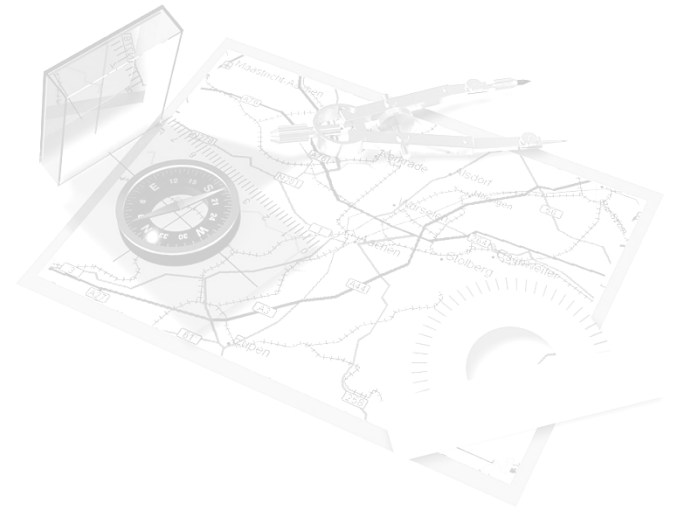


# Enterprise SOA with SAP NetWeaver

Business Process Management  
Roadmap  
Document Version 6.0



## SAP NetWeaver Product Management SOA

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# Evolution of Business Process Management (BPM)



1990s

2000s

2010s

## Operational Efficiency

Business Process Reengineering  
+ ERP

## Competitive Differentiation

Business Network Transformation  
+ Enterprise SOA

### Business Process Analysis

- **Focus on Business Process Reengineering**
  - **Process Modeling**
  - **Process Documentation**

### 'BPM 1.0'

- **Focus on singular aspects of business processes**
  - **Workflow Automation**
  - **EAI (Integration)**

### Key Business Drivers

- Process Globalization
  - Everybody, everywhere
  - Process of "me"
- Business Agility
  - Process Insight
  - Process Flexibility
- Business Transformation
  - Differentiate through process
  - Compliance and transparency
- Real World Awareness
  - Everything, everywhere
  - Business events

### 'BPM 2.0' and beyond

- **Flexibly enable the complete business process lifecycle**
  - **Enterprise Modeling**
  - **Simulation/ Analysis**
  - **Business Rules**
  - **System to System Automation**
  - **Process Collaboration**
  - **Human Tasks**
  - **Business Activity Monitoring**
  - **Business Content**



## Business Process Transparency

- No central place for business process modeling catering for different needs (Business & IT)
- Missing link between functional specification, technical specification and deployment
- Meaningful business events are often hidden within applications
- Missing process performance measurement

## Business Process Fragmentation

- Departmental solutions implemented as process stovepipes
  - Need to be integrated & controlled
  - High cost of process exceptions and out-of-bound situations

## Business Process Flexibility

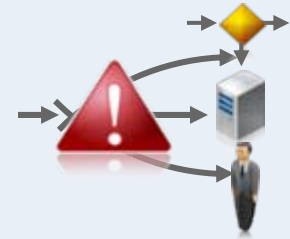
- A large portion of strategic business processes changes frequently
- Need to differentiate and offer unique selling points
- Need to reduce cost by consolidation and standardization
- Need to adhere to regulatory compliance

## Manage Business Tasks Across Applications

Manage and resolve business tasks centrally in one work list

## Business Process Integration / Automation

Integrate SAP and Non SAP business applications and automate the message flow between systems with an executable process model



## Involve Business Users in Automated Processes

Manage by exception

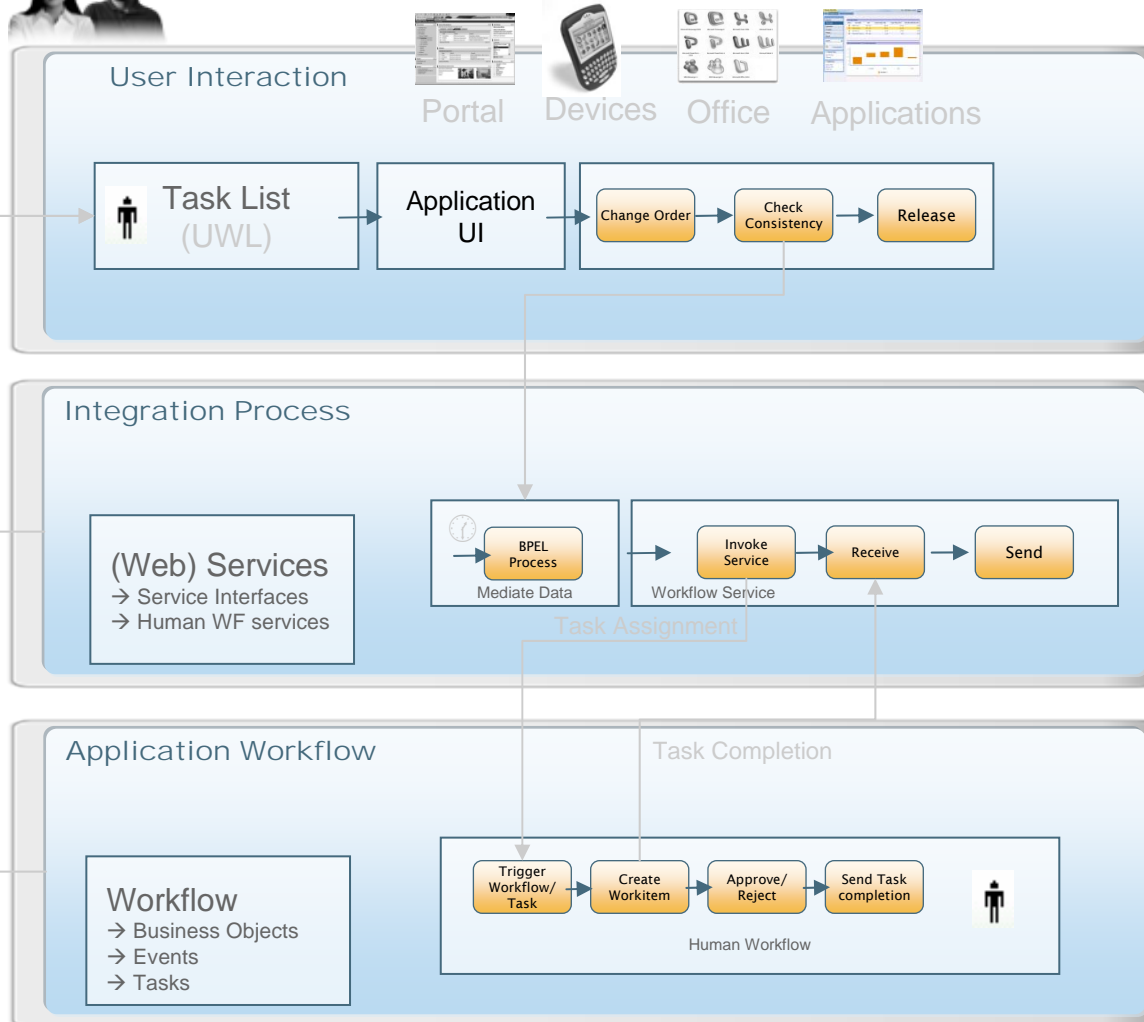
- Alerting in case of exceptions (technical and business)
- Approval of the state of an integration process with a human call-out
- Trigger a production workflow within your SAP application



## Application Workflow Management

Manage production workflows within the context of your SAP application

# Process Automation with Human Call-Outs



## Universal Worklist

- Business Task Management
- Multi Channel Access
- Dashboards & Business Context

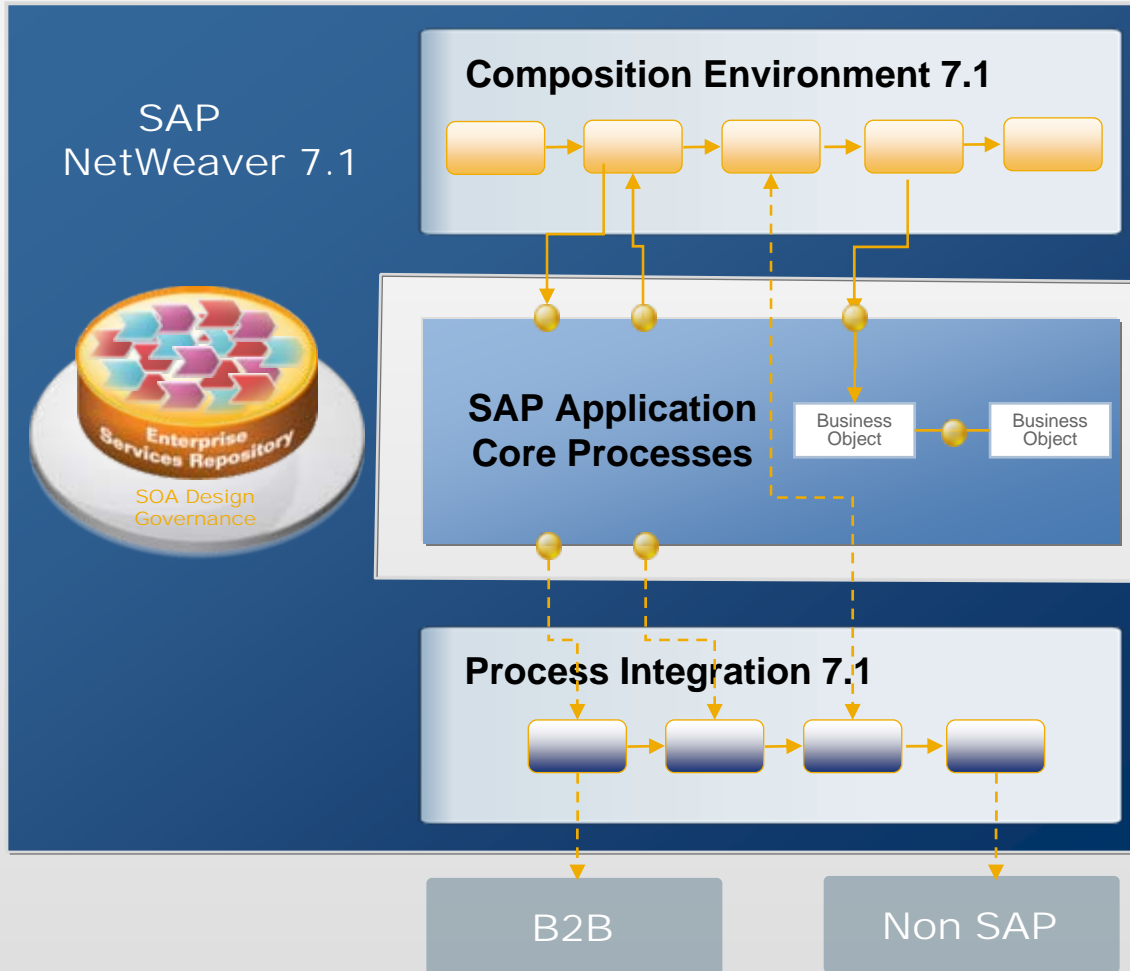
## Cross-component BPM

- SAP NW Process Integration
- Message-based Web service orchestration (BPEL)
- Business Workflow integration for human call-outs

## SAP Business Workflow

- Embedded Workflow Management
- Re-usable Templates
- Non-intrusive extension of application business logic

# Model-Based Business Process Management on a Business Process Platform



## Human-Centric

- Executable models
- Process collaboration
- Human interaction management

## Packaged Processes

- Descriptive models
- Embedded workflow
- Expose services / events

## System-Centric

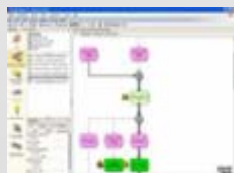
- Executable models
- Process automation
- Service and event infrastructure

# Building Blocks of BPM Capabilities including Enterprise Modeling Applications



## SAP Enterprise Modeling Applications by IDS Scheer

- Descriptive models
- Business Process Analysis
- Conceptual simulation / optimization
- Process planning & governance
- Process performance measurements

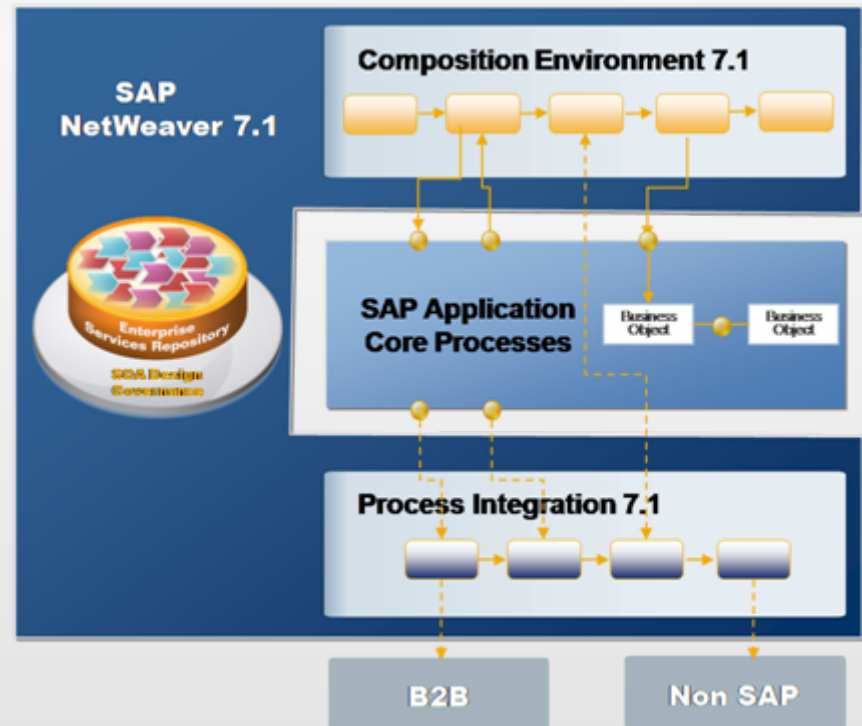


Enterprise Modeling

Business Architecture

Enterprise Architecture

Information Architecture

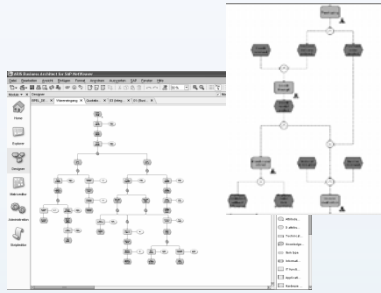




# The Changing Value Proposition of Reference Models



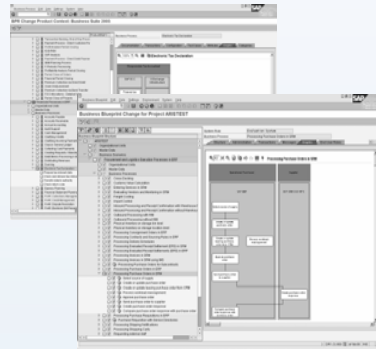
## SAP R/3 Reference Model



1990's

- Business Engineering
- Graphical process flows describing SAP R/3 business processes (<= 4.6)
- Scenarios, processes and functions
- Informal modeling
- ASAP & R/3 Business Engineer

## SAP ERP Implementation Content



2003

- Implementation
- Swimlane diagrams for SAP ERP
- Business Scenarios, processes and process steps, linked to SAP Solution Maps
- Transactions, IMG objects, documentation
- SAP Solution Manager

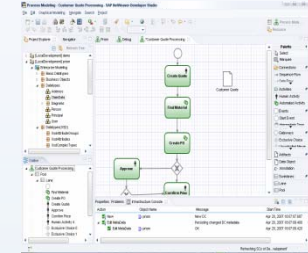
## Enterprise SOA Process Component Architecture



2007

- SOA Design Governance.
- Process Component Architecture
- Model-driven implementation and extension
- Enterprise Services Repository (ESR)

## Enterprise BPM Business Process Composition



- Business Innovation without Disruption
- Extending application core processes
- Leveraging ESR entities
- Embedded in SAP NetWeaver Composition Environment (CE)

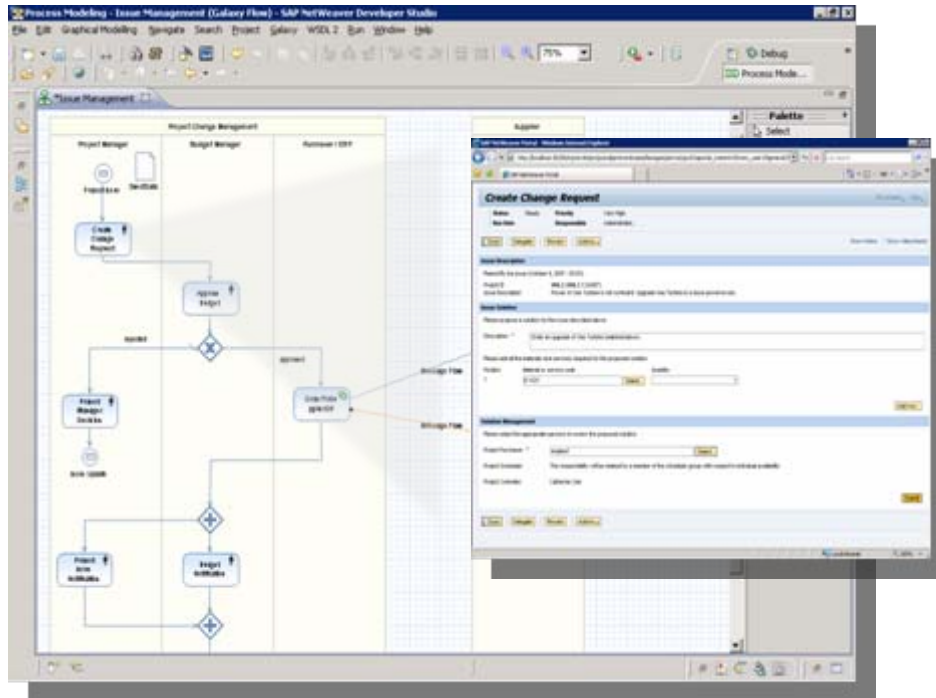
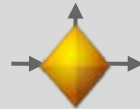


Process  
Composer

Process  
Desk



Process Server



## Characteristics

- Graphical modeler based on BPMN
  - Eclipse-based
  - Support key process concepts (workflow, event, task, context, roles, UI) throughout their lifecycle
  - Combine human interaction and system integration in one model
- Direct path from business view to process execution
  - Nothing 'lost in translation'
  - Dynamic role-based views
  - Single active model
  - Flexible execution
- Embedded in SAP NetWeaver CE
  - Integrated composition experience
  - Common UI technology
  - Service-based connectivity

# Strengthening our BPM Offering with Business Rules Management by YASU

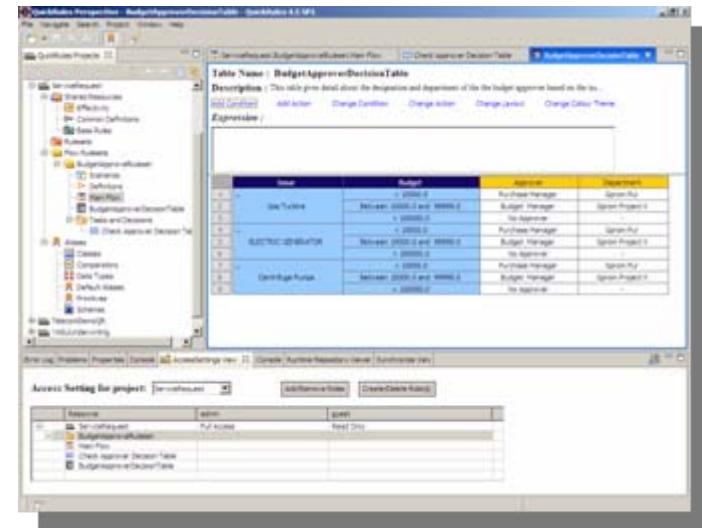


## Why Business Rules Management?

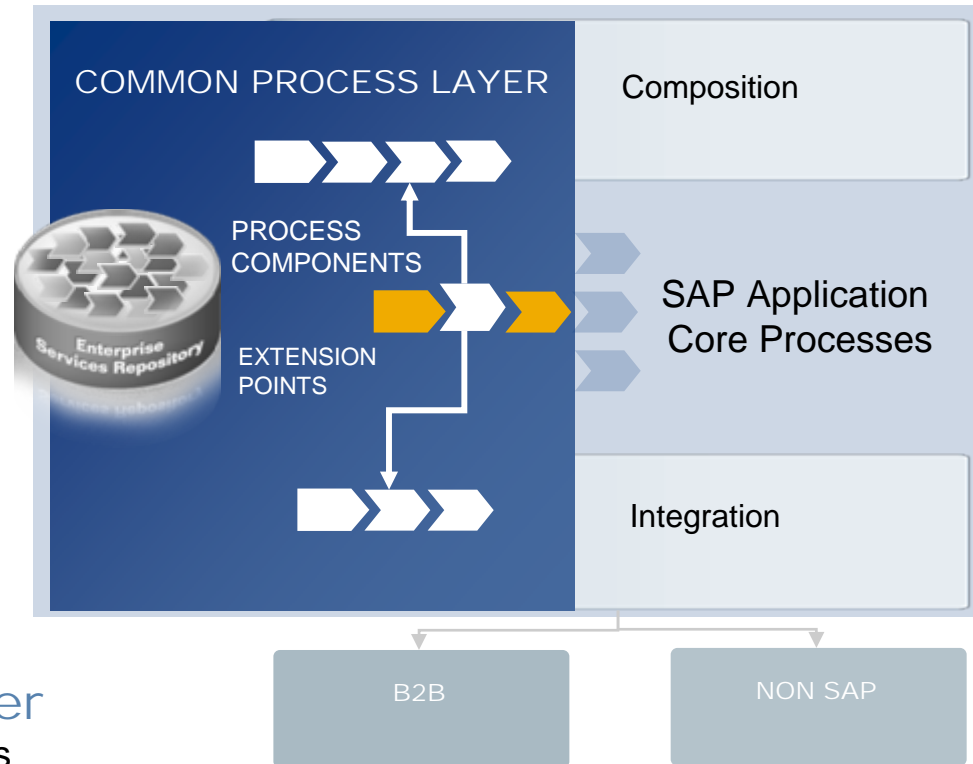
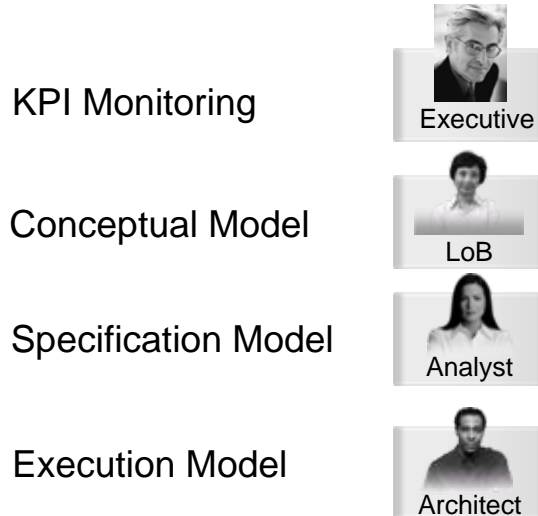
- Management and monitoring of rules is a critical component of BPM
- Externalize business rules from application code
- Encapsulate rules as re-usable services
- Increases flexibility, efficiency and control
- Serving business and IT

## Why YASU?

- Robust tool for central business rules management
- Integrated path from process to rule
- Perfect fit into SAP NetWeaver Composition Environment
- Eclipse based rule composition



## Design Collaboration



## Common Process Layer

- Design time for all process layers
- Extending application core processes
- Provides common runtime services
- One model, different views for different personas
- Common monitoring, lifecycle management and process performance management

# Multiple Views on a Single Version of the Truth



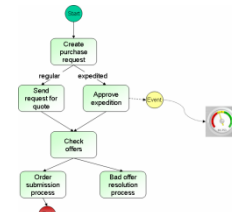
Executive



- Major phases
- KPI Dashboards
- Analytics



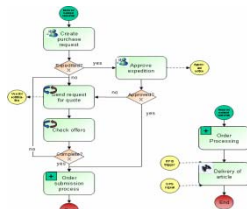
LoB Manager



- ... plus
- Task sequences
- Parallelism



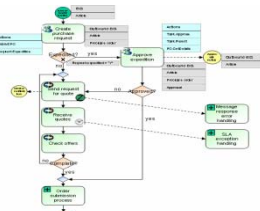
Business Analyst



- ... plus
- Task & Business Event
- Business rules
- Business entities



Process Architect

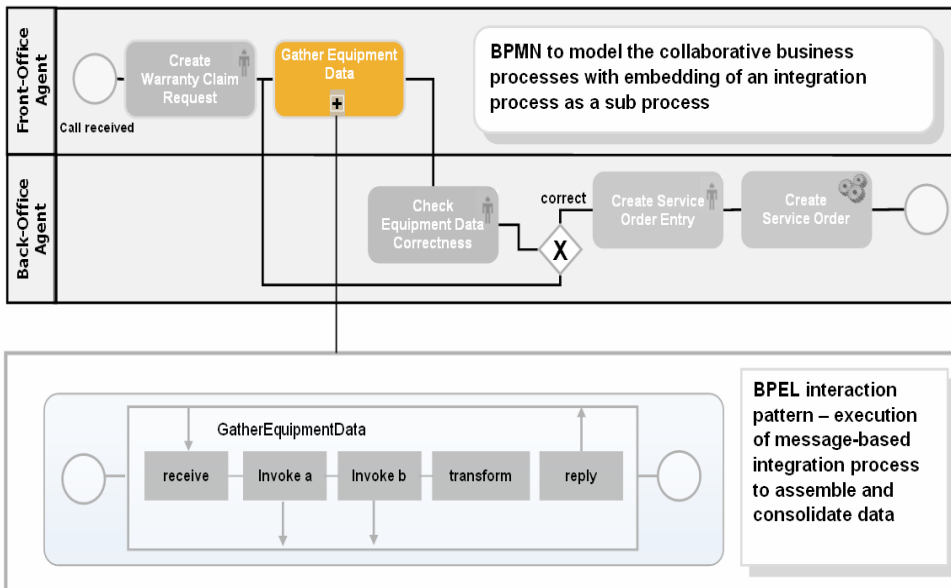


- ... plus
- Task & event details
- Business rule details
- Business object details
- Exception handling

- Design collaboration improves process quality and design productivity
  - Structured requirements from business to IT
  - Discoverability from IT to business
- Design on several level of abstraction driving towards executable models

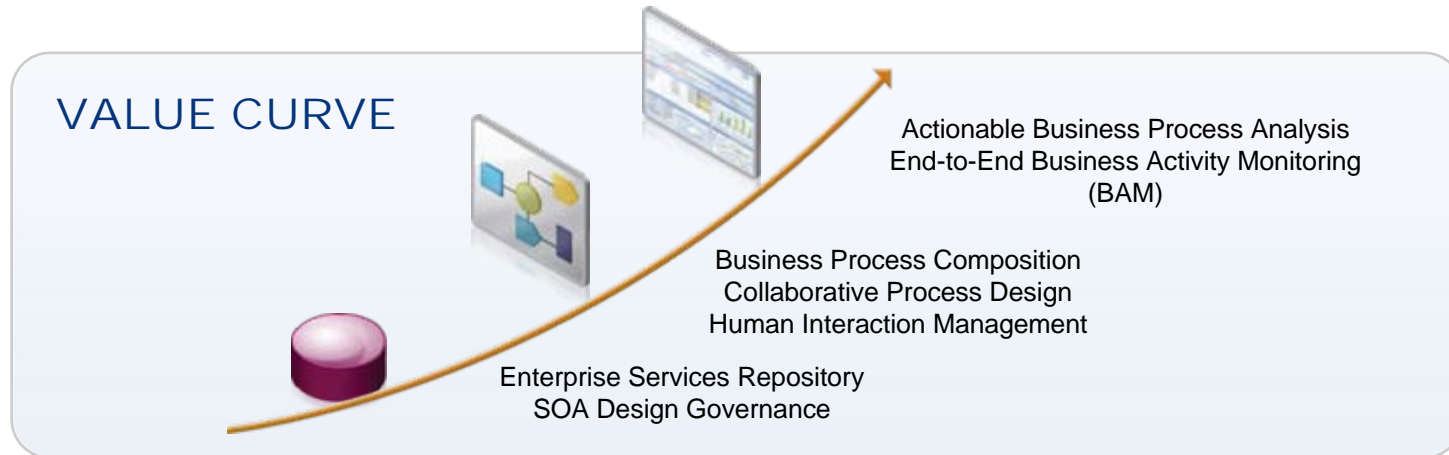
## Motivation

- SAP contributes, defines and embraces industry standards in several areas
- BPM standards in particular aim to achieve
  - ◆ Interoperability (seamless integration, eliminate point-to-point integration)
  - ◆ Portability of process definitions
- SAP embraces and supports BPMN since it enables business process modeling, agnostic from the execution language, elevating modeling into the business domain.



## Business Process Standards

- Human Centric Processes
  - BPMN 1.1 for composite business processes
  - BPMN-to-execute
  - Drive further evolution (BPMN 2.0)
  - WS-HumanTask planned
- System Centric Process
  - BPEL4WS 1.1
  - WS-BPEL 2.0 preview and implementation
  - BPEL4People planned



Provide one integrated toolset for all types and dimensions of business processes

Enable process flexibility through Enterprise SOA based BPM

- Leverage Process Components and Enterprise Services from ES Repository
- Compose process innovation at the edge

Enable business experts to drive process innovation & optimization

- One model, different views
- Support organizations with reference content on all abstraction levels

Facilitate explicit task collaboration via human interaction management

# BPM with SAP NetWeaver – Roadmap Highlights



## SOA provisioning

## Composition Accelerator

## Built-in Process Flexibility

Out-of-the box access to business semantics via Enterprise Services Repository (ESR)

Enterprise Modeling to plan standardization and upgrades

SAP NetWeaver PI 7.1 provides enhanced process automation capabilities and first BAM infrastructure

Further adoption of Business Task Management (UWL)

Continuous support for Business Workflow and Guided Procedures

SAP NetWeaver CE delivers BPM & BRM capabilities:

Composite Business Processes

- Orchestrate Enterprise Services & human activities
- Full process lifecycle support
- Initial Business Rules Management integration

Integrated composite developer experience:

- workflow, events, rules, UI, services, connectivity

Exposes application process flow models for reference and extension

Human Interaction Management

- Evolution of Business Task Management (UWL)

Future releases

Common process layer

- Drive deep changes based on SOA by design

Broader Business Rules Management capabilities

Actionable Process Analysis

- Provides drill-down into process instances and process design time
- Enables Change Management
- BAM with observed activities

Situational Composites

Process composition for Business Analyst

Advanced process collaboration

Process Transparency & Flexibility

End-to-end Business Process

Process Efficiency

2007

2008 – 2010





## BPM for BUSINESS NETWORK TRANSFORMATION

Innovate on top  
of the Core Business

Compose

Accelerate Innovation  
Faster Time to Process Change

Extend Application  
Processes



Standardize

Reuse Application Building Blocks  
Lower implementation costs

Extend the  
Business Network

Integrate

Standards-based Integration  
Lower integration costs

### The Road ahead for BPM

- Composite Business Process Support
- Common Process Layer for Design and Runtime
- Design Collaboration across personas
- Actionable Process Analysis
- Full lifecycle support



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