

Legal disclaimer

The information in this presentation is confidential and proprietary to SAP and may not be disclosed without the permission of SAP. This presentation is not subject to your license agreement or any other service or subscription agreement with SAP. SAP has no obligation to pursue any course of business outlined in this document or any related presentation, or to develop or release any functionality mentioned therein. This document, or any related presentation, and SAP's strategy and possible future developments, products, and platforms, directions, and functionality are all subject to change and may be changed by SAP at any time for any reason without notice. The information in this document is not a commitment, promise, or legal obligation to deliver any material, code, or functionality. This document is provided without a warranty of any kind, either express or implied, including but not limited to the implied warranties of merchantability, fitness for a particular purpose, or noninfringement. This document is for informational purposes and may not be incorporated into a contract. SAP assumes no responsibility for errors or omissions in this document, except if such damages were caused by SAP's willful misconduct or gross negligence.

All forward-looking statements are subject to various risks and uncertainties that could cause actual results to differ materially from expectations. Readers are cautioned not to place undue reliance on these forward-looking statements, which speak only as of their dates, and they should not be relied upon in making purchasing decisions.

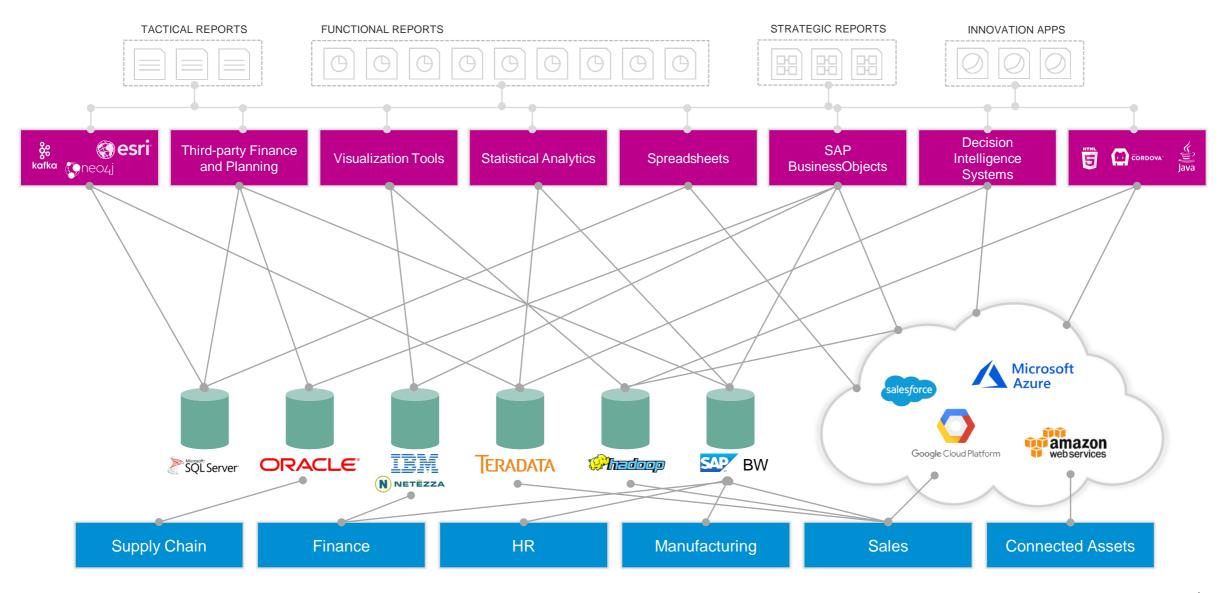
What problem are we addressing?

Businesses need to provide all users with the right information in context at the right moment for the task at hand

Businesses need to harness the power of all their data — business and new data types — and to anticipate and influence business outcomes

Business users need to have all the data relevant to their decision and they need to trust the security and accuracy of their data

Today: Data sprawl, impossible to govern, security complexity



Business situation and implications

Most enterprises now have data in 6-8 clouds

Data has become less accessible due to the proliferation of cloud based solutions and business unit build applications further fragmenting the data landscape

Company's understanding of their customers, suppliers, products has been in decline, caused by data being inaccessible

Substantial legal risks due to lack of governance, e.g. GDPR

Difficulty of operationalizing data science use in everyday business processes

Business situation and implications

Most enterprises now have data in 6-8 clouds

Data has become less accessible due to the proliferation of cloud based solutions and business unit build applications further fragmenting the data landscape

Company's understanding of their customers, suppliers, products has been in decline, caused by data being inaccessible

Substantial legal risks due to lack of governance, e.g. GDPR

Difficulty of operationalizing data science use in everyday business processes

More trusted data

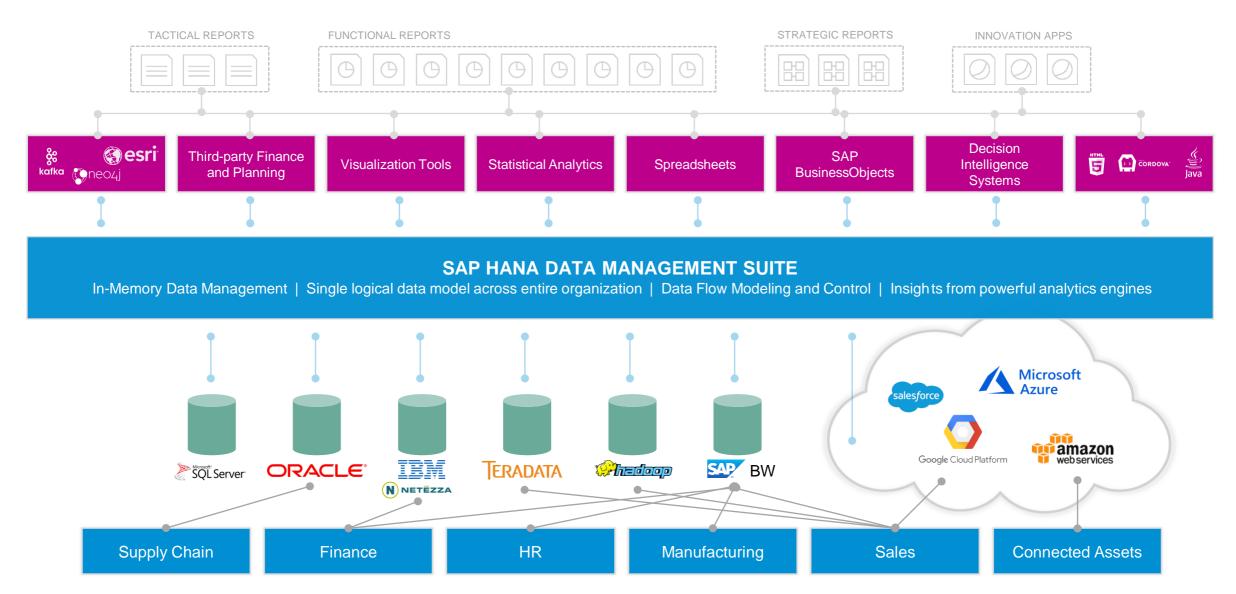
More connected, intelligent data

More cloud and architecture flexibility

Vision

SAP HANA Data Management Suite enables secure, governed enterprise class applications and analytics by providing an open, hybrid, and multicloud enabled solution suite that orchestrates all the data you need into a trusted, unified landscape. We do this by reducing complexity with the SAP HANA Data Management Suite.

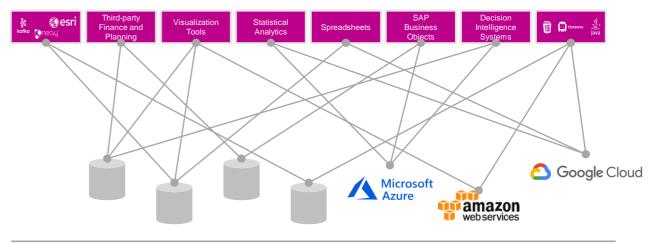
Vision: Common data model, all data used by everyone, simple

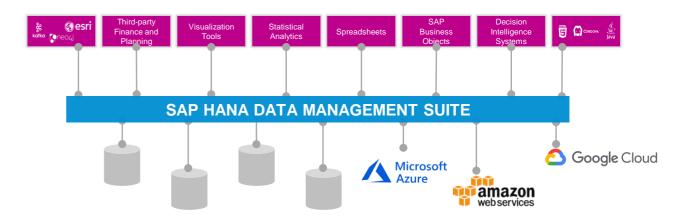


What does SAP HANA Data Management Suite mean for customers?

Capabilities	Before	After	
Business Understanding ¹	Weak	Comprehensive	
Business modeling	Limited	Comprehensive (business & technical)	
Central meta data understanding	Limited	Comprehensive	
Self Service	Limited	Open	
Security	Weak	Enterprise grade	
Governance	Limited	Comprehensive	
Lineage & traceability	Limited	Limited Comprehensive	
Central monitoring	Limited	Comprehensive	
Advanced use cases (e.g. Machine Learning)	Inhibited	Possible	
Latency	Batch	Real-time	

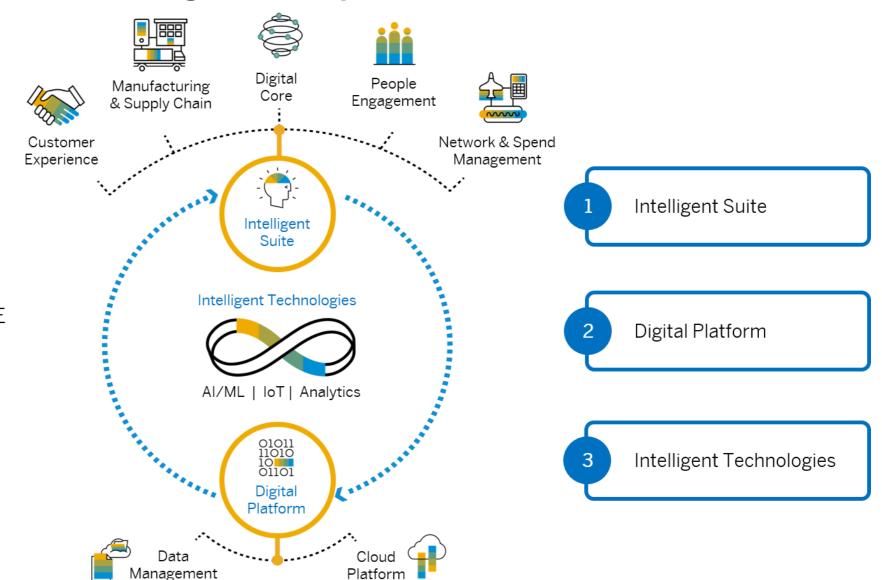
Current customer situation





SAP HANA Data Management Suite

SAP Strategy – Deliver the Intelligent Enterprise



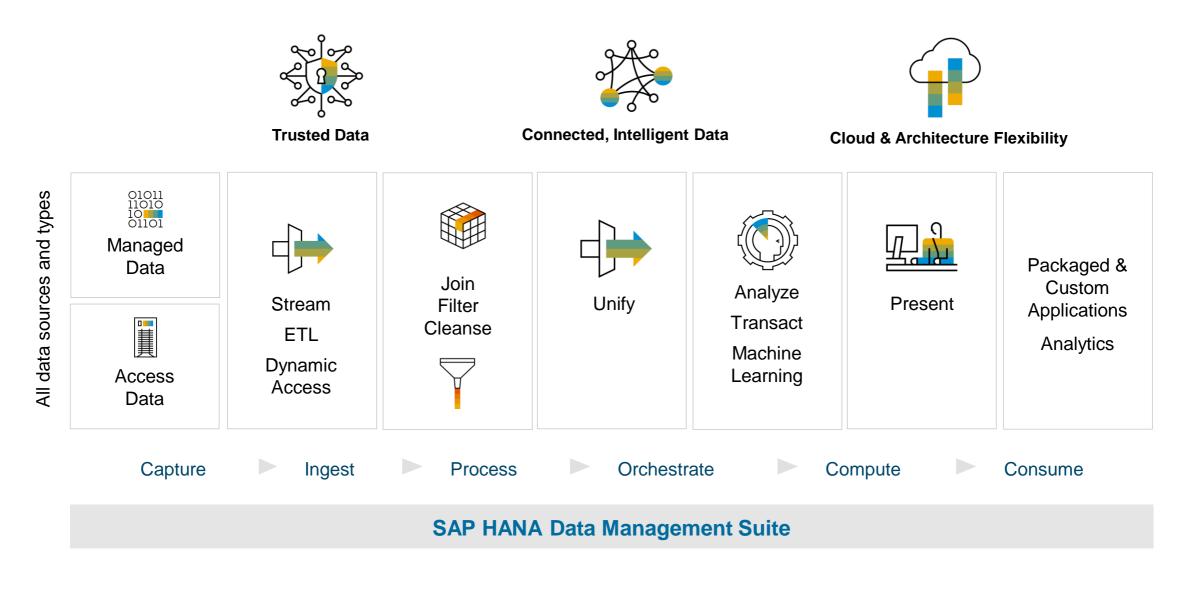
THE INTELLIGENT ENTERPRISE features 3 KEY COMPONENTS:

SAP HANA Data Management Suite

Trusted Data | Connected, Intelligent Data | Cloud Architecture Flexibility

SAP Intelligent Enterprise Suite SAP Leonardo and SAP Analytics Cloud **Third-Party Applications SAP HANA Data Management Suite** SAP Add-On API **Third-Party Services & Products** Hybrid Cloud Management **Services & Products** Data orchestration Data cleansing & In-memory Data discovery & Data storage & SAP HANA Cloud Platform transaction & analytics & integration enrichment governance Spark compute Spatial services Hadoop SAP HANA Blockchain service Third-party **Databases** SAP HANA **SAP Enterprise SAP HANA** SAP **Streaming Analytics Architecture Designer** Third-party Data Management Other SAP Cloud **SAP Data Hub SAP Big Data Services** Platform and SAP Leonardo Services SAP EIM Solutions Cloud **Business** IoT Spatial Social **Image Application Data** Data Multi-Cloud On Premises Hybrid

The decision factory for the intelligent enterprise



SAP HANA Data Management Suite

Common capabilities today and tomorrow

Today



Development platform for applications that need analytics on real-time transactions



Data governance, anonymization, and pipeline flow to protect and refine data across the landscape

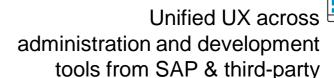


Modelling across business, data, and technology



In-memory multi-model analytics and data processing on a distributed computing framework







Future

Common metadata catalog, business models, and comprehensive data governance."



Seamless Cloud Service



On Premise | Hybrid



Multi-cloud

Applied AI to automate data operations and pre-defined business application scenarios



SAP HANA Data Management Suite





Data you can rely on for your business decisions



Connected, Intelligent Data

Single, unified view enabling advanced applications and data management



Cloud and Architecture Flexibility

Cloud freedom for data systems, applications, and system development

Trusted data

Data you can rely on for your business decisions

Discover

- Discover and document where data & content resides
- Discover and document how your data moves throughout your organization
- Identify and document what data & content is subject to which internal policies and external regulatory requirements

Enrich

- Cleanse, match, consolidate and enrich data
- Continually monitor and measure data quality
- Manage and synchronize master data across applications

Improve

- Manage content lifecycle
- Implement access controls, anonymization, and encryption
- Embed validation checks into business process and data entry workflow
- Implement archiving, retention and deletion policies and rules

Connected, intelligent data

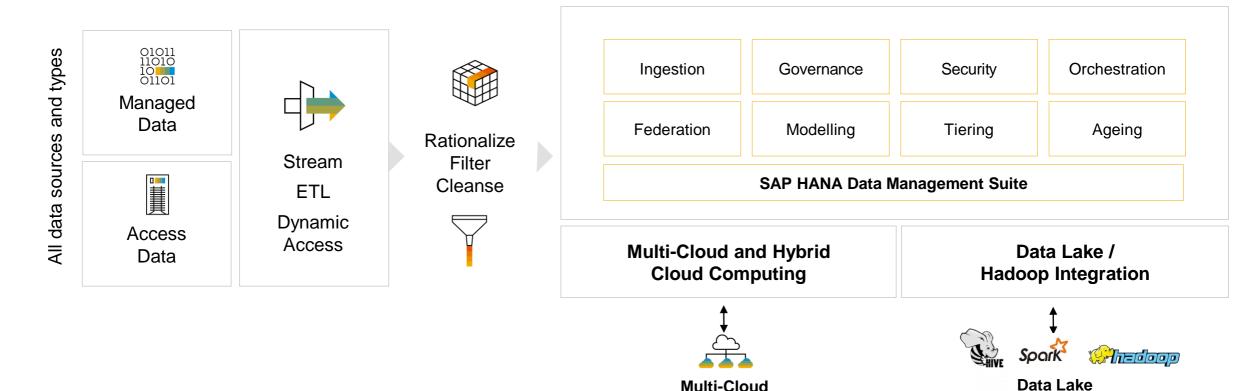
A single, unified view enabling advanced analytics

Query data wherever it resides

Ingest data from various data sources with smart data integration

Capture relevant events with smart data streaming

Ensure accurate data with data quality



Connected, intelligent data

Multi-model analytics and machine learning



Structured Data

Unified data model and SQL language across all data types



Spatial

Combine business data with geographical data



Graph

Build and analyze relationships in data on the fly



Text & Search

Full-text search, navigation, and access to structured and unstructured data



Predictive



Proactive and intelligent decisions

Machine Learning



Train machine learning models to classify images via Google Tensorflow*

Streaming



Real-time analysis of data streams

Time Series Data

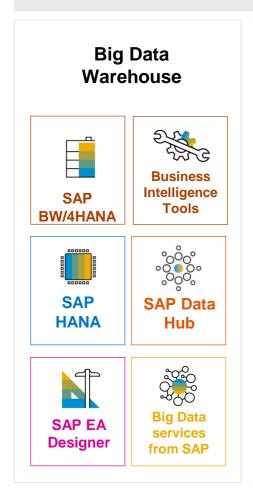


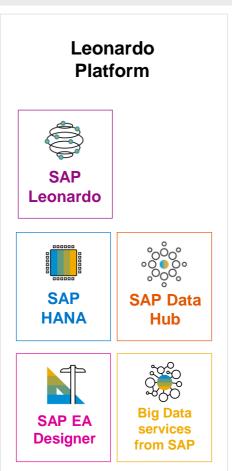
Capture and analyze a sequence of successive data points

Cloud and architecture flexibility

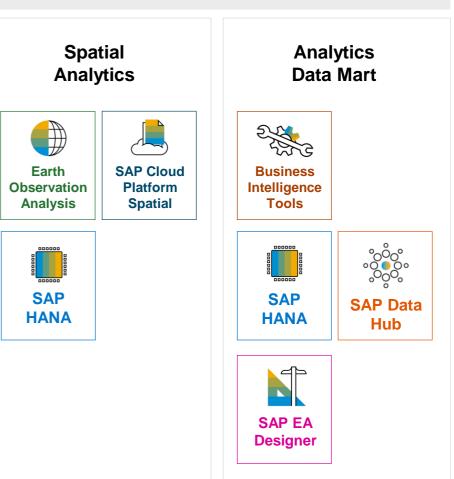
Cloud freedom for data systems, applications, and system development

Multiple Patterns from One Architecture





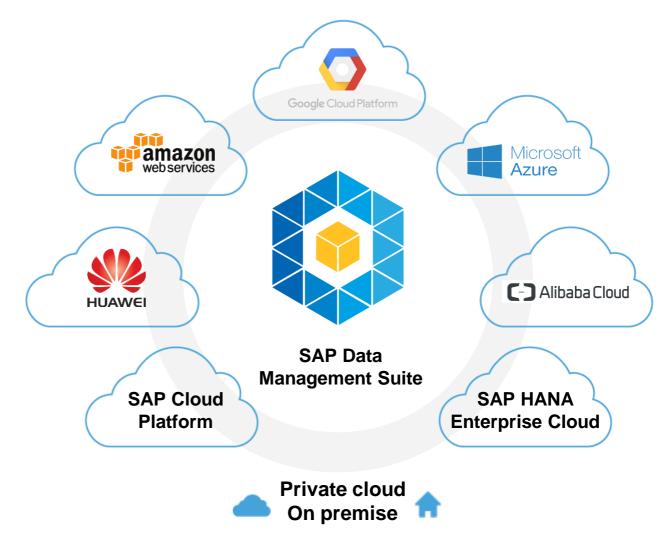




Cloud and architecture flexibility

Freedom for data systems, applications, and system development

Provides freedom of movement and synchronization of data, instances and queries spanning local, private and multi-public clouds



Industry Recognition for SAP HANA Data Management Solutions

Gartner.

Recognized as a Leader

- Gartner Magic Quadrant for Operational Database Management Systems, November 2017 *
- Gartner Magic Quadrant for Data Integration Tools, August 2017 *
- Gartner Magic Quadrant for Data Quality Tools, October 2017 *
- Gartner Magic Quadrant for Data Management Solutions for Analytics, February 2018 *

FORRESTER®

Recognized as a Leader

- The Forrester Wave™: Translytical Data Platforms, Q4 2017
- The Forrester Wave™: Enterprise Data Virtualization, Q4 2017
- The Forrester Wave™: Streaming Analytics, Q3 2017
- The Forrester Wave™: Big Data Warehouse, Q2 2017
- The Forrester Wave™: In-Memory Databases, Q1 2017
- The Forrester Wave™: Predictive Analytics and Machine Learning Solutions, Q1 2017

^{*}The Gartner documents are available upon request from SAP. Gartner does not endorse any vendor, product or service depicted in its research publications, and does not advise technology users to select only those vendors with the highest ratings or other designation. Gartner research publications consist of the opinions of Gartner's research organization and should not be construed as statements of fact. Gartner disclaims all warranties, expressed or implied, with respect to this research, including any warranties of merchantability or fitness for a particular purpose. GARTNER is a registered trademark and service mark of Gartner, Inc. and/or its affiliates in the U.S. and internationally, and is used herein with permission. All rights reserved.

[&]quot;The Forrester Wave™ is copyrighted by Forrester Research, Inc. Forrester and Forrester Wave™ are trademarks of Forrester Research, Inc. The Forrester Wave™ is a graphical representation of Forrester's call on a market and is plotted using a detailed spreadsheet with exposed scores, weightings, and comments. Forrester does not endorse any vendor, product, or service depicted in the Forrester Wave. Information is based on best available resources. Opinions reflect judgment at the time and are subject to change."

Getting started with SAP HANA Data Management Suite

SAP HANA Data Management Suite enables secure, governed enterprise class applications and analytics by providing an open, frictionless cloud solution suite that orchestrates all the data you need into a trusted, unified landscape

- Open and flexible data system for the multi and hybrid cloud
- Federated governance, security, lineage and discovery



Data Framework

Big Data, IOT, EDW, and analytic systems supporting SAP Leonardo, our digital innovation system



Data Insight

An in-memory analytic database for highly agile advanced analytics and innovative application development



Data Governance

Data compliance strategies, process optimization, data governance, lineage, and quality

Data framework

Where to start?





Big Data Warehouse

Combine refined Big Data with enterprise data, into a trusted, unified landscape for advanced, real-time analytics

ExxonMobil | NTTDocomo | Swisscom | Shell | Rabobank | CISCO | VMware | SouthernCaliforniaEdison



For Leonardo Projects

Support all IoT & ML projects, combining refined Big Data, streaming data with enterprise data spanning ingestion to consumption

City of Cape Town | Centerpoint Energy | Piaggio | Trenitalia | ARI | Hamburg Port Authority | City of Buenos Aires | Alliander



For S/4 HANA Projects

An S/4HANA project impacts all other data management projects such as reporting, analytics, MDG, EIM, governance, Big Data and innovation projects. Simplify with HDMS

Tesoro | Mexichem | Telkom | ZF | Boeing | DEWA | Samruk | AZ

Data Insight

Where to start?



Д_	
	ΙНП
	шШ

Industry Solutions

Innovative industry specific innovation use cases

Vodafone | AMEC | HSE24 | Burberry | Bank Hapoalim | Paypal



Analytics Data Mart

Deliver analytic solutions much faster than alternative approaches

Indiana | Adobe | Dell | Reuters | Loblaw | iControl



Spatial

SAP HANA combined with ArcGIS will transform the way you look at your data with geospatial capabilities

MunichRe | CapeTown | Alliander | Nanjing | NSW Fire&Rescue



Modernization

Compute cycles on the MF are expensive, and data can be offloaded to HANA for advanced analytics

Citco | UZLeuven | Sony Communications

Data governance and optimization

Where to start?



Data Hub	Enable agile data operations across the enterprise	B/S/H RedBull
Information and Process Excellence	Trusted, governed data and efficient business processes	ACEA Vodafone LanXess Norwegian Cruise Line Zurich Insurance
Compliance & Data Protection	Tagging, profiling, movement, and accuracy of personal data across landscapes	Graphic Packaging CONA MAN Vodafone Akbank
Digital Content Transformation	Manage the unstructured content lifecycle within the context of business processes	Citco UZLeuven Sony Communications
Agile IT Operations	Standardize and automate IT operations across the entire infrastructure	SRP YPTO

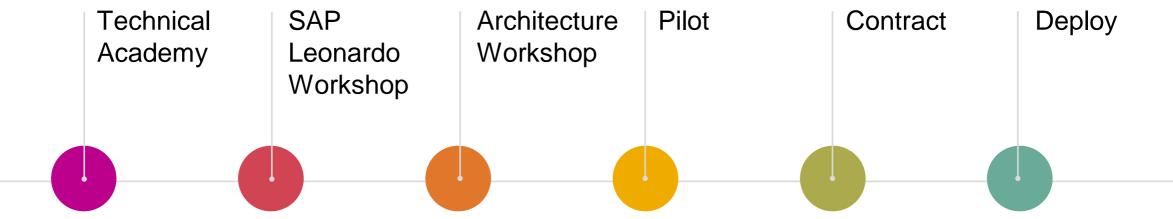
Summary

SAP HANA Data Management Suite enables secure, governed enterprise class applications and analytics by providing an open, hybrid, and multicloud enabled solution suite that orchestrates all the data you need into a trusted, unified landscape. We do this by reducing complexity with the SAP HANA Data Management Suite.

Next Steps

Work with SAP and our partners

We have a defined process that has proved successful



Thank you.

Contact information:

F name L name

Title

Address

Phone number



Follow all of SAP











www.sap.com/contactsap

© 2018 SAP SE or an SAP affiliate company. All rights reserved.

No part of this publication may be reproduced or transmitted in any form or for any purpose without the express permission of SAP SE or an SAP affiliate company.

The information contained herein may be changed without prior notice. Some software products marketed by SAP SE and its distributors contain proprietary software components of other software vendors. National product specifications may vary.

These materials are provided by SAP SE or an SAP affiliate company for informational purposes only, without representation or warranty of any kind, and SAP or its affiliated companies shall not be liable for errors or omissions with respect to the materials. The only warranties for SAP or SAP affiliate company products and services are those that are set forth in the express warranty statements accompanying such products and services, if any. Nothing herein should be construed as constituting an additional warranty.

In particular, SAP SE or its affiliated companies have no obligation to pursue any course of business outlined in this document or any related presentation, or to develop or release any functionality mentioned therein. This document, or any related presentation, and SAP SE's or its affiliated companies' strategy and possible future developments, products, and/or platforms, directions, and functionality are all subject to change and may be changed by SAP SE or its affiliated companies at any time for any reason without notice. The information in this document is not a commitment, promise, or legal obligation to deliver any material, code, or functionality. All forward-looking statements are subject to various risks and uncertainties that could cause actual results to differ materially from expectations. Readers are cautioned not to place undue reliance on these forward-looking statements, and they should not be relied upon in making purchasing decisions.

SAP and other SAP products and services mentioned herein as well as their respective logos are trademarks or registered trademarks of SAP SE (or an SAP affiliate company) in Germany and other countries. All other product and service names mentioned are the trademarks of their respective companies.

See www.sap.com/corporate-en/legal/copyright/index.epx for additional trademark information and notices.

