POP102
SAP Operational Process Intelligence powered by SAP HANA

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October, 2013

SAP

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Agenda

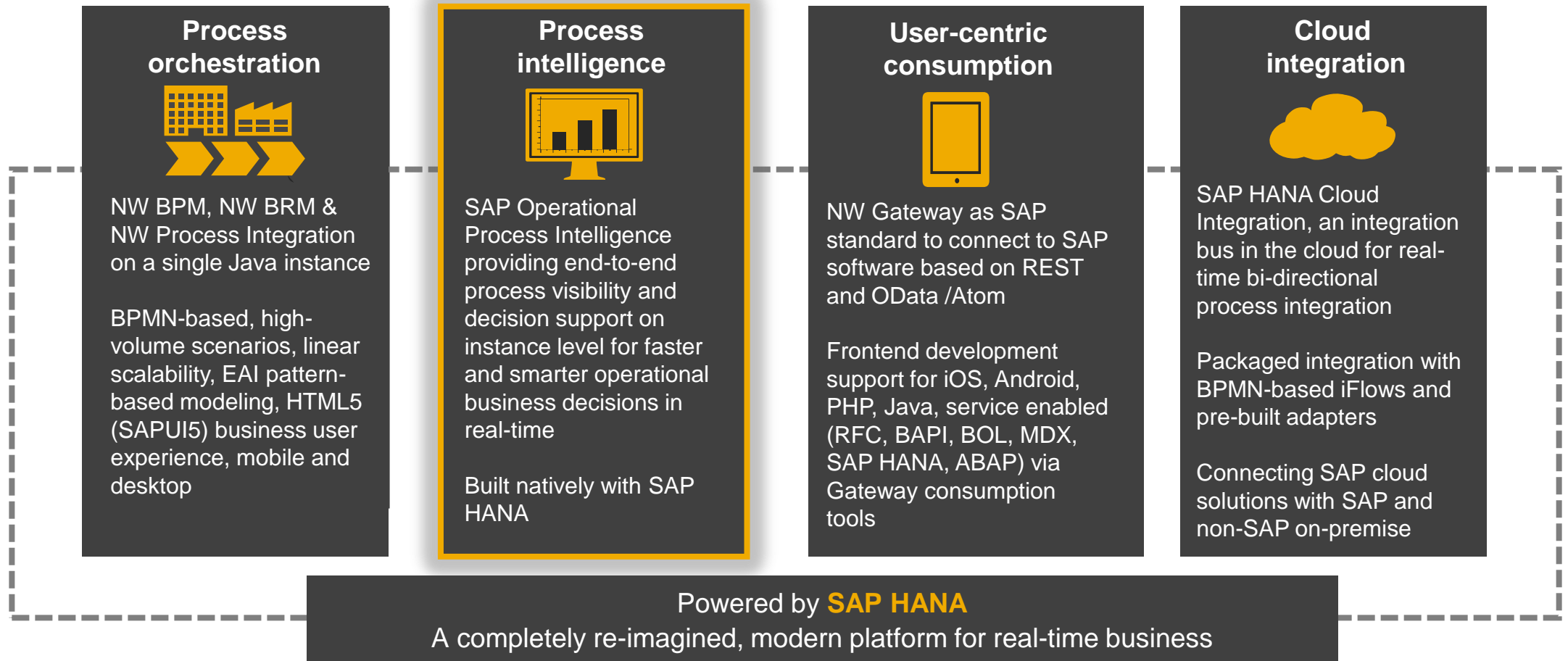Introducing Operational Process Intelligence

- Details

SAP Operational Process Intelligence

- Today
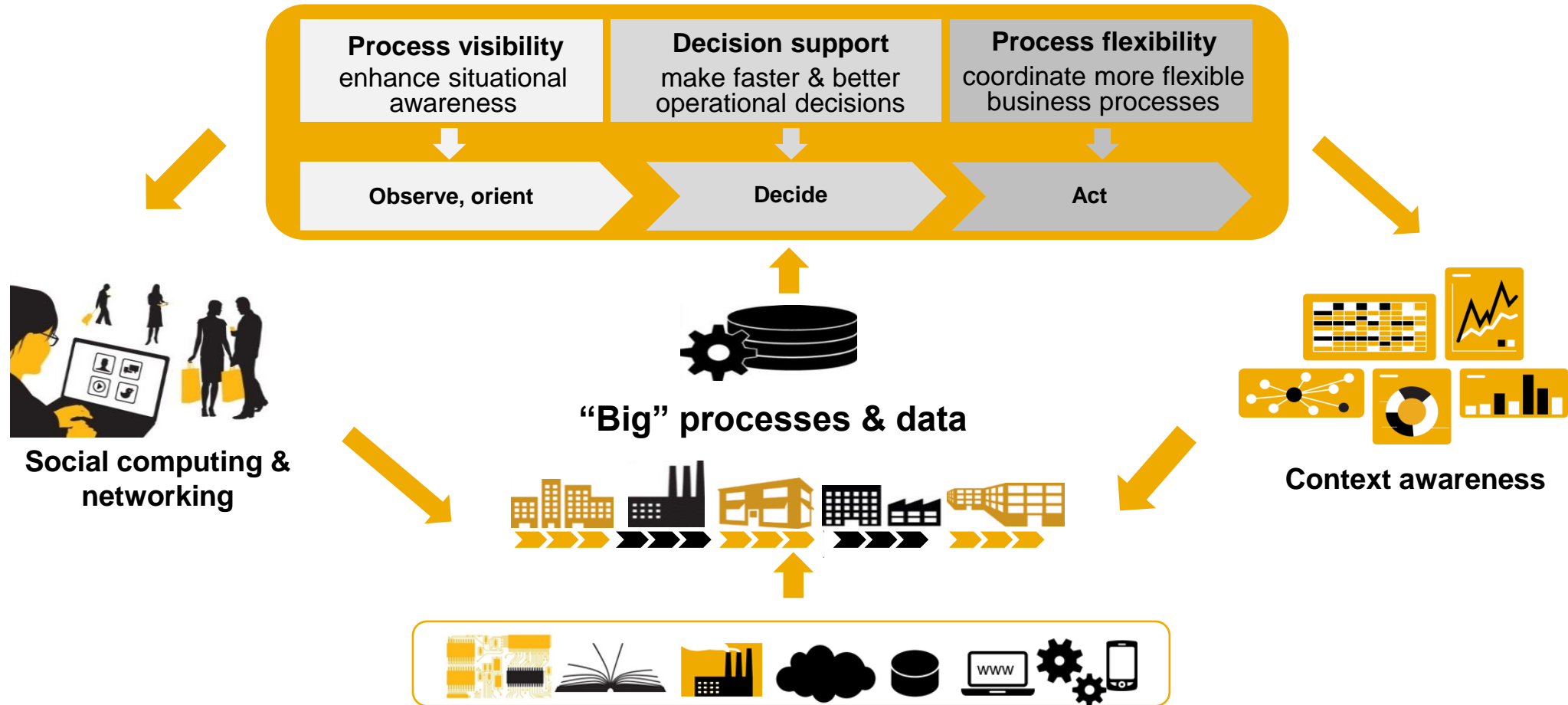- Planned Innovations
- Future

Summary

SAP Operational Process Intelligence
In the SAP integration and orchestration portfolio

Process orchestration

NW BPM, NW BRM & NW Process Integration on a single Java instance

BPMN-based, high-volume scenarios, linear scalability, EAI pattern-based modeling, HTML5 (SAPUI5) business user experience, mobile and desktop

Process intelligence

SAP Operational Process Intelligence providing end-to-end process visibility and decision support on instance level for faster and smarter operational business decisions in real-time

Built natively with SAP HANA

User-centric consumption

NW Gateway as SAP standard to connect to SAP software based on REST and OData /Atom

Frontend development support for iOS, Android, PHP, Java, service enabled (RFC, BAPI, BOL, MDX, SAP HANA, ABAP) via Gateway consumption tools

Cloud integration

SAP HANA Cloud Integration, an integration bus in the cloud for real-time bi-directional process integration

Packaged integration with BPMN-based iFlows and pre-built adapters

Connecting SAP cloud solutions with SAP and non-SAP on-premise

Powered by SAP HANA
A completely re-imagined, modern platform for real-time business

Intelligent Business Operations
Key trends and impacts in business and technology

Process visibility	Decision support	Process flexibility
enhance situational awareness	make faster & better operational decisions	coordinate more flexible business processes

Observe, orient	Decide	Act

Social computing & networking

"Big" processes & data

Context awareness

SAP Operational Process Intelligence
Key trends and impacts in business and technology

Intelligent business operations:
infusing intelligence into orchestrated, end-to-end processes

- Gain competitive advantage

- Quickly adapt to changing business dynamics

- Turn big "process" data into actionable information

- Leverage process-aware analytics

- Lead the transformation of your business

- Be proactive instead of crisis management

- Accelerate and optimize operational decisions making
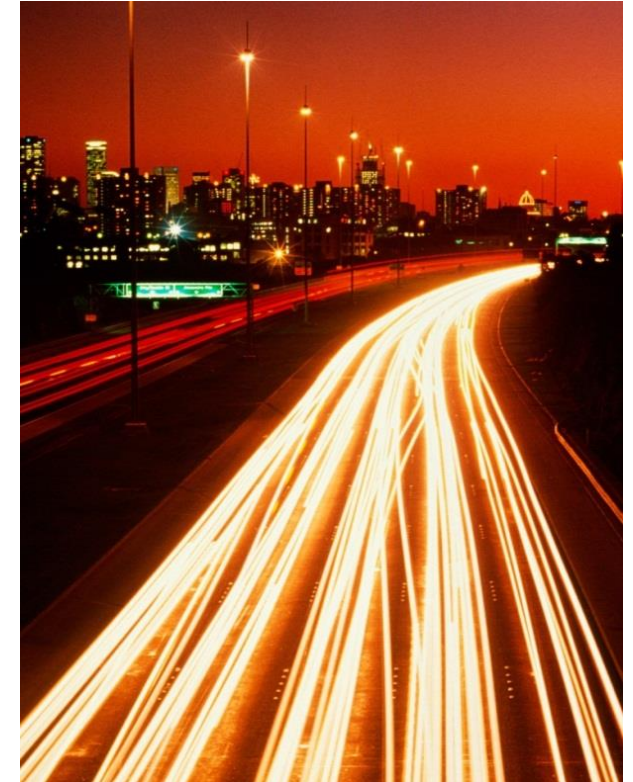
"By 2016, 70% of the most profitable companies will manage their processes using real-time predictive analytics or extreme collaboration" – *Gartner Predicts 2013*

Business Navigation
Holistic View on What's Happening in "my Business"

My Goals

GPS for the Business

- Contextualized

- Relevant

- Trusted

- Timely

- Integrated

100101
011010
100101

Action 1
Action 2
Action 3
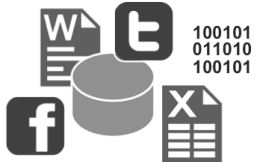
Use all relevant data   **Get quick insights**   **Choose right actions**

Today's Environment brings a High Level of Complexity
How do you keep tabs on your mission critical processes?

How do you **track performance** of key business (operations) processes?

How do you find out when **things go wrong**?

Are you able to **identify trends, forecast events**, and **adapt** quickly?

Can you **detect and respond** rapidly to threats and opportunities?

Sales

Operations

Business Partner

Finance

WHO
WHAT
WHERE
WHEN
WHY
HOW
QUESTIONS ANSWERS
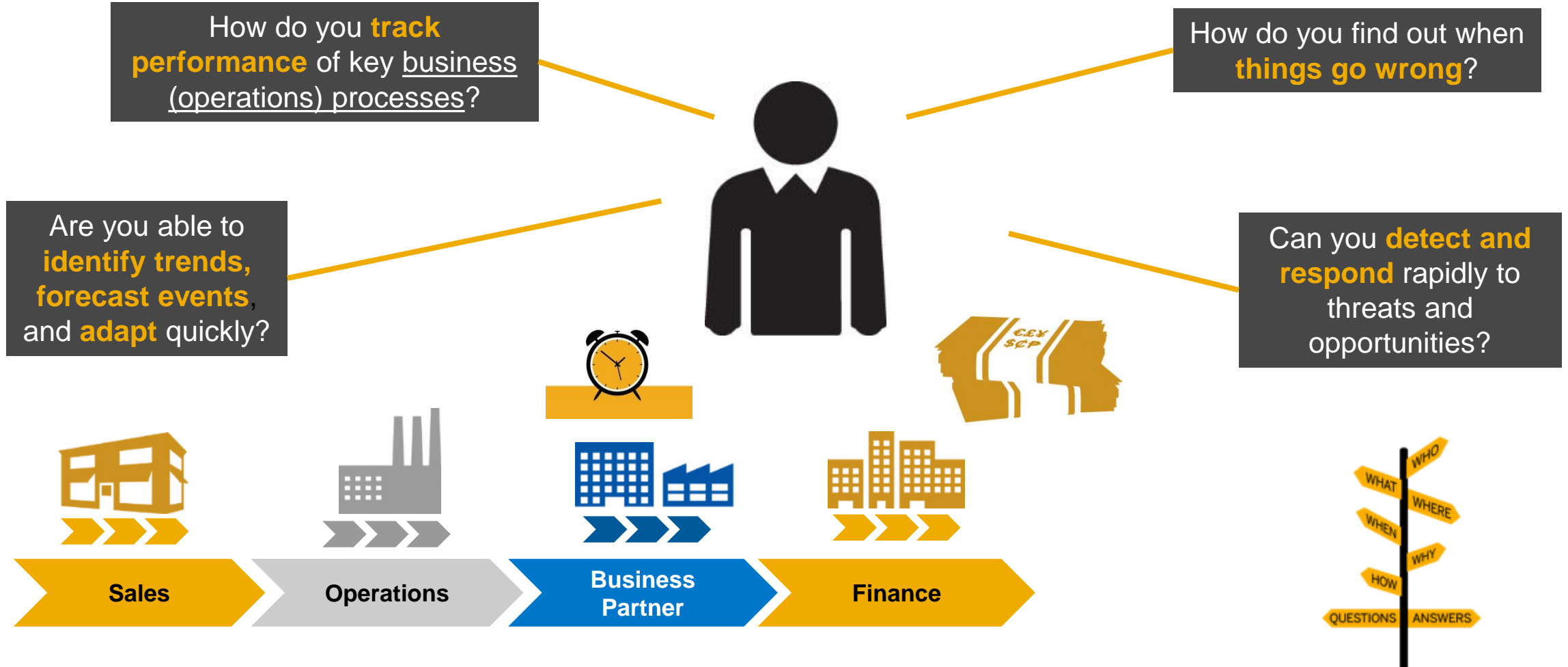
SAP Operational Process Intelligence powered by SAP HANA

- Today
- Planned
- Future

SAP Operational Process Intelligence 1.0
User experience – responsive web-based user interface for business users

Real-time process visibility to line-of-business users for faster and better-informed operational decisions

Harmonized, integrated and personalized user experience

All-new, modern SAPUI5-based UIs

Responsive across devices
- Big-screen control towers
- Desktop
- Tablet, mobile devices
- Flexibly-fast tile-view
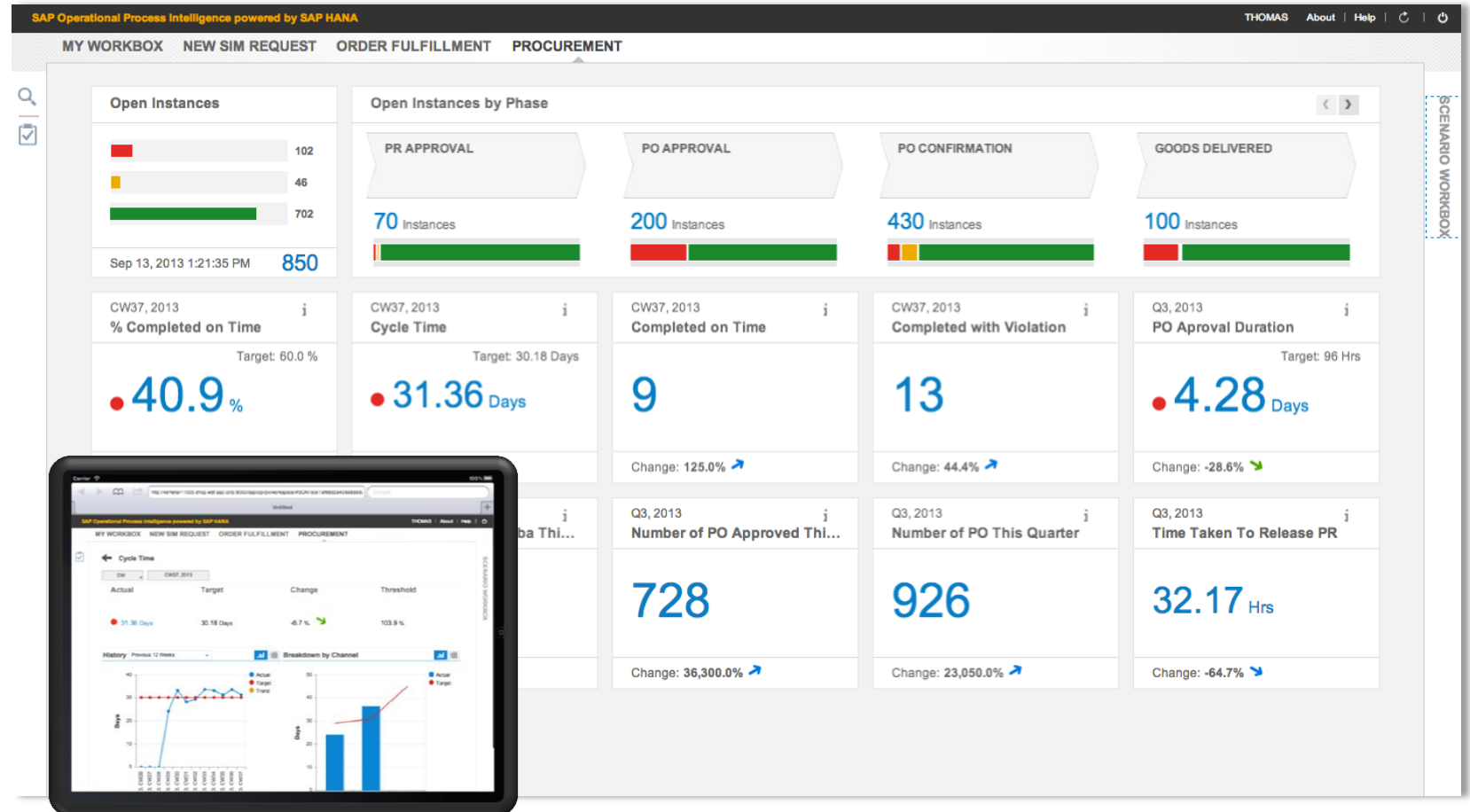
Demo
SAP Operational Process Intelligence

Shared Services ("Control Towers")
- Order Fulfillment
- Procurement Operations

Retail
- Assortment Management

Telecom
- New Customer On-Boarding (SIM Card Requests)

SAP Operational Process Intelligence 1.0
Process intelligence – instance-level visibility, by phases and milestones

End-to-end business scenarios are abstracted to higher level "phases" for Line-of-Business

Simplified, business-user consumable abstractions of complex "big" processes

Provides business-level, semantical containers (phase) to describe the logical units of work

- Aimed to achieve a common business goal in milestones
- Abstraction of underlying execution environment and process flow
- Agnostic of IT complexity (heterogeneous business process fragments and participants)
- Flexible to adapt at runtime
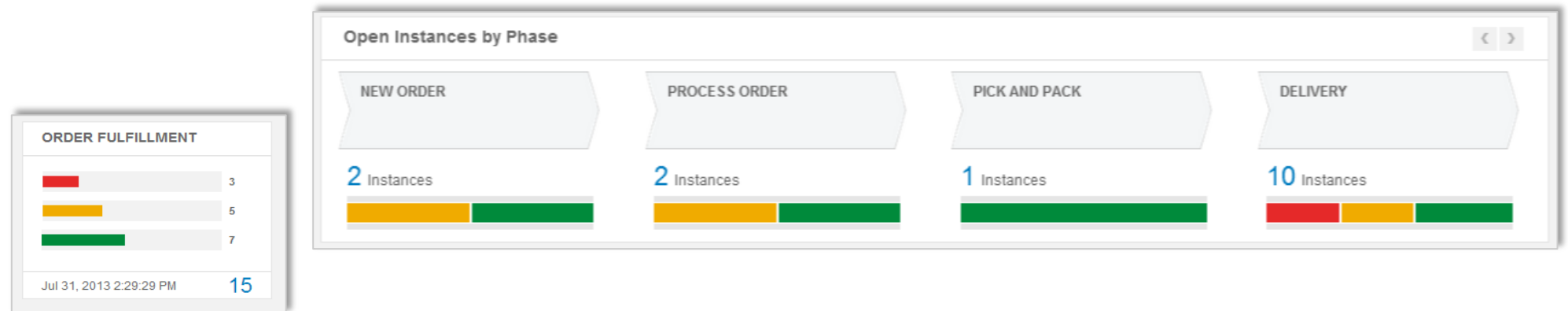
SAP Operational Process Intelligence 1.0
Process intelligence – instance view featuring trends and forecasts

Scenario instance view: business navigation in real-time

Simplified, business-user consumable abstractions of a complex E2E instance

Status for phases based on start and end-event

- Completion percentage
- Elapsed time
- Forecast
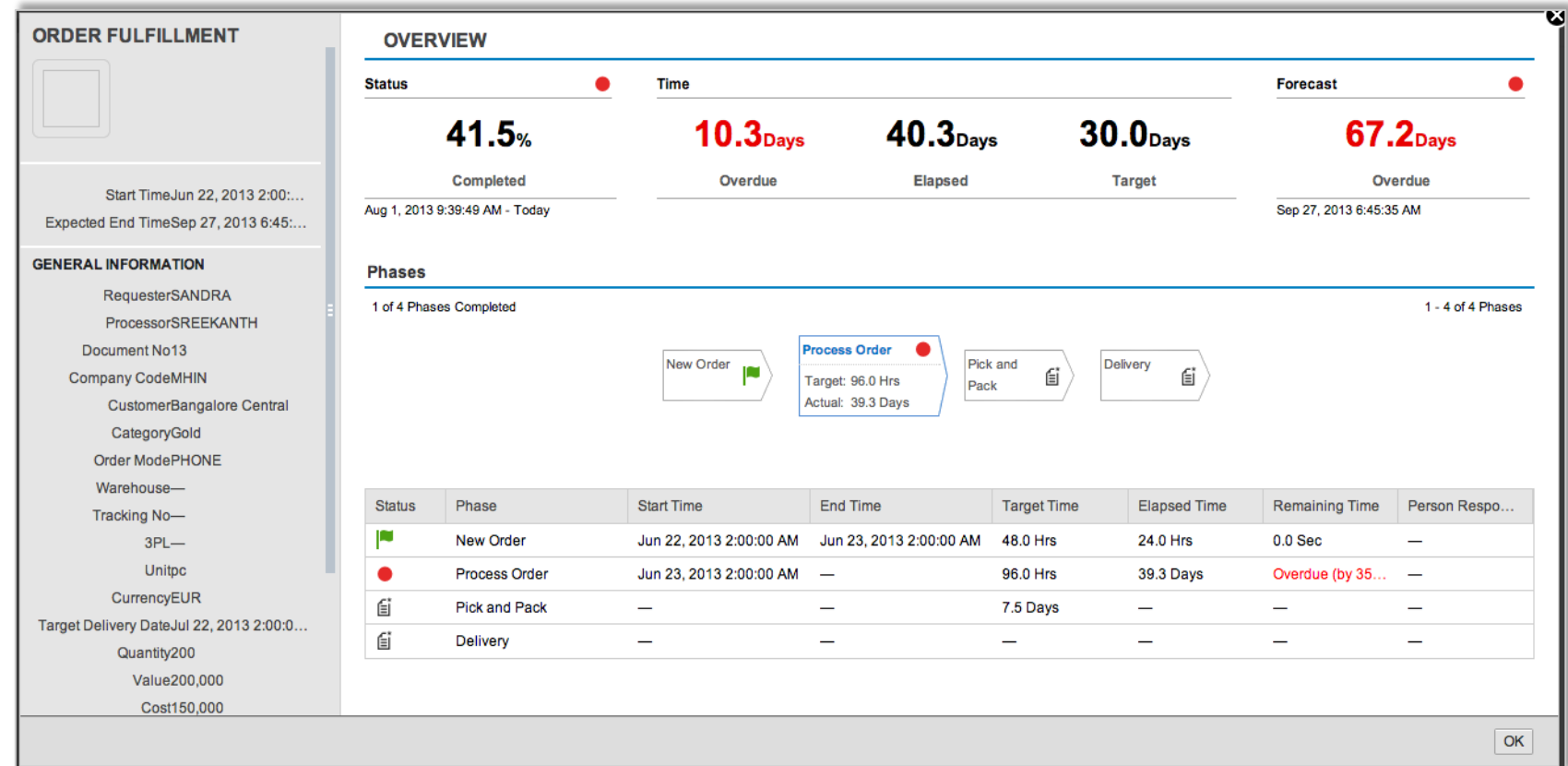
SAP Operational Process Intelligence 1.0
Process intelligence – drill-down into measures and indicators

Easy-to-consume dashboards for measure and indicators

Standard measures and indicators

- Cycle time, % completion on time, completed on time and with violations

Custom built

- Breakdowns in customer categories

Table view & chart view

Trends, actuals and targets

Tiles for measures and indicators

SAP Operational Process Intelligence 1.0
Process intelligence – insight-to-action: collaborative problem solving

Easy-to-use embedded task management for to-do's and collaborative tasks.
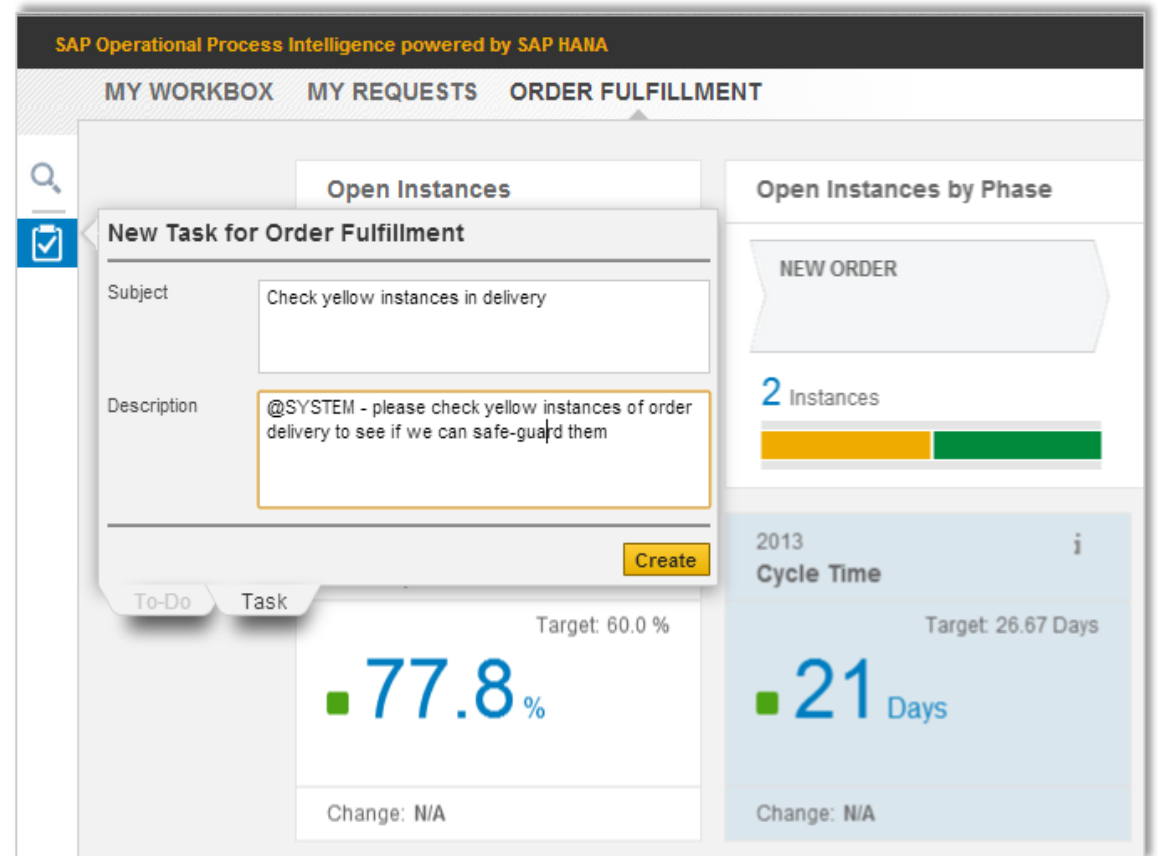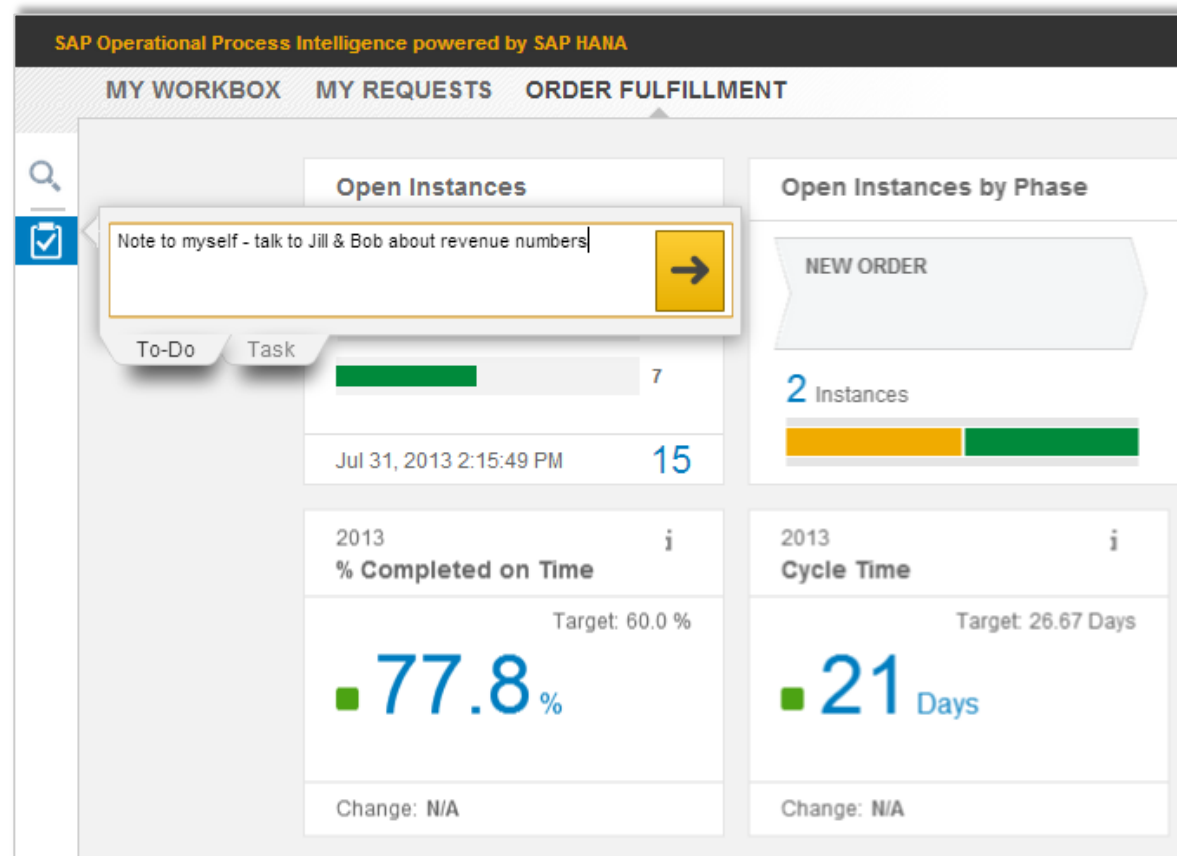
SAP Operational Process Intelligence 1.0
Process intelligence – integrated inbox ("workbox")

Embedded SAPUI5 Workbox for tasks, notifications and to-do's

SAP Operational Process Intelligence 1.0
Process intelligence – notifications

Subscription of notifications for KPI violations

- Time-windows (hourly, daily, weekly, monthly)
- "Quality-of-service" (at risk or violated)
- Measures and indicators for performance management
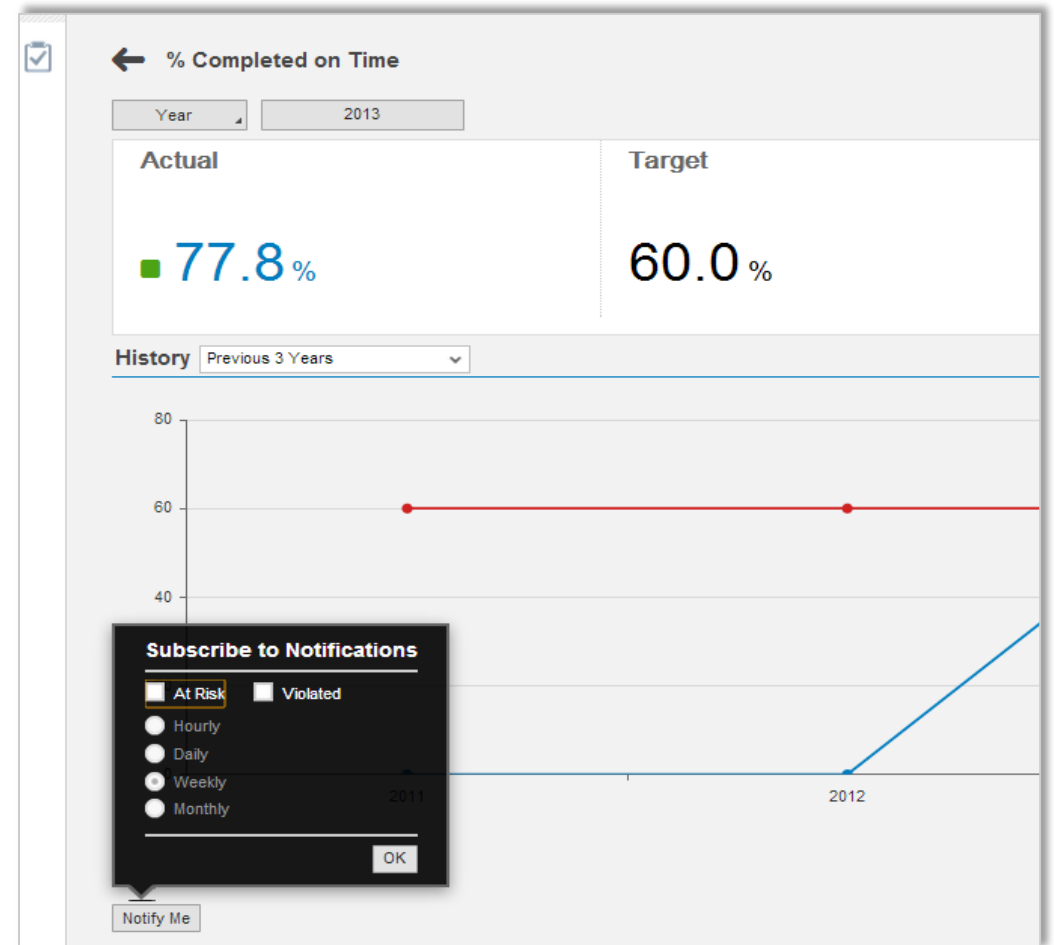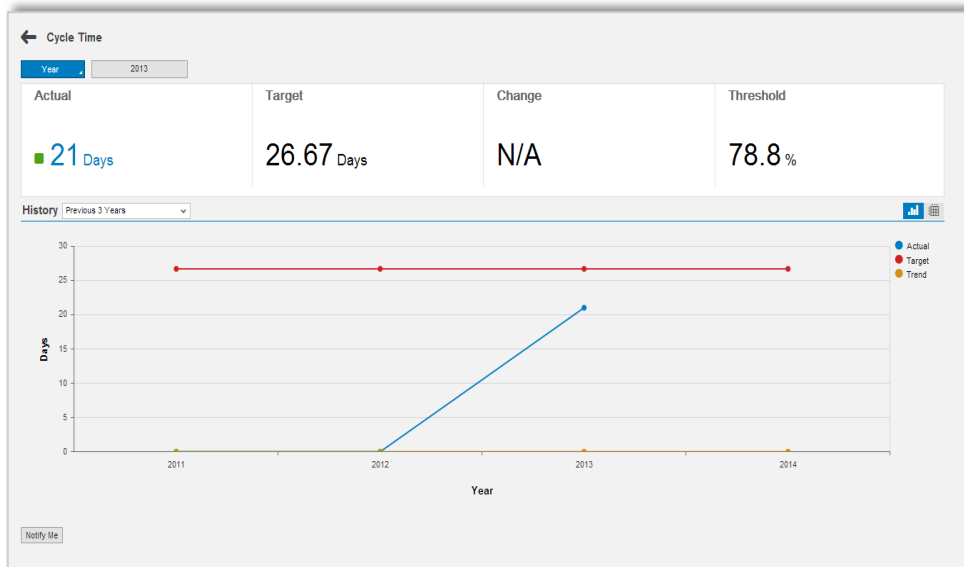
SAP Operational Process Intelligence 1.0
Data consumption & scenarios – integrated search console

Search and assemble end-to-end process

Search multiple SAP Process Provider systems

- SAP Business Suite (process observer)
- SAP Business Workflow
- SAP NetWeaver BPM (process orchestration)
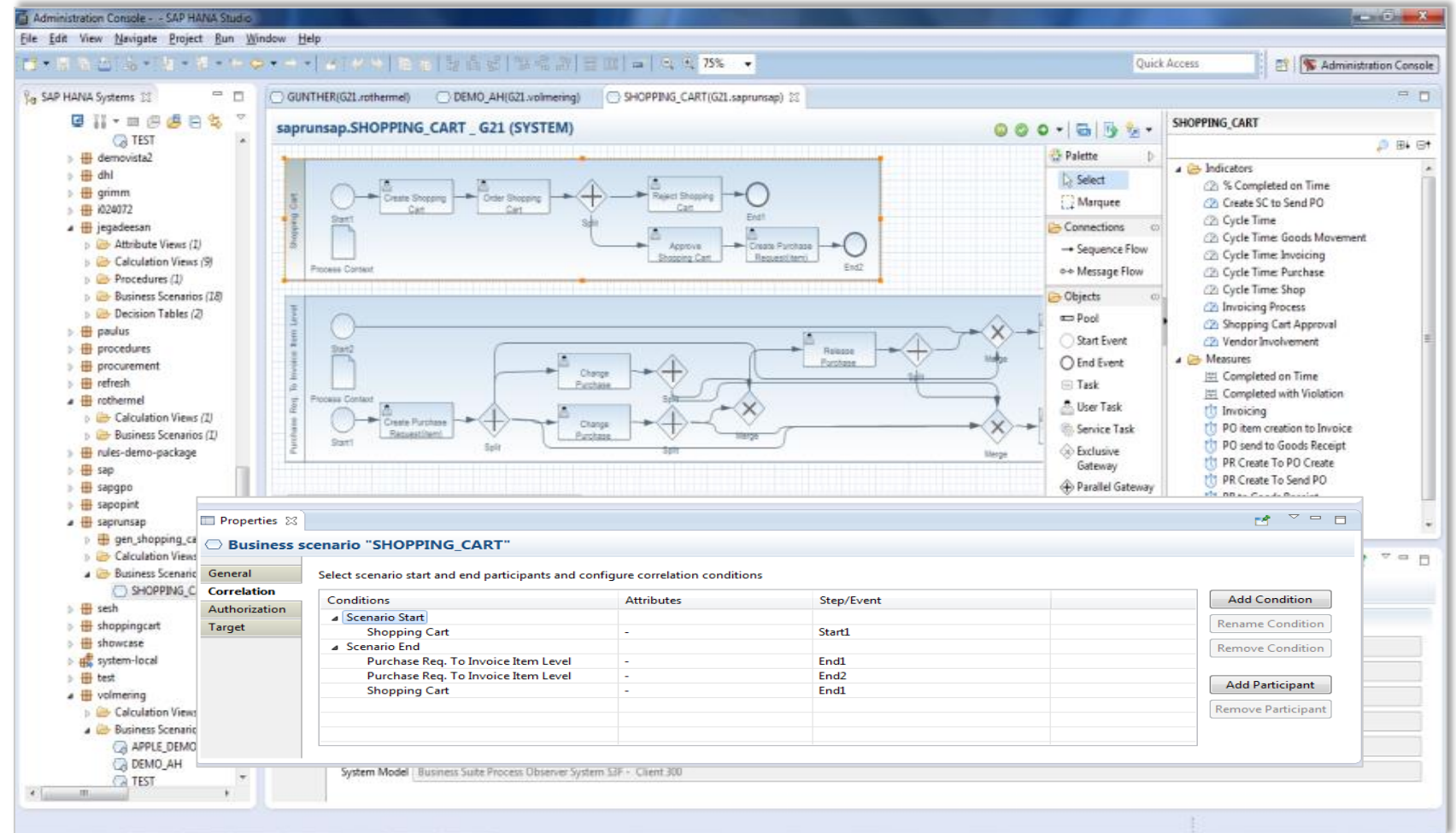- SAP NetWeaver PI (process orchestration)
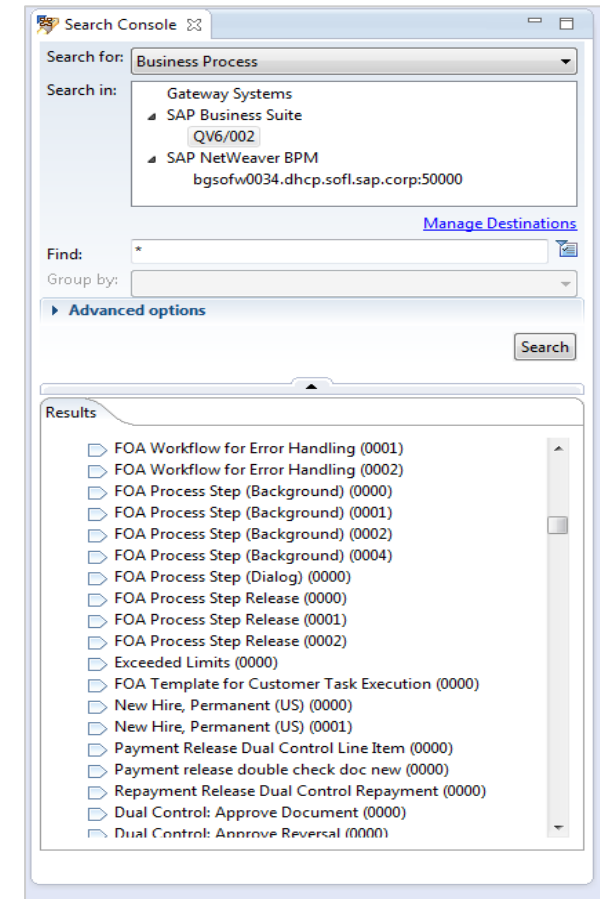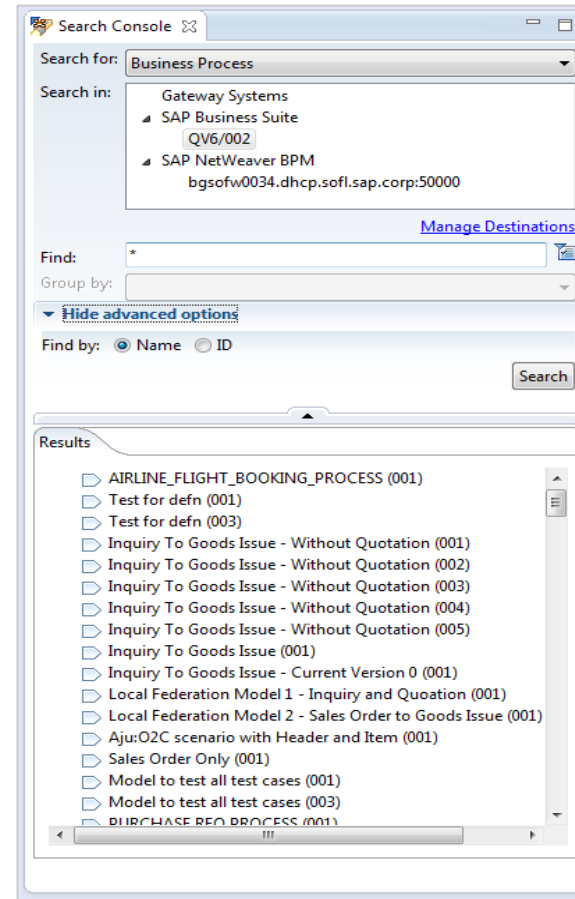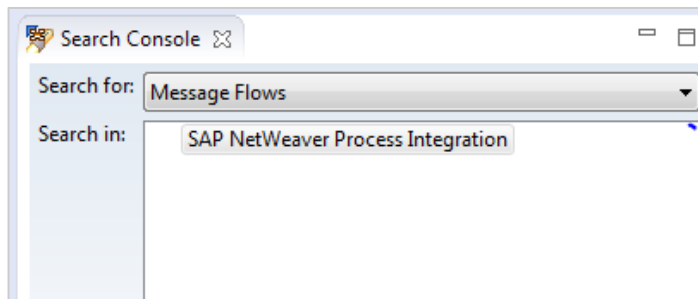
SAP Operational Process Intelligence 1.0
Data consumption & scenarios – business scenario support

Search, assemble, and configure business scenarios

Assemble end-to-end Business Process from multiple underlying systems

Configure correlation conditions

SAP Operational Process Intelligence 1.0
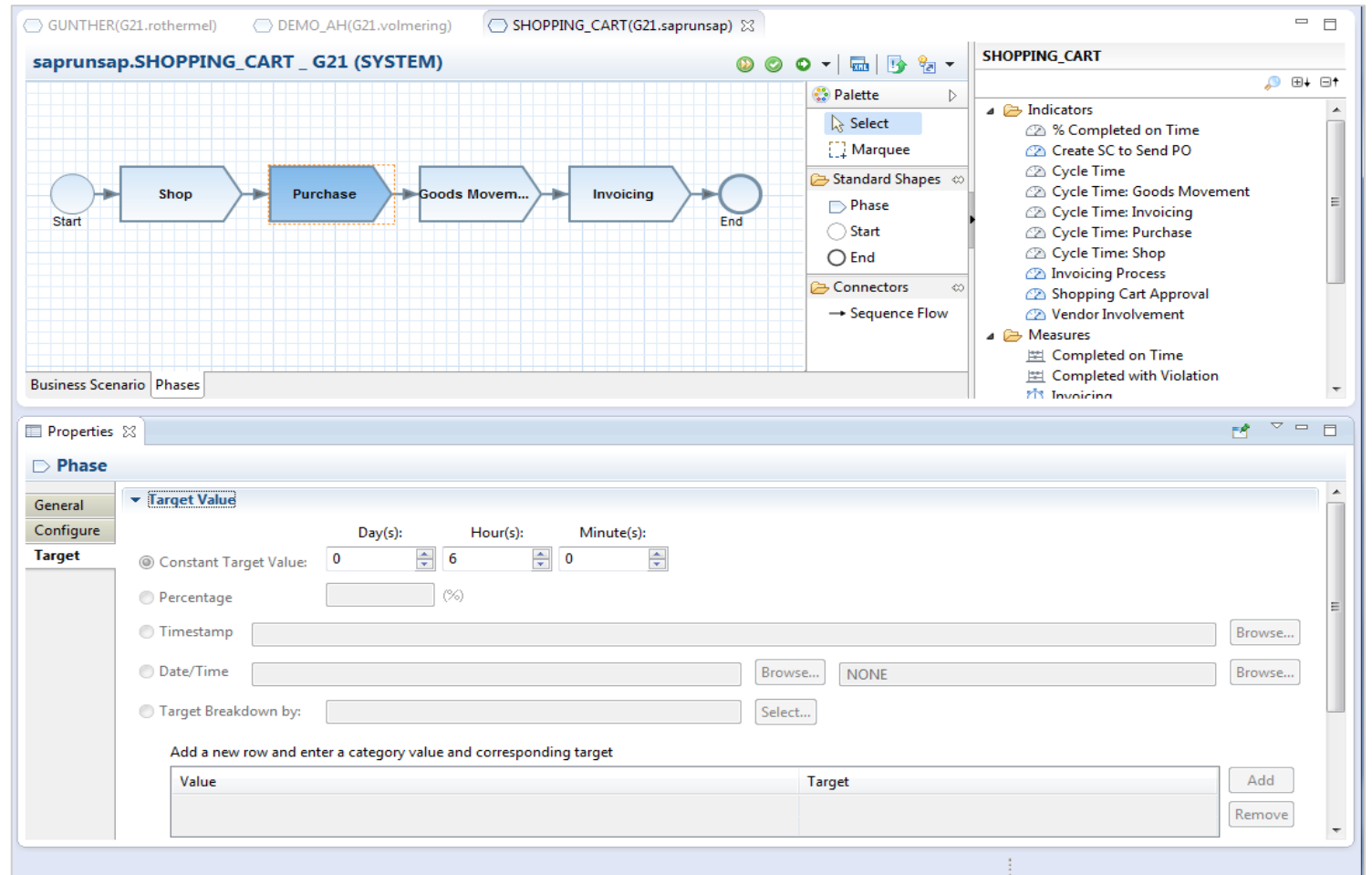## Data consumption & scenarios – business phases configuration

Configure phases, measures and indicators

Model and configure phases

- Start and end-event of phases
- Targets, thresholds and breakdowns
- Measures and indicators

Push-button generation of all scenario artifacts

- Tables, calculation views, SAPUI5 screens, XS/JS

SAP Operational Process Intelligence 1.0
Data consumption & scenarios – 3rd party data and data type enrichment
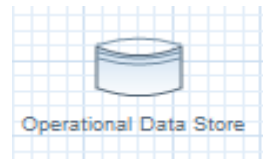
Integrate 3rd party systems and data

- Operational data store (ODS)
- Data type definitions
- Modeled pools and business semantics

Operational data store
Read-access to 3rd party data
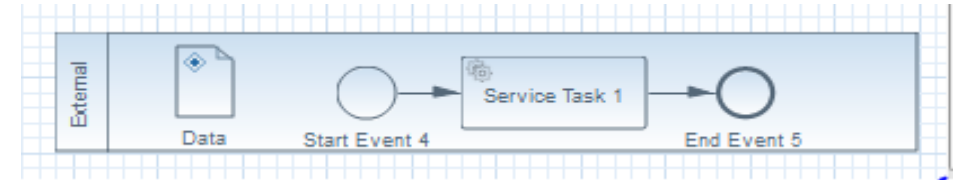
Modeled scenario
Pool, activities and data type

Table structure according to BPAF
(business process analytics format)
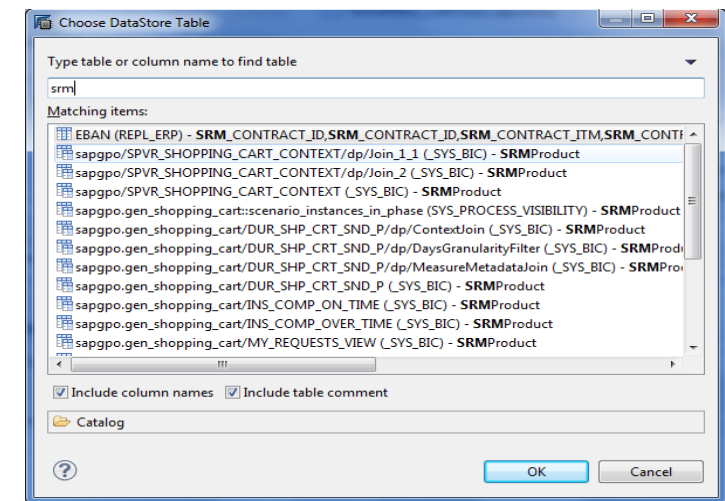
Relate to imported tables in SAP HANA

SAP Operational Process Intelligence 1.0
Data consumption & scenarios – deep integration with SAP NetWeaver BPM

Provide real-time process visibility to line-of-business users enabling faster and better-informed operational decisions

Process discovery

- Search and import process models directly from an SAP NetWeaver BPM system or via SAP NetWeaver Gateway
- Use process events to define business scenarios and KPIs

Runtime events

- During process execution, process events and context data are available for replication into SAP Operational Process Intelligence

Correlation

- Automatic correlation between BPM main flow and referenced sub-flows
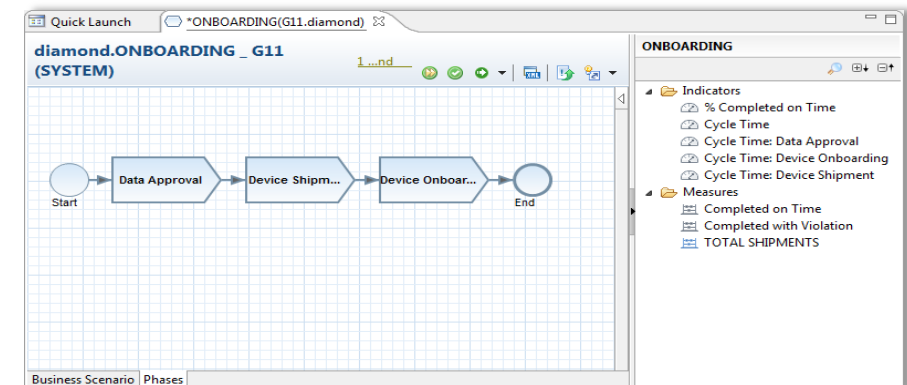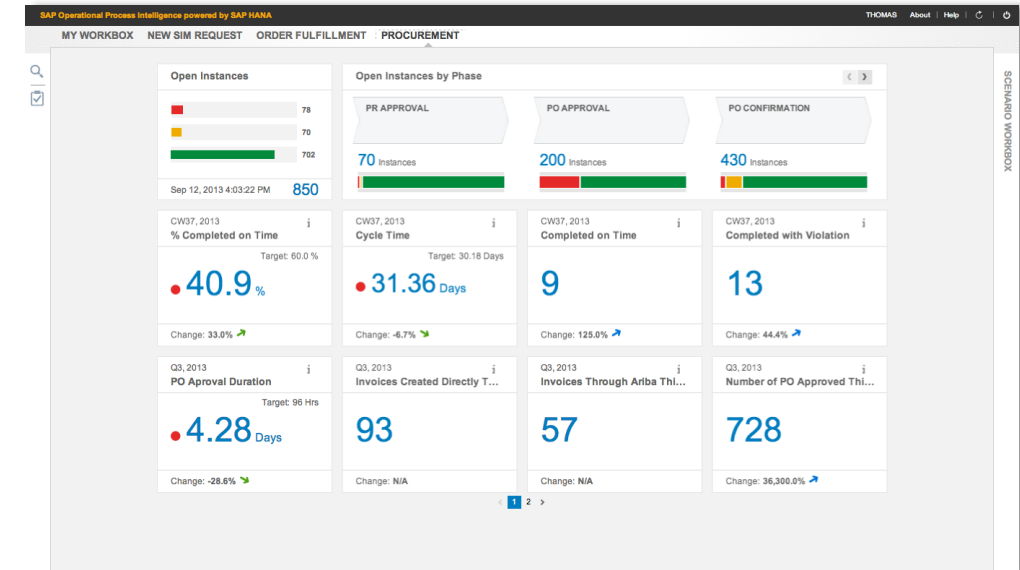
SAP Operational Process Intelligence 1.0
Data consumption & scenarios – data integration options

SAP Operational Process Intelligence, powered by HANA today supports process-centric, data-centric and integration-centric data replication. Future enhancements will be around event streams and feeds

POB = Process Observer
ODS = Operational Data Store
BPAF = Business Process Analytics Format
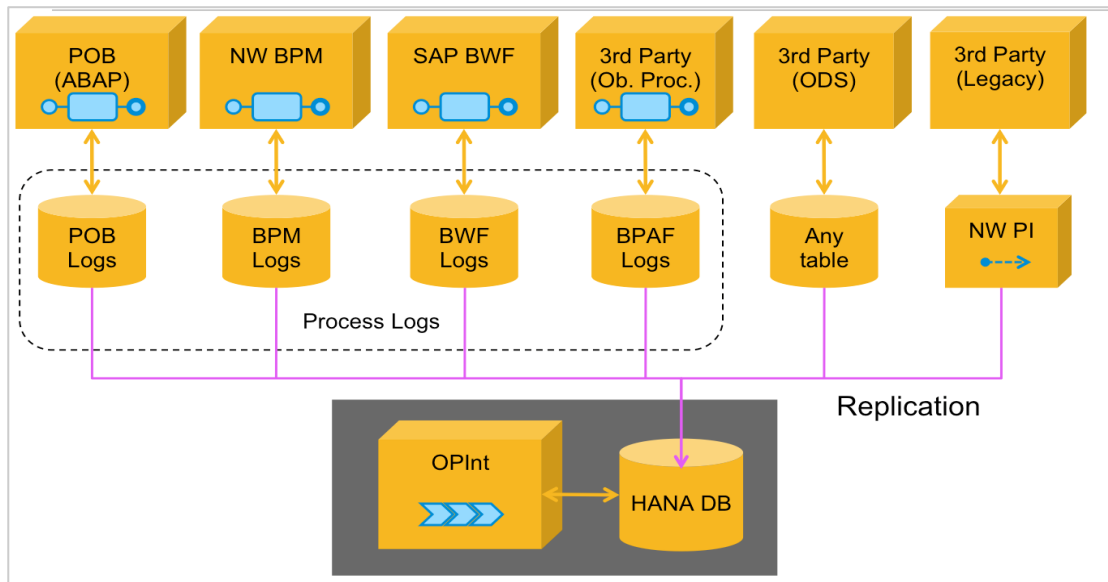
Category	Integration Option
Process-centric	Process Observer (POB) for ABAP-based solutions SAP NetWeaver Business Process Management (BPM) SAP Business Workflow (BWF) Observed Processes (BPAF) for 3rd party solutions
Data-centric	Operational Data Store for 3rd party solutions
Integration-centric	Message Flows for SAP NetWeaver Process Integration (PI)

Demo

SAP Operational Process Intelligence powered by SAP HANA

- Today
- Planned
- Future

Evolution of User Experience

Enhanced Navigation	Enhanced Interaction Patterns	Scenario Activeness
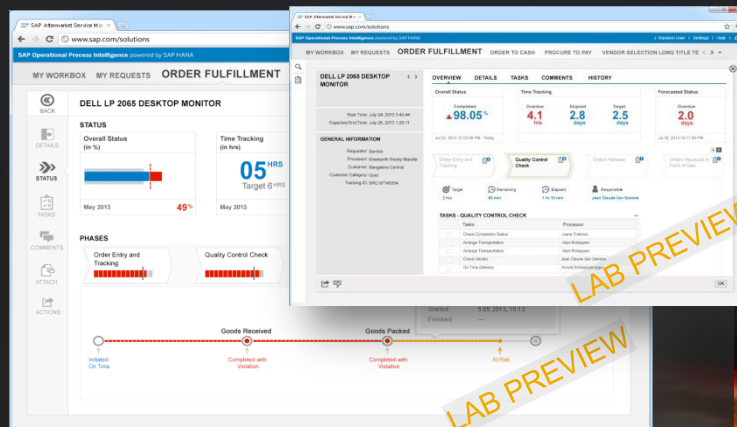
- Zoom-in into details
- Explicit milestones
- Intuitive navigation
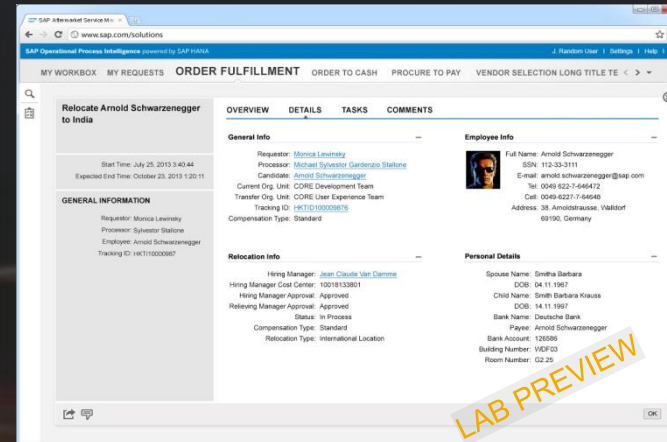
- Enriched scenario context
- Details, tasks, comments
- From insight to action and collaboration
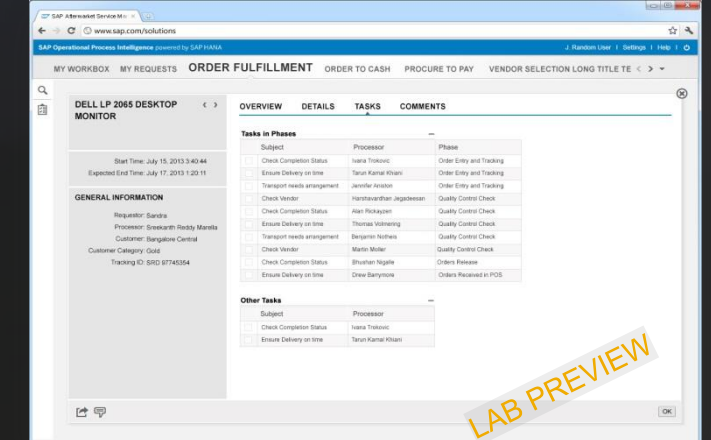
- Actively driving case (scenario) instances to completion (goal)
- Navigation actions to business process applications

Planned Innovation

Combining orchestration with operational intelligence
Intelligent processes powered by SAP HANA

Benefit from SAP HANA, providing accelerators for specific BPM scenarios (e.g. analytics) and VDM (Virtual Data Model) for BPM.
Integrated user experience for tasks, actions, alerts and notifications.
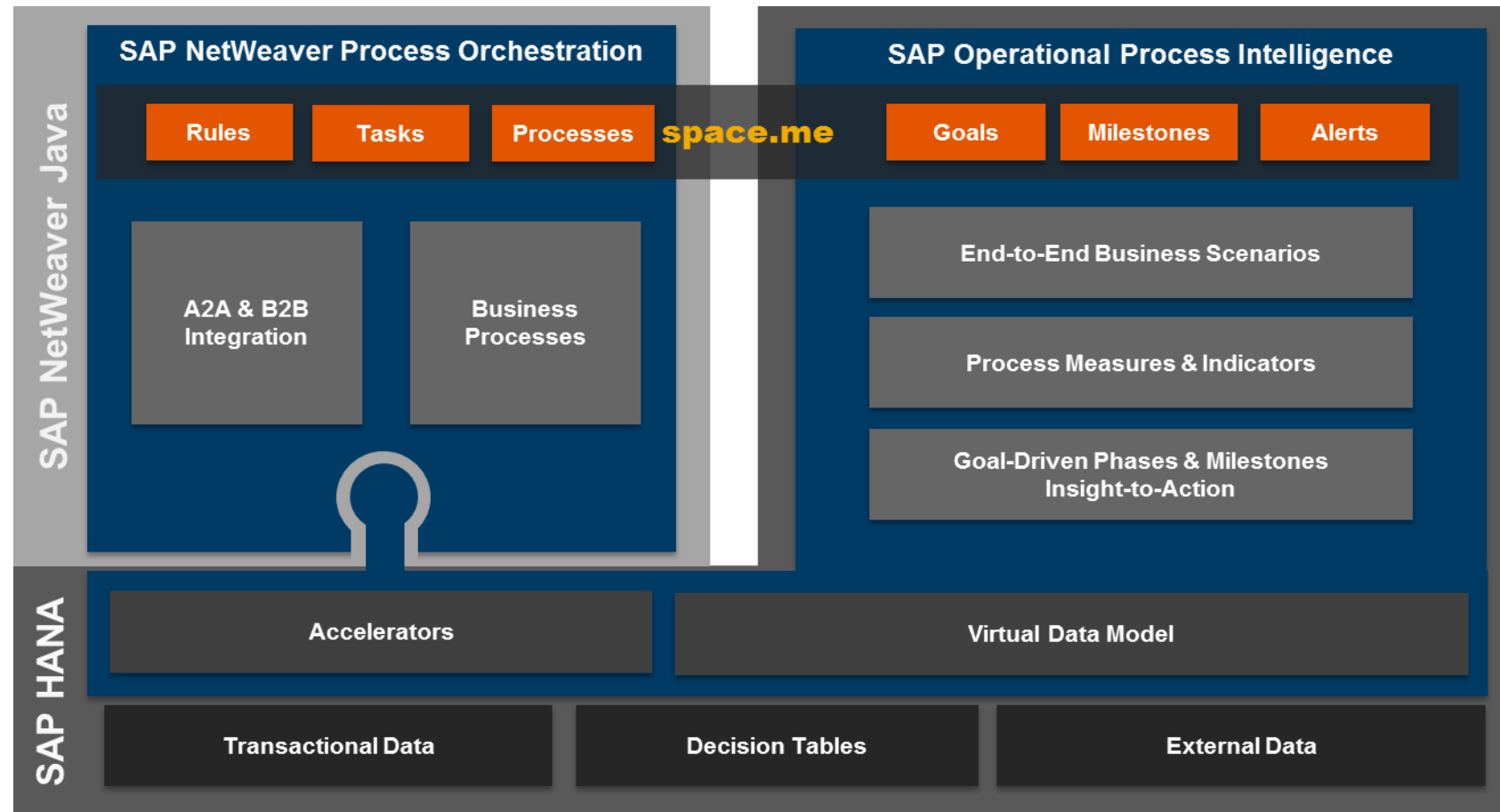
User experience
- Harmonized, integrated and personalized user experience
- All-new, modern SAPUI5-based UIs
- Responsive across devices (desktop, tablet, mobile)

New scenarios
- Closed loop between process execution and insight
- Actively driving processes towards goals, enabling navigation and integration back into process execution
- New real-time analytical applications via virtual data models

Performance & TCO
- High-performance, in-memory HANA database
- Selective optimization of performance-critical application code
- Native execution of rules on HANA database
- All data in HANA - no replication of data across multiple systems

Process Intelligence
Intelligent processes on HANA

Process execution and process intelligence combined on HANA

Co-deployment on SAP HANA

- Transactional data (processes and messages) locally available for visibility scenarios – no replication required

In-flight process intelligence

- Use actual and predicted KPIs to influence running process instances

Virtual data model

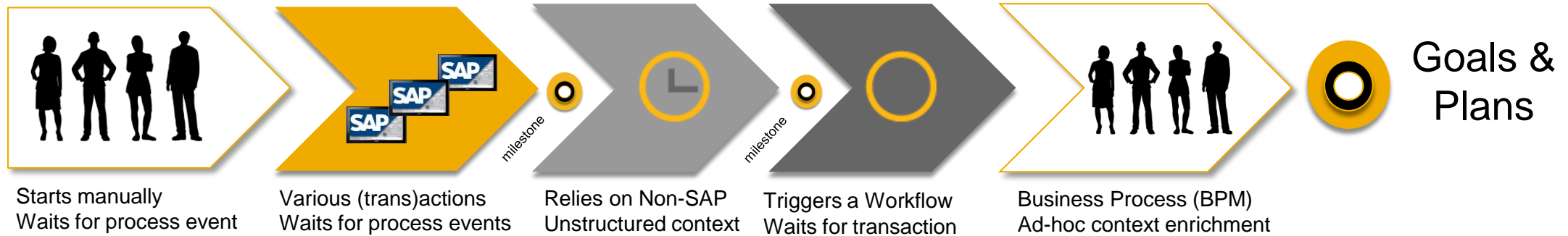- HANA views on processes and tasks for real-time analytics and custom applications

SAP NetWeaver Process Orchestration

SAP Operational Process Intelligence

SAP HANA

PLANNED INNOVATIONS

This is the current state of planning and may be changed by SAP at any time.

Activeness of Operational Process Intelligence with Goals

Goal-driven processes are proactive: assessment of what to do next based on the current and target future state

Starts manually
Waits for process event

Various (trans)actions
Waits for process events

Relies on Non-SAP
Unstructured context

Triggers a Workflow
Waits for transaction

Business Process (BPM)
Ad-hoc context enrichment

Goals & Plans

Delivering the business navigation system

- ✓ **Visibility** on end-to-end process instances (scenarios)
- ✓ **Guidance** - trends, forecasts, predictions
- ✓ **Insight-to-action** & agility within pockets of flexibility
- ◆ **Goals and plans** describe the intent of the business scenario to obtain a strategic performance target
- ◆ **(Pro)activeness**: driving the scenario instance (case) towards achieving its goal
  - ◆ Describes objectives of a scenario / case by aligning intent with actions
  - ◆ Assessment of next-best actions to reach goal(s)
  - ◆ Enriching scenarios with case context and navigation actions

Planned Innovation

SAP Operational Process Intelligence
Future direction

Future releases will address:

Explicit goals for processes and milestones

- Definition of explicit end goals and milestone goals for processes

Support for next best actions

- Propose next-best actions to business users working on the process

Operational continuity

- Weak-spot and business impact analysis
- Simulations and predictions

Data consumption and scenarios

- Support for business network visibility and visibility into business conversations
- Cloud-deployment model

This is the current state of planning and may be changed by SAP at any time.

SAP Operational Process Intelligence
Product road map overview – key themes and capabilities

User experience
- Web-based process workspace (space.me) for line-of-business users in SAPUI5
- Responsive interaction design, support for tablets

Process intelligence
- Instance-level visibility for LoB
- Phases, measures & indicators
- Process performance management
- Trends and forecast
- Notifications on KPI violations
- Collaborative problem solving

Data consumption & scenarios
- SAP Business Suite transactions & events
- SAP Business Workflow
- SAP NetWeaver Business Process Management
- 3rd party process extensions
- SAP NetWeaver Process Orchestration message flows

User experience
- Enhanced interaction and navigation patterns
- Actively driving process execution
- Unified inbox ("workbox") in space.me including SAP NetWeaver BPM tasks

Process intelligence
- Explicit milestones in phases
- Support for actions
- Co-deployment with SAP NetWeaver Process Orchestration on single HANA appliance
- Virtual data model for SAP NetWeaver BPM
- Closed loop between process execution and intelligence

Data consumption & scenarios
- Goal-driven process & context enrichment
- Support for streaming events (e.g., from Sybase ESP) & feeds

User experience
- Explicit goals in scenarios and phases
- Extended case management capabilities, extending insight-to-action & goals
- Next-best actions & work-balancing
- Continuous enhancements based on customer feedback

Process intelligence
- Enhanced predictions
- Mining of process and rules
- Weak spot analysi (and "best-path")
- Business continuity support ("what-if")

Data consumption & scenarios
- Business conversations (request-response)
- Cloud integration visibility
- Business network visibility
- Operational Process Intelligence as a cloud service

Today
(Release SP01)

Planned Innovations

Future Direction

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SAP Operational Process Intelligence
powered by SAP HANA

Summary

SAP Operational Process Intelligence is a new decision support software solution from SAP, powered by HANA.

The solution is able to consume operational process event data from various (heterogenuous) data providers, to offer process visibility and operational decision support on real-time data for line-of-business users.

Future increments will offer:

Support for unstructured and Non-SAP process data & business events

Co-deployment with SAP NetWeaver Process Orchestration (on HANA)

Goal-driven processes with built-in visibility

Further decision and operational continuity support

- Weak-spot and business Impact analysis
- Simulations and Predictions

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Further Information – Related Sessions

Overview SAP Operational Process Intelligence

POP101   Intelligent Processes on SAP HANA, Overview and Outlook (Lecture)

Related Sessions on SAP NetWeaver Business Process Management

POP160   SAP NetWeaver BPM – Build and Run a Simple Business Process End-to-End (Hands-On)

POP360   Advanced SAP NetWeaver Business Process Management Development (Hands-On)

POP260   Mobilizing NW BPM Processes (Hands-On)

Related Sessions on SAP NetWeaver Process Orchestration

POP201   A Deep-Dive into the New Features of SAP NetWeaver Process Orchestration (Lecture)

POP261   SAP NetWeaver Process Orchestration – Build a Complete Integration Scenario (Hands-On)

POP266   Operating SAP NetWeaver Process Orchestration in a Productive Environment (Hands-On)

Related Sessions on SAP Operational Process Intelligence

POP161   Building a Business Scenario in SAP Operational Process Intelligence (Hands-On)

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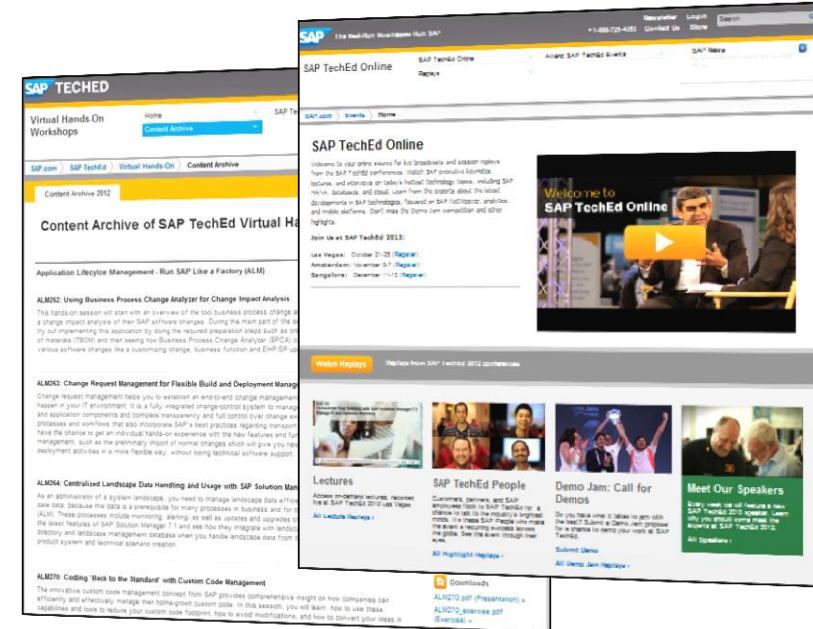- Complementary with your SAP TechEd registration

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- View content only available online

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