

# Towards the Digital Utility with SAP for Utilities and S/4 HANA for Utilities

Miguel Gaspar Silva  
Industry Director, EMEA Utilities Lead



SAP

# Legal Disclaimer

---

*The information in this document is confidential and proprietary to SAP and may not be disclosed without the permission of SAP. This document 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 or 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 on 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 non-infringement. 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 intentionally or grossly negligent.*

*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.*

# Four key technology drivers for The Digital Utility

## Cloud



## Mobile



## Social Media



## Big Data / HANA



### General

- ~80% of new software in 2014 was available as cloud services

- Today, mobile devices are the primary method of internet access worldwide

- There will be 1.4 billion social media users in 2014

- Data volume for enterprise applications is doubling every 18 months

### Utilities

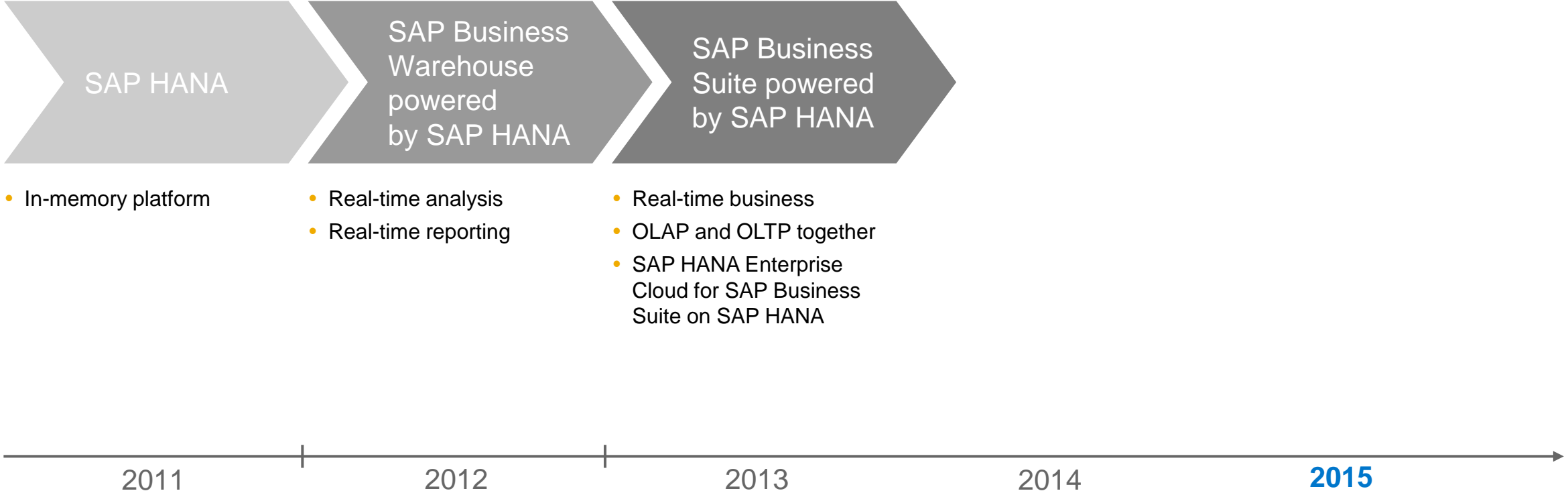
- Facilities business partner collaboration
- Offers innovative energy services

- Increased customer interaction
- Efficient channel to bring new services

- Monitoring of customer sentiment
- Involve customers in energy program development

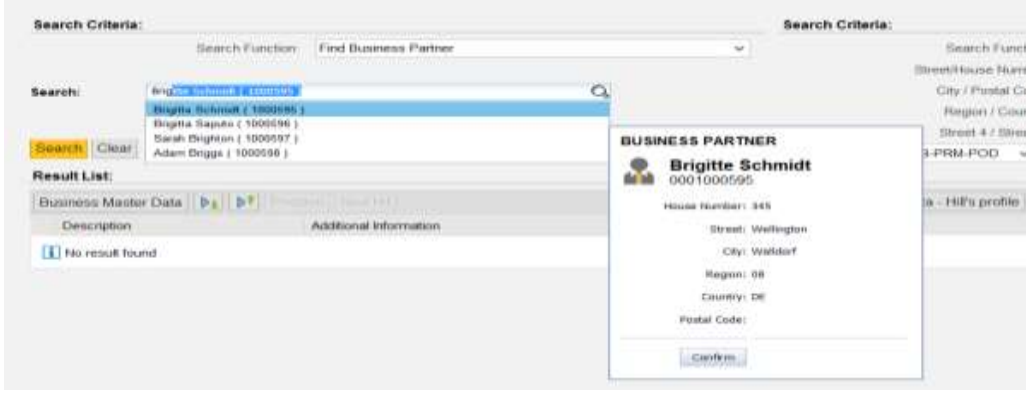


- Analyze huge data volumes to enable and accelerate business decisions

# SAP's Innovation Steps to a new Software Generation



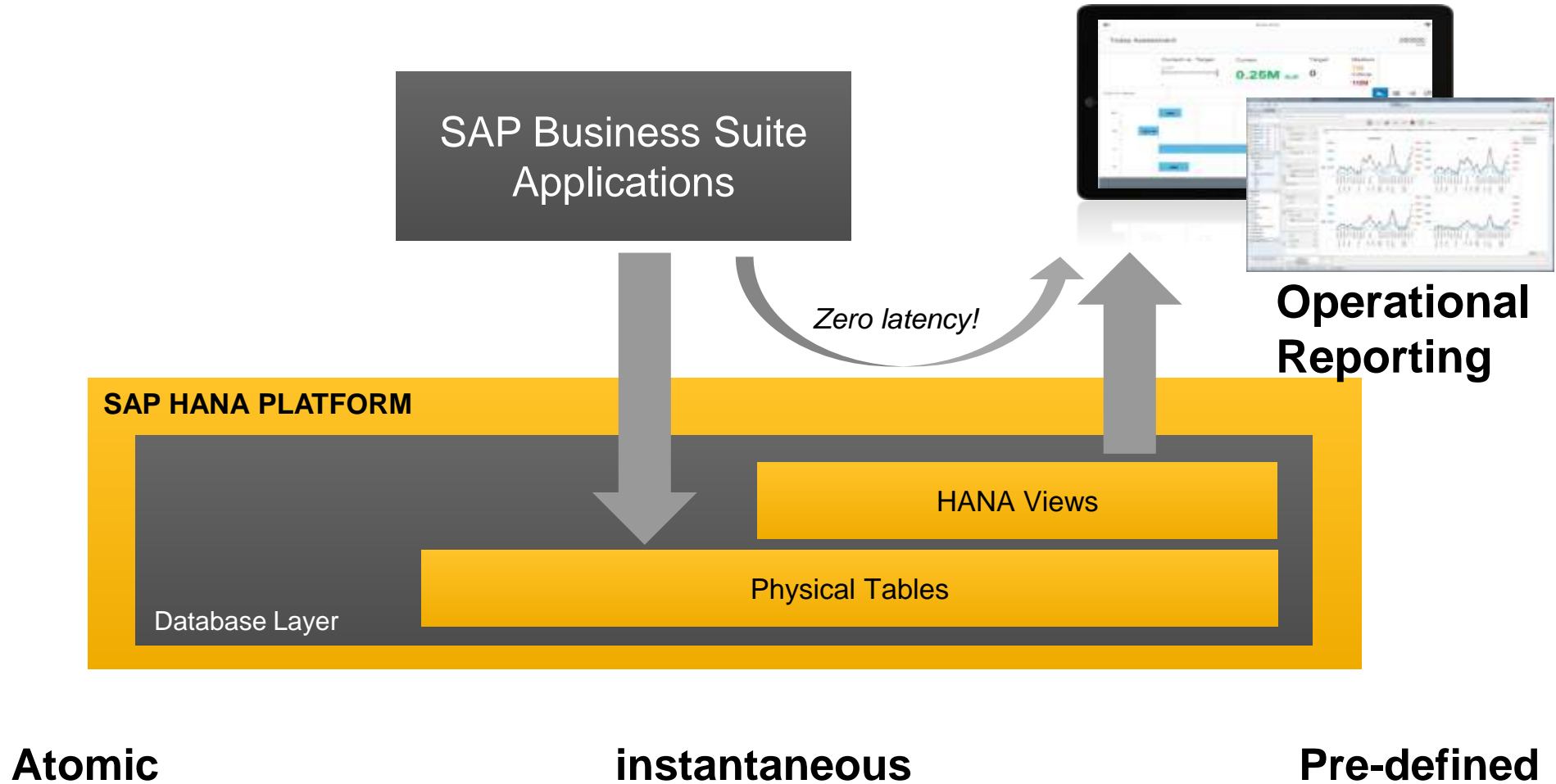
# Utilities Deliveries and Roadmap Q4/2014

## Investments into ISU/CRM on HANA

Q4 2014	Details	
<b>IS-U</b> HANA Live – V3	<ul style="list-style-type: none"> <li>• Device Management</li> <li>• Meter Reading</li> <li>• Billing</li> </ul>	Provide insights into meter2bill process
<b>CRM</b> HANA one field, smart search in interaction center <i>Enhanced quick view, additional search attributes</i>		Improve call center efficiency
<b>CRM</b> HANA Live – V2	<ul style="list-style-type: none"> <li>• Contract Management</li> <li>• Quotation Management</li> </ul>	Win and keep profitable customers
<b>FI-CA</b> Account Receivables Manager KPI-Cockpit for Contract <i>Real-time Analysis of Write-offs and Open items in a Fiori App</i>	 	Improve payables and receivables mgmt.
<b>FI-CA</b> Simplified Payment Search	using HANA fuzzy-search capabilities ( <i>fault tolerant, free input of search terms in one field, search with AND/OR,...</i> )	Improve call center efficiency

# SAP HANA Live architecture

Foundation for new class of applications for operational reporting in realtime



# CRM Utilities optimization: New one field search on Identification in Interaction Center (HANA Smart Search)

**Identification**

**Search Criteria:** Search Function: Find Business Partner

**Search:** Brigitte Schmidt ( 1000595 )  
Brigitte Schmidt ( 1000595 )  
Brigitta Saputo ( 1000596 )  
Sarah Brighton ( 1000597 )  
Adam Briggs ( 1000598 )

**Result List:**

Description	Additional Information
No result found	

**BUSINESS PARTNER**

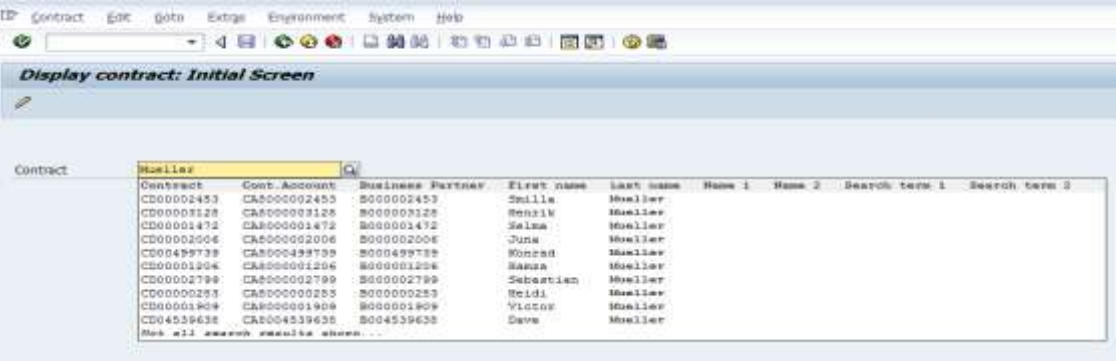
**Brigitte Schmidt**  
0001000595

House Number: 345  
Street: Wellington  
City: Walldorf  
Region: 08  
Country: DE  
Postal Code:

Confirm

# Utilities Deliveries and Roadmap Q1/2015

## Investments into ISU/CRM on HANA

Q1 2015	Details	
<b>IS-U</b> HANA Live – V4	Invoicing	Provide insights into meter2bill process
<b>IS-U</b> Accelerated Energy Settlement	Improvement by factor >100, reducing batch time from ~3h to ~2min	Ensure regulatory compliance
<b>IS-U</b> Type Ahead Search for most ISU transactions ( <i>contract, installation, documents, ...</i> )	using HANA fuzzy-search capabilities ( <i>fault tolerant, free input of search terms in one field, ...</i> ) 	Improve operational efficiency
<b>CRM</b> HANA one field, smart search in interaction center	<ul style="list-style-type: none"> <li>• Search cross system</li> <li>• Additional attributes (IS-U: invoice, device ID, premise owner, payer, ...)</li> </ul>	Improve call center efficiency
<b>FICA</b> KPI-Cockpit for Contract Account Receivables Manager	Trigger work items for back-end processing directly from Cockpit	Improve payables and receivables mgmt.



# Accelerated Energy Settlement by ESB Networks

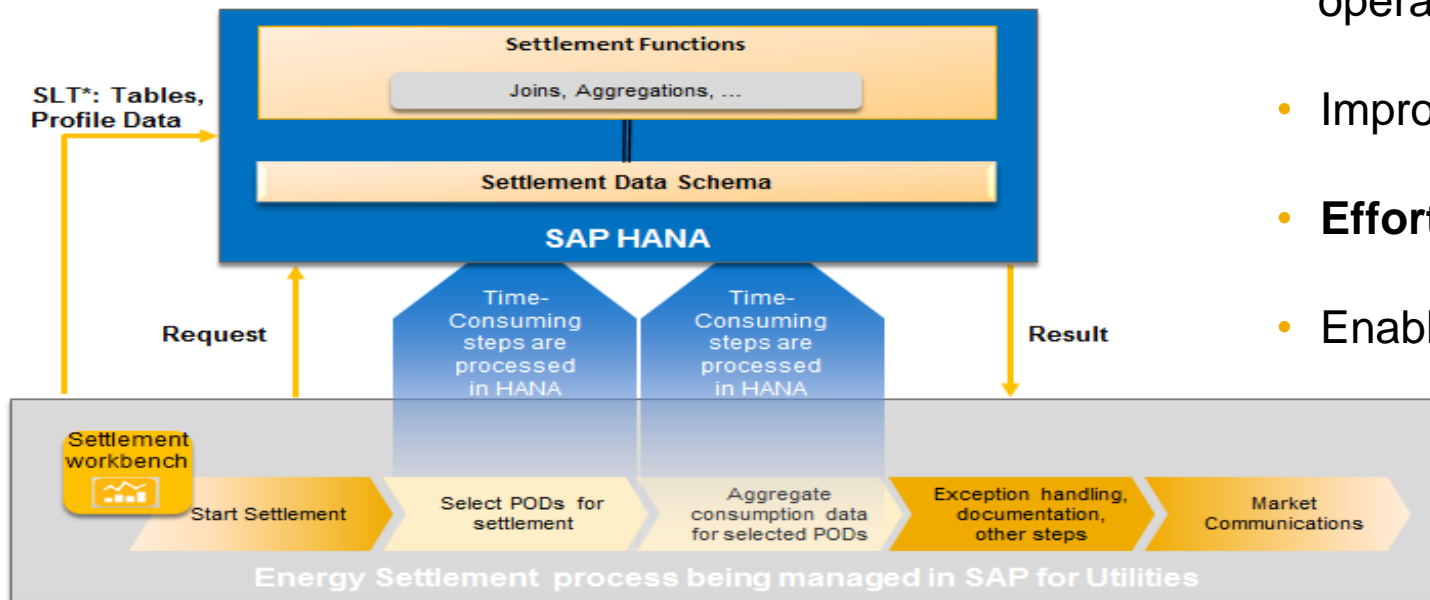
## Part of the IS-U delivery in Q1-2015 !



Requirement: Accelerate **market settlement** (both smart meter and standard meter)

### Achieved Goals:

- Performance increase in market settlement operations by a **factor of ~100**
- Improvement in **risk mitigation** and **auditability**
- **Effort reduction** while providing higher **flexibility**
- Enable **Ad-Hoc settlement**



\*SLT: SAP Landscape Transformation Replication Server for SAP HANA

# Transformer Load Analytics PoC

## Business Scenario

- Renewables and distributed generation lower predictability of load in the grid; overload may cause significant wear-out.
- Insight allows for taking action, e.g.
  - Exchange transformer or reconfigure network
  - Demand-response program might be to customers repeatedly contributing to overloads

## Prototype

- Native SAP HANA implementation with simple HTML5 user interface running on 16-core machine with 256 GB RAM
- Comprises 87 weeks of load measurements for ~12,000 transformers
  - ~1 billion records (10-minute measurement interval)
  - ~20 GB compressed in main memory
  - No materialized aggregates

## Use Cases

- Transformer overload overview in geospatial context
- Transformer load comparison and investigation of load peaks
- Examining weekly patterns and next-day forecasting
- Weather correlation of load
- Loss of life calculation and visualisation





# Contract Accounts Receivable Manager (O2C)

Write-Offs  
Company Code: All

Overdue Items  
Company Code: All

Thousands

Thousnd

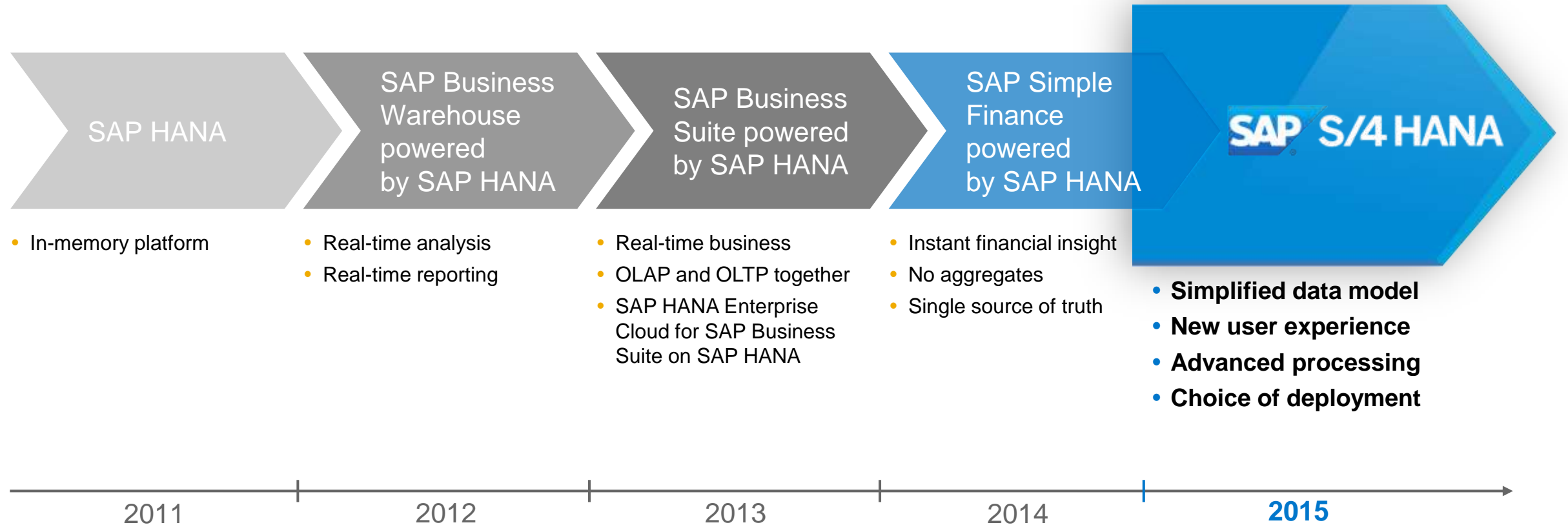
20.299

239.275

EUR, Last 7 Months

EUR, Last 7 Months

# SAP's Innovation Steps to a new Software Generation



# Why SAP decided for a new platform?

---

The standard solutions of SAP (and its competitors) grew steadily over the last decades in scope and **complexity** and became more and more inflexible

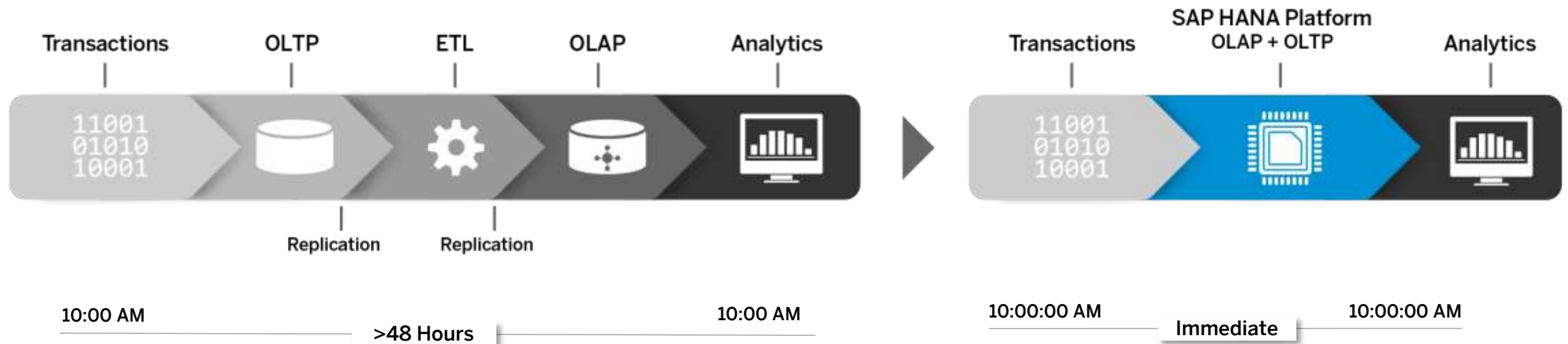
**Data models** of current standard solutions have been designed for a completely different technical paradigm - hence a redesign is required to ensure:

- Native usage of in-memory technology
- Consequent simplification of business processes and related user interfaces
- Inbuilt business networking capabilities

Functional and architectural complexity of current systems do not allow standardized operation in the **cloud**

# S/4HANA Simplification: Integration of OLTP and OLAP

Combining transactions and analytics on a single in-memory platform

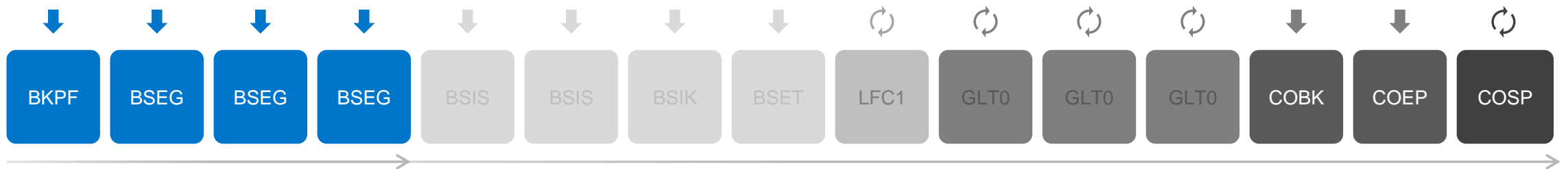


- Decisions and actions on old data
- Multiple copies of the data
- ETL and batch processing efforts and costs

- Instant action on live data
- One copy of the data
- No ETL and batch processing

# S/4HANA Simplification: Reduction of Aggregates

## Example SAP Simple Finance



	inserts ↓	updates ↻
SAP Finance with aggregates and indices	10	5
<b>SAP Simple Finance</b>	<b>4</b>	<b>0</b>

no indices

no aggregates

no redundancies

# SAP Simple Finance has been the frontrunner for SAP S/4HANA Solution Characteristics



## Instant Insight

- Single source of truth
- Real-time processes
- OLAP and OLTP one platform
- Dynamic planning and analysis

## Simplicity

- Simplified architecture: reduced tables and aggregates
- Intuitive User Experience: Personalized, simple analytics and reports across devices

## Flexible and Non-Disruptive

- On premise
- Cloud
- Hybrid

## Unique Global and Industry Coverage

- 62 Country versions
- 21 Industries

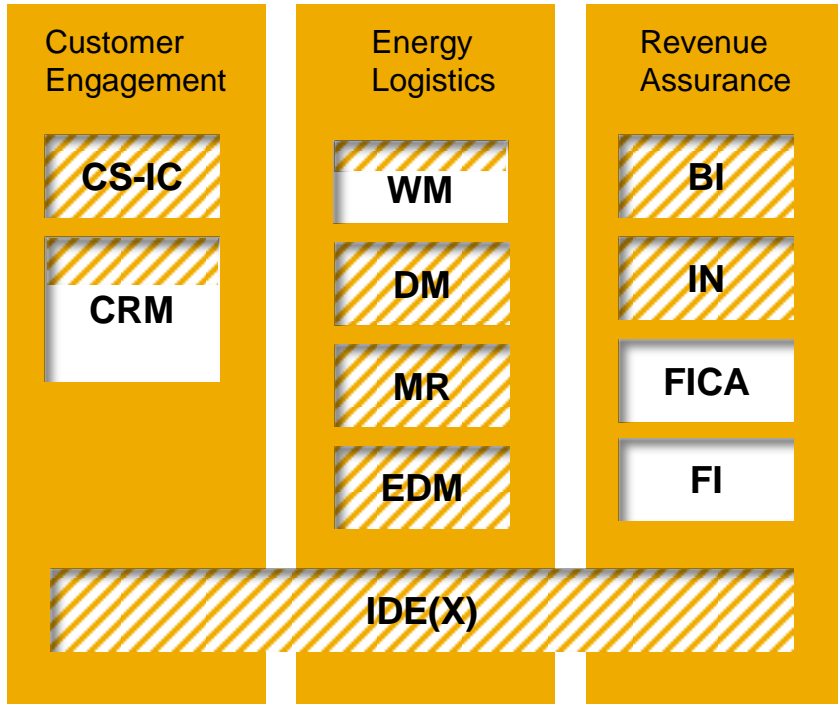


# SAP for Utilities on S4HANA

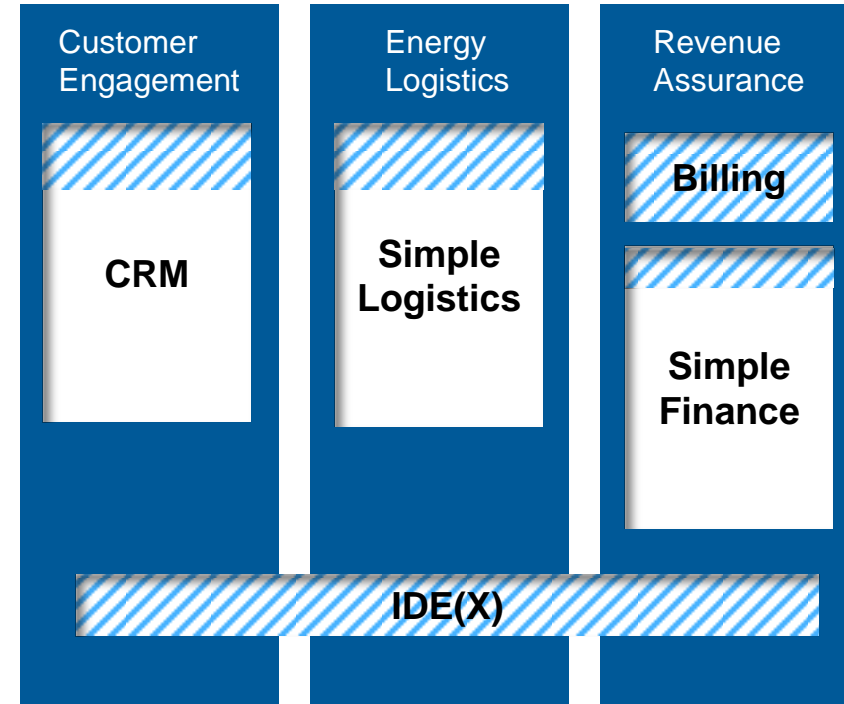
## Schematic Simplification Map


SAP LABS PREVIEW

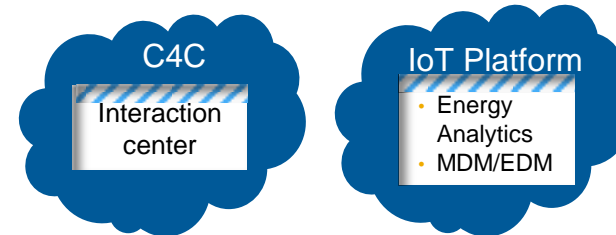
### SAP for Utilities Business Suite Add-ons Today



### SAP for S4HANA Add-on (schematic target picture)



 Industry-specific Addons

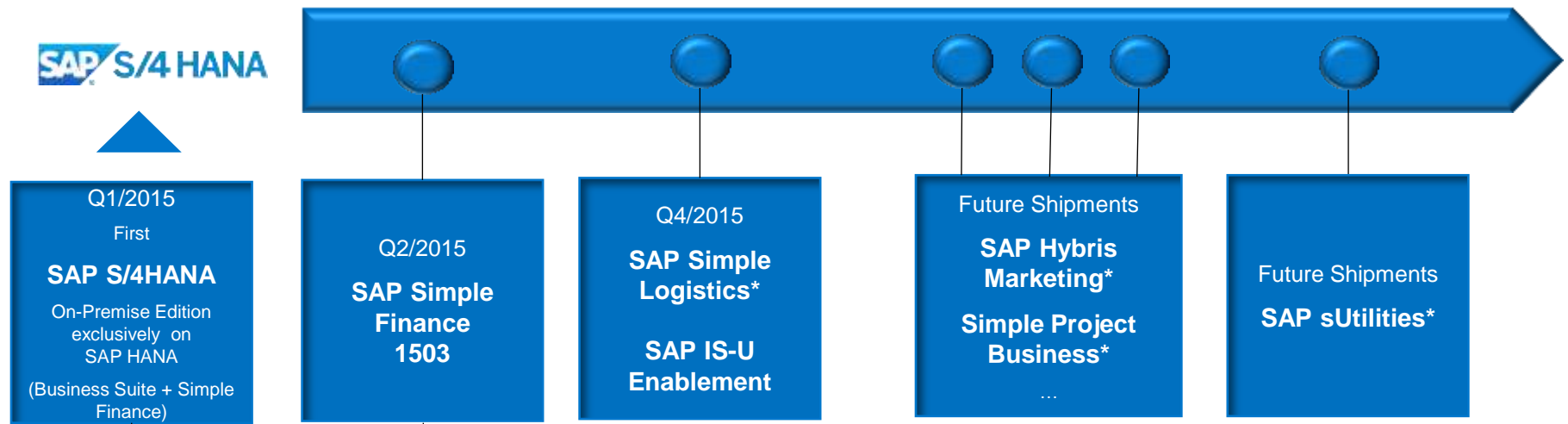


# SAP S/4HANA Roadmap for Utilities

## On Premise Edition

SAP LABS PREVIEW

SAP S/4 HANA



Q1/2015  
First  
**SAP S/4HANA**  
On-Premise Edition  
exclusively on  
SAP HANA  
(Business Suite + Simple  
Finance)

Q2/2015  
**SAP Simple  
Finance  
1503**

Q4/2015  
**SAP Simple  
Logistics\***  
**SAP IS-U  
Enablement**

Future Shipments  
**SAP Hybris  
Marketing\***  
**Simple Project  
Business\***  
...

Future Shipments  
**SAP sUtilities\***

Migration Options



Q3/2013  
Complete  
**SAP Business  
Suite**  
on SAP HANA  
AND Any DB


Q3/2014  
**SAP Simple  
Finance 1.0**  
exclusively on  
SAP HANA

Q1/2016  
**ERP EhP 8**  
Continuous Innovation  
on SAP HANA  
AND  
Any DB

Maintenance and Continuous  
Innovation Commitment until 2025

\*Final product name tbd

# SAP safeguards the Customer Transition with a Customer Care Program and dedicated service offerings



The SAP S/4HANA Customer Care Program will help to make your customer's SAP S/4HANA project a success by offering:

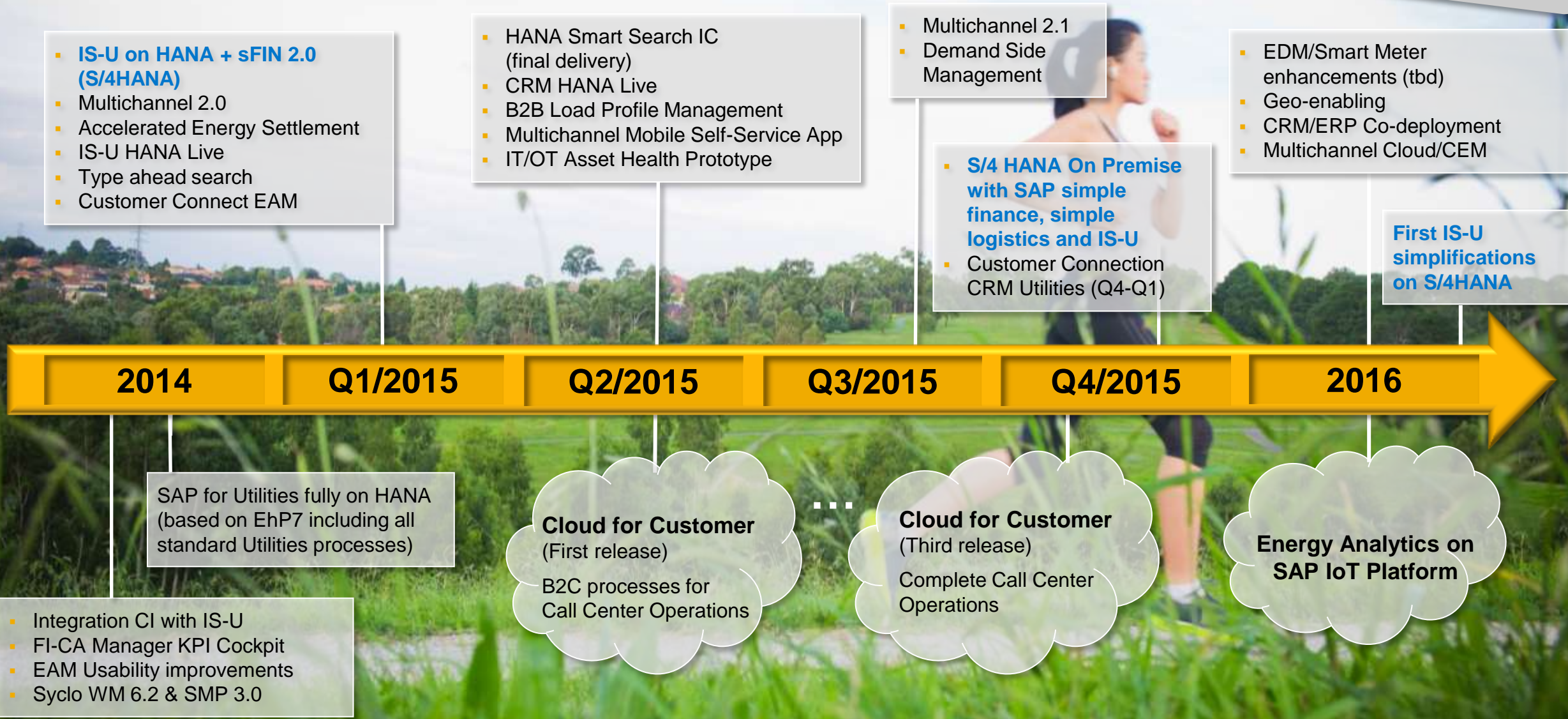
- A named **Management Sponsor** from the SAP development team.
- A named **Project Coach** serving as a remote contact to share best practices and collect feedback
- A named **SAP S/4HANA Development Expert** facilitating the access to the SAP Development organization.

The offer is free-of-charge and open for direct and indirect channel customers.

For further information or to enroll your customer please contact [SoH\\_Customer\\_Care@sap.com](mailto:SoH_Customer_Care@sap.com).

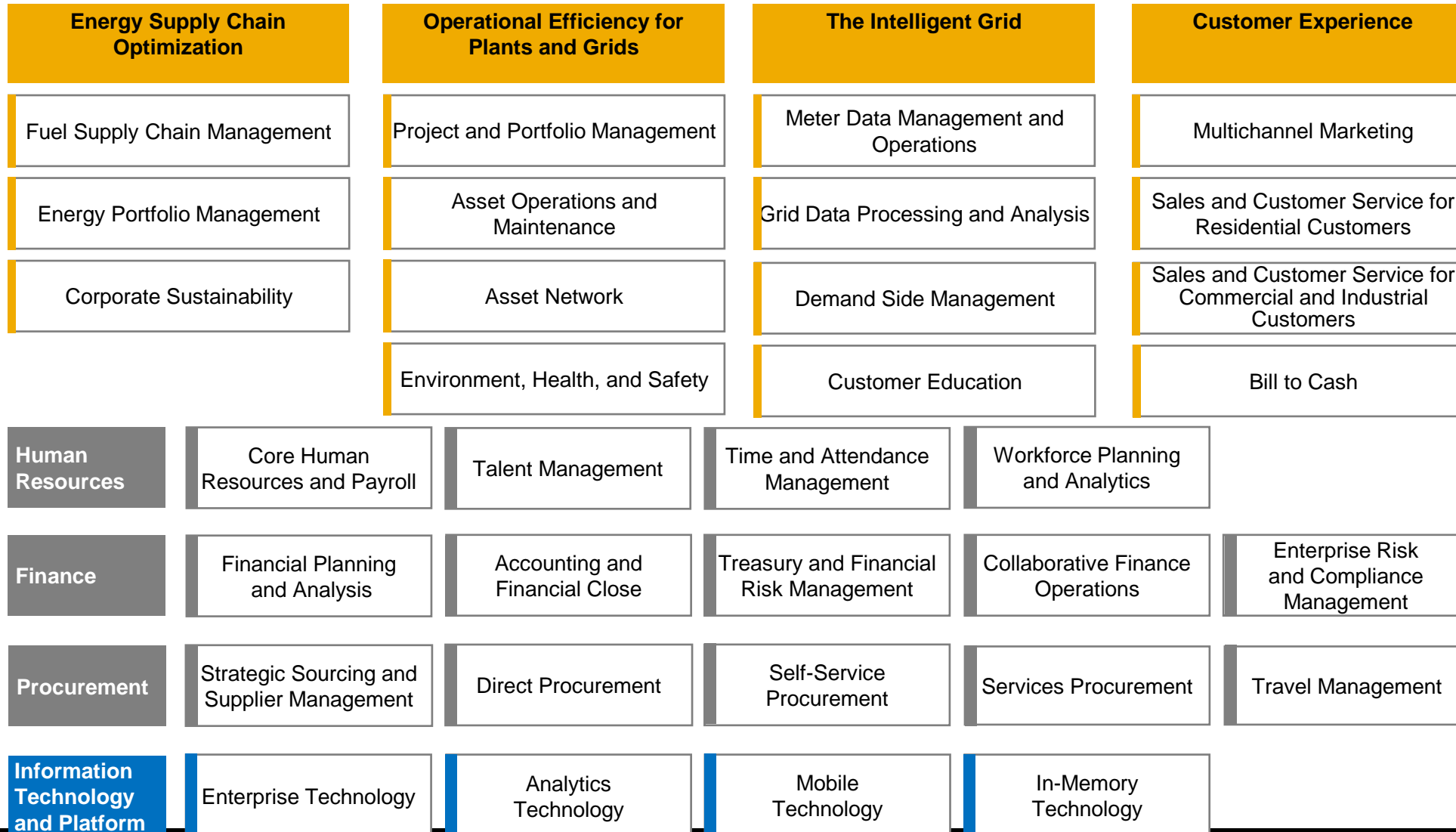
# Summary: SAP's Planned Roadmap for the Digital Utility

SAP LABS  
PREVIEW



# Solution Explorer / Industry Value Maps

Source: [Solution Explorer](#)



[Solution Explorer](#)



# Thank you

Contact information:  
Miguel Gaspar Silva  
Industry Director Utilities, EMEA Lead  
[miguel.gaspar@sap.com](mailto:miguel.gaspar@sap.com)

# Strategic Topics for the Utilities Industry

Planned

## IT/OT & Smart Grid

- Support asset-centric use cases with partner (e.g. asset health development)
- Continue wind park monitoring PoCs (various customers, initiate research project)
- Leveraging the new time series data type in SAP HANA for Utilities; EDM cockpit
- Align with M2M program and support definition of reuse components for the IoT platform
- Analyze CIM industry standards to be able to support convergence of the IT & OT world in a Smart Grid; high demand for analytical platforms

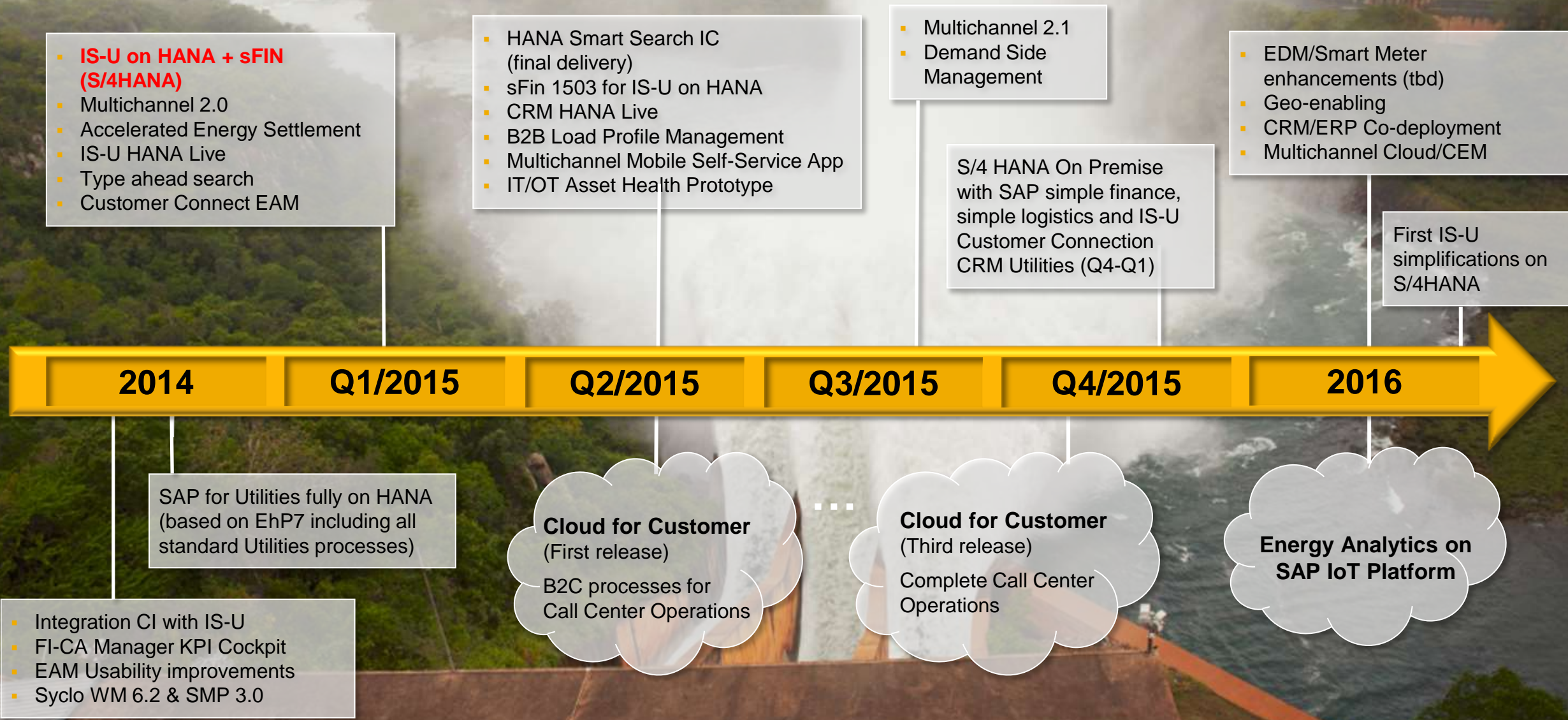
## Core Business - Bill2Cash (IS-U, CRM)

- Deliver planned HANA optimizations (e.g. Accelerated EDM Settlement)
- Continue & finalize IS-U/CRM on HANA Live content
- Support upcoming HANA PoCs
- Support first IS-U on HANA customers
- CRM/ERP co-deployments to reduce TCO in OP and HEC
- Finalize Convergent Sales and B2B

## Customer Engagement

- Deliver planned Multichannel versions 1.2 & 2.0 and complete roadmap; support first customers
- Investigate into Hybris integration to offer as well e-commerce capabilities to forward thinking energy retail companies
- Elaborate and work on cloud options for Omni Channel / Multichannel topic
- Cloud for Customer B2B use case
- Further cloud investigations, define further use cases

# Summary: SAP's Planned Roadmap for the Digital Utility





# Customer Connection EAM

## Continuous improvements in various cycles

### Cycle 2:

- Document Flow Enhancements [SAP Note 1674883](#)
- Documents in PM Order [SAP Note 1673999](#)
- Estimated Cost on operation Level in Basic Order View [SAP Note 1703800](#)
- OAA in Web Dynpro [SAP Note 1703800](#)
- Classification Data in Lists [SAP Note 1674343](#)
- Maintenance Plan Opening Horizon in Days [SAP Note 1665158](#)
- Mass Deactivation of Measuring Points and Counters [SAP Note 1664764](#)

### Cycle 3:

Please refer to

[https://influence.sap.com/ct/ct\\_list.bix?c=EAM2014&tab=1&tag=&status=&cat\\_id=&strKeywords=&status\\_tab=](https://influence.sap.com/ct/ct_list.bix?c=EAM2014&tab=1&tag=&status=&cat_id=&strKeywords=&status_tab=)

planned

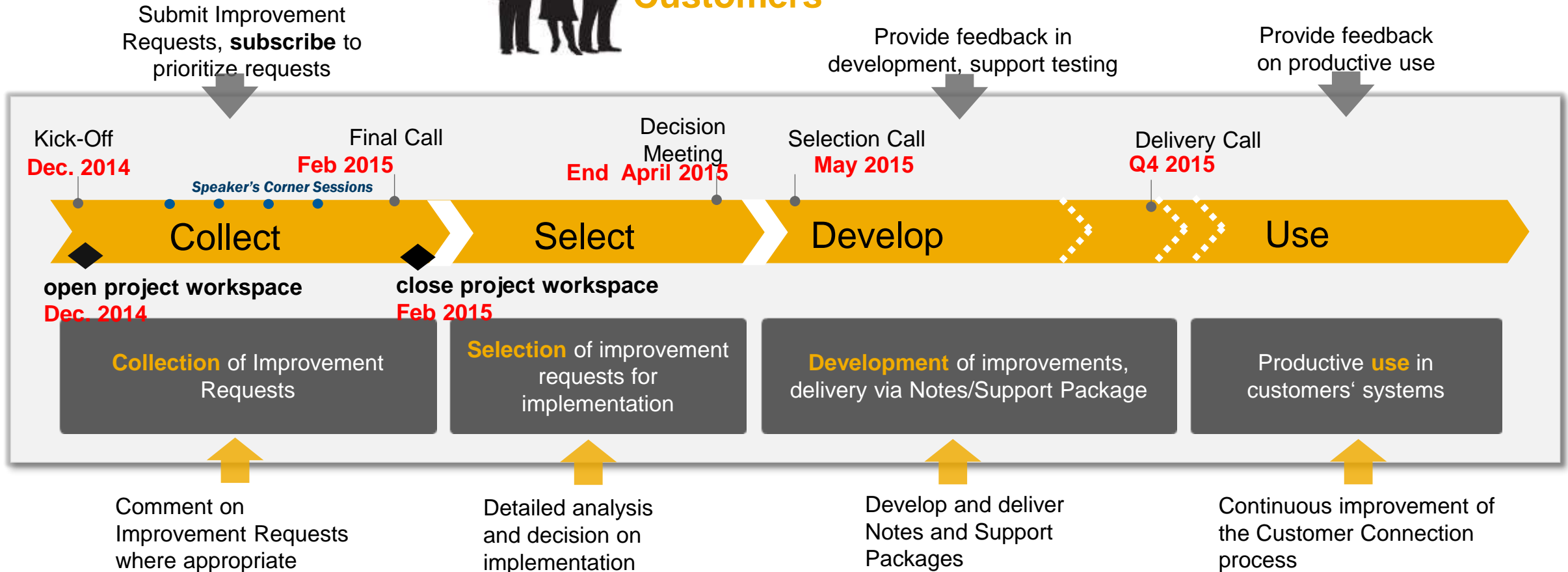
The screenshot shows the SAP Customer Influence web interface. At the top, there is a navigation menu with options like 'My Influence', 'Private Communities', 'Projects by ...', 'Lines of Business', 'Industries', 'Products', and 'Localization'. Below this, a specific request is displayed for 'EAM Plant Maintenance (2014)'. The request is titled '7135: Counting entries in ALV grids -/- Anzahl Listeneinträge in ALV-Listen' and was submitted by Klaus Fischer on 2011-11-26. The description in English explains the need to display the number of list entries directly in ALV grids, which is currently not possible. A German translation of the description is also provided. The interface includes buttons for 'Home', 'Requests', and 'Blog', and a '12 comment »' link at the bottom.

# Customer Connection Focus Topic: CRM for Utilities 2015

## Project timeline (preliminary)



**Customers**



**SAP** Project Team

# SAP CLOUD FOR CUSTOMER FOR UTILITIES

Managing the commercial and industrial customer sales process



## UTILITIES B2B SOLUTION

LEAD TO QUOTE PROCESS FOR INDUSTRIAL AND COMMERCIAL CUSTOMERS



### What do SAP solutions help customers do?

#### Sales Performance Management



Manage sales targets, aggregate account and opportunity planning information, and work with rolling forecasts.

#### Energy Pricing and Costing



Integrate sources of price-relevant information and automate the calculation of quotation prices.

#### Quotations and Contracts



Calculate accurate prices, provide quotes, and negotiate and manage contracts

#### Pipeline and Lead Management



Enables better visibility, control, and integration of marketing activities.

### Typical results

17%

Higher field sales quota achievement when the sales pipeline is optimized to provide proactive pursuit of cross-sell and up-sell opportunities

10%

Higher sales forecast accuracy in organizations with mature sales planning and forecasting processes

Source: SAP Performance Benchmarking



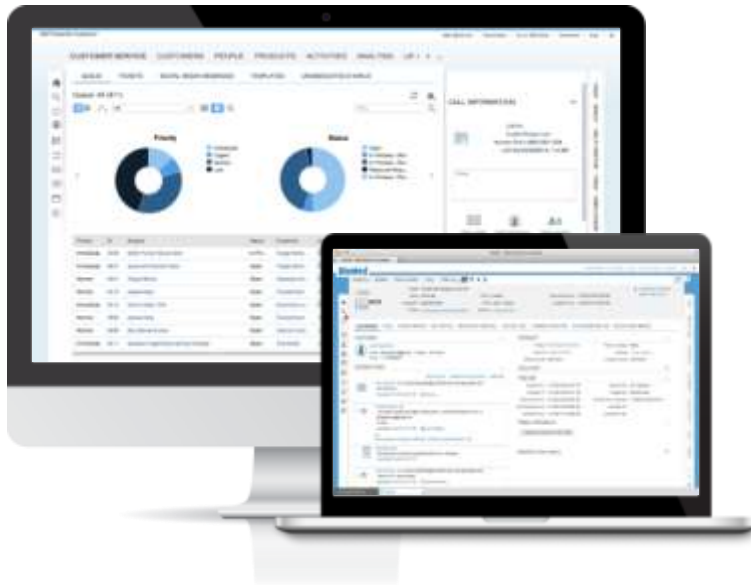


# SAP CLOUD FOR CUSTOMER FOR UTILITIES

Customer Service – Residential

## UTILITIES CALL CENTER SOLUTION

Optimizing customer-facing operations with easy to use interaction and integration to the social world



### What do SAP solutions help customers do?

#### Selling Energy Products



Propose the right products and services to customers and automate after-sale processes.

#### Managing Customer Service



Access all customer information – view the service location – to handle billing, disconnections and reconnections, meter readings, and more

#### Running Contact Centers



Provide self-service for customers, enabling them to securely access key account information and perform processes online.

### Typical results

9.8%  
SAP

Lower costs of operations when analyzing interactions to enhance customer relationships

15%

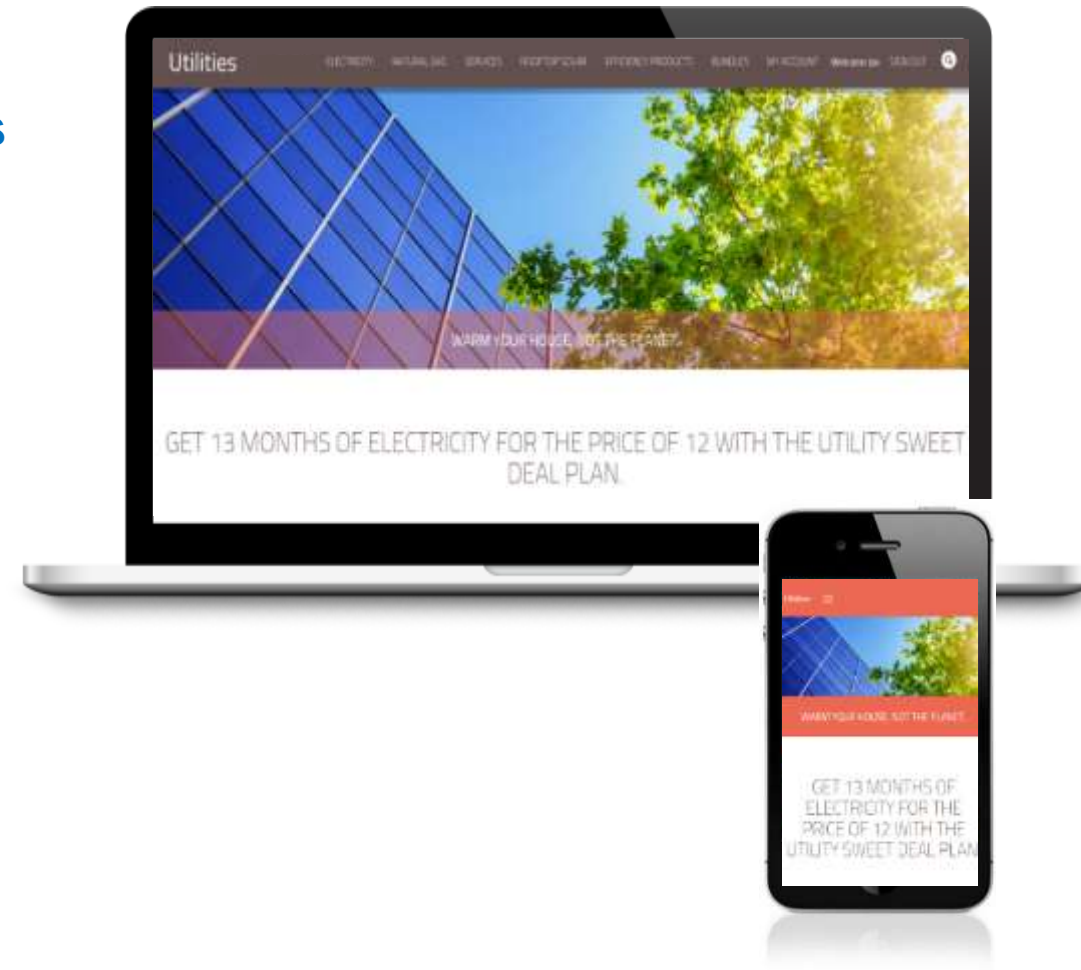
Reduction in customer churn applying analytical methods and 360 degree customer information

Source: SAP Performance Benchmarking

# hybris: The omni-channel platform for Utilities

Join us for more details at the Customer-Centric track today

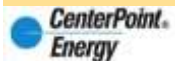
- **World Class Customer Experience across ALL channels**
  - Provide real-time insights into customer behavior
  - Reduce cost to serve with self-services
  - Target with personalized Product & Service Bundles
  - Real Time Recommendations / Up-Sells
  - Manage Campaigns and Promotions
- **Central Catalog**  
of all products, programs and services
- **Faster Go-to-Market with new products and services**  
including new channels and markets
- **B2C and B2B**  
Manage high-value commercial & industrial customers



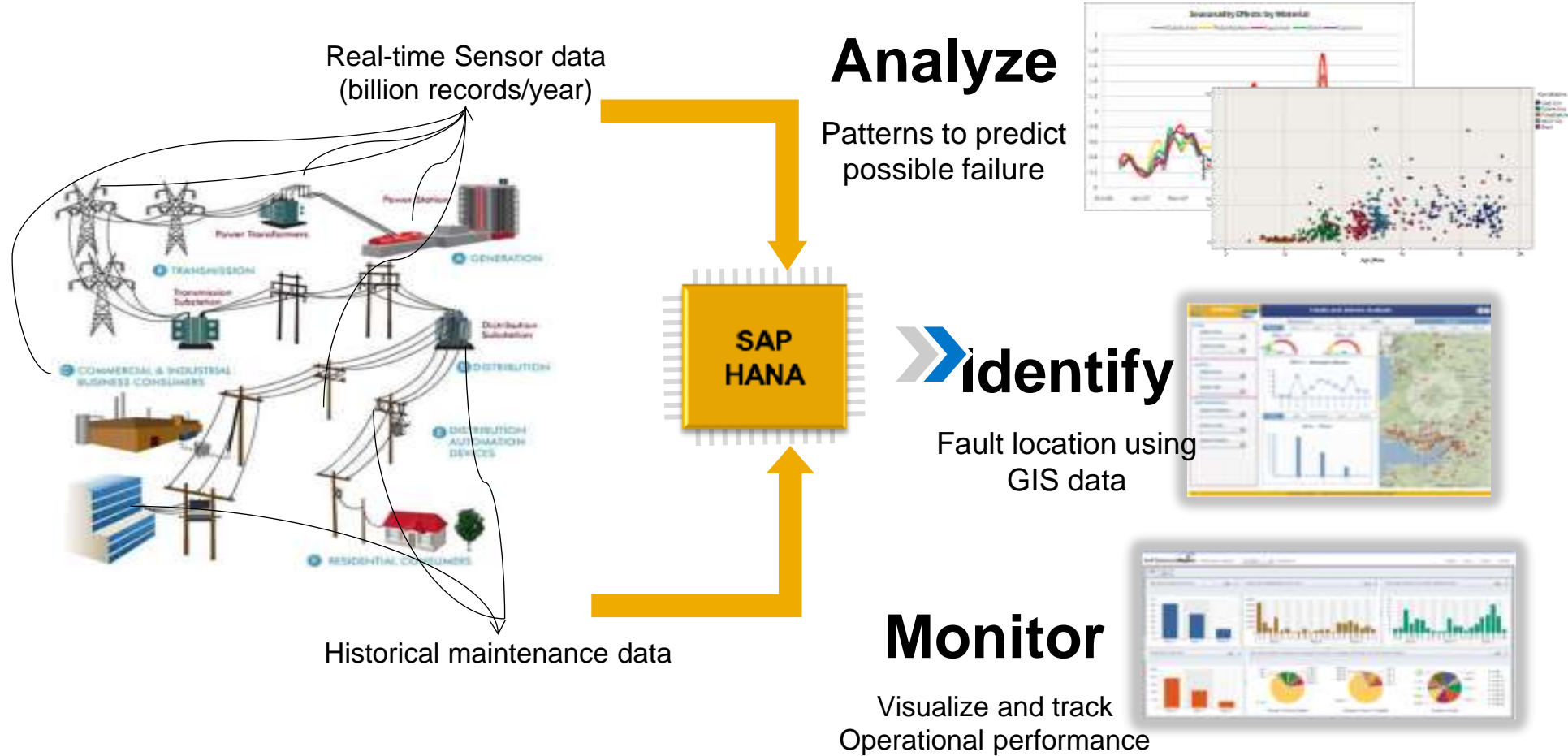
# Predictive Maintenance for Assets and Facilities

Improved predictive and preventive maintenance = Higher reliability and lower costs

“How do I evaluate massive amounts of historical and real-time sensor data across assets in Generation and T&D to optimize my maintenance (predictive & preventive) schedules.”



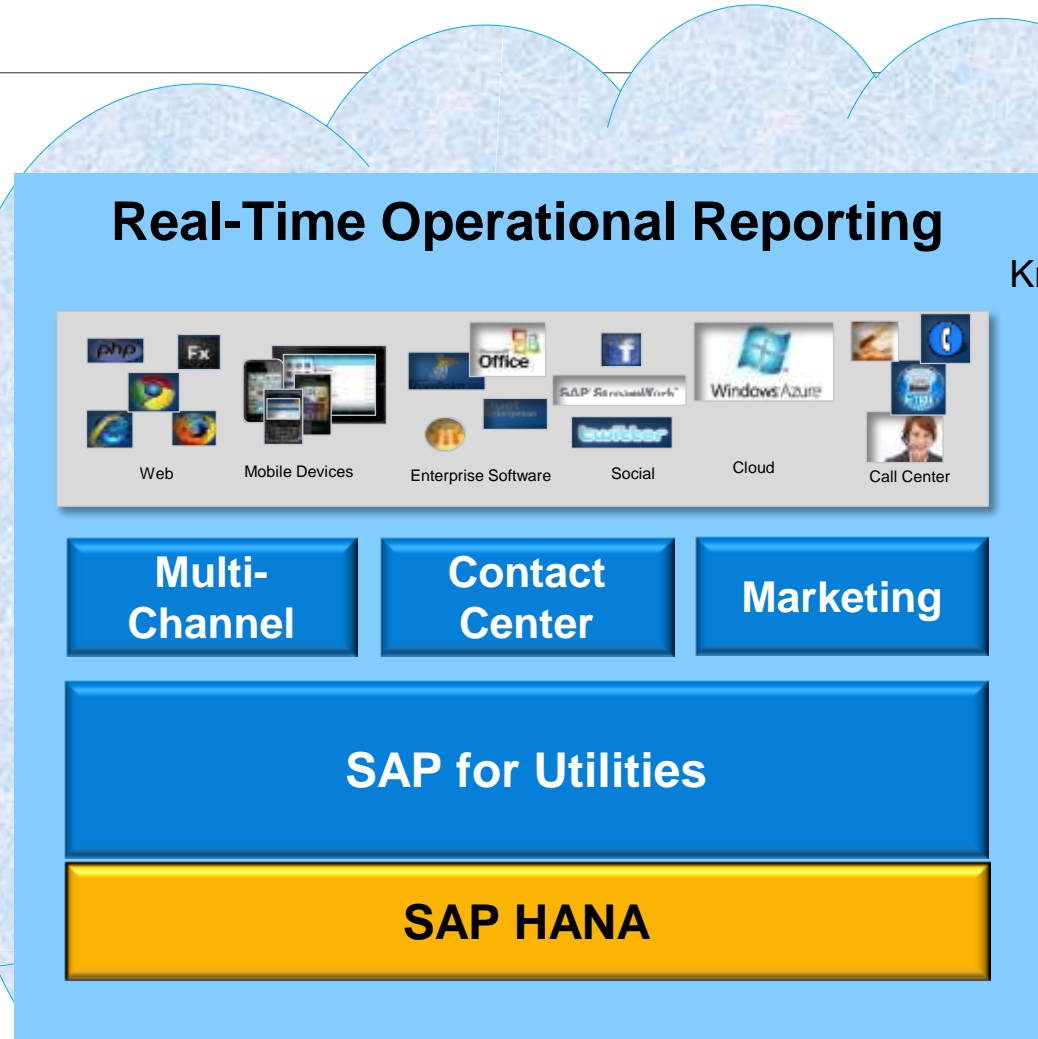
CenterPoint Energy is the first customer working in collaboration with SAP and Accenture to prototype the Asset Health Application.



# Serving Utilities Customers using a state of the art Solution and at reduced TCO

Benefit from the industry leading CIS solution (ranked number 1 by Gartner for 9 years in a row), proven at almost 800 customers worldwide, serving over 400 Million Utility accounts.

Complemented with best practices for the end-to-end customer processes and available in managed cloud or on-premise



## Engage

Know your customer and predict their journey

A CONTINUOUS CYCLE OF LISTENING AND ENGAGING IS AT THE CORE OF CUSTOMER ENGAGEMENT



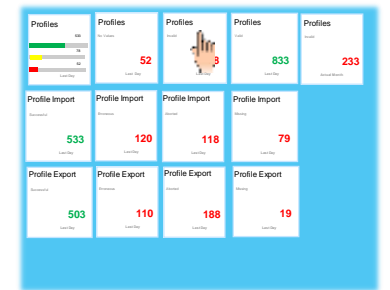
## All users, everywhere

New, modern UI available on mobile and stationary devices for internal and external



## Monitor

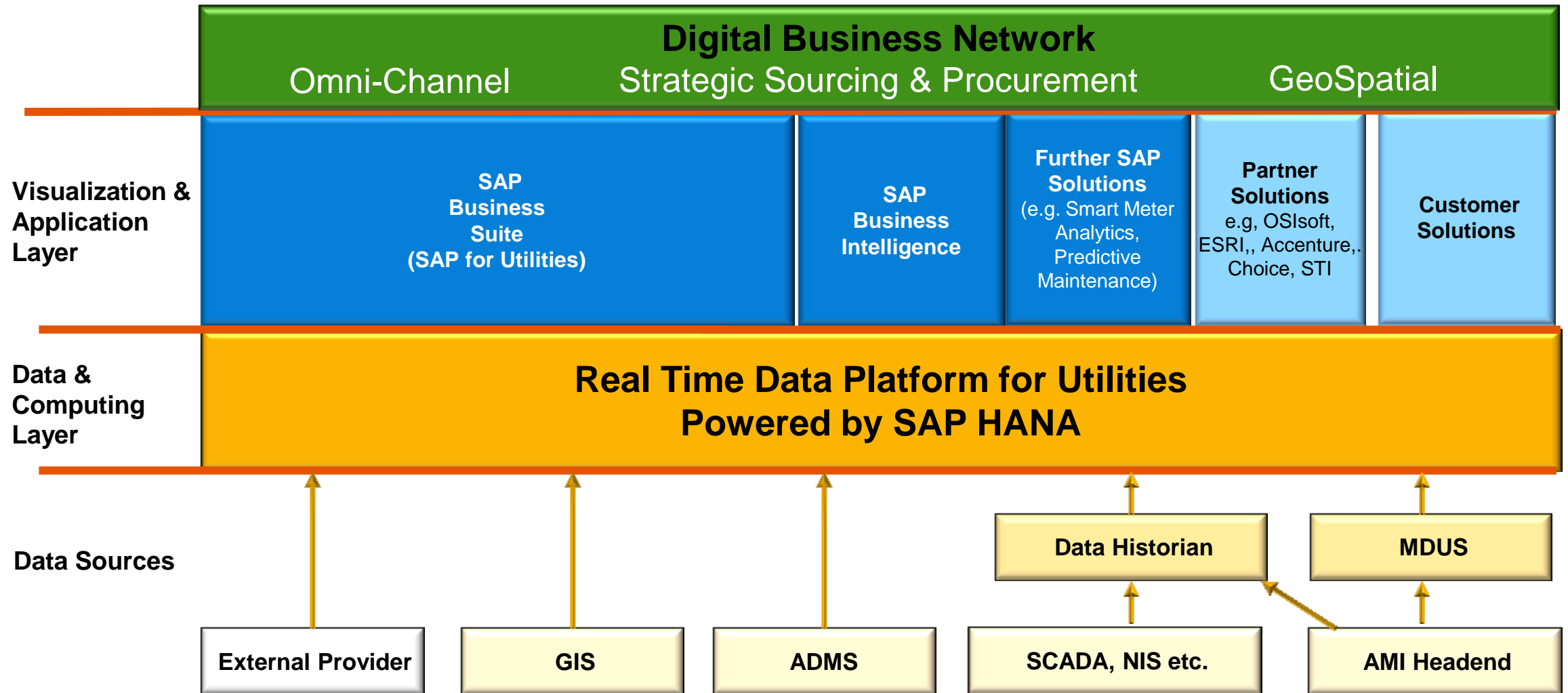
Visualize and track key processes in real-time



# The IoT Integration Solution for Utilities

Evolutionary innovation without disruption

Join us for more details in the Intelligent Grid track today





# Take Aways

S/4HANA is available for all Utilities processes today

Innovations (sFIN, sLOG, hybris marketing, etc.) will be available exclusively on S/4HANA

Utilities will benefit first from the simplifications of generic ERP functions (e.g. sFIN, sLOG) on S/4HANA

SAP has a roadmap to simplify the current industry solution on the new S/4HANA Platform

Industry-specific Public Cloud Solutions (e.g. C4C, Energy Analytics) complement the S/4HANA Scope for Utilities and enable further simplification options

Maintenance of current Business Suite (on HANA and on any DB) is committed until 2025

SAP supports migration from any DB to new S/4HANA platform with predefined services and a specific customer care program





# Thank you

Contact information:  
Miguel Gaspar Silva  
Industry Director Utilities, EMEA Lead  
[miguel.gaspar@sap.com](mailto:miguel.gaspar@sap.com)

# Further information on SAP S/4HANA

---

**External SAP S/4HANA Landing page**

**Internal SAP S/4HANA landing page**

**PM Outbound SAP S/4HANA Jam Repository**

**External S/4HANA Roadmap**

**S/4HANA on Planet Utilities Jam Site**

# Customer journey to SAP S/4HANA – 3 situations, 3 deployment options

## Choice of deployment

### Starting point A



**On Premise**  
deploy new installation

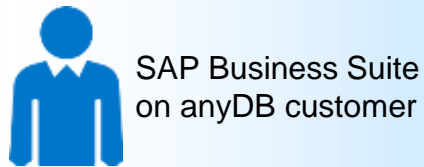


**Cloud**  
up and running with best practices in two days



**Hybrid**

### Starting point B



**On Premise**  
upgrade to latest EHP, migrate database to SAP HANA, deploy exchange innovation



**Cloud**  
transfer data to the cloud



**Hybrid**

### Starting point C



**On Premise**  
deploy exchange innovation



**Cloud**  
transfer data to the cloud



**Hybrid**

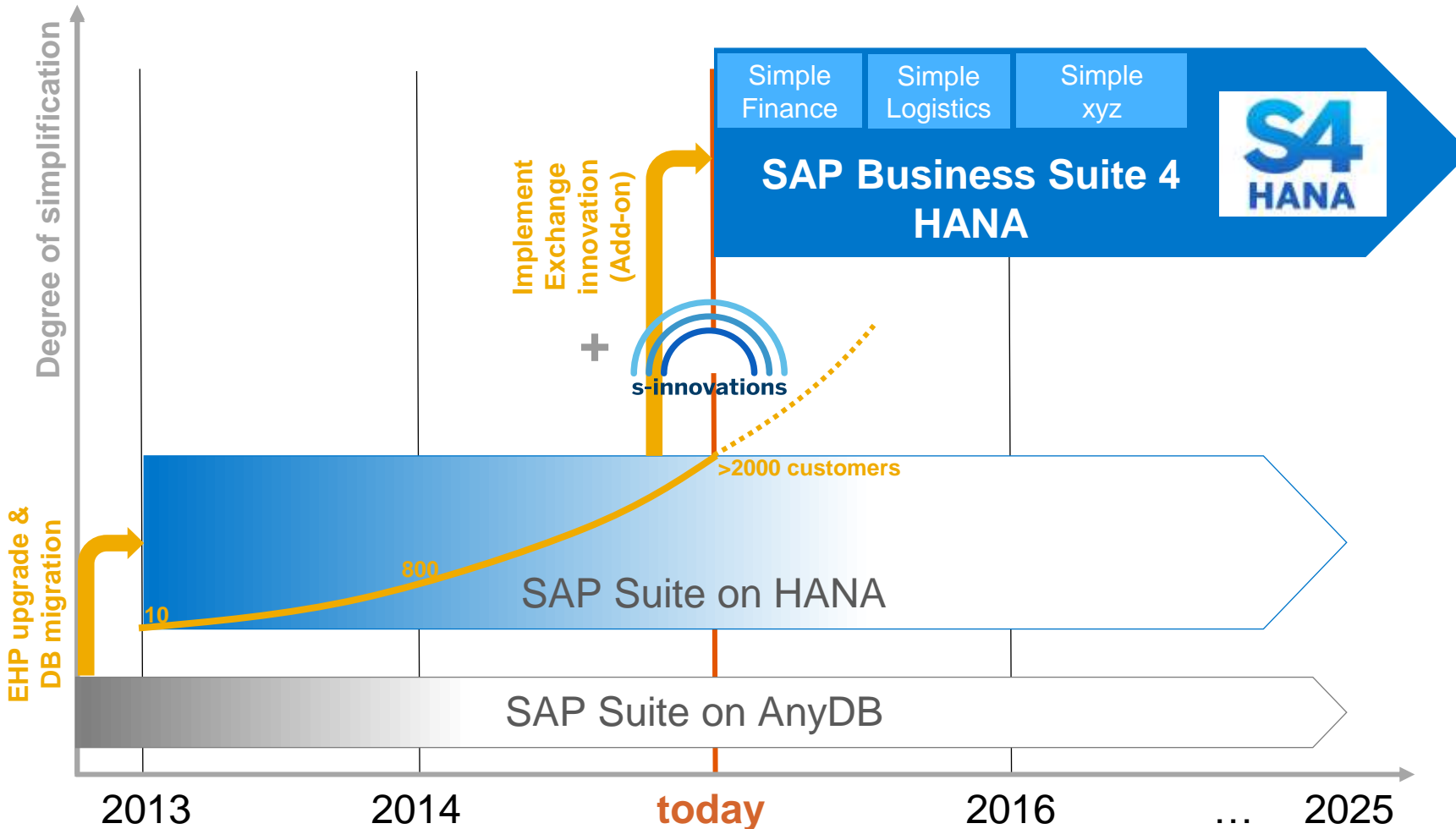


Supported by predefined migration, system conversion in the cloud and deployment packages from partners and SAP

**Innovation without disruption**

Compatibility with SAP ERP 6.0

# SAP Business Suite 4 HANA – the next Generation Suite



- New Suite delivering on the promise of the Perfect Enterprise.
- Real real-time. Integrated. Open. Networked. Simple UX.
- Simplified business processes
- Semantic consistency allows non-disruptive migration
- On premise, in the cloud

- Most modern & performant platform
- No more batch processes
- Real-time insight to action
- Optimized business processes
- Fastest growing product ever

- Mainstream maintenance until 2025
- Continuous Innovation (e.g. customer connection)

# Reinvented business solutions





# Preview: SAP Simple Project Business\*

SAP LABS PREVIEW



## Insights into current bids and past projects

- Intuitive project manager self-service creation and planning of projects
- Real-time capture and faster billing of time and expenses
- Seamless user experience across front and back office

## Forecast of project profitability

- Cross-project analysis to easily identify profitable customers and projects
- Always up to date with latest transactional information
- Proactive alerts to drive direct action

## Accelerated processing and closing

- Accelerated cash receipt and vendor payment
- Empowered front office to resolve issues directly with the customer
- Continuous close capabilities

\*final product name TBC