

Find out more at:
www.aris.com/soa

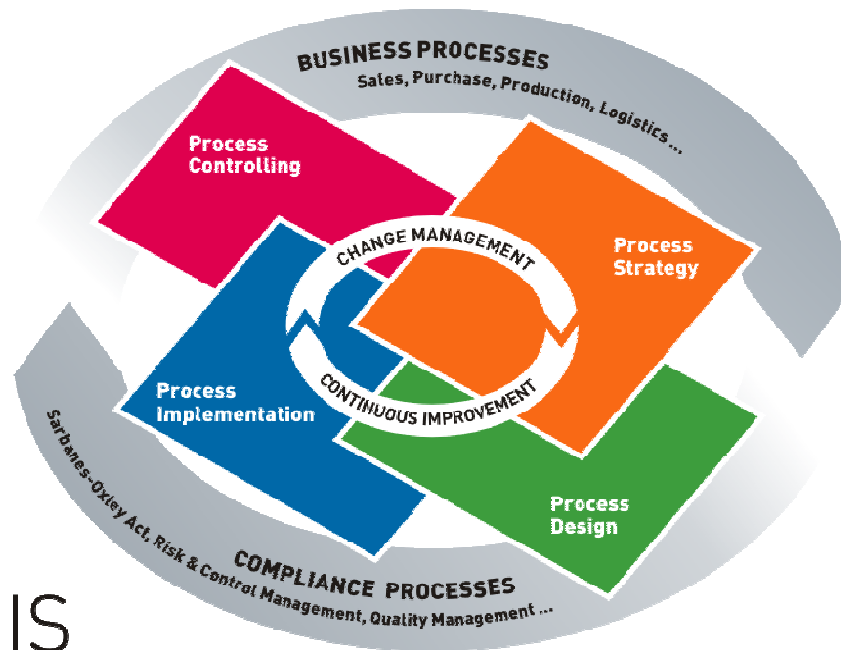
Visionary architecture always requires good building plans!

So use your organization's business processes as the plan for your **Service-Oriented Architecture**.

ARIS Solution for Business-Driven SOA Management allows you to convert business process models into executable IT processes and create a comprehensive SOA repository to monitor your IT environment.

Deriving technical processes from business process structures gives organizations a fast and flexible means of implementing innovative business strategies and the underlying IT processes.





ARIS Business Process Excellence

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Achim Beckmann, IDS Scheer AG
14.12.2007

Integration von Anwendungssystemen in der Praxis

Agenda

Vorstellung

Unternehmensprofil

Unternehmensstrategie

Produkt- und Leistungsspektrum

Integration @ SAP

Integratoin in der Praxis

Vorstellung

- **Studium in Siegen**
- **Werdegang:**
 - ▶ **seit 12/2006: IDS Scheer AG**
 - ▶ **10/2005 – 11/2006: Materna GmbH**
- **Aktuelle Projekte:**
 - ▶ **Ahlstrom**
 - ▶ **prego.services**
 - ▶ **Versorgungsanstalt des Bundes und der Länder (VBL)**
 - ▶ **Horst Mosolf GmbH**
- **Hobbies:**
 - ▶ **Radsport**
 - ▶ **Wintersport**
 - ▶ **Freunde / Familie / soziale Kontakte**
 - ▶ **mein Job**
 - ▶ **...**



Achim Beckmann

Diplom-Wirtschaftsinformatiker
Consultant
Consulting Solutions Technologies

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Mobil: +49 172 6860 199
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40239 Düsseldorf

Business Process Excellence

www.ids-scheer.com

Agenda

Vorstellung

Unternehmensprofil

Unternehmensstrategie

Produkt- und Leistungsspektrum

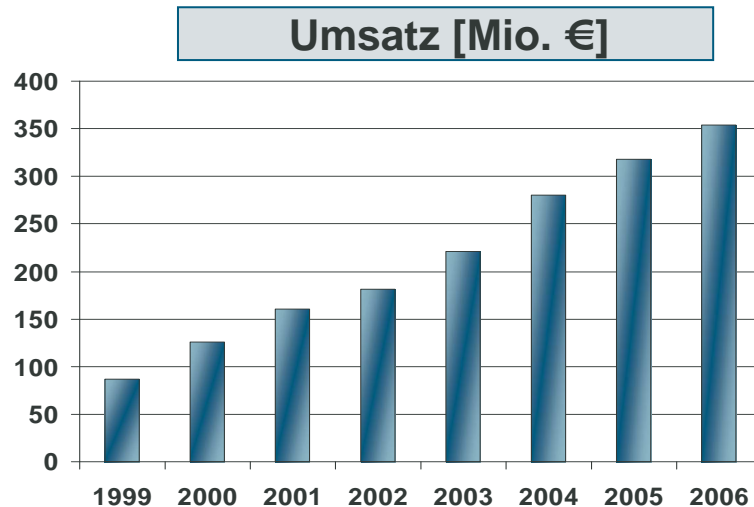
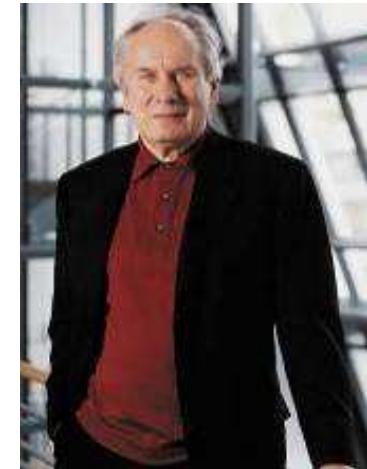
Integration @ SAP

Integratoin in der Praxis

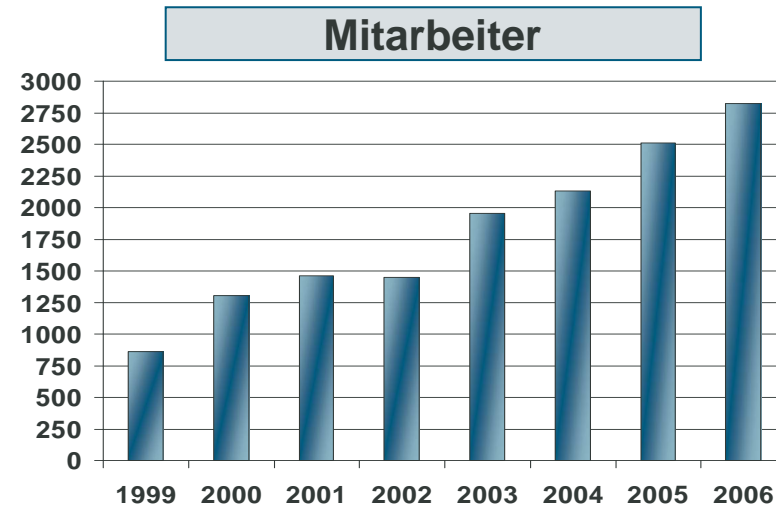
Überblick IDS Scheer AG



- gegründet 1984 durch Prof. Dr. Dr. h.c. mult. August-Wilhelm Scheer, Aufsichtsratsvorsitzender
- Vorstand:
Thomas Volk (Vorstandsvorsitzender)
Dr. Wolfram Jost (Produkte)
Dr. Dirk Oevermann (Beratung)
- IPO 1999, gelistet im TecDAX



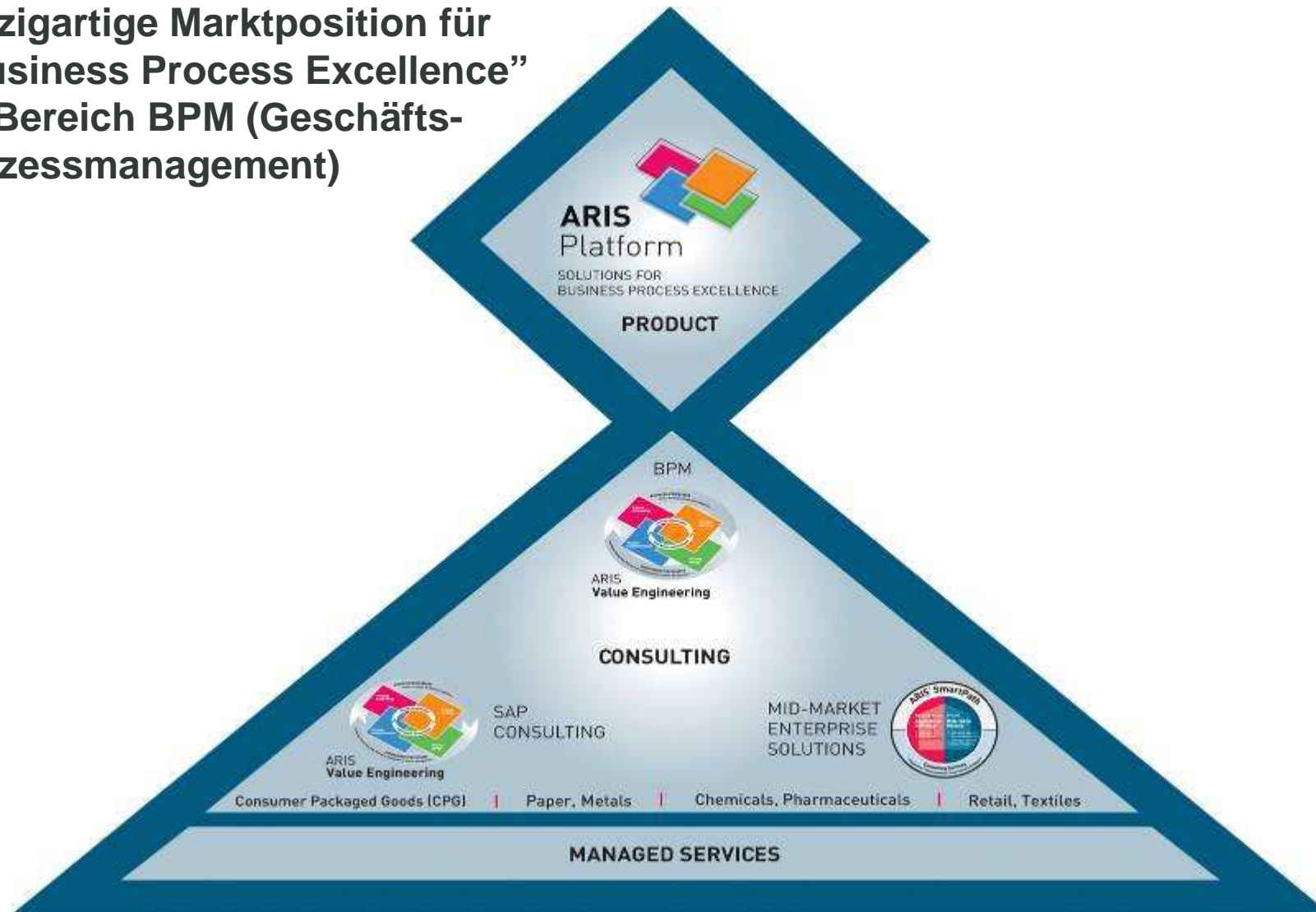
Umsatz 2006: 354 Mio. €



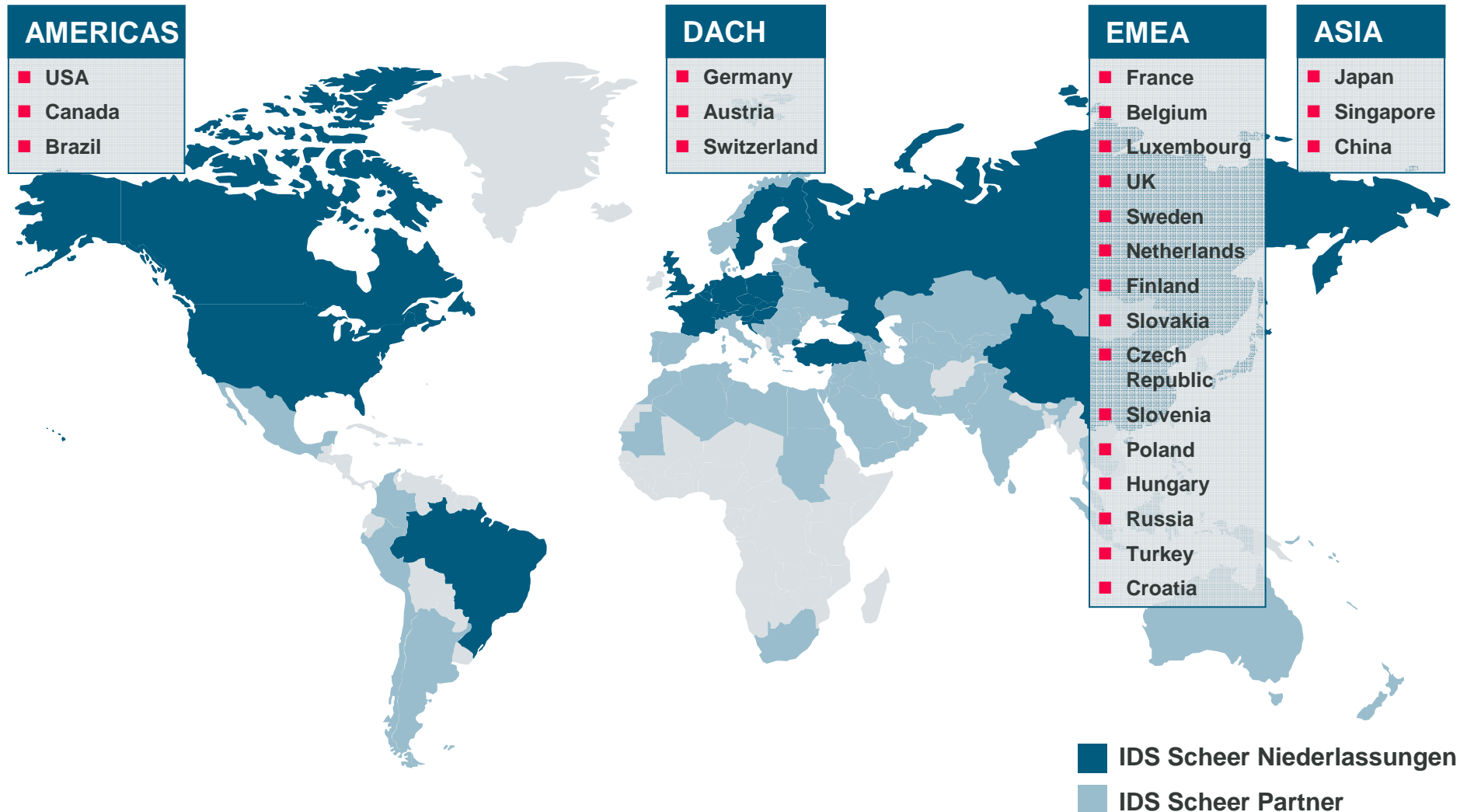
Mitarbeiter 2006: 2.823

Überblick IDS Scheer

**Einzigartige Marktposition für
“Business Process Excellence”
im Bereich BPM (Geschäfts-
prozessmanagement)**



Überblick IDS Scheer: International erfolgreich



> 6.000 Blue Chip Kunden weltweit (Beispiele)

DBSBANK

BAOSTEEL

DANONE

ERICSSON

SAP

DAIMLER

BNP PARIBAS

HYDRO

SWAROVSKI

intel

hp

VW

HypoVereinsbank

LOCKHEED MARTIN

DE BEERS

Henkel

invent

Continental

ABN-AMRO

ABB
ASEA BROWN BOVERI

TELEMAR
100% brasileira

BASF

Deutsche Post World Net
MAIL EXPRESS LOGISTICS FINANCE

BMW

COMMERZBANK

CORUS

TVP TELEWIZJA POLSKA

Bayer

Bundeswehr

Singapore Technologies Automotive

UBS

BSN glass pack

BERTELSMANN
media worldwide

Roche

Bundesministerium für Verkehr, Bau- und Wohnungswesen

prevent

AXA

Melitta

axel springer

CIBA Vision
A Novartis Company

Seal of the Republic of Austria

Audi

GENER@LI

adidas

BrasilTelecom

Pfizer

TOTAL

DB

ZÜRICH

AVON

swisscom

SEARS
Good life. Great price.

bp

Fraport

CREDIT SUISSE

Nestlé

TELEKOM AUSTRIA

AMERICAN METER COMPANY

Shell

amadeus

m-real

BDF Beiersdorf

kpn

GTE

ALSTOM

Lufthansa

sappi

Dr.Oetker

verizon

HITACHI

ALSTOM

AIR FRANCE

AKZO NOBEL

Electrolux

vodafone

IBM

Überblick IDS Scheer: Globale Partnerschaften



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Unternehmensprofil

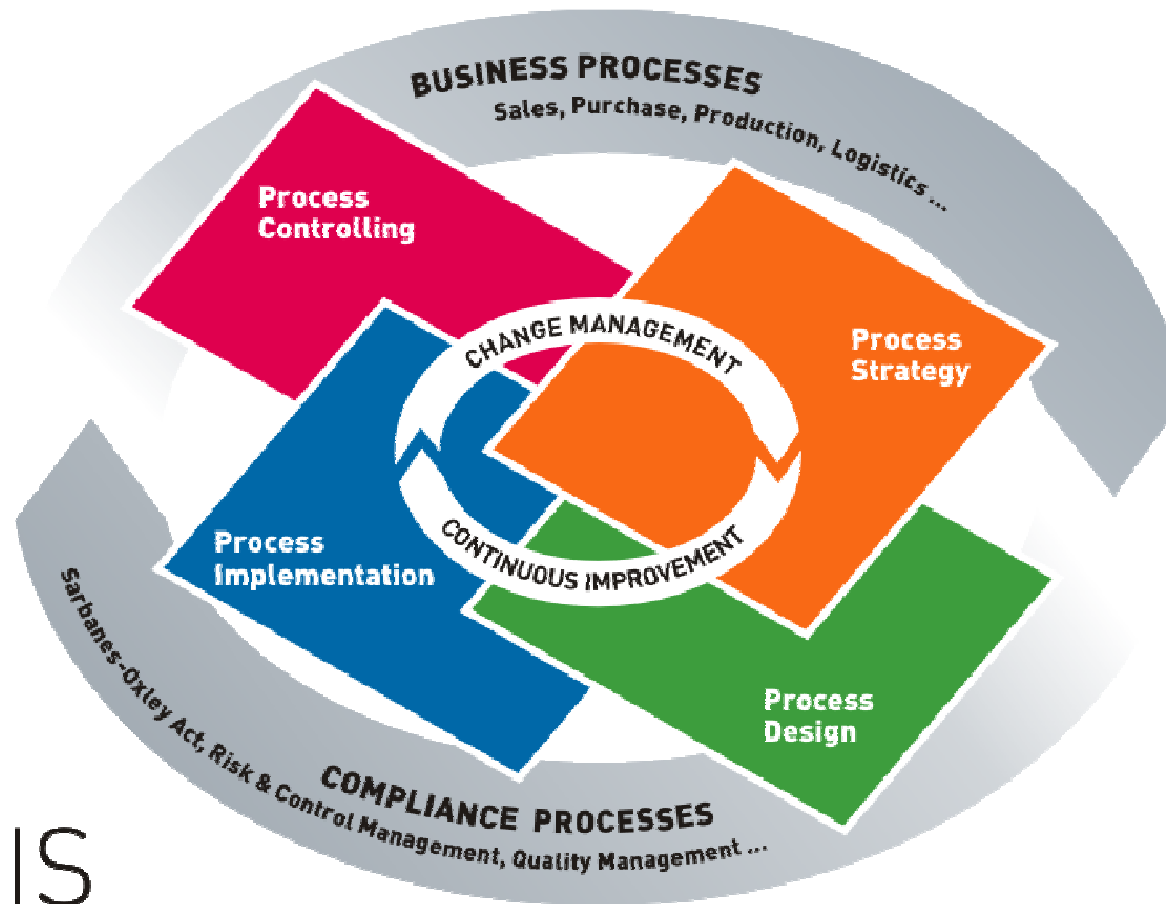
Unternehmensstrategie

Produkt- und Leistungsspektrum

Integration@SAP

Integratoin in der Praxis

Business Process Excellence – Lifecycle



ARIS Business Process Excellence

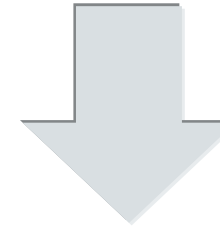
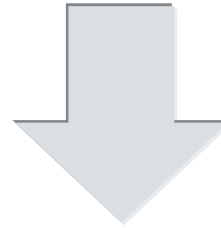
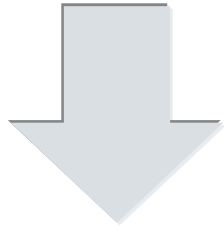
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ARIS "Open BPM": Garant für Business Process Excellence

Business

Process

Excellence



**Wir machen unsere
Kunden in ihrem
Geschäft
erfolgreicher.**

**IT dient dabei als
Enabler.**

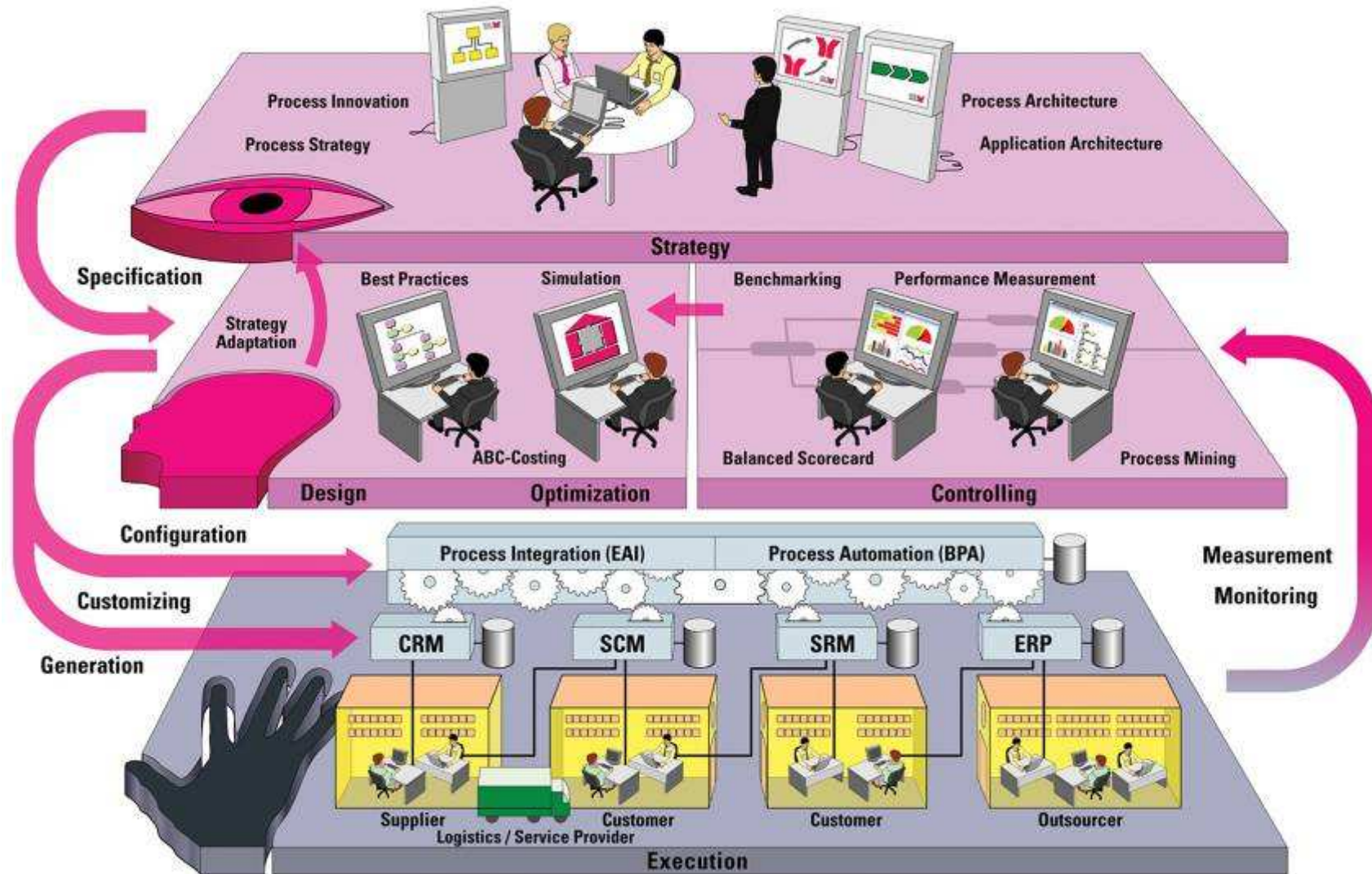
**Unsere
Kernkompetenz
liegt im internen,
externen und
übergreifenden
Prozess-
management.**

**Unser Versprechen
an die Kunden:
exzellente Projekte
und Lösungen.**

Unser Kundenversprechen für 2008:

**Accelerating Innovation and Growth with
Open Business Process Management**

Business Process Excellence – 3 Ebenen-Modell



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Unternehmensstrategie

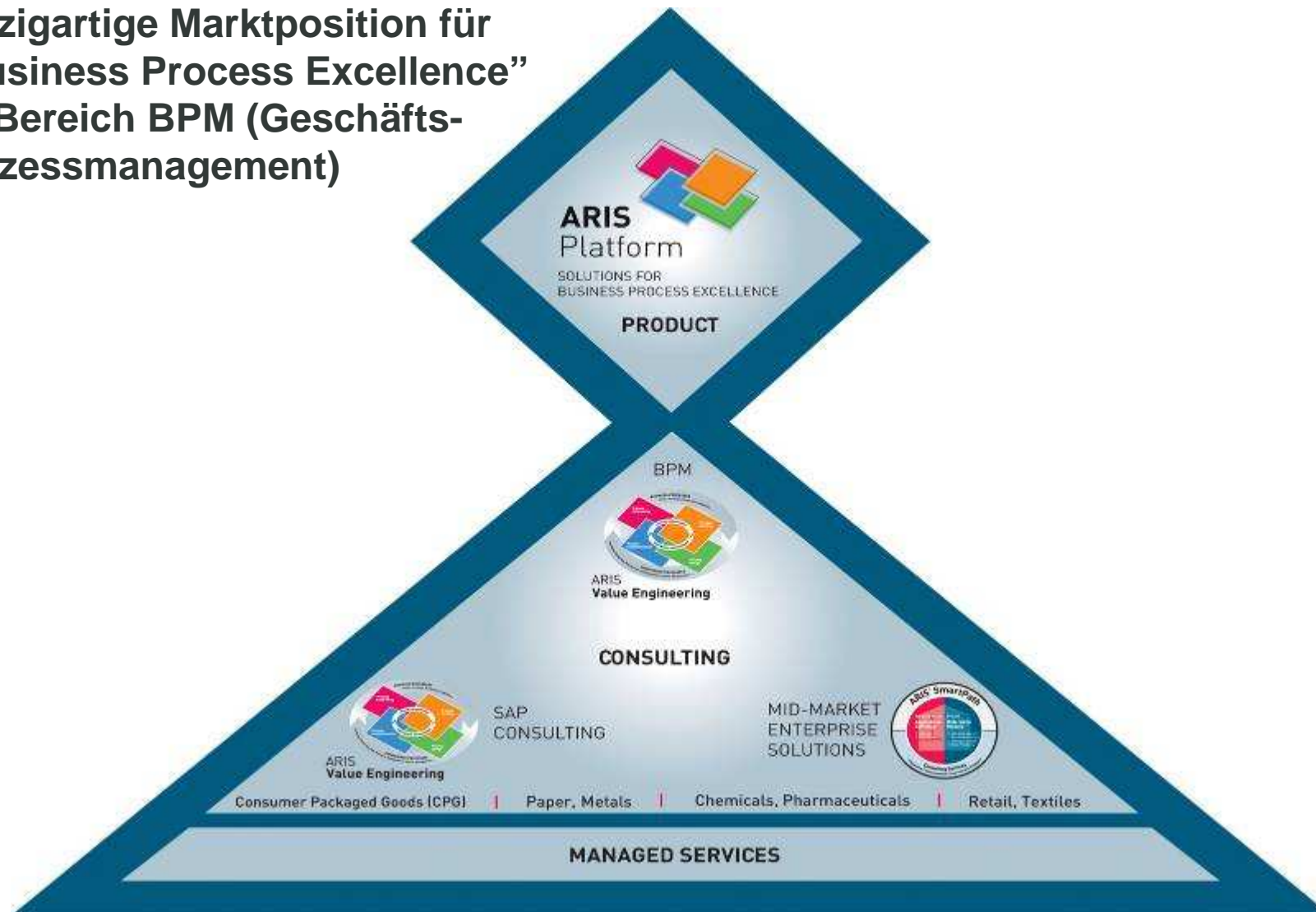
Produkt- und Leistungsspektrum

Integration@SAP

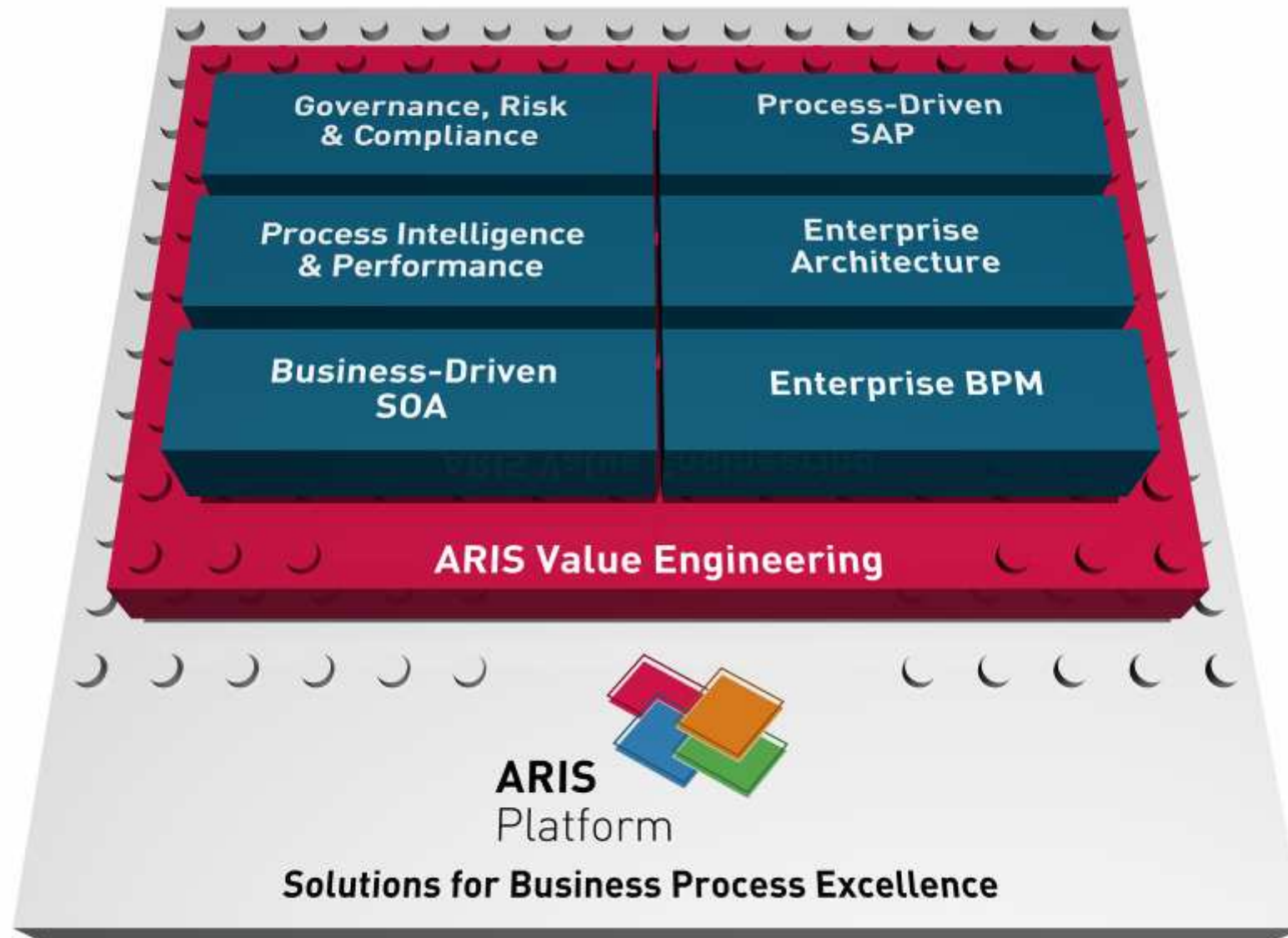
Integratoin in der Praxis

Überblick IDS Scheer

**Einzigartige Marktposition für
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im Bereich BPM (Geschäfts-
prozessmanagement)**



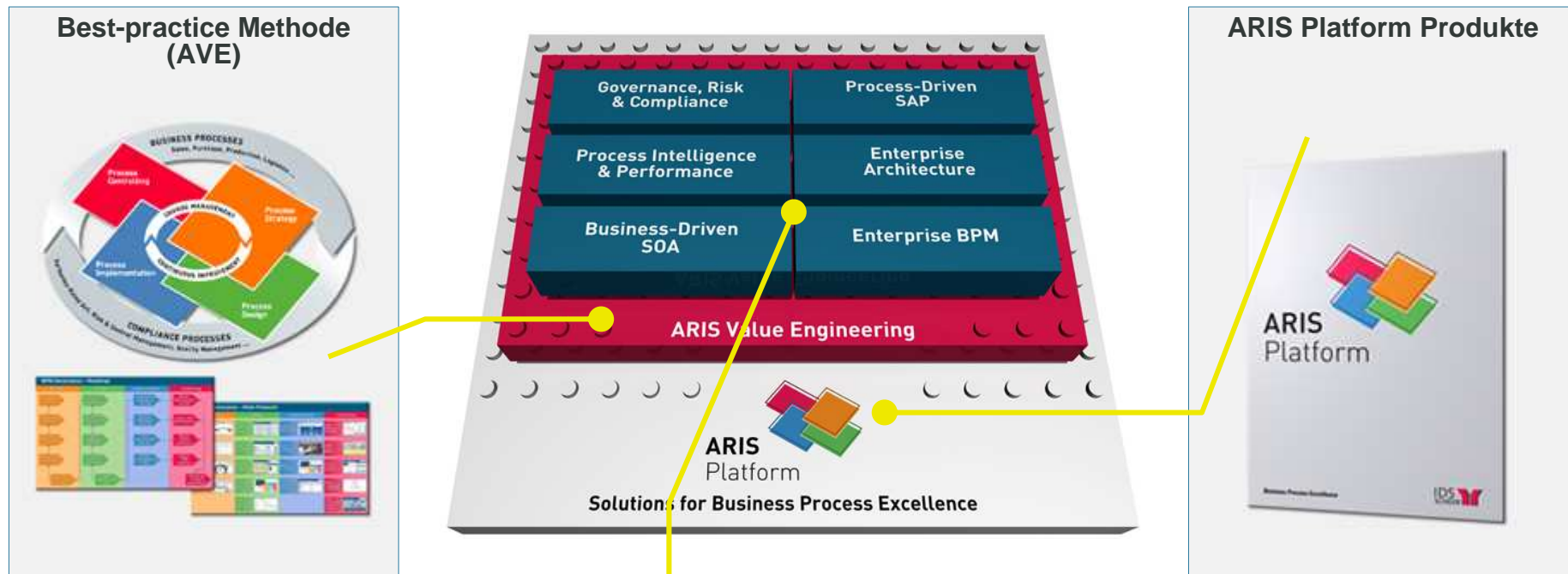
Beratungsansatz / Lösungen / Produkte



Was ist eine ARIS Solution?

Dank der engen Verbindung von Software und Vorgehensmethode, schöpfen die ARIS Solutions das volle Potenzial der “ARIS Platform“ Produkte aus.

- ▶ Die Kombination ausgewählter **ARIS Platform Produkte** unterstützt kundenspezifische Anforderungen
- ▶ **Einsatz von Best-practices** – durch den **ARIS Value Engineering (AVE)** Ansatz
- ▶ **Bewährt** in vielen **Kundenprojekten** repräsentieren sie das gesammelte Wissen der IDS Scheer Berater



Gesammeltes Wissen aus Kundenprojekten



ARIS Platform



ARIS Controlling Platform

ARIS Process Performance Manager
ARIS Process Event Monitor
ARIS Performance Dashboard
ARIS Audit Manager
...



ARIS Strategy Platform

ARIS BSC
ARIS Business Optimizer
ARIS Business Simulator
...



ARIS Implementation Platform

ARIS for SAP NetWeaver
ARIS SOA Architect
ARIS Business Rules Designer
ARIS BI Modeler
...



ARIS Design Platform

ARIS Business Architect
ARIS Business Designer
ARIS Business Publisher
ARIS IT Architect
ARIS Toolset
...

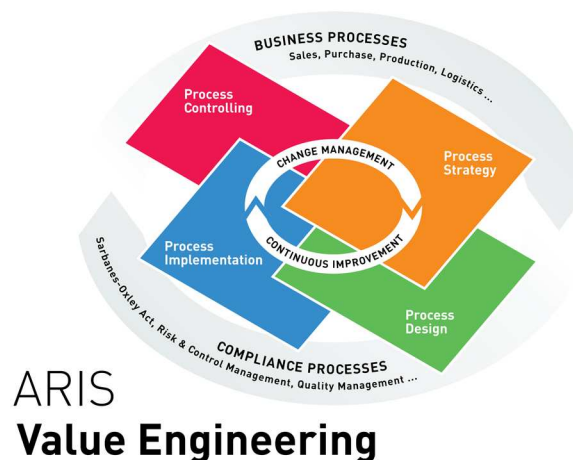


ARIS Platform

ARIS Value Engineering Lösungen

Mit dem integrierten Ansatz des ARIS Value Engineering (AVE) betrachtet IDS Scheer die Unternehmen seiner Kunden ganzheitlich

- ▶ ARIS Value Engineering for SAP
- ▶ ARIS Value Engineering for Enterprise-BPM
- ▶ ARIS Value Engineering for Enterprise Architecture
- ▶ ARIS Value Engineering for Governance, Risk & Compliance
- ▶ ARIS Value Engineering for SOA
- ▶ ARIS Value Engineering for Process Intelligence & Performance Management



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Beratungsangebot mit dedizierter Branchenexpertise



Chemicals & Pharmaceuticals



Consumer Packaged Goods & Retail



Paper, Textile & Metal



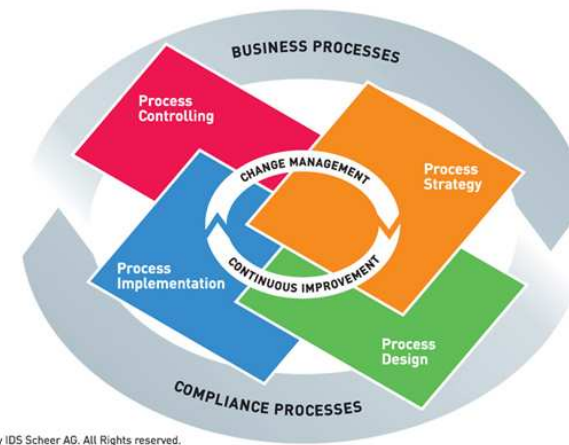
Financials & Public Sector



Discrete Manufacturing



Service Industries



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Internationale Projekt Erfahrungen



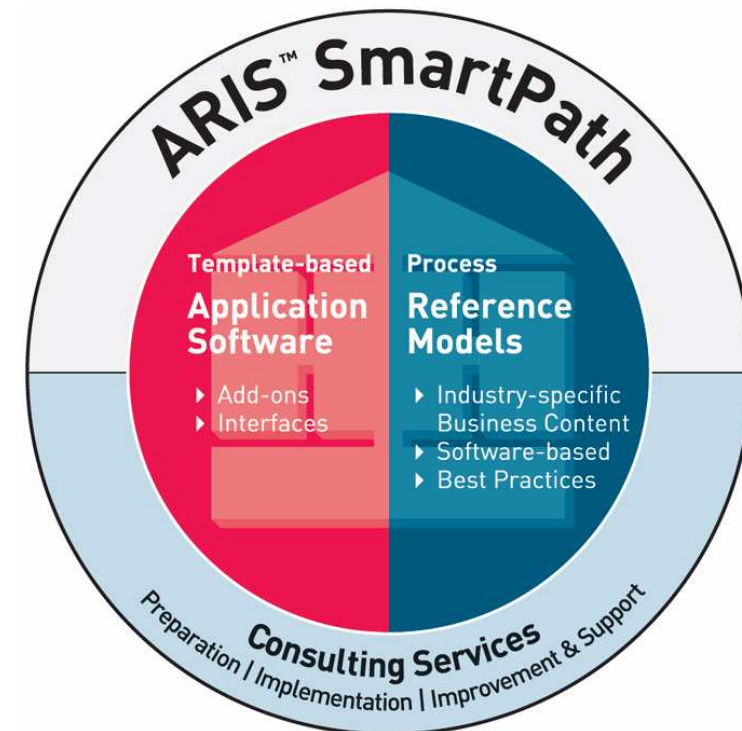
Lösungen für den Mittelstand auf der Basis von ARIS

■ ARIS SmartPath (ASP) - vollständig prozessorientierte ERP-Komplettlösung

- ▶ SAP Enterprise Software
- ▶ Branchenspezifische Inhalte
- ▶ Best Practice ARIS Referenzmodelle
- ▶ Beratung

■ Zertifizierte ARIS SmartPath-Lösungen für:

- ▶ ASP for Automotive
- ▶ ASP for Beverages
- ▶ ASP for Capital Goods
- ▶ ASP for Chemicals
- ▶ ASP for Cosmetics
- ▶ ASP for Durable Goods
- ▶ ASP for Fashion & Textile
- ▶ ASP for Foods
- ▶ ASP for Home Building (Engineering & Construction)
- ▶ ASP for Logistic Service Providers
- ▶ ASP for Media
- ▶ ASP for Pharmaceuticals
- ▶ ASP for Service Industries



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Unternehmensstrategie

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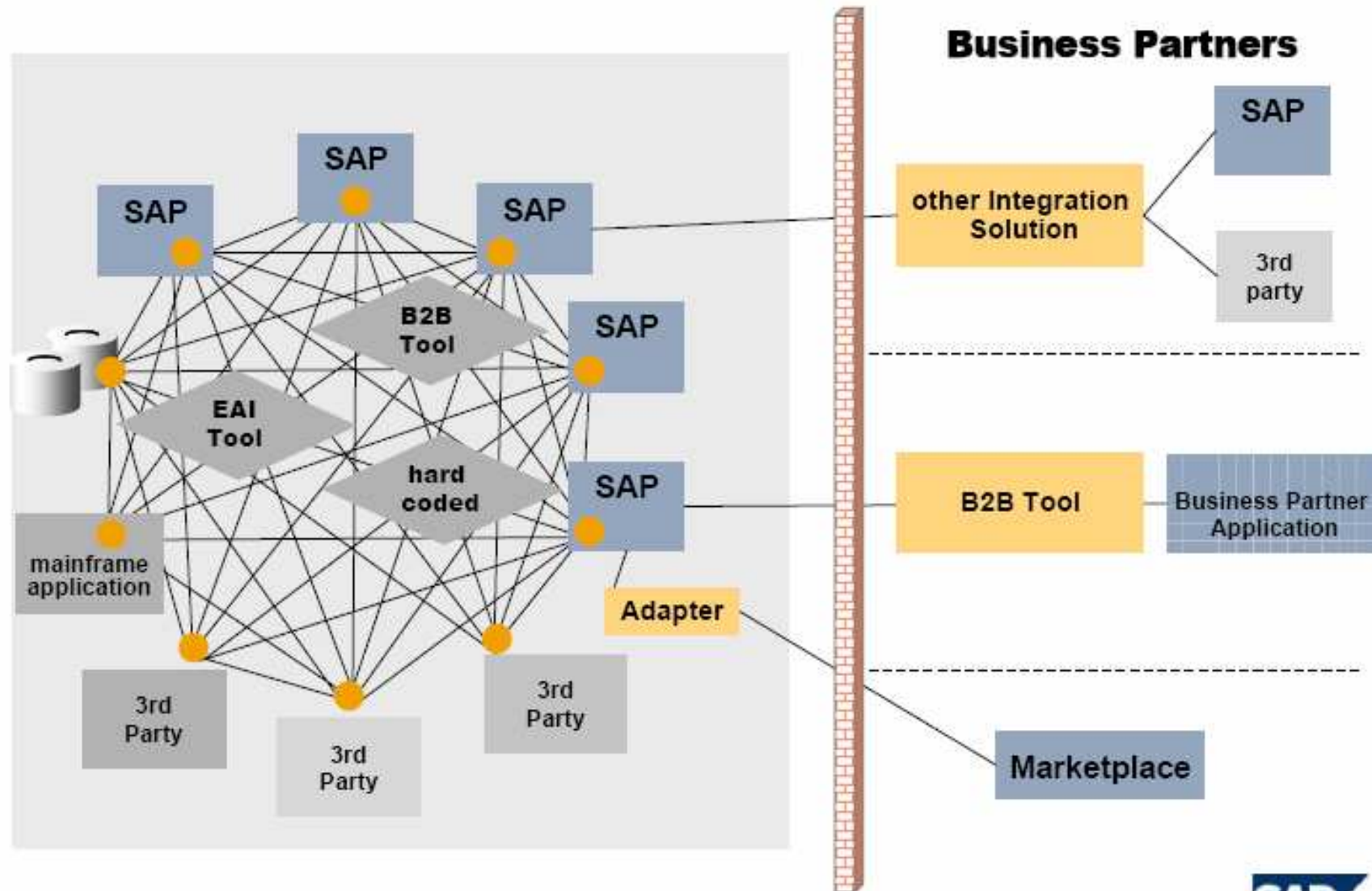
Integration in der Praxis

Integration (allgemein)

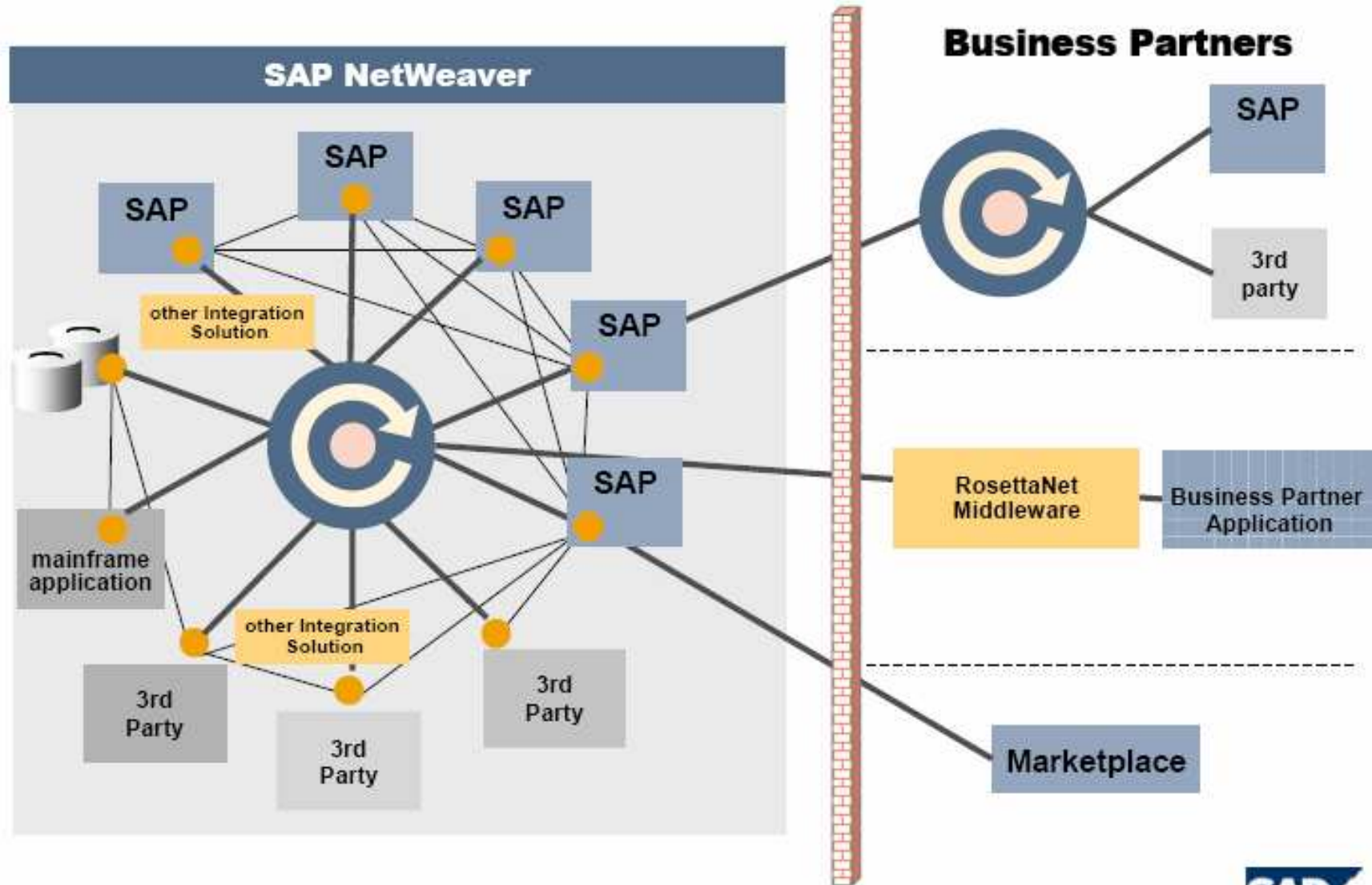
Einordnung XI / PI in NetWeaver

Komponenten der XI / PI

Gewachsene IT Landschaften in Unternehmen



Integration der Systeme mit SAP XI / PI



© SAP AG 2004

THE BEST-RUN BUSINESSES RUN SAP



Integration (allgemein)

Einordnung XI / PI in NetWeaver

Komponenten der XI / PI

SAP Exchange Infrastructure (XI / PI)

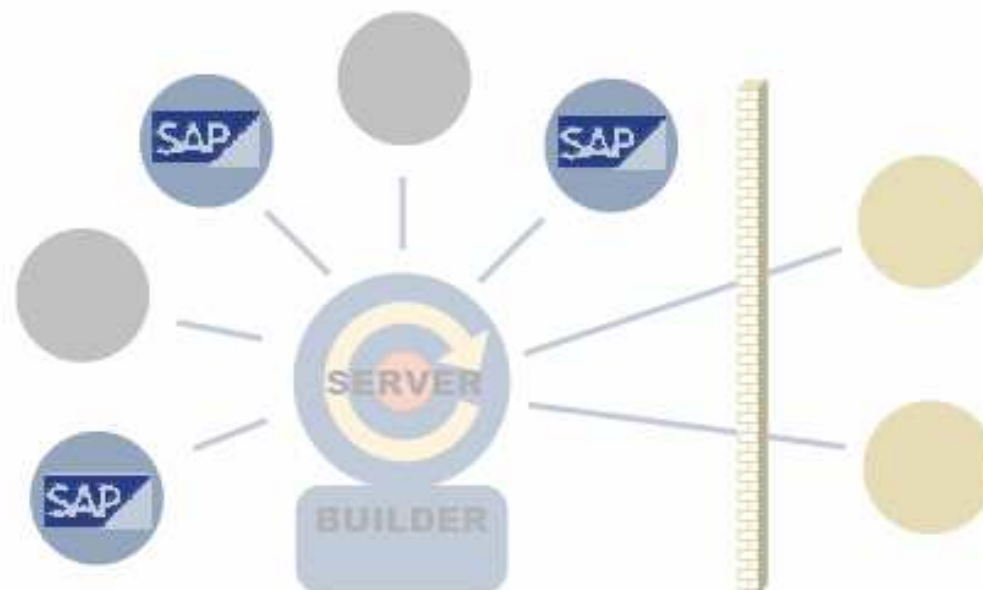
SAP XI is an integration technology and platform...

...for SAP and non-SAP applications.

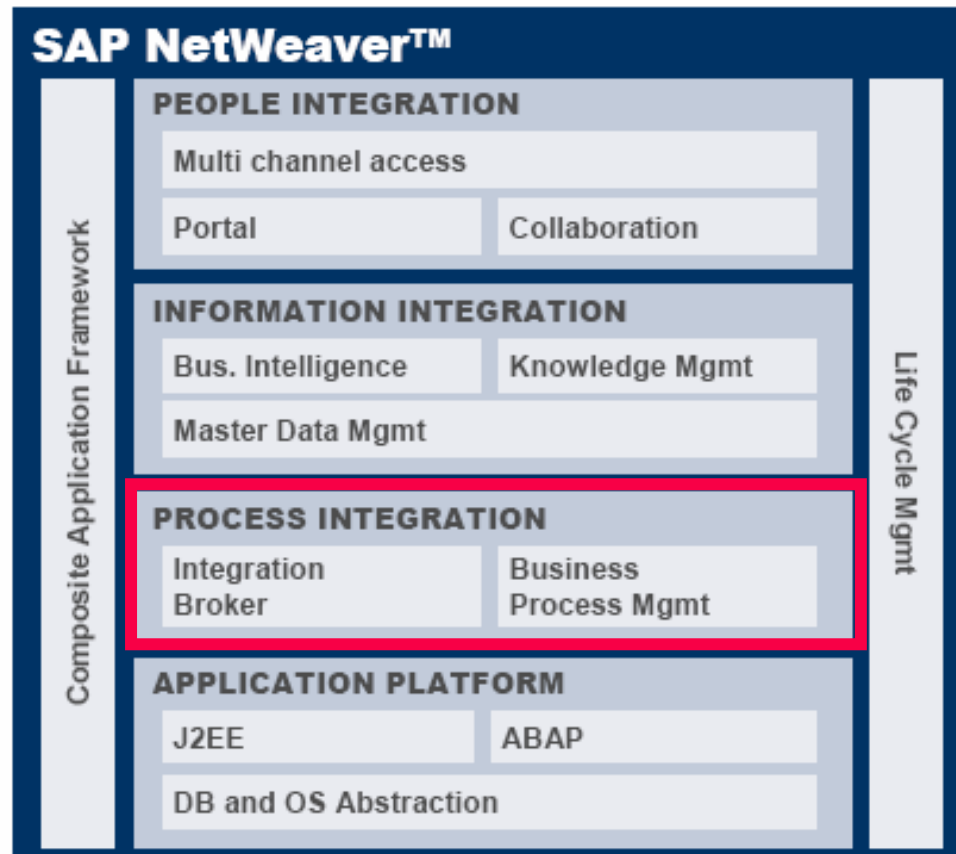
...for A2A and B2B scenarios.

...for asynchronous and synchronous communication.

...for cross-component **Business Process Management**.



SAP XI / PI ist Bestandteil von SAP NetWeaver



Unifies and aligns people, information and business processes

- Integrates across technologies and organizational boundaries
- A safe choice with full .NET and J2EE interoperability

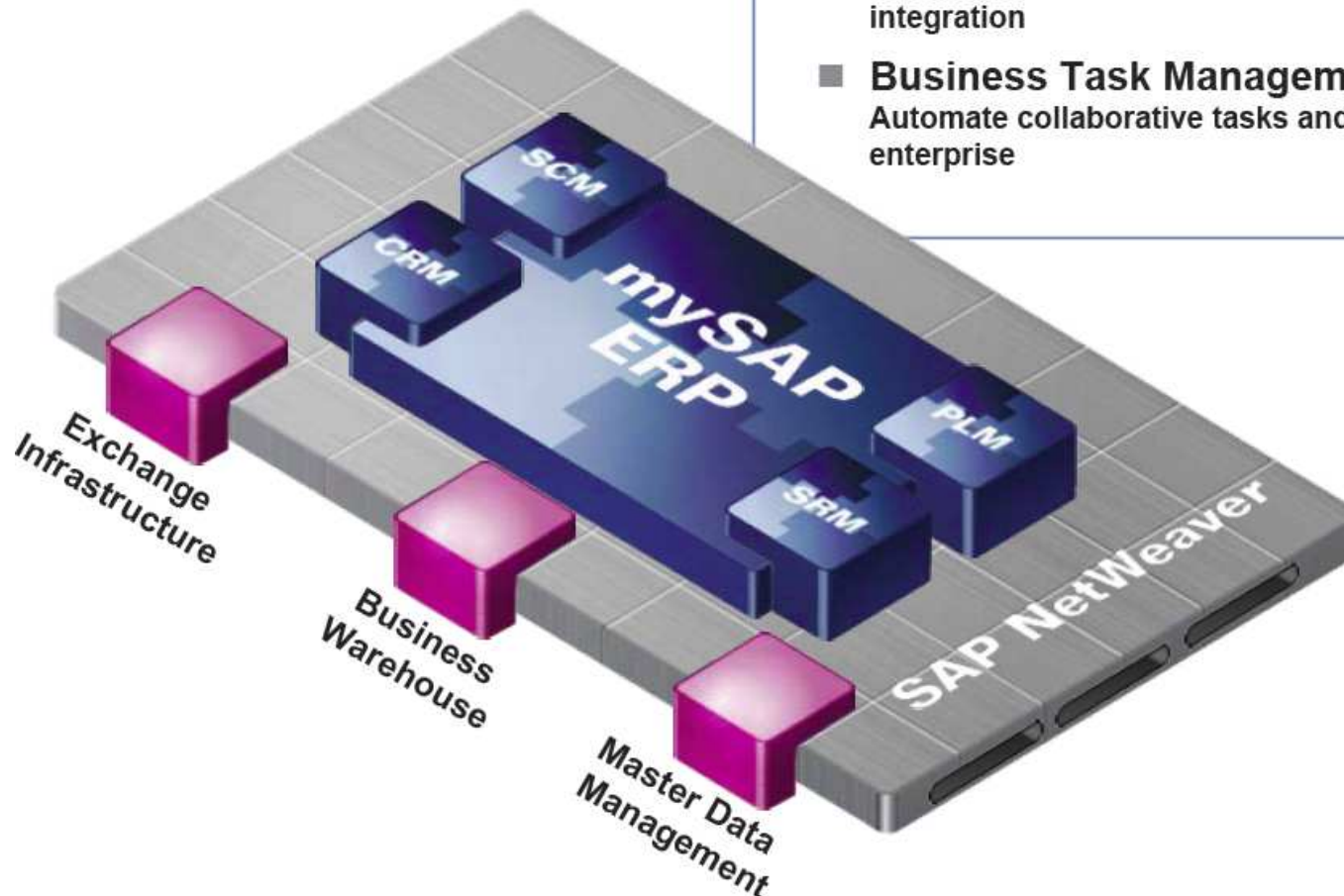
The business foundation for SAP and partners

- Powers business-ready solutions that reduce custom integration
- Its Enterprise Services Architecture increases business process flexibility

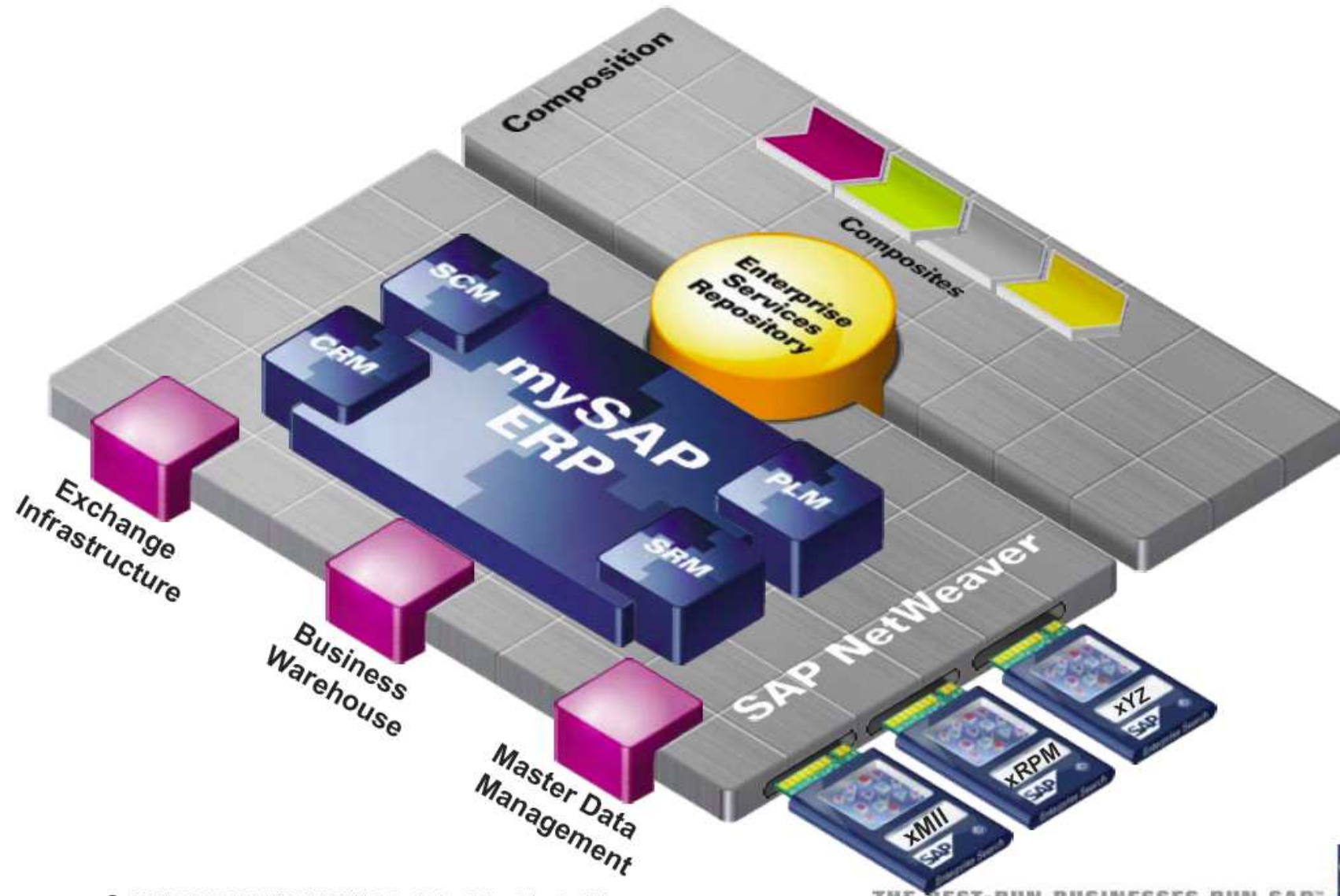
SAP NetWeaver

SAP NetWeaver XI

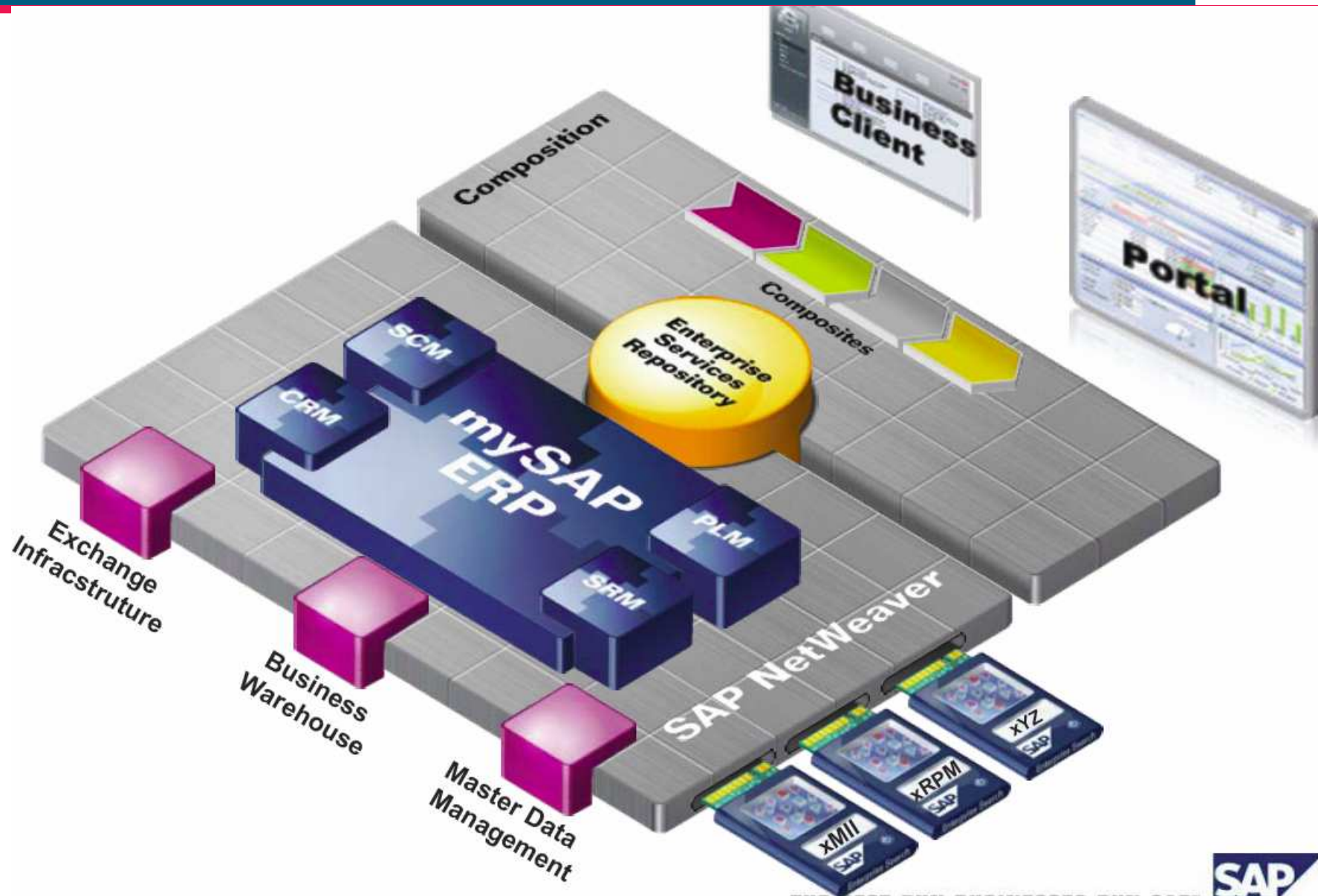
- **Application-to-Application Integration (A2A)**
Message brokering, adaptation
- **Business-to-Business Integration (B2B)**
Message brokering, connectivity Industry standard partner integration
- **Business Task Management (BTM)**
Automate collaborative tasks and workflows across the enterprise



SAP NetWeaver Enterprise Service Enablement



SAP NetWeaver User Interface



XI Special Expertise Partner 2004 - 2008

UMFUNK



SPECIAL EXPERTISE PARTNER

SAP® EXCHANGE INFRASTRUCTURE

vertreten an

IDS SCHEER AG

SAP Deutschland AG & Co. KG
Walldorf, 01. November 2004
Gültigkeit 01. November 2004 bis 30. Juni 2005

Stefan Krauss
Leiter Produktvertrieb

Oliver Schilling
Leiter Strategic Alliance Network

THE BEST-RUN BUSINESSES RUN SAP

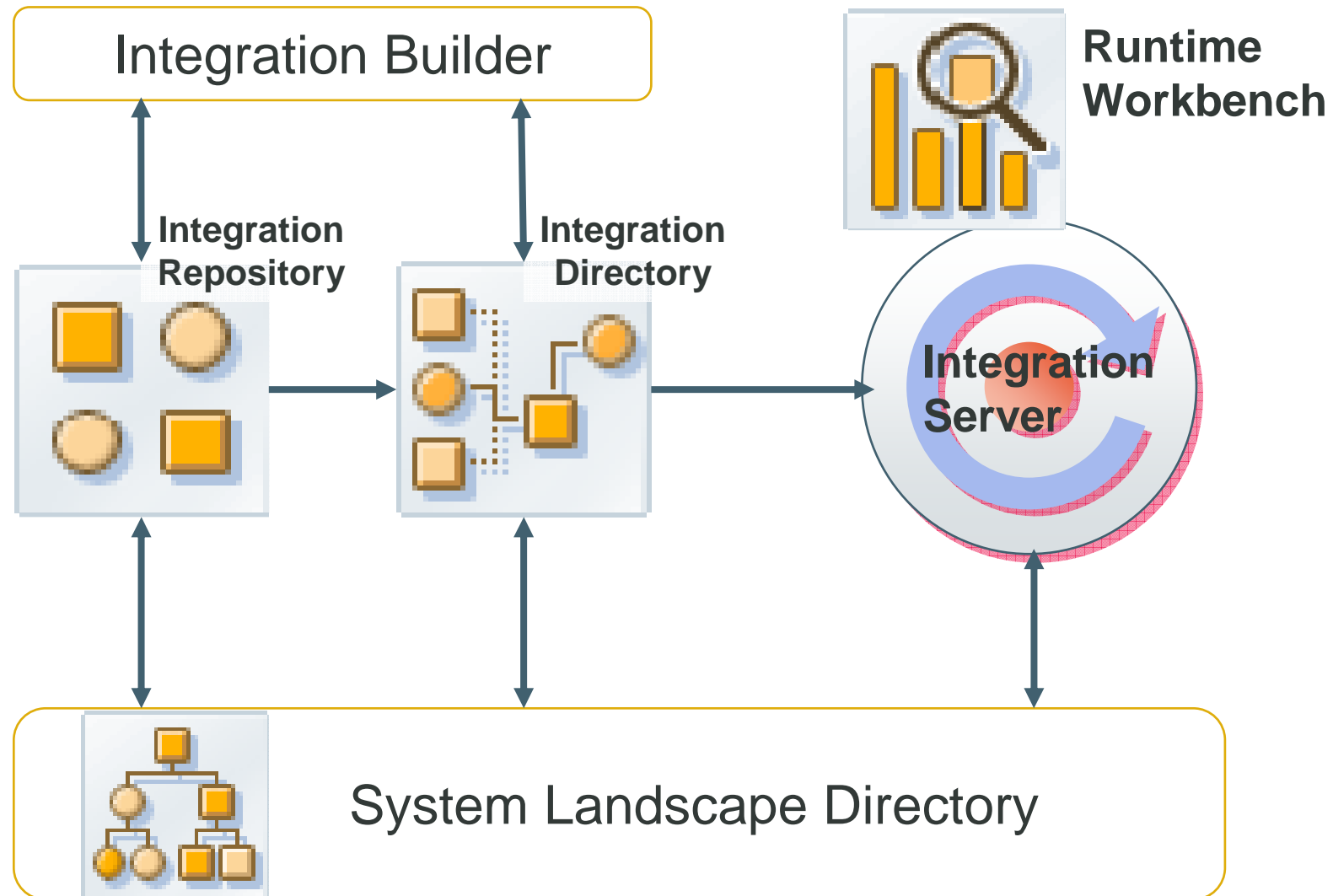


Integration (allgemein)

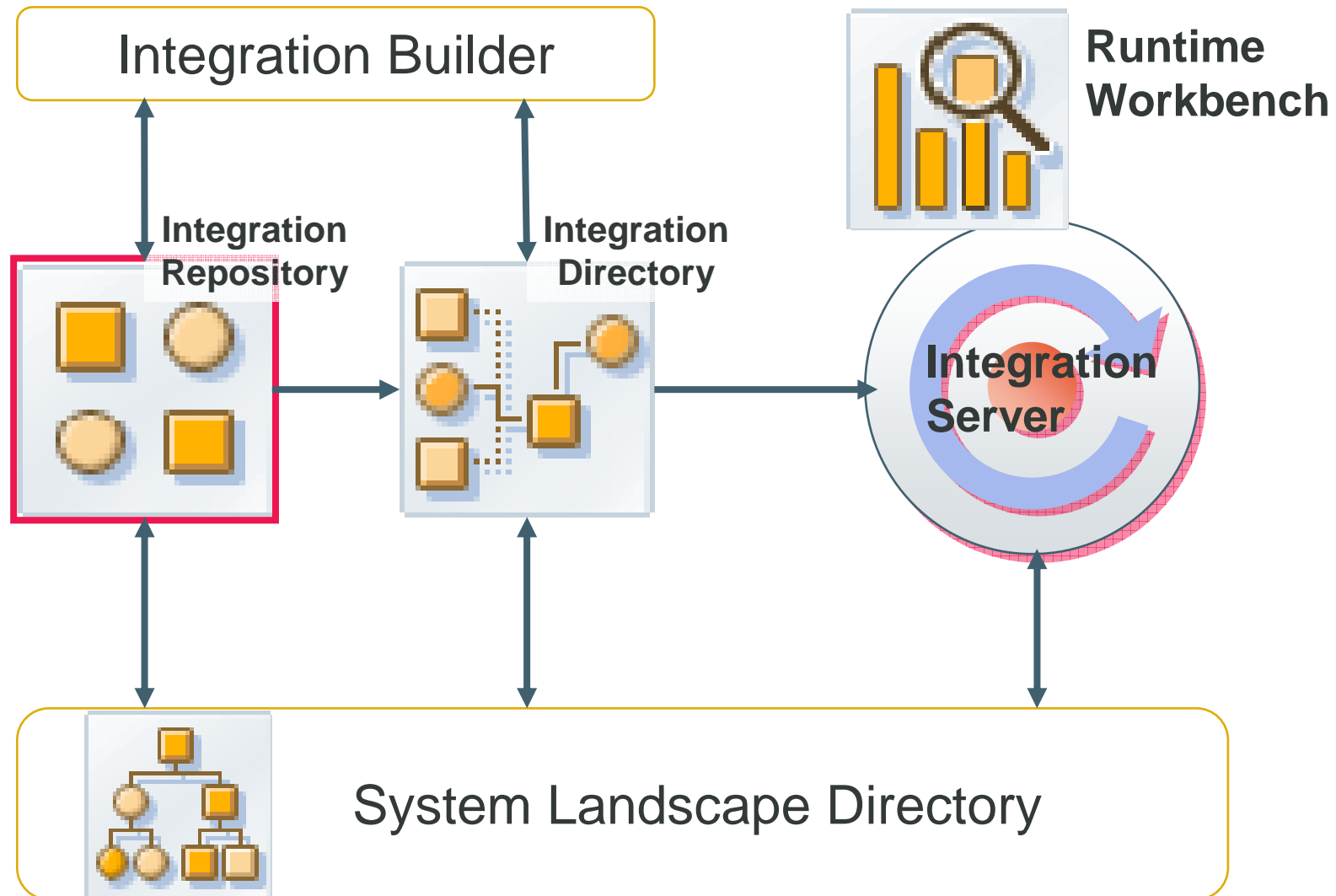
Einordnung XI / PI in NetWeaver

Komponenten der XI / PI

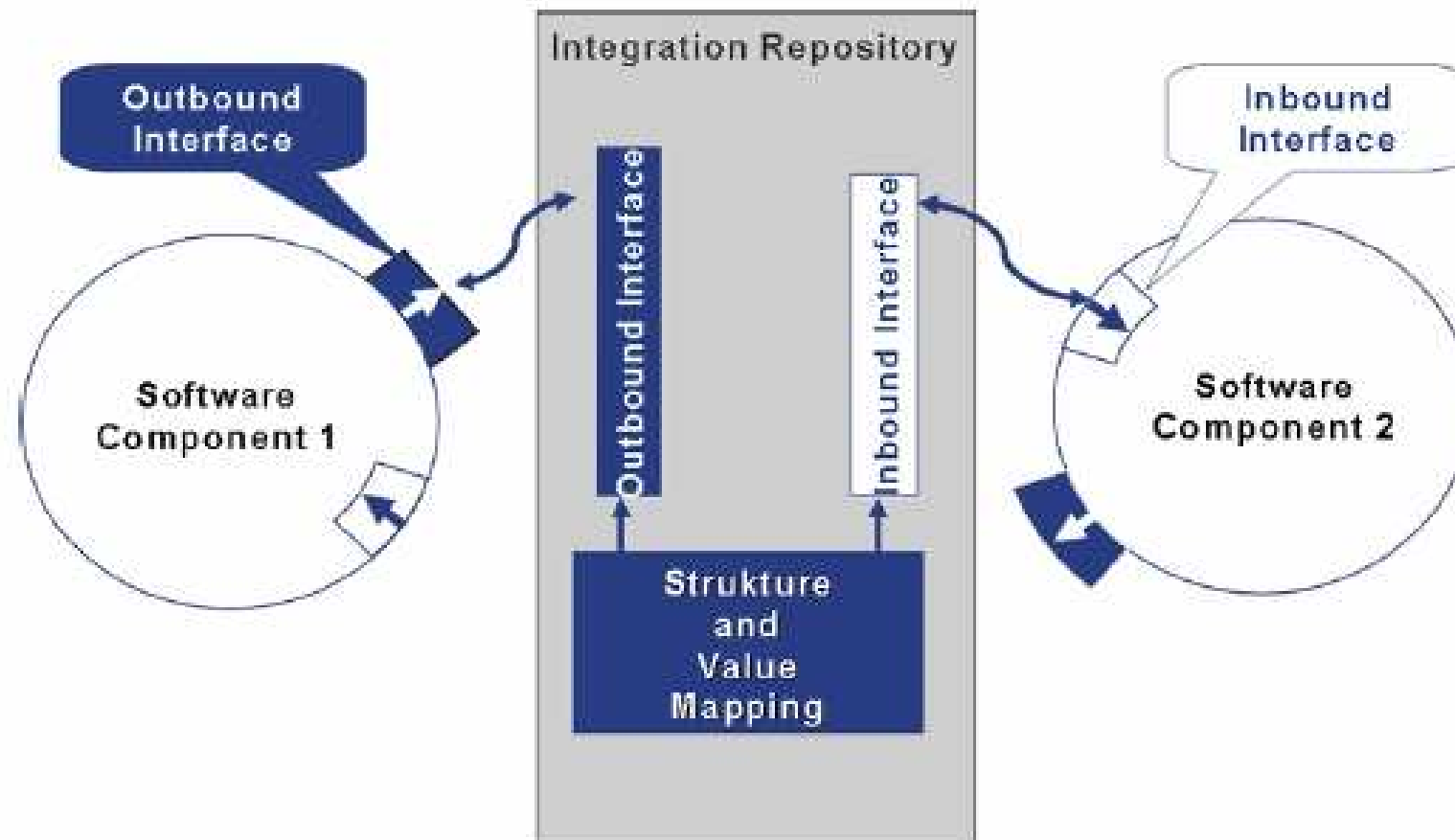
XI / PI System Architektur



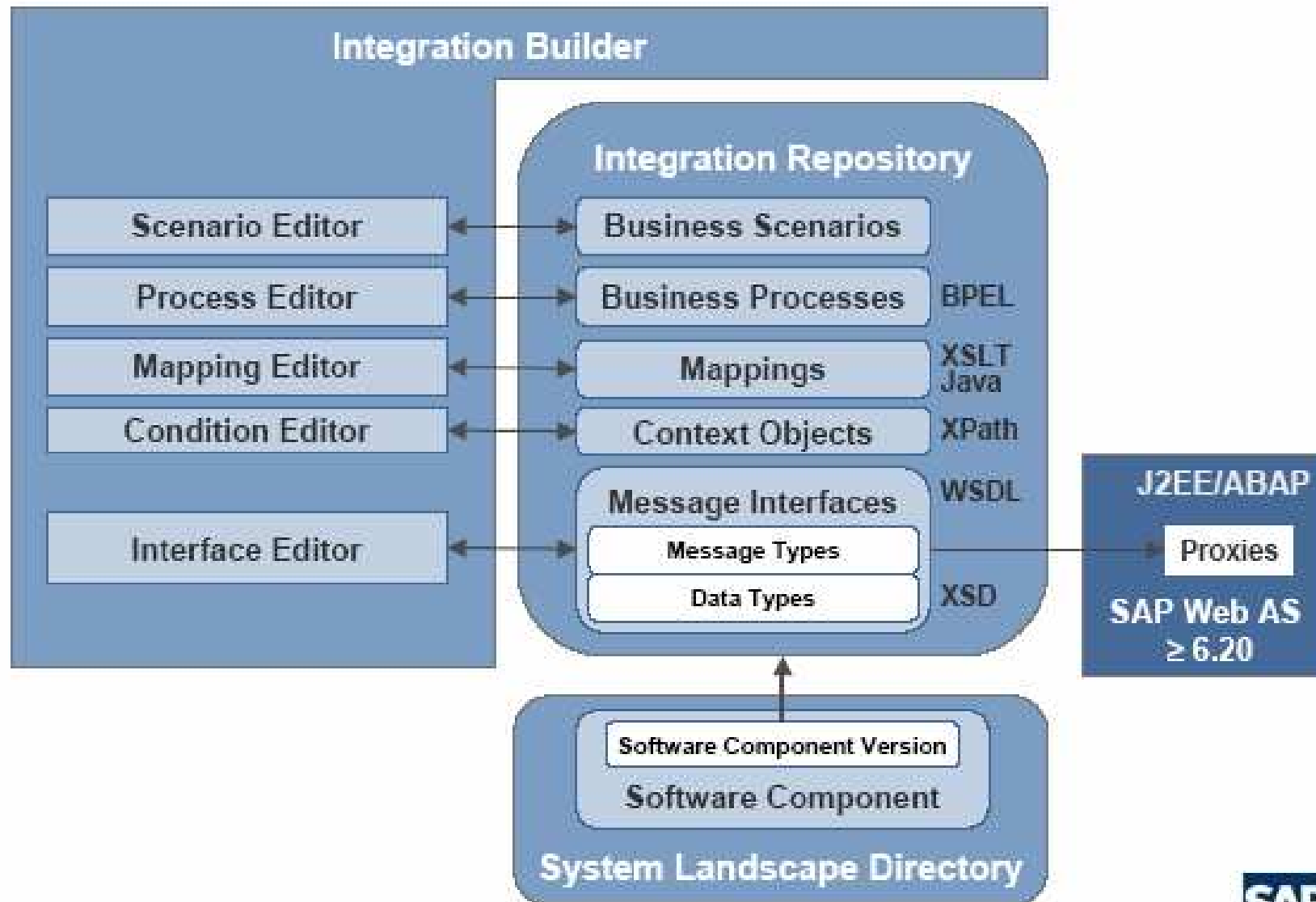
Integration Repository



Softwarekomponenten, Interfaces und Mappings



Design / Development Time



Integration Builder

Design: Integration Builder (sapxi_XI3_00)

Objekt Navigation Werkzeuge Umfeld Hilfe

Objekte Änderungslisten

Message-Mapping Mapping-Vorlage Bearbeiten Ansicht

Message-Mapping anzeigen Status: aktiv

Name: Invoice_Invoice01
 Namensraum: http://sap.com/xi/CIDX/30/R3/46C
 Software-Komponentenversion: CIDX R3 1.0
 Beschreibung: CIDX INVOICE mapping to SAP R/3 INVOIC.INVOICE01

Design Test Messages

Externe Message: Invoice IDoc: INVOIC.INVOICE01

Invoice		typ
Version	xsd:string	
Header	Header	
ThisDocumentIdentifier	ThisDocu	
ThisDocumentDateTime	ThisDocu	
RequestingDocumentIdentifier	Requesti	
RequestingDocumentDateTime	Requesti	

INVOICE01		type	Occurenc
IDOC	INVOIC.INVOICE01		1..1
BEGIN	xsd:string	required	
EDI_DC40	EDI_DC40.INV...		1..1
E1EDK01	INVOICE01.E1E...		1..1
E1EDKA1	INVOICE01.E1E...		0..99
E1EDKA1	INVOICE01.E1E...		0..99

Funktionen: Text substring concat equalsS indexOf indexOf lastIndexOf lastIndexOf compare

Invoice_Invoice01

Basiert auf XML Technologie

Data types are the most basic entity to define the structure of XML elements

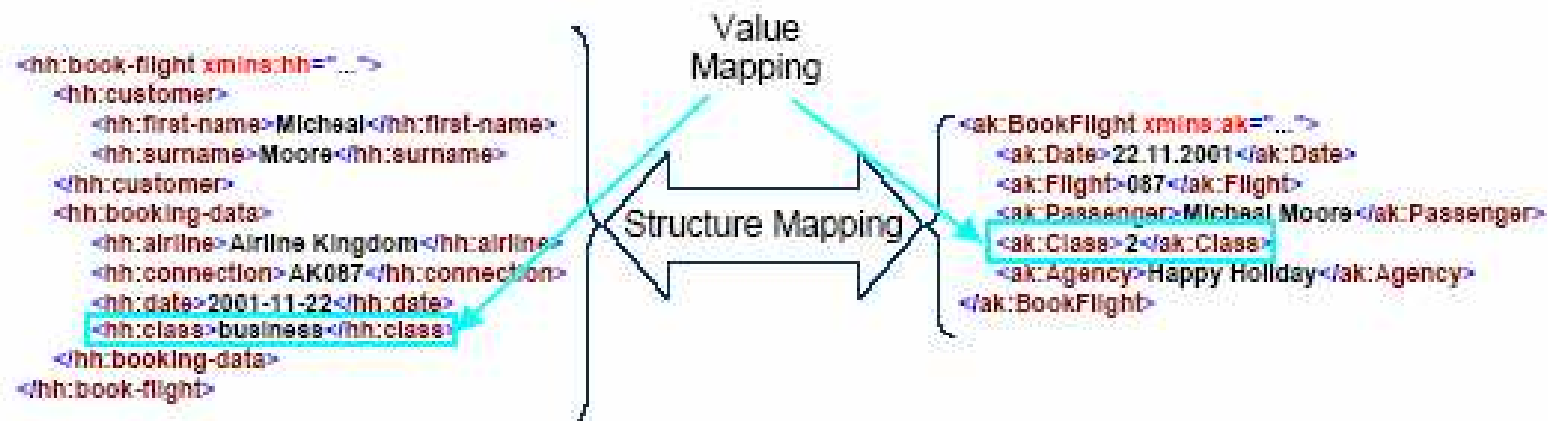
- Equivalent to XML Schema (XSD)
- Data type editor provides all XSD basic data types.
- Nesting of data types possible
- Export of data type in XSD format possible

Structure	Category	Type	Occurrence	Details
Vendor_DT	Complex Type			
VendorNumber	Element	xsd:string	1	
LastName	Element	xsd:string	1	
SearchTerm	Element	xsd:string	1	
Currency	Element	xsd:string	1	
Address	Element	Address_DT	1	
Street	Element	xsd:string	1	
City	Element	xsd:string	1	
Zip	Element	xsd:string	1	
Country	Element	xsd:string	1	

Message Mapping

Mapping

- Transformation From One Message Structure To Another
- Transformation Rules Defined By *Mapping Program*



Unterschiedlichste Mapping Technologien

■ Message mapping

- Graphical design and test environment
- Queue-based model allows handling of very large documents
- Extensible via Java user-defined functions

■ XSLT

- Open standard
- Portable
- Extensible via Java user-defined functions
- Memory overhead for very large documents

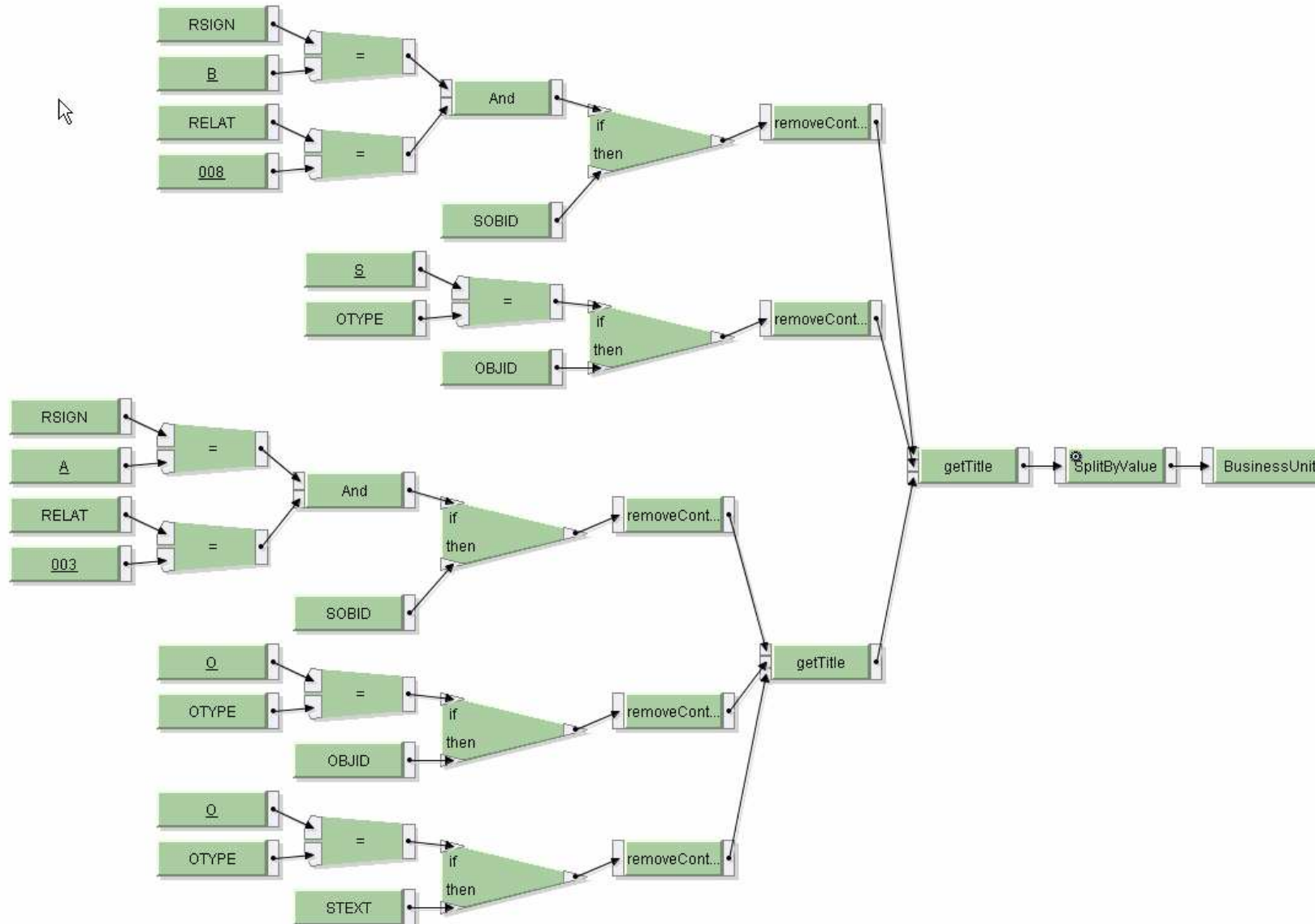
■ Java

- Flexibility of Java programming language
- Java mapping program is responsible for parsing/rendering XML

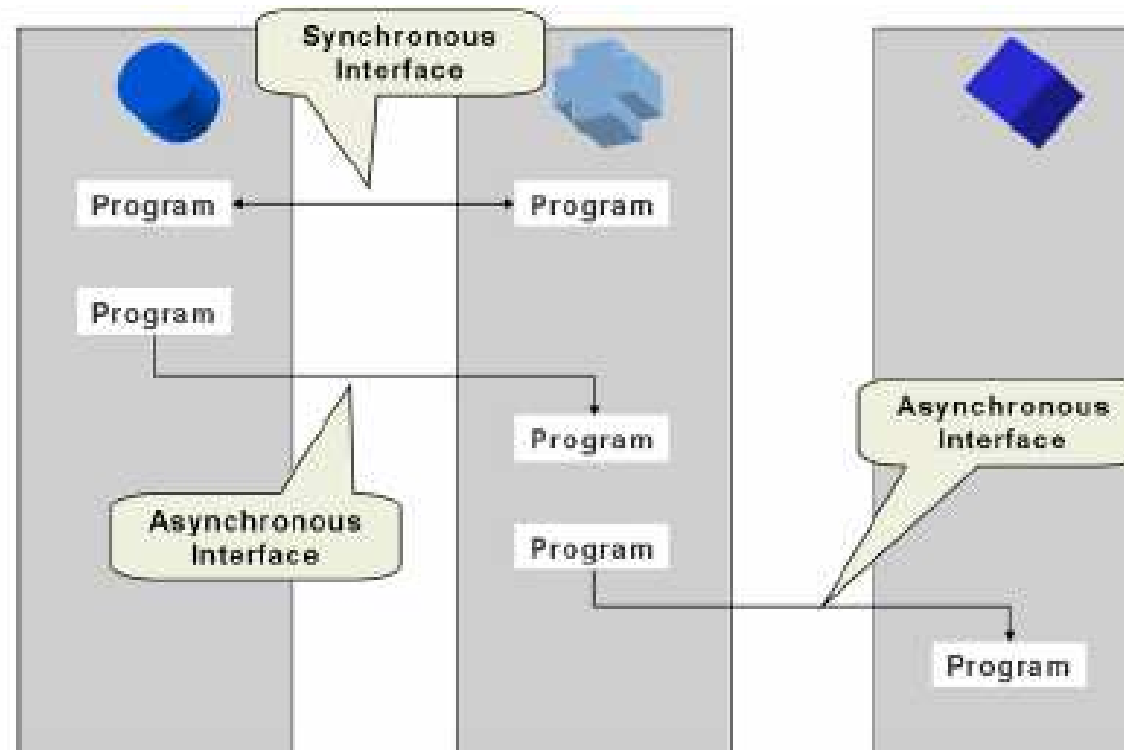
■ ABAP

- Leverage existing ABAP base
- ABAP mapping program is responsible for parsing/rendering XML

Beispiel: Grafisches Mapping



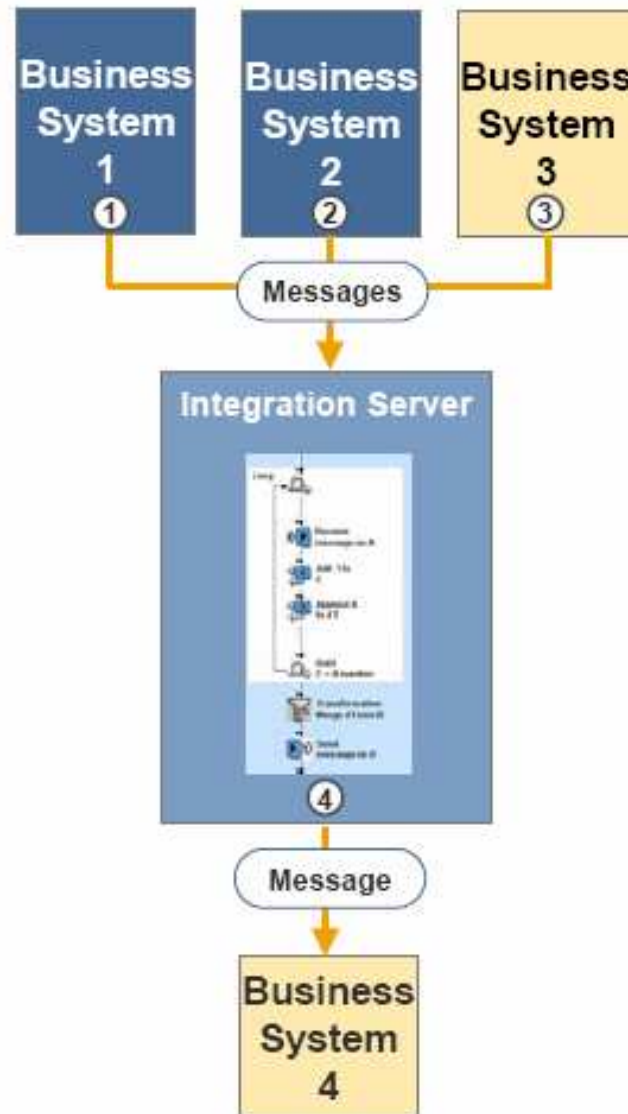
Geschäftsprozesse in einer verteilten Systemlandschaft



XI Integration is interface-driven. An interface represents:

- The transfer of data between two components
- Synchronous or asynchronous message exchange

Integrationsprozesse



Orchestrates message choreography based on stateful interactions

Design, execute and monitor automated processes across applications and systems

Provides process control in the central technology layer

Contains a Graphical Modeler

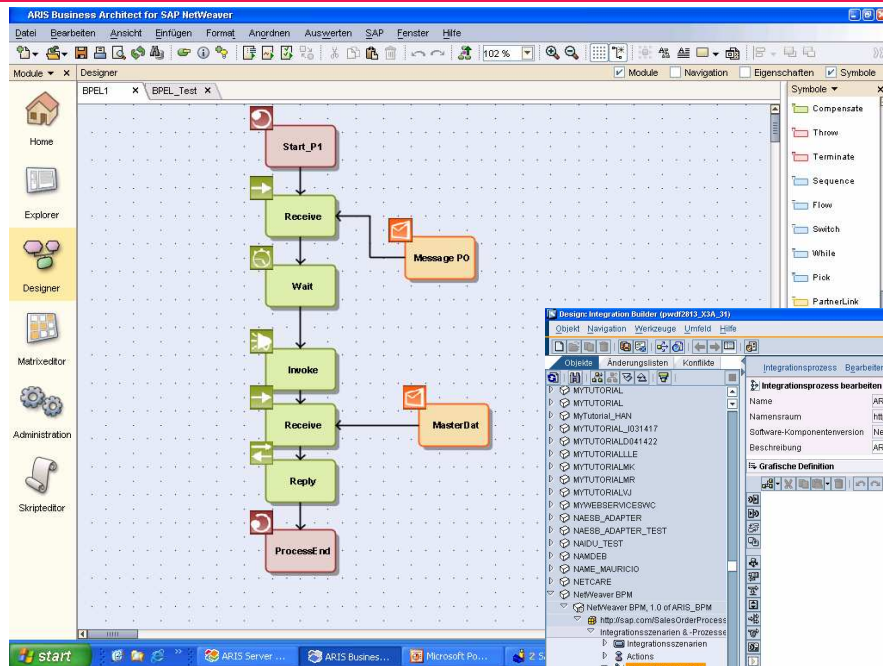
Integral part of XI

- Modeling enables linkage to XI design objects: interfaces, mappings ...
- BPM runtime is embedded in the Integration Server runtime

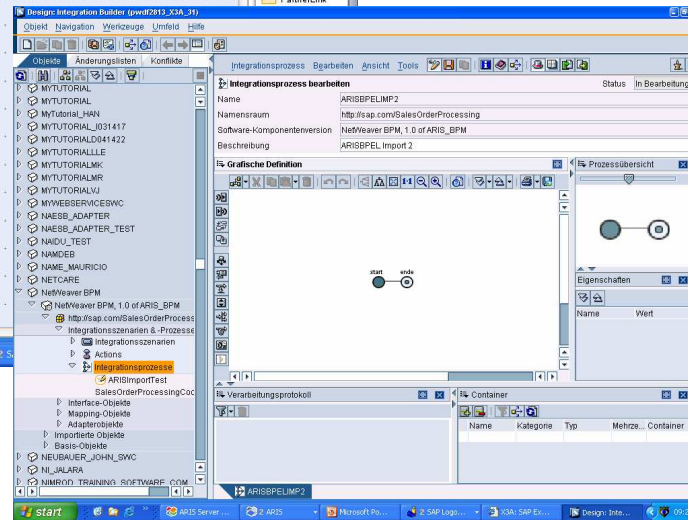
Adheres to standards

- Industry Standard support (BPEL4WS)
- Import/ export of process definitions

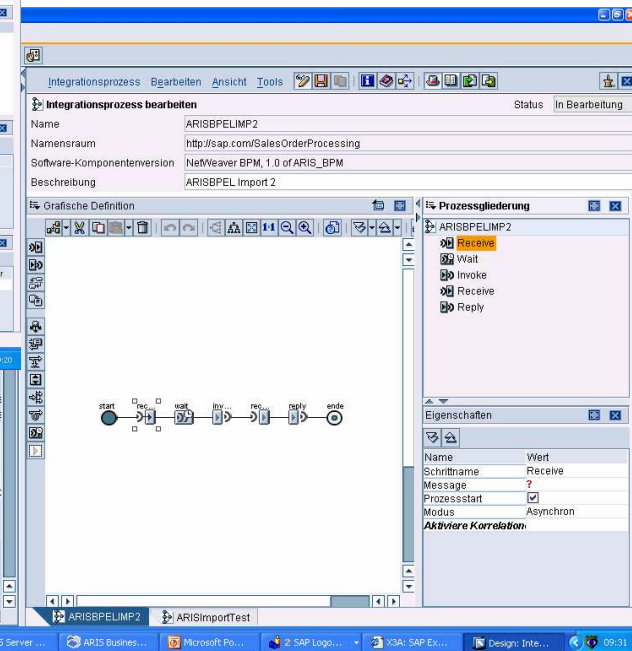
Business Process Execution Language (BPEL) From ARIS to SAP Exchange Infrastructure



Create BPEL Process Description

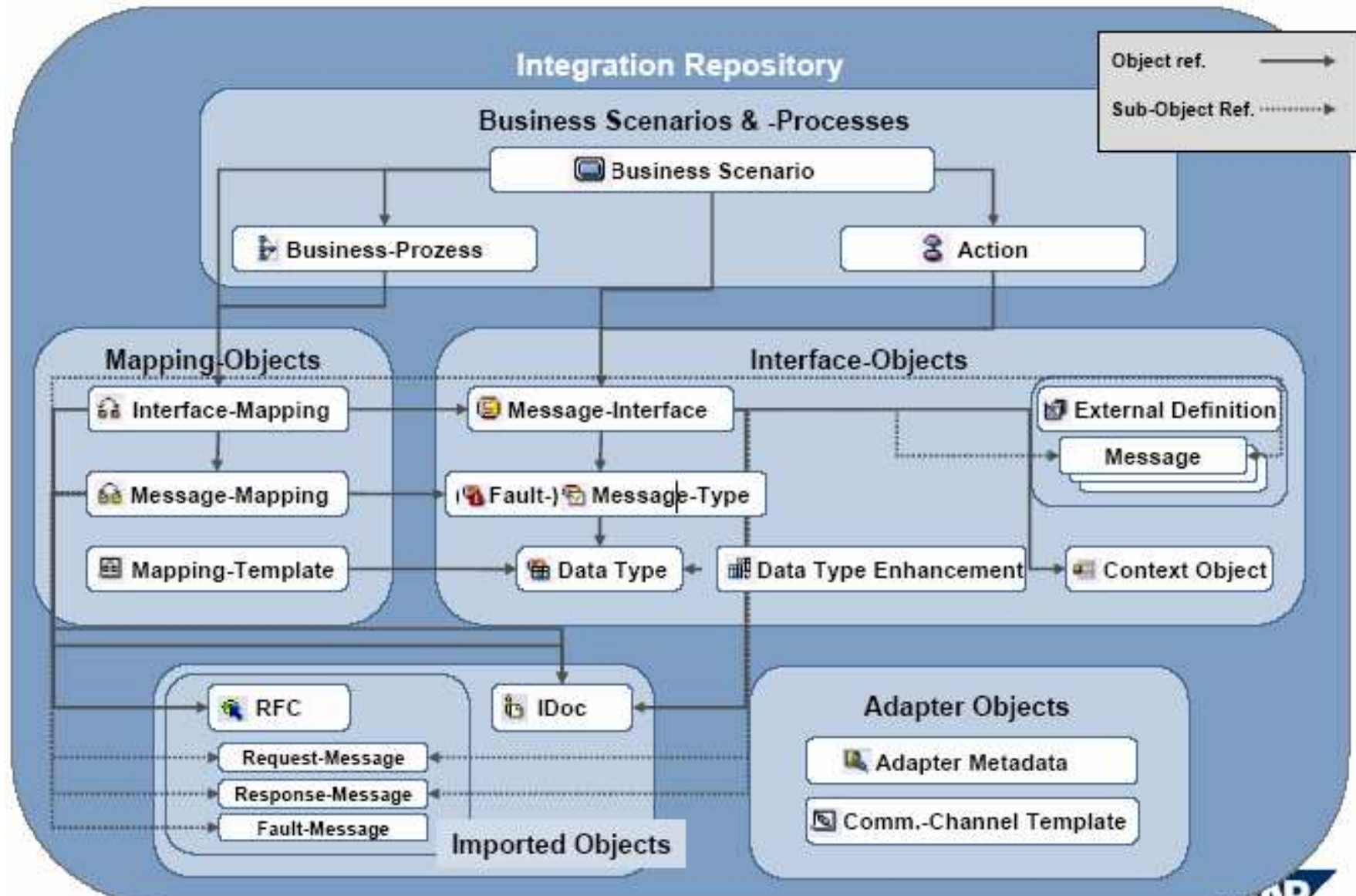


Import BPEL Process

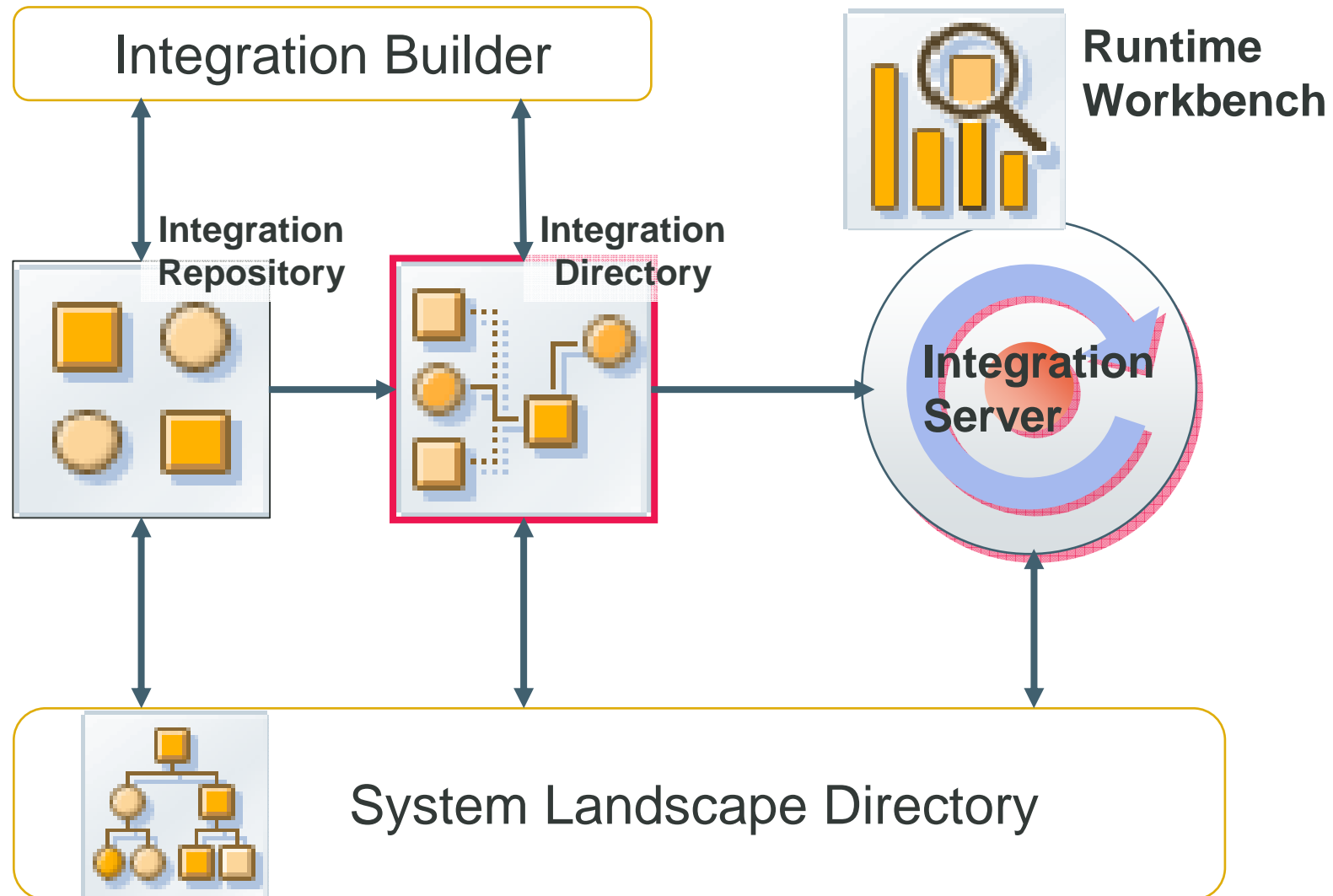


Declare container data,
correlation handling,
exception and deadline handling,
Deploy process to execution in
SAP NetWeaver

Repository Objekte im Überblick

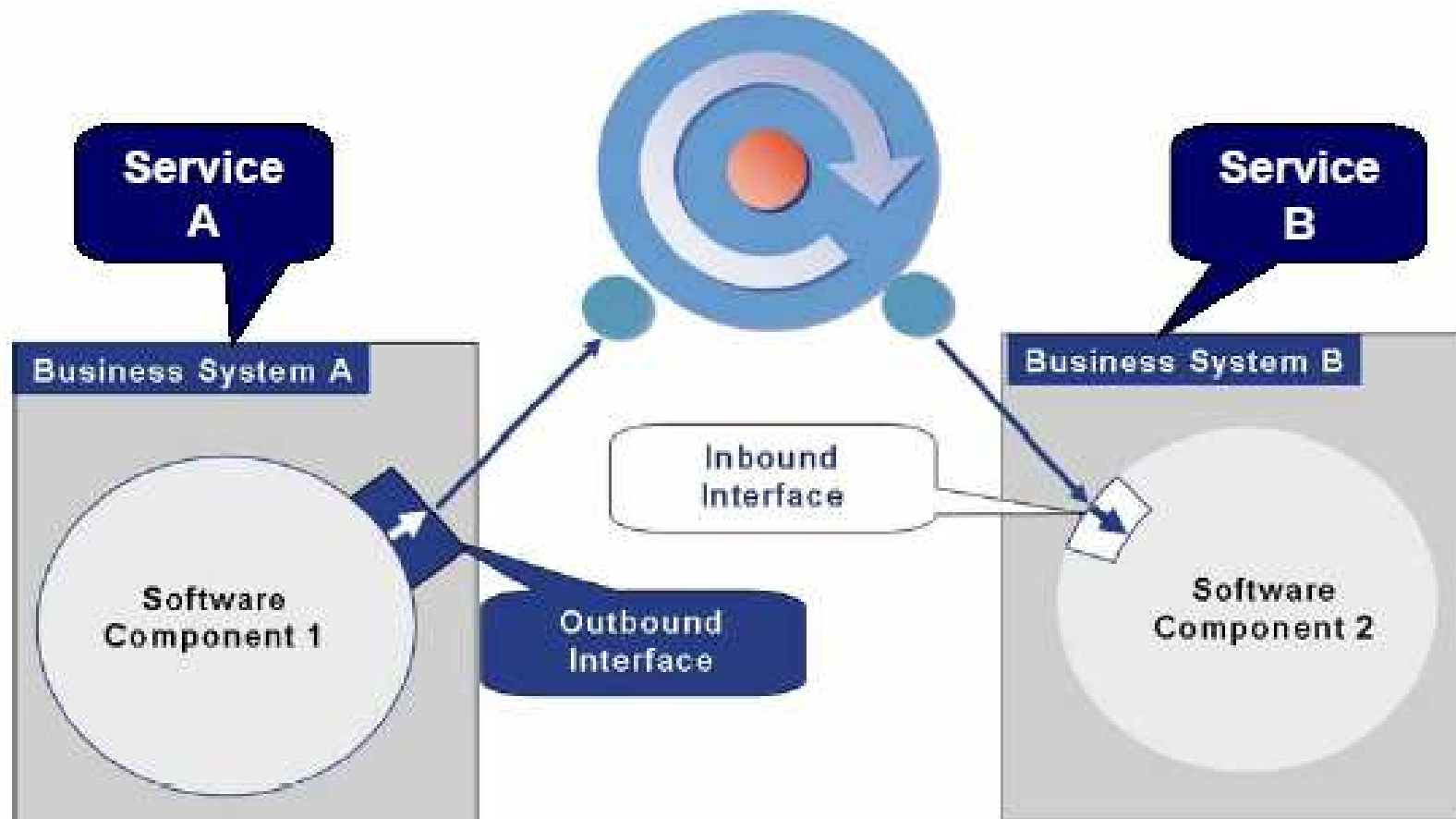


Integration Directory



Integration Directory

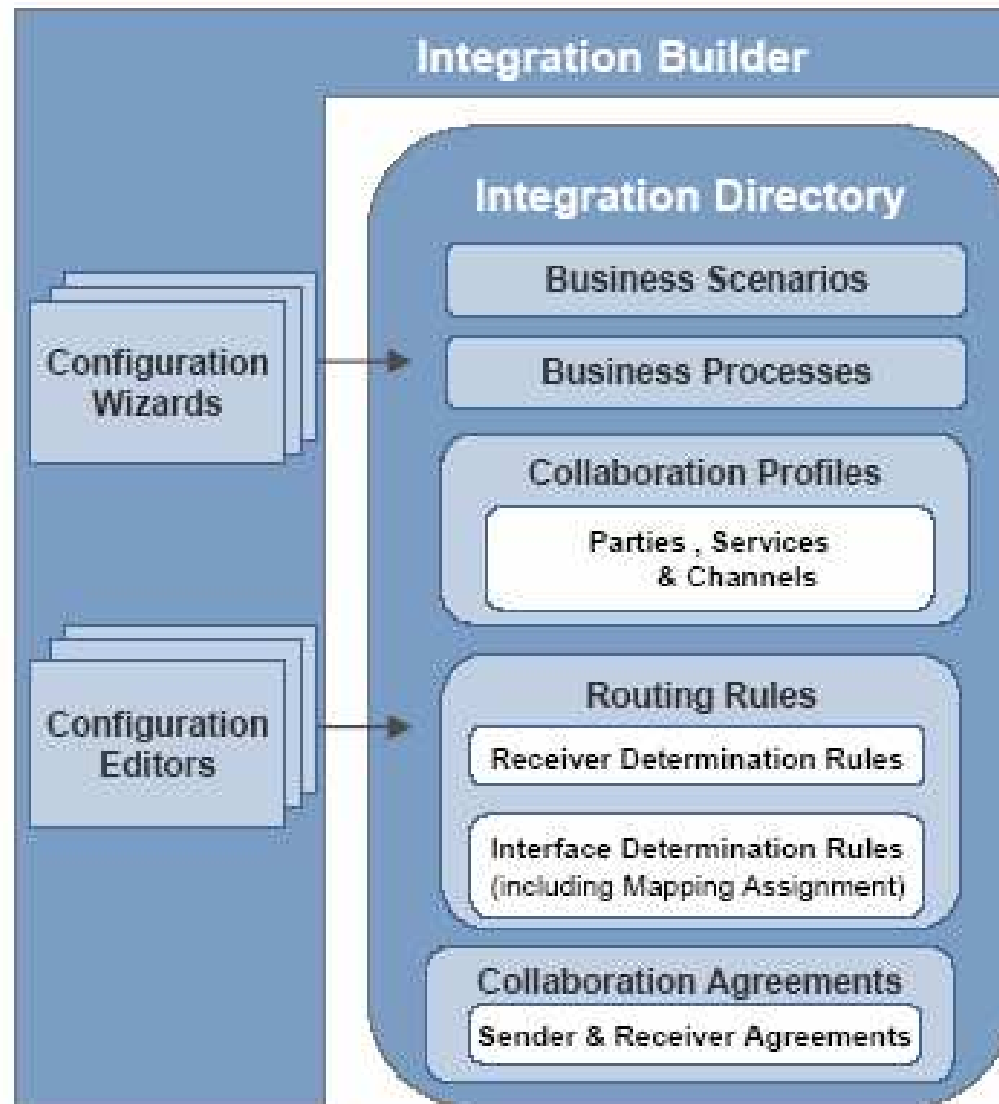
The goal of the Integration Directory is for the customer to configure the sender-receiver relationships which will be used at runtime.



Integration Directory: zentrale Fragestellungen

- WER sendet Daten?
- Über welches Interface werden Daten gesendet?
- WER ist der Empfänger der Daten?
- Über welches Interface muss der Empfänger die Daten empfangen?
- Ist ein Mapping zwischen beiden Formaten notwendig?
- Welches technische Hilfsmittel wird zum Datenaustausch benötigt?
 - ▶ Kommunikationskanäle

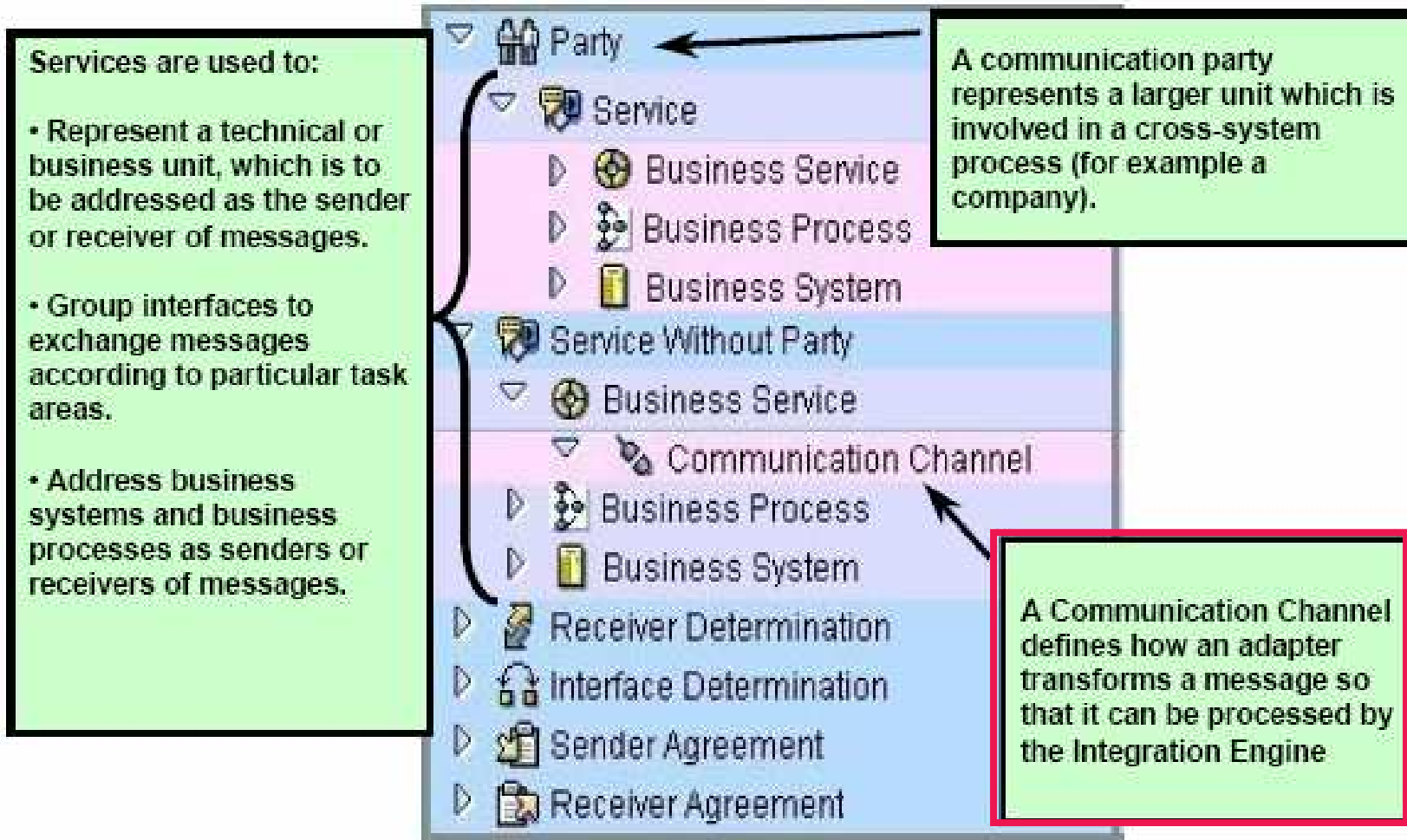
Integration Builder (Directory)



Integration Directory

- Adapt integration content to specific configuration
- Delivered empty, without predefined content
 - all content is customer-specific
- Integration content derived from Integration Repository
- Open for Customer to add collaboration knowledge relevant to non-SAP components
- Home for centralized adapter configuration
- Data provider for IS runtime

Objekte des Integration Directory



Objekte des Integration Directory



A Receiver Determination defines one or more receivers for a sender and an outbound interface

WER ist der Empfänger der Daten?

Über welches Interface muss der Empfänger die Daten empfangen?

An Interface Determination specifies which interface is to be used for the inbound processing of a message

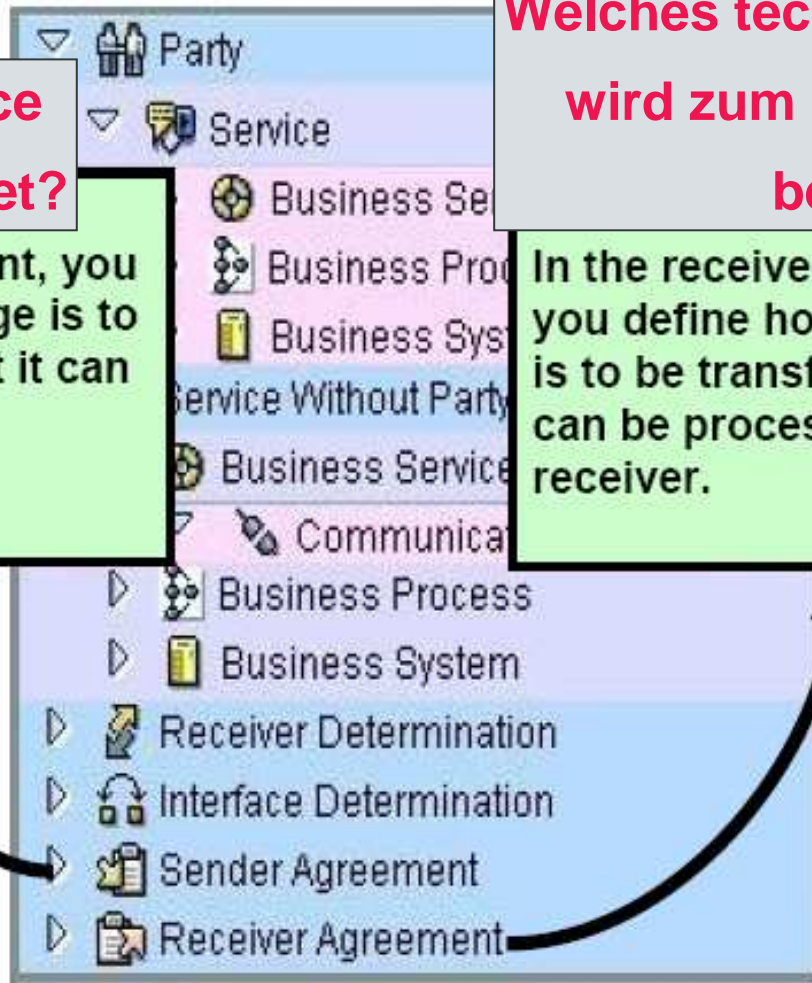
Objekte des Integration Directory

Über welches Interface werden Daten gesendet?

In the sender agreement, you define how the message is to be transformed so that it can be processed by the Integration Engine

Welches technische Hilfsmittel wird zum Datenaustausch benötigt?

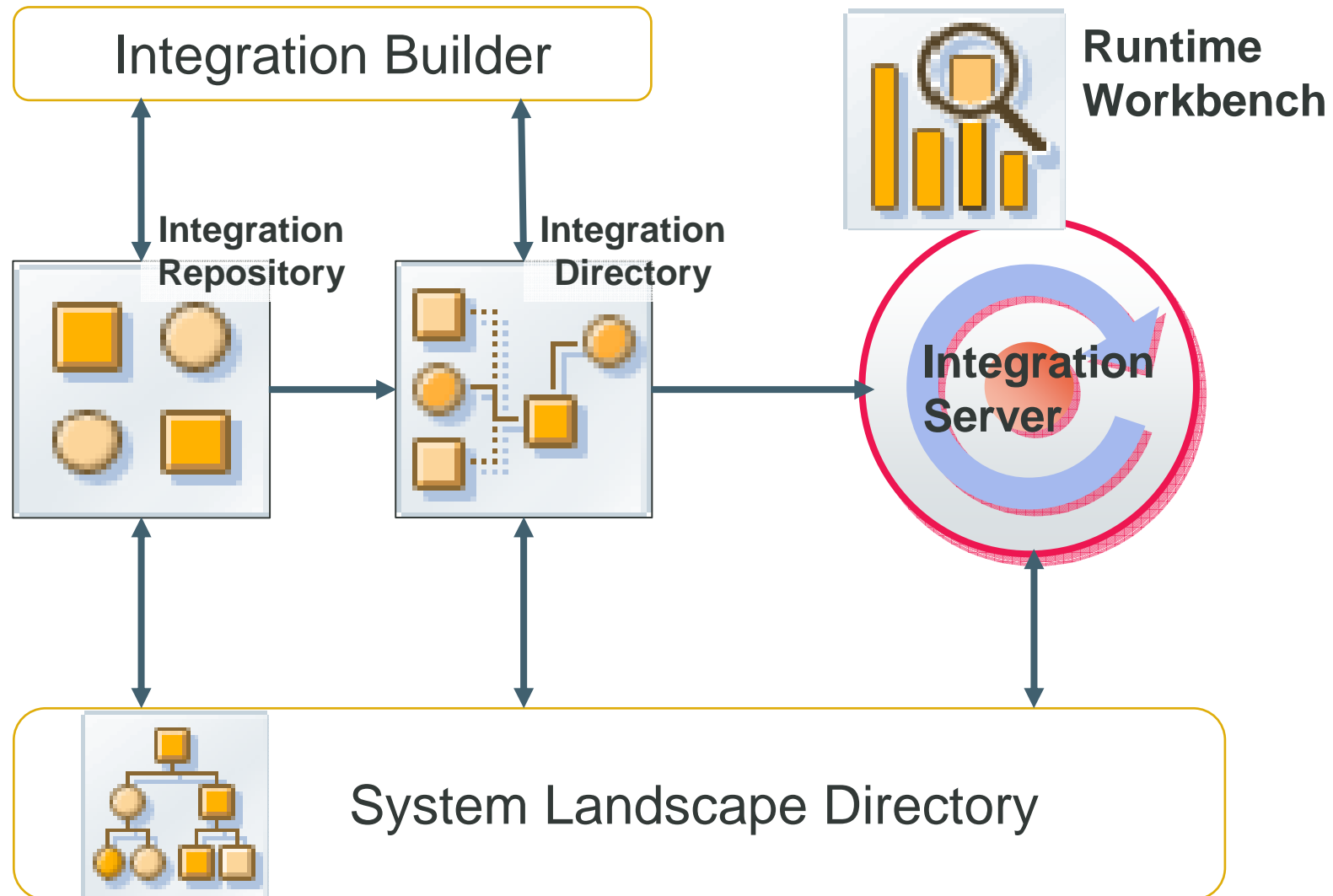
In the receiver agreement, you define how the message is to be transformed so that it can be processed by a receiver.



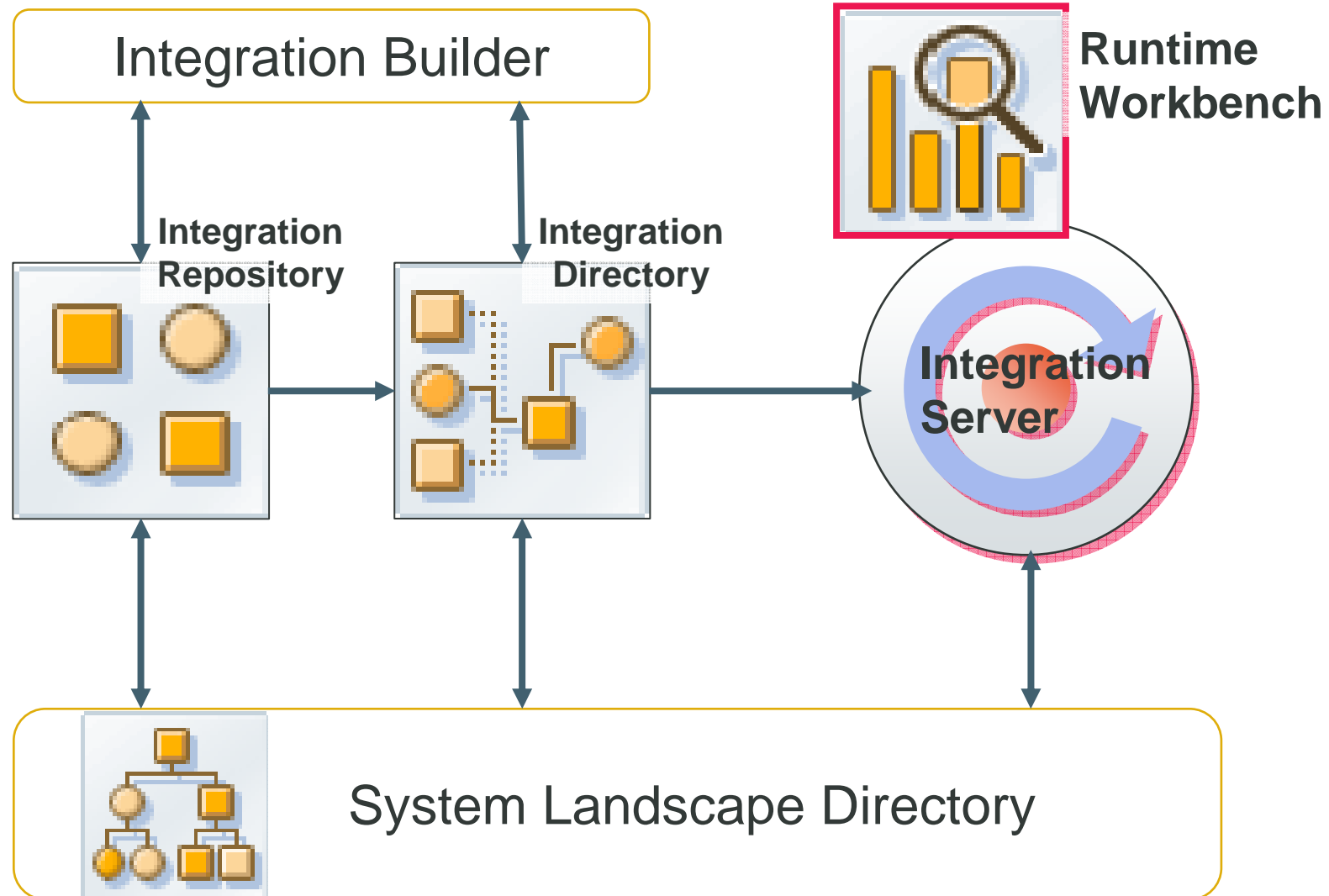
XI Adapter (out of the box)

Abbreviation	Description
XI	For communicating using the proxy runtime. You can also use this adapter type to communicate with an Adapter Engine at the receiver that is based on XI 2.0
IDoc	For communicating with an SAP System by using the IDoc adapter
RFC	For communicating with an SAP System by using the RFC adapter
http	For communicating with http server by using the http adapter
JDBC	For communicating with a database system by using the JDBC adapter
JMS	For communicating with a messaging system by using the JMS adapter
Marketplace	For communicating with marketplaces (see: Marketplace Adapter)
File	For communicating with a file system by using the File/FTP adapter
RNIF	For connecting to the RNIF protocol (RosettaNet Implementation Framework) by using the RNIF adapter

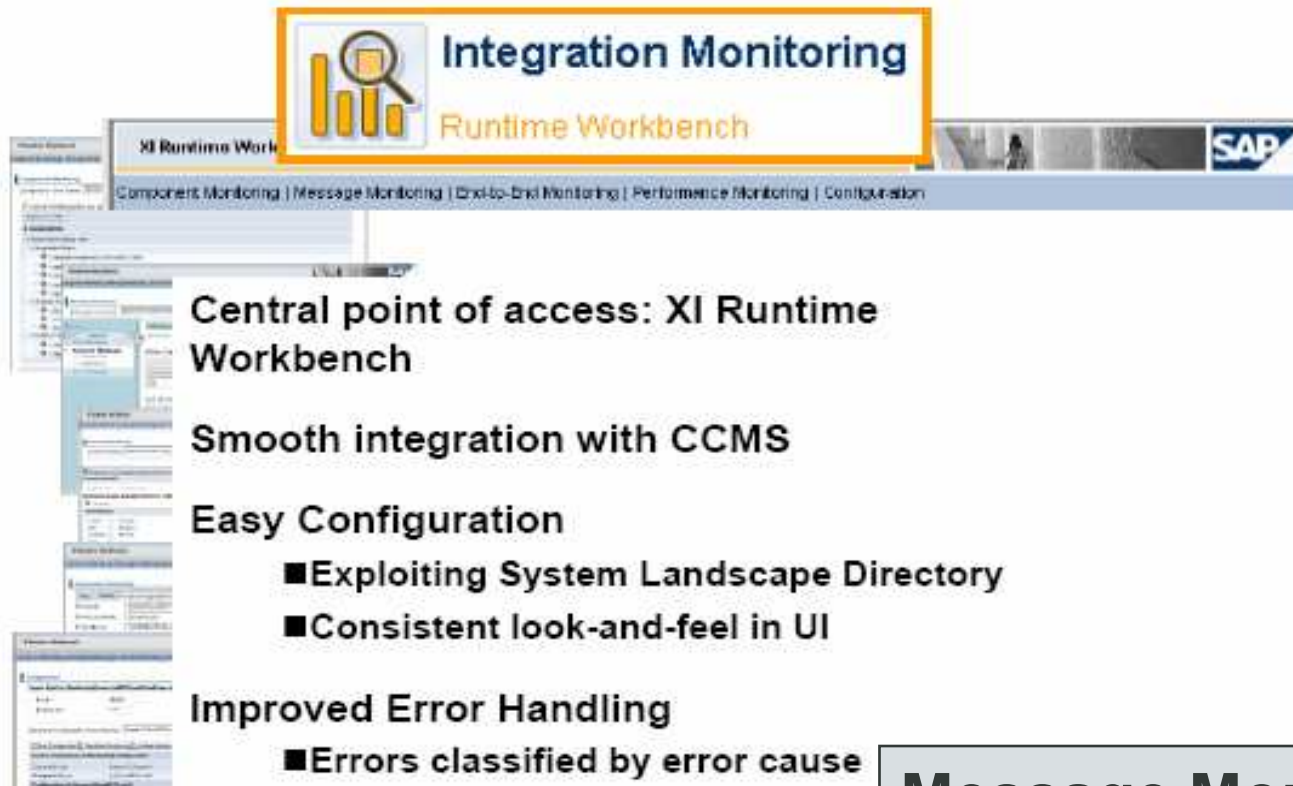
Integration Server



Runtime Workbench



Integration Monitoring (Runtime Workbench)



Central point of access: XI Runtime Workbench

Smooth integration with CCMS

Easy Configuration

- Exploiting System Landscape Directory
- Consistent look-and-feel in UI

Improved Error Handling

- Errors classified by error cause

Message Monitoring
Component Monitoring
End-To-End Monitoring
Message Alerting

Runtime Workbench – Message Monitoring

Message Monitoring

Harmonization of different message monitors

- Integration Engine
- Adapter Framework (J2EE)

All message monitoring centrally accessible through RWB

Monitoring locally available as well

- at least for partner connectivity kit

Messages from le.00.lwdt5238.lwdt.sap.corp

Update Details Referencing Messages Referenced Message Repeat Log

Select	Status	Start	Exit	Sender Party	Sender Service	Sender Interface	Receiver Party	Receiver Service	Receiver Interface	Inbound Channel	Outb. Chan.
<input type="radio"/>	Successful	28.07.2004 16:38:33	28.07.2004 16:38:34		FileSendService	http://sap.com/idt/tp/MI_contacts_OUT		FileReceiveService	http://sap.com/idt/tp/MI_contacts_IN	XIRA	AENGINE
<input type="radio"/>	Successful	28.07.2004 16:19:33	28.07.2004 16:19:34		FileSendService	http://sap.com/idt/tp/MI_contacts_OUT		FileReceiveService	http://sap.com/idt/tp/MI_contacts_IN	XIRA	AENGINE
<input type="radio"/>	Successful	28.07.2004 15:59:32	28.07.2004 15:59:34		FileSendService	http://sap.com/idt/tp/MI_contacts_OUT		FileReceiveService	http://sap.com/idt/tp/MI_contacts_IN	XIRA	AENGINE
<input type="radio"/>	Successful	28.07.2004 15:38:32	28.07.2004 15:38:33		FileSendService	http://sap.com/idt/tp/MI_contacts_OUT		FileReceiveService	http://sap.com/idt/tp/MI_contacts_IN	XIRA	AENGINE
<input type="radio"/>	Successful	28.07.2004 15:18:33	28.07.2004 15:18:33		FileSendService	http://sap.com/idt/tp/MI_contacts_OUT		FileReceiveService	http://sap.com/idt/tp/MI_contacts_IN	XIRA	AENGINE
<input type="radio"/>	Successful	28.07.2004 15:13:34	28.07.2004 15:13:45		FileSendService	http://sap.com/idt/tp/MI_contacts_OUT		FileReceiveService	http://sap.com/idt/tp/MI_contacts_IN	XIRA	AENGINE

Total: 6 Messages | 10 messages displayed per page; this is page 1 of 1 page(s)

Runtime Workbench – Komponenten Monitoring

Component Monitoring:

Monitoring of ABAP and Java components

Central viewing of component's connection status in a specific domain.

Ping of system and sending of messages to components via a self-test area.

Agenda

Vorstellung

Unternehmensprofil

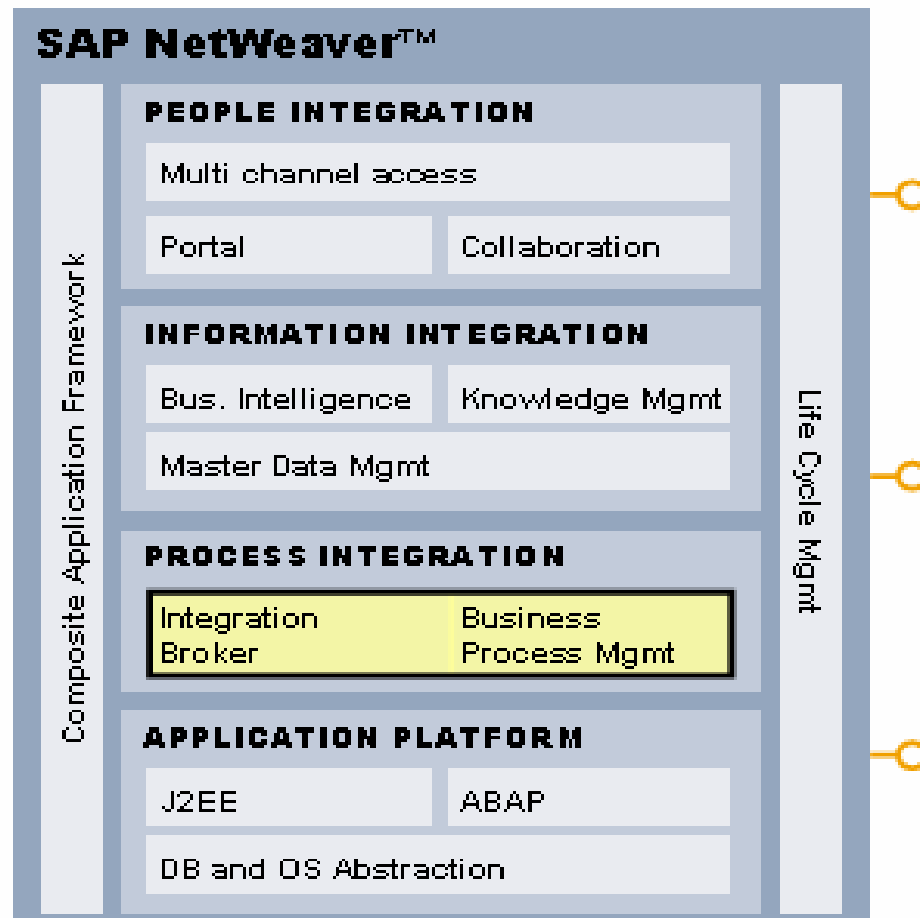
Unternehmensstrategie

Produkt- und Leistungsspektrum

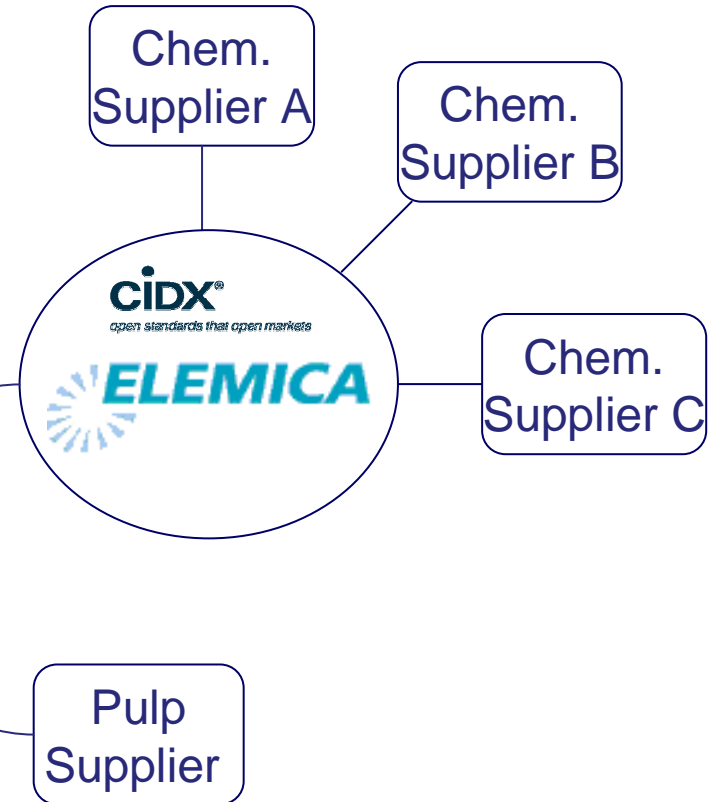
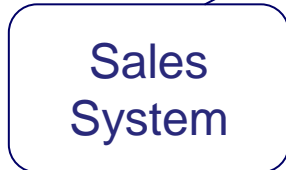
Integration @ SAP

Integration in der Praxis

SAP XI Referenz Projekte



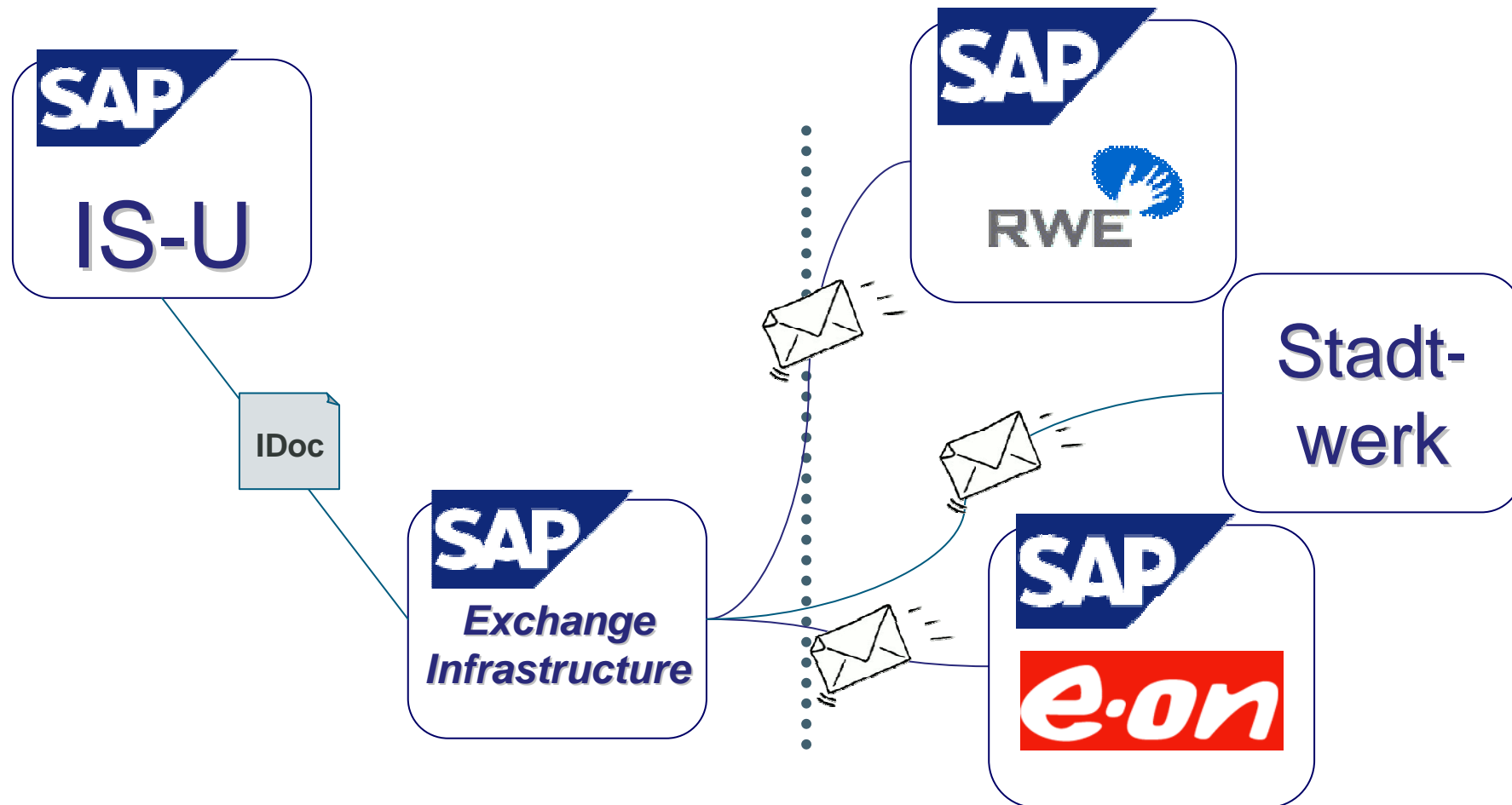
Elemica Anbindung



- Transaction Management
- Message Monitoring
- Message Routing
- XML Transformation
- Code Translation

- Hub based supplier integration
- Peer-To-Peer supplier integration

B2B Integration bei **prego.services**



- INVOICE (Netznutzungsrechnungen)
- REMADV (Zahlungsavis)
- UTILMD (Lieferantenwechsel)
- MSCONS (Lastgänge)

- Message Routing
- XML Transformation (Java, XSLT)
- EDIFACT Konvertierung
- Prozessüberwachung mit BPM

- B2B Integration von SAP und Non-SAP durch Email
- Austausch von EDIFACT (VDEW)

- **Aktuelles Kundenprojekt: www.prego-services.de**
- **Umsetzung neuer gesetzlicher Bestimmungen**
 - ▶ **Bundes Netzagentur (BNA)**
 - ▶ **Liberalisierung des Energiemarktes**
- **Einführung von EDI auf Basis von EDIFACT**
- **Datenaustausch per Email**
- **Austausch von Umsatzsteuer-Nachweisen im PDF Format**
 - ▶ **Anmeldung / Abmeldung von Kunden**
 - ▶ **Übermittlung von Zählerständen**
 - ▶ **Versand digitaler Rechnungen**
 - ▶ **Verbrauchsvorschauen**



Questions



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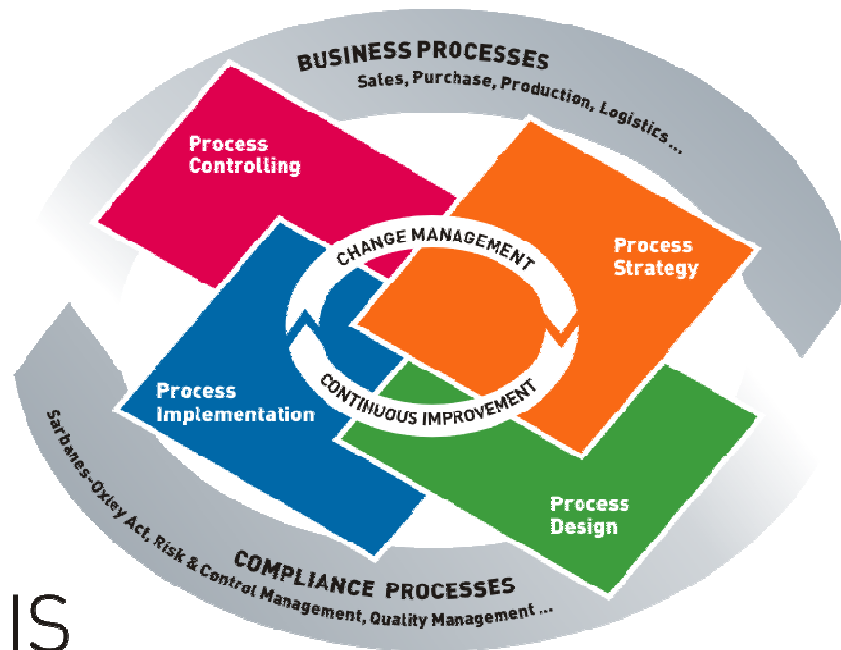
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ARIS Business Process Excellence

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Dezember
2007

Vielen Dank
für Ihre Aufmerksamkeit!