C1: SAP Data Intelligence Platform

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PUBLIC

THE BEST RUN SAP

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https://www.sap.com/germany-emea/optin

DATA

HAS NEVER BEEN MORE
VALUABLE

Take Picture

Age(Days)

6

Mileage(Kilometers)

100000

∧ ⌄   Done

„60"

q w e r t z u i o p ü

a s d f g h j k l ö ä

⇧ y x c v b n m ⌫

123 🌐 🎤 Leerzeichen Return

DATA

DATA DRIVEN
Innovations

The Virtuous Cycle of Innovation

Cloud Platform

Best-in-class business platform to accelerate new business application development, extensions, and integration across cloud, on-premise and edge devices

Data Management

Unified data management to capture real-time value from different types of data

Intelligent Technologies

Enterprise Ready **Intelligent Technologies** to experiment, develop, support and scale ML/AI, IoT and advanced Analytics based solutions in one integrated offering

Reimagined Business Processes

Big and Diverse Data

Applied Intelligence

Generate more high quality data

Provides new level of insights and automation for business processes

Fuels ML/AI, IoT and advanced Analytics solutions

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Fuels ML/AI, IoT and advanced Analytics solutions

Data enabled Innovations

SAP Leonardo Machine Learning

Intelligent Applications

SAP Data Intelligence	Conver-sational AI	Intelligent Process Automation (RPA)

SAP Cloud Platform & SAP HANA

- How SAP ML drives the intelligent enterprise:

  Intelligent Applications
  ML in-built to SAP Applications

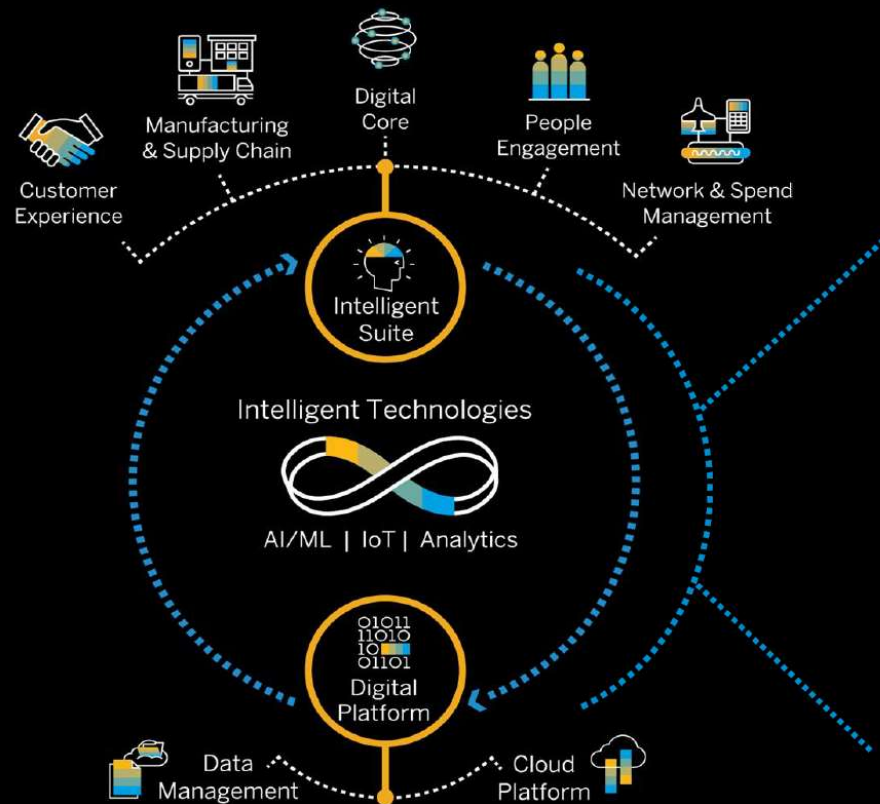 **SAP Data Intelligence**: Enterprise machine learning at scale, in production

  SAP Conversational AI: Interacting with computers using natural human language

  Intelligent Robotic Process Automation: Executing repetitive human tasks

- Key takeaways & Q&A

Insight into the Intelligent Enterprise – Machine Learning

70+ unique machine learning enabled scenarios in SAP by end of year

- automation

- user experience

SAP Leonardo Machine Learning Applications

SAP Leonardo AI Business Services

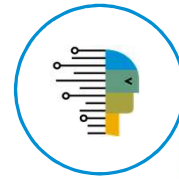**Document Classification**
Classification of unstructured documents

Document Information Extraction
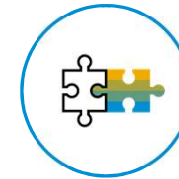Automatically extract information from unstructured documents

Service Ticket Intelligence
Automatic ticket classification and solution recommendation
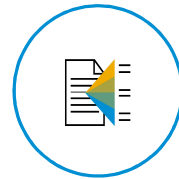
Data Attribute Recommendation
Automates creation, maintenance, and management of structured data

Intelligent Invoice Processing
Planned 19Q4
Recommendation of accounting objects to semi-automate FI invoice processing

Named Entity Recognition
Planned 19Q4
Locate and classify named entity mentions in unstructured text into pre-defined categories
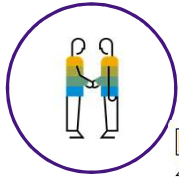
Machine Learning Business Applications (embedded)

GR/IR reconciliation
S/4HANA
Automates exception handling processes for all purchase order items

Learning Recommender and People Like Me
SuccessFactors
Helps employees upskill and grow with personalized recommendations for learning and career

Product Recommender
C/4 Commerce - Planned
Provides meaningful product recommendations and improved search results in web shop scenarios

Intelligent Accruals
S/4HANA - Planned
Propose reliable of accrual amounts

Standalone Applications

Cash Application
Automatically match payments with open receivables and clear payments

Cash Application, add-on for contract accounting
Planned 20Q1
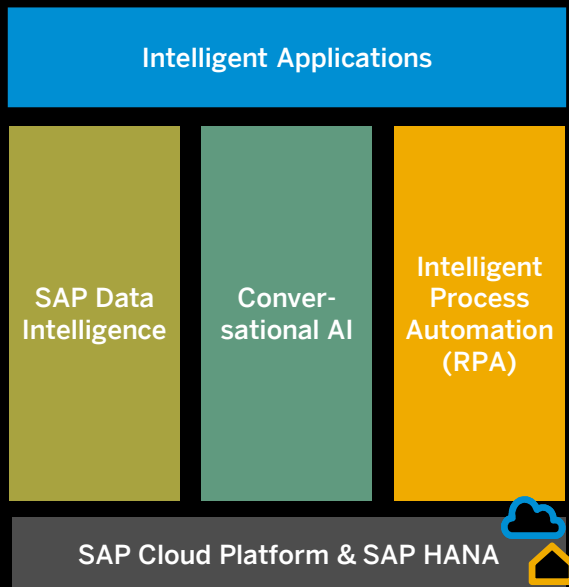Automates clearing of payments with open receivables

Intelligent Insights for Procurement
S/4HANA
Automates and simplifies procurement processes

Data enabled Innovations

SAP Leonardo Machine Learning

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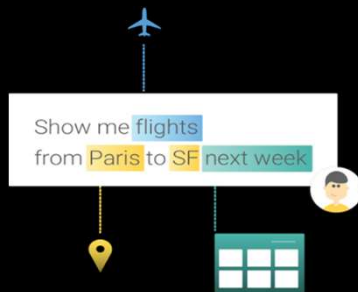
  Intelligent Robotic Process Automation: Executing repetitive human tasks

- Key takeaways & Q&A

SAP Conversational AI provides a powerful, enterprise-grade platform

Accurate NLP

Show me flights from Paris to SF next week

Multilingual:
Any language

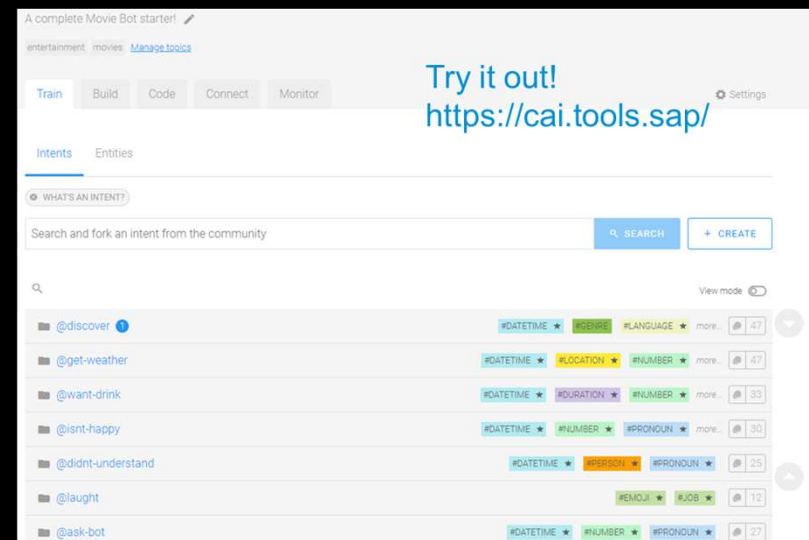**Multi-Channel**

By 2020, 25% of organizations will implement chatbot technology in customer services and 20% plan to abandon their mobile apps.
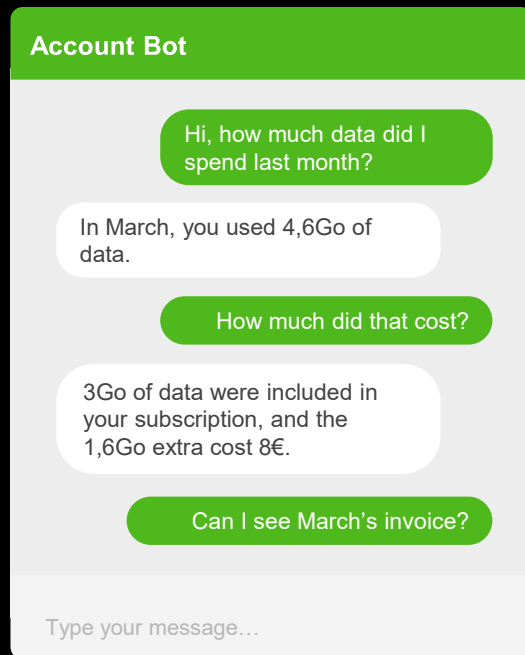- Gartner

End-to-End Collaborative Bot Building Platform
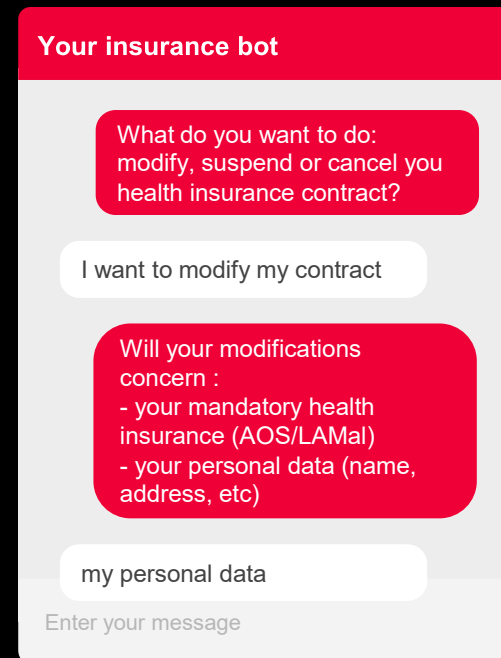### Train | Build | Code | Connect | Monitor

A complete Movie Bot starter!

entertainment: movies   Manage topics

Train   Build   Code   Connect   Monitor

Try it out!
https://cai.tools.sap/

⚙ Settings

Intents   Entities

⚙ WHAT'S AN INTENT?

Search and fork an intent from the community

🔍 SEARCH   + CREATE

🔍   View mode ⬤

📁 @discover ❶   #DATETIME ★ #GENRE #LANGUAGE ★ more.. 📄 47

📁 @get-weather   #DATETIME ★ #LOCATION #NUMBER ★ more.. 📄 47

📁 @want-drink   #DATETIME ★ #DURATION ★ #NUMBER ★ more.. 📄 33

📁 @isnt-happy   #DATETIME ★ #NUMBER ★ #PRONOUN ★ more.. 📄 30

📁 @didnt-understand   #DATETIME ★ #PERSON ★ #PRONOUN ★ 📄 25

📁 @laught   #EMOJI ★ #JOB ★ 📄 12

📁 @ask-bot   #DATETIME ★ #NUMBER ★ #PRONOUN ★ 📄 27

SAP Conversational AI
Example implementations in mission-critical processes

Account Bot

> Hi, how much data did I spend last month?

> In March, you used 4,6Go of data.

> How much did that cost?

> 3Go of data were included in your subscription, and the 1,6Go extra cost 8€.

> Can I see March's invoice?

Type your message…

SAP CAI manages 22% of all customer requests for topics like invoices and PIN resets for one of the largest telecom providers.
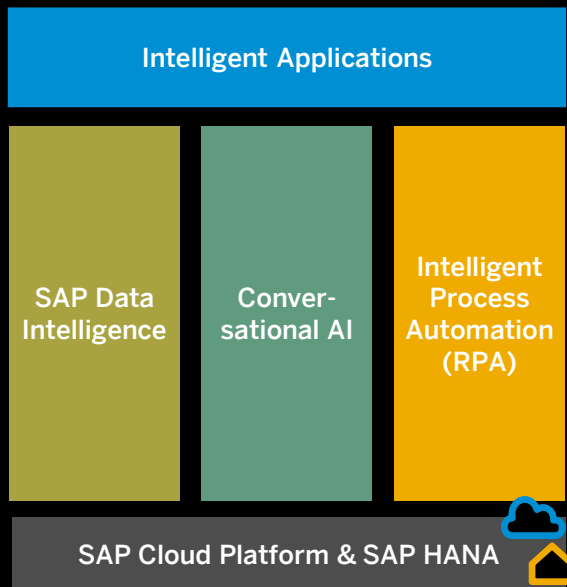
Your insurance bot

> What do you want to do: modify, suspend or cancel you health insurance contract?

> I want to modify my contract

> Will your modifications concern :
> - your mandatory health insurance (AOS/LAMal)
> - your personal data (name, address, etc)

> my personal data

Enter your message

A Swiss insurance company allows customers to modify contracts via the bot, so the service team avoids adding staff during peak periods.

Groupe Mutuel
Assurances
Versicherungen
Assicurazioni

Data enabled Innovations

SAP Leonardo Machine Learning

Intelligent Applications

SAP Data Intelligence	Conver-sational AI	Intelligent Process Automation (RPA)

SAP Cloud Platform & SAP HANA

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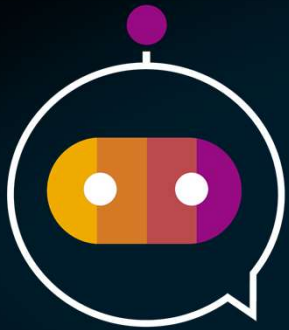 **SAP Data Intelligence**: Enterprise machine learning at scale, in production

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- Key takeaways & Q&A

What is **SAP Intelligent RPA**?

Robotic Process Automation (RPA) accelerates digital transformation of business processes by automatically replicating tedious actions that have no added value.

Attended

Partially automated process, where robots are co-working with humans, also called **Robotic Desktop Automation (RDA)**

Unattended

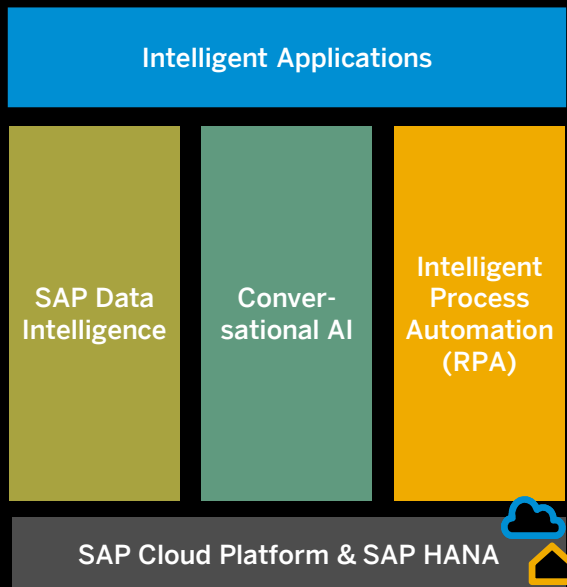Fully automated process, where robots are working autonomously with human supervision only

SAP Intelligent Robotic Process Automation

Unified cloud solution including on-premise automation tools
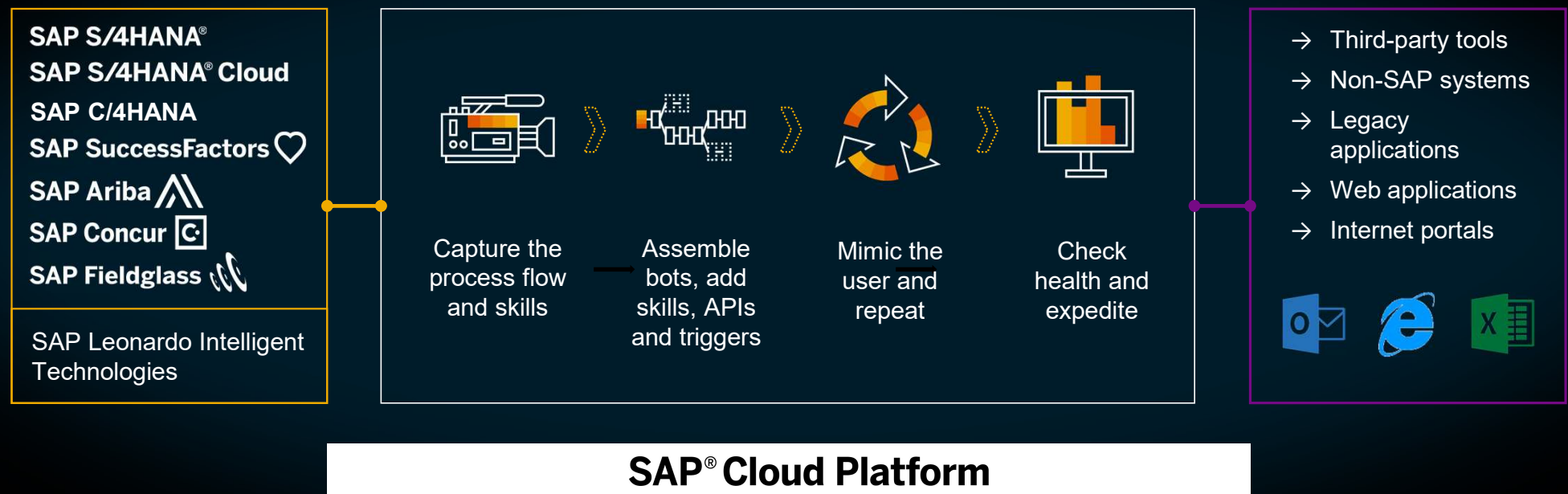
SAP S/4HANA®
SAP S/4HANA® Cloud
SAP C/4HANA
SAP SuccessFactors ♡
SAP Ariba 𝄃𝄃
SAP Concur C·
SAP Fieldglass ⸜⸝

SAP Leonardo Intelligent Technologies

Capture the process flow and skills — Assemble bots, add skills, APIs and triggers — Mimic the user and repeat — Check health and expedite

→ Third-party tools
→ Non-SAP systems
→ Legacy applications
→ Web applications
→ Internet portals

SAP® Cloud Platform

Data enabled Innovations

SAP Leonardo Machine Learning

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- Key takeaways & Q&A

Enterprises are struggling with complexity

74% say their data landscape is so complex
that it limits agility

Data sprawl led to tool sprawl, causing siloed data and limited visibility
to global data assets

Data deluge: Distributed landscapes, diverse data, manual siloed operations

Manual, single step systems and processes for moving data are **unable to deliver actionable information instantly and automatically**.

Data cataloging

ETL

Speech recognition

Cloud Datastores

Data masking

Applications

Video processing

Data Warehouses

Data ingestion

Event Stream processing

Data cleansing

Data replication

Data quality

Streaming analytics

Databases

ELT

Geospatial processing

Graph processing

Data profiling

Time series

Image processing

Text analytics

Meta Data management

Data Marts

Machine learning

Third-Party Data

Customer Experience

Manufacturing & Supply Chain

Digital Core

People Engagement

Network & Spend Management

SAP Data Management
The Road to an Intelligent Enterprise

Data Lakes

Big Data Explosion

Traditional Data Warehouse

Growth in Cloud Technology

Cloud Databases

'Big Data Warehouse'

Comprehensive Data Management

Advanced Analytics

Development Agility

Building Data Driven Applications with Intelligence

On-premise & public cloud

- Discover, refine, govern, orchestrate any type, variety, and volume of data across your distributed data landscape
- Focuses on complex data orchestration & pipelining

Cloud Service on SAP Cloud Platform

- Includes all SAP Data Hub functionality
- Additional capabilities by GA
    - Jupyter Notebook integration
    - Scenario manager to manage and deploy ML models
    - Operations cockpit – manage and monitor execution

Today

SAP Data Hub

SAP Data Intelligence

Intelligent Applications

Feature Parity between SAP Data Hub OP & SAP Data Intelligence cloud

- Product update frequency
    - Cloud updates once a quarter
    - OP updates twice a year

Tomorrow

Technical Overview

Building blocks

SAP Data Hub

SAP ERP	SAP HANA
SAP S/4HANA	
SAP BW/4HANA	

Data Discovery and Metadata Governance

Orchestration & Data Pipeline

Connectivity, Integration, Ingestion

Data Hub Runtime

Hadoop

Cloud Storage

Machine Learning

Existing Systems

Distributed Data Systems

Holistic data landscape

Flow-based data processing

Enterprise and 3rd party connectivity
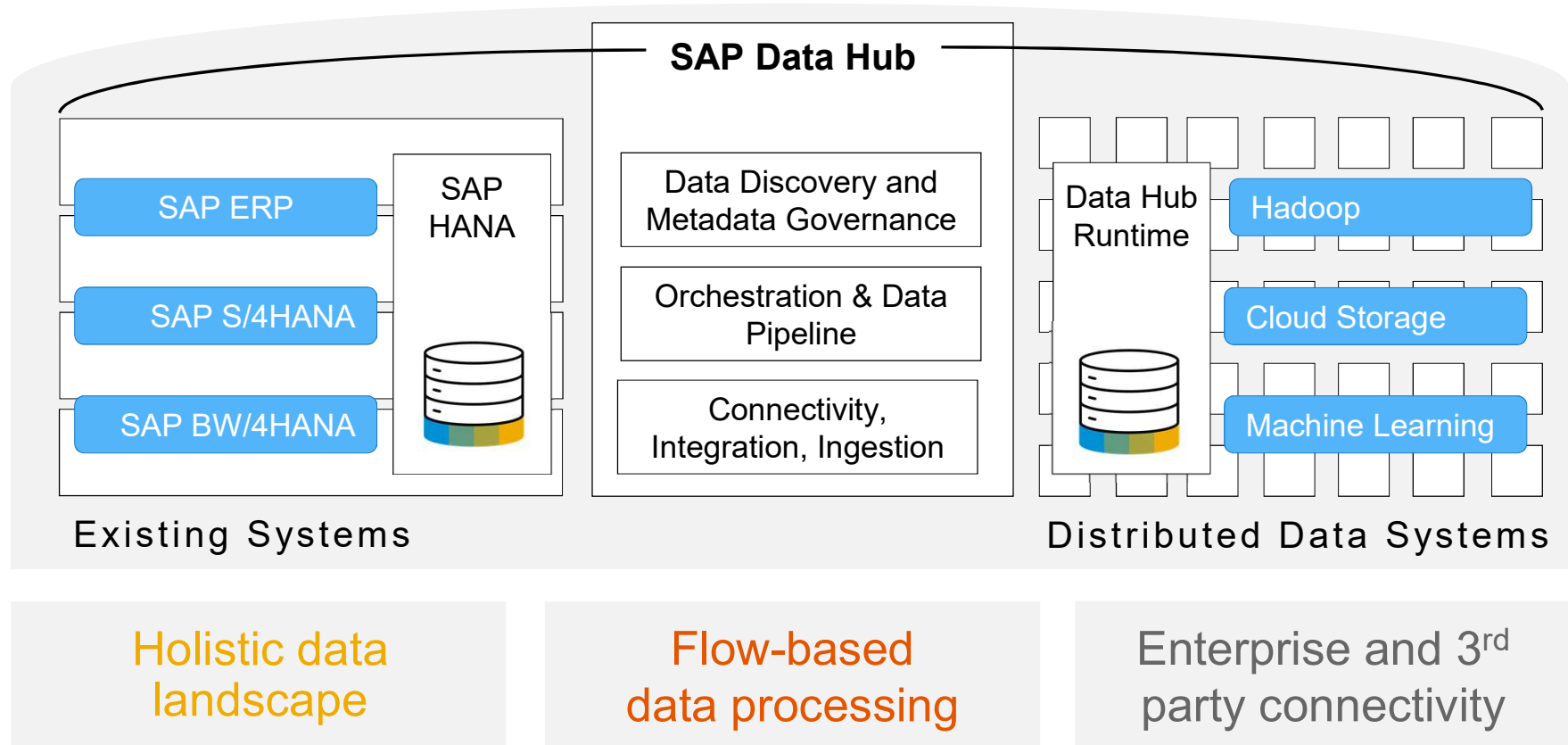
Predictive quality in manufacturing plant

The business objective: improving Quality Management process

Big and Diverse Data
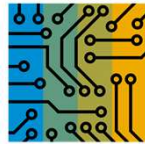
Applied Intelligence
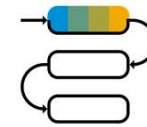
Reimagined Business Processes
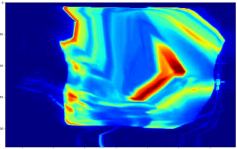
IR images of components

Pressure sensor measures

Material Master
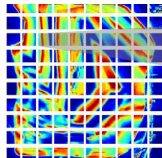
ML-based extraction of image features
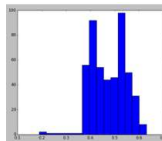
Predictive Analytics

Smart Quality App
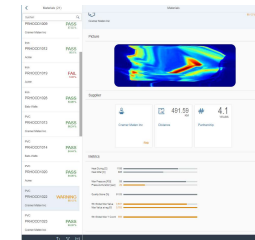
Use SAP Data Hub to reimagine your business processes using …
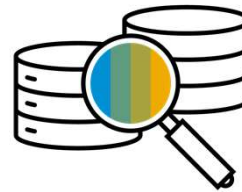
Business Application Transformation

Streamline innovation initiatives around Business Applications, supporting enterprise transformation programs

IoT Ingestion and Orchestration

Transform IoT event streams into enterprise-ready data, and derive actionable insights

Data Warehousing

Build a multifaceted data warehouse, across diverse and distributed data assets

Data Science and Machine Learning

Streamline data science and machine learning, from modeling and development to operations, across all enterprise data assets

Metadata Catalog and Governance

Automate metadata discovery, understand data sources, prepare and govern according to data standards, privacy, and security

Building Data Driven Applications with Intelligence
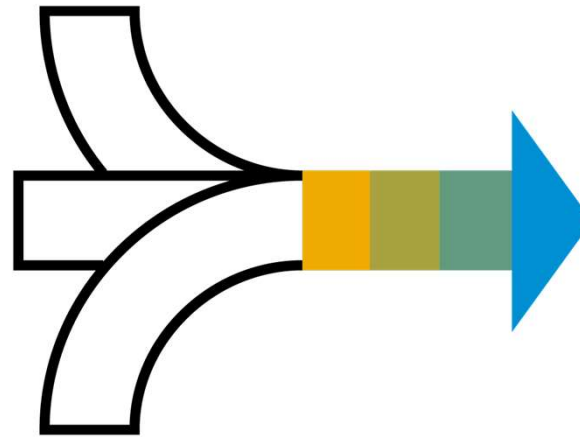
On-premise & public cloud

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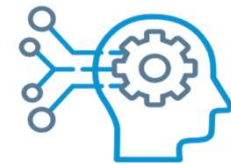**Cloud Service on SAP Cloud Platform**

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SAP Data Hub

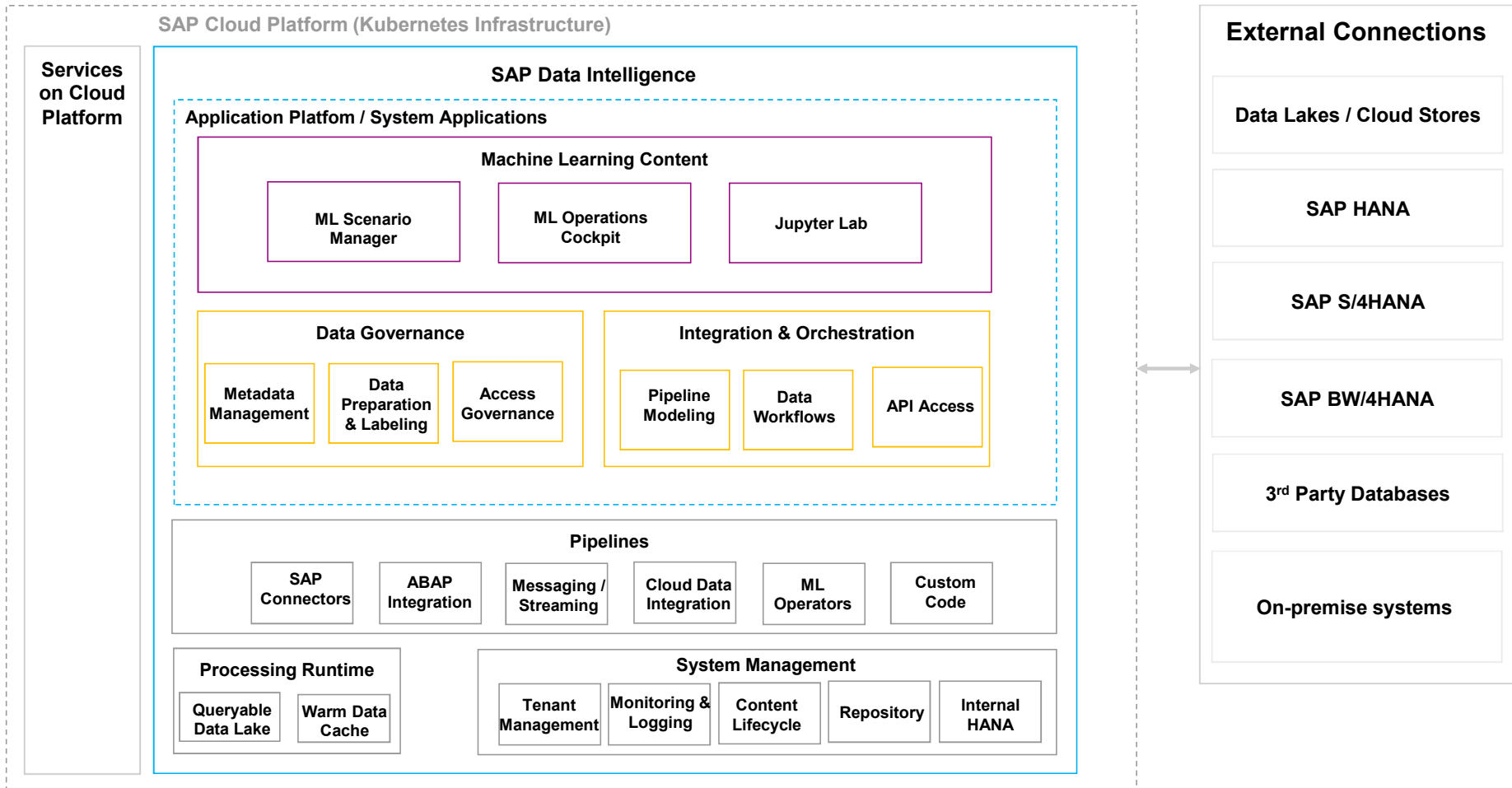## SAP Data Intelligence

Intelligent Applications

Feature Parity between SAP Data Hub OP & SAP Data Intelligence cloud

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Tomorrow

SAP Data Intelligence
Architecture View

SAP Cloud Platform (Kubernetes Infrastructure)

Services on Cloud Platform

SAP Data Intelligence

Application Platfom / System Applications

Machine Learning Content

| ML Scenario Manager | ML Operations Cockpit | Jupyter Lab |

Data Governance

| Metadata Management | Data Preparation & Labeling | Access Governance |

Integration & Orchestration

| Pipeline Modeling | Data Workflows | API Access |

Pipelines

| SAP Connectors | ABAP Integration | Messaging / Streaming | Cloud Data Integration | ML Operators | Custom Code |

Processing Runtime

| Queryable Data Lake | Warm Data Cache |

System Management

| Tenant Management | Monitoring & Logging | Content Lifecycle | Repository | Internal HANA |

External Connections

Data Lakes / Cloud Stores

SAP HANA

SAP S/4HANA

SAP BW/4HANA

3rd Party Databases

On-premise systems

Creating customer specific Innovation - Generic with SAP Data Intelligence

Create powerful data pipelines to **leverage** your data projects and to **orchestrate** the data processing

Harness the advanced machine learning content to **accelerate** and **scale** and **automate** your Data Science projects

Manage metadata across a diverse data landscape and **create** a metadata repository

SAP Data Intelligence is a **comprehensive solution to deliver data-driven innovation and intelligence across the enterprise**, unifying scalable enterprise AI and intelligent information management.

Access & connect data

Govern & discover data

Prepare & label data

Build scalable & flexible data pipelines

Deploy & integrate intelligent applications

Monitor & orchestrate the lifecycle

And now what … ?

HANA Express ([here](#))
Data Hub Developer Edition ([here](#))
Vora GitHub Code Snipets ([here](#))
HANA Academy on [YouTube](#)
Open SAP Course ([here](#))

Self Learning

Workshop

SAP Tech Academy

Vielen Dank!!

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E. m.probst@sap.com

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