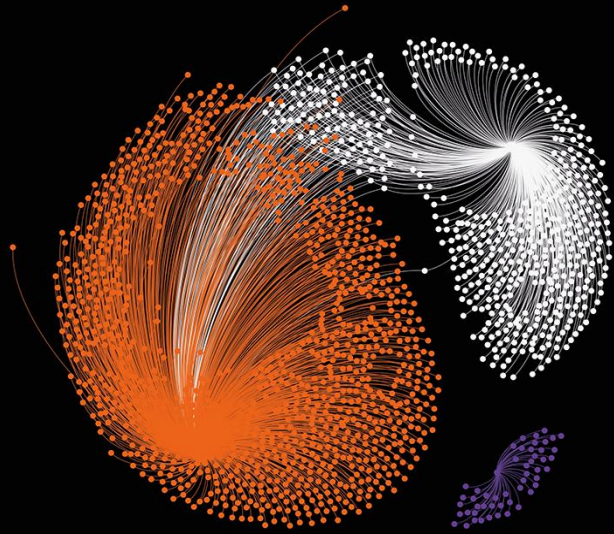




TERADATA®

Advanced Analytics Software

Gerhard Otterbach, Teradata



The Future of Advanced Analytics Software or „The New SQL“

Gerhard Otterbach,
Sales Manager Teradata Germany

Munich, June 26th, 2018

Teradata At A Glance: 39 Years Ago



“Teradata was big data before there was big data”

Donald Feinberg , Gartner

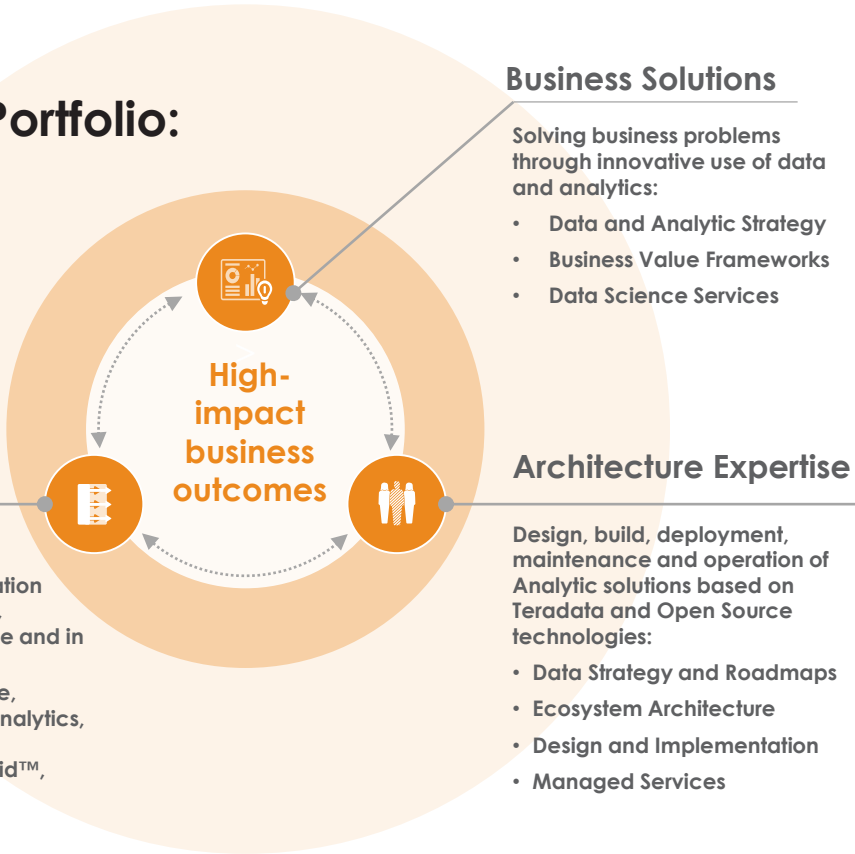
Teradata At A Glance

Our Portfolio:

Technology Solutions

Scalable and high-performance DBMS, Analytic and Integration Fabric technologies, available on-premise and in the Cloud

- Teradata database,
- Teradata Aster® Analytics,
- Hadoop
- Teradata QueryGrid™, Presto,
- Listener™,
- Unity,
- AppCenter



Business Solutions

Solving business problems through innovative use of data and analytics:

- Data and Analytic Strategy
- Business Value Frameworks
- Data Science Services

Architecture Expertise

Design, build, deployment, maintenance and operation of Analytic solutions based on Teradata and Open Source technologies:

- Data Strategy and Roadmaps
- Ecosystem Architecture
- Design and Implementation
- Managed Services

- ~1,400 + Customers in 77 Countries
- ~10,000 Employees including ~5,000 Consultants
- Market Cap: U.S. \$4 Billion+
- World's Most Ethical Companies – Ethisphere Institute
- Fortune: Top 10 U.S. Software Company
- The “Completeness of Vision” leader in **Gartner’s** Magic Quadrant “Data Warehouse and Data Management Solutions for Analytics”
- Leader in the **Forrester Wave™**:
Big Data Hadoop-Optimized Systems
In-Memory Database Platforms

Challenge I – The Big Data Tools & Languages

<p>Anwendungsspezifische Lösungen</p>	<p>Advanced-Analytics-Werkzeuge</p>	<p>Machine Learning Entwicklungs-Frameworks</p>	<p>Generische Entwicklungssprachen</p>	<p>Kognitive Services</p>
<p>Business-Intelligence- & Analytics-Werkzeuge</p>	<p>Operations Research Software</p>	<p>Machine Learning as a Service</p>	<p>Entwicklungs-umgebungen</p>	<p>Hadoop Machine Learning Libraries</p>

Source: BARC

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Challenge II – the never-ending fight – but who's right?



SQL

vs.



No(t only)-SQL

Challenge II – the never-ending fight – but who's right?



SQL

AND!



No(t only)-SQL

Challenge III – data lake and data governance?



Governance

vs.



No Control

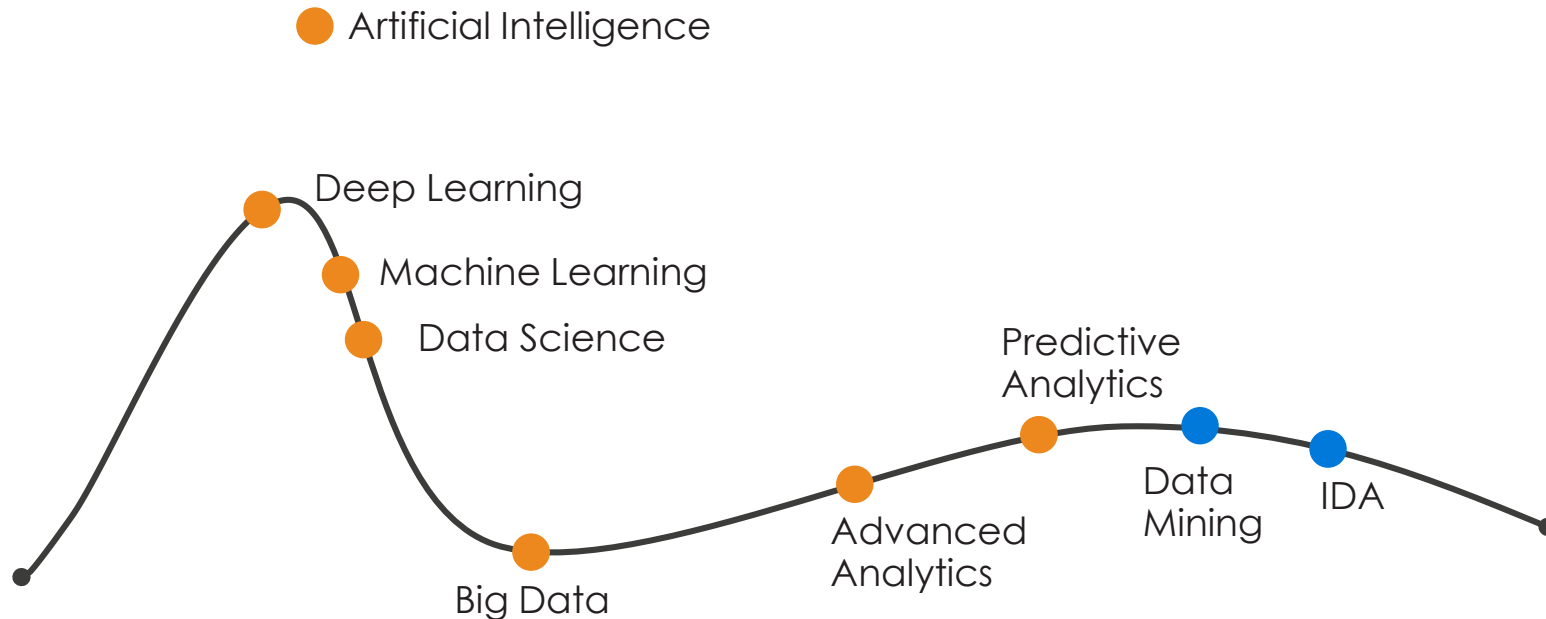
Challenge III – a data reservoir as the solution!



Controlled ,No Control‘

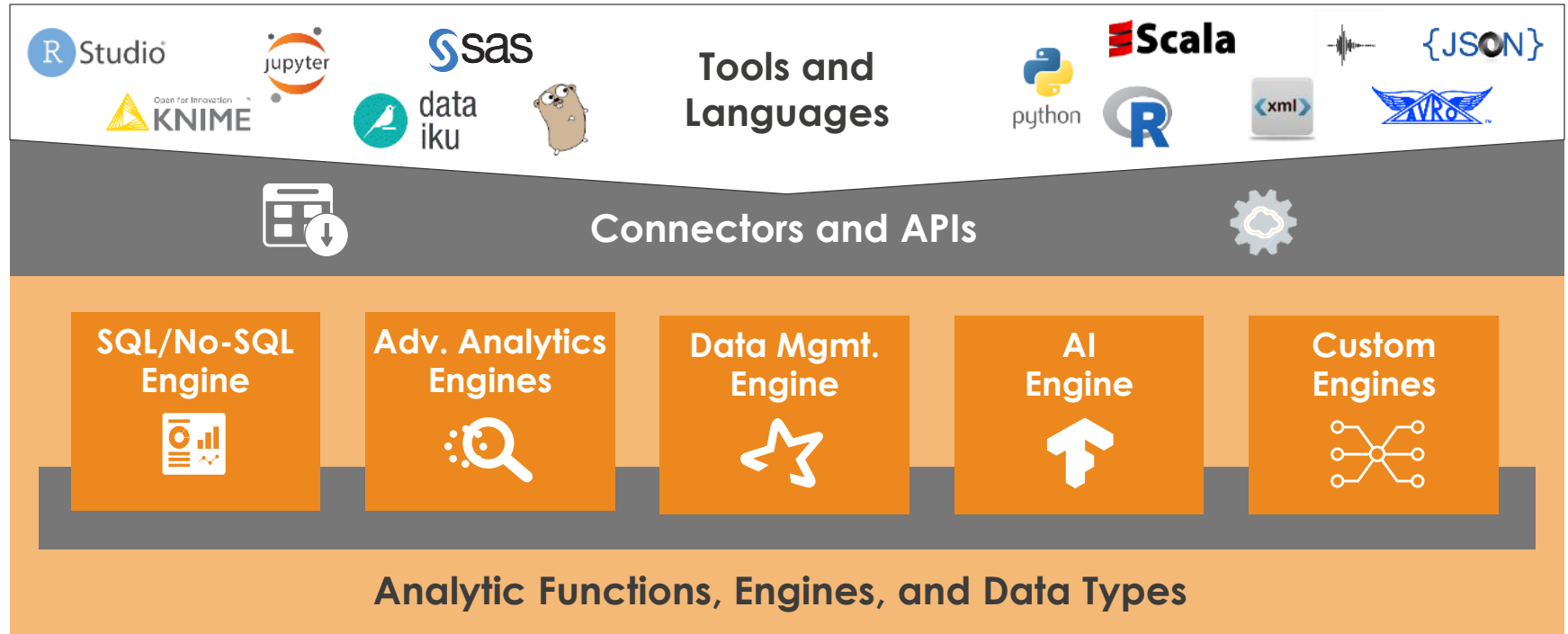
Challenge IV – Artificial Intelligence Hype

Artificial Intelligence outside the Charts – Hard touch down to be expected!



Source: Alexander Linden, Gartner BI Summit, March 2017

The Requirement: Analyze Anything AND Operationalize



The Teradata Analytics Platform is the physical implementation of the open data architecture

Any User, Any Analytics, Any Data, Any Time @Scale

--- DEV/OPS ENABLED ---

Analytic Tools



Analytic Languages

SQL



Analytic Engines

SQL/No-SQL Engine



Machine Learning Engine



Graph Engine



Spark Engine*



TensorFlow Engine*



Custom Engine*



Cross-Engine Analytic Orchestration

High Speed Fabric

Data Storage

Analytical Data Store

AWS S3 / Azure Blob Data Storage*

On Premise; Public Cloud; Private Cloud; Hybrid

QueryGrid
(Engine Access)

* Anticipated future capabilities

QueryGrid
(Data Store Access)

Managed by Kubernetes

Customer 360
Self Service
No physical Datamarts

To Summarize

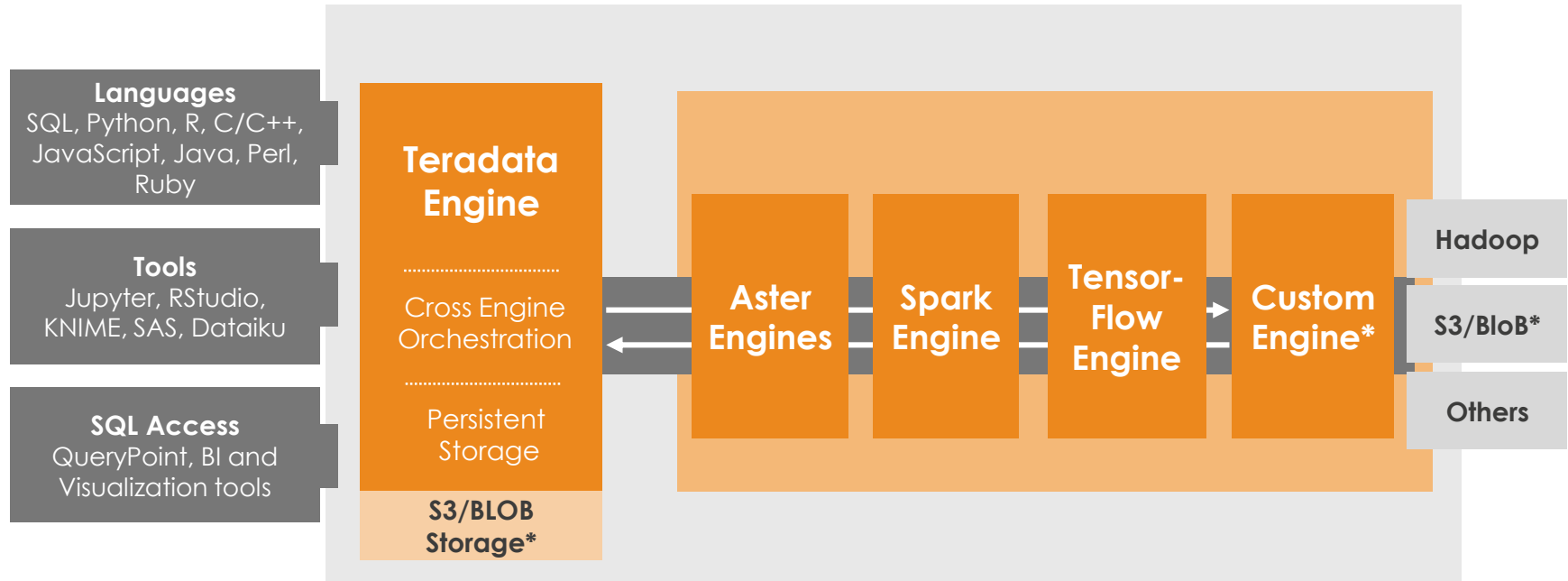
Analytics Tools & Languages Landscape is and will remain complex

SQL and No-SQL will remain next to and combined with each other

Artificial Intelligence is not a hype but operationalization is a must

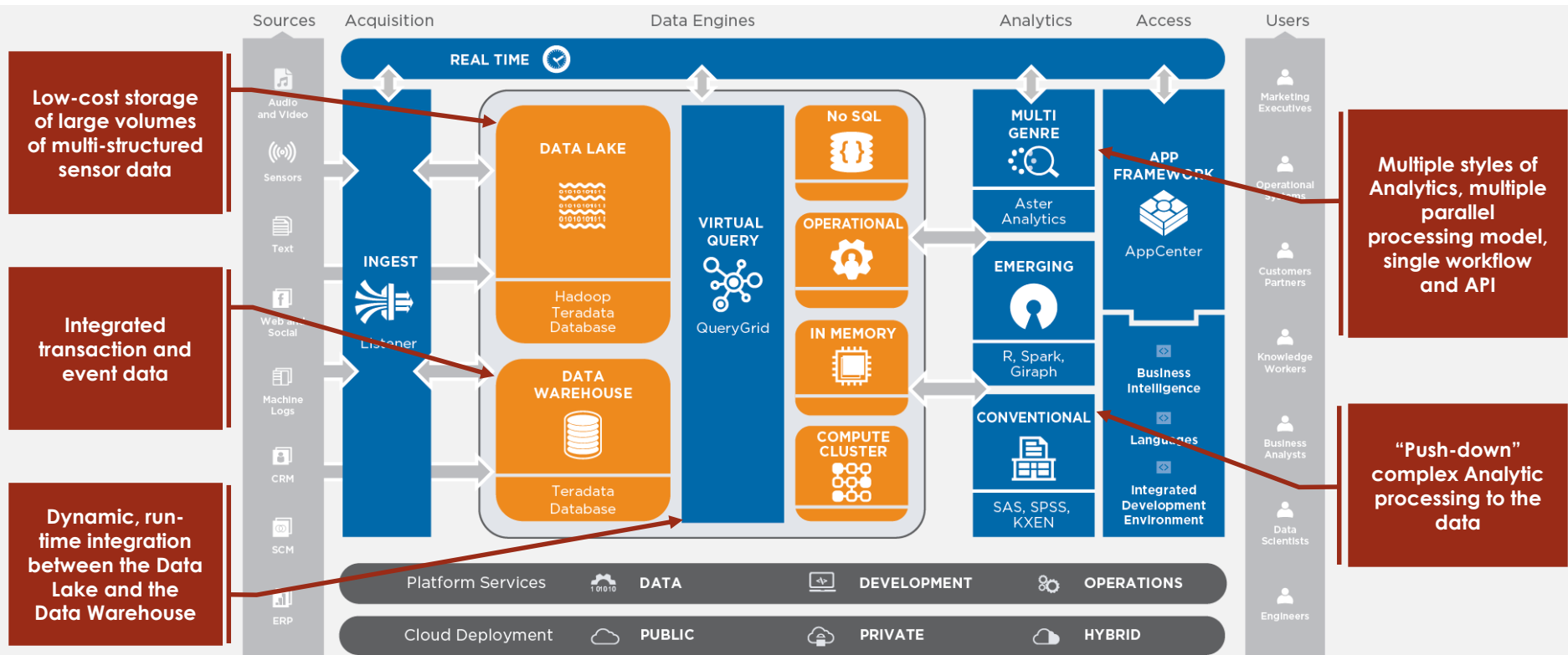
An “everywhere” Analytics Platform that integrates newest tools, engines, languages and storage systems is the key to success!

The Solution: The Teradata Analytics Platform



* Future

An ecosystem approach is required to support modern data management and complex analytics



Low-cost storage of large volumes of multi-structured sensor data

Integrated transaction and event data

Dynamic, run-time integration between the Data Lake and the Data Warehouse

Multiple styles of Analytics, multiple parallel processing model, single workflow and API

“Push-down” complex Analytic processing to the data

Teradata Analytics Platform address the unique preferences of analytic users

Teradata Analytics Platform



Analytic Functions and Engines

Teradata Functions - Time Series, Path, Decision Trees, Attribution, Text Analytics, and Scoring Functions

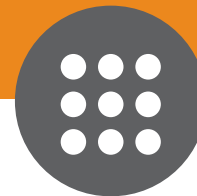
Analytic Engines - Graph, Machine Learning, Statistics, and Location Analytics
Spark* and TensorFlow*



Tools and Languages

Data Science Workbenches - Jupyter, RStudio, KNIME, SAS, and Dataiku

Languages - SQL, Python, R, C/C++, JavaScript, Java, Perl, Ruby



Multiple Data Types

Time Stamp and Period, Text, JSON, BSON, AVRO, CSV, Name Value Pair, XML, Relational

*Future

Think Big Commitment to Artificial Intelligence

Teradata Labs



Teradata Deep Learning Community



Dozens of Experts in Deep Learning, Image/Audio/Video Processing, Computer Vision, GPU



200+ Practitioners delivering Artificial Intelligence Business Value on Customer Projects



500+ Solution Architects, Business Consultants and Software Engineers with knowledge of Artificial Intelligence Tools, Techniques and Technologies. Deep expertise in retail and across industries.



Industry Collaborations

Academic Collaborations

Analytics Ops

Data Management

TERADATA®