

# Digital Finance



Alain Brissaud, Head of Business Development Finance, SAP France

Paris, le 9 novembre 2017

séminaire ASPROM







# Digital Finance

What will it mean for the CFO?

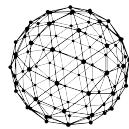
# The world is changing quickly

Digital technologies are disrupting business models in EVERY industry

## Digital Technologies are Here to Stay



Mobile



Hyper  
Connectivity



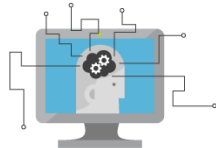
In-Memory  
Computing



Internet  
of Things



Big Data



Machine  
Learning



Social



Cloud

Digital business models are disruptive.  
The rules have changed.



**Asian Paints** is not just selling paints, they sell outcomes – painted buildings and rooms



**Tesla** is not just a car manufacturer, it has established itself to a major player in the Utilities and high-tech battery business



**AngloGold Ashanti** is not just another mining company, it is changing its approach to mining efficiency with precision-mining



**John Deere** is not just a machinery manufacturer, they transform themselves to a full service provider for the farmer

# New Business Models create Opportunities and Challenges

Finance transformation will help drive innovation and manage volatility

## Managing increased market volatility



Currency exchange risk



Consumer preferences



Tax changes



Complex regulatory requirements

## Proliferation of new business models



Blurring industry lines



Mergers and acquisitions



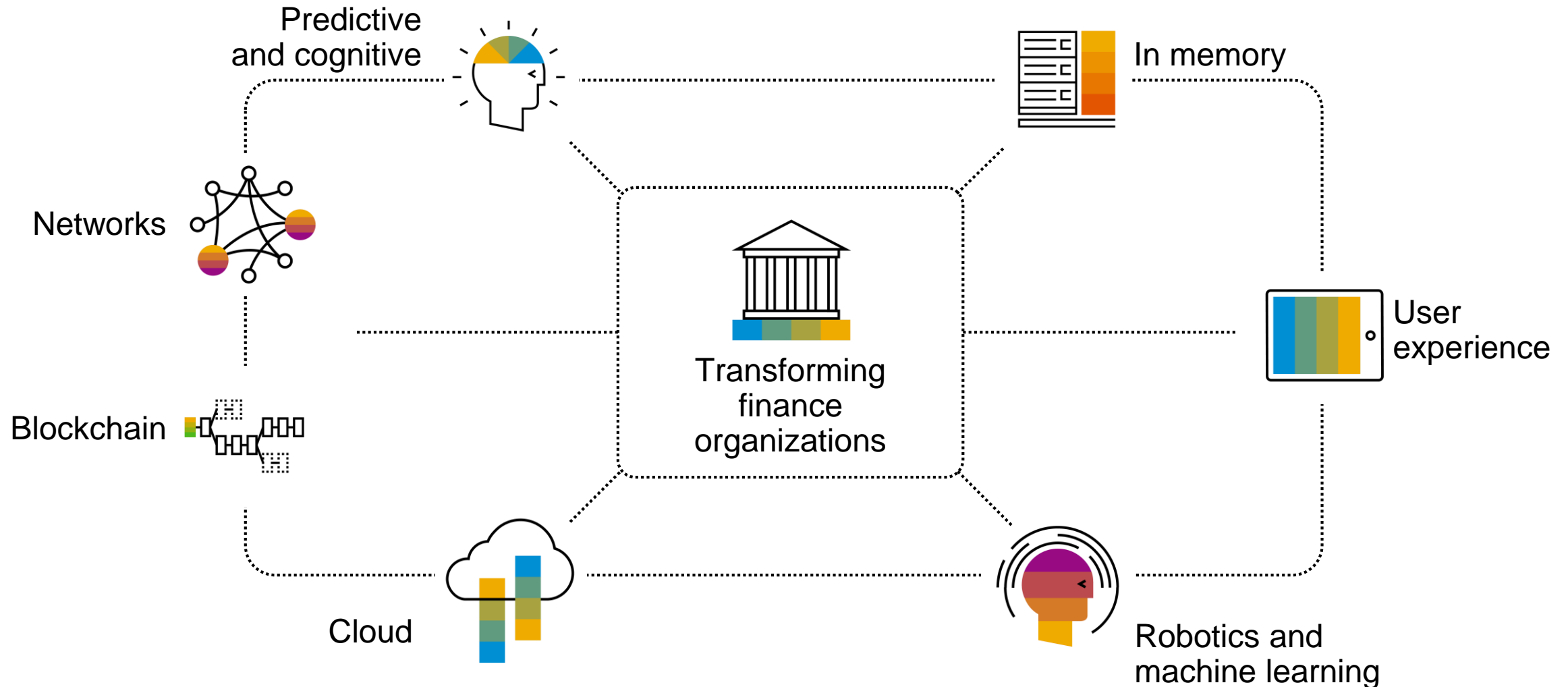
Disruptive competitors



Digitally enabled business models

# Digital Technology is transforming how Business gets done

The future of the finance function will be determined by new technologies



# Digital finance : from Process driven to Data driven

**Real-time, continuous processes** with no manual processes or media breaks

**Full transparency** of all information accessible to everyone in the moment





# HANA overview



# Re-think Data Management for Real-time Business

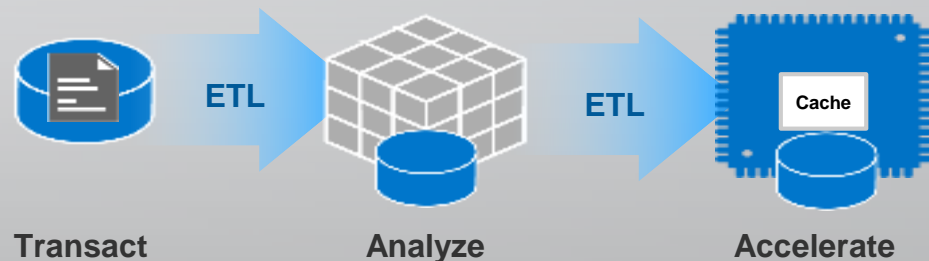
Need to eliminate redundant data copies, materialization and models



## A Common Database Approach for OLTP and OLAP Using an In-Memory Columnar Database

Hasso Plattner

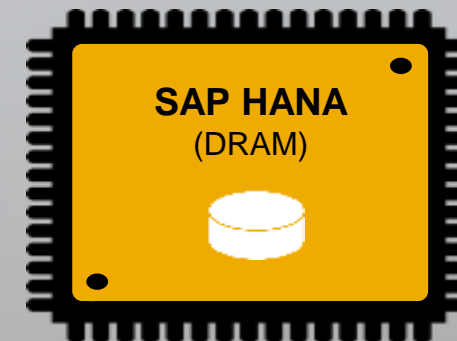
### Separated Transactions + Analysis + Acceleration processes



- 3 copies of data in different data models
- Inherent data latency
- Poor innovation leading to wastage

VS

### One atomic copy of data for Transactions + Analysis, All in Memory



- Eliminate unnecessary complexity and latency
- Less hardware to manage
- Accelerate through innovation and simplification



# imagine

A person is paragliding over a vast mountain range. The paraglider's wing is a vibrant red and orange, contrasting with the blue and grey tones of the mountains and sky. The person is silhouetted against the sky, and the wing is spread wide, showing its structure. The background features a series of jagged mountain peaks under a clear blue sky.

... responding in real-time to changes in demand for higher market responsiveness

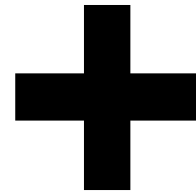
... empowering employees with real-time business insights for higher engagement

... connecting to machines and devices in real-time for higher customer service

... delivering personalized offers in real-time for higher customer experience

# HANA = ...

## In-memory Database



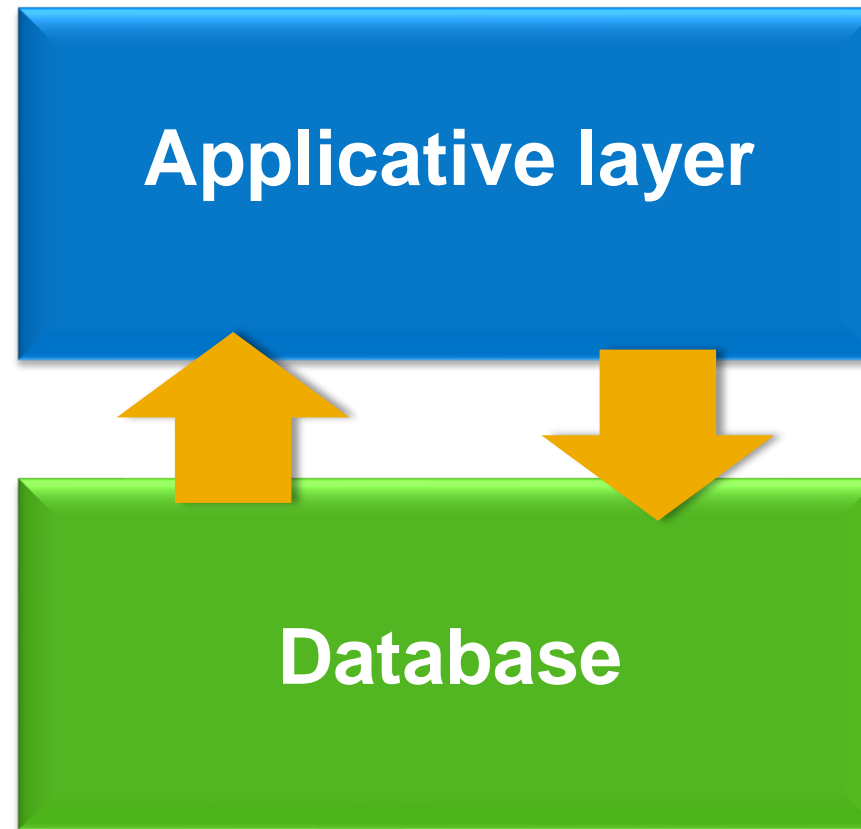
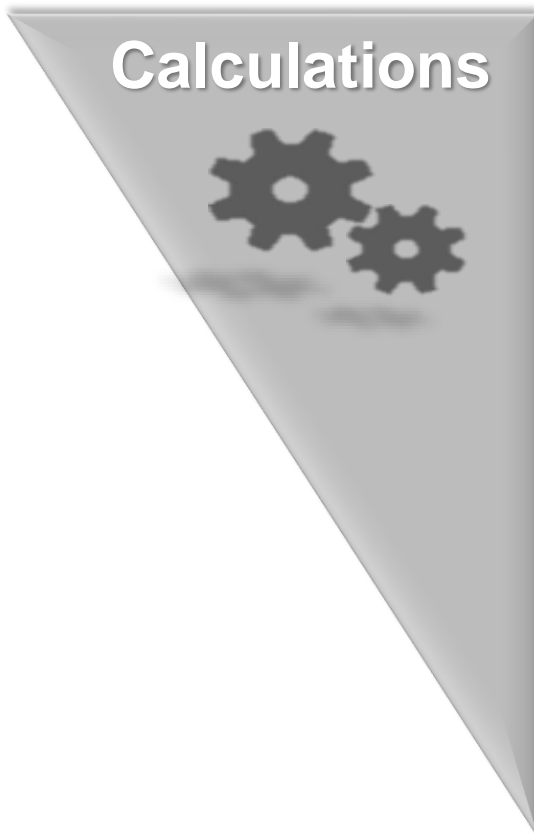
## Application Platform



# Avoid bottlenecks

Rethink the three-tiers paradigm

## Today



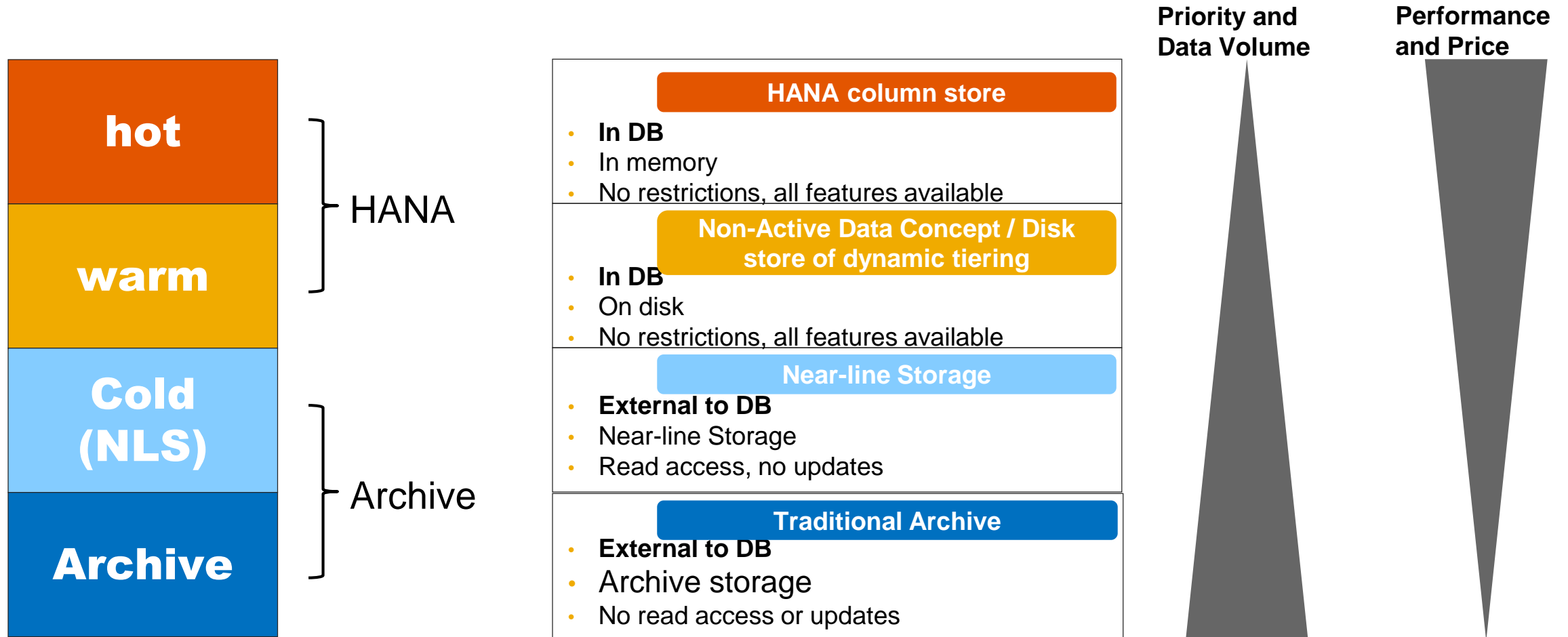
## With HANA





# SAP HANA Platform

## Introducing SAP HANA Dynamic Tiering





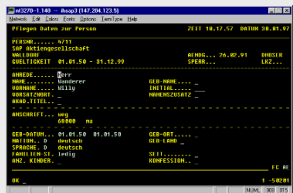
**S/4 HANA**

***New ERP Suite for ultimate simplification***

# We've come a long way together

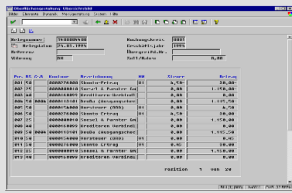
- ✓ Integration
  - ✓ Standardization
  - ✓ Globalization
  - ✓ Trust
- ✓ **45** years of innovation across industries
  - ✓ **300,000+** customers
  - ✓ **74%** of the world's transaction revenue touches an SAP system
  - ✓ **Always** providing multiple ways of innovation adoption

SAP R/2  
Mainframe



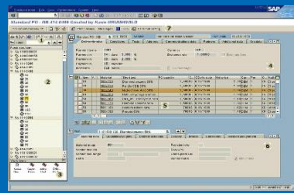
1972

SAP R/3  
Client/Server



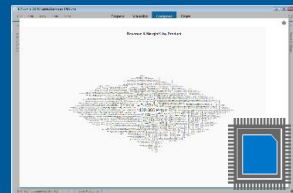
1992

SAP ERP  
www / mysap.com



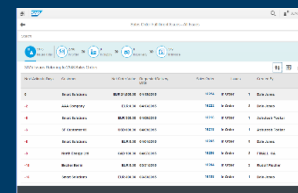
2004

SAP Hana  
In Memory



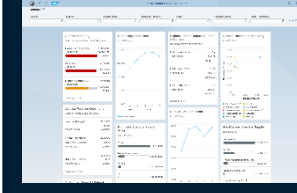
2011

Suite on HANA  
TX/ Apps on Hana



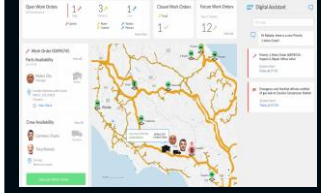
2013

SAP S/4 HANA  
The Digital Core



2015

SAP S/4 HANA  
SAP Leonardo  
Connectivity  
(IoT, ML, BC )

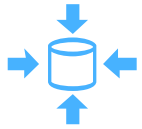


2017



# Data Footprint

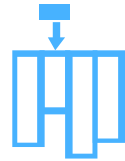
Compression



Column  
store



Any attribute as  
an index

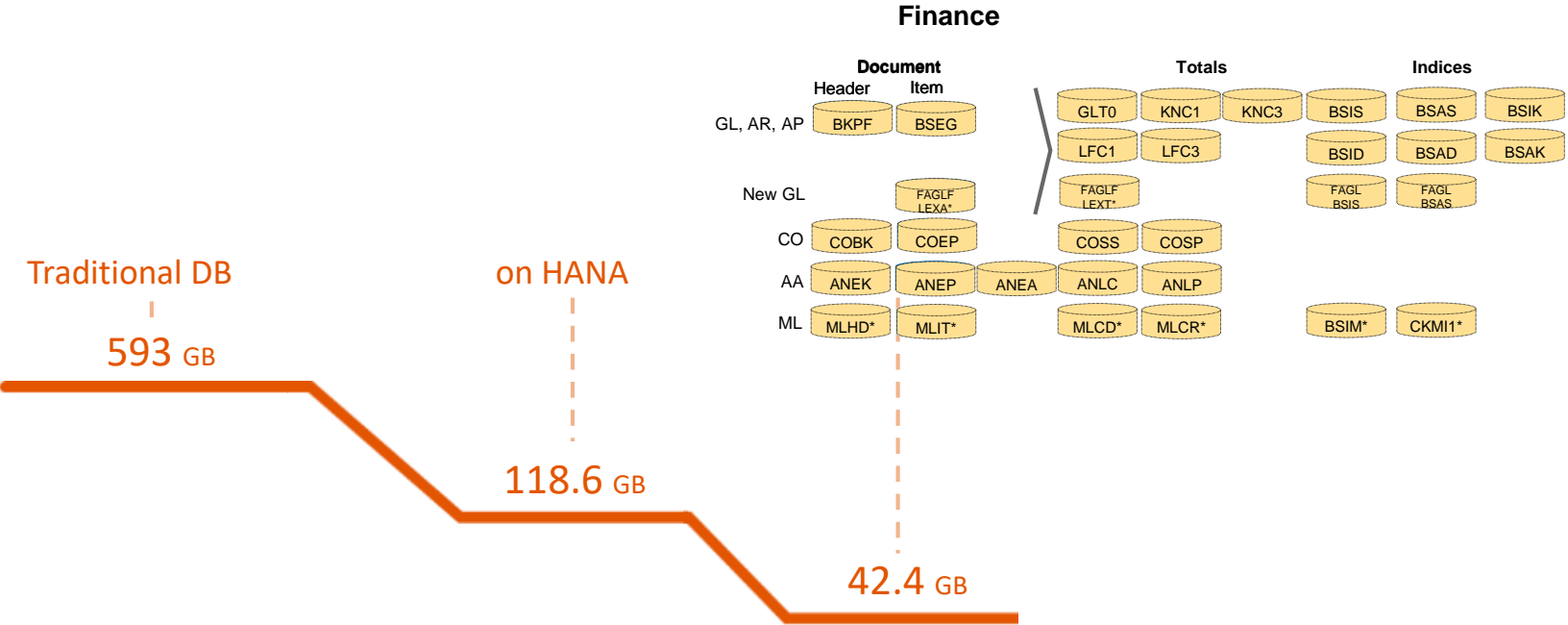


OLAP + OLTP  
together

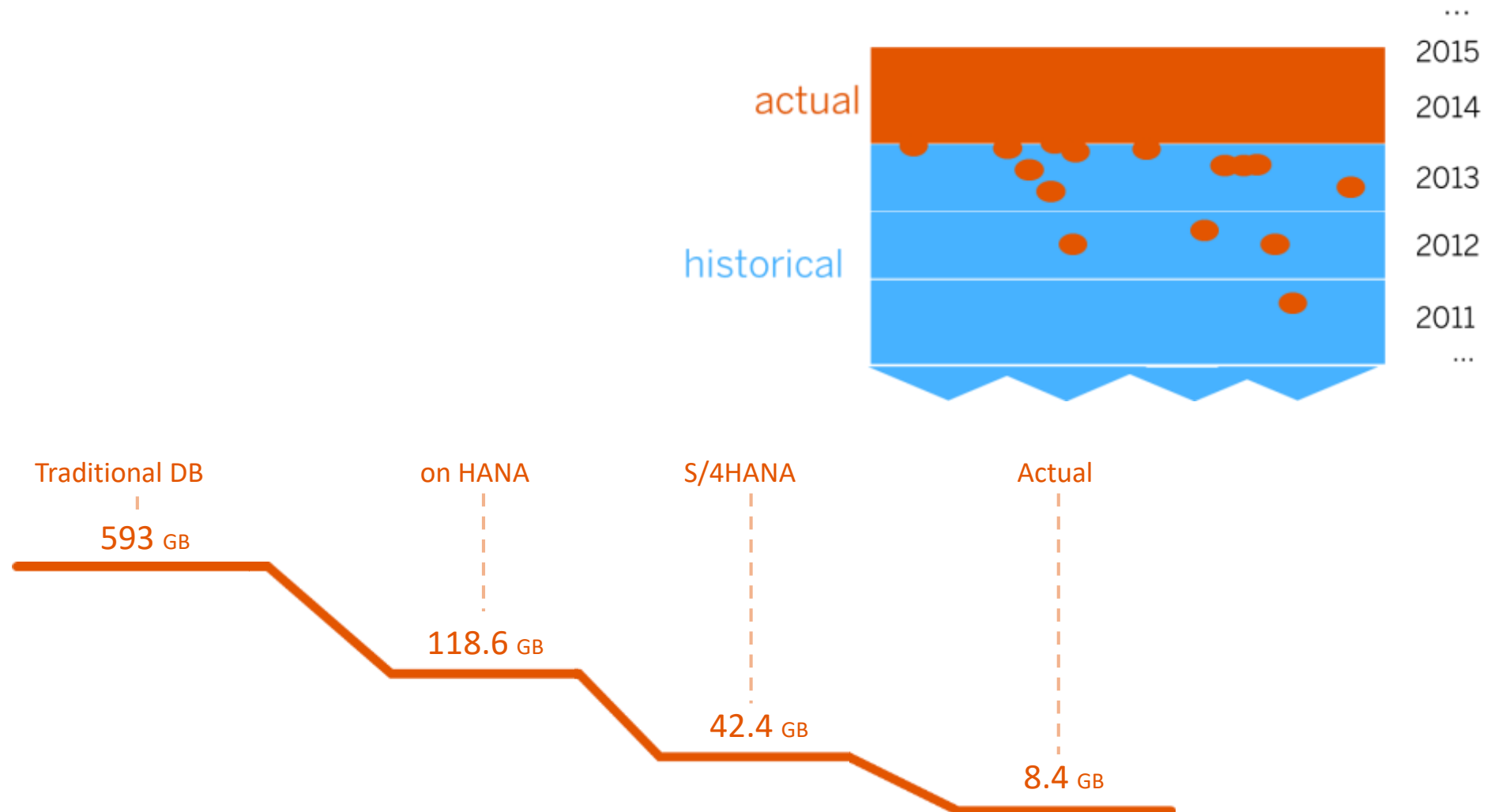


# Data Footprint

SAP Finance with aggregates and indices



# Data Footprint





# Simplifying database & table structures to prepare for scale



## SALES

	Document			Item	
	Header				
Sales Order	VBAK		>	VBAP	VAKPA VAPMA
Delivery	LIKP		>	LIPS	VLKPA LKPMA
Billing Document	VBRK		>	VBRP	VRKPA VRPMA
Status Info	VBUK			VBUP	
Conditions		KONV			VBOX
Document Flow		VBFA			

## FINANCE

	Document			Totals			Indices		
	Header	Item							
GL, AR, AP	BKPF	BSEG	>	GLT0	KNC1	KNC3	BSIS	BSAS	BSIK
			>	LFC1	LFC3		BSID	BSAD	BSAK
New GL		FAGLF LEXA*	>	FAGLF LEXT*			FAGL BSIS	FAGL BSAS	
CO	COBK	COEP		COSS	COSP				
AA	ANEK	ANEP	ANEA	ANLC	ANLP				
ML	MLHD...	MLIT...		MLCD...	MCLR...		BSIM*	CKMI1*	

# SAP Business Suite

## MATERIAL VALUES

Valuation in MM or Valuation ML

### Aggregates

Hybrid: Master Data with Valuated Stock

### History

ML Valuation

MBEW	>	MBEWH	CKMLCR	MLPP	CKMLPP	CKMLPPWIP
EBEW	>	EBEWH	CKMLPP	MLCR	CKMLCR	CKMLKEPH
QBEW	>	QBEWH	MLHD	MLCRF	MLCD	CKMLMV004
OBEW	>	OBEWH	MLIT	MLKEPH	CKLMMV004	

## MATERIAL QUANTITIES

### Aggregates

Stock Aggregates

### History

Material Document	>	MSSA	MSSL	MSSQ	>	MSSAH	MSTBH	MSSQH
MKPF	MSEG	>	MSTE	MSTQ	MSTB	>	MSTEH	MSTQH
Inventory Movements	Hybrid: Master Data with Stock Aggregates					>	MARCH	MARDH
		MCHB	MARC	MARD	MSKU	>	MSLBH	MCHBH
		MSKA	MKOL	MSPR	MSLB	>	MSKAH	MSKAH

# SAP'S DATA FOUNDATION



A diagram showing two components of SAP's Data Foundation: HANA and Vora. HANA is on the left, described as the Enterprise Computing Platform. Vora is on the right, described as the Distributed Computing Framework. They are connected by a horizontal line, indicating their integration.

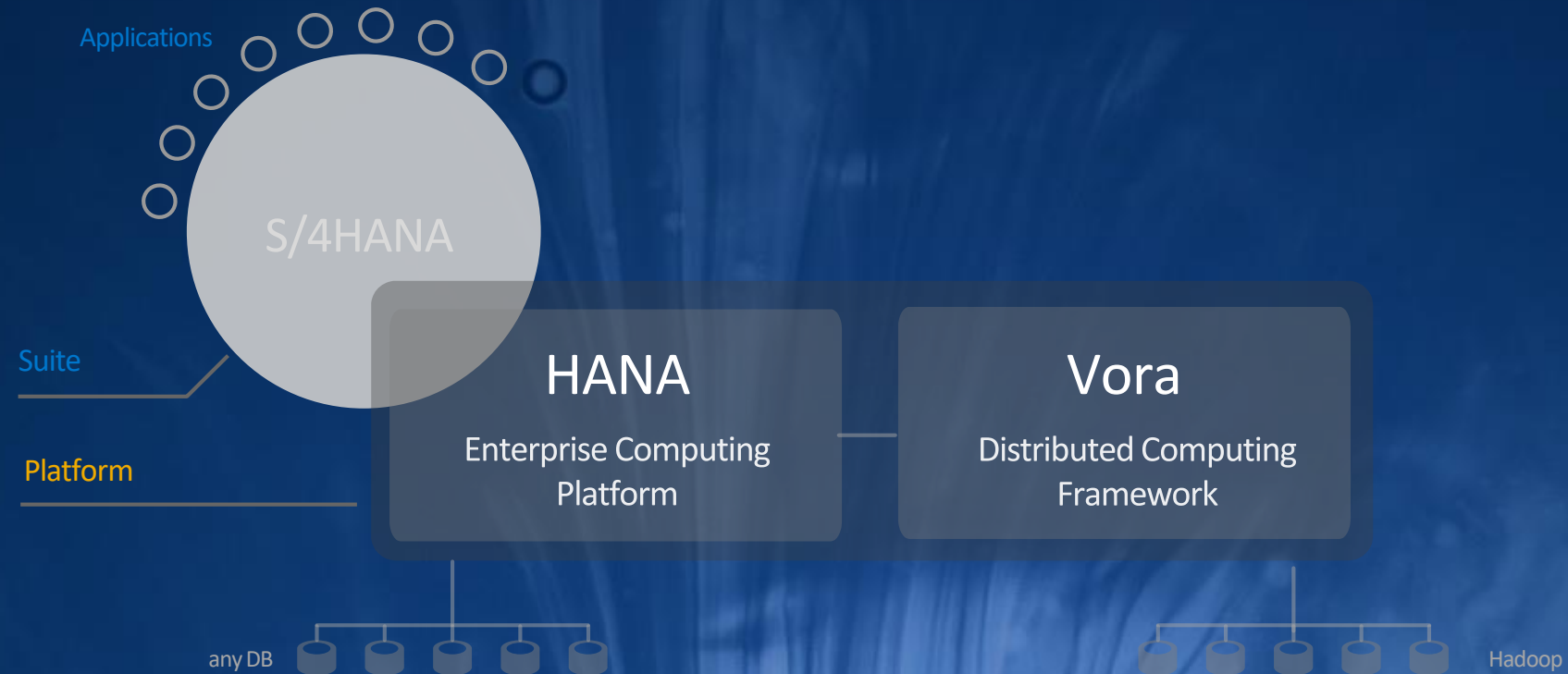
**HANA**

Enterprise Computing  
Platform

**Vora**

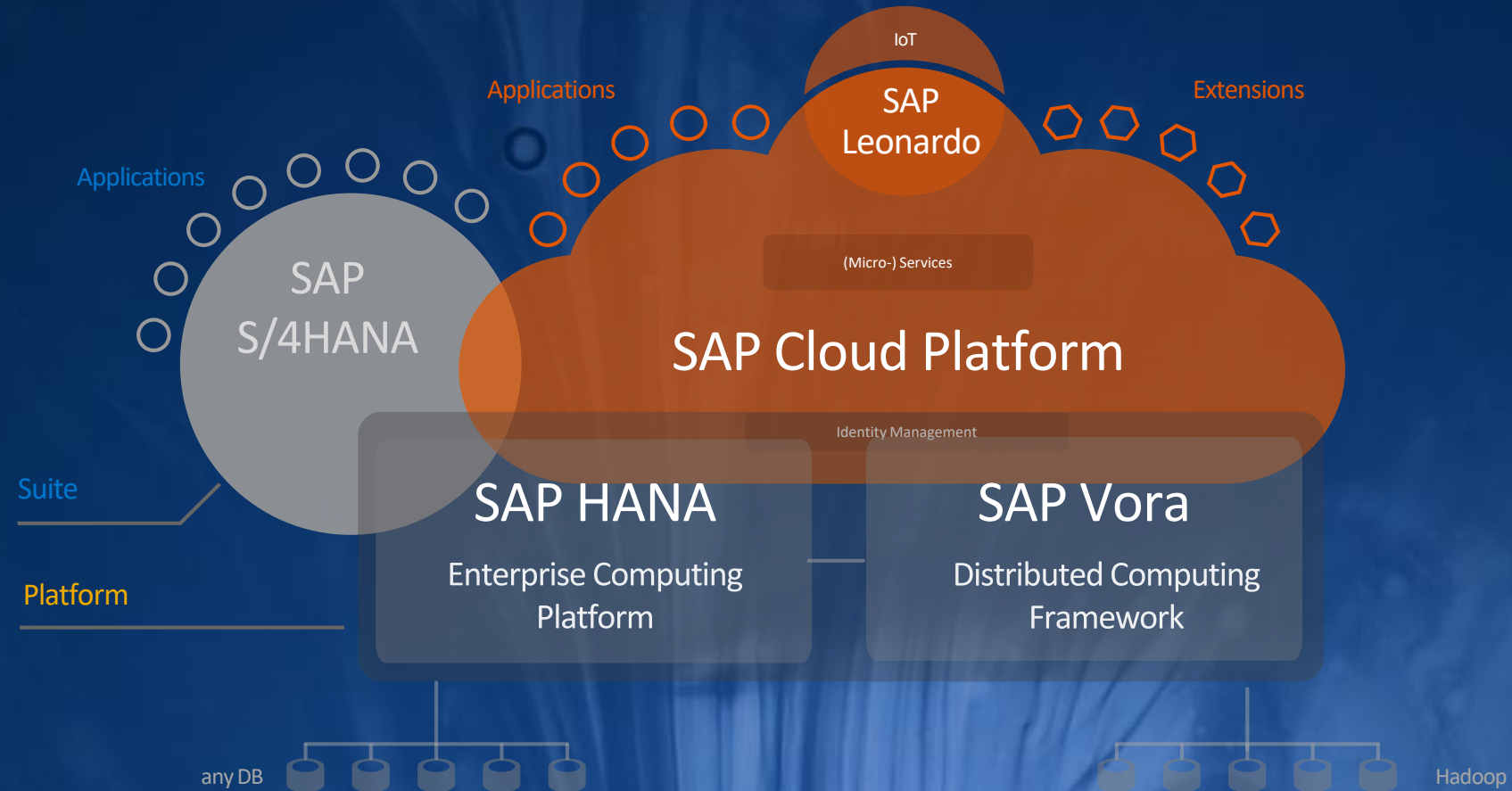
Distributed Computing  
Framework

# THE SAP DIGITAL CORE

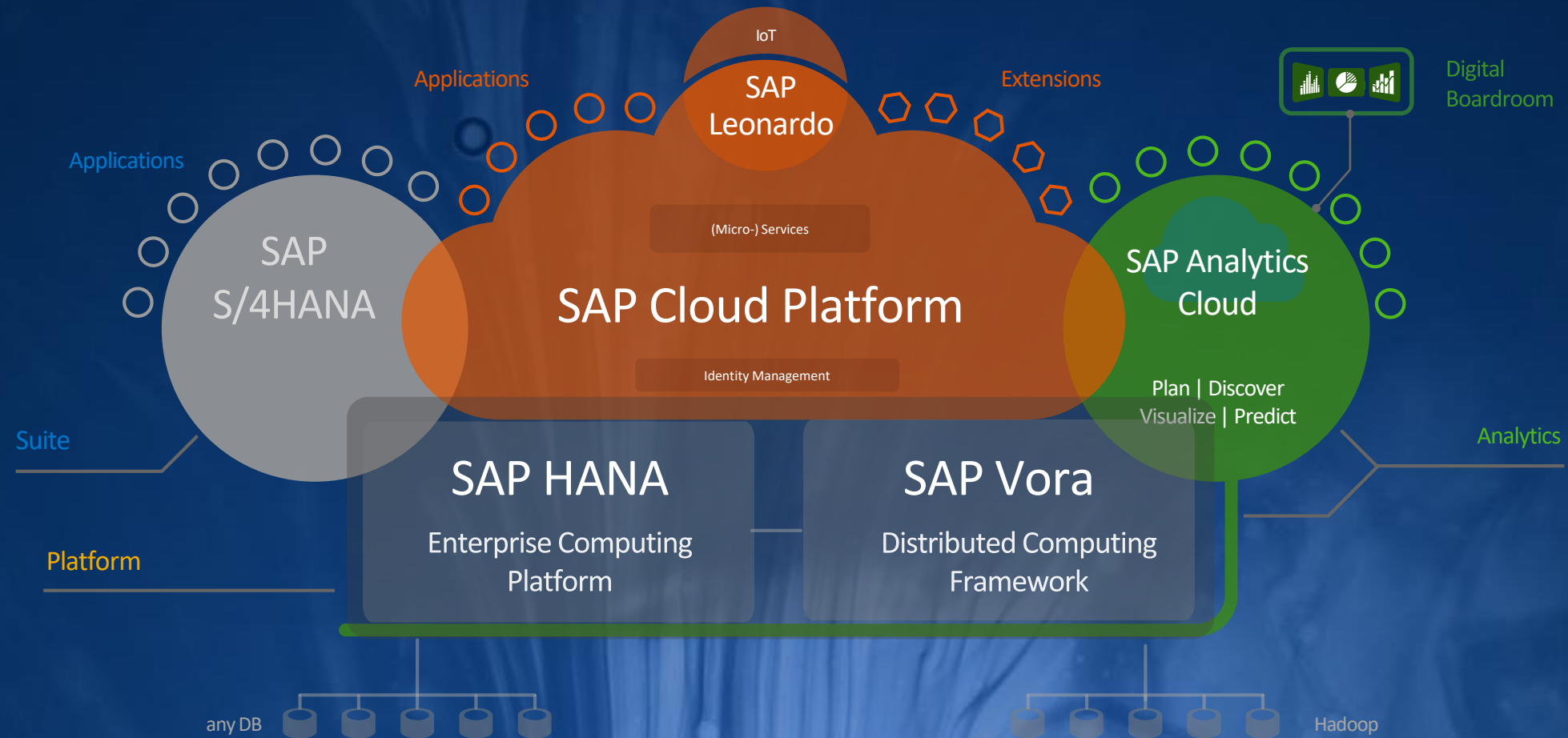




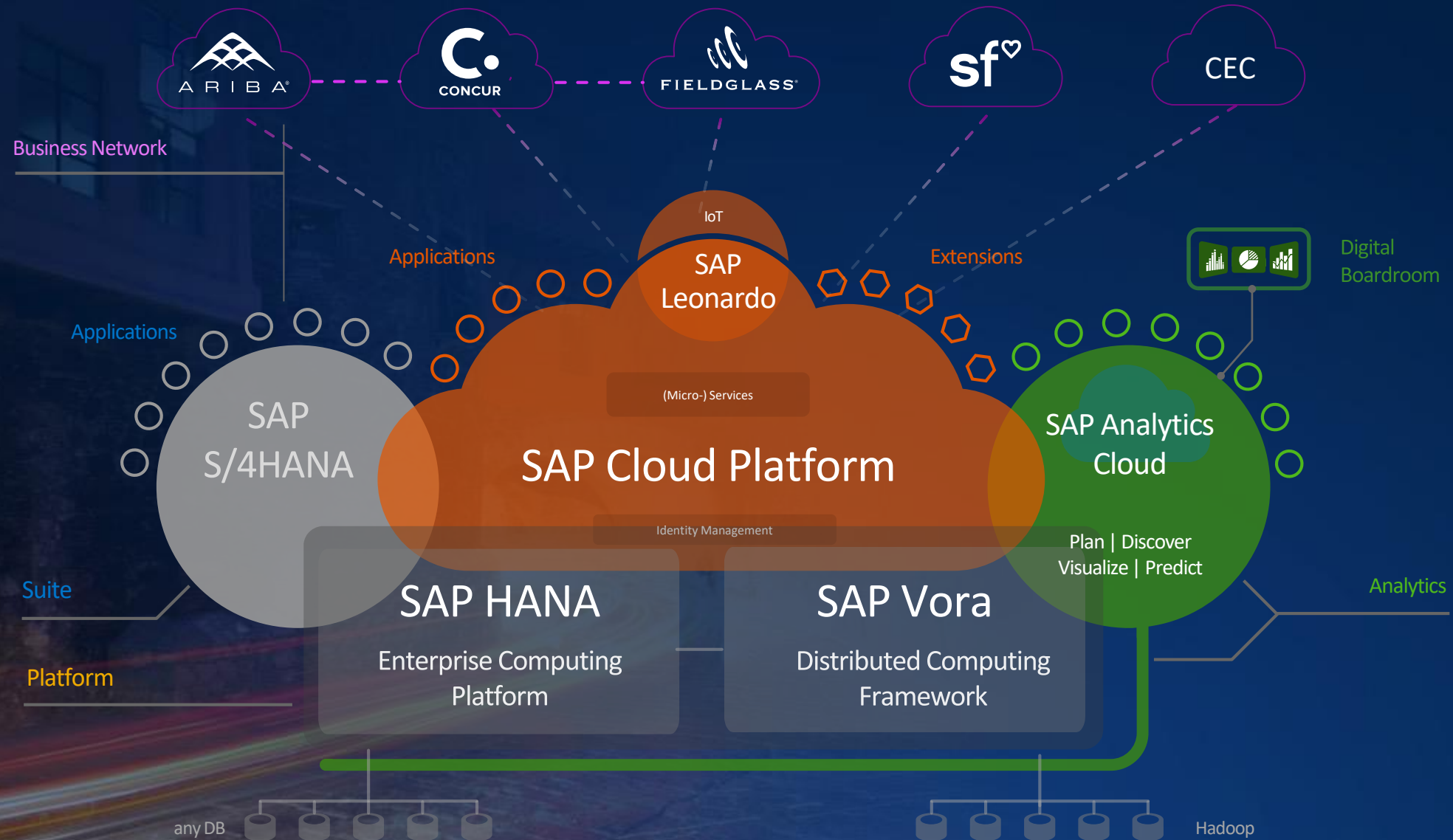
# LA PLATEFORME TECHNOLOGIQUE SAP DE TRANSFORMATION DIGITALE



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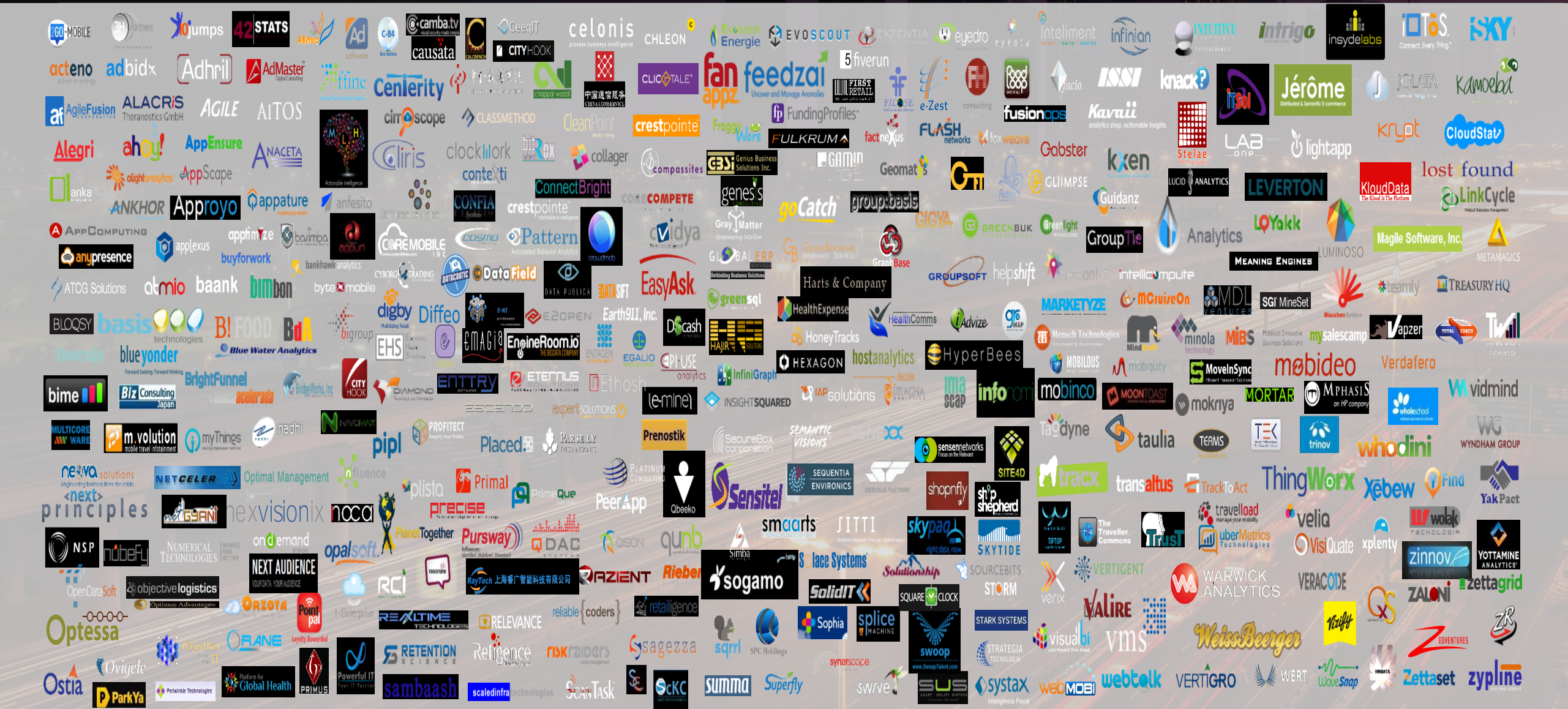


# La plateforme SAP pour l'Entreprise digitale dans le Cloud





**+3,500 Startups on board with SAP HANA**





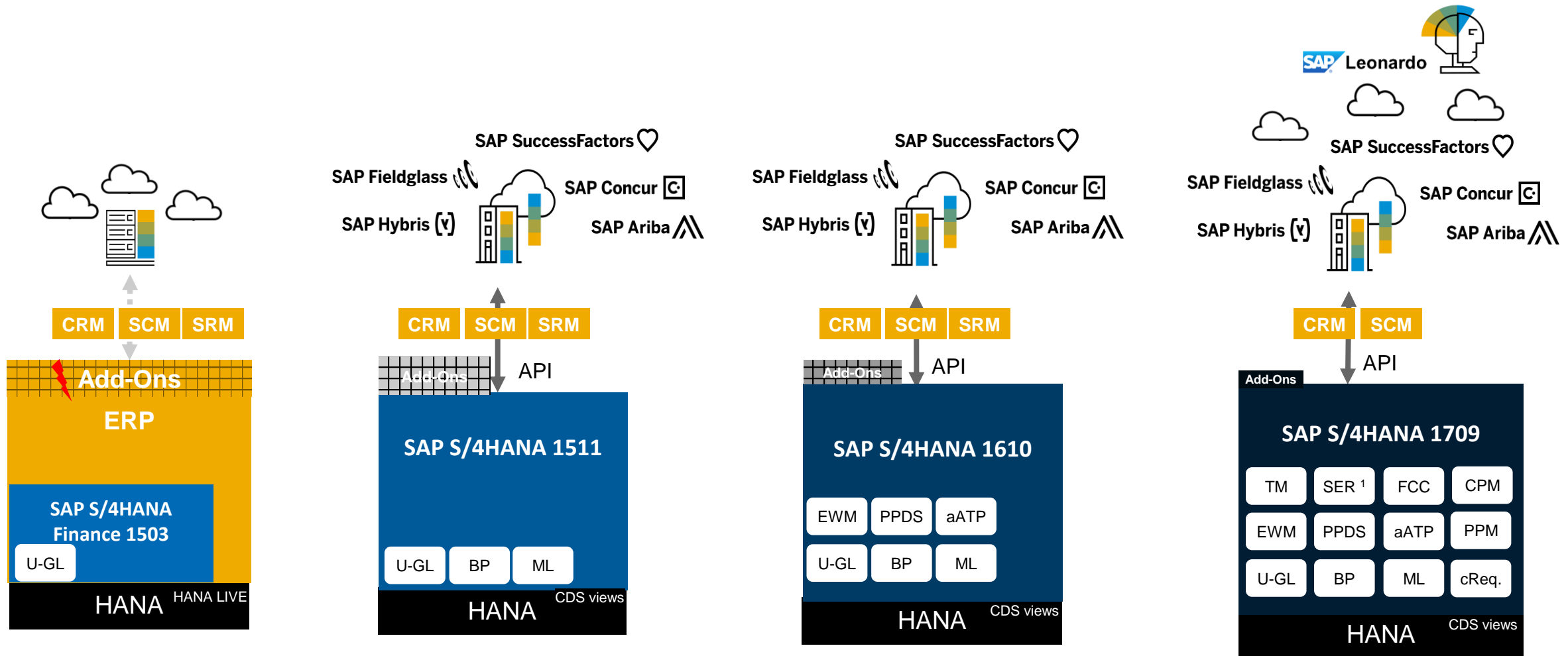


# SAP S/4HANA Finance

Key architectural elements



# The evolution of SAP S/4HANA with full speed ahead

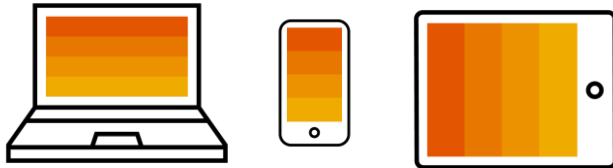


# SAP S/4HANA Finance

The foundation for enabling finance transformation

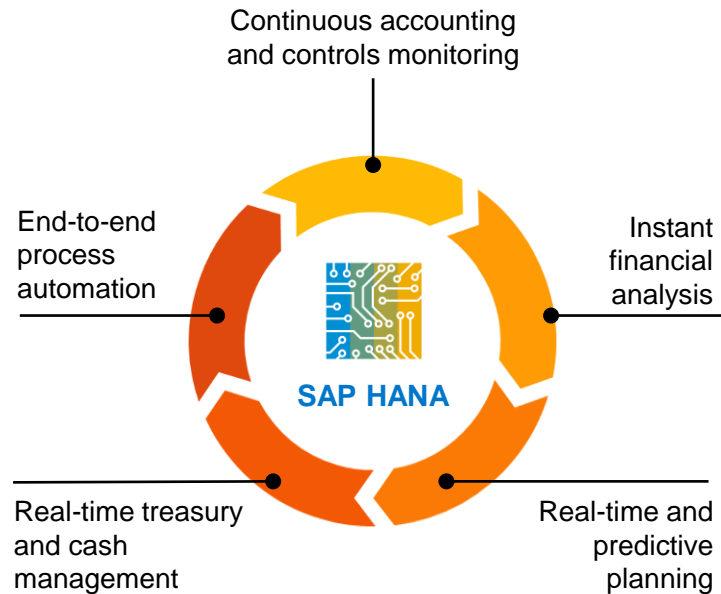
## Intuitive user experience

Consistent across devices



## Instant insight

In-memory enabled



## Flexible and nondisruptive

Easier to deploy and extend



# Consumer-grade User Experience

Compelling user interface – easy-to-use from macro to detailed view



# Real-time Line Manager Insights

Holistically address operational and strategic analytical needs

Support predefined reports and visualizations as well as self-service analytics

Deliver real-time planning, forecasting, simulation, and prediction capabilities

Eliminate inconsistencies with one accurate, up-to-date, single version of the truth

Meet the needs of varying finance organizations with comprehensive selection of analytics and reporting

## SAP Digital Boardroom

- Total transparency
- Instant data-driven insights
- Simplified steering meetings

## SAP Analytics Cloud

- Business intelligence
- Planning, forecasting, and simulation
- Predictive



## Analytics within SAP applications

- SAP S/4HANA embedded analytics
- SAP Fiori integration
- Predefined reports and visualizations
- Deeper insights into profitability

## SAP HANA analytical platform

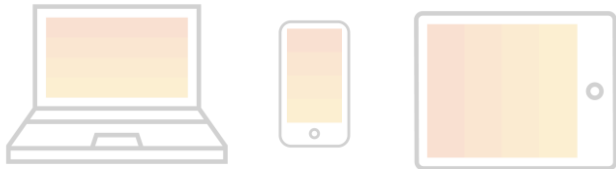
- Mixed architecture
- Predictive analytics engine
- Data quality
- Data governance

# SAP S/4HANA Finance

The foundation for enabling finance transformation

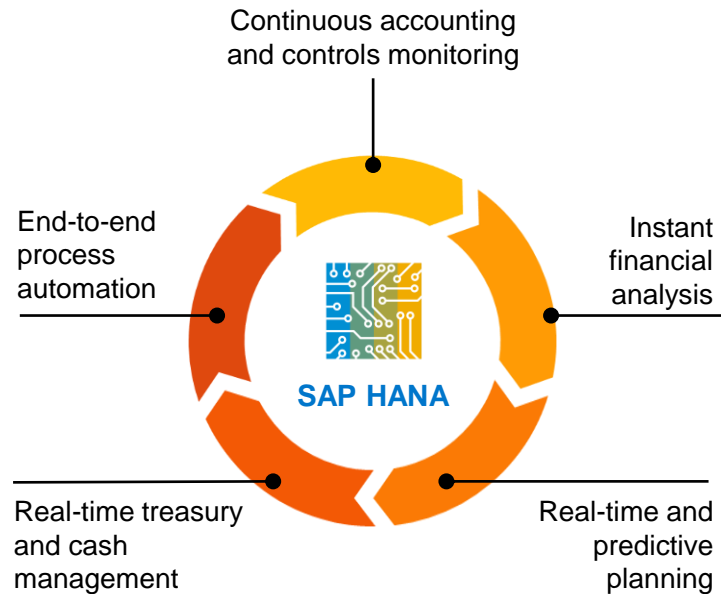
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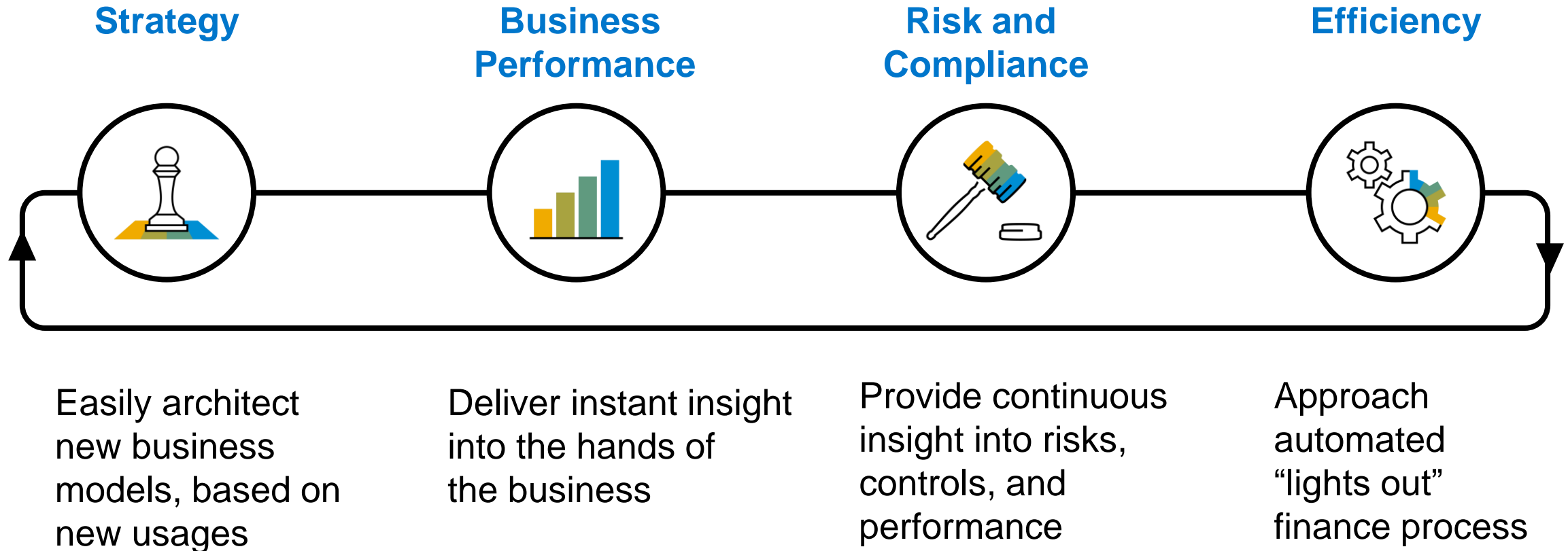
Easier to deploy and extend





# The Path forward

Reimagine and transform finance



# SAP Empowers the CFO and the Finance Teams



## Financial Planning and Analysis

Developing and Translating Strategy
Planning, Budgeting, and Forecasting
Profitability and Cost Management
Monitoring and Reporting



## Accounting and Financial Close

Accounting
Entity Close
Corporate Close
Reporting and Disclosure
Financial Close Governance



## Treasury and Financial Risk Management

Payments and Bank Communications
Cash and Liquidity Management
Debt and Investment Management
Financial Risk Management
Commodity Risk Management



## Finance Operations

Receivables Management
Collaborative Invoice-to-Pay
Lease Management
Real Estate Management
Financial Shared Services



## Enterprise Risk and Compliance Management

Enterprise Risk Management
Controls and Compliance Management
Access Governance
International Trade Management
Integrity Screening
Audit Management

**SAP S/4HANA Finance**

- New or significantly renewed solutions
- Solutions that are planned for renovation with SAP HANA
- SAP S/4HANA Finance solutions that have not been re-architected for SAP HANA



ACCOUNT GROUP SELECTION

Report

Profit Before Tax

Filter by Company Code

All 490 Company Codes applied ...

> Account Hierarchy Version

ACCOUNT GROUPS

Account Group	Balance 2016 (EUR)
✓ Profit Before Tax	242m >
> Non-operating Profit	-83m >
> Operating Profit	325m >

2014

2015

2016

31



START BY SELECTING ACCOUNTS  
FROM LEFT-HAND MENU



# Dynamic planning and analysis

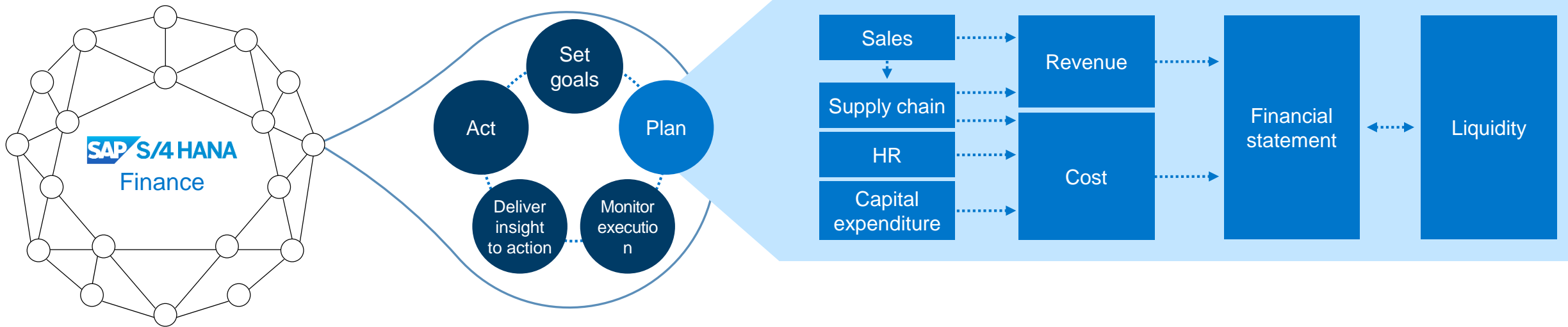
## BPC for S4/Hana



Integrated budgeting embedded in closed loop performance management



Responsiveness to changing business environment



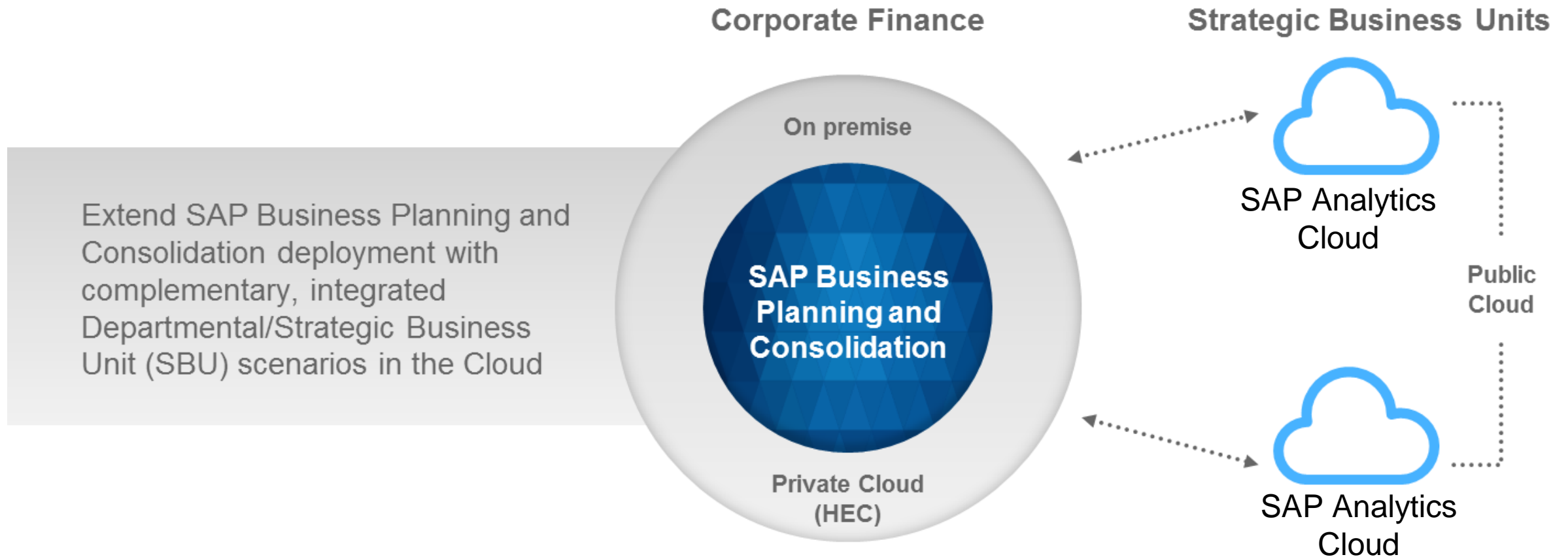
- Link operational decision with strategic goals
- Monitor execution in real time
- Trigger mitigation and actions
- Integrated budgeting and forecasting
- Embedded planning with real-time access to transactional data
- Built-in predictive and simulation capabilities

SAP HANA platform and SAP S/4HANA  
(Single source of truth)

# Integration with SAP Analytics Cloud

## Hybrid Scenario

Financial Planning  
& Analysis





# Real-time Customer and Product Profitability

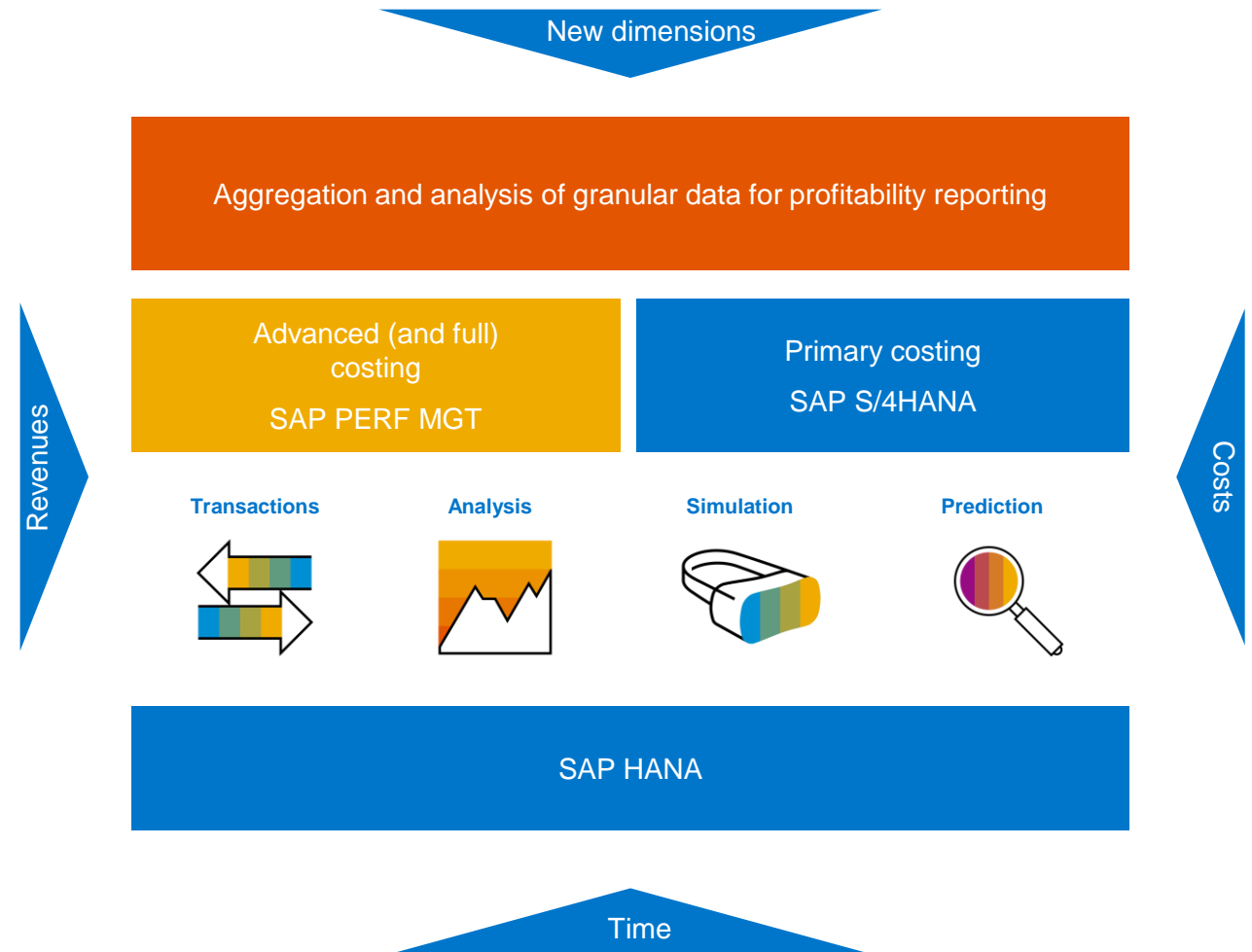


Profitability characteristics at line-item level  
in real time, over time

Root cause analysis and traceback based on  
single source of truth

All-in cost transparency for cross charging,  
process improvements, and pricing

Self-service comparison of performance by  
customer, product groups, or other  
dimensions (including flexible hierarchies)



# Continuous Accounting

Accounting and  
financial close



Accelerate accounting with real-time integration of GL, fixed assets, AP, AR, inventory, revenue, and costs

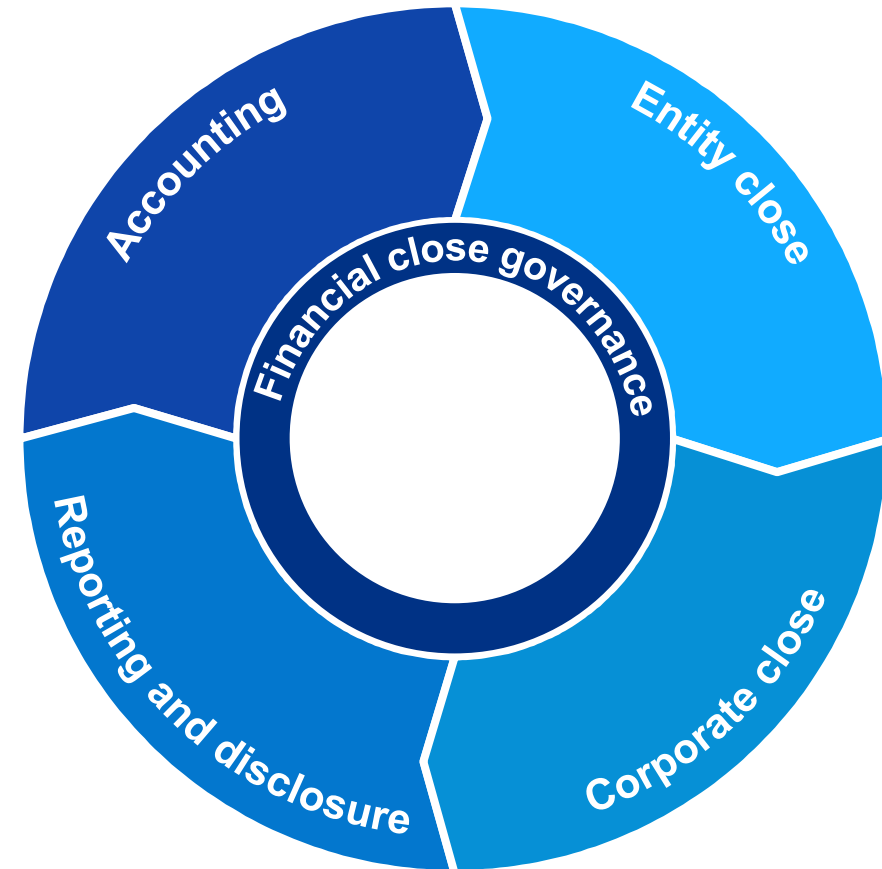
Collaborate effectively and automate processes with event-driven execution

Reduce cycle time through automation, integration, collaboration, and streamlining of processes

Provide central monitoring and self-service access to financial information with drill down

Deliver better insight at any time from anywhere – virtual “soft close”

Streamline population of Financial Consolidation packages (FC now includes an S4 connector)



# Predictive Accounting

Predictive accounting in relation to closing

Accounting and  
financial close



## Hard Close



### Accuracy and Confidence

- Disclosure externally with focus on compliance
- Respond to increasing external scrutiny
- Comply with strict regulations

Required

## Fast Close

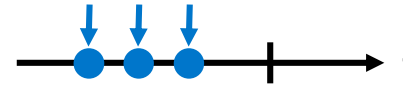


### Speed and Efficiency

- React to requirements for faster filing, acceleration
- Provide evidence for the quality of the finance department
- Analyze data with more time available
- Elimination of tasks

Desired

## Soft Close

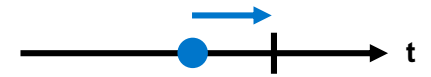


### Instant Insight

- Improve management and control of operations
- Allow for immediate decisions
- Highlight service provider approach of Financials department
- Boost fast close

Inspired and Admired

## Predicted Close



SAP Labs preview

# Perfect Planning, Automation and Monitoring – SAP S/4HANA Financial Closing cockpit

## Benefits

Faster Entity Close through improved closing efficiency

Governance and Compliance

Transparency and Insight

**New LAUNCH\* with 1709**  
- Part of SAP S/4HANA Core  
- Fiori-Renovation  
Future Direction: cloud, automation & intelligence



## Capabilities

Automated closing tasks, even in remote systems and powerful, user-friendly application for manual tasks

Collaboration, notifications, and workflows

Define a global game plan for the entity close; leverage it for multiple org units and closing cycles

Audit trail, logging, documentation

Real-time insight into the closing status

Monitoring by subsidiaries and headquarter

Close Analysis

# 15-25%

Faster Closing cycle – while ensuring high quality compliant results

Source: SAP Performance Benchmarking

\* This is the current state of planning and may be changed by SAP at any time without notice.

# Real-time actual to plan Cash Cycle

Treasury  
management



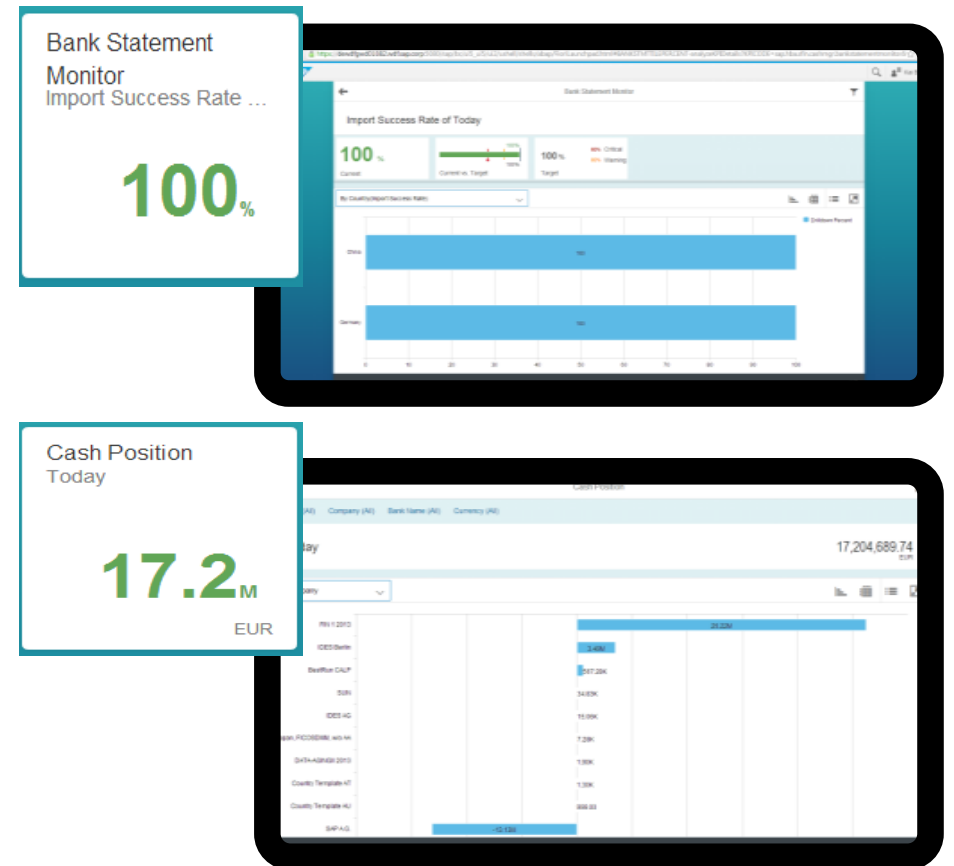
Easily consolidate all cash data from SAP and non-SAP systems into one single version of the truth

Monitor critical KPIs and have real-time overview and response to cash requirements

Centralize bank account management including overdraft limit and bank risk analysis management

Simplify and automate cash analysis and liquidity management, reducing banking fees and borrowing costs

Improve control and compliance through integrated signatures with change history and workflows

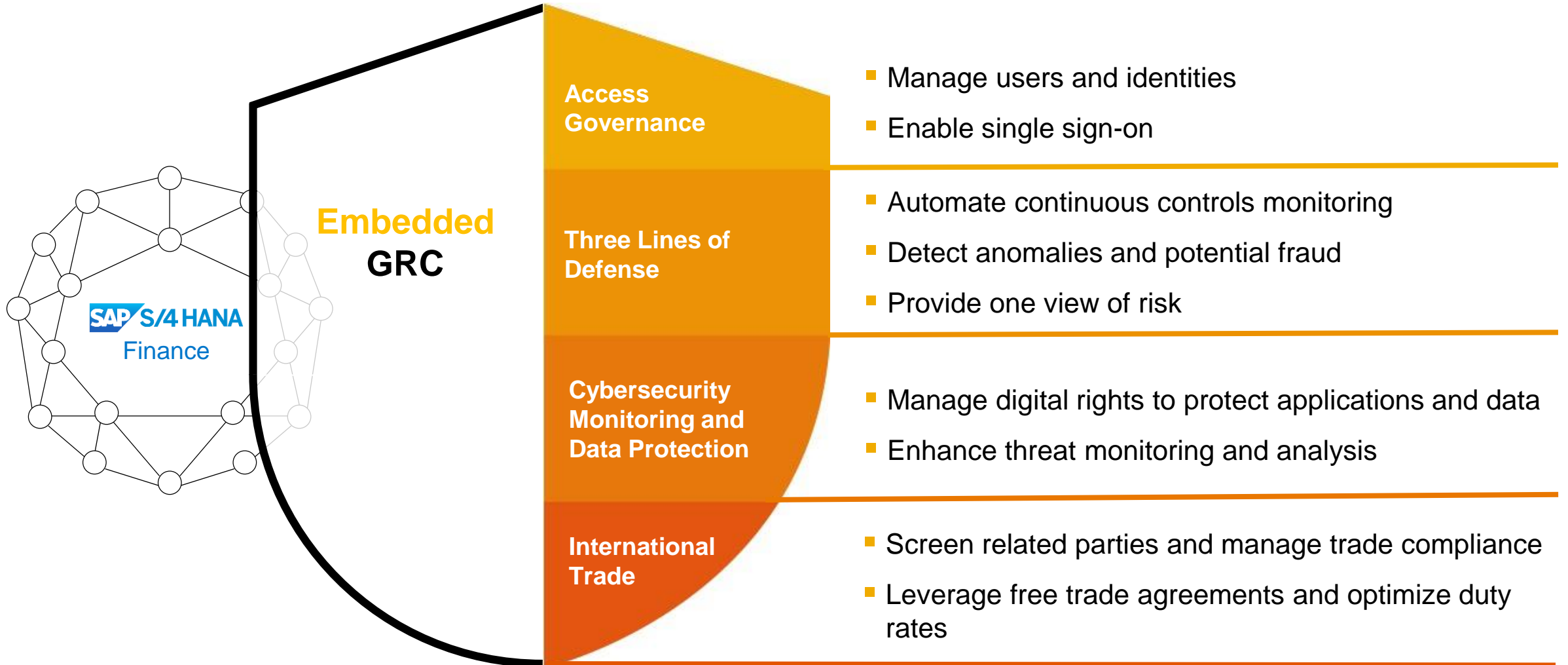




# Embed Governance, Risk, and Compliance in SAP S/4HANA

Manage risk and improve performance

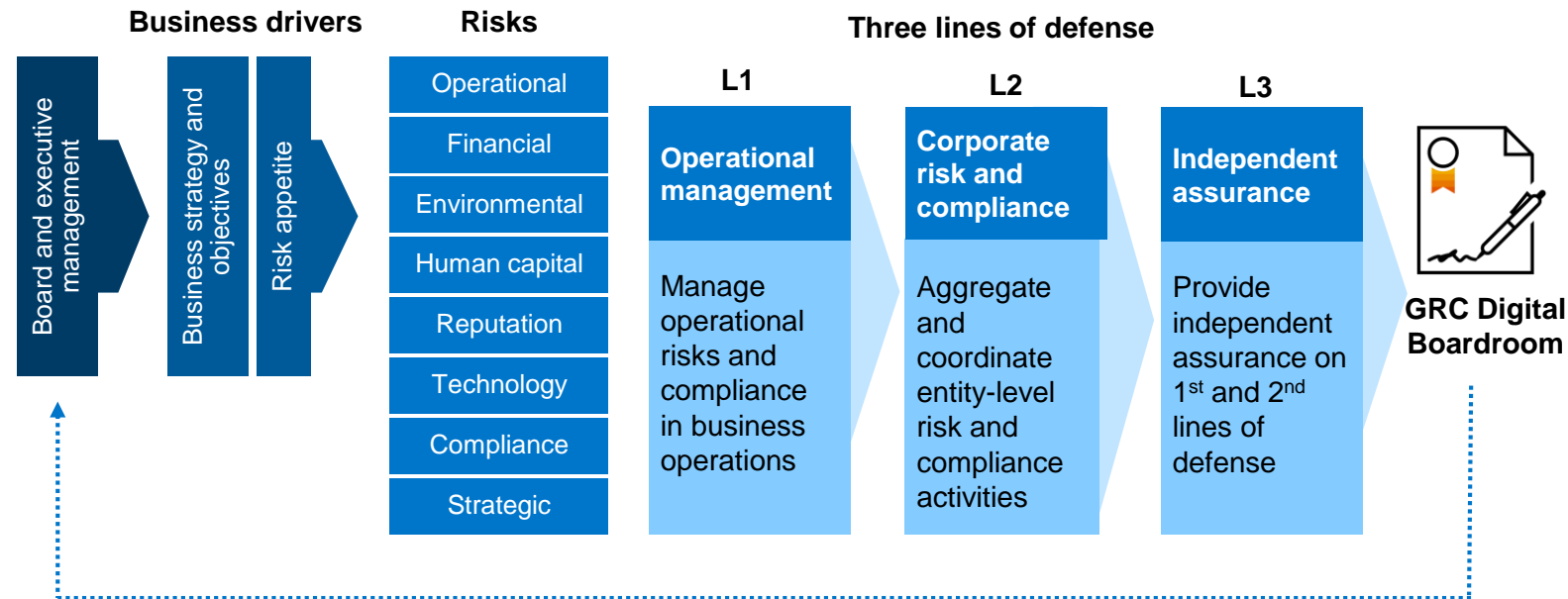
Enterprise Risk & Compliance



# Three Lines of Defense

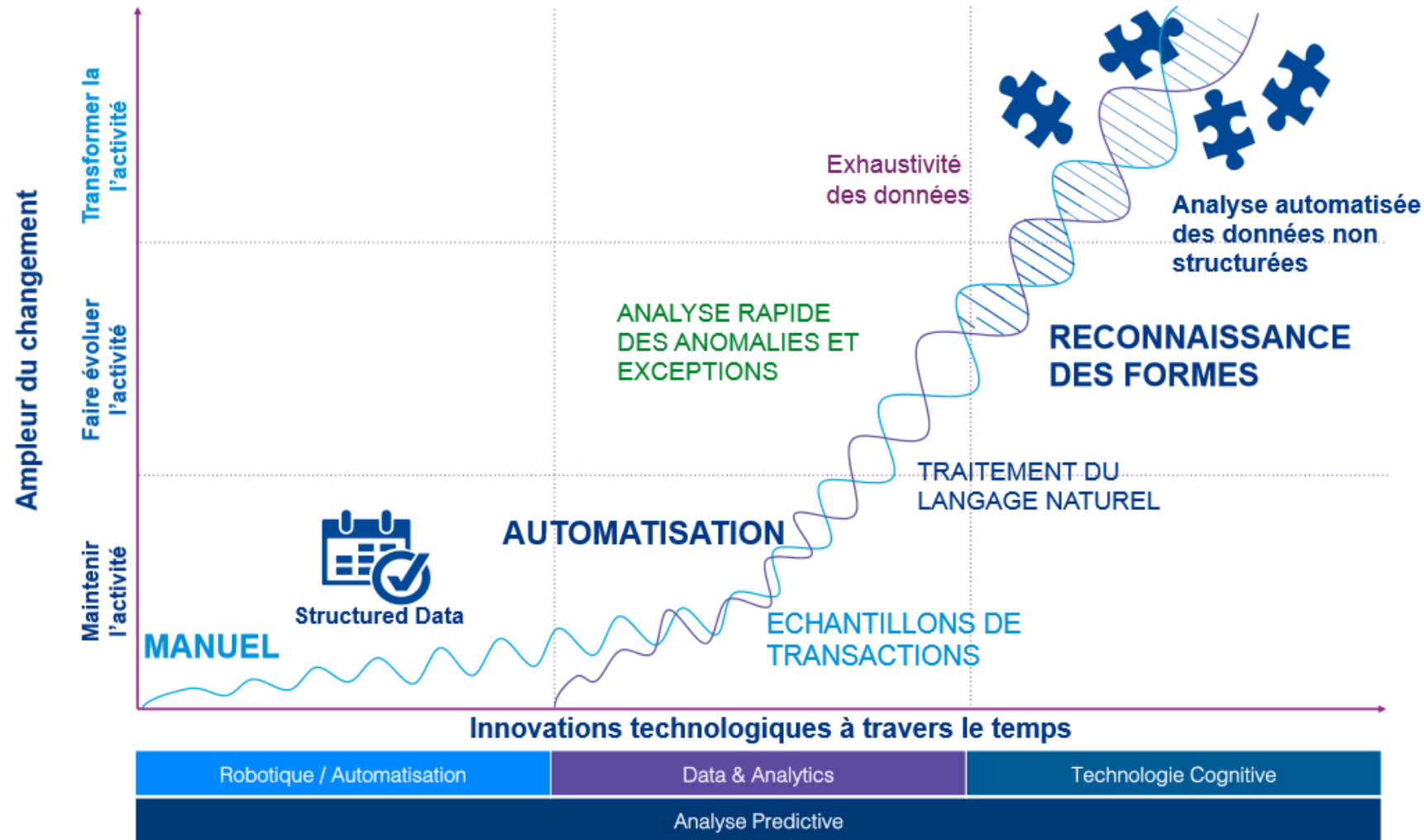


- One view of strategic objectives and related risks, controls, and issues
- Key risk indicators to highlight real-time changes in risk levels
- Automated controls within key processes to provide up to 100% population coverage with exception-based alerts
- Regulatory requirements aligned to controls and policies
- Screen third parties and detect anomalies and fraud



Embed **risk** and **control** monitoring  
in **SAP S/4HANA**

# Vers le cognitif



"Activité" représente les activités fondamentales des reporting financiers et des fonctions d'audit

# Market Trends – Digital Transformation

## New forms of “*Systems of Intelligence*” emerging ...



### Artificial Intelligence & Machine Learning, IoT, Insights

- By 2018, 75% of enterprise and ISV development will include Artificial Intelligence or machine learning functionality in at least one application, including business analytics tools - IDC



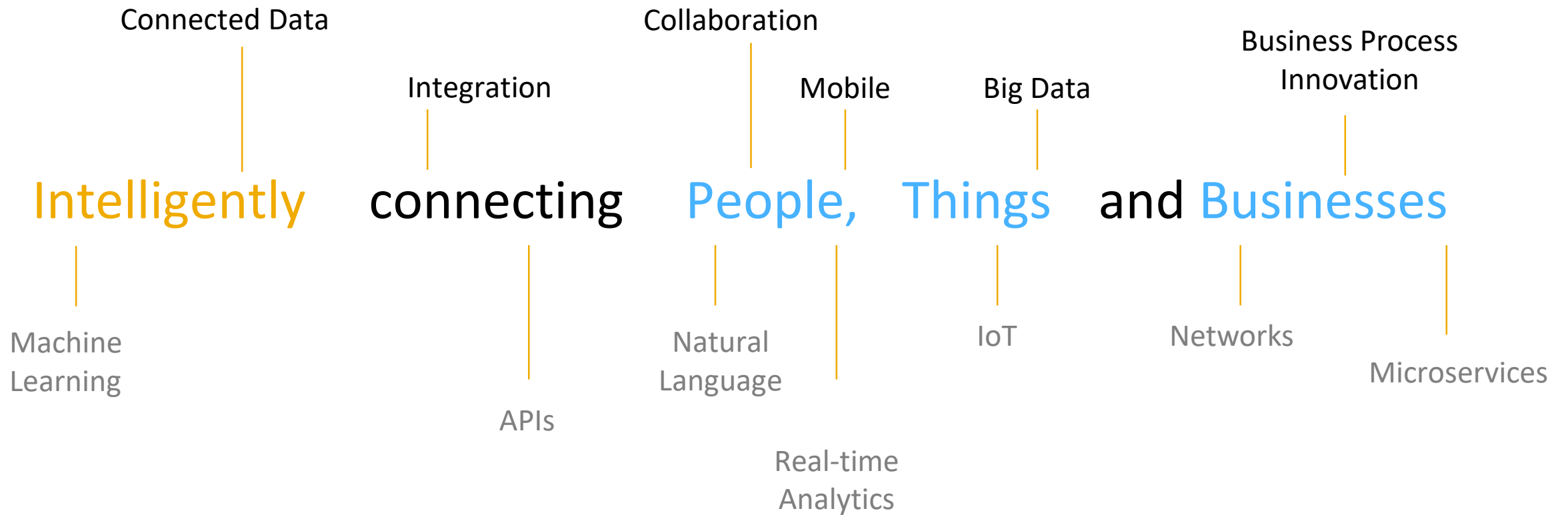
### Embedded Machine Learning, Analytics providing built-in guidance

- Developers are adopting embedded *Machine Learning* to build new analytic applications taking on new market opportunities
- By 2019, APIs will be the primary mechanism to connect data, algorithms, and decision services distributed across digital economy value chains, clouds, and datacenters.- IDC



### Conversational Applications: the new User Experience

- Completely re-imagined user interface and experience
- By 2019, natural-language generation will be a standard feature of 90% of modern BI platforms - Gartner



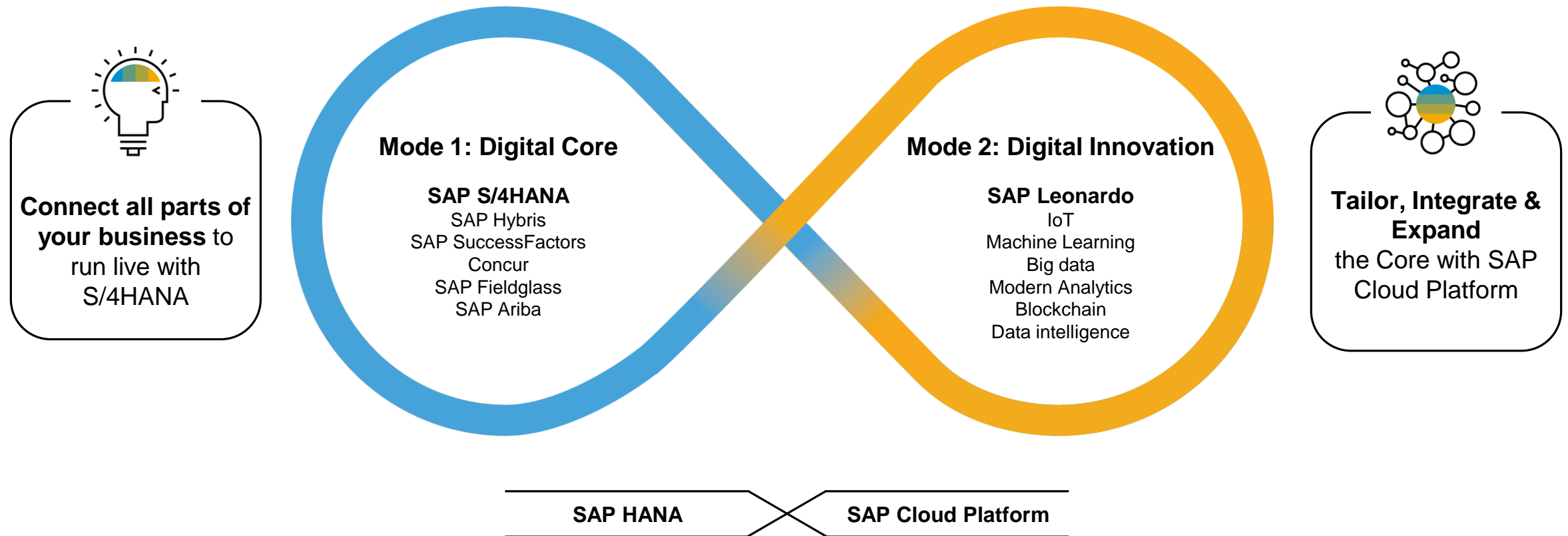


*The **digital innovation system** that enables you to **innovate at scale** to confidently redefine your business.*



# The Bi-Modal Architecture of the Modern Enterprise

A Digital Core *and* a Digital Innovation System



## Systems of Record

(business processes)

- SAP S/4HANA
- SAP Hybris
- SAP SuccessFactors
- Concur
- SAP Fieldglass
- SAP Ariba

**SAP Leonardo** makes SAP applications more intelligent and capable.



## System of Intelligence

- Internet of Things (IoT)
- Machine Learning
- Analytics
- Big Data
- Blockchain
- Data Intelligence
- Design Thinking

**SAP Leonardo**

**SAP Leonardo** delivers capabilities to create and scale new intelligent applications.

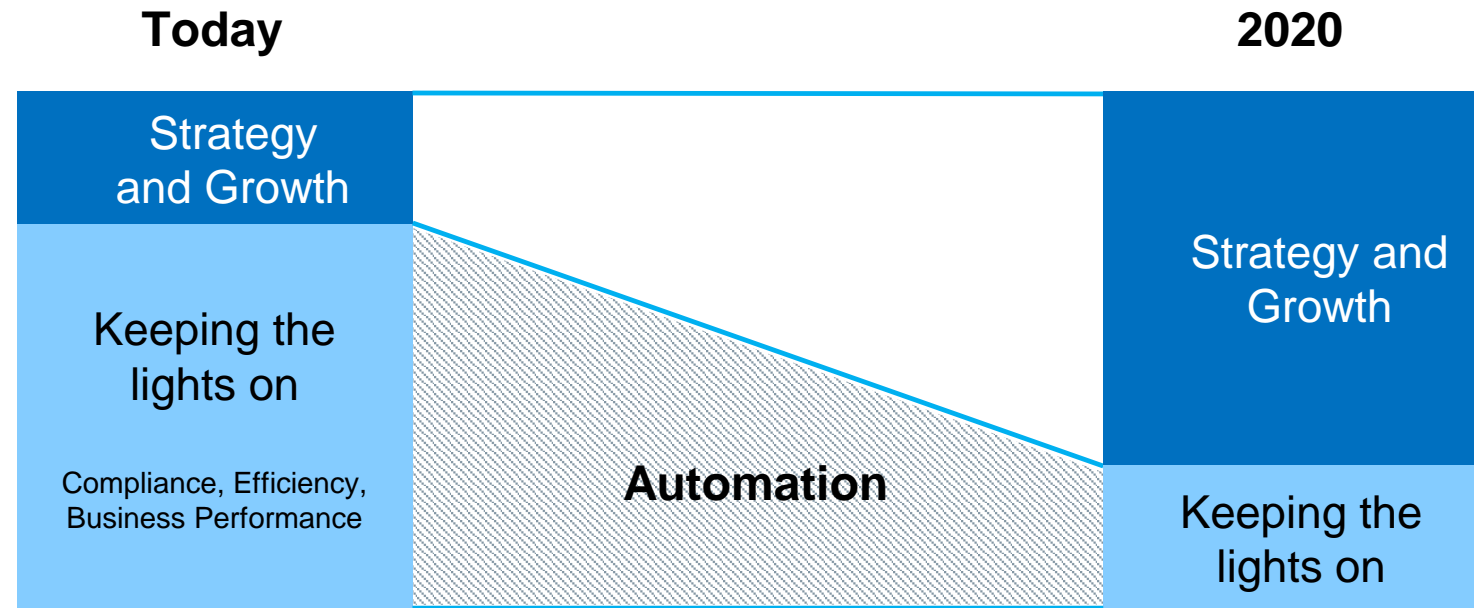
**The next Level of Automation:**

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**Intelligent Finance Applications  
with SAP Machine Learning**

# SAP's Vision - Finance 2020

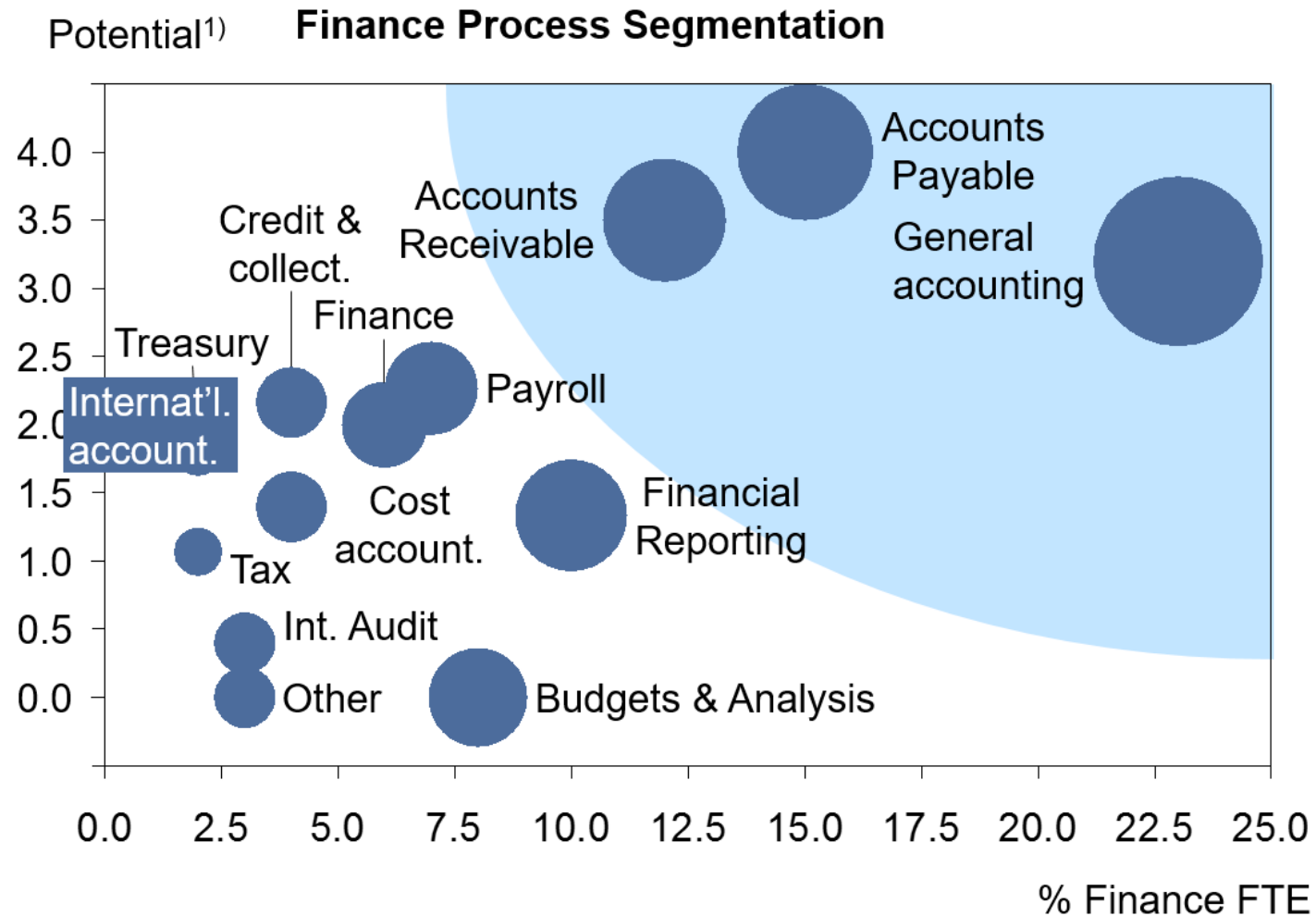
Inverting the effort pyramid through automation



***“Up to 70% of tasks are potentially automatable with next generation technologies”*** (McKinsey 2016)

# How we prioritized

## Approaching lights-out finance operations



1) Estimated from shared services penetration in the function, and selected expert interviews

Source: FERF/Robert Half [2015 Benchmarking](#), n=1500 in mainly US and Canada; Deloitte [SSC Handbook](#), n=270 globally

# Automating the End-to-End processes

Increase efficiency and reduce costs with SAP's Finance Portfolio

## Order to Cash

- Automate core Accounts Receivable processes like Credit Management, Dispute Management and Cash Application with **SAP Receivables Management** solutions combining the strength of rule-based and latest machine-learning technology

## Procure to Pay

- Significantly simplify, and automate the interaction between buyers and suppliers with the **SAP Ariba Business Network** through digitizing the exchange of information
- Achieve high invoice automation-rates with **SAP Invoice Management** by Open Text

## Record to Report

- Eliminate manual FI/CO reconciliation efforts, access information in real-time and provide Self-Service Analytics for business end-users with next generation accounting with **SAP S/4HANA Finance** through simplified data model and in-memory computing

## Plan to Forecast

- Improve forecast accuracy, accelerate and automate the financial close along with lower compliance and auditing costs with **SAP Business Planning and Consolidation**
- Simplify financial planning and analysis with **SAP Cloud for Planning**



# Journey to smart automation in SAP S/4HANA Finance

**S/4HANA Finance** – The Digital Core as foundation for digital automation



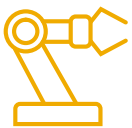
**Accurate digital data** reduces reconciliations and enables higher degree of automated processing from end to end



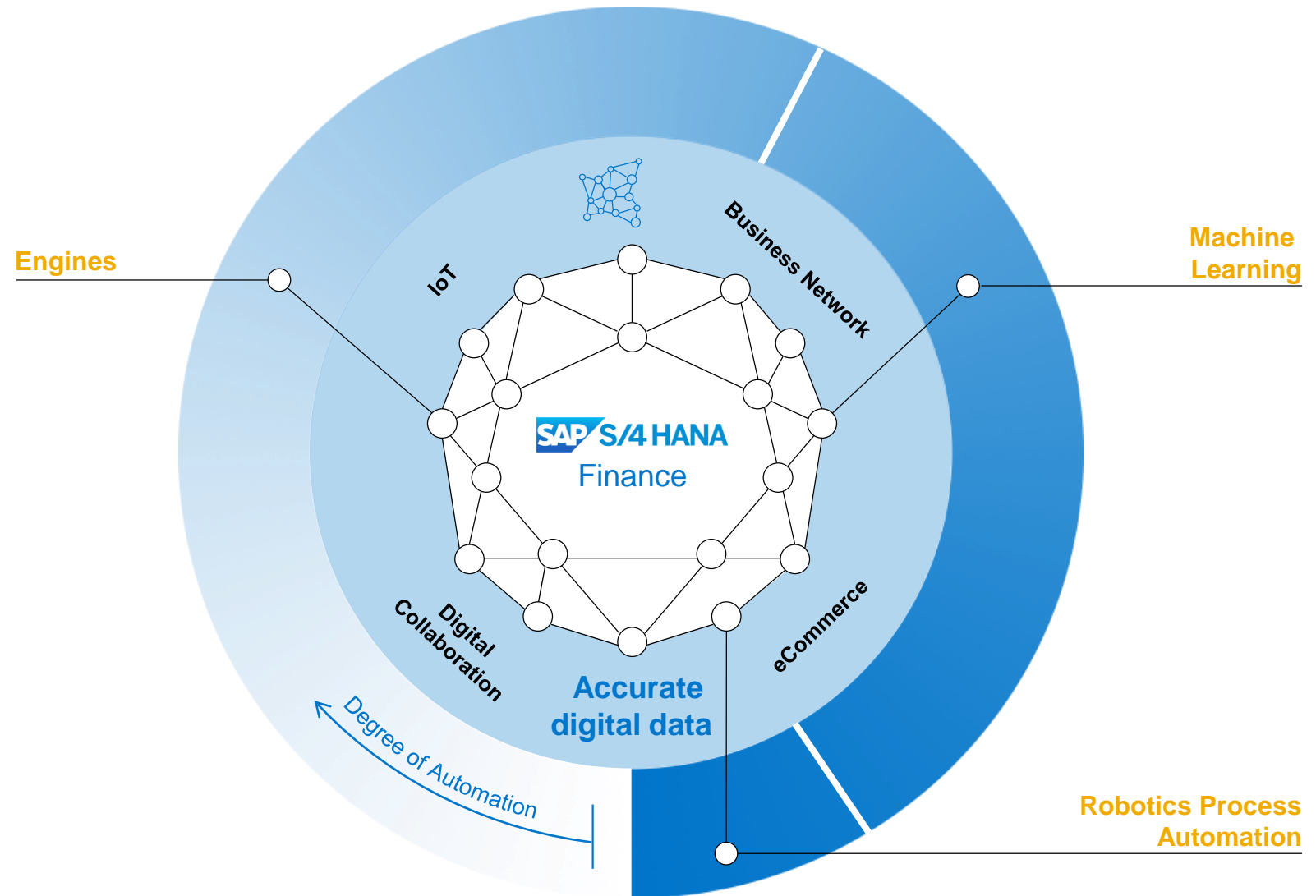
**Engines** loaded with pre-defined high specific process knowledge enables rule-based automation



**Machine Learning** identifies hidden patterns in knowledge intensive processes and executes processing



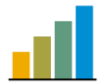
**Robotics Process Automation** helps to run repetitive, rule-based monotone tasks and bridges temporary gaps



# S/4HANA Finance: The Foundation for Continuous Innovation

Benefit from newest SAP Leonardo innovations as they emerge

## S/4HANA FINANCE



### Financial planning and analysis

- Predictive Planning, Budgeting and Forecasting
- P&L Prediction



### Accounting and financial close

- Enhanced Closing Automation
- GR/IR Monitor



### Treasury management

- Cash and Liquidity Management (Increase the accuracy of liquidity forecast)



### Financial operations

- SAP Cash Application
- Remittance/ Payment Advice
- Invoice to Record Automation



### Governance, risk & compliance

- Predictive Detection Methods and Risk Scores

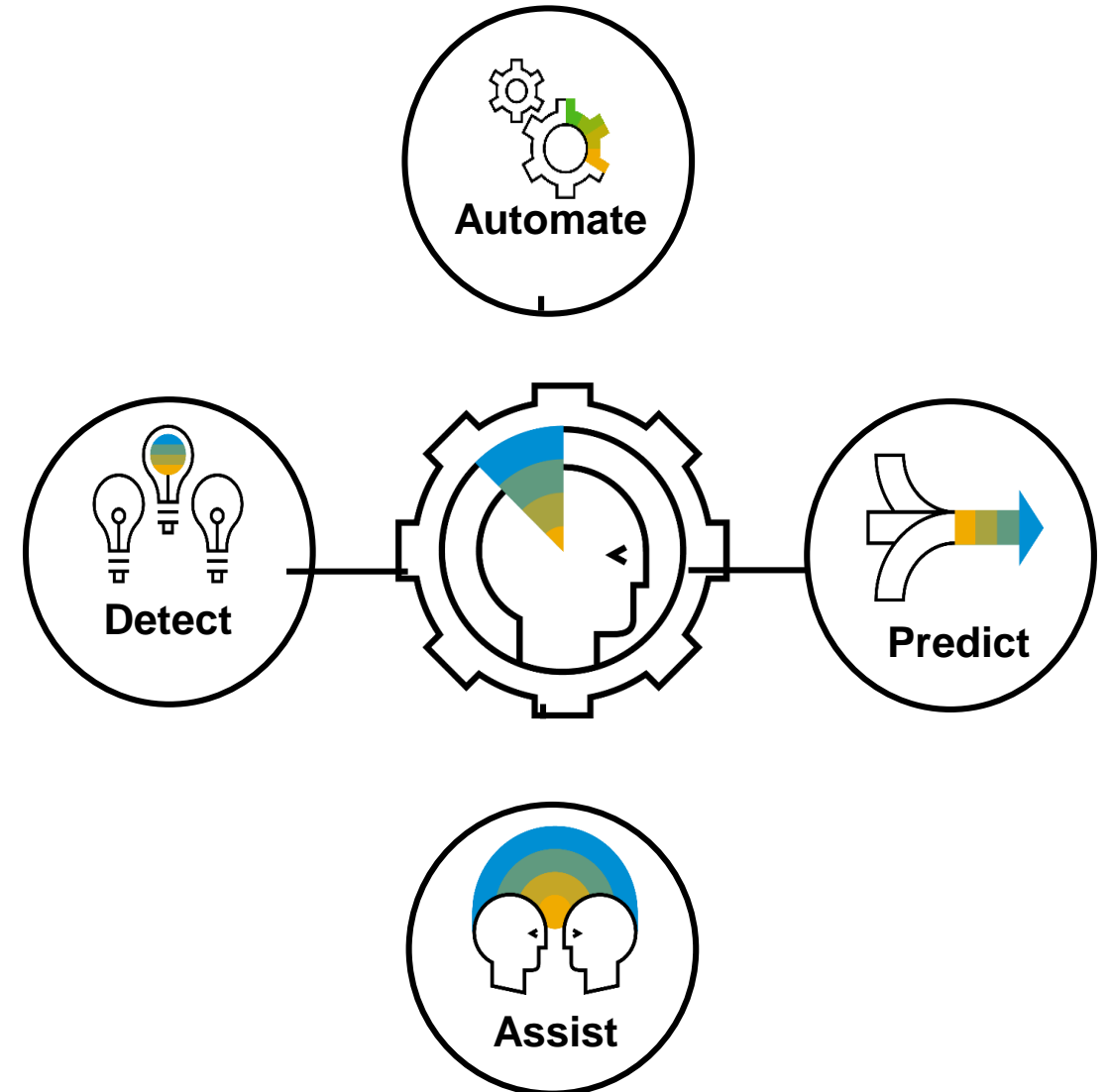


Leonardo Machine Learning

# SAP Leonardo delivers Breakthrough Technologies

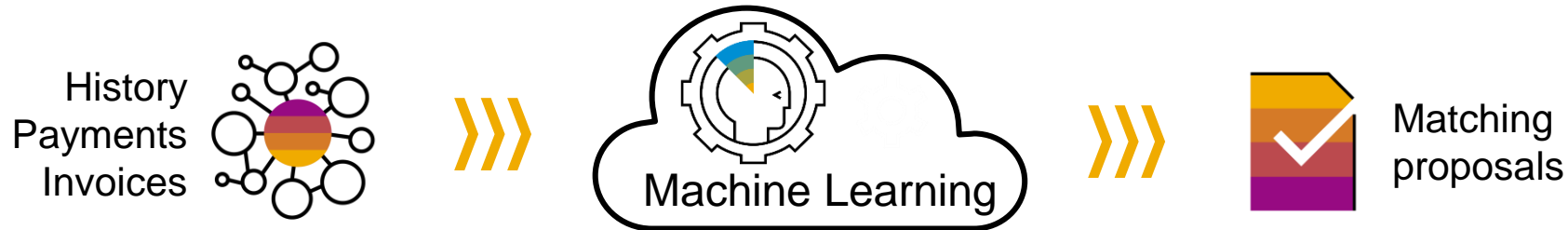
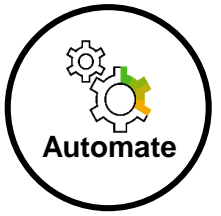
Intelligent finance applications increase efficiency and reduce cost

- **Automating the End-to-End processes**  
Increase efficiency and reduce costs with SAP's Finance Portfolio
- **Detect and prevent fraud**  
Identify and rank information that positively correlates with fraud
- **Proactive context sensitive support**  
The digital assistant boost productivity of your financial experts
- **Prediction of future values**  
More insights into the future to facilitate taking the right decisions



# Example: SAP Cash Application

Intelligent invoice matching powered by Leonardo machine learning



SAP Cash Application intelligently learns matching criteria from historical data and automatically clears payments

## Automation

- Increase efficiency
- Reduce errors
- Enable finance to focus on strategic tasks

## Speed

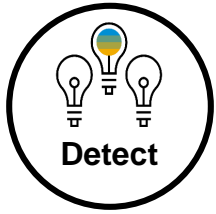
- Faster payment matching
- Reduce DSO
- Increase liquidity
- Improve customer service.

## Reduce TCO

- Learns from historical data
- Learns from accountant behavior
- Does not require on-going maintenance

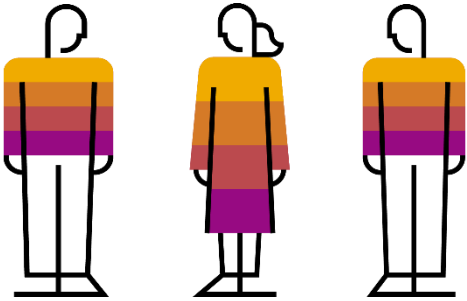
## Integrated with S/4

- Integrated with S/4HANA Cloud and On-premise
- Compliments standard rules
- Maintain current processing workflow



# Example: SAP Business Integrity Screening

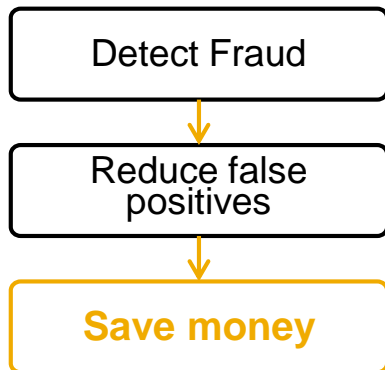
Detect and rank Information that positively correlates with fraud



**Fraud Investigators** learn from their company's investigative history to

Detect new fraud patterns

Reduce false positives



## Predictive Detection Methods

leverage robust, state-of-the-art machine learning algorithms

automatically detect and rank attributes within classified data that positively correlate with fraudulent cases

incorporate with existing detection methods into new Fraud Management strategies



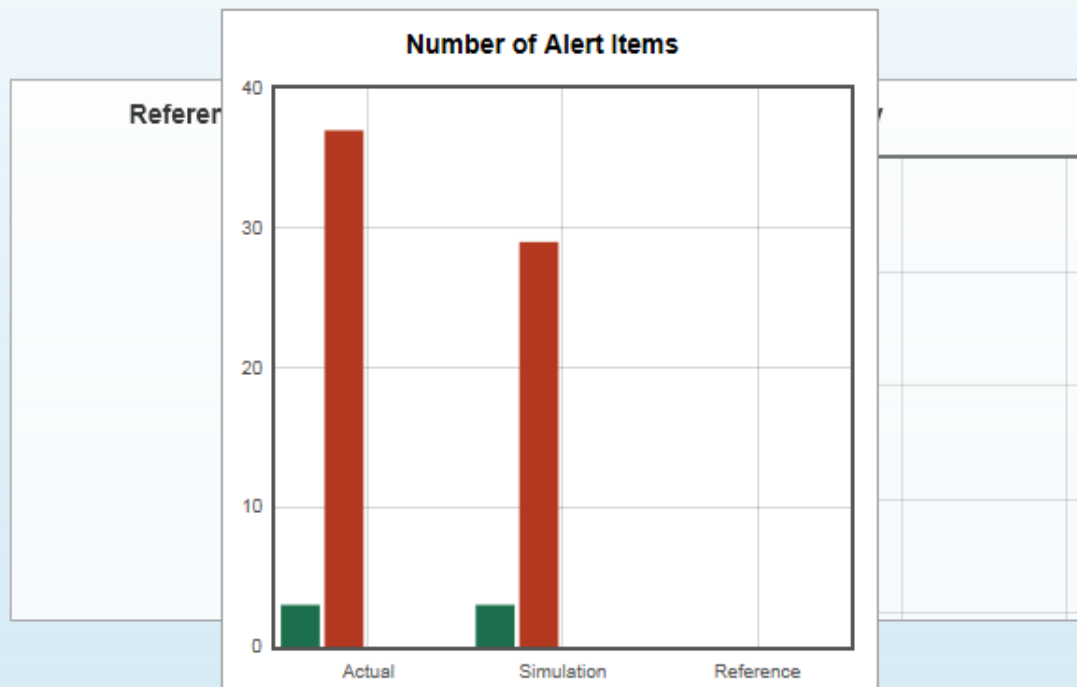
## Comparison



## Simulation Tuning

Number of processed records: 40

■ Proven Fraud 
 ■ False Positive 
 ■ Unclassified 
 ■ New Alert Items

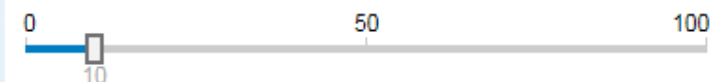


### Threshold

- 14 +

Was: 14

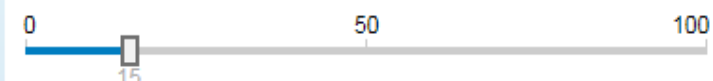
### Turnover of First Year Exceeds Threshold



10

Parameters

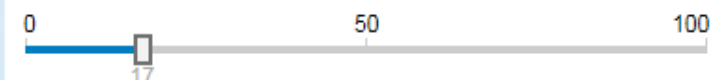
### Growth Between 1st and 2nd Year Exceeds Threshold



15

Parameters

### Percentage of Turnover Approved by Single Person



17

Parameters

Monitoring temps réel / blocage de transactions

Tests prédéfinis, analyse prédictive

Productivité dans la phase d'investigation  
(faux-positifs, documentation...)



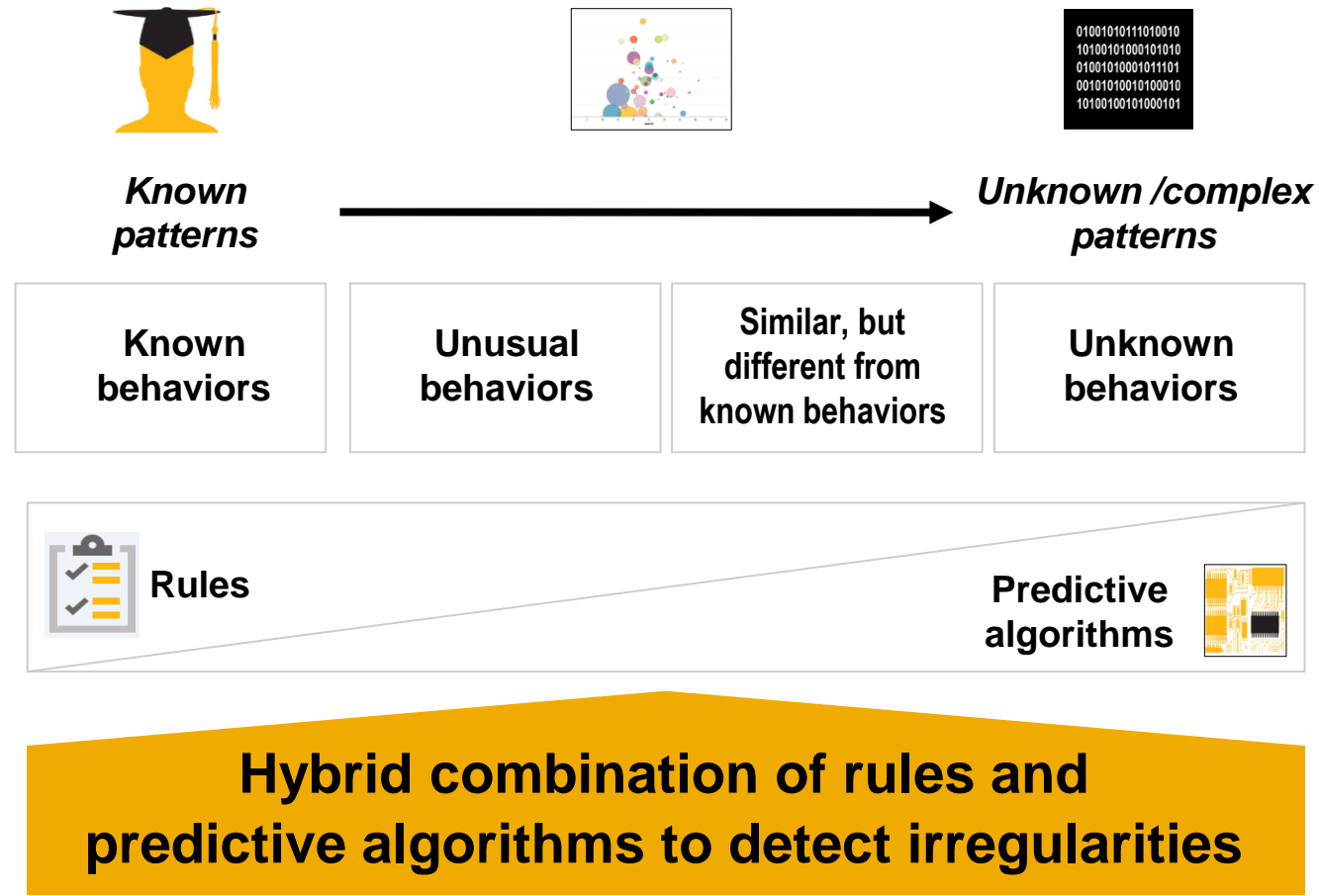
Simulation finished; KPIs have been updated

30.09.2013 15:49:22



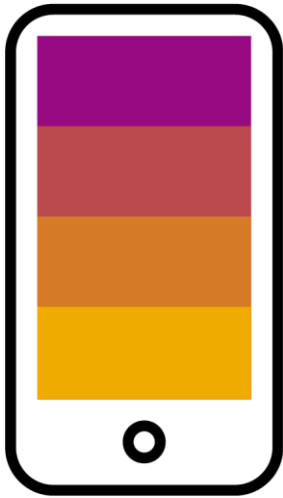
# Combining the power of different approaches

SAP Business Integrity Screening covers the full spectrum of anomaly detection



# Example: SAP CoPilot

The digital assistant for the live enterprise



SAP CoPilot - One digital assistant with one personality across all products and solutions, industries and lines of business

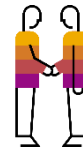


SAP Labs preview



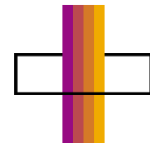
## Business context awareness

Understanding the business context, and pro-actively suggesting solutions using predictive functionality



## Conversational (multi-modal) UI

Conversational UI using Natural Language Processing functionality with a focus on the next-gen UX to create a human-like experience



## Cross Applications

Allows seamless transition across platforms; start a task on a mobile device and continue later, on a desktop or vice versa



## Self Learning

Using machine learning functionality to gain knowledge based on historic data, experience, and take action in response to new or unforeseen events



## Simple Access to Enterprise AI Platform

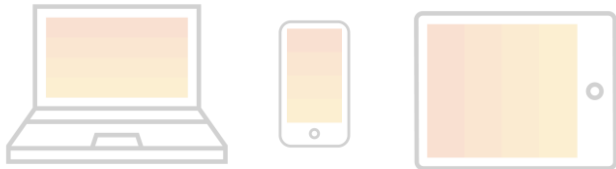
Integration to SAP and Non-SAP Solutions  
Simple access to Natural Language Processing and Machine Learning functionality via APIs

# SAP S/4HANA Finance

The foundation for enabling finance transformation

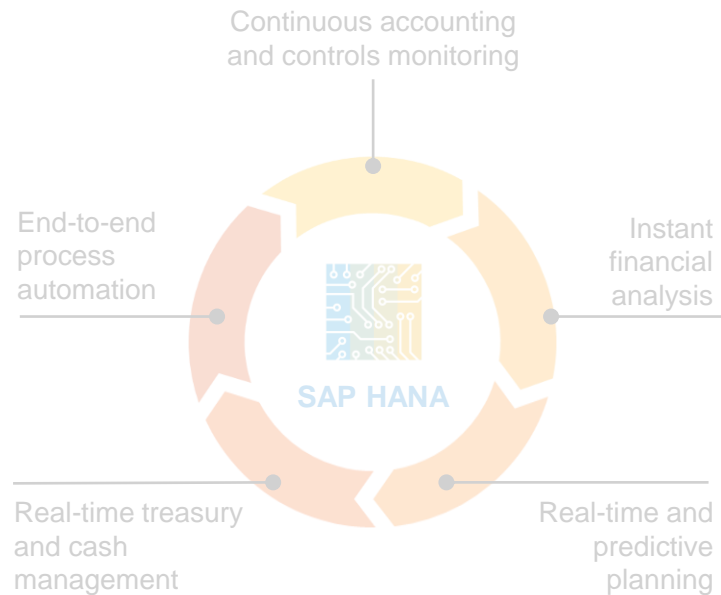
## Intuitive user experience

Consistent across devices



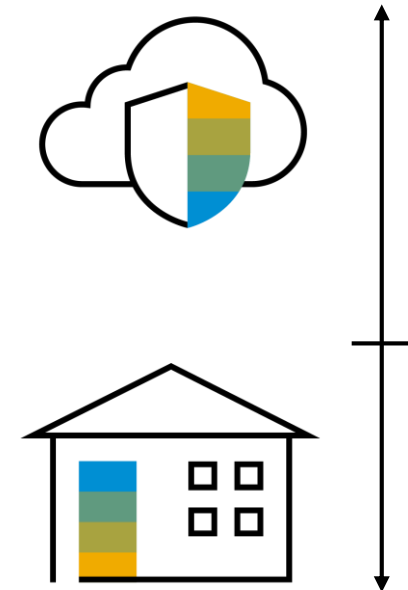
## Instant insight

In-memory enabled



## Flexible and nondisruptive

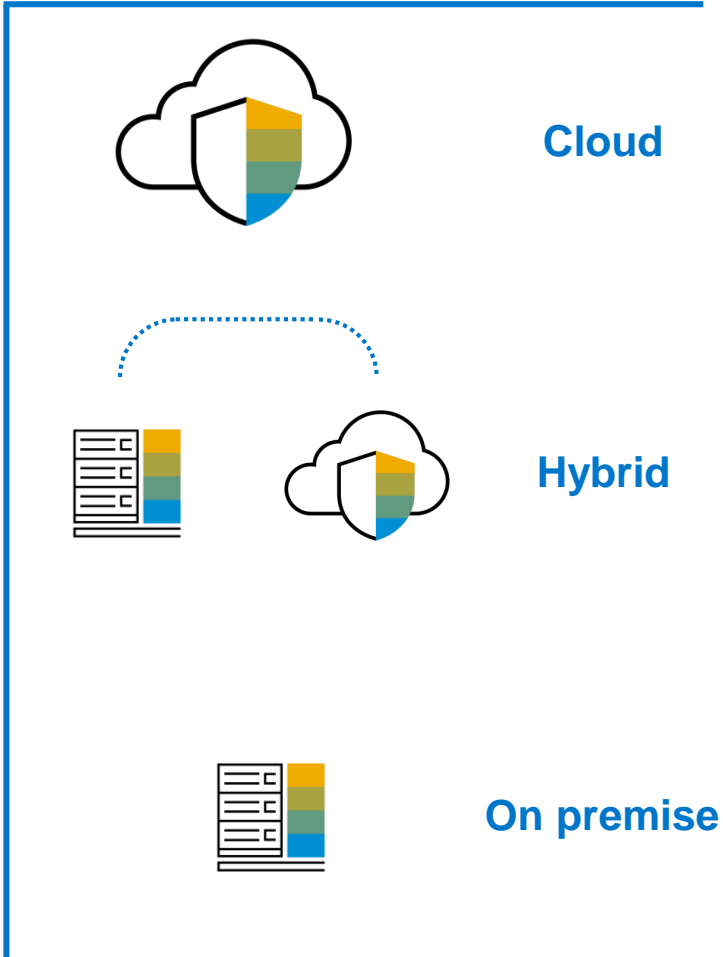
Easier to deploy and extend



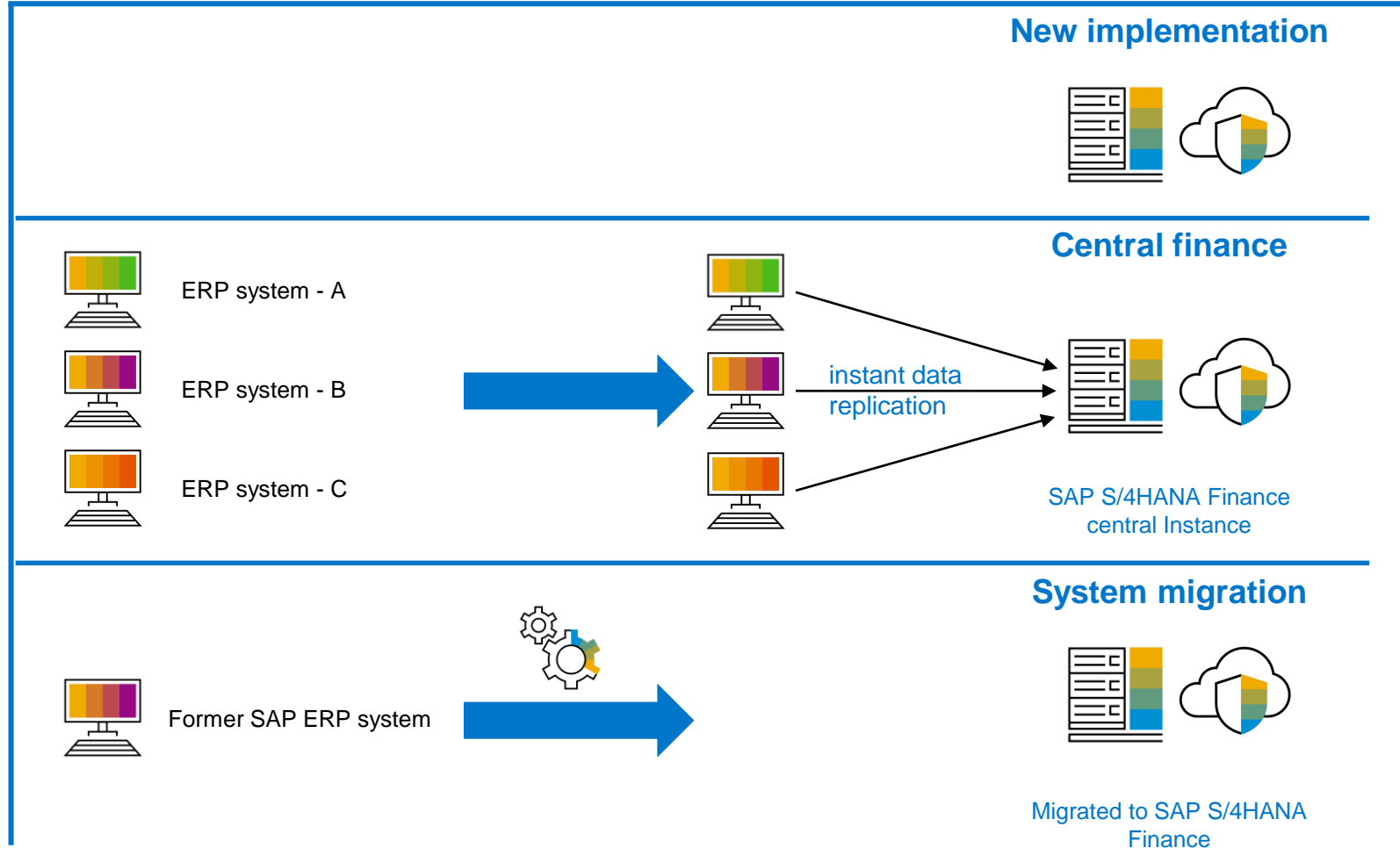
# Flexible and Non-disruptive Paths to SAP S/4HANA Finance

Choose the best option for rapid success

## Flexible deployment options



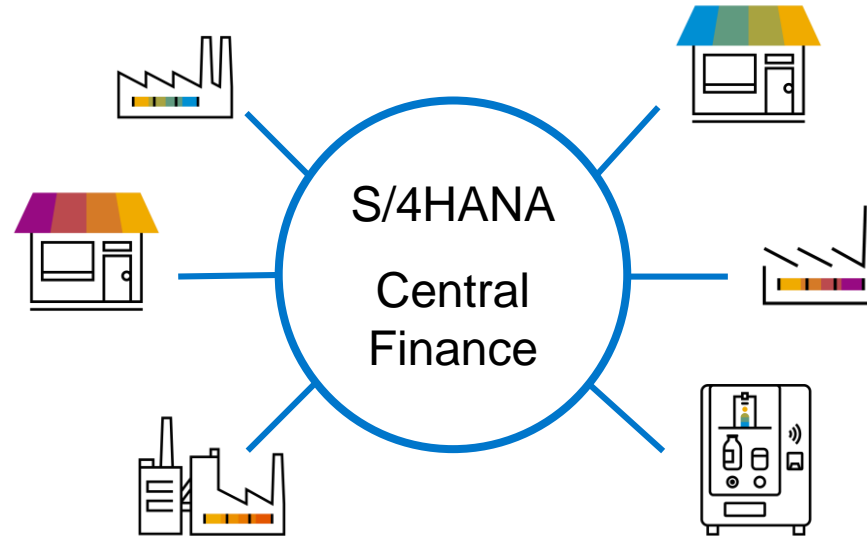
## Flexible and nondisruptive paths to SAP S/4HANA Finance



# Central Finance – the non-disruptive path to SAP S/4HANA

Benefit quickly from in-memory innovations on THE financial transformation platform

Unite all data from a multi-system landscape in one Central Finance instance.



**Advanced reporting & planning**  
at segment, entity and group level



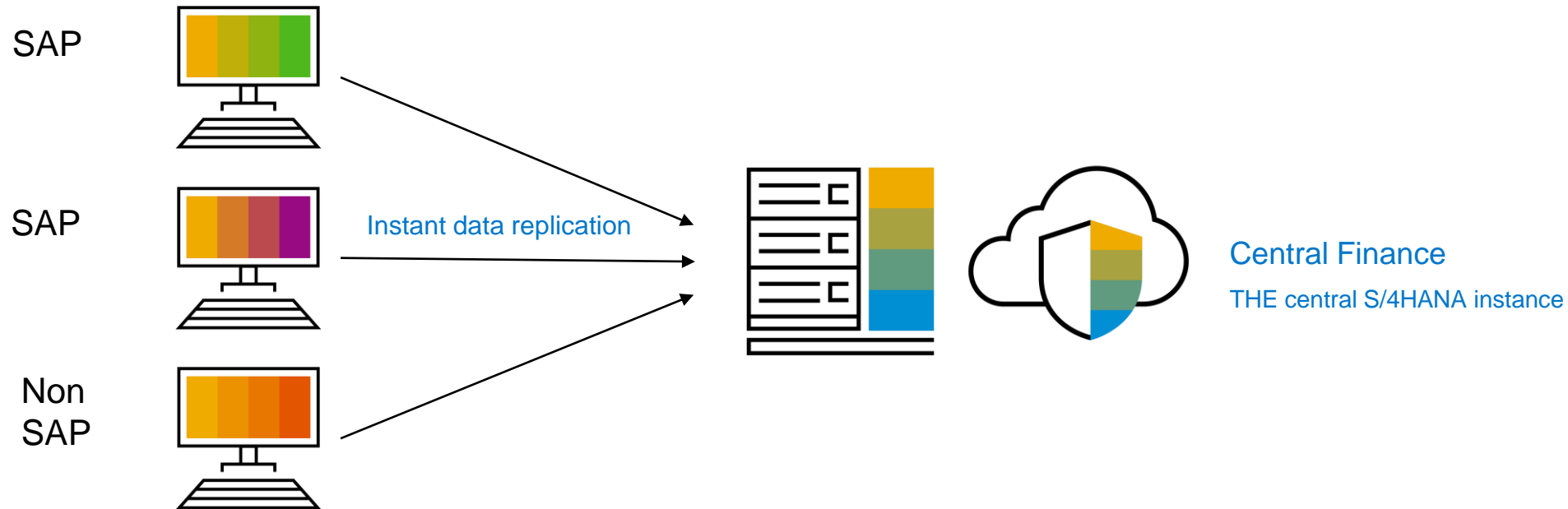
**Transformation platform**  
for the live business



**Scalable execution**  
of local and central processes

# Central Finance – the Sidecar Approach to Innovation

Accelerate your transformation with instant data replication

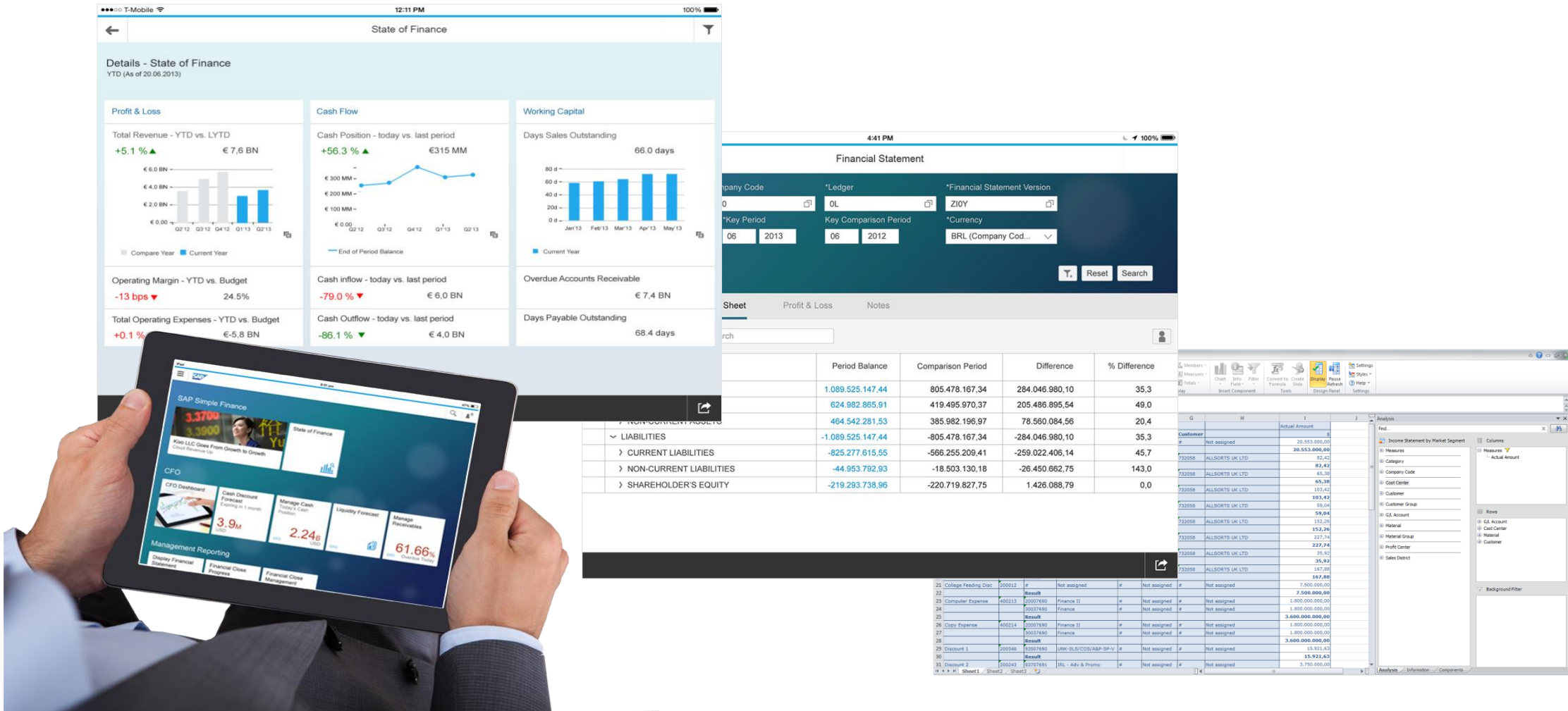


## Processes

- Procure to Pay
- Order to cash
- Record to report
- Central payment / treasury
- Tax reporting
- Plan to Forecast
- Transfer pricing
- Internal controls and risk management



# On-the-fly analysis – macro to granular



# On-the-fly analysis – digital boardroom





# On-the-fly analysis – digital boardrooms



**Total  
transparency**



**Instant  
data-driven insights**



**Simplified  
boardroom processes**





# Digital Finance Value Scenarios

Renewing one process at a time

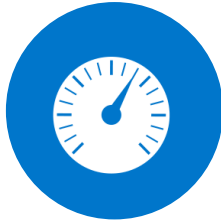
# Value scenarios across the entire value chain



## Dynamic planning and analysis

- M&A and divestitures what-if analysis
- Accelerated group planning cycles
- Predictive forecasts and dynamic simulation
- End-to-end customer and product profitability
- Rapid design of new business models

10% to 20% reduction in budget and forecasting costs\*



## Close books in a day

- “Soft close”
- Instant profit-and-loss insights and real-time cost control
- Multidimensional reporting on the fly
- Integrated regulatory and managerial reporting
- Reduced reconciliations
- Centralized finance instance

10% to 20% reduction in general ledger and financial closing as well as audit costs\*



## Real-time actual-to-plan cash management

- Instant visibility into working capital
- Real-time liquidity planning
- Real-time bank counterparty risk management
- Higher transparency on foreign exchange risks
- Automated payment processes

10% to 20% reduction in treasury and cash management costs\*



## “Lights-out” finance

- Real-time receivables and payables reconciliation
- Immediate reaction to collection
- Buyer-supplier integration with business networks
- Employee perfect-trip experience
- Improved property productivity

10% to 25% reduction in accounts receivable management costs\*



## Always-on compliance

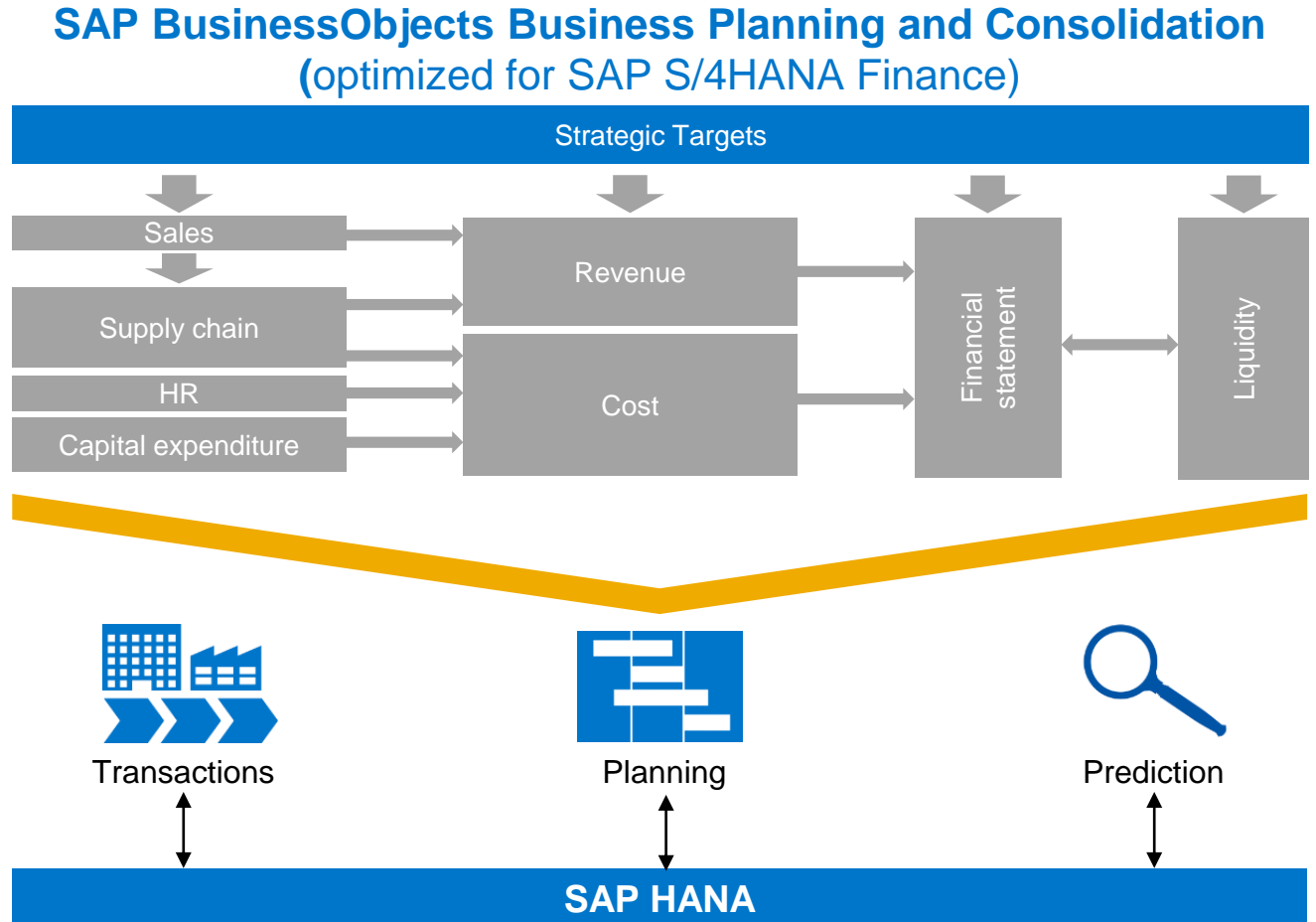
- Instant identification and prediction of potential fraud
- Smart strategies for fraud prevention
- Improved compliance and higher audit management efficiency
- Integrated controls in processes

Reduction of audit cost and elapsed time from audit start to report

\*Improvement ranges are SAP estimates. Lower end of range reflects conservative improvement estimate from a move to SAP S/4HANA Finance from SAP Business Suite, and higher end of range reflects the conservative improvement of a move to SAP S/4HANA Finance from SAP ERP on any database. For additional information, contact the North America Industry Value Engineering team.

# Financial planning and analysis – embedded model

- Real-time transactional data access – no replication
- Immediate update of plans and forecasts
- Full integration of different planning models
- Planning at any level of detail and aggregation on the fly
- Embedded predictive algorithms and simulation capabilities

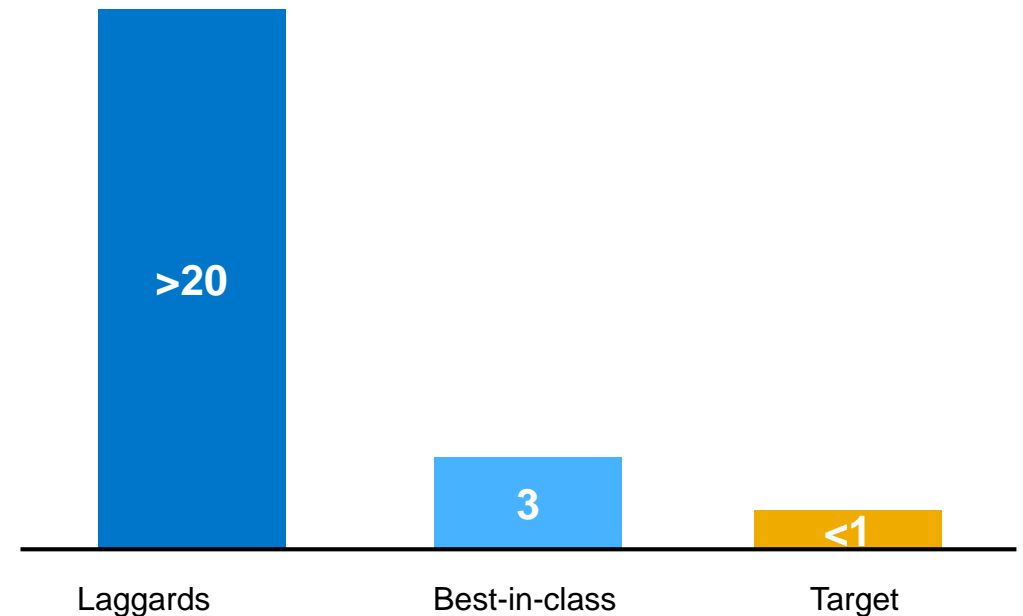




# Accounting and financial close – soft close

- Elimination or acceleration of batch jobs
- Streamlined intra-period reconciliation
- Harmonization of internal and external accounting
- Line-item drill-down by any dimension
- Key performance indicators instantly refreshed

## Duration of month-end close in workdays



Source: SAP Benchmarking Services

# Accounting and financial close – dynamic consolidation

SAP LABS  
PREVIEW

- Extending consolidation capabilities to embedded model
- Real-time transactional data access – no replication
- Advanced monitoring and incremental consolidation
- Single, integrated environment
- Central finance option available

## SAP S/4HANA Finance

**SAP BusinessObjects Business  
Planning and Consolidation**  
(optimized for SAP S/4HANA Finance)

Planning  
(available today)

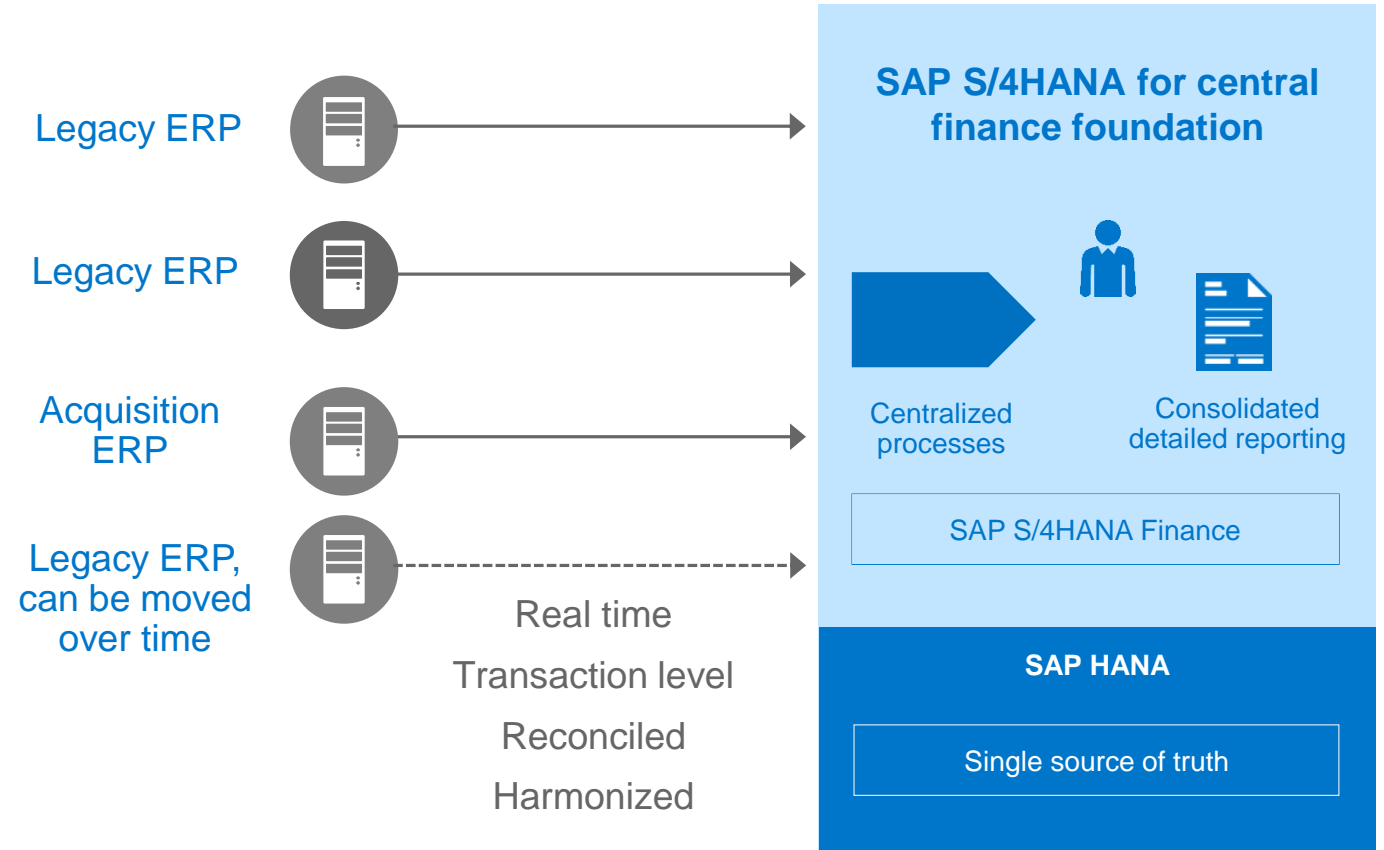
Consolidation  
(planned)

**SAP HANA**

Universal journal

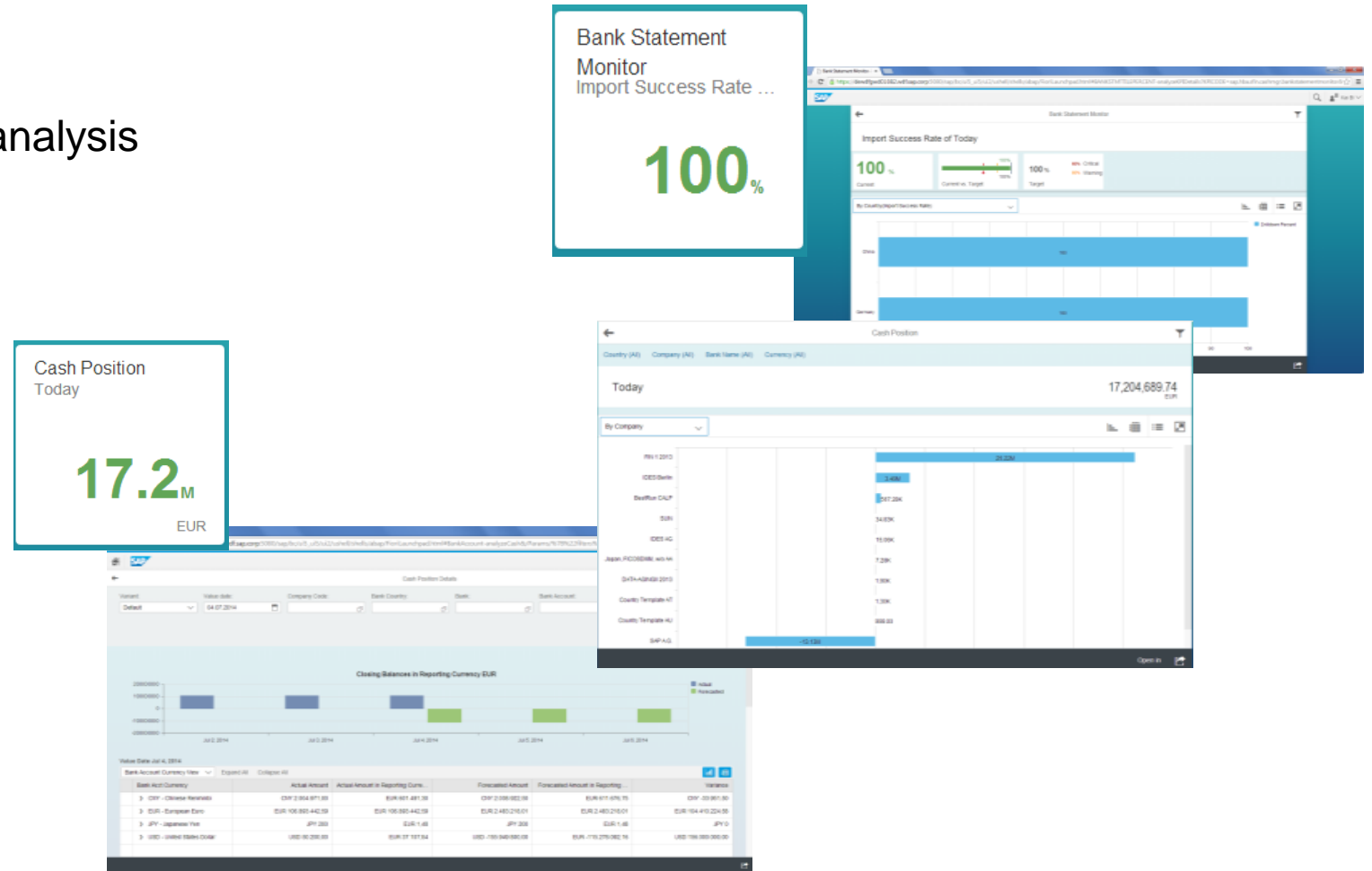
# Centralization of a distributed landscape

- Real-time replication
- Complete data granularity – no loss
- Consolidated reporting and analysis
- Centralized processes
- Document drill-back to source system



# Treasury and risk – real-time cash management and forecasting

- Instant insight into global cash positions
- Real-time drill-down analysis
- Dynamic liquidity forecasting, cash-flow analysis
- Centralized cash management
- Day-to-day cash operations
- Bank account management

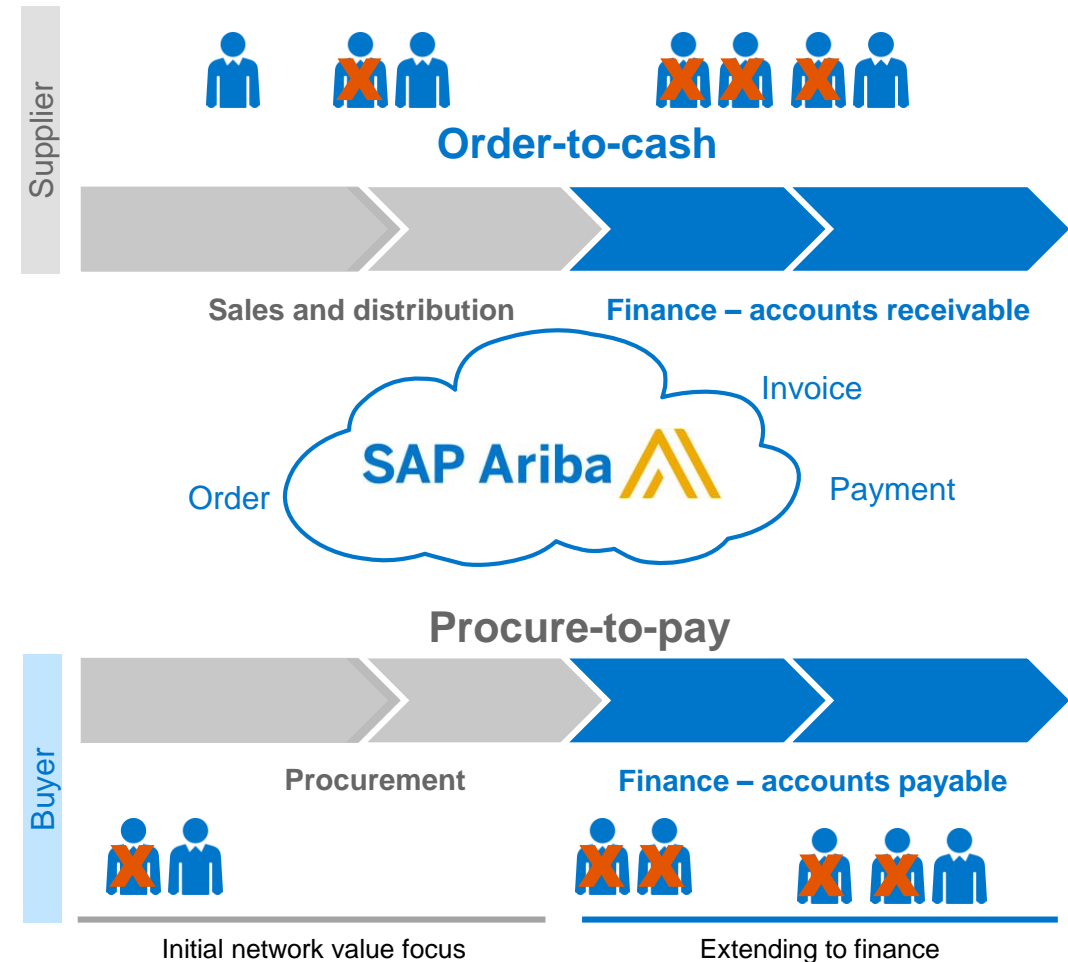


# Finance operations – real-time receivables



# Finance operations – end-to-end integration with Ariba Network

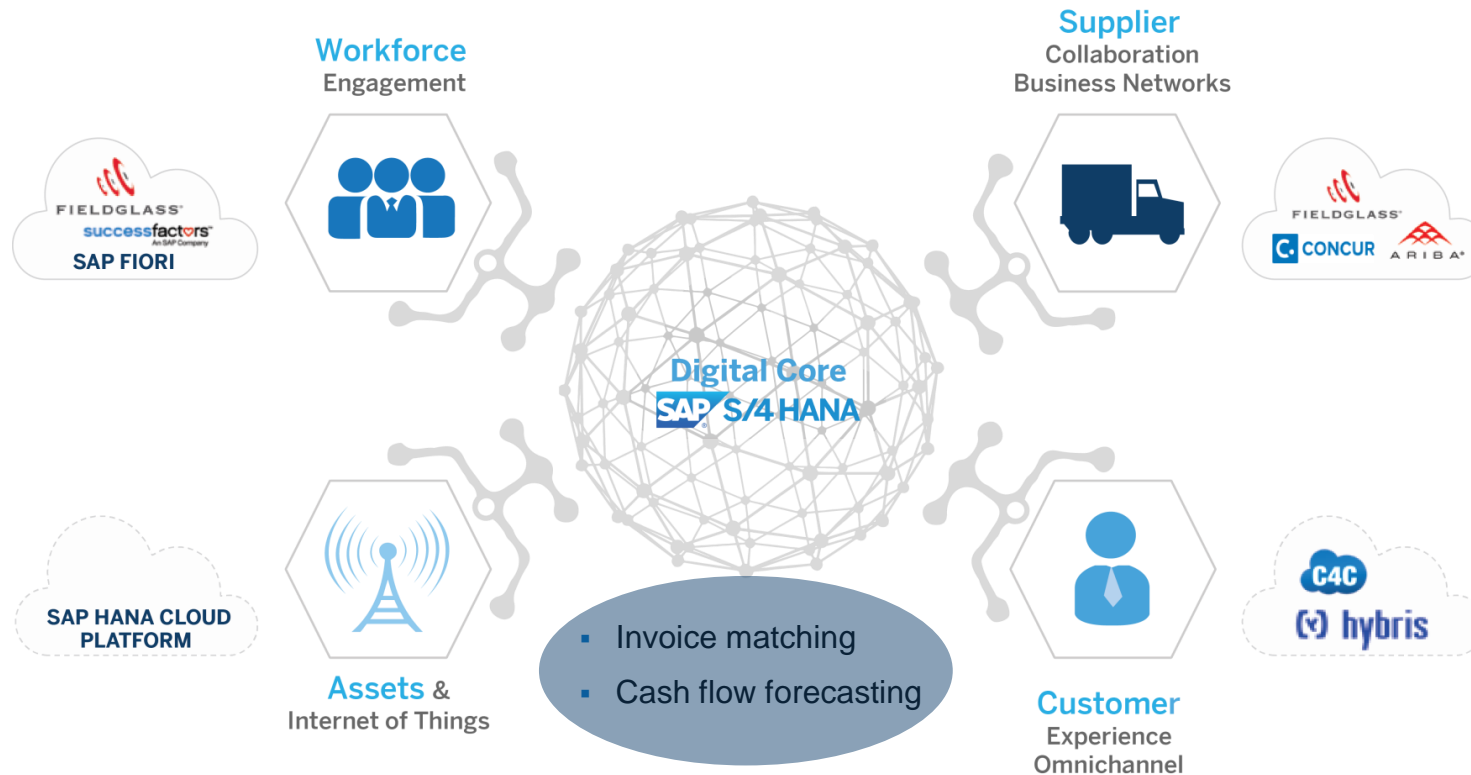
- Integration of end-to-end processes
- Real-time visibility of all documents
- Elimination of manual data entry
- Increased transparency across network
- Closed-loop reconciliations
- Improved liquidity planning
- Effective working capital management



# Machine Learning meets Enterprise Areas and SAP's digital core, cloud and networks provides a next logical target for ML

- **CV matching**
- Freelancer matching
- EE scoring with NLP
- Employee Lifetime Value
- Career path recommender
- Employee Churn Prediction








- **ML Platform:**
  - Classification
  - Regression
  - Anomaly detection
  - Reinforcement learning
  - Clustering



- Procurement recommenders
  - Semantic product understanding
  - Procurement risk diversification
  - Travel virtual agent
  - Vendor matching
- 
- Customer Lifetime Value
  - Cart abandonment prediction
  - Marketing action recommender
  - Product recommender
  - Automated sales forecasting
  - Social sentiment analysis



# SAP is creating a first wave of smart applications and services

	Incubation	Description
Apps	 <p>Invoice Matching</p>	<ul style="list-style-type: none"> <li>▪ <b>Manually matching payments to invoices</b> is a labour-intensive process in accounting</li> <li>▪ We leverage machine learning to significantly increase <b>automatic matching</b> rates</li> </ul>
	 <p>Social Media Customer Service</p>	<ul style="list-style-type: none"> <li>▪ <b>Social media community</b> managers are overwhelmed by tweets and facebook posts</li> <li>▪ We automatically <b>tag &amp; cluster</b> in-bound messages and automatically suggest <b>responses</b></li> </ul>
	 <p>Automated Sales Forecast</p>	<ul style="list-style-type: none"> <li>▪ <b>Only 40% of opportunities close</b>, sales reos spend <b>20% of their time on reporting</b></li> <li>▪ We make <b>data entry seamless</b> and <b>predict</b> which opportunities will close</li> </ul>
	 <p>Real Time Recommenders</p>	<ul style="list-style-type: none"> <li>▪ Most e-tailers suffer from <b>low conversion rates</b> as have no or basic recommenders</li> <li>▪ We analyse customer clickstreams to provide contextual <b>recommendations in real time</b></li> </ul>
	 <p>CV Matching</p>	<ul style="list-style-type: none"> <li>▪ Recruiters go through thousands of <b>job applications</b> to identify suitable candidates</li> <li>▪ We identify the <b>best candidates</b> for a given job description</li> </ul>
Core	 <p>ML Platform</p>	<ul style="list-style-type: none"> <li>▪ Making business apps smart is hard for SAP <b>developers, partners</b> and <b>customers</b></li> <li>▪ We provide horizontal and vertical ML services and data on an <b>open platform</b></li> </ul>
	 <p>Logo Recognition</p>	<ul style="list-style-type: none"> <li>▪ Creating <b>transparency on brand and logo exposure</b> beyond text mentions is hard today</li> <li>▪ We <b>recognize</b> brands &amp; logos in videos &amp; images to enable precision marketing solutions</li> </ul>



# Thank you

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SAP France

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