

June 5-8, 2023 · Data platforms · Data engineering · Data management

BUDAPEST DATA FORUM



Adatplatformok automatizációja

Gollnhofer Gábor

Managing Director

Meta Consulting

Danubius Hotel Helia + Streaming

budapestdata.hu

Meta Consulting Ltd.

- Established in 2002, privately owned company

Services

- DW & BI, Metadata management, Data governance
- System design, Development, Consulting, Training

Customers

- Bank, Insurance, FMCG, Telecom, Media, Education, Government etc.
- Mostly in middle Europe (HU, DE, CZ, PL, SK, RO, MNE) + UK/USA
- 60+ customers, 12 countries, 130+ projects

Hungarian partner of Snowflake, WhereScape & Fivetran

About...

Gabor Gollnhofer

- Enterprise databases since 1992; DW/BI since 1996
- Data system design, modelling, consulting, trainings
- 3NF, dimensional & Data Vault
- Finance, banking, insurance, FMCG, education, telco, gov. etc.
- Snowflake, Oracle, SQL Server, Sybase, Wherescape
- Certified DV2.0 Practitioner, CDVDM
- Father of 2 daughters 😊

Problems with data<whatever> systems

What we want is:

- Self-service:
„I know what I want”
- Fresh & Accurate data
- Low cost (capex/opex)

Problems with data<whatever> systems

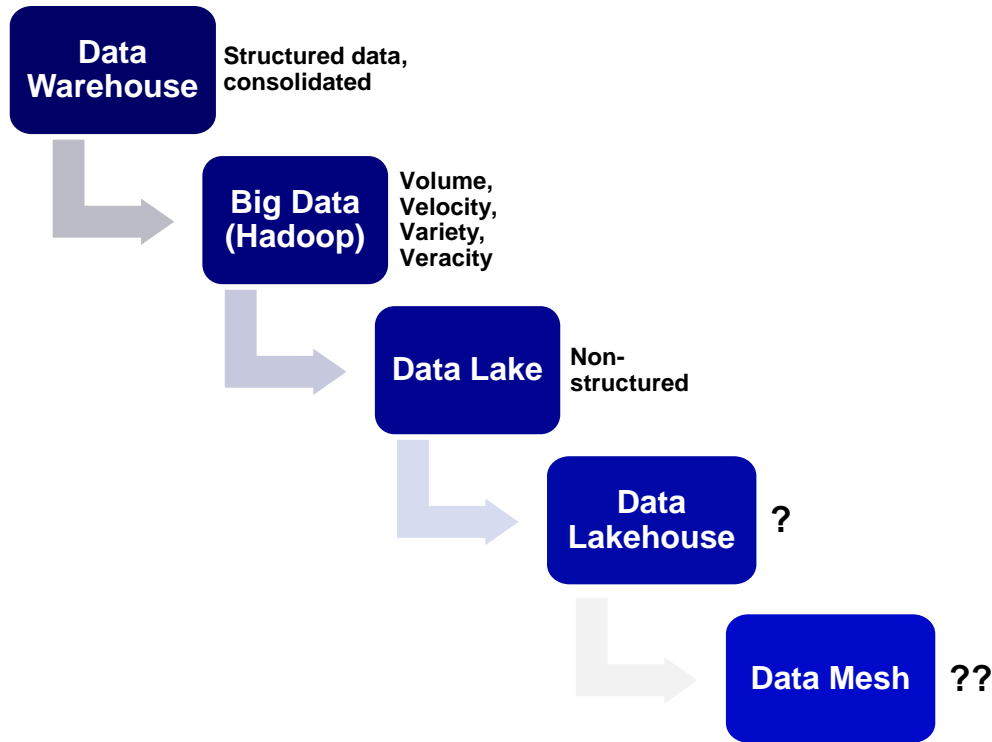
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What we need is:

- Ease of use
- Understandability
- Consistency & Reliability
- Speed & Flexibility
- Cost-efficiency

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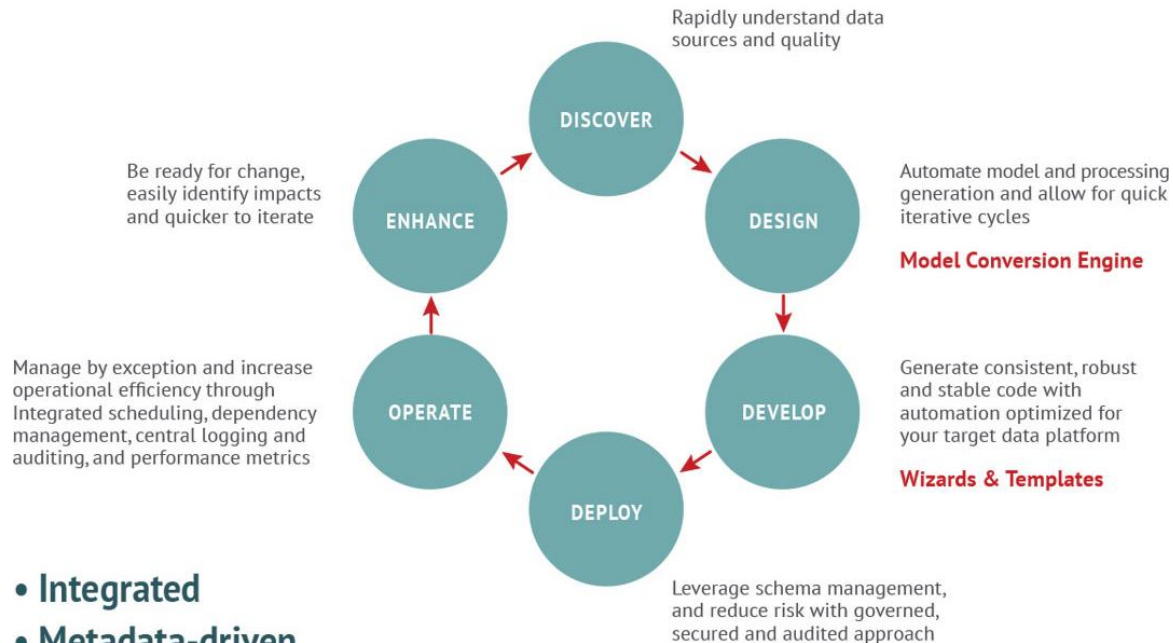
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Automation is usable for

- Design
 - architecture templates, data modelling, data mapping, data quality
- Development
 - Data structures, transformation processes, migrations
- Deployment & Operations
 - Infrastructure, CI/CD pipelines, monitoring, auto-scale/auto-tune
- Documentation
 - Up-to-date documentation
 - Who wants to writeread docs, anyway?

WhereScape® Automation Lifecycle



- **Integrated**
- **Metadata-driven**
- **Best practices and industry standards**
- **Fully documented**

You architect. **We automate.**



Your Modeling Styles

Data Vault / Data Lake / Data Mart / ODS / Dimensional / EDW / Normalised / Bi-Temporal / Custom



Your Platforms

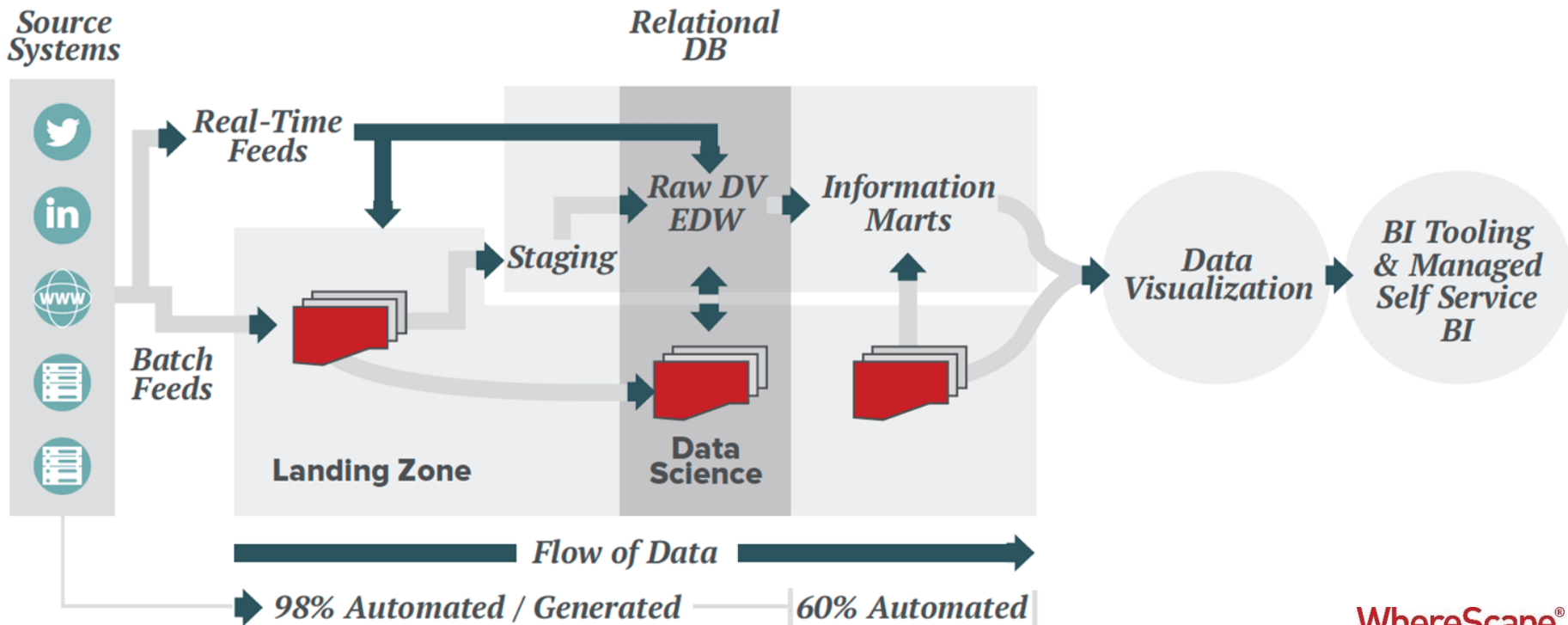
Cloud / On-premises / Hybrid / RDBMS / Hadoop / Single platform or Federated



Your Patterns

Micro Batch / Real-time / Full load / Incremental load / History / Slowly Changing

Data architecture example with automation



WhereScape®



The time it takes WhereScape customer **Micron** to **deliver new data warehouse prototypes** based on Data Vault 2.0

2
DAYS

The time it takes **Vodafone** Netherlands to **complete new initiatives** with WhereScape, saving 6 months

Automation for model generation & code generation:

- ...increases speed of development by using templates
- ...gives better documentation and better-quality products
- ...is possible for well structured models (DL, DW)
- ...is challenging for DM (with major data structure changes)
- ...requires more analysts & designers/modelers
- ...and less developers!

Data automation is good, but ...



Heracles rerouting the rivers Alpheus and Peneus, to clean out the Augean stables.
Roman mosaic, 3rd century AD
Source: [wikipedia](#)



Waste management, 21st century
image: [source](#), license: CC0 public domain

Data automation is good, but ...



garbage in - garbage out

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Automation is not a ...



We still have to do:

- Analysis: requirements, data sources, impacts
- Design: architecture, data modelling, ETL, BI/analytics
- System development:
Data Lake, ODS, DW & Data Mart, APIs, integrations etc.
- Front-end: dashboards, reports, analytics, ML/AI
- Management:
project ~, data quality ~, master data ~, change ~, expectation ~

Key takeaways

Simplicity is good (K.I.S.S.)

- Data Vault is “king” in this 😊

Automation works well with DataLake, ODS & DW

- We still need data marts

Easier & faster data ingestion & integration

- the Data Team can focus on data marts, reports, analytics



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An Enterprise Data solution is much more than technology to „hoard” our data to one place

Thanks!



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