



## **Leveraging SAP HANA in Financial Services and Insurance Applications**

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# Agenda

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- SAP Today
- Who Is ROI
- SAP PartnerEdge Program
- SAP HANA Technology
- ROI HANA based Insurance Demo Platform (HIDP)
- Use Cases: Fraud Detection, Mobile, BI & Analytics, Reporting

# SAP Today

**20.3 Billion in 2013 Revenues**

2+ Billion in R&D

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**24.1% Enterprise Market**

SAP owns 67% share of Forbes 2000

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**58,500 Global Employees**

Over 1,800+ dedicated to financial services (R&D, marketing, sales and services)

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**Strategic Acquisitions**

*BusinessObjects, Sybase, SuccessFactors, Ariba Camillion, Hybris*

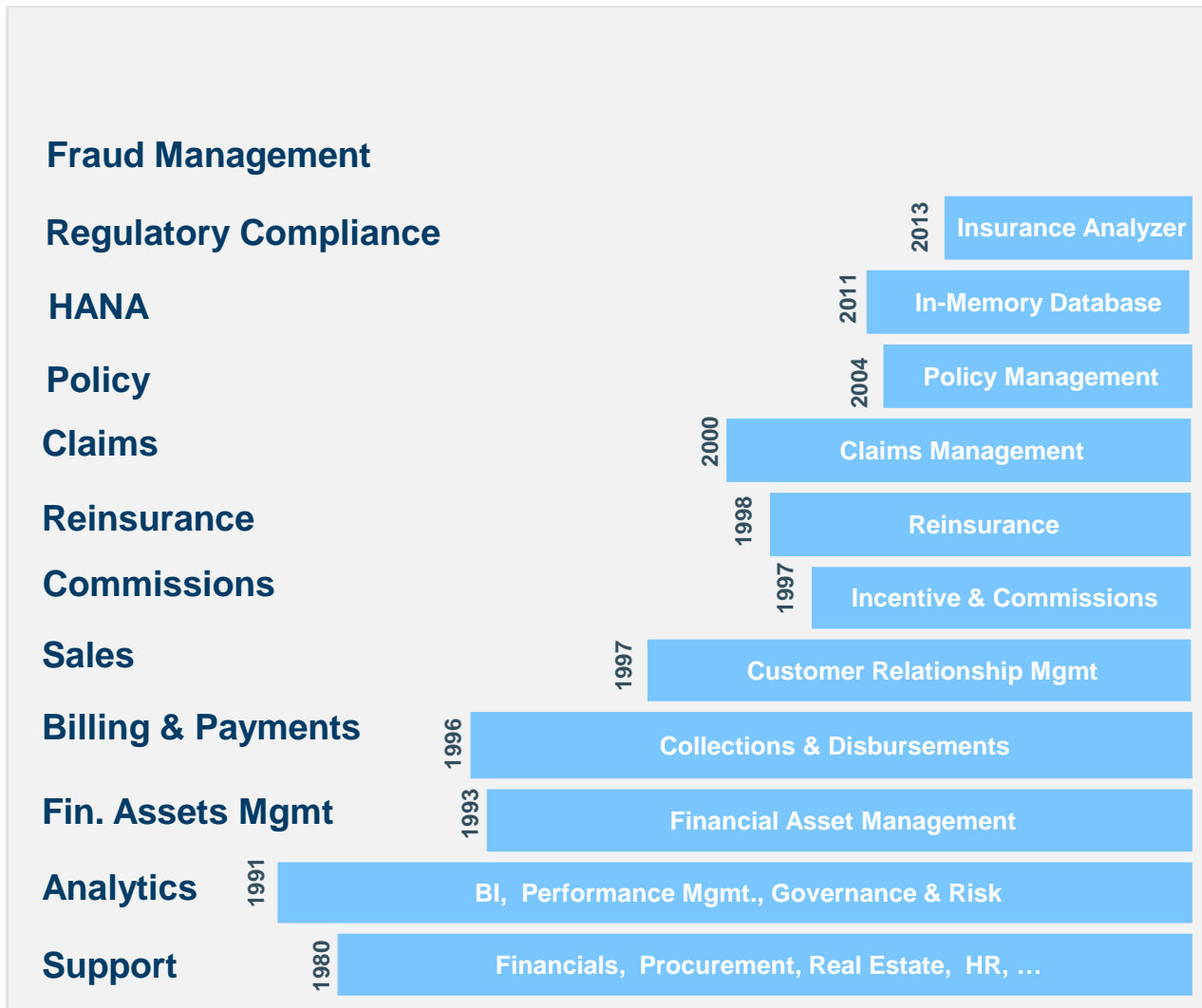
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**1,200+**

services partners worldwide

# SAP for Insurance:

## SAP has built out an industry leading Insurance Suite



\* source: SAP Billing, Payments and Finance presentation, SAP AG, July 2013

# Who is ROI? We Are Core Systems Transformation Provider Helping Clients Leverage Innovative & Disruptive Technologies

## Strategy For The Future

The conflux of these technologies will shape the strategy and direction for businesses for the next 20 years and necessitates core system transformation today.

### Core Systems

The central foundational systems that provide end to end business operational capability – customer interaction, transaction processing, regulatory and operational controls as well as management information.

### Transformation

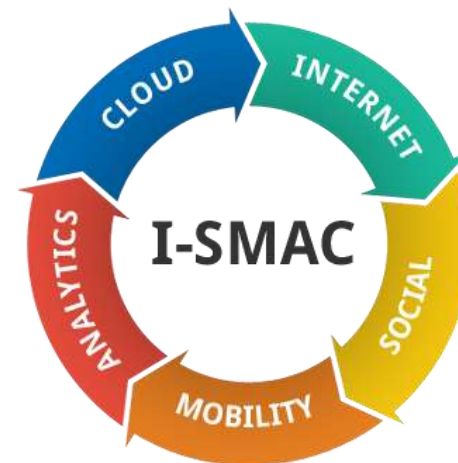
Advanced business models and innovative improvement of business strategy and overall performance of business processes and systems to achieve business value – Growth, Profit, Market Expansion.

### Services

We provide consulting, Systems Integration and Commercial Software Engineering solutions leveraged by our global Centers of Excellence, proprietary Solution Labs, and Research Institute.

### I-SMAC

The disruptive technologies that are shaping business today. Internet of Everything, Social, Mobile, Analytics and Cloud. Creating both threats and opportunities for next generation products and services.



# Who is ROI?

## We have 800 professionals to Delivery our Global Services



- Over 800 professionals
- Full suite of services
  - Consulting
  - Systems Integration
  - Managed Services
  - Commercial Software Engineering
- Specialists in driving competitive advantage

**Maximizing the Return on Intelligence for our clients**

# Who is ROI?

## We Are A New Breed - “Core Systems Transformation Provider”

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# Strong Partnership

*ROI is an SAP PartnerEdge Partner, VAR and Consulting Services Partner*

ROI is a leading provider of SAP  
Integration Services across I-SMAC

ROI is a leading Channel  
Partner of SAP



SAP is an ROI Software Development Client



# SAP PartnerEdge Program

## SAP PartnerEdge Program for Application Development



Mobile Applications

Cloud Applications



Integrated Applications

Big Data



Applications for BusinessOne

Business Intelligence



## Platform Development Accelerator for SAP HANA

### 12 months of exploration membership:

- 3 named developer licenses
- Access to SAP developer community
- Access to SAP Partner Enablement Center
- Selective access to remote enablement sessions and consultants





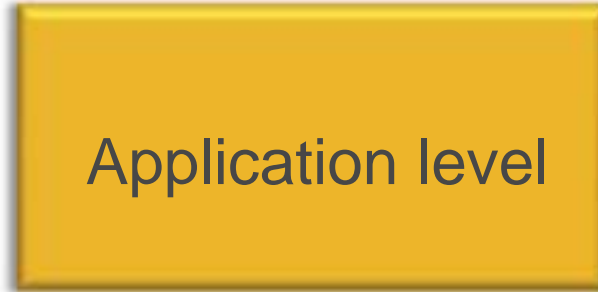
# SAP HANA

## Universal platform for business in real-time

# Effectiveness = Processing At Data Level

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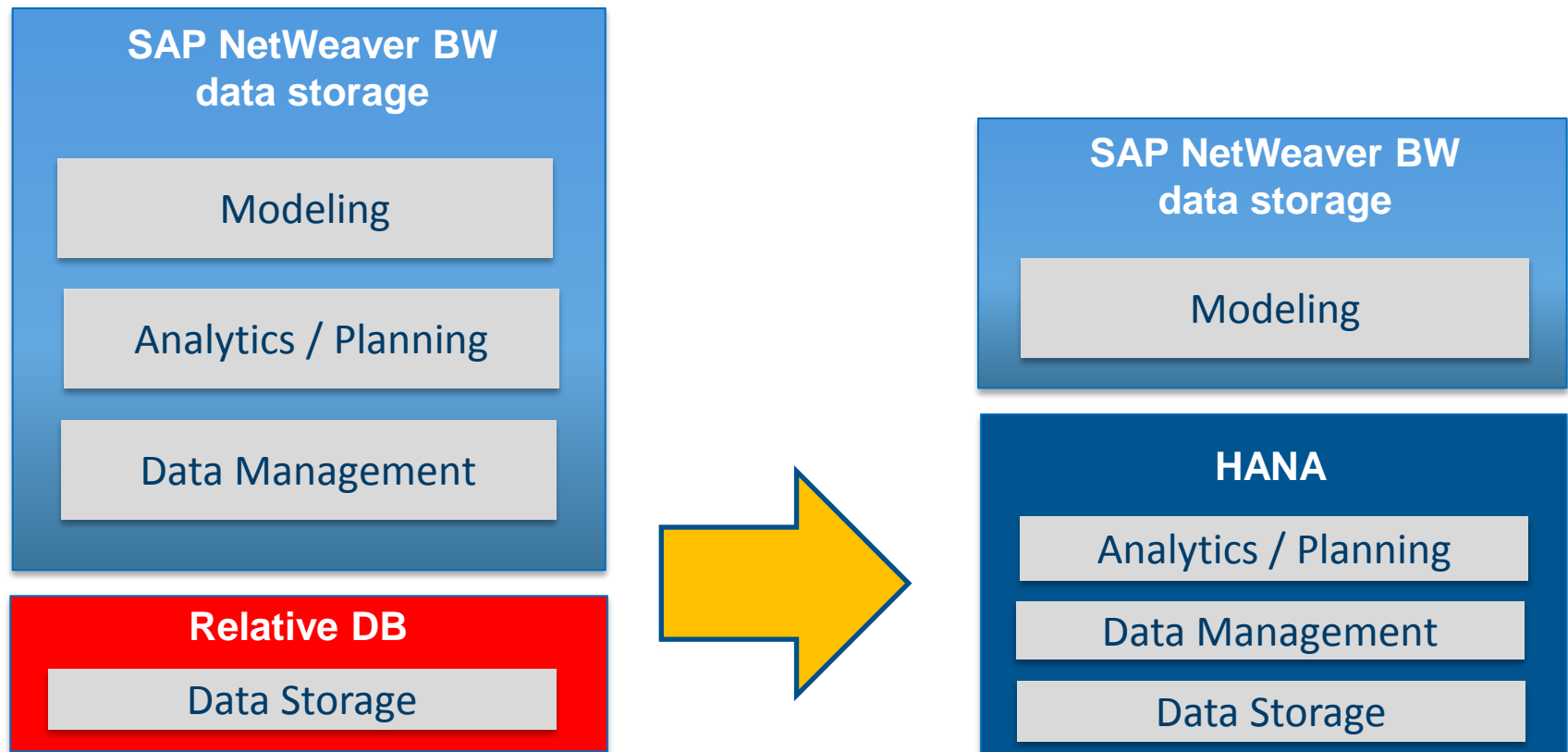
Send  
entire  
dataset for  
calculation



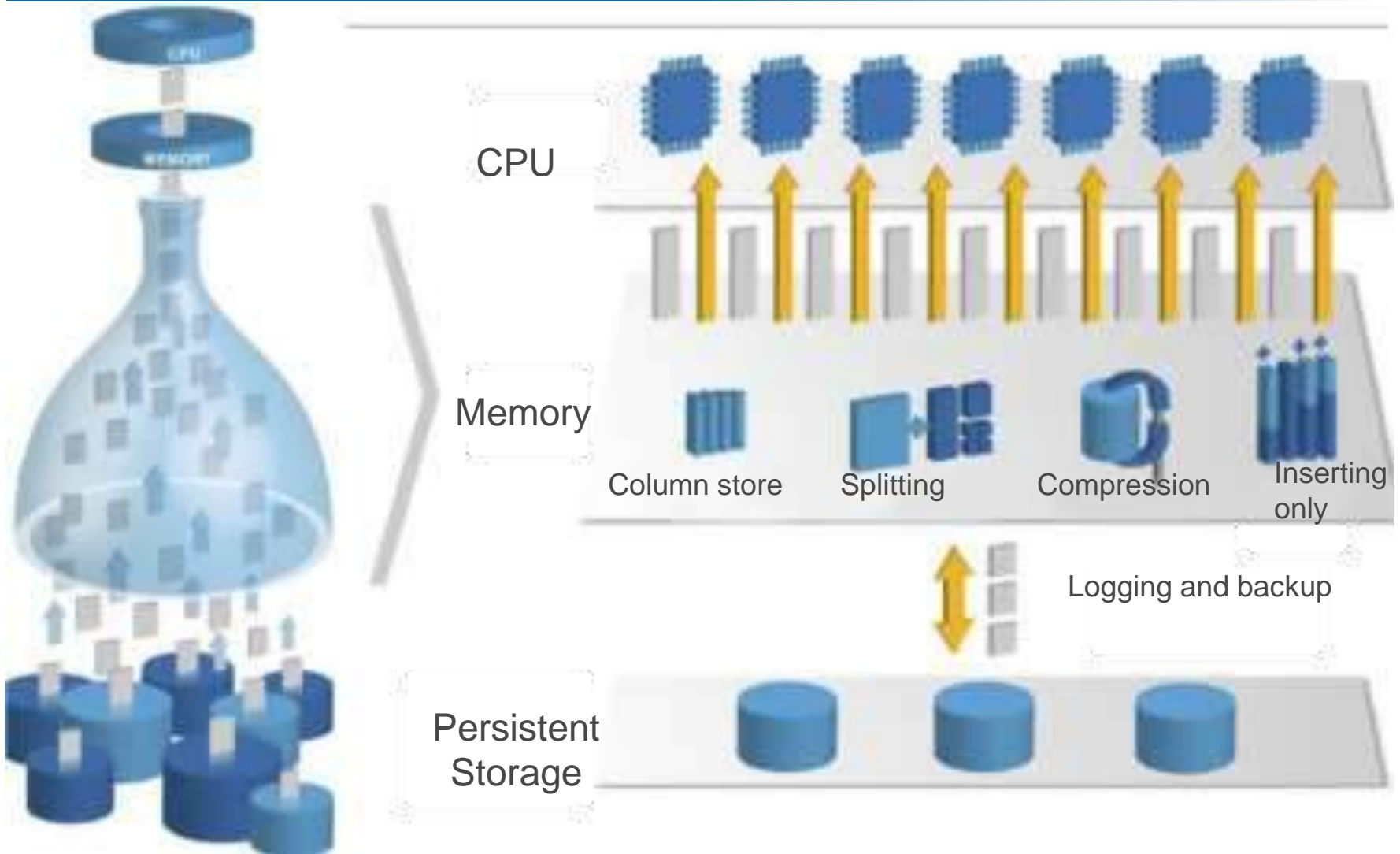
Return  
results only



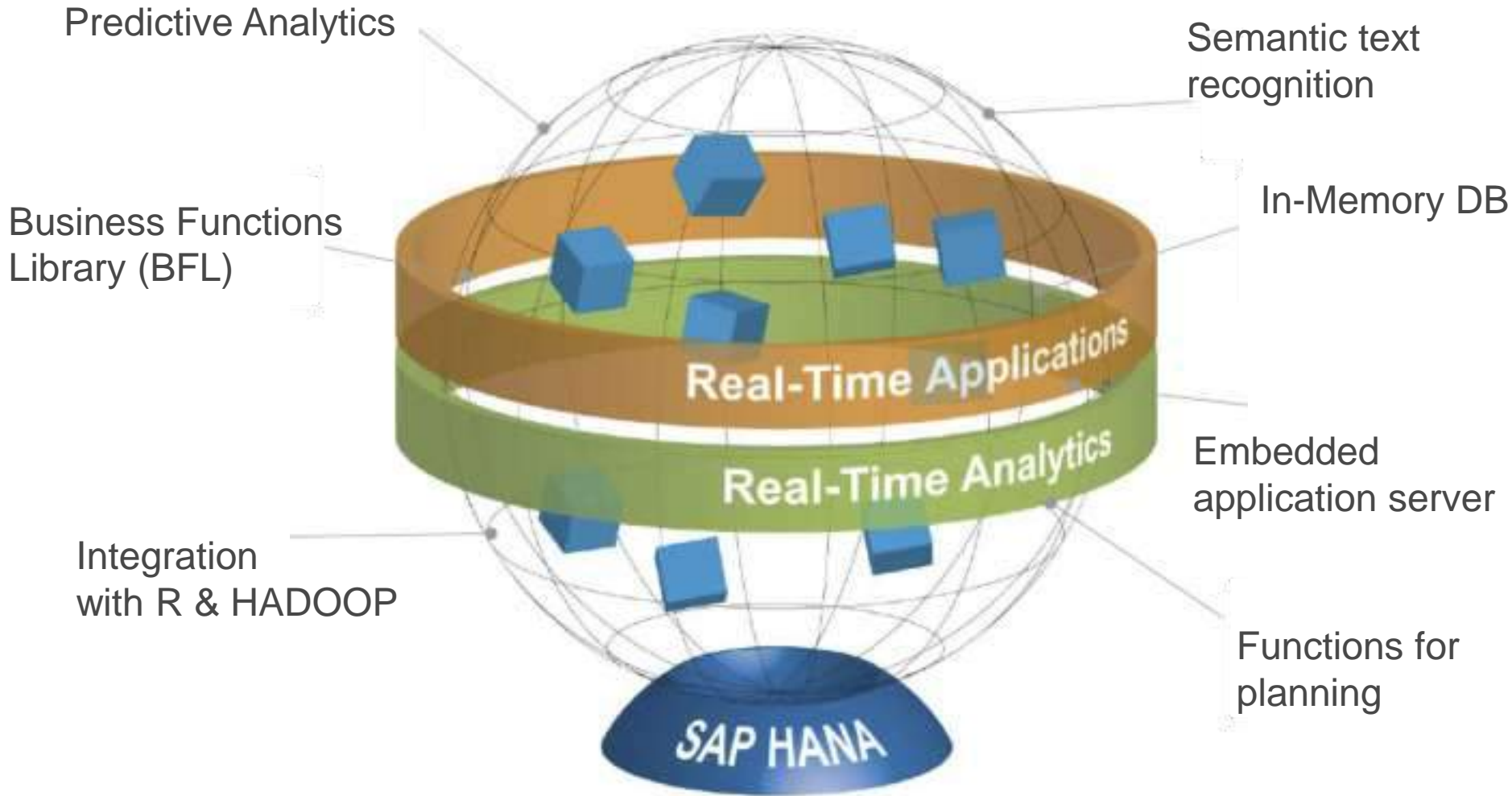
# Basic principal of SAP HANA



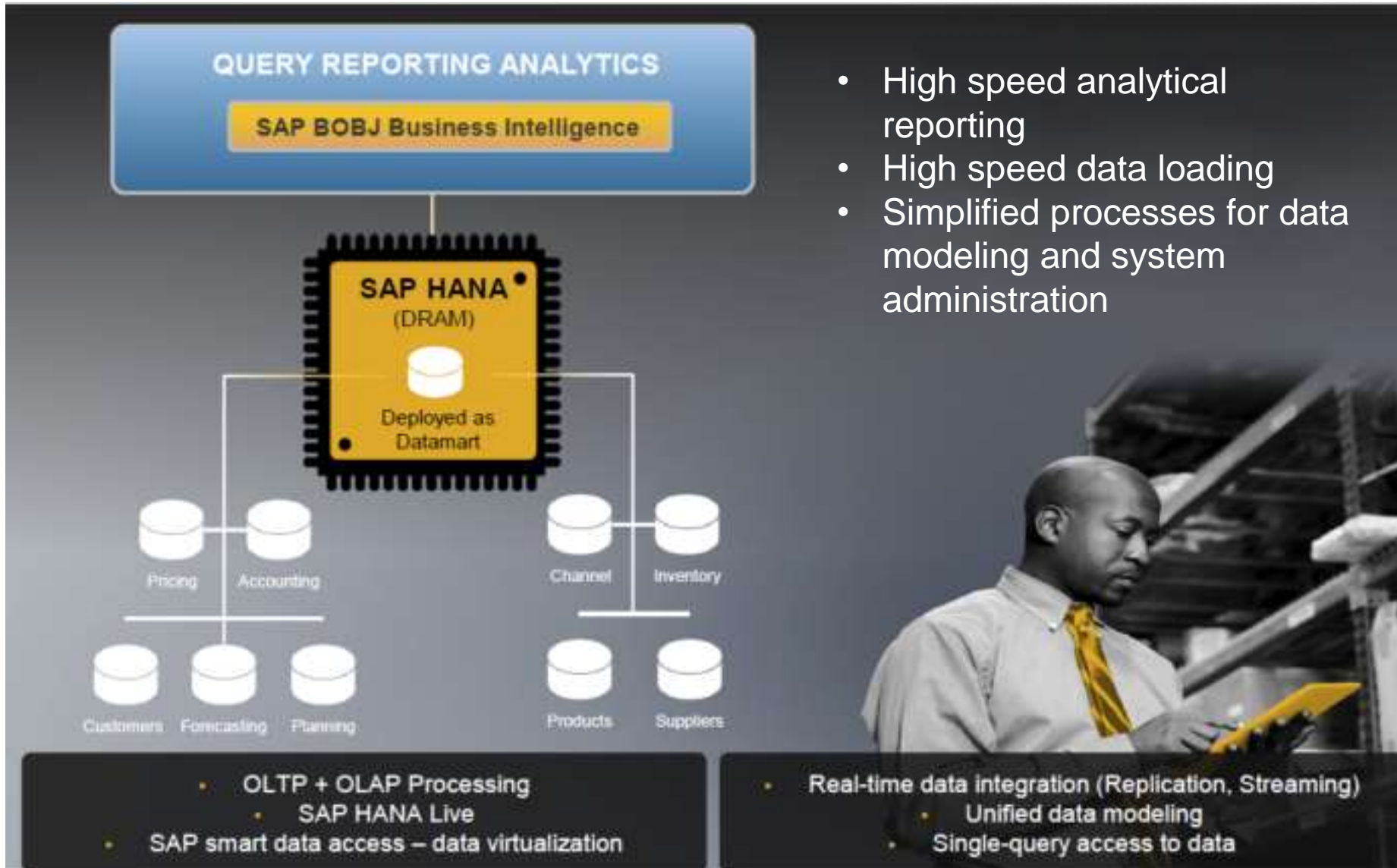
# SAP HANA is a pool of innovations



# What's allowed with SAP HANA?

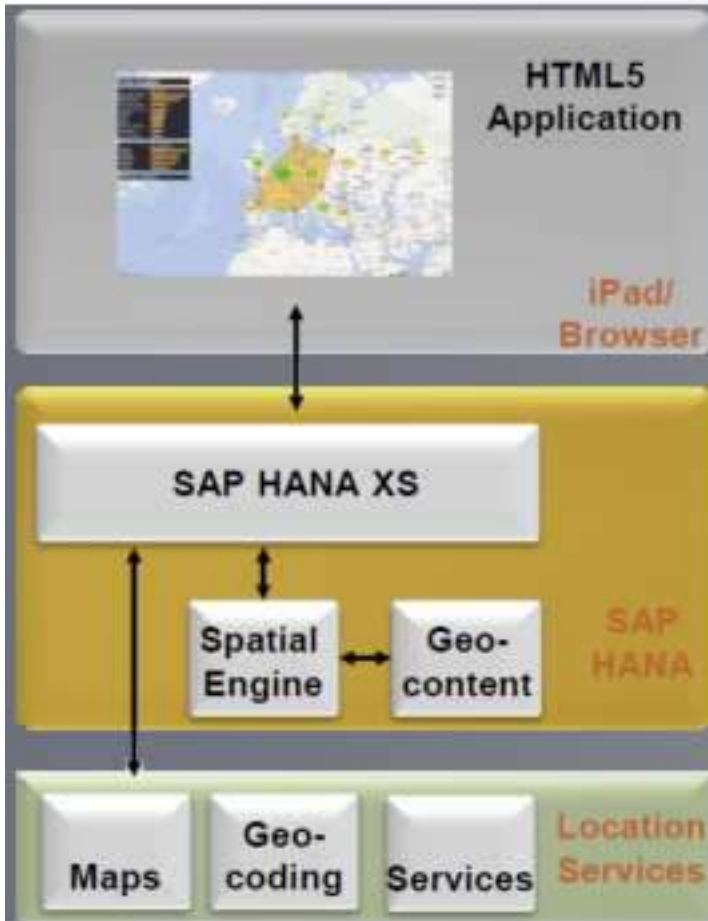


# Analytics And Reporting



# Geographic Data Processing

Rapid development and roll-out GIS applications based of SAP HANA



## Capabilities:

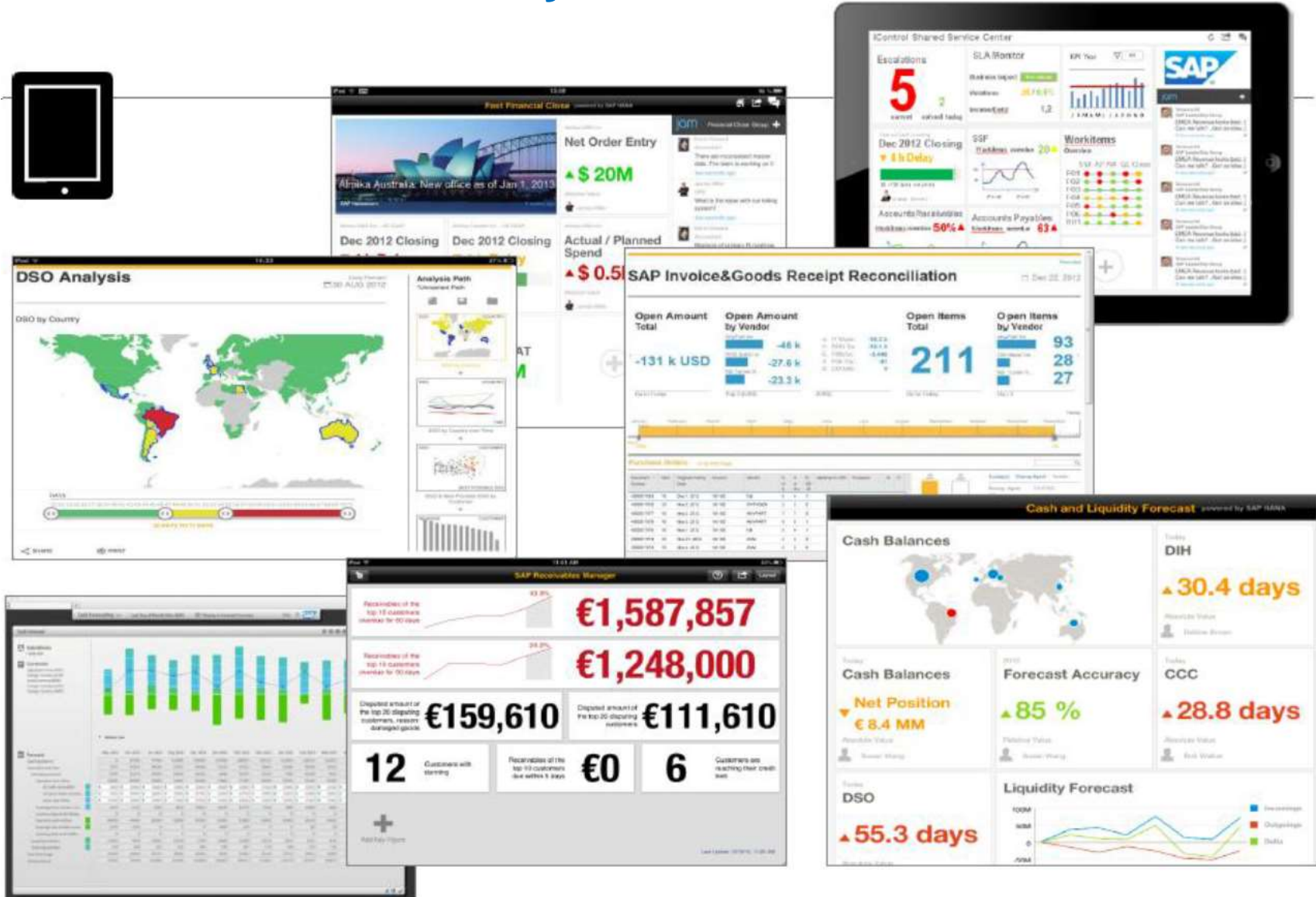
- Visualization and investigation support, analysis GIS data on maps
- HTML5 interface support
- SAP HANA models support
- ISO/IEC 13249-3 SQL/MM 1999 standards support

## Benefits:

- Rapid application development and roll-out GIS applications
- Low TCO
- External map services integration
- Nokia map service included into license



# New Level of GUI Quality



# Productivity Growing

## Faster Reporting and Analysis

(queries in 10-100 times faster)

- In-Memory column store
- Process parallelization
- All queries acceleration

## Decreasing data delays

(data loading in 5-10 times faster)

- In-Memory transformation (ELT & ETL)
- In-Memory optimized cubes
- In-Memory activation process of Data Store Object

## Faster planning functions

(handling in 5-10 times faster)

- No indexing and aggregation tables
- In-Memory calculation engine

Data compression (in 4-10 times)



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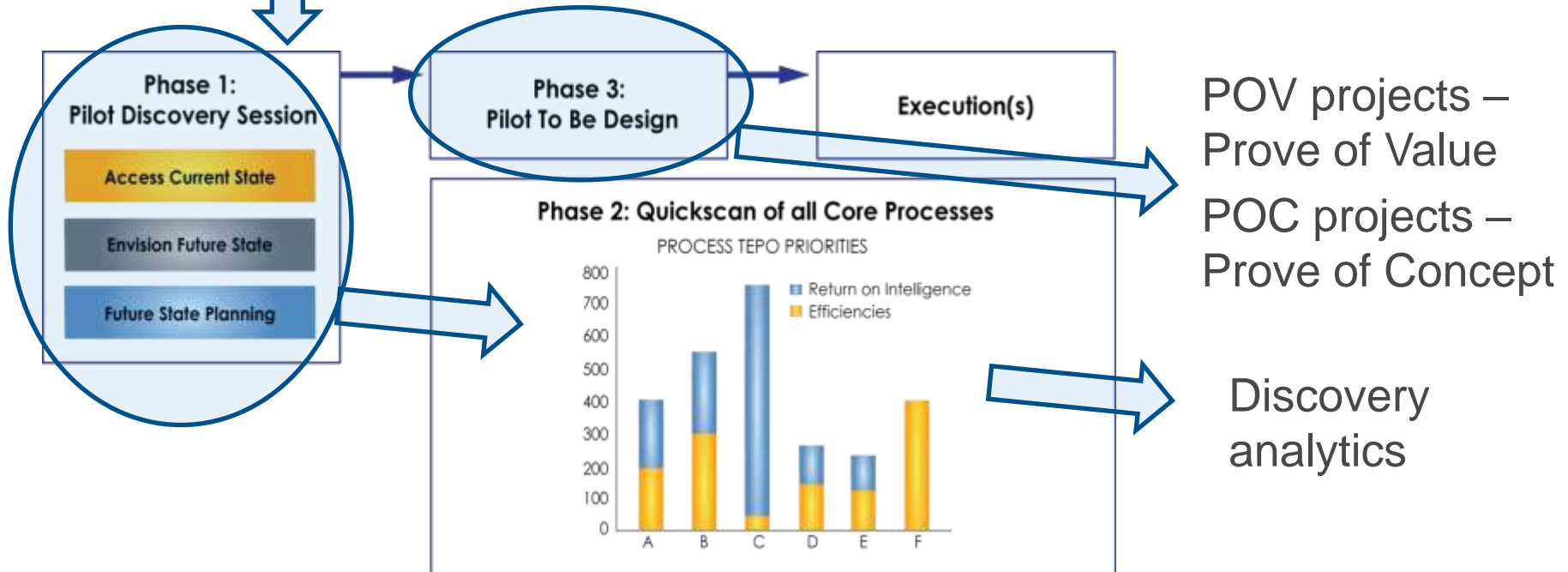
# HANA Based Insurance Demo Platform (HIDP)

# TEPO – Technology Enabled Process Optimization

Business processes fall into three basic categories:

- **Transactional** (e.g. Accounts Payable)
- **Knowledge Intensive** (e.g. Complex Claim Adjudication)
- **Collaborative** (e.g. New Product Launch)

Our TEPO solution is a wholly new way to identify and extract value opportunities in knowledge-intensive and collaborative processes.

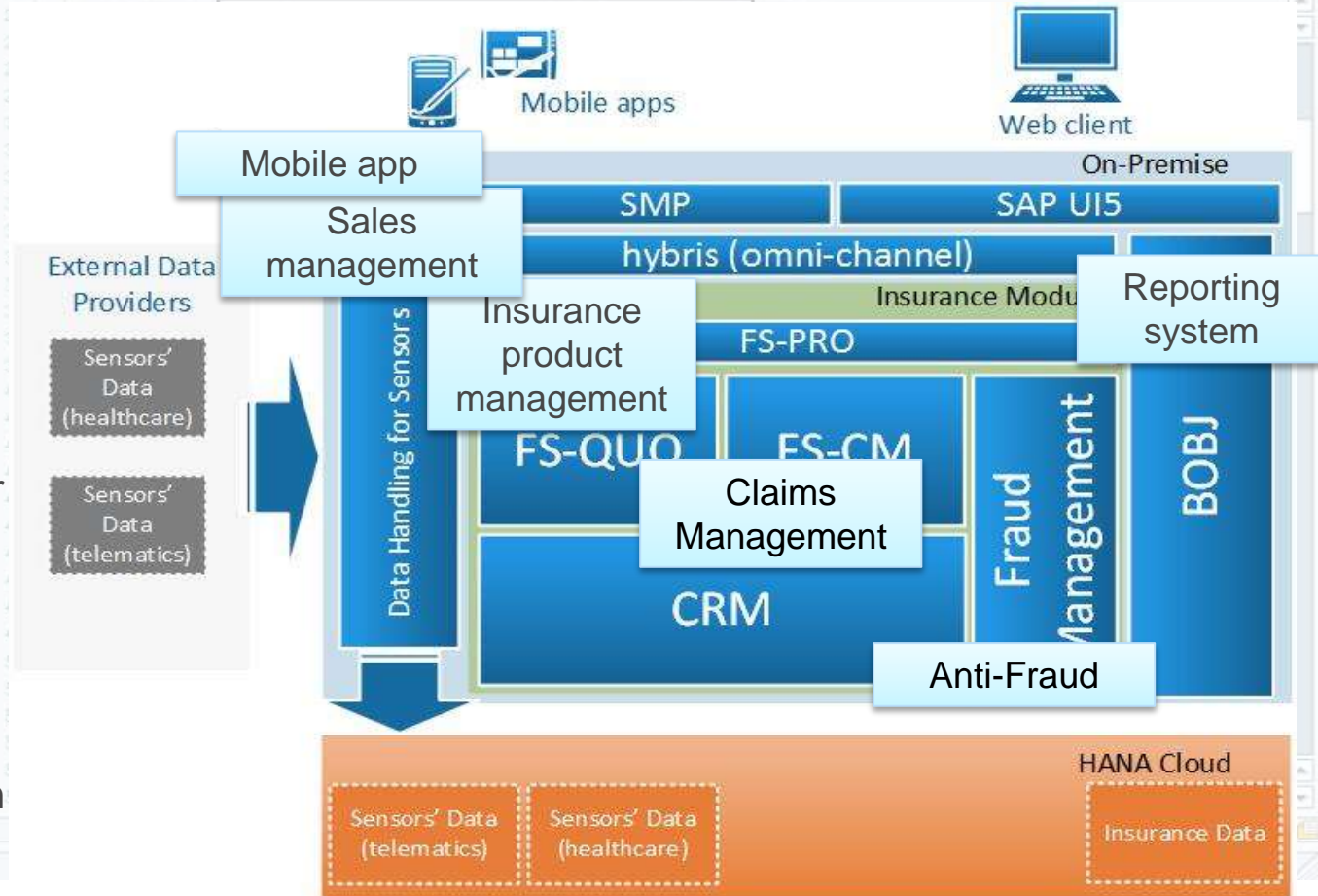


# HIDP On A Glance

- Core SAP Insurance modules
- Makes entire information system
- Extension points for connecting other SAP modules
- Capability of quick integration for customer's systems

ROI promote the disruptive technologies with the best SAP solutions:

- HANA as core storage
- Camilion as product configurator
- Afaria and SMP 3.0 for mobile services
- Fraud Management – fraud detection & risks mitigation
- SAP UI5, Fiori, Personas – for modern GUI



# ROI Platform Development Accelerator for SAP HANA

Initial discussion	– Feb 2014
Start	– Mar 2014
SAP Boot Camps in Moscow	– Mar-May 2014
Core team completion	– Apr 2014
Major goals & requirements	– Apr 2014
SAP license installing	– Apr 2014



<b>HIDP landscape creation</b>	<b>– Apr-May 2014</b>
<b>Initial Fraud prototype</b>	<b>– May 2014</b>
<b>1st Insurance POV project completed</b>	<b>– Aug 2014</b>

# Scenarios of Insurance company

## Insurance product management

- Creating and launch
- Business process tune

## Sales management

- Omni-channel interaction and sales

## Reporting systems

- Creating and managing reports
- Portals and mobile reporting systems

## Fraud management

- SUI management
- Ultrafast methods of fraud detection

## Claims management

- Mobile applications for clients, agents, field adjusters and brokers managed by SAP FS-CM



## Benefits:

- Each part would be demonstrated both inside complicated scenario and as isolated system
- Quick customization for new customers
- Technological and cross-module integration
- Regional specification

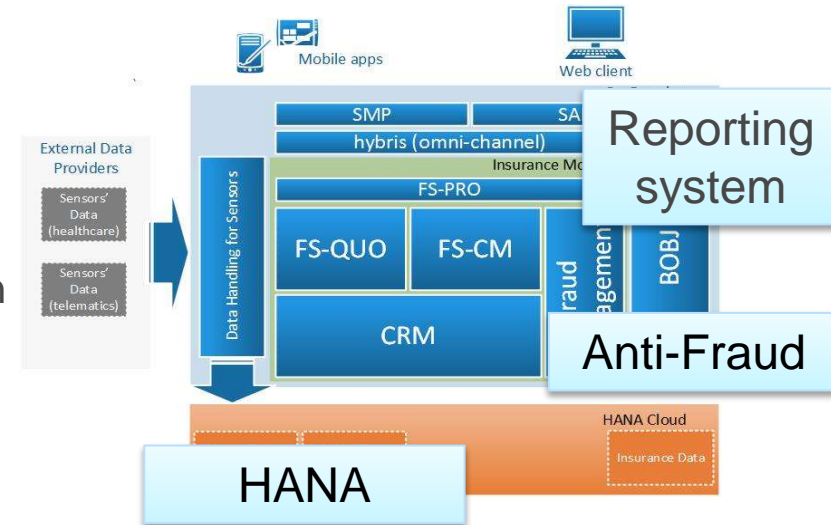
# CASE 1: Fraud detection automation

## Customer

- Insurer with 60+ years experience in specialty insurance
- Over 2 billion in premiums annually
- Workers compensation insurance

## Background

- No use of automated analytic based fraud detection system
- No use of fraud alert management and processing application
- About 100 fraud suspects identified per year
- With recent exception of 1,000 suspected fraud claims for one provider
- Some geographies experience heavier fraud





# HANA benefits on POV

- The dictionary based compression reduces the data
- Data preview: HANA has a flexible visually instrument which help to analyze data quality
- The combination of OLTP and OLAP in one single database
- HANA incorporates text and geospatial capabilities
- The columnar store architecture allows for the use of massive parallelism
- Predictive analytics library



# Data Quality Challenges: Data Cleansing and Profiling

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ROI has performed the following main activities:

- Initial scrubbing of the text fields and descriptions – some text data was sent in tab delimited format
- Validity verification – verified and converted data types, analyzed unique and mandatory constraints
- Data integrity including foreign key analysis and orphan cleansing
- Data profiling including counts, volume, distinct values range and average analysis
- Value distribution and analysis of structured data
- Pattern analysis of non-structured data

***ROI analyst performed several data cleansing activities based on their best understanding and assumptions and time constraint***

# Data Quality Challenges

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ROI has identified the following data quality challenges:

- Claims with policy effective date later than the claim accident date
- 65 duplicate claimant ID's – e.g. the only difference is ZIP code
- 182,821 policies with initial term were unavailable
- Apparent default values for some important data – e.g., claims open on the first day of month and first month of year
- Party names provided in different formats prevented such parties display in Network Analysis (e.g., First\_Last; First,Last, etc.)
- Unstructured data in the notes section (e.g., treating physician)

***Improving data quality is an important component of an SAP Fraud implementation project***

# Results

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Was identify 12,583 suspected fraud alerts with 556 quality alerts

Average cost of single claim was \$7,081

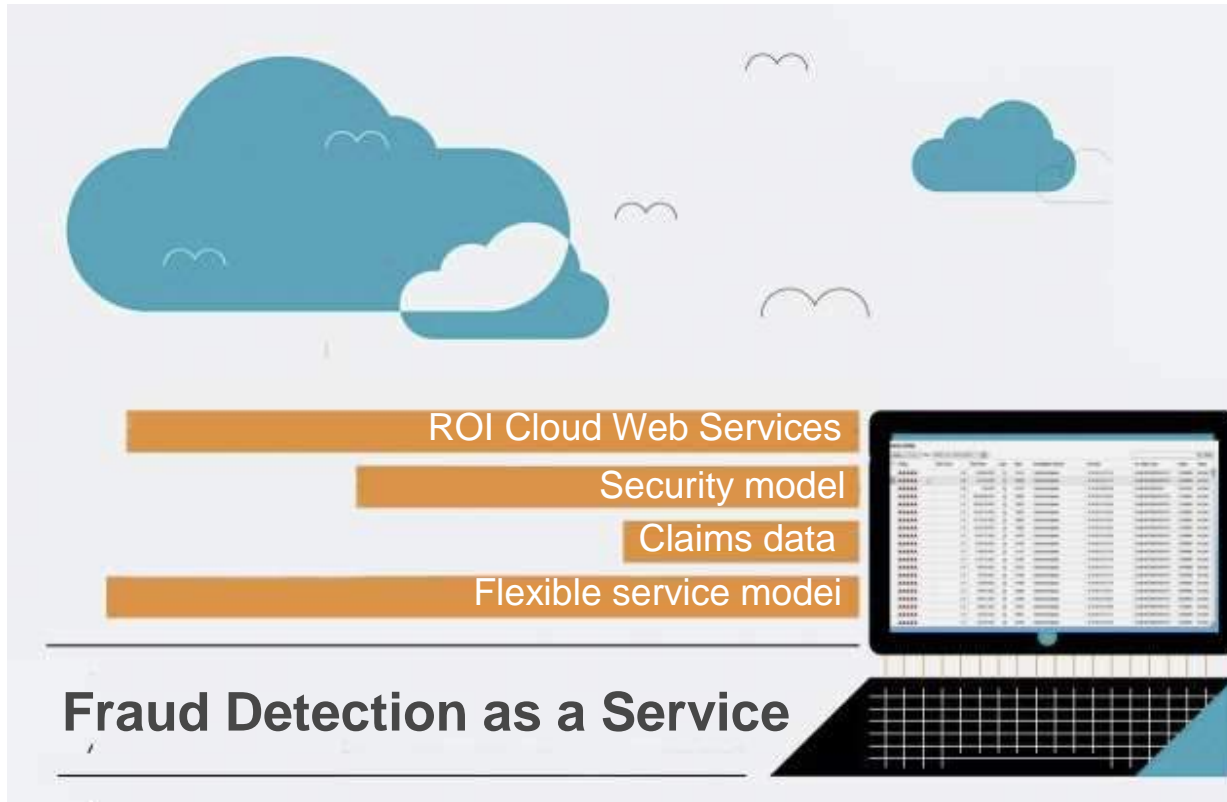
Annual savings \$1,033,086 per year

Predictive Analytics algorithm generated 249 correct alerts (based on an assumption regarding historical fraud data set)



***Prove of Value as approach ROI and SAP have developed a comprehensive of SAP Fraud Management Solution for the Insurance industry***

## Case 2: Fraud Detection As A Service



One contract for license and support services

Flexible service level offerings based on detection strategy

Quick ramp-up

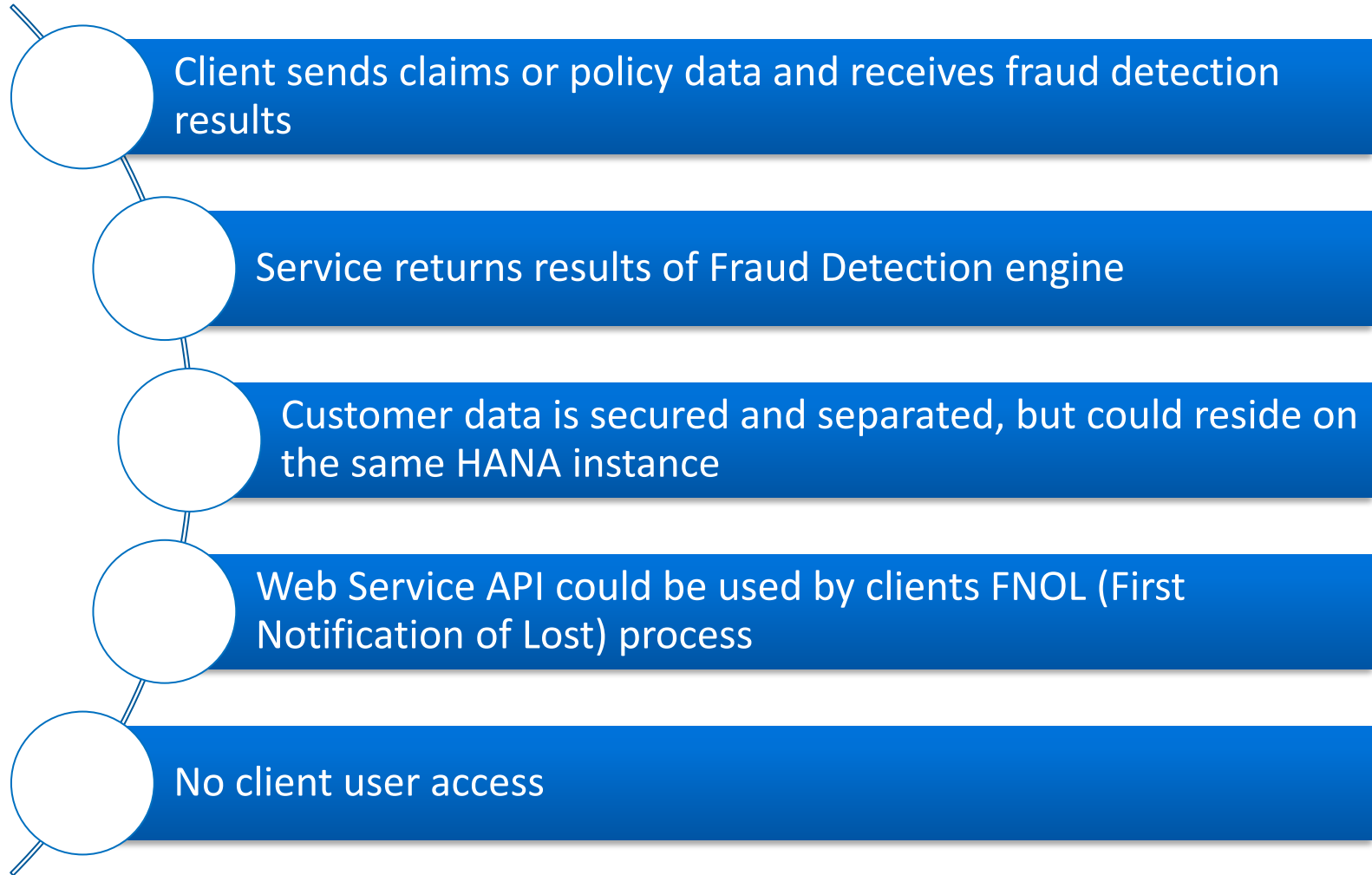
No hardware and infrastructure related expenses

Minimal internal IT resources needed

***ROI and SAP simplify usage SAAS- and cloud- based solutions as from service provider as from customers side***

## Case 2: Fraud Detection As A Service

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## CASE 3:

# Customer Reporting System Upgrade With SAP BOBJ BI

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### Customer:

- Big traded construction company which provides a range of services to private and public sector clients across its three core segments of infrastructure, energy and mining
- \$70 millions/year net income
- 100+ years on a market

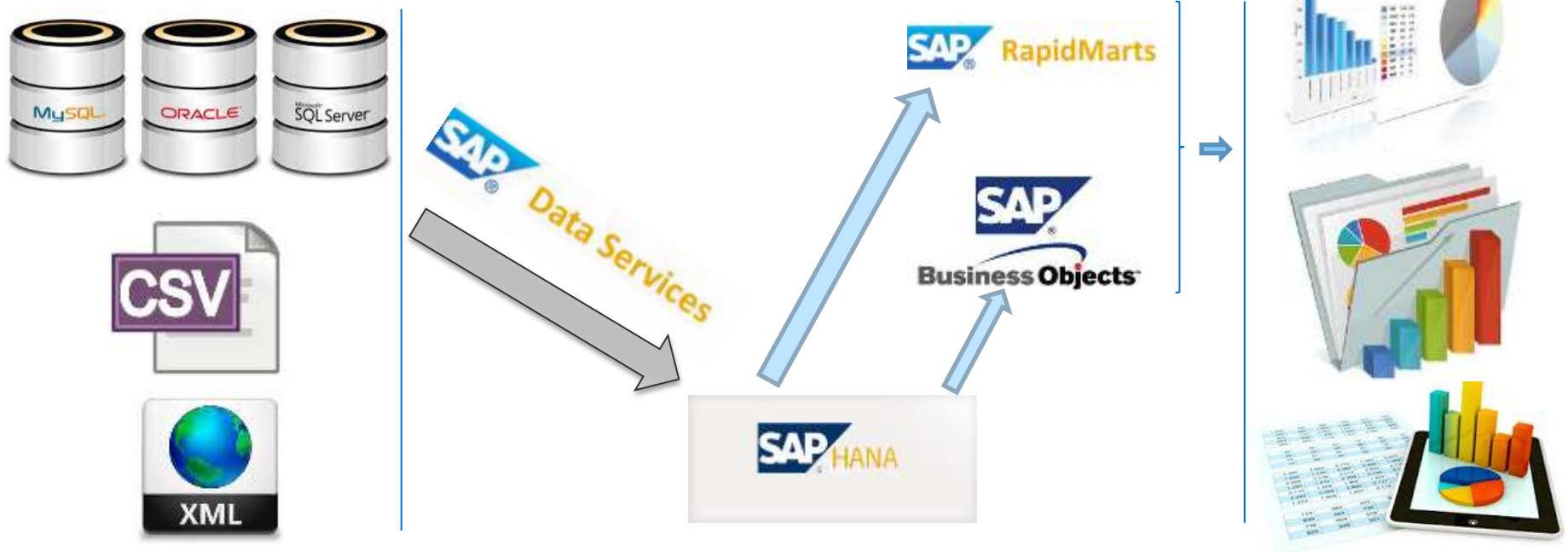
### Background:

- Fragmented IT resources over the company
- No Master Data
- Various of financial reporting, analytical and DW solutions at place
- 600+ reports
- Low reports performance
- Number of legacy systems

# Proposed Solution: SAP BI. Tools

Install and configure environment for enterprise BI solution:

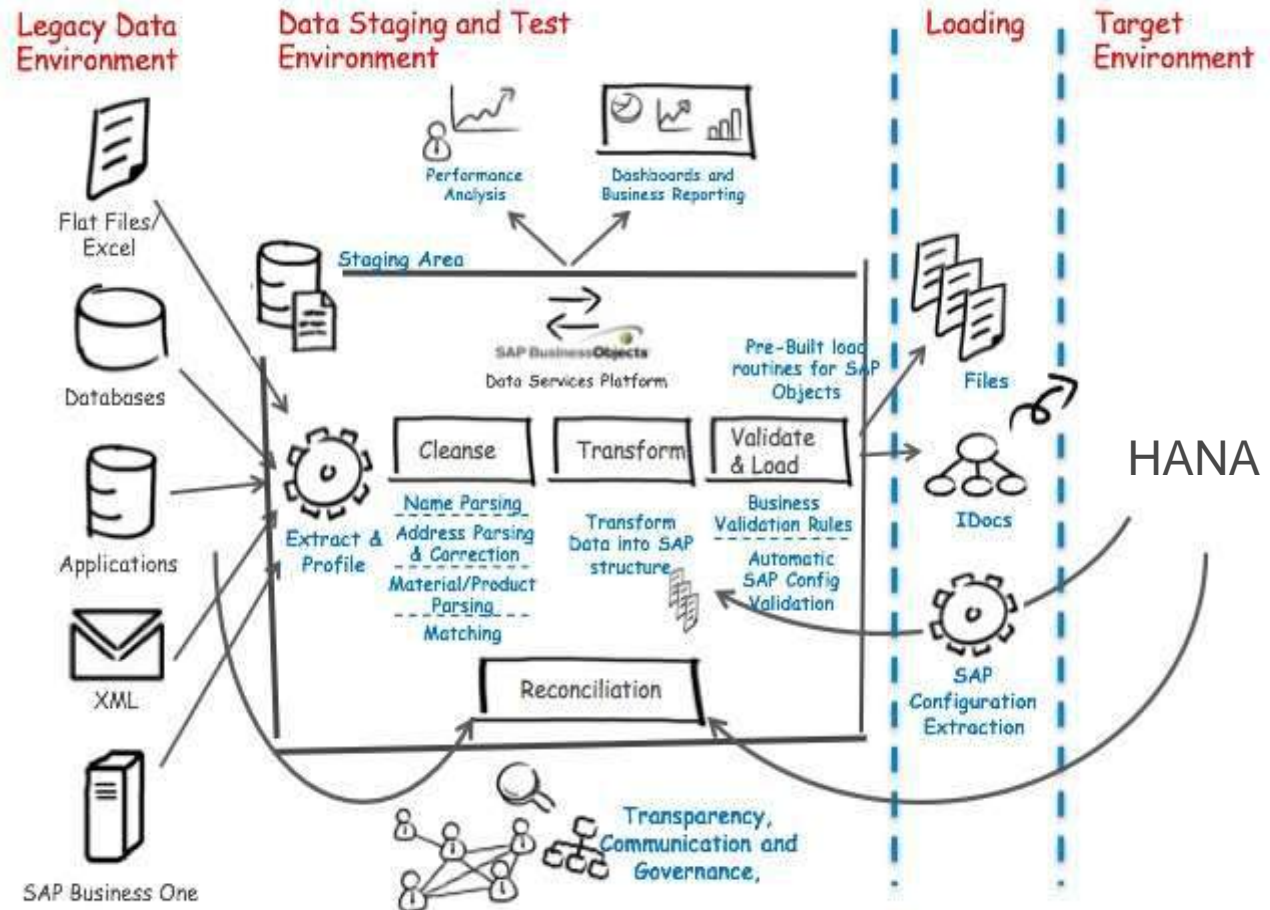
- SAP HANA
- SAP BObj Data Services
- SAP BObj Rapid Marts
- SAP BObj BI 4.1





# SAP BI. ETL

- SAP DataServices as ETL (Extract-Transform-Load) and DataQuality tool
- Gather data from different sources
- Data Quality Governance and Reconciliation
- Push data to reporting schema on HANA



# SAP BI. Reporting.

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- **Rapid Mart universes** for standard Financial, Marketing, Sales, Purchasing reports on top of data in HANA.
  - Most of cases covered automatically
  - HANA based reports **11 times faster** than on initial data sources.
- Custom universes for non-standard business reports based on On-a-fly (online/without latency) logical **Dimensional Data Storage service** - HANA analytic views
  - No need to create physical DDS separately
  - Less storage utilization
  - Less ETL work
  - Low Latency
  - **Analytic View based universe can't be customised**
- Separate universes based on data from calculated views for heavy reports with complex calculations.
  - 8 times faster than BObj based calculations.
  - **Takes more development time.**

# SAP BI. Business results



Consolidated  
downstream Master  
Data

4 methods of delivery

Low data latency

EOL of legacy  
systems

Mobile reports

Self-service solution  
(for ad-hoc reports)

- Over 400 reports and dashboards cover all enterprise areas and business needs
- High performance reports (dramatically 20 sec )

# Summary

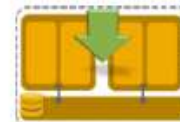
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- PartnerEdge program allowed us building the HIDP demo platform just a few months
- HANA technology fully corresponds our expectations
- A new Fraud Detection product created
- A new opportunity for Fraud Detection as a Service evaluated
- Focus on modern SAP technologies allows us to be sure in near future success

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# Questions?

# Сертифицированное оборудование HANA



										 (только Китай)
<b>XS: 128 ГБ</b>	X	X		X	X	X	X		X	
<b>S: 256 ГБ</b>	X	X	X		X	X	X			
<b>S+: 256 ГБ</b>	X	X	X	X	X	X			X	
<b>M: 512 ГБ</b>	X	X	X	X	X	X			X	X
<b>M+: 512 ГБ</b>	X	X	X			X				
<b>L: 1,0 ТБ</b>	X	X	X			X	X		X	
<b>Горизонт. машт. (BW)</b>	S-L	M	M, L	M	M	S-L	M	M	В плане	
<b>SoH: 1/2/4 ТБ</b>	1/2/4	1/2/4	2/4	1	1	1/2/4	1/2		1/2/4	
<b>Высокая доступность</b>	X	X	X	X	X	X	X		В плане	
<b>DR: асинхр. тираж. памяти</b>										
<b>DR: синхр. тираж. памяти</b>	X	X	X	X		X		В плане		

\* **Актуальный список см. в матрице доступности продуктов SAP**

# Thank you

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