

# SAS® Forum Stockholm 2014

make connections • share ideas • be inspired

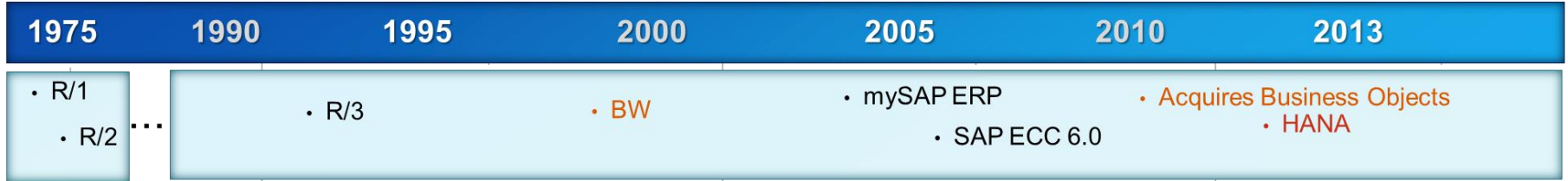
## SAS + SAP = SANT

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### SAS på SAP HANA



# SAS and SAP have a long history



SAS/ACCESS Interface to R/2 (1994)

SAS/ACCESS Interface to R/3 (1995)

SAS/ACCESS to BW (2001)

Data Surveyor for SAP (2003)

Dataflux df Connector for SAP (2004)

SAS Forecasting for SAP APO (2010)

SAS/ACCESS to HANA (2013)



SAP Certifies: SAS OLEDB for O (2001)

SAP Certifies: SAS 9.1 (2005)

SAP Certifies: SAS 9.1.3 (2008)

SAP Certifies: SAS 9.2 (2010)

SAP Certifies: dfConnect 1.1 (2012)

SAP Certifies: SAS 9.3 (2012)

**SAP** Certified  
Powered by SAP NetWeaver®



# SAS and SAP Strategic Partnership

SAS Analytics and  
SAP HANA,  
TOGETHER AT LAST!

- Partnership Announced at SAP TechEd - Oct. 2013
- Supported at highest levels of SAS and SAP
- Partnership to-date:
  - Primarily focused on technology & development
  - Limited Co-Selling Program
  - SAP building a SAS COE

"SAS and SAP can help companies manage the massive volumes of information they are constantly dealing with and make sense out of it."

Jim Goodnight, SAS CEO

"Combining the power of SAP HANA platform with SAS advanced analytics applications is the first wave of innovation we plan to deliver to our joint customers."

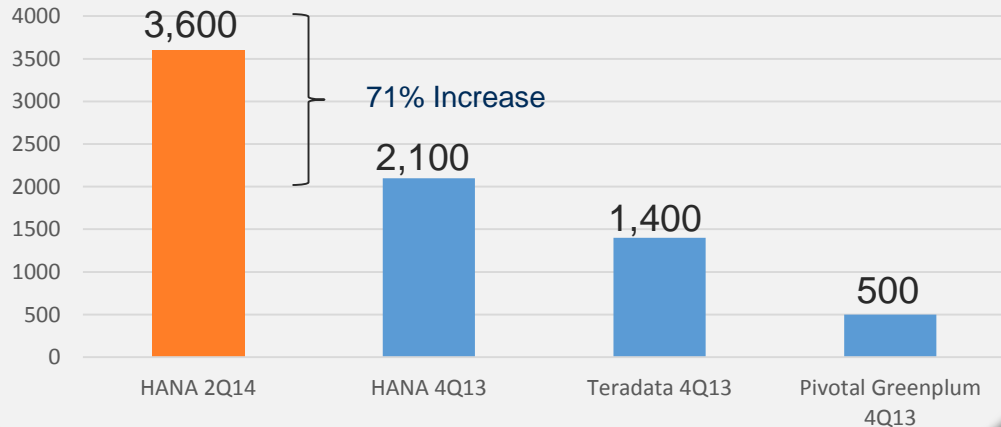
Bill McDermott, SAP CEO



# HANA is the fastest growing DW platform

As of 2Q14 ...

Number of Customers



## HANA:

- In-Memory Database
- Launched in 2010
- Seven major releases

## Data Warehouse Platform

Oracle continuing its long-standing leadership of this market with 31% share and 4% growth in 2013. It was followed by IBM, Microsoft, and Teradata — the perennial data warehousing market leaders

However, of the top 5 vendors, **SAP has shown the greatest growth in recent years and now has 7.5% of the data warehouse platform market.**

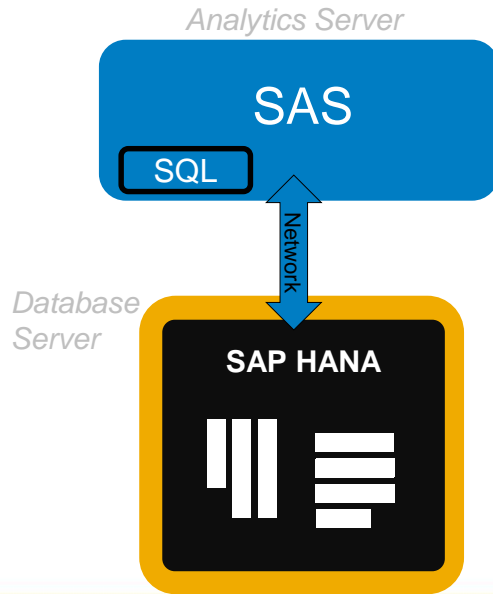
IDC, April 2014



# Complementary methods for different requirements

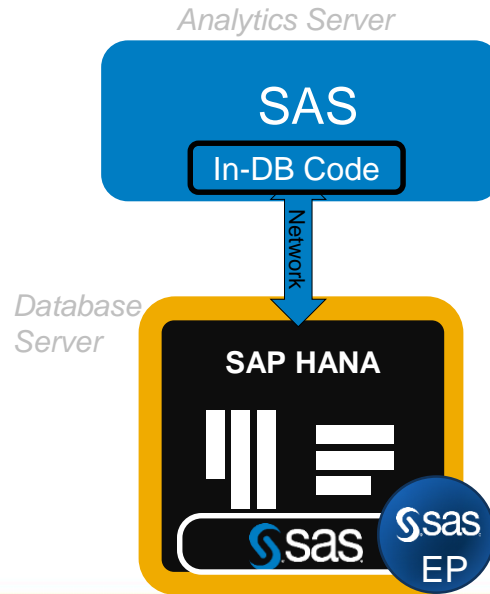
## SAS/Access® to SAP® HANA

- ❑ Extract data into SAS
- ❑ Push down SQL queries into SAP HANA



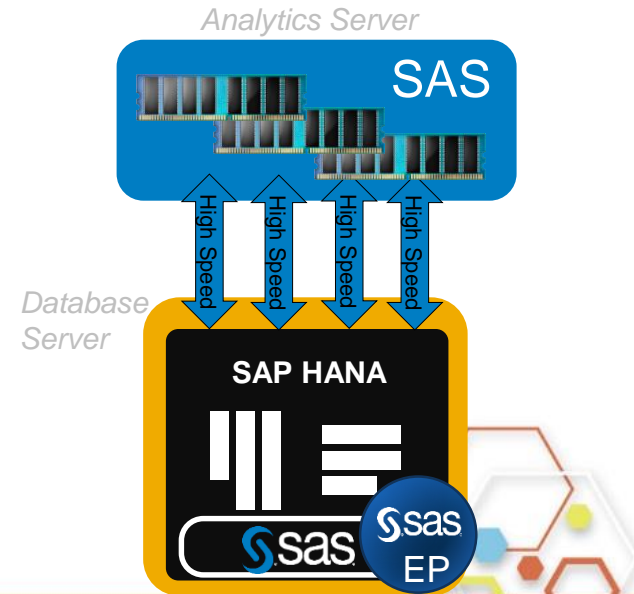
## SAS® Embedded Processing

- ❑ Push SAS processing into SAP HANA
- ❑ Run native SQL in SAP HANA



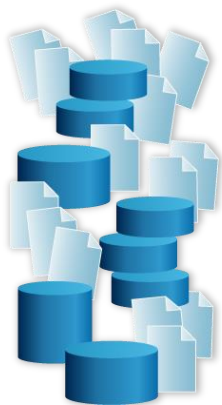
## SAS® In-Memory Analytics

- ❑ SAS native distributed in-memory computing for fast advanced analytics
- ❑ In-memory data exchange



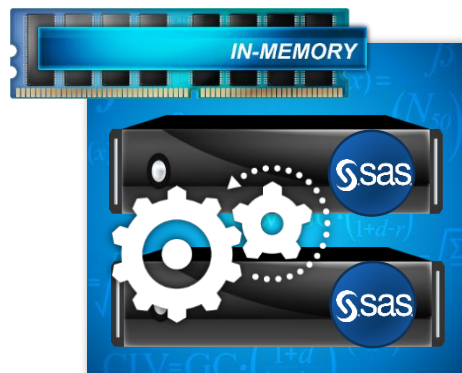
# Key Benefits

## Reduced Data Movement



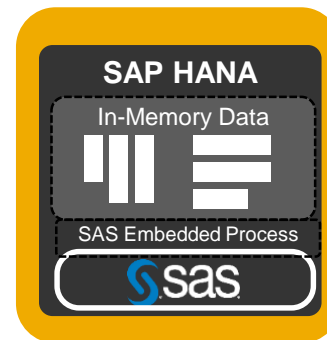
Processing where the data resides

## Massive Performance Boost



In-memory parallel processing for analytic workloads.

## Simplified IT Landscape



Analytical and Transactional processing on a single data store.

Operationalize Analytics to Transform Business



# SAS for SAP HANA Roadmap

2013  
H2

- ✓ SAS Access to SAP HANA

2014  
Q2

- ✓ SAS Marketing Automation for SAP HANA

2014  
Q3

- ✓ SAS Predictive Modeling Workbench for SAP HANA
- ✓ SAS High Performance Predictive Modeling Workbench for SAP HANA
- ✓ SAS Asset Performance Analytics for SAP HANA

Released August 5, 2014

SAS 9.4 M2

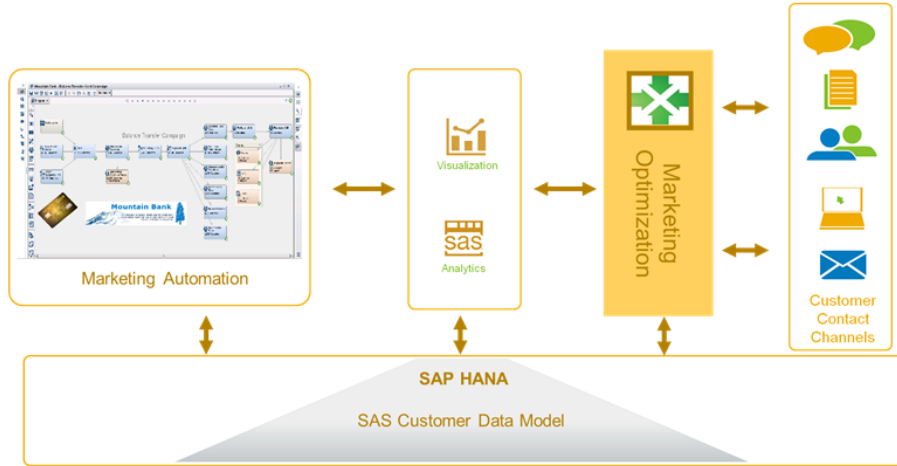
2015

... More to come !



# SAS for SAP HANA Roadmap

## Marketing Automation



- SAS Customer Data Model sits within HANA
- Data is not persisted outside of HANA
- Minimizes data duplication and movement

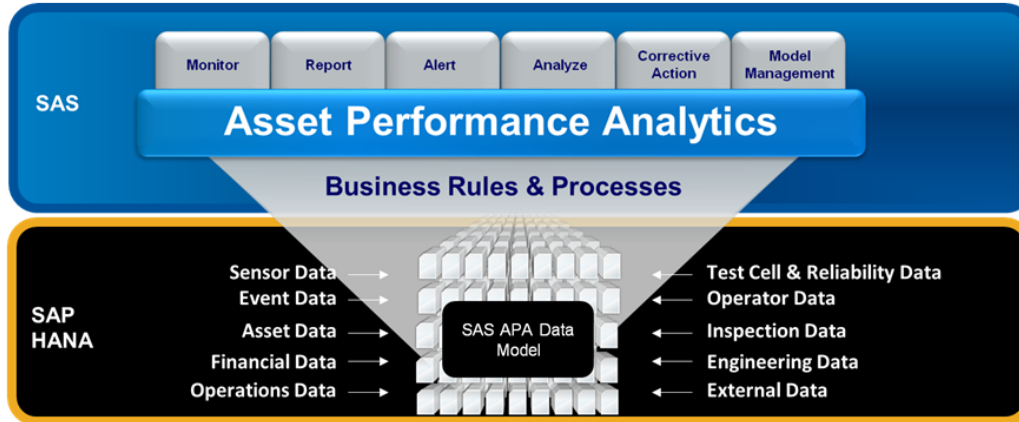
<b>Description</b>	<ul style="list-style-type: none"> <li>• Provides Marketers with an easy to use solution to plan, test and execute marketing campaigns</li> </ul>
<b>Value Proposition</b>	<ul style="list-style-type: none"> <li>• Increased number of accurately targeted promotions resulting in greater success rates &amp; higher sales revenues</li> </ul>
<b>Target Industries</b>	<ul style="list-style-type: none"> <li>• Cross Industry</li> </ul>





# SAS for SAP HANA Roadmap

## Asset Performance Analytics



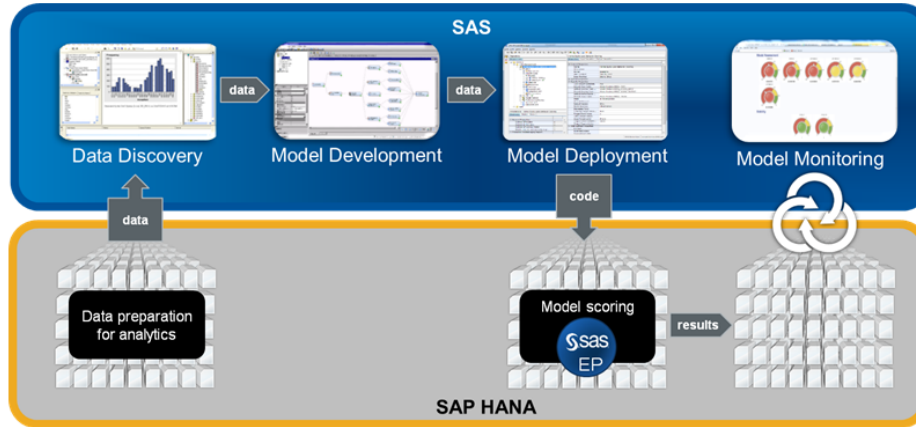
- SAS Data Model sits within HANA
- Data is not persisted outside of HANA
- Minimizes data duplication and movement

<b>Description</b>	Analyzes sensor data and machine to machine data to identify hidden patterns that predict probable failures
<b>Value Proposition</b>	Improves the utilization of high-capital equipment and reduces non-scheduled downtimes, improves production yields, improves asset efficiency
<b>Target Industries</b>	<ul style="list-style-type: none"><li>• Utilities</li><li>• Oil &amp; Gas</li><li>• Manufacturing</li><li>• Medical Equipment</li><li>• Transportation</li></ul>



# SAS for SAP HANA Roadmap

## Predictive Modeling Workbench



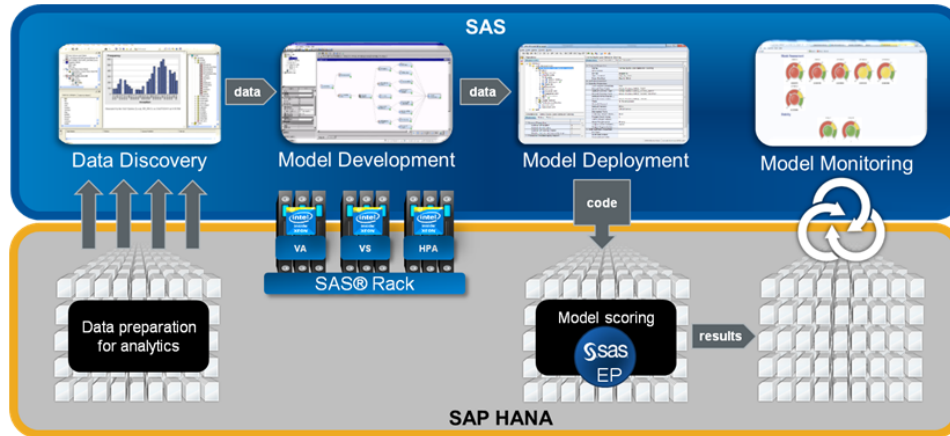
- Native access to HANA from SAS predictive modeling environment
- Reduce “data to compute” distance for model execution by scoring predictive models directly in SAP HANA

<b>Description</b>	Accelerates full analytical lifecycle deploying and running predictive models in-database on HANA
<b>Value Proposition</b>	Increased speed in running models and improved results with ability to run more iterations. Simplified IT landscape.
<b>Target Industries</b>	<ul style="list-style-type: none"><li>• Cross Industry</li></ul>



# SAS for SAP HANA Roadmap

## HP Predictive Modeling Workbench



- Distributed in-memory predictive model development and execution
- Reduce “data to compute” distance for model development and execution by scoring predictive models directly in SAP HANA

### Description

Accelerates the full analytical lifecycle using the SAS HP Platform and running predictive models in-database on HANA

### Value Proposition

Through the HP platform, HP Predictive Modeling Workbench further accelerates the analytic lifecycle by:

- Significantly improving data access time for model development.
  - Reducing the model building and testing time.
- And, a Simpler IT landscape.

### Target Industries

- Cross Industry



# SAS for SAP HANA Roadmap (Wave 2)

2015

Q1

- SAS Field Quality Analytics for SAP HANA
- SAS Marketing Optimization for SAP HANA
- SAS Energy Forecasting for SAP HANA
- Risk for Banking DDS

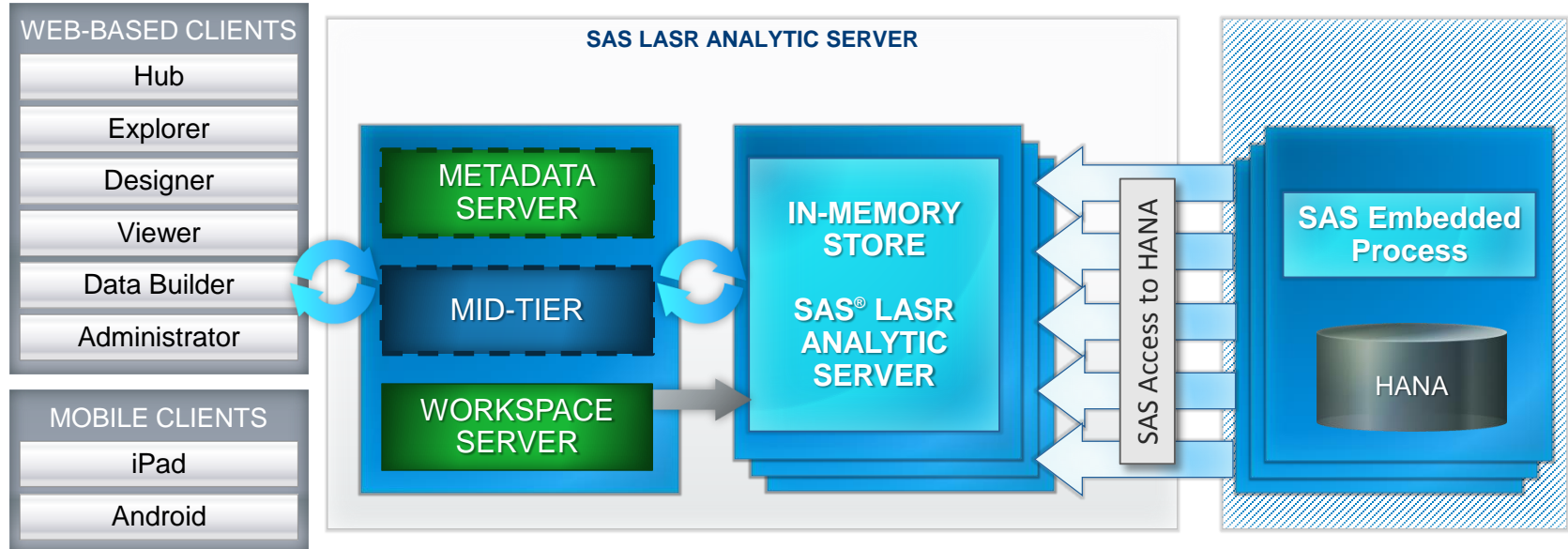
2015

Release Data To Be Defined

- SAS Forecast Analyst Workbench for SAP HANA
- SAS Asset Performance Analytics for SAP HANA (version 2 for HANA)



# How does SAS VA/VS and SAP HANA work together



## Key Points:

- 1) Data moves into SAS in-memory,
- 2) Data is not persisted in SAS,
- 3) Single data feed today, with VA/VS 7.1 (October 2014), parallel data transfer



# SAS & SAP HANA use cases

- Cross Industry
  - Smarter Customer Insights for personalized real-time offers
- Manufacturing
  - Minimize time for emerging issues and root cause detection to maximize product quality
  - Maximize asset performance by minimizing unscheduled outages, and avoiding performance degradations and catastrophic failures
- Health Care
  - Optimization of acquiring and managing customers
  - Personalized management of high-risk patients
- Life Sciences
  - Optimized drug development process based on advanced analytics of granular data
- Utilities
  - Maximized customer insight in deregulated retail utility market based on new type of data with smart grids
- Insurance
  - Personalized product pricing based on new telematics data
  - Optimized claim management



# Data Integration options:

**SAP® Certified**  
Powered by SAP NetWeaver®

**SAP® Certified**  
Integration with Applications on SAP HANA®

**SAP® Certified**  
Integration with SAP HANA®



\* BW on non-HANA RDBMs i.e. Oracle, DB2, etc.



# SAS & SAP Hana - Events

2014

September

SAP for Utilities  
conference,  
Sep 7-9,  
Hollywood, Florida  
Arrow: Big Data  
Symposium,  
Sep 9-11,  
Amelia Island,  
Florida

October

Joint Customer  
Webinar  
Oct. 8, 2014  
PBLs/A2014  
Las Vegas  
Oct 21-24  
SAP d-Code  
Las Vegas  
Oct 20-24

November

SAP d-Code  
Berlin  
Nov 11-13



SAPPHIRE 2014





# Q&A



# SAS<sup>®</sup> Forum Stockholm 2014

make connections • share ideas • be inspired



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