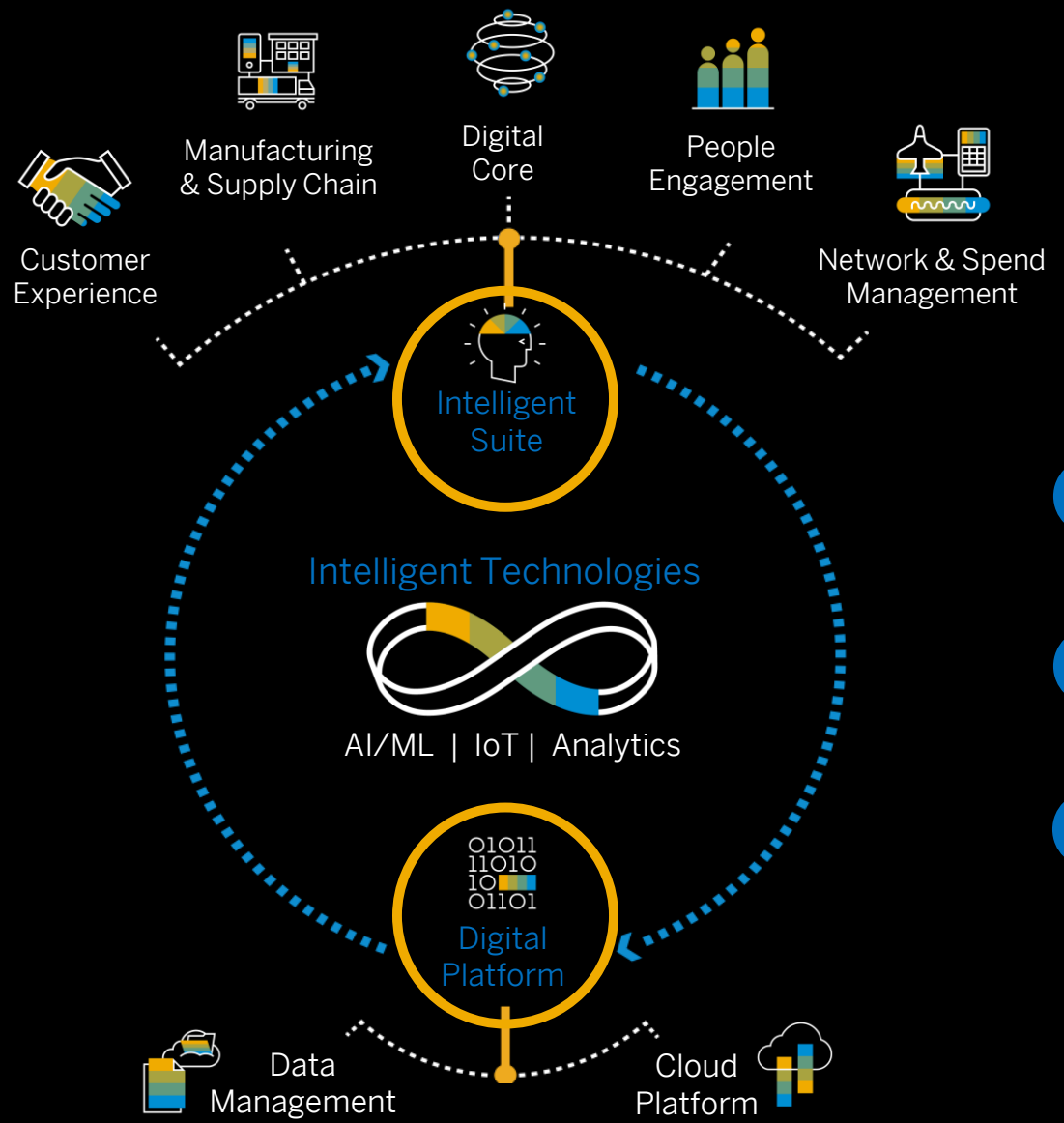
Digital Platforms:
Basis of the Intelligent Enterprise

Dirk Haeussermann, SAP
October 11, 2018

SAP NOW

The Intelligent Enterprise Framework



THE INTELLIGENT ENTERPRISE features 3 KEY COMPONENTS:

1. Intelligent Enterprise Suite
2. Digital Platform
3. Intelligent Technologies

2008

ExxonMobil

Petro China

Walmart

China Mobile

Bank of China

Microsoft

Procter & Gamble

AT&T

Johnson & Johnson

Royal Dutch Shell

2018


Apple


Alphabet


Microsoft


Amazon.com


Tencent Holdings

Berkshire Hathaway

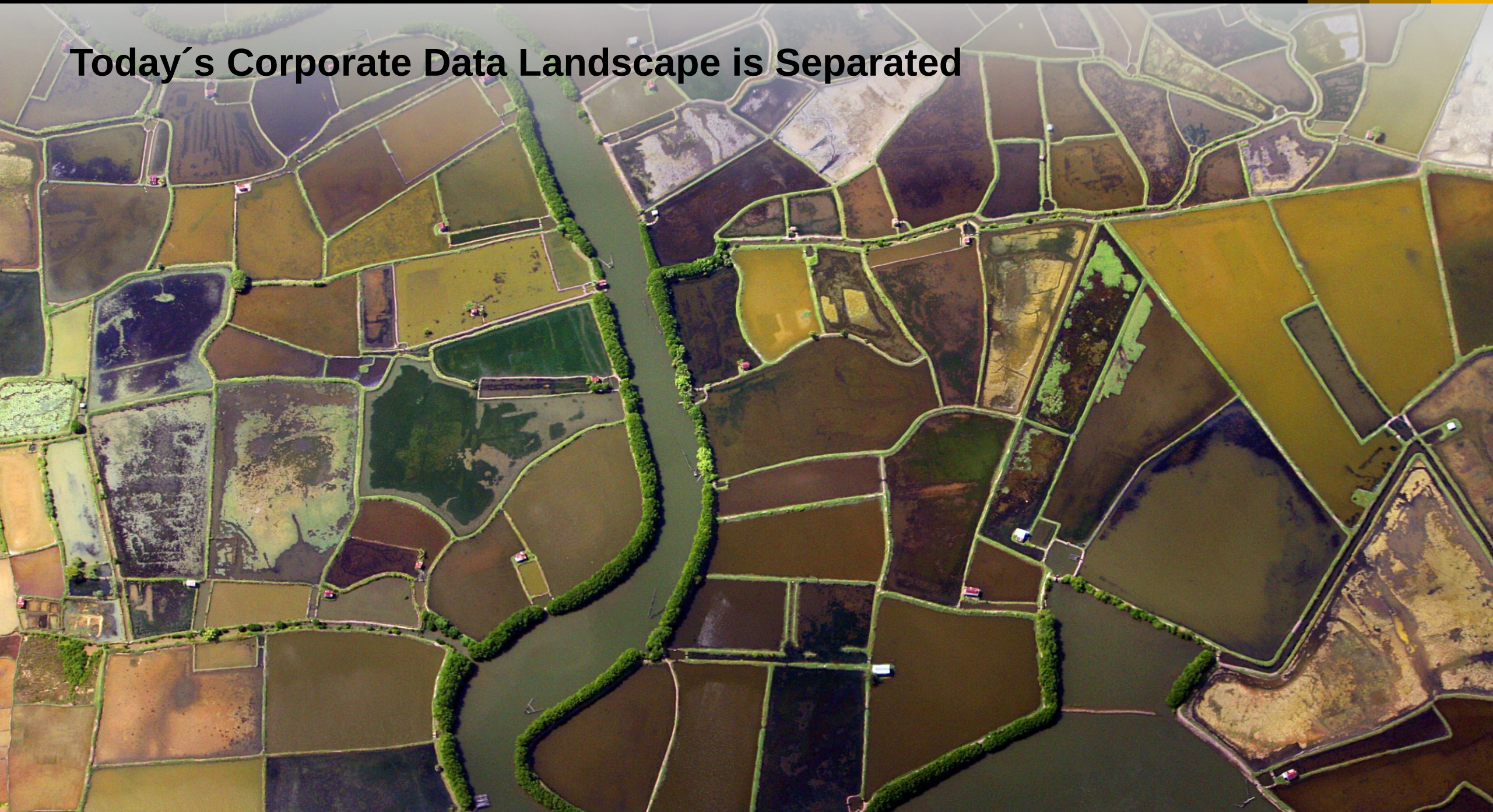

Alibaba Group


Facebook

JPMorgan Chase

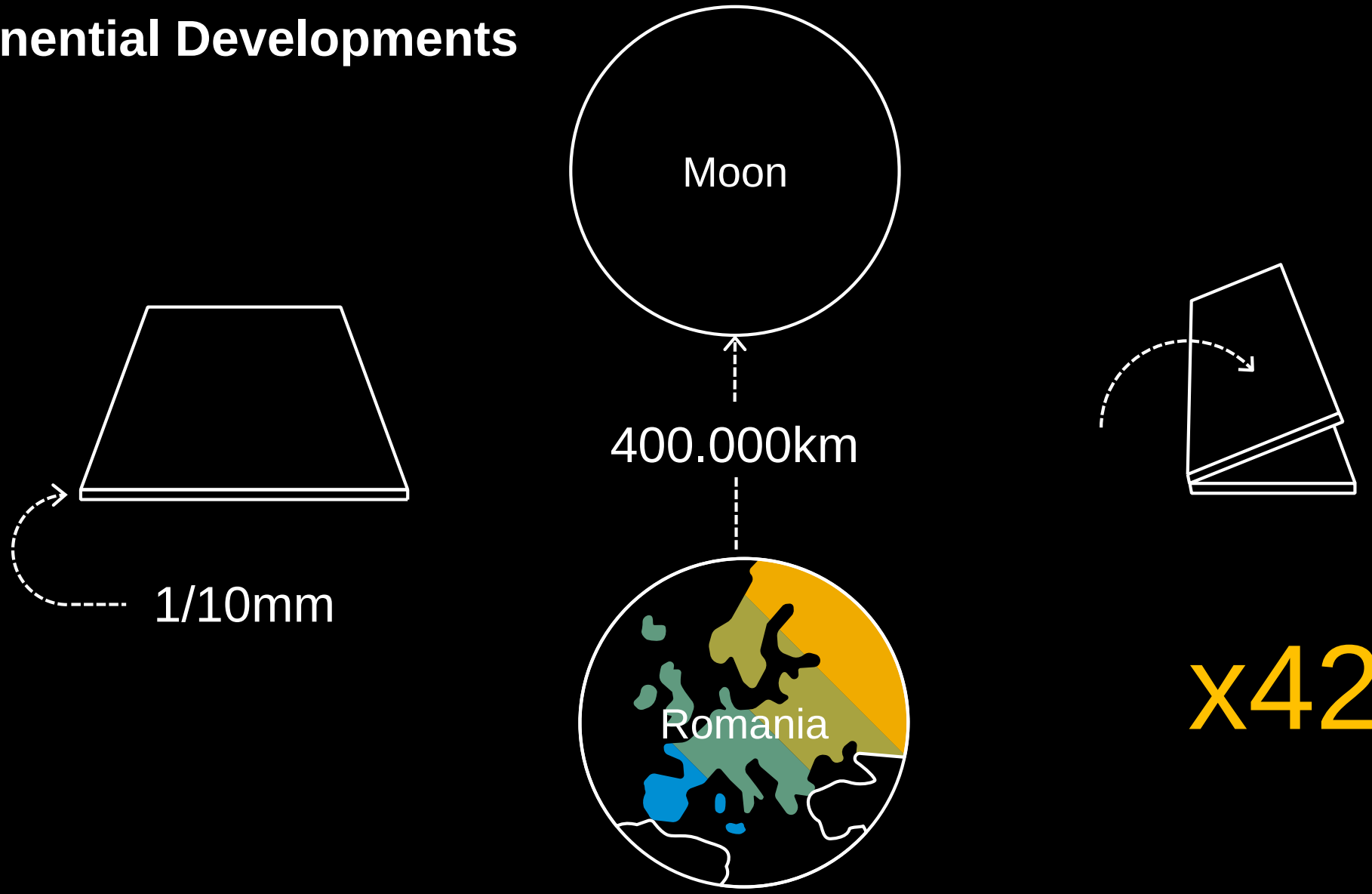
Johnson & Johnson

Today´s Corporate Data Landscape is Separated



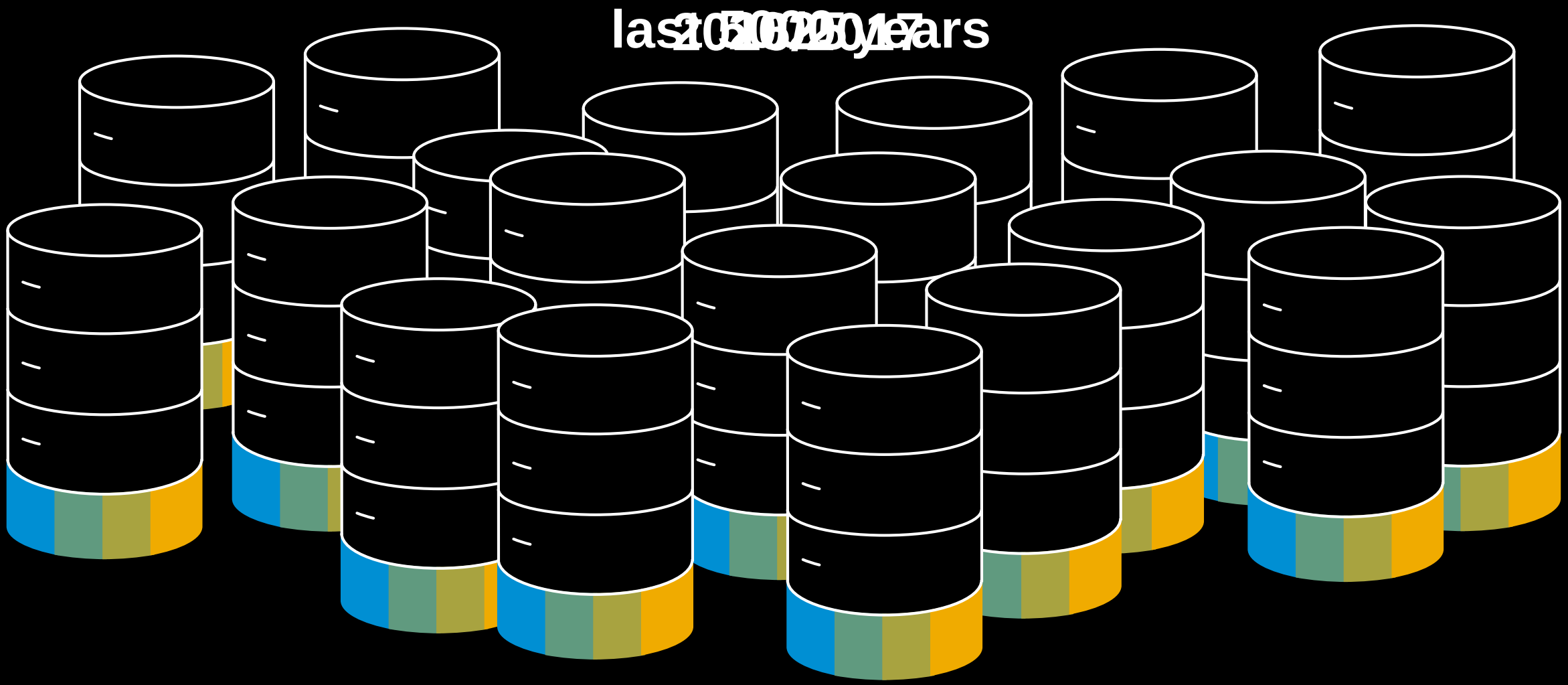
Data Volume and Data Complexity Increases

Exponential Developments

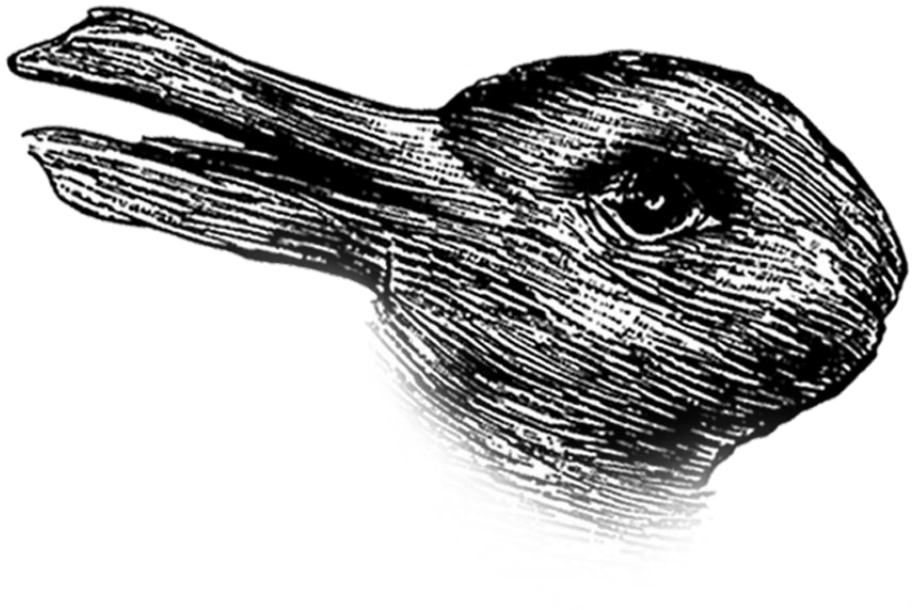


Data Explosion

Exponential Mechanisms in IT



Understanding Data is Important



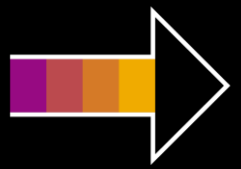
Understanding Data is Important

Understanding Data is Important

Customers Expect Real Time Service

The data challenge with current IT landscapes

Silos, delay, and complexity hinder business agility and innovation



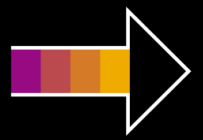
- Partial business view
- No real-time insights
- Limited ability to innovate

Solution: One data platform for all applications

Comprehensive services to make information available to any application

ONE Platform for ALL Applications

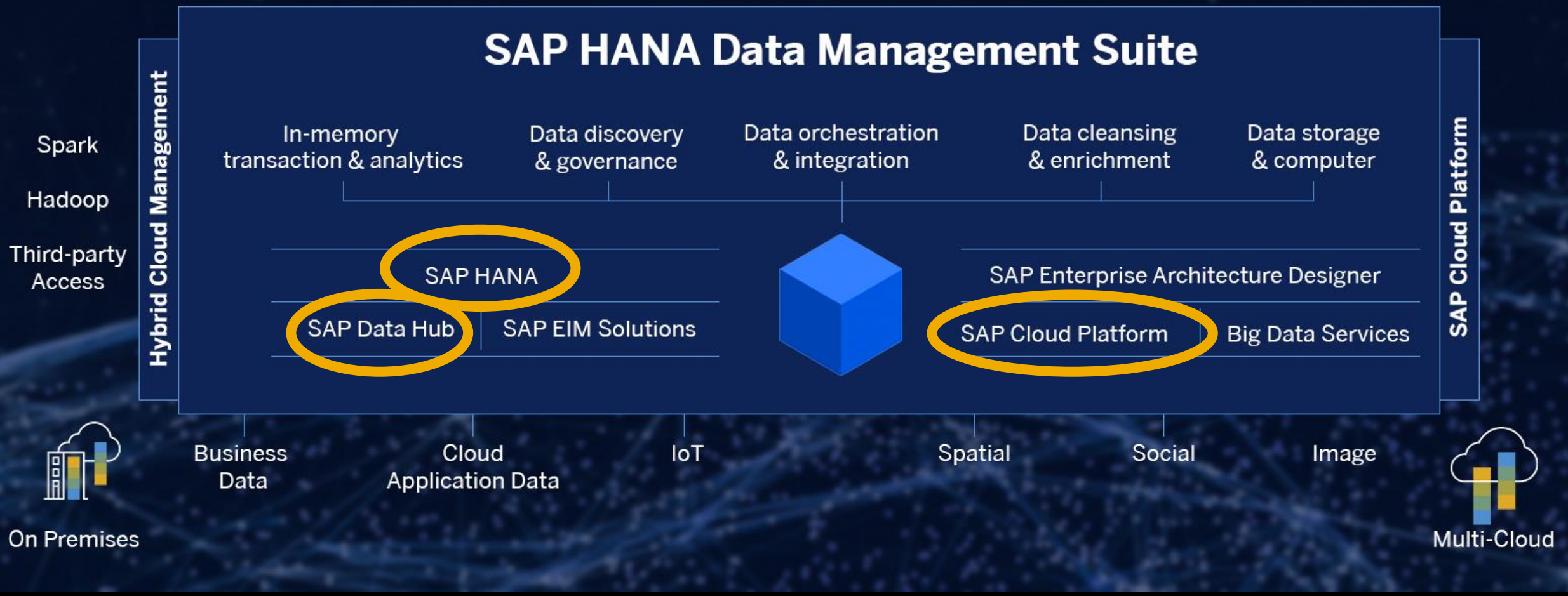
Corporate / Hot Data | Data Lake | Cloud



- **Speed**
- **Simplicity**
- **Innovation**

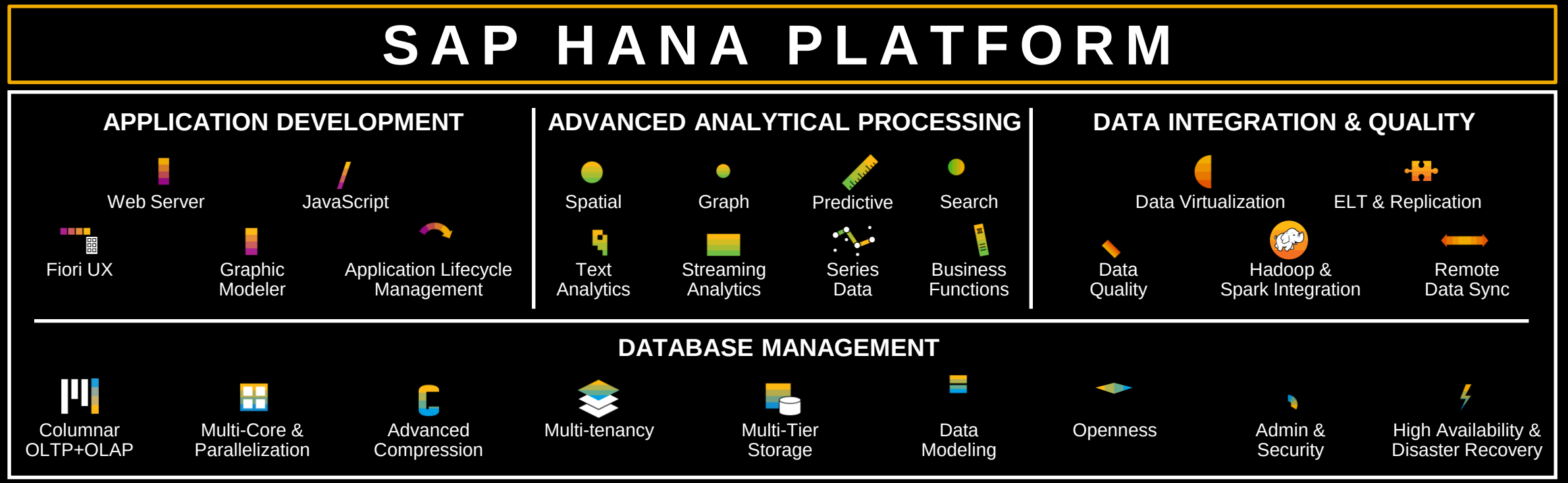
Solution: One data platform for all applications

Comprehensive services to make information available to any application



SAP HANA: The only business data platform for the intelligent enterprise

Comprehensive services to make information available to any application



Severstal JSC

SAP HANA, SAP MaxAttention

Up to **100x faster** reporting
250% improvement in data compression

SAP HANA / Cloud Platform

The Platform for Digital Business

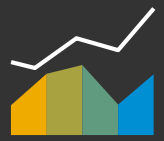
All Devices

SAP, ISV and Custom Applications

SAP Cloud Platform

Data Integration & Quality

Application Development



Advanced Analytical Processing

Machine Learning

Database Management

SAP HANA

ONE Open Platform

OLTP + OLAP

ONE Copy of the Data

Swarovski

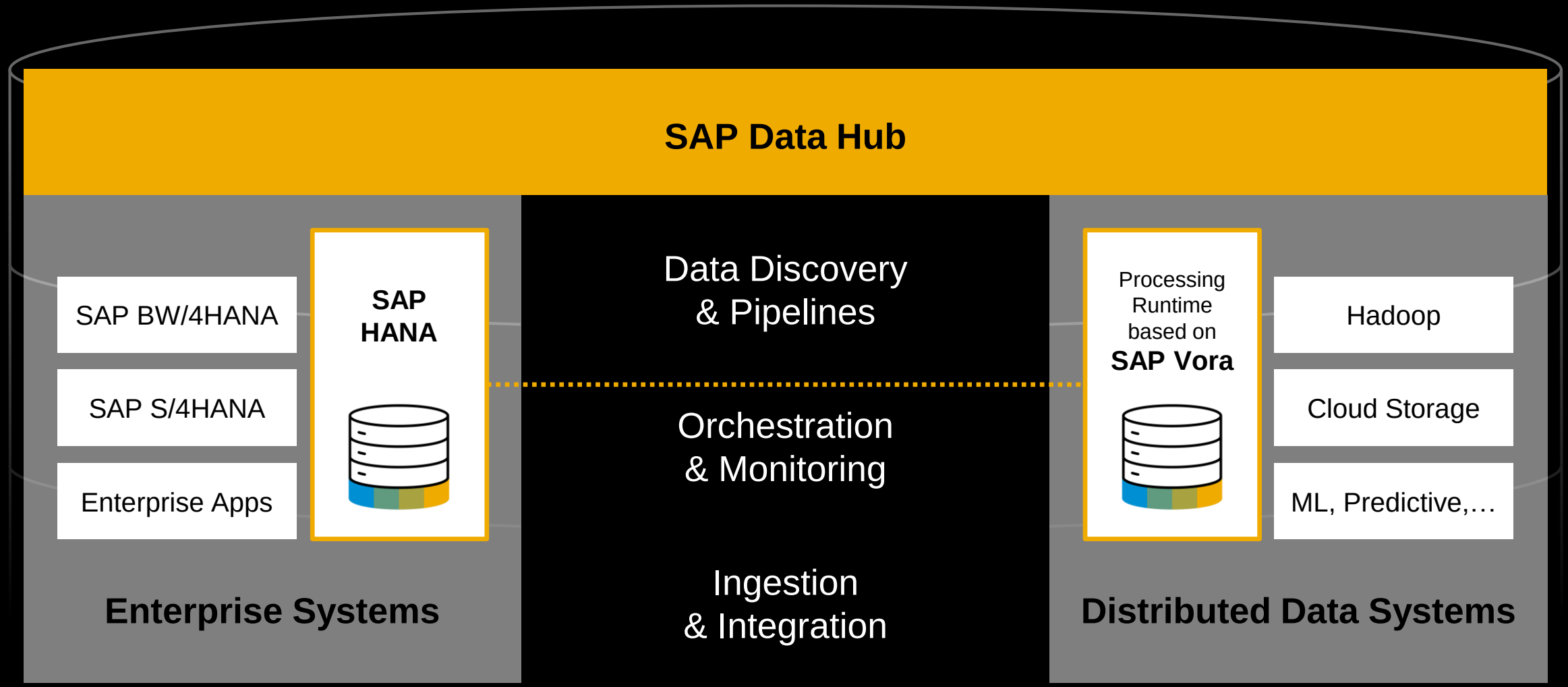
SAP Cloud Platform, ML

Create **one-and-only buying experience** with Swarovski
Added **Machine Learning** for product maintenance

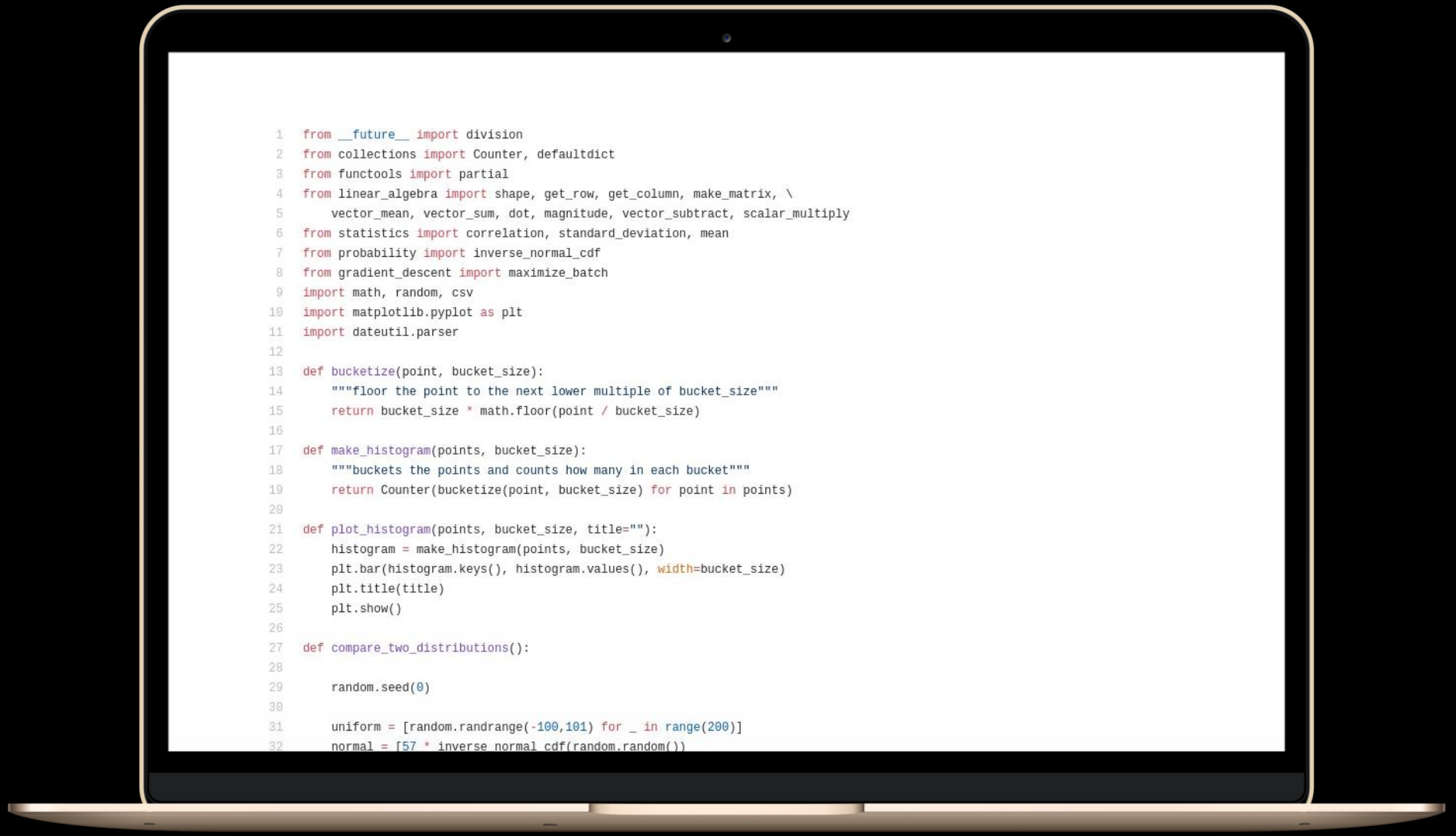
SAP Data Hub

SAP Data Hub

Unifying Data Silos

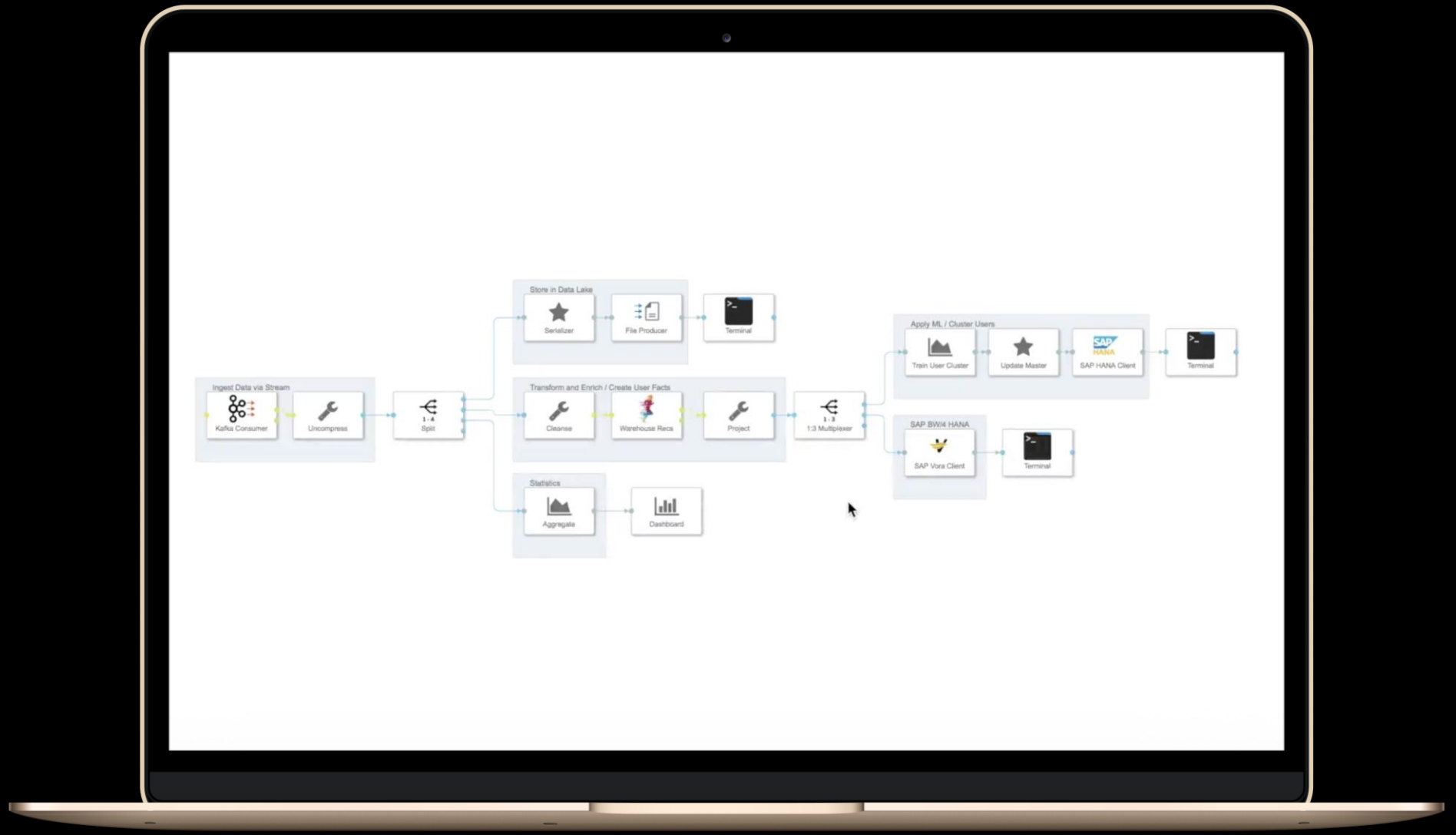


Coding vs. Data Hub



```python
from __future__ import division
from collections import Counter, defaultdict
from functools import partial
from linear_algebra import shape, get_row, get_column, make_matrix, \
    vector_mean, vector_sum, dot, magnitude, vector_subtract, scalar_multiply
from statistics import correlation, standard_deviation, mean
from probability import inverse_normal_cdf
from gradient_descent import maximize_batch
import math, random, csv
import matplotlib.pyplot as plt
import dateutil.parser

def bucketize(point, bucket_size):
    """floor the point to the next lower multiple of bucket_size"""
    return bucket_size * math.floor(point / bucket_size)

def make_histogram(points, bucket_size):
    """buckets the points and counts how many in each bucket"""
    return Counter(bucketize(point, bucket_size) for point in points)

def plot_histogram(points, bucket_size, title=""):
    histogram = make_histogram(points, bucket_size)
    plt.bar(histogram.keys(), histogram.values(), width=bucket_size)
    plt.title(title)
    plt.show()

def compare_two_distributions():

    random.seed(0)

    uniform = [random.randrange(-100,101) for _ in range(200)]
    normal = [57 * inverse_normal_cdf(random.random())
```

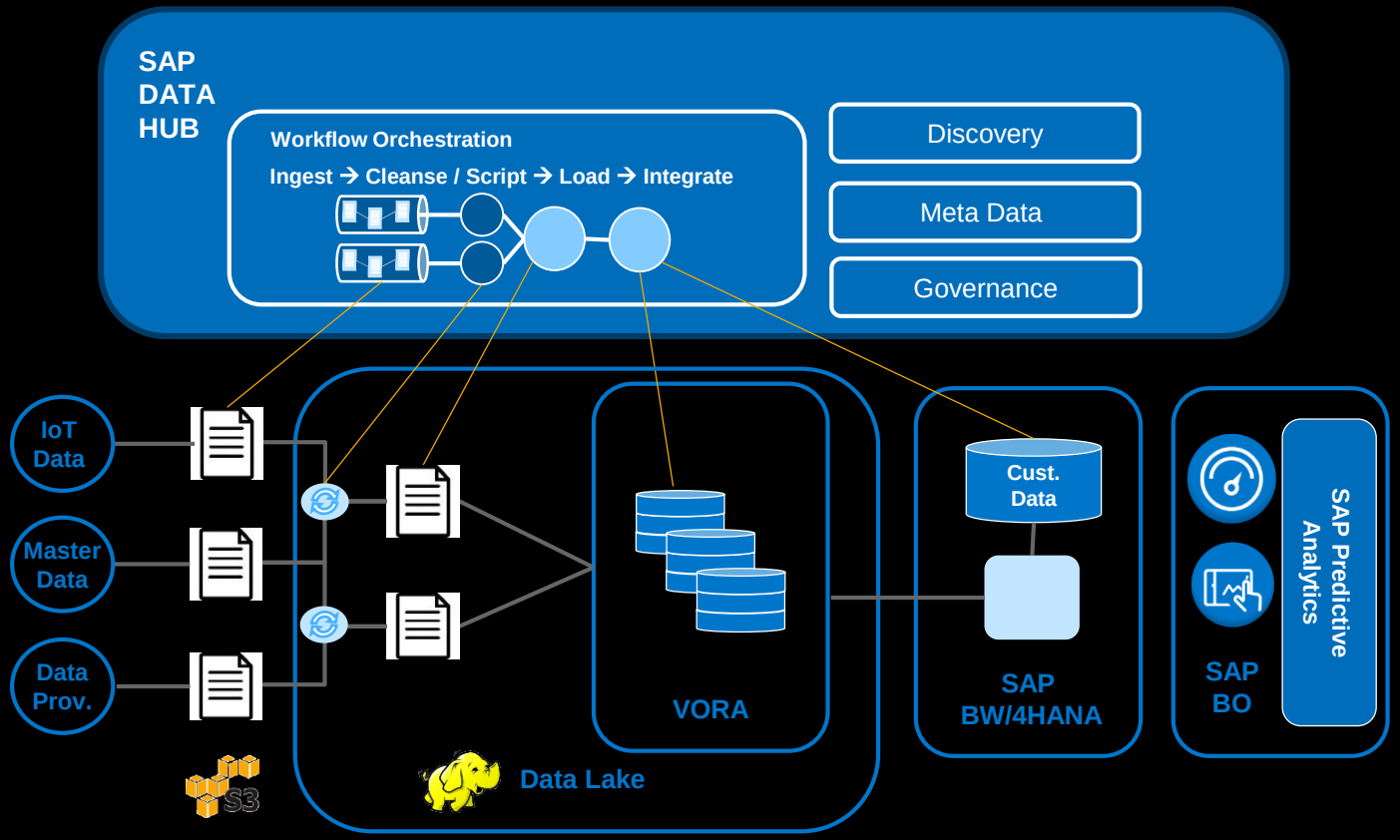
Coding vs. Data Hub



Connecting Machine and Customer Data

SAP Data Hub as Integration Layer for Data Driven Processes

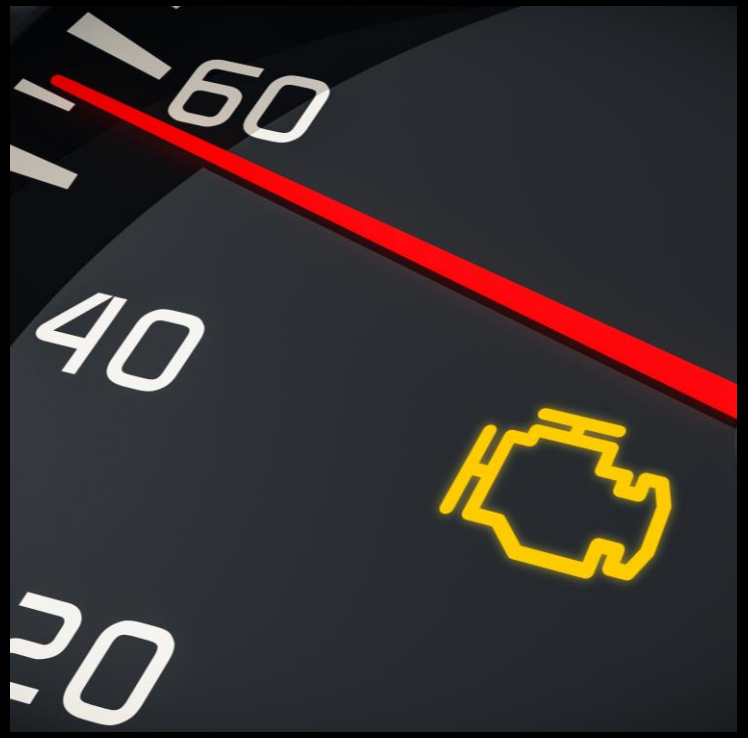
Customer Example: Overcoming silos and complexity



- Machine **data is collected** from smart appliances and pushed into S3
- Files are received in the data lake and data is being **transformed into a common layout**
- **Cleansed line items** are loaded into Vora and further processed in memory
- **Data is joined** in BW with customer data
- The **final data** is consumed by SAP BO
- Additional **advanced analytics** is performed by Data Scientists on top of Vora

Build you Future on Data

My personal Customer Empathy Story




Build the future on the
POWER OF DATA
in your organization!

Thank you.

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