

SAP NetWeaver Process Orchestration

Case: “Flexible workforce”

Agenda

➤ Introduction

➤ Case approach

- BPM Methodology
- Architecture

➤ Demo

- Scenario
- (Live) demo
- Implementation details

➤ Outlook and future direction

BPM Methodology

Business Process Management (BPM) is a management discipline that requires organizations to shift to process-centric thinking, and to reduce their reliance on traditional territorial and functional structures.

BPM requires and enables organizations to manage the complete revision cycles of their processes, from process design to monitoring and optimization, and to change them more frequently to adjust to changing circumstances.

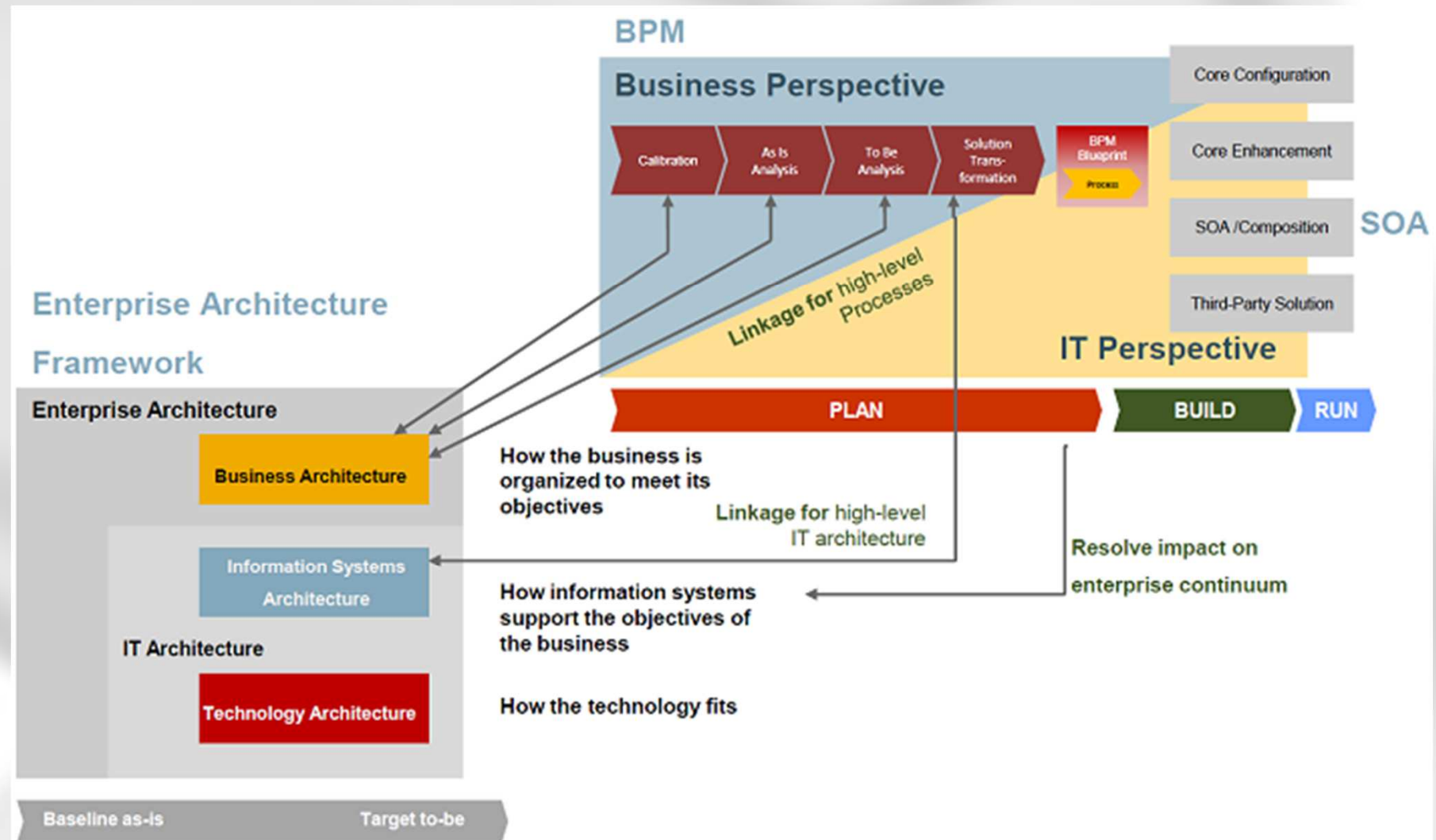
The development of BPM technologies is enabling business managers to abstract process flows and rules from the underlying applications and infrastructure, and to change them directly.

BPM is neither a technology nor an updated version of BPR. It is an IT-enabled management discipline. It represents a fundamental change in how business manage and run their processes

Source: Gartner



Relatie BPM & Architectuur



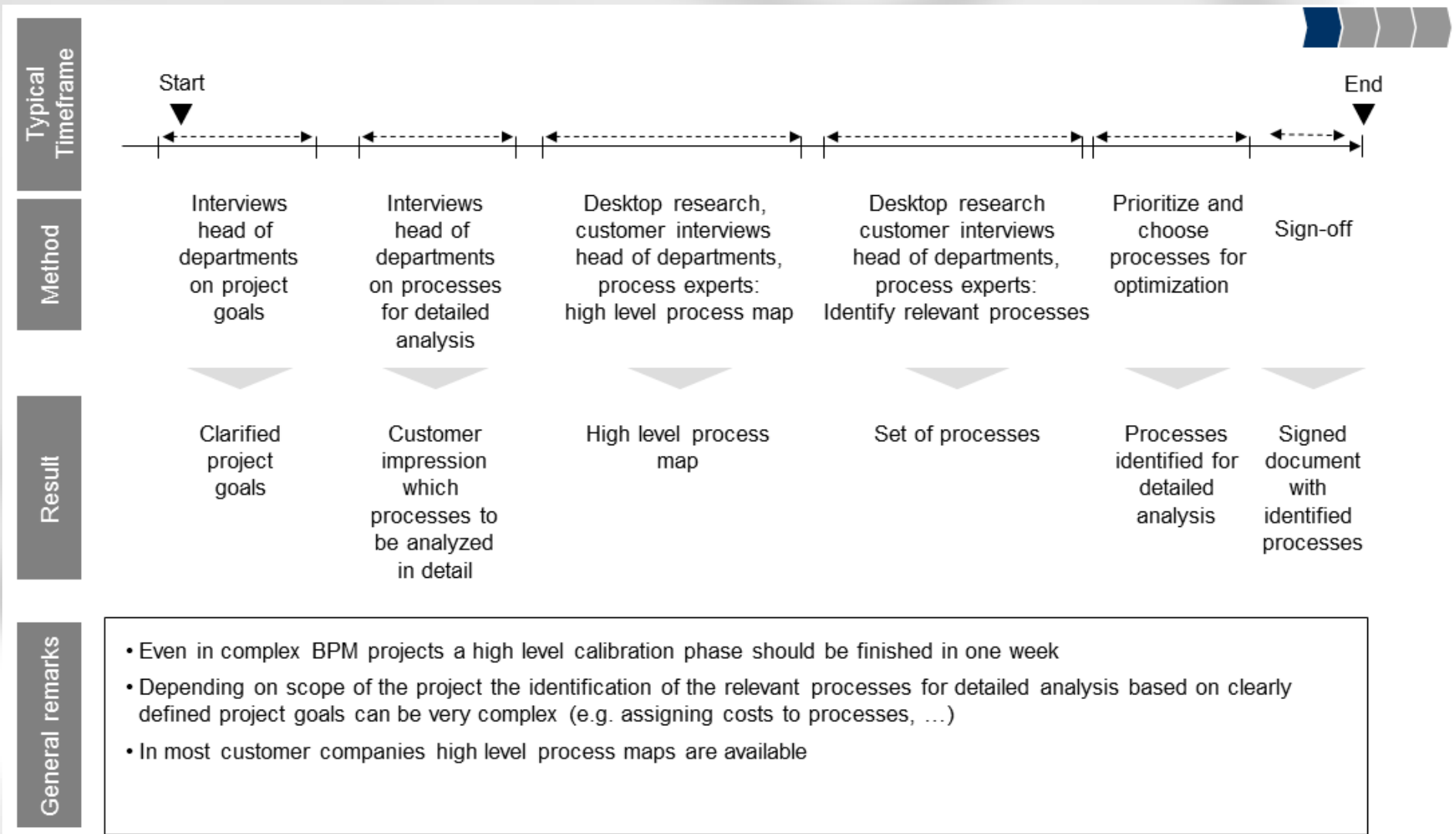
Source: Mark von Rosing

Calibration

- ▶ The goal of the calibration phase is to clarify project goals and to select the processes to be analyzed in detail on those project goals
- ▶ A systematically conducted calibration phase helps the customer to economize on time and money by concentrating on the most promising processes
- ▶ A carefully conducted calibration phase can be one of the main reasons for customer satisfaction as project results are reached with low effort



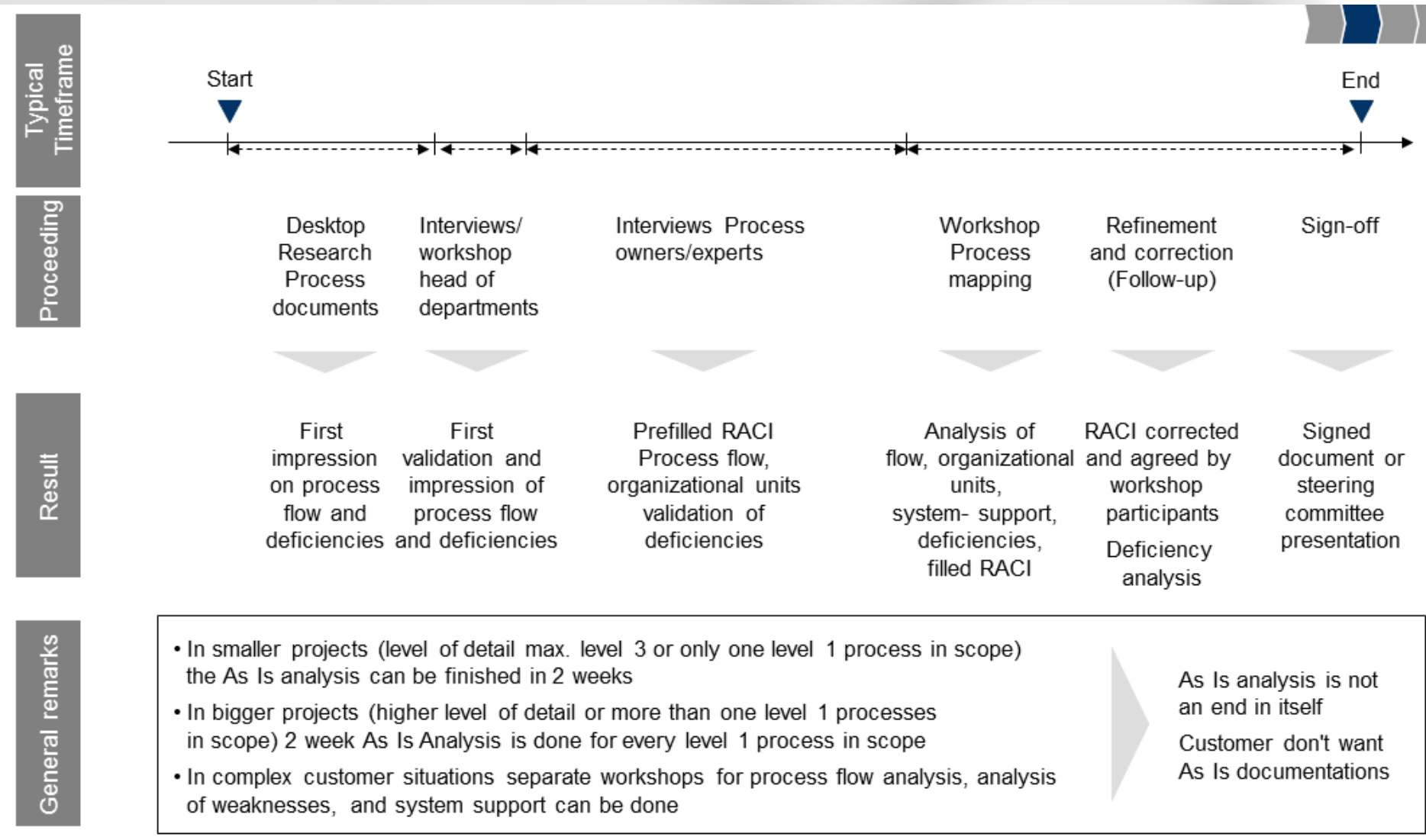
Calibration – typical structure



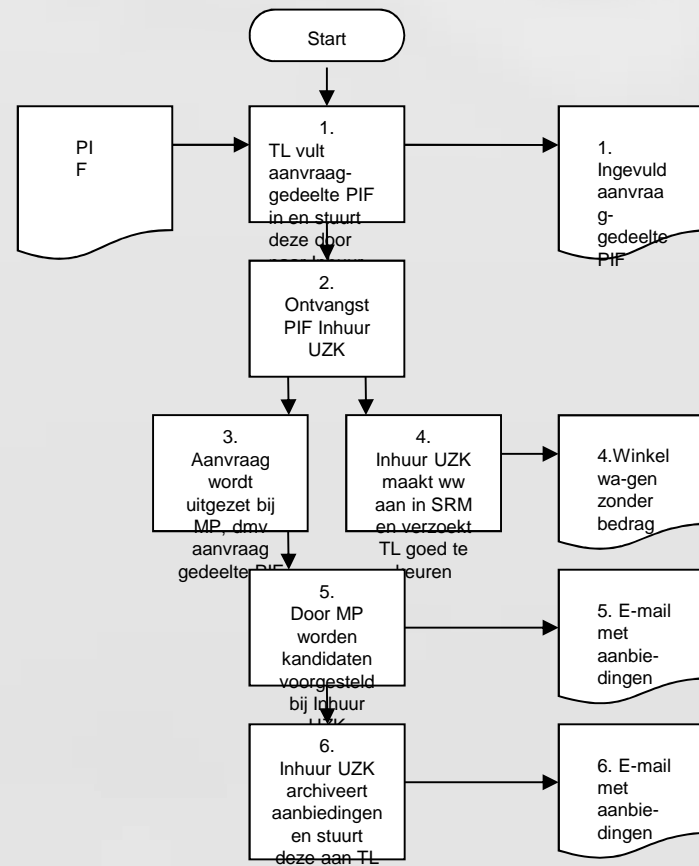
As-Is analysis

- ▶ The goal of the As Is Analysis is to understand business reality, to understand weaknesses and develop first solution ideas
- ▶ The description of business reality/mapping of business processes is not a goal in itself. Apart from process and landscape documentation projects customers don't want to pay for the description of As Is processes but for the description and documentation of optimal To Be processes
- ▶ To understand Business reality is a precondition for later process optimization. The customer has to be convinced that he has to invest in an As Is Analysis but based on a carefully conducted calibration

As-Is typical structure



As-Is case result



As-Is – case result

Business Process

Core Prozess (from		Date	
(Business) Process Number	Repair process	Responsible	
Process Identifier		Author/Contributor	

Process Steps in the Business Process

Serial Number	Process Step No.	Input	Process Step in the Subprocess	Output	Involved Roles (also other departments or)										System	
					Sales Rep	Manager	Inkoopmedewerker	Uitzendbureau	Personneladministratie	Hotline Clerk	Technician	Minimale Clerk	Handig	Worddocument	Spreadsheet	
	1	Kandidaatprofiel en opdrachtomschrijving	Invullen aanvraag tijdelijke inhuur	Kandidaatprofiel en opdrachtomschrijving		X							X	X		
	2	Kandidaatprofiel en opdrachtomschrijving	Beoordelen en aanvullen aanvraag	Complete aanvraag			X						X			
	3	Complete aanvraag	Aanmaken kale aanvraag tot bestelling	Kale aanvraag tot bestelling			X						X			
	4	Complete aanvraag	Aanvragen uitzetten bij uitzendbureau	Kandidaat uitvraging			X						X			
	5	Kale aanvraag tot bestelling	Goedkeuring aanvraag tot bestelling	Goedgekeurde bestelling		X										
	5	Kandidaat uitvraging	Voorstellen kandidaten	Lijst met kandidaten				X					X			
	6	Lijst met kandidaten	Beoordelen voorgestelde kandidaten	Geselecteerde kandidaten									X			
	7	Geselecteerde kandidaten	Inplannen intakegesprekken	Geplande gesprekken			X						X			
	8	Geplande gesprekken	Voeren intake gesprekken	Gevoerde intake gesprekken		X	X						X	X		
	9	Gevoerde intake gesprekken	Terugkoppelen resultaten intake gesprekken	Lijst met geschikte kandidaten		X							X			
	10	Lijst met geschikte kandidaten	Verzoek tot inhuur kandidaten	Verstuurd inhuur verzoek			X						X			
	11	Inhuur verzoek	Verwerken en bevestigen ingehuurde kandidaten	E-mail met Nadere Overeenkomst & bijlagen		X							X			
	12	E-mail met Nadere Overeenkomst & bijlagen	Archiveren Nadere Overeenkomst & bijlagen	Gearchiveerde Nadere Overeenkomst			X						X			
	13	E-mail met Nadere Overeenkomst & bijlagen	Opnemen in inhuuroverzicht	Bijgewerkt inhuuroverzicht			X						X		X	
	14	E-mail met Nadere Overeenkomst & bijlagen	Invullen instroomformulier en versturen naar manager	Ingevuld instroomformulier			X						X			
	15	Ingevuld instroomformulier	Goedkeuren/aanvullen instroomformulier	Ingevuld instroomformulier		X							X			
	16	Ingevuld instroomformulier	Verwerken HR stamdata externe medewerker	Opgevoerde medewerker in HR administratie					X				X			
	17	E-mail met Nadere Overeenkomst & bijlagen	Aanvullen aanvraag tot bestelling en omzetten tot inkooporder	Inkooporder			X						X			

As-Is – case result

“Verschillende formulieren in omloop”

kadaster

Services
Interne Services

Aanvraag inhuur uitzendkracht JRIM (inclusief PIF)

Blad
1 van 2

Afhandeling administratie
In te vullen door de personeelsadministratie

EIC ticketnummer	
Formatienummer	
Sapnummer	Verwerken in maand
Accorderen	Controle salarisstrook

SPOEDAANVRAAG NA SELECTIE WORDT DE PIF BINNEN 48 UUR VERWERKT MET EEN MAXIMUM VAN 10 PIF'S PER DAG.

“papieren procedures”

kadaster

Services
Interne Services

Aanvraag inhuur Externen (incl. PIF)

Blad
1 van 2

Afhandeling administratie
in te vullen door de personeelsadministratie

EIC ticketnr.	
SAPnr.	
Accorderen	

*Aanvraaggedeelte van dit formulier volledig invullen en digitaal versturen naar inhuur.uzk@kadaster.nl.
Aanvrager SRM -> dit formulier toevoegen aan winkelwagen.
Opmerking t.b.v. aanvrager SRM: Indien er een * voor staat, moet dit veld worden ingevuld in SRM*

Aanvraaggedeelte

Gegevens leidinggevende

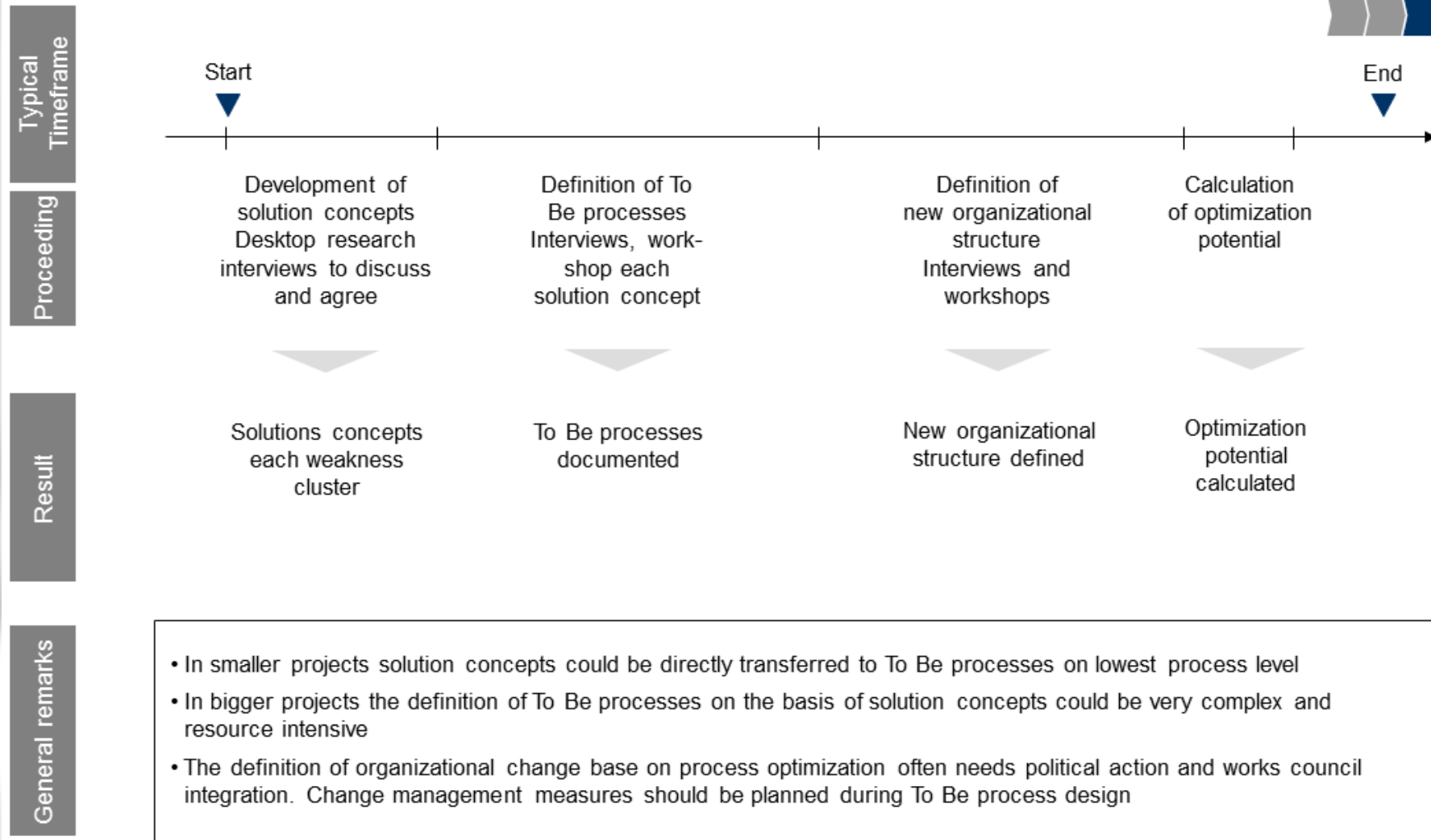
* Naam	/		Vervanger leidinggevende	/	
* Organisatorische eenheid/ Afdeling	/		Naam PMA	/	
Telefoonnummer	/		* Kostenplaats afdeling	/	

“handmatig proces”

To-Be analysis

- ▶ The goal of the To Be process design is to define and document optimal To Be processes. All identified weaknesses with high priority should be eliminated
- ▶ The documentation of optimal To Be processes should include process flows, the underlying organizational structure and optimal system support (after the implementation phase). Additionally job descriptions, process standards, and the calculation of the optimization potential could be part of the documentation
- ▶ The implementation of documented To Be processes should be planned
A controlling of implementation success must be possible.

To-Be typical structure



To-Be results

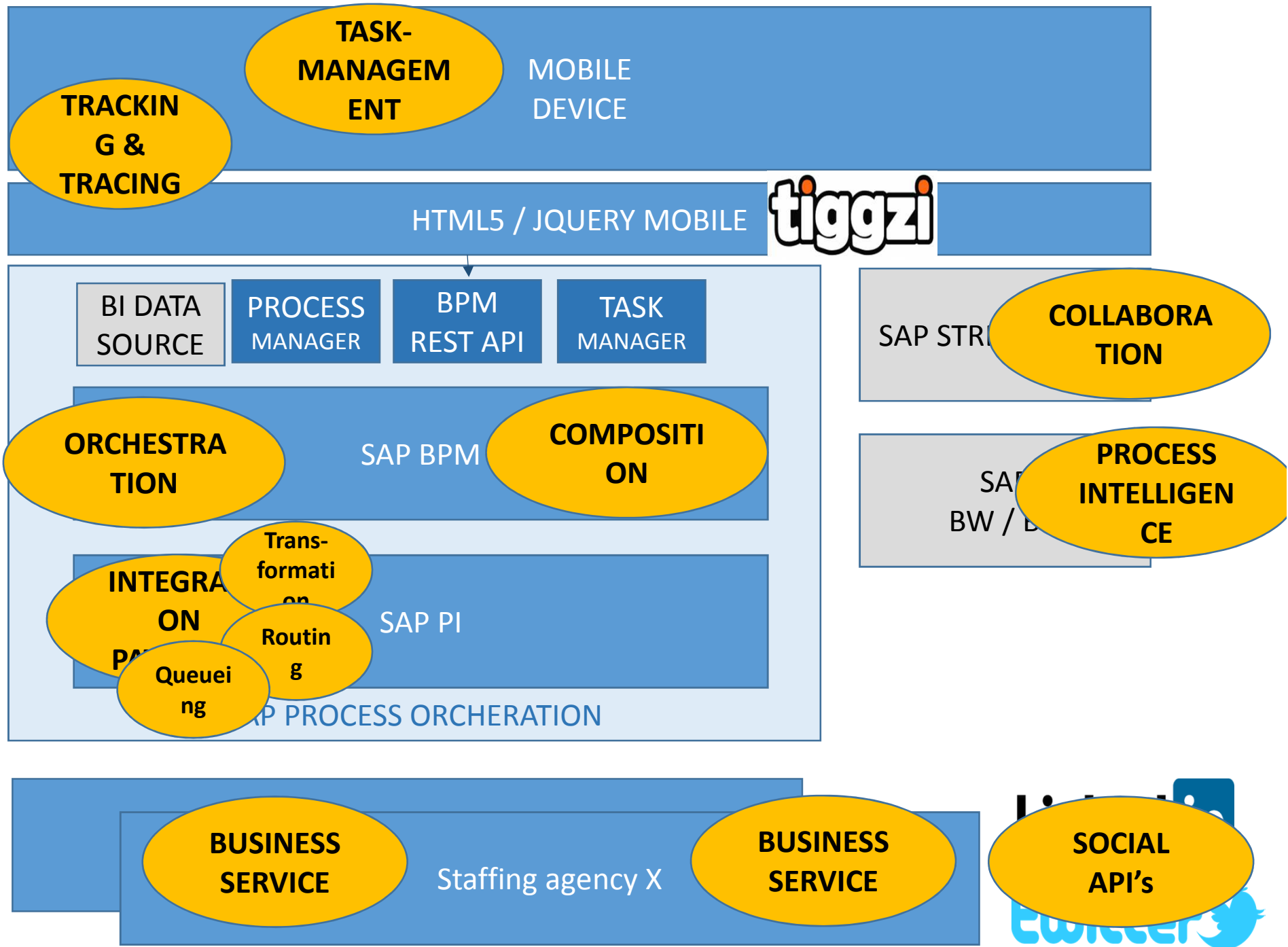
Value Realization – Update Business Case based on Final Business Blueprint

EXAMPLE

Reduce SG&A	Process	Value Driver	Financial KPI	\$4.9M	
	Procurement	Improve Indirect Annual Savings	Avg. Annual Savings (Indirect)	\$3.3M	\$6.6M
	Procurement	Reduce Indirect Maverick Spend	Maverick Spend (%)	\$1.1M	\$1.6M
	Procurement	Improve Transactional FTE Efficiency	FTEs per billion spend	\$0.4M	\$0.8M
	Finance	Standardize financial reports	Cost of Finance analytics as % of SG&A	\$0.1	\$0.2
Reduce COGS	Process	Value Driver	Financial KPI		
	Manufactur.	Improve Manufacturing Yield & Quality	Mfgr. Cost as % of COGS		
	Procurement	Reduce Direct Material Spend	Direct Spend as a % COGS		
Reduce Working Capital	Process	Value Driver	Financial KPI		
	Sales & Ops Planning	Reduced Finished Goods Inventory	Days in Inventory		
Increase Revenue Growth	Process	Value Driver	Financial KPI		
	Cust. Service	Reduced # of disputes/write-offs	Days in Inventory		

ASAP 8





Process orchestration

“Een blik onder de motorkap”

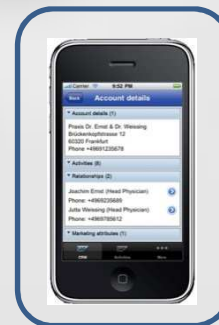
Demo

Case “Flexible workforce”

Inhuur (vaste/tijdelijke) medewerkers



Linked in



Personal details			Summary		
Name	Robert		Robert is a certified SAP Work flow consultant with		
Residence					
Personal details			Summary		
Name	Robert		Robert is a certified SAP Work flow consultant with		
Nationality	Netherlands				
Residence	Venndend, The Netherlands				
Personal details			Summary		
Name	Robert		Robert is a certified SAP Work flow consultant with both functional and technical knowledge of various SAP solutions. By implementing SAP BW, SAP solutions, experience is gained in many areas.		
Nationality	Netherlands		Specifically ECC, BW, SAP, SAP CRM, SAP SRM, SAP DMS and with experience in SAP service management knowledge was gained working in the first Dutch S/M implementation.		
Residence	Venndend, The Netherlands				
Personal details			Summary		
Name	Robert		Robert has been teacher for SAP education in the Netherlands for the following years:		
Nationality	Netherlands		<ul style="list-style-type: none"> SAP Work flow introduction (BTP000) SAP Work flow build & use (BTP001) 		
Residence	Venndend, The Netherlands				
Personal details			Summary		
Name	Robert		Strong communicative skills, business knowledge and good understanding of SAP solutions and its implementation, participating in full project lifecycle of several projects. Creating project proposals, workingshops, end-user training and change in management have been part of Robert's role at several of successfully implemented projects. Robert is also an experienced ABAP programmer, especially in combination with SAP CRM.		
Nationality	Netherlands				
Residence	Venndend, The Netherlands				
Personal details			Summary		
Name	Robert		Robert is a BPM/SPM enthusiast with experience in BPM methodologies. Robert is highly motivated to deliver business value to customers.		
Nationality	Netherlands				
Residence	Venndend, The Netherlands				



Prozessen



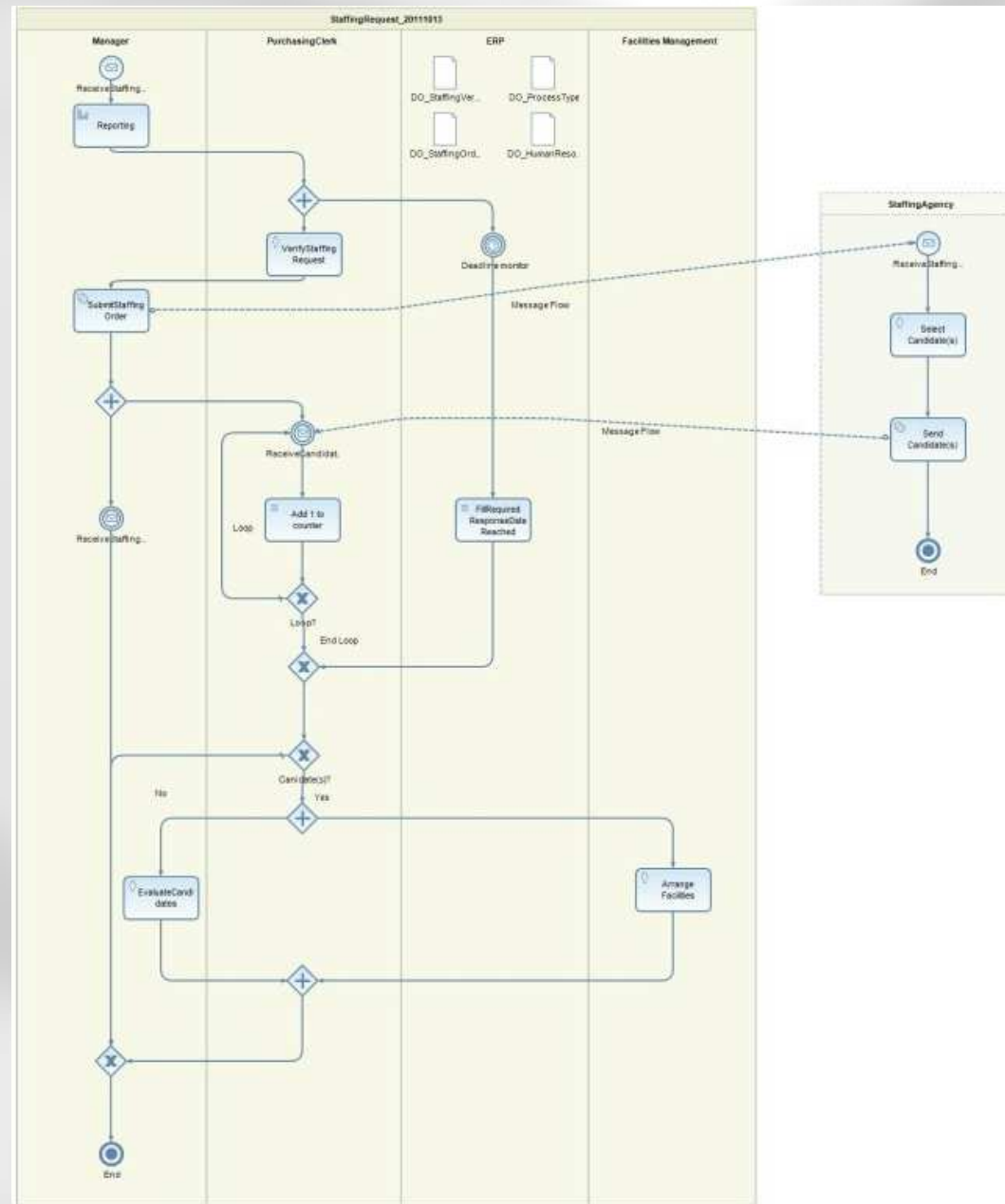
Demo scenario

Inhuur (vaste/tijdelijke) medewerkers

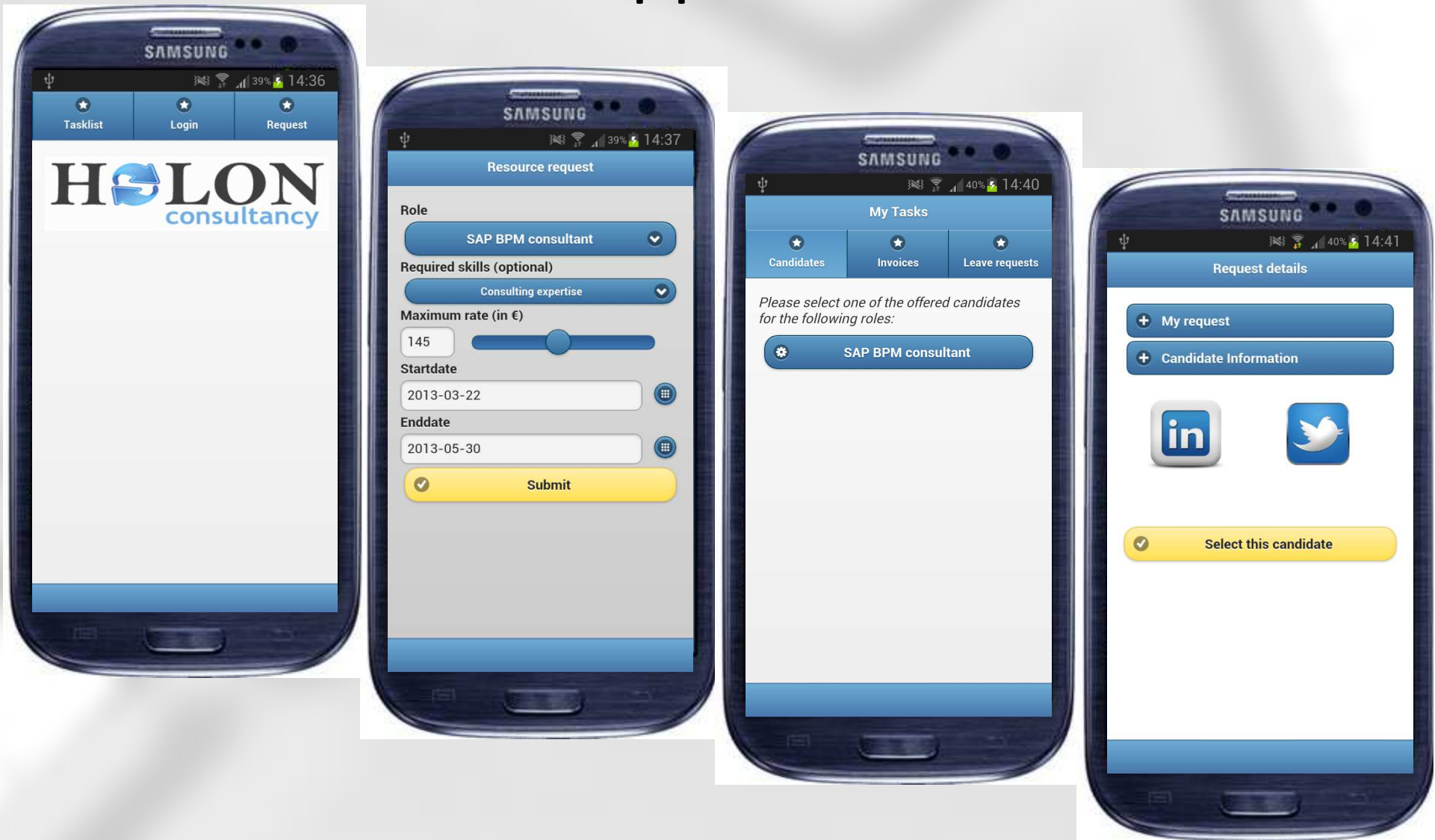


- Manager dient resource aanvraag in
- Inkoop verrijkt aanvraag
- Aanvraag wordt naar recruitment agency verstuurd
- Recruitment agency bied kandidaten aan
- Manager beoordeeld aangeboden kandidaten

Demo



Android app screenshots



Future outlook

SAP NetWeaver Business Process Management

Product road map overview - key themes and capabilities

Business User Experience

- Collaborate Process Modeling and Task Collaboration via cloud
- BPMN 2.0 model exchange via import/export
- Mobile access to tasks via API
- New BPM inbox

Process Orchestration

- Java-only PI & BPM installation option
- Support for XI 3.0 connectivity
- Reuse of PI mappings
- BPM for high-volume scenarios

Business Process Blueprinting

- Extend standard SAP processes
- Link business scenario to executable process model

Today

EHP1 for SAP NW 7.3 (SP04)

Custom Task UIs

- Build task UIs with any UI technology
- Enable task notifications for mobile devices

BPM Analytics

- Standard dashboards for process administrators
- API access to instance data for process reporting

Monitoring and Operations

- Functional improvements in NWA
- End-to-end message monitoring for Process Orchestration scenarios
- Integration with SAP Solution Manager

Planned Innovations

BPM Capabilities on HANA

- Tasks, checklists and simple workflows natively in HANA
- Business Rules on HANA (Decision Support)

Process Orchestration


- Improved developer productivity
- Extending process visibility to integration scenarios

Intelligent Processes

- Operational insight affect business rules, driving processes to desired result
- Provide process participants with context information for optimal decisions

Future Direction

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

Source: 

Processen

Optimalisatie

Innovatie

Future outlook

EHP1 for SAP NetWeaver 7.3 (SP04)

Business User Experience

Collaborate with business experts on process models, and provide end users with easy access to their tasks.

Collaborate Process Modeling and Task Collaboration

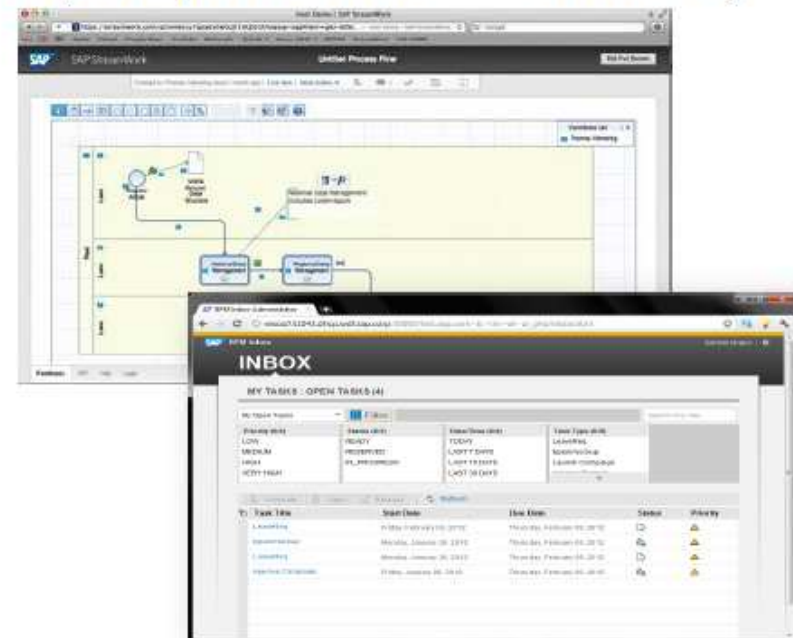
- Import process models from the new Process Modeling Tool in SAP StreamWork
- Create StreamWork activity directly from BPM task

Access to tasks via API


- Retrieve task instances via Java API
- Support for pagination
- Execute task actions like complete or delegate

New BPM Inbox

- Built with SAP UI5
- Easy filtering based on task status, date and task name



Solution today

Source: 

Processen

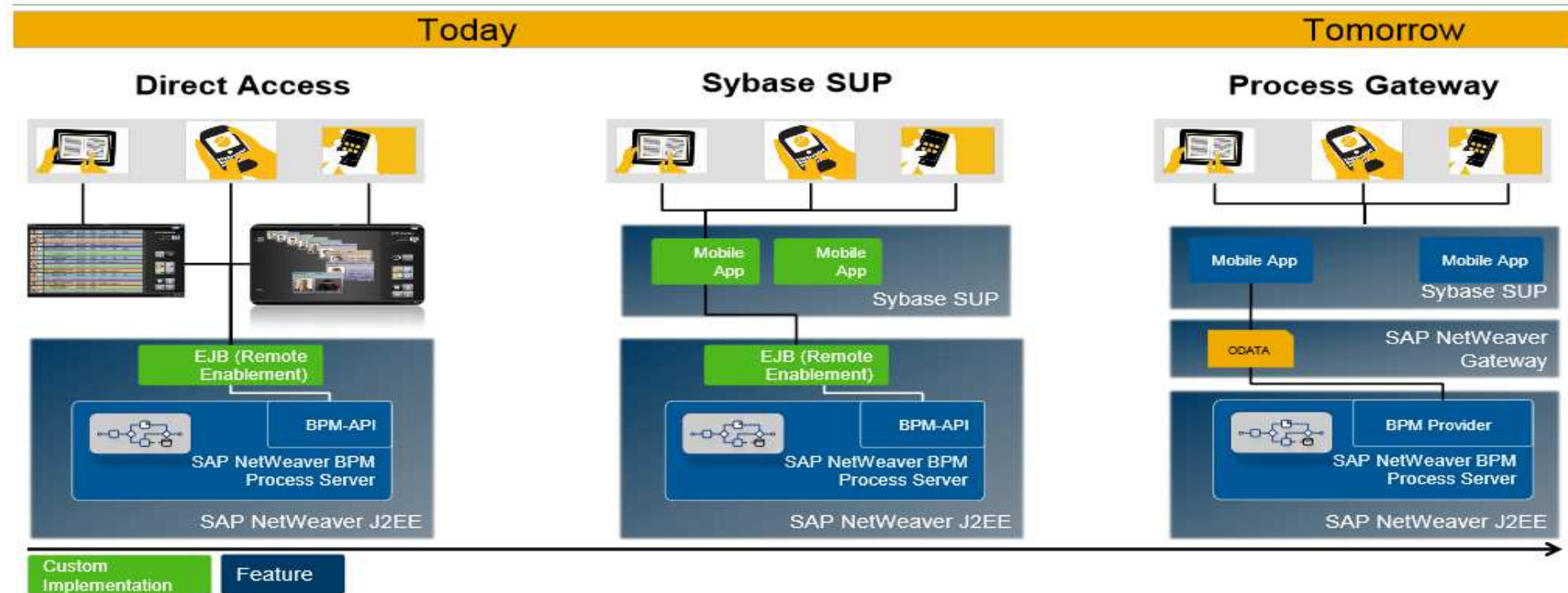
Optimalisatie

Innovatie

Future outlook

SAP NetWeaver BPM – Mobile Options

Today and Tomorrow



Source:



Future outlook

EHP1 for SAP NetWeaver 7.3 (SP04)

Process Orchestration

Build integration-centric processes with the new Process Orchestration solution.

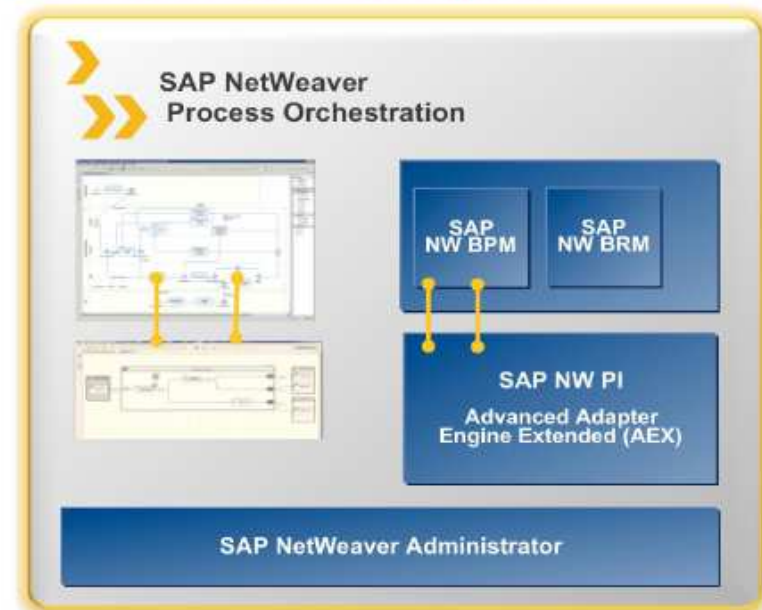
PI and BPM on a single Java instance

- New java-only installation option for Process Orchestration
- Reliable connectivity for message exchange using the XI 3.0 protocol
- Call PI mappings from BPM process
- Module to persist large messages ("Claim Check Pattern")
- Documentation for integration-centric process patterns*


BPM in high-volume scenarios

- Asynchronous message processing via persisted queues
- Improved reliability in high-volume, clustered environments
- Almost linear scalability

*To be published via SCN



Solution today

Source: 

Processen

Optimalisatie

Innovatie

Future outlook

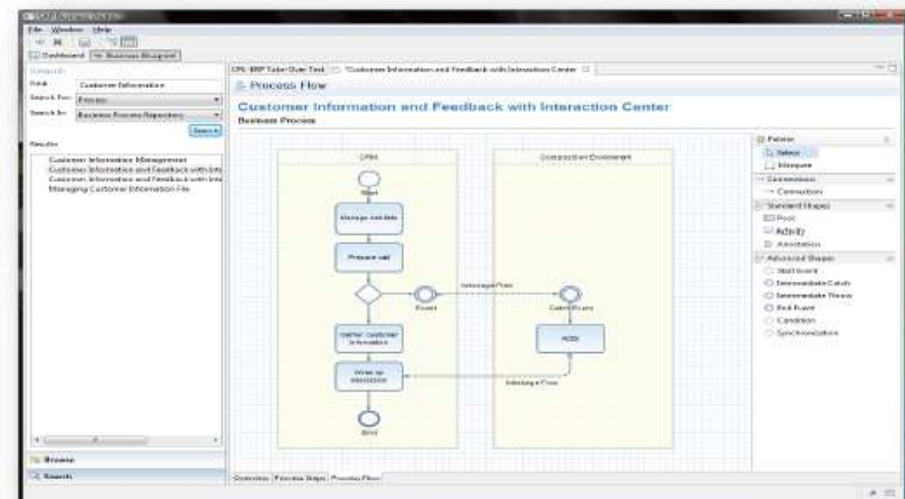
EHP1 for SAP NetWeaver 7.3 (SP04)

Business Process Blueprinting


Seamlessly extend core processes documented in SAP Solution Manager.

Integration with Business Process Blueprinting

- Search and browse business blueprints (SAP's business process reference content stored in Solution Manager) directly from NetWeaver Developer Studio
- Create process extensions directly from business blueprint
- Link business-level view to implemented process model
- Store process documentation in Solution Manager



Solution today

Source: 

Processen

Optimalisatie

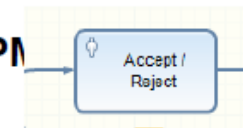
Innovatie

Future outlook

Planned innovations

Custom Task UI

Use SAP UI5 or any other web UI technology to build task UIs for BPM



Custom UI option

- Choose custom UI component for task definition
- Define task input, output and fault messages
- Define URL for runtime invocation
- Task Instance ID is automatically passed as HTTP argument
- Use Java API to retrieve task details and complete task
- Provide UIs that are optimized for mobile devices

Please Approve Request from Rick Requester

In Progress Medium Delegate

Requester: Rick Requester
Region: EMEA

Pos.	Mat.No.	Mat.Text	Quantity	Price	Total
1	HT-1000	Harley Davidson Leather Jacket	433	22	9526

Comment from Requester
kdsids

Your comment

Approve Reject Cancel

1 of 1

Planned Innovations

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

Source:

Processen

Optimalisatie

Innovatie

Future outlook

Planned innovations

BPM Analytics

Provide better insight for business users.

Standard dashboards for process administrators

- View processes and task statistics per process definition and status
- Data is restricted per process administrator
- Direct navigation to NWA UIs


API access to process and task instance data

- Get process statistics (e.g. number of tasks in error)
- Get process and task instances with various filter criteria
- Remote enablement for easy consumption in reporting tools and frameworks



Planned Innovations

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

Source: 

Processen

Optimalisatie

Innovatie

Future outlook

Planned innovations

Monitoring and Operations

Making life easier for technical administrators.

Functional improvements in NWA

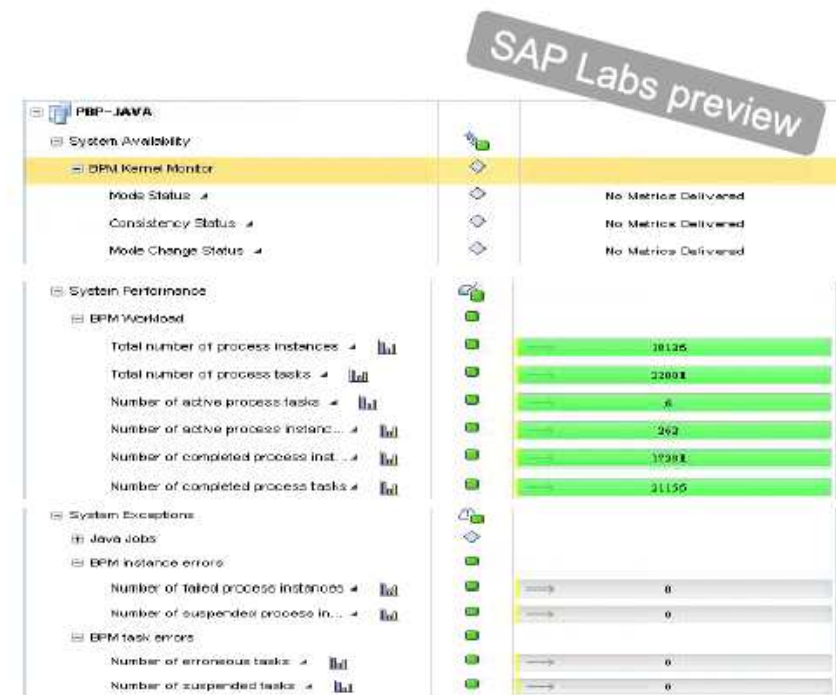
- Suspend processes and fix erroneous context data
- Export process and task instances to spreadsheet
- Direct navigation from error message to log viewer

End-to-end message monitoring for Process Orchestration scenarios

- View which messages a process instance has received
- View which process instances have received a particular message
- Navigation between BPM Process and PI Message monitor

Solution Manager integration

- View key metrics for process instances and tasks
- Get alerts via email or SMS



Planned Innovations

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

Source:

Processen

Optimalisatie

Innovatie

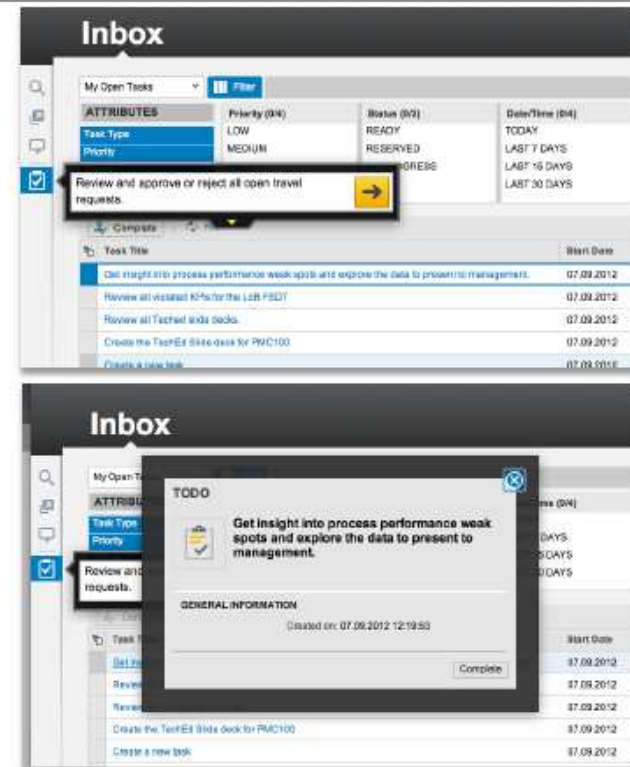
Future outlook

From Insight to Action

Future direction


BPM capabilities on HANA

- Bringing selected BPM capabilities like task management, business rules or simple workflows to the HANA Platform
- Built as native HANA extensions that can fully leverage the in-memory capabilities and fit seamlessly into the overall HANA life cycle and programming model
- Consumable by any HANA application
- Natively used by SAP Operational Process Intelligence



Future Direction

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

Source: 

Processen

Optimalisatie

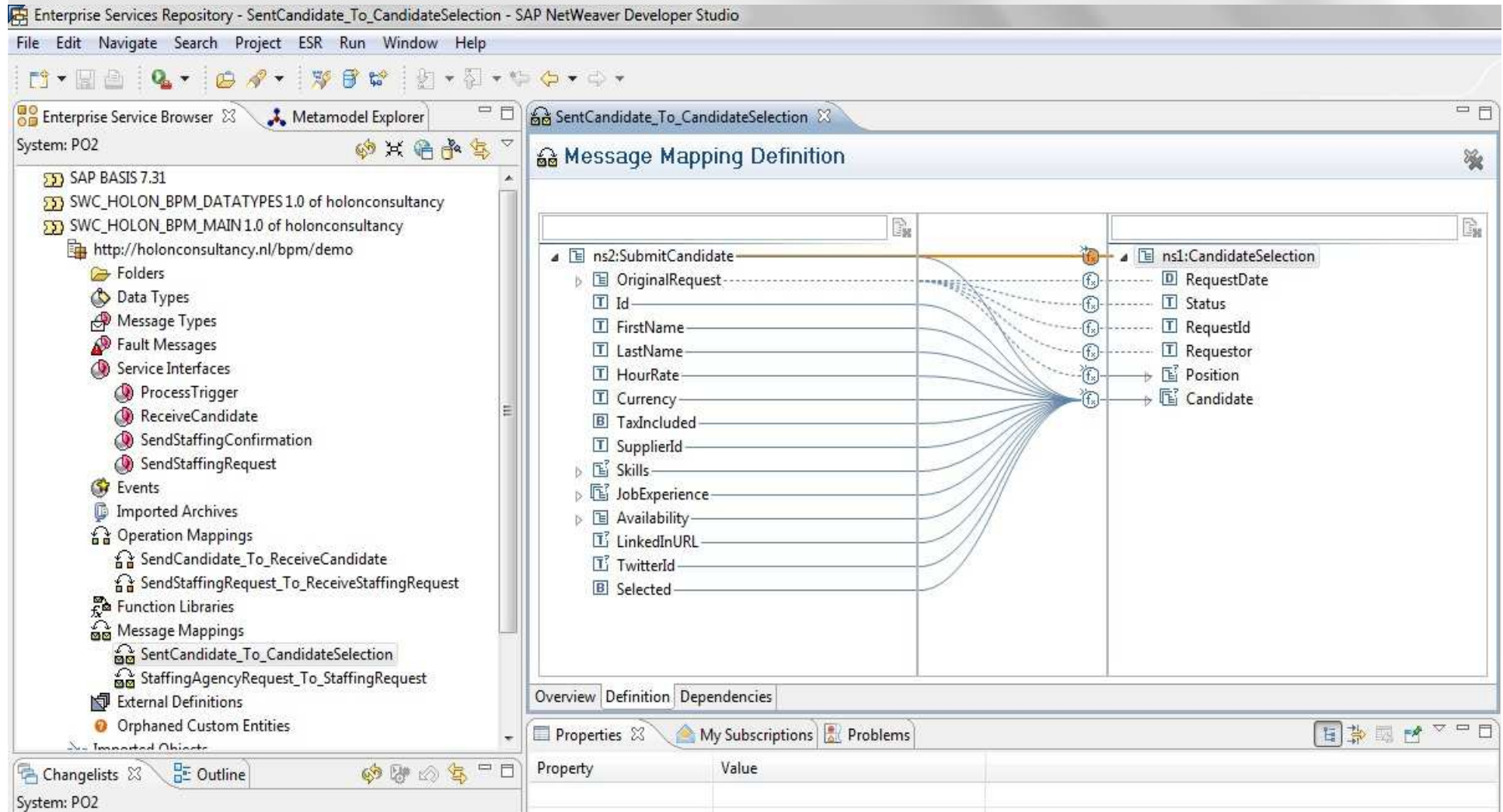
Innovatie

Vragen



Back up slides

NWDS ESR

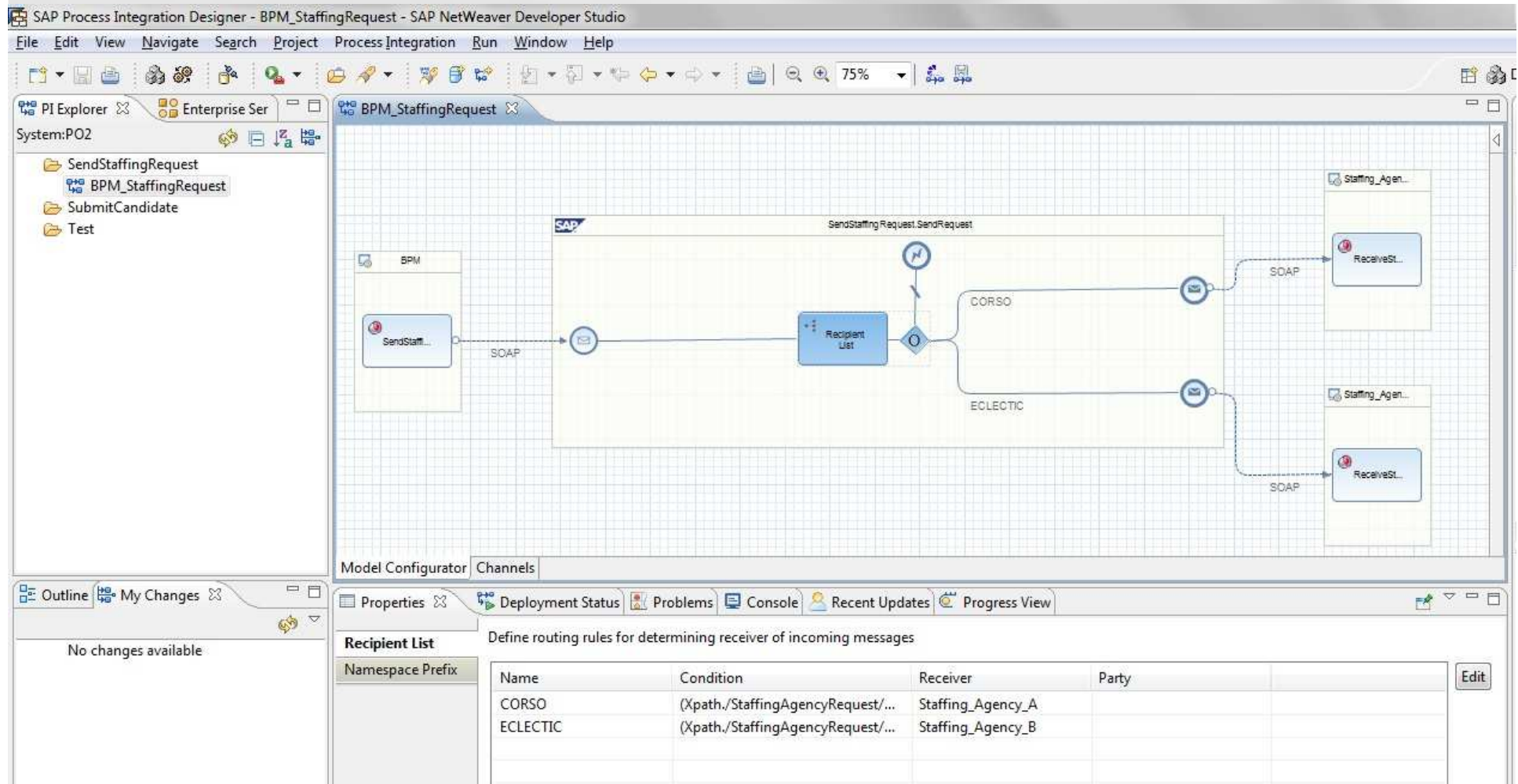


Processen

Optimalisatie

Innovatie

NWDS Process Integration Designer



SAP & SOA

