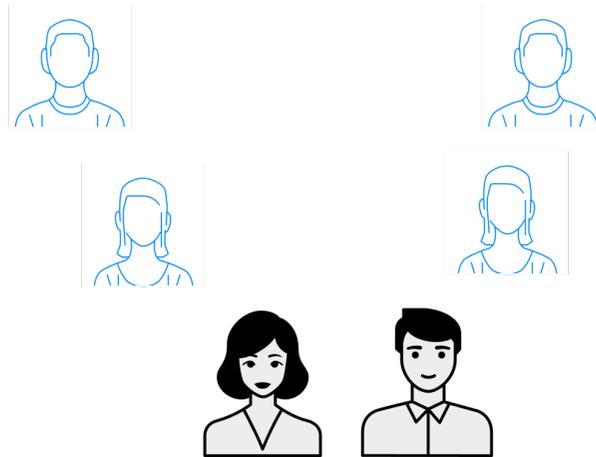


Lokale vs globale Optimierung

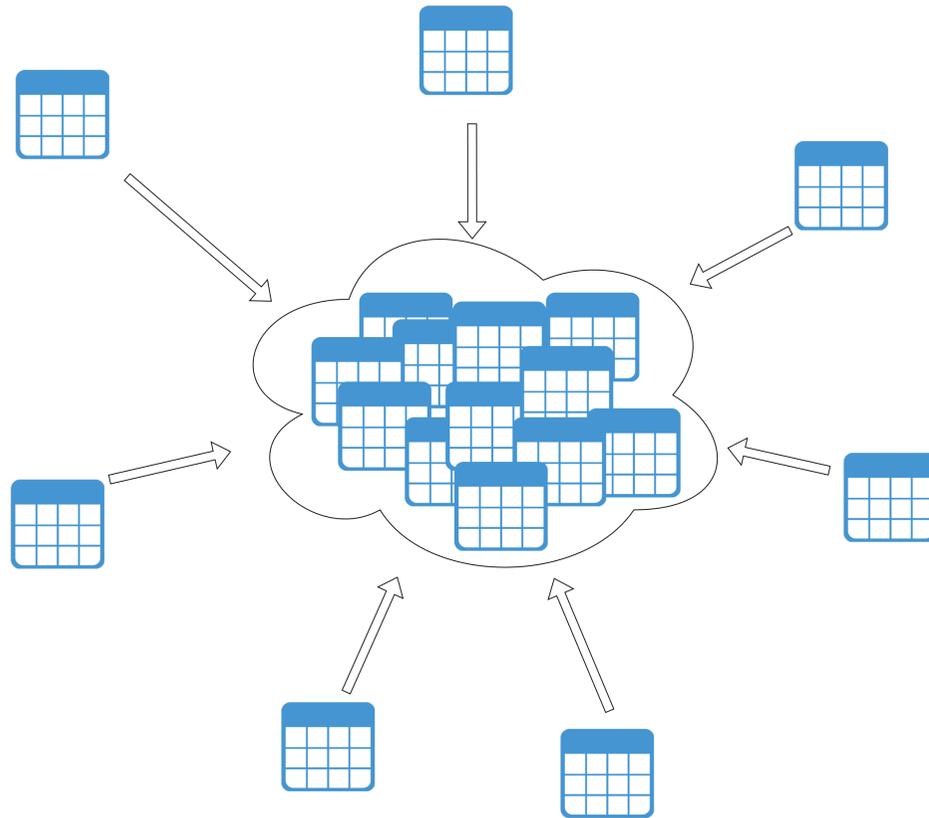


Dezentralisierung

Vision
2026

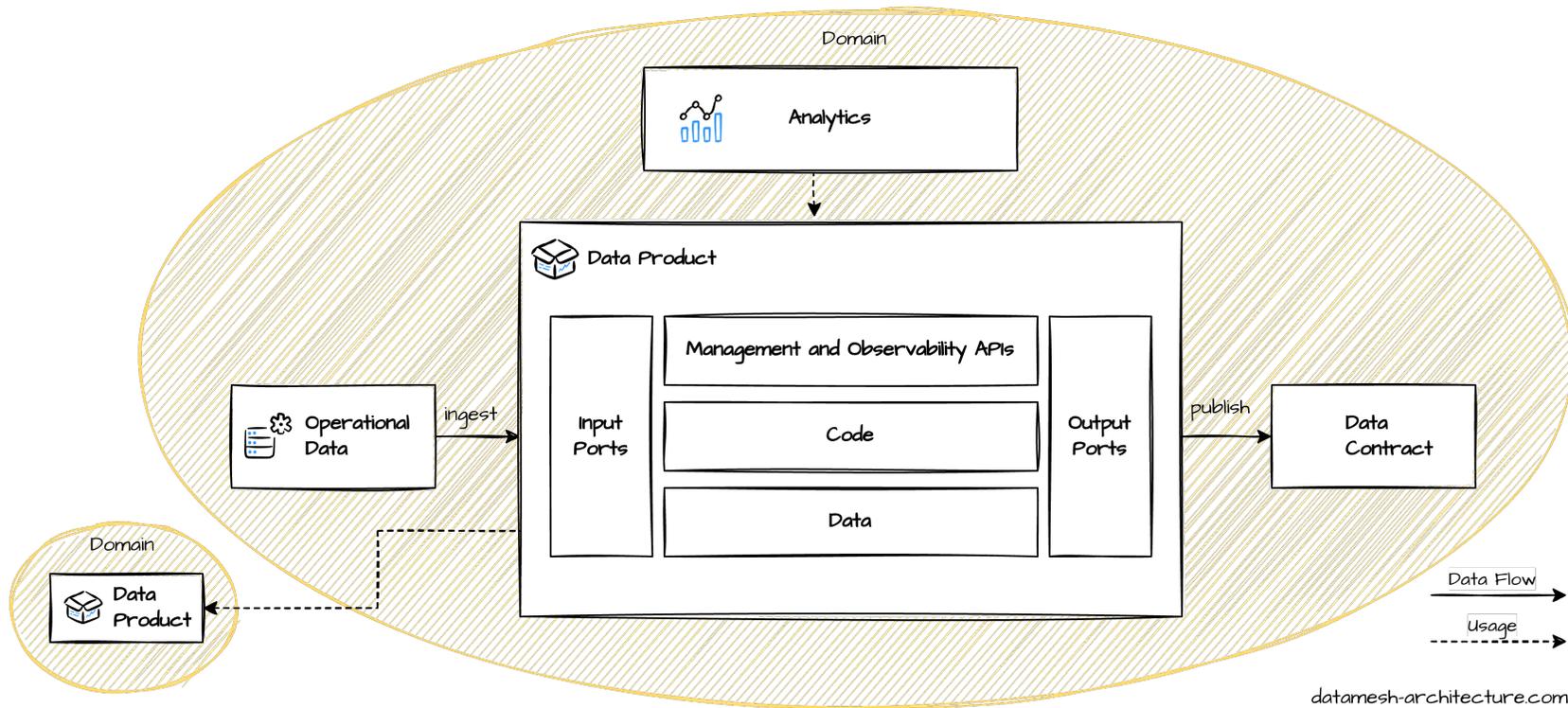


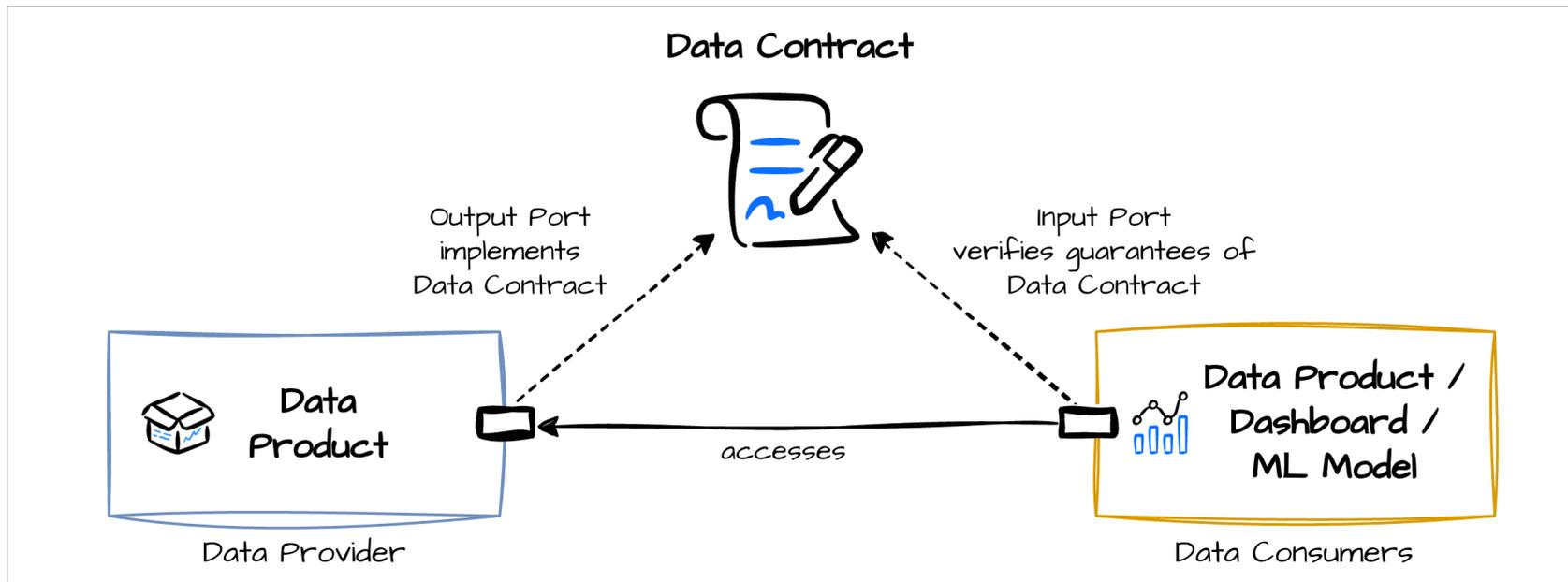
Data Lake



Data Product

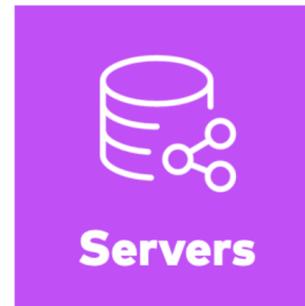
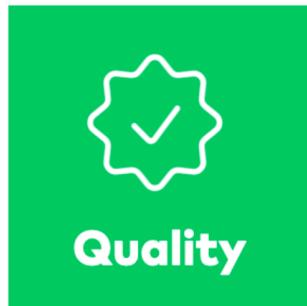
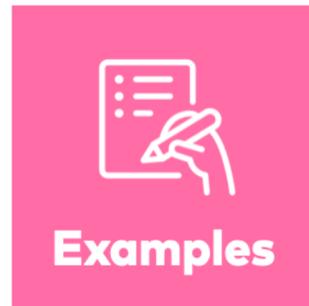
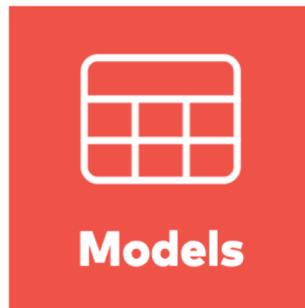
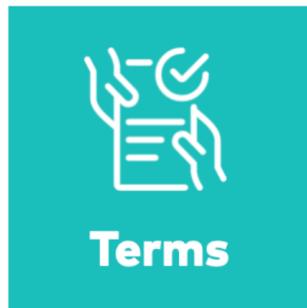
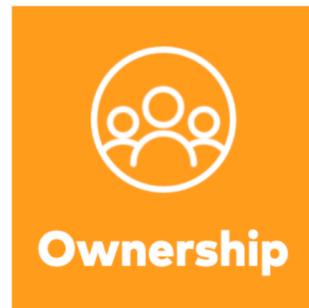
Data Product Architecture





- <https://github.com/datacontract/datacontract-cli>
- Aktuell unter Trial im ThoughtWorks Technology Radar

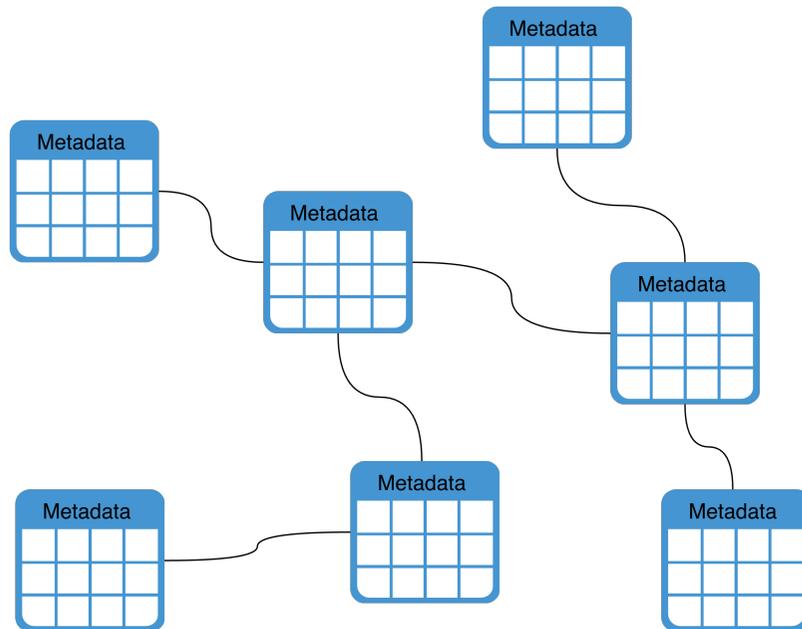
Data Contracts



Contracts und Data Governance

- Policy as Code
- Automatisierte Tests
 - Datenqualität als Teil der CI/CD-Pipeline
- Monitoring
 - Compliance und Drift Detection

Data Catalog



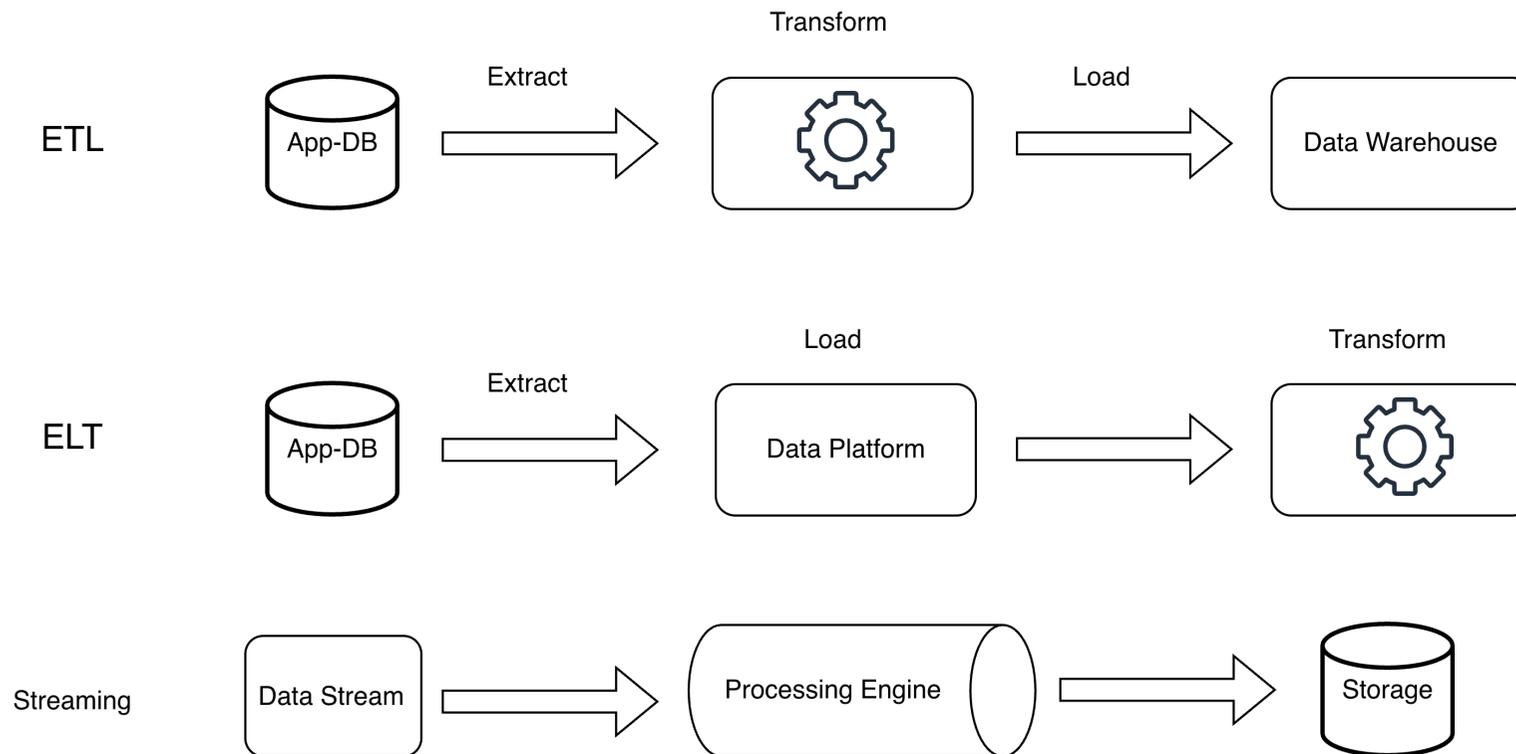
Data Catalog vs Marketplace



The screenshot displays the Data Marketplace interface. At the top, there are navigation tabs for 'Marketplace', 'Studio', and 'Governance', along with a 'Demo' user profile. The main content area is titled 'Welcome to Data Marketplace' and includes a search bar with the text 'Discover data for your business case' and a 'Search' button. Below the search bar, there are sections for 'Domains' and 'Data Products'. The 'Domains' section shows four cards for 'Web Shop', 'Operations', 'Finance & Legal', and 'Marketing & Communications'. The 'Data Products' section shows four cards for 'Orders', 'Articles history', 'Order Service', and 'Search Queries All'. Each card provides details such as the number of teams and data products associated with it.

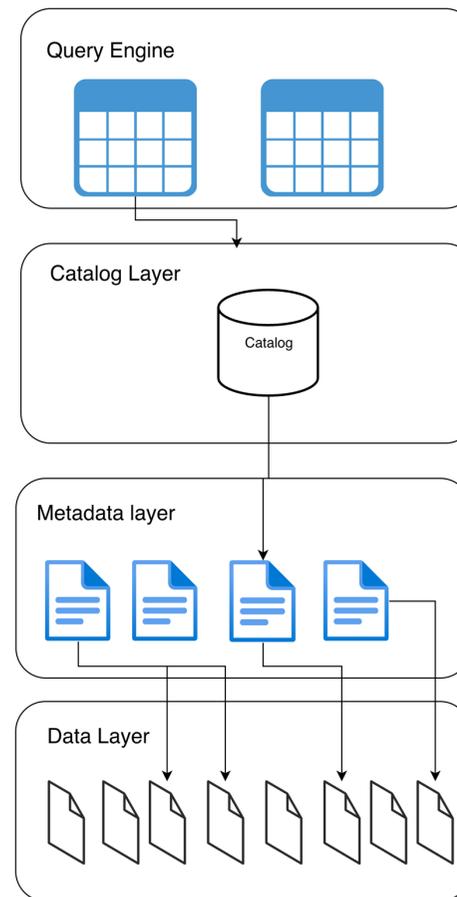
- <https://www.entropy-data.com/#marketplace>

ETL vs ELT vs Streaming

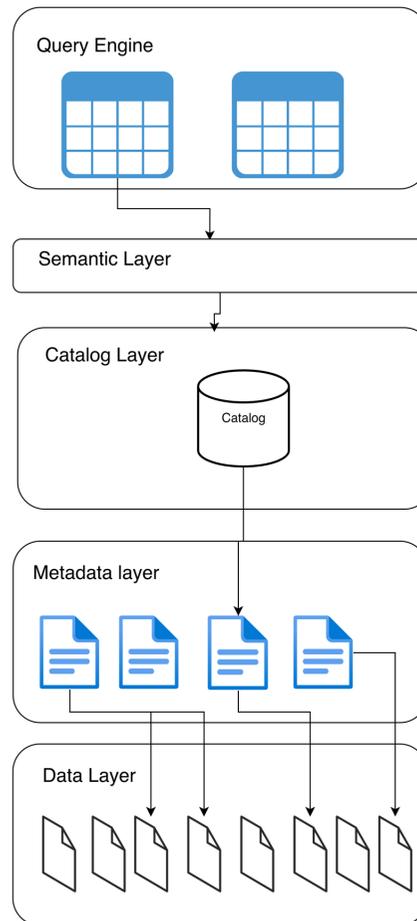


Data Lakehouse

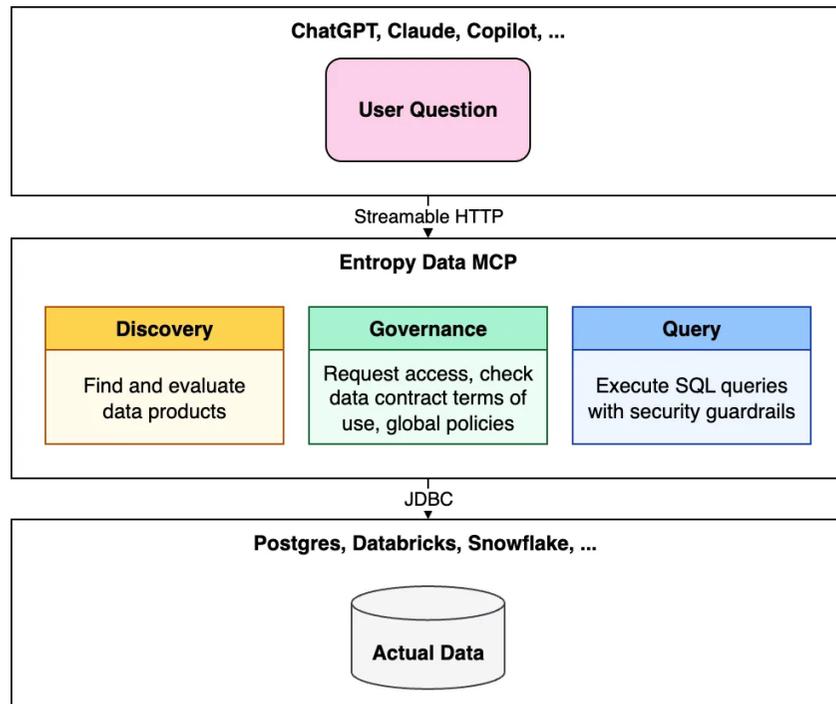
- Apache Iceberg



Data and AI



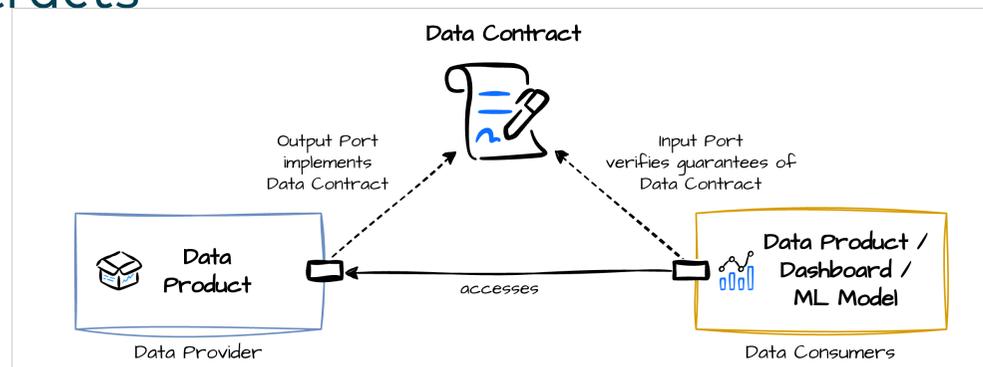
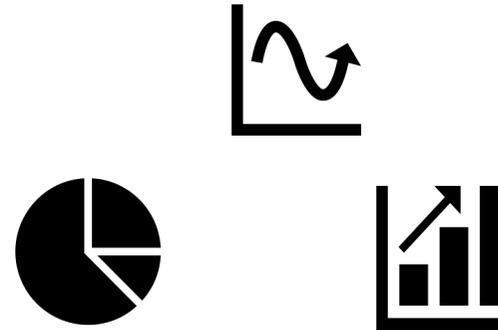
Data and AI



- <https://www.entropy-data.com/learn/mcp>

Fazit

- Data driven durch fachliche Metriken
- Dezentralisierung
 - Data Products
 - Data Contracts



Danke! Fragen?



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