



Dr. Sebastian Tramp  
CTO - eccenca GmbH



# SEMANTIC DATA MANAGEMENT MIT ECCENCA CORPORATE MEMORY

# About eccenca GmbH



## brox IT-Solutions GmbH



Gegründet: 1998  
Fokus: IT-Consulting  
IPR: Initiierung/Leitung eclipse.org/SMILA  
eccenca Enterprise Search  
Key Accounts: Volkswagen, Audi, Skoda, MAN, Telekom,  
Daimler, Bosch, Siemens, Continental

## AKSW – Universität Leipzig & Fraunhofer IAIS



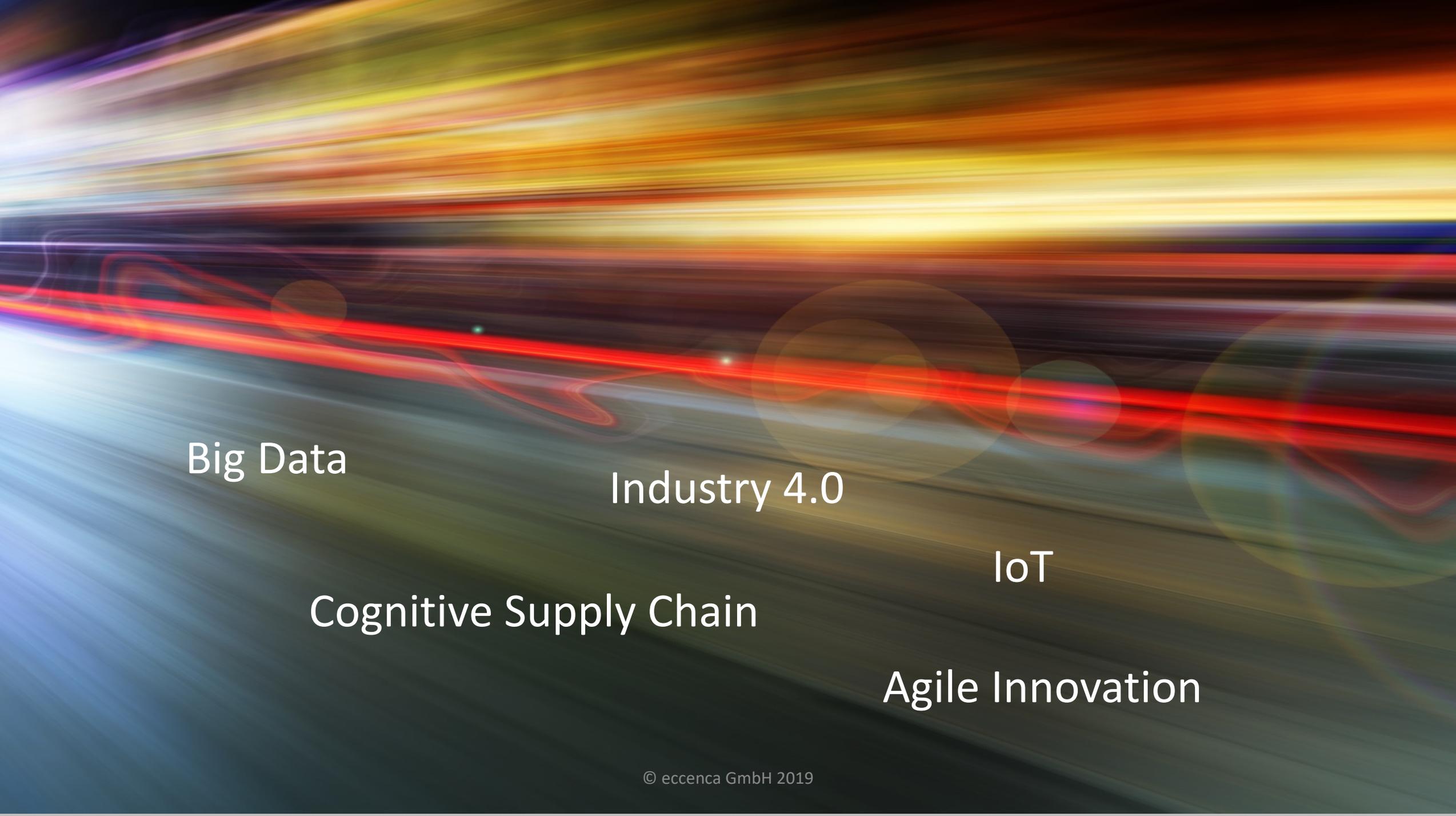
Führende Linked Data Forschungseinheit in  
Europa. Initiator des nationalen Industrial Data Space

Initiator: DBPedia, Linked GeoData etc.  
Betreiber: Datenportal der EU-Kommission  
Team-Leitung: Prof. Dr. Sören Auer

## eccenca GmbH



Gründung: 2013  
Fokus: Produkte/Lösungen  
Team Size: 40  
IPR: Linked Data, M2N Synchronization,  
Linking, Authentication/Data Security  
Kunden: Volkswagen, Bosch, Nokia, Infineon,  
Ericsson, Telekom, Daimler  
F&E Projekte: LUCID, ELDS, GeoKnow, Diachron  
Initiativen: MOBIVOC, OSFP

The background features a dynamic, abstract composition of horizontal light trails in shades of blue, red, yellow, and orange, creating a sense of motion and energy. Several semi-transparent circles of varying sizes are overlaid on the scene, some appearing as soft, glowing halos around the text.

Big Data

Industry 4.0

IoT

Cognitive Supply Chain

Agile Innovation

# ORGANIZATIONS AS DISCONNECTED SILOS

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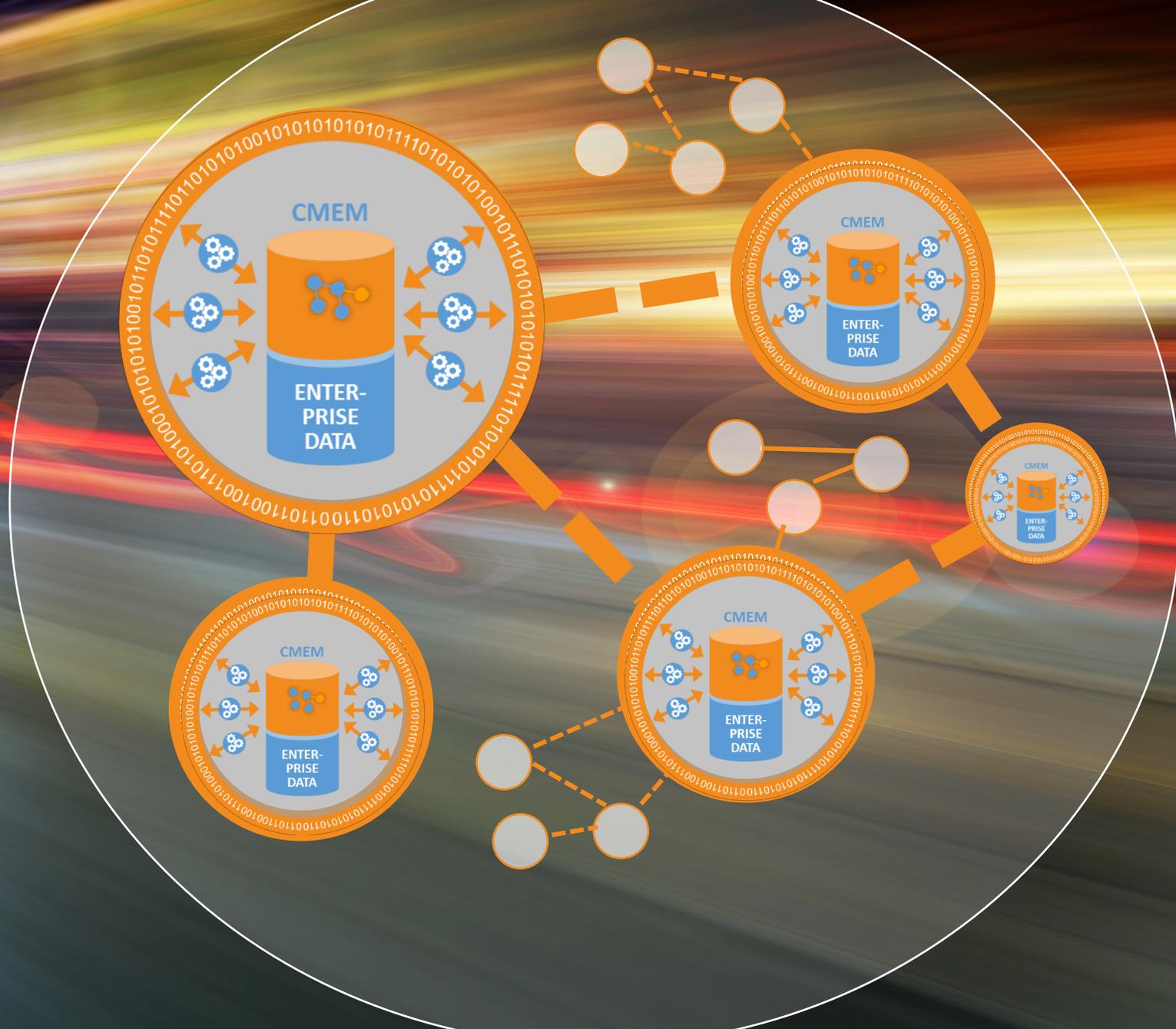
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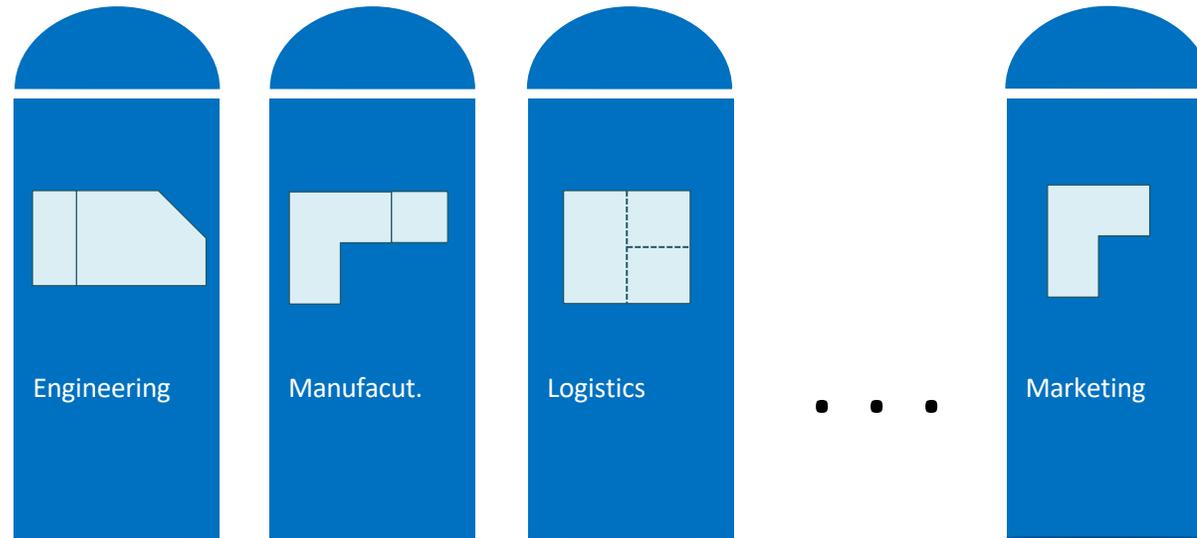
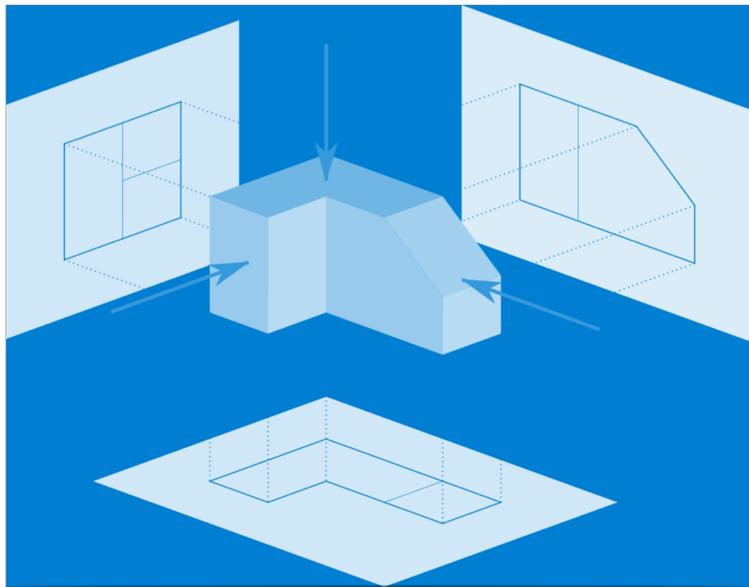
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# SYNCHRONIZED ECO-SYSTEM



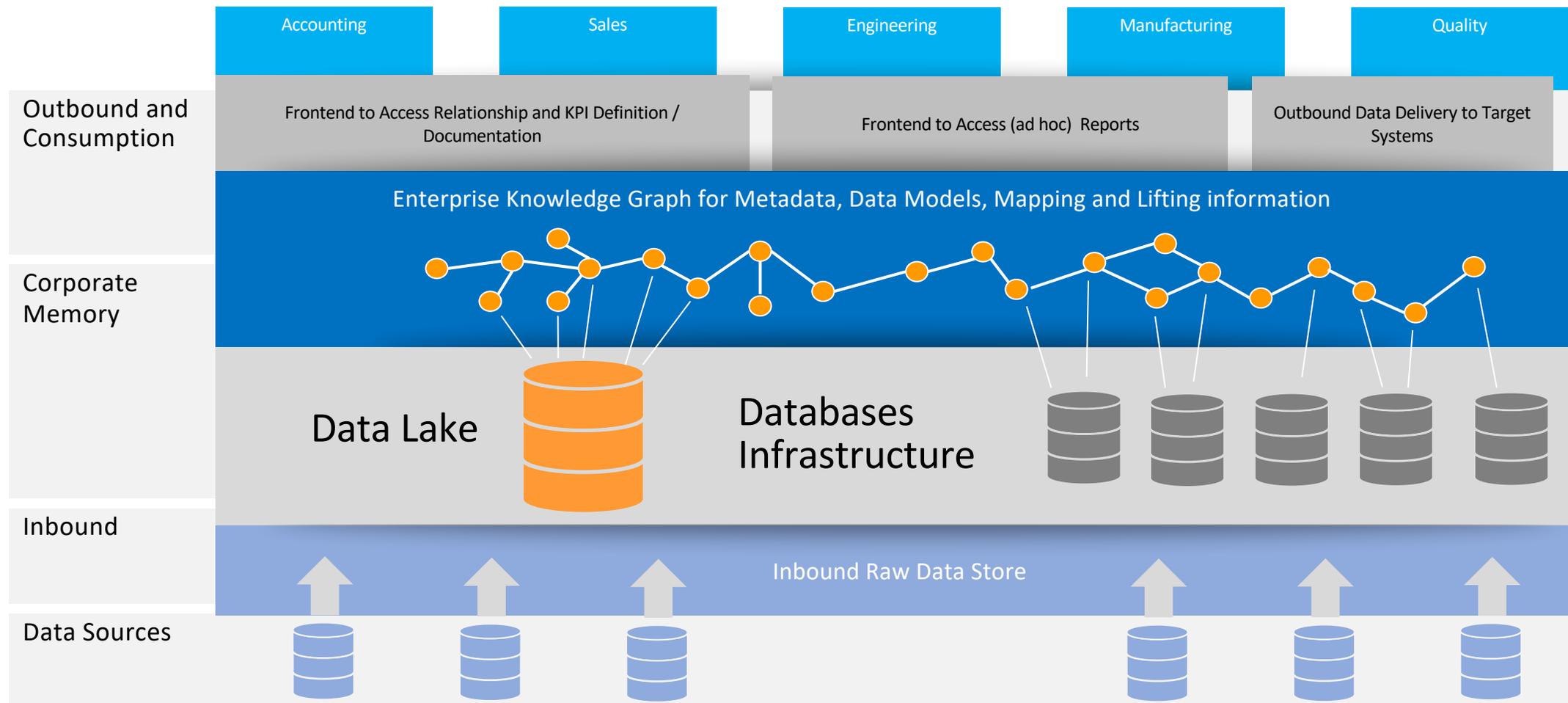
# Perspectives on data turn into silos

Parts of data are being curated, duplicated, annotated and simply changed over time, making reconciliation and interpretation a challenge



# Corporate Memory (CMEM)

Incremental approach affords a risk free, results oriented dissemination of structured data views  
Dataset cataloging, metadata management, semantic lifting, integration and fusion



# Semantic Data Management

## Data in Context

### What

- Create knowledge graphs by connecting datasets and metadata to logical models
- Physical data models unchanged!
- Explore metadata & structures
- Query & Access data via models
- Integrate data on model level
- Share data on model level

### How

- Leverage linked data principles
  - Schema as data (RDF)
  - Global identifiers (URIs)
  - Linked data graphs (W3C)
- Catalog your data assets: datasets, vocabularies (models), ...
- Publish-subscribe for sharing
- Machine learning for integration

## eccenca Corporate Memory

- Semantic data and meta data management
- Data lifting
- Ontology based data virtualization
- Ontology based data preparation
- Hadoop scale-out architecture
- Integration in to backend system APIs

## eccenca Corporate Memory SYNC

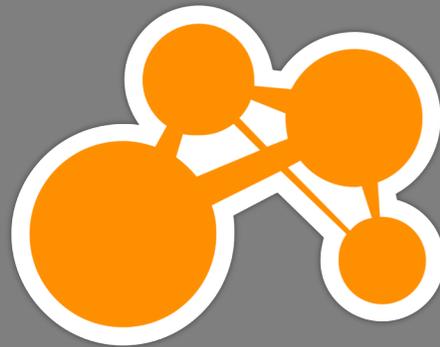
- Graph Publication
- Graph Subscription
- Graph Synchronization
- Mapping and data ingestion based on RDF, CSV, Excel, XML formats

## eccenca Corporate Memory

- Semantic Data Preparation (“Self Service Data Prep”)
- Master Data Management
- Support Mergers and Acquisitions
- Data Analytics
- Data Governance
- GDPR

## eccenca Corporate Memory SYNC

- B2B data exchange
- System 2 System integration
- Collaboration on Schema / Vocabularies
- “Outsourcing” of ETL Efforts
- “EDI Replacement”



**eccenca**  
innovate with data!

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