The agenda

WIPRO
Applying Thought

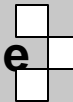**1** Traditional Definition of ERP – Term of 90's
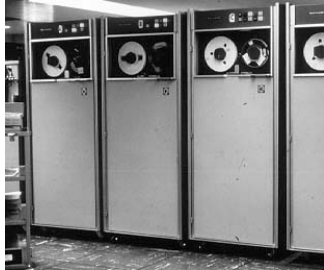
2 Maximizing ERP

3 Where is it headed now? mySAP ERP for Example

WIPRO
Applying Thought

- **1979**
  - **No definition**

- **1989**
  - **ERP = Standard Business Software (= SAP!)**

- **1999**
 - **ERP = Old → E-Business = New !**

- **Today**
  - **E-Business no longer replacement but extension of ERP**
  - **ERP = ???**

- *(1) ERP is commodity, a product in the form of software*;
- (2) *ERP is the development objective of mapping all process and data into an infrastructure*,
- (3) *ERP is the key element of an infrastructure delivering a solution to business*

Klaus and Gable (2000)

- *SAP, Oracle, PeopleSoft, JD Edwards, Greatplains are world's leading ERP*
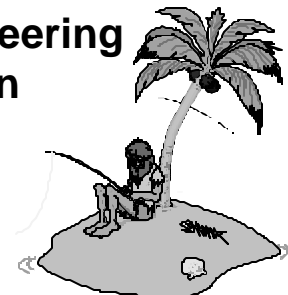- SAP *is the Market Leader*

Typical IT Scenario before ERP
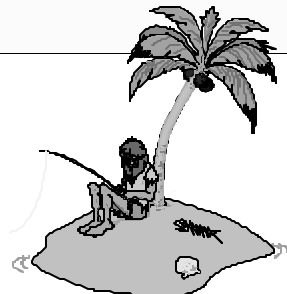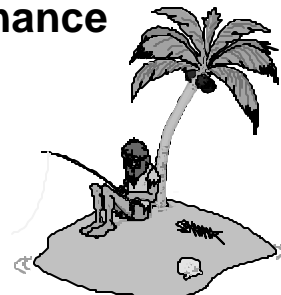
Sales

Finance

Engineering Design

Inventory

MIR

Shop Floor execution

Production Planning

Procurement

Quality

Maintenance

Controlling

Typical Problems

- *Focus on Functions*

- *Applications developed over time in response to differing corporate stimuli*

- *Interfaced Systems - (Reconciliation)*

- *Hardware Dependent I/T Systems*

- *Inconsistent, Redundant Data*

- *Consolidation & Managerial Control Difficult*

- *Process Productivity Monitoring Difficult*

- *Reaction to change slow*

Characteristics of ERP Software

- *Standard software package* **that needs to be customised**

- *Rich potential for customising,* **in comparison to other packages**

- *Application software,* **in differentiation to database management software, middleware, or operating systems**

- *Integrated database* **for storing both master and transactional data.**

- *Providing business solutions* **in support of core processes**

- *High functionality* **as it attempts to support a large number of business functions**

- *Process-oriented view* **cutting across functions of an enterprise, and this view is often depictured and supported by a 'reference model'**
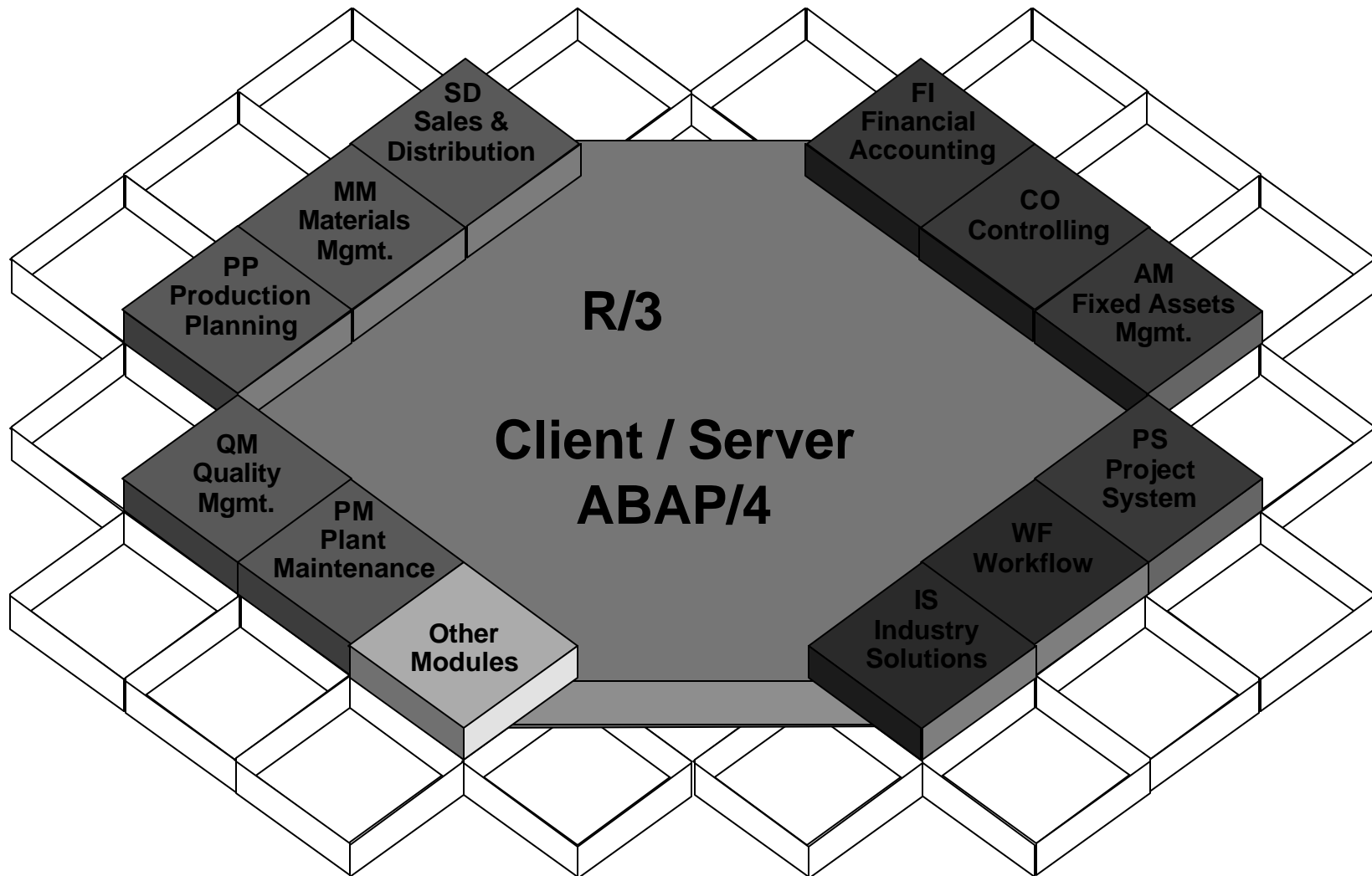
- *Targeting multiple industries in various countries*

- *Frequent and repetitive use* **is the focus of functionality, and not the irregular activities of product development, management and planning**

- *Consistent graphical user interface* **across all application areas.**

- *Layered architecture***, separating the database, the application and the presentation in different layers.**

- *"Open" regarding choice of software and hardware platforms***, with most solutions being offered for a variety of Solaris, Windows NT or Linux.**

- *Complex administration* **is nothing entirely unique to ERP but few systems are as mission critical as these are**

- *Automation of business transactions* in the back-office. Flexibility in changing the system to cater to newer business processes.

- *Coordination across business functions*, making it possible to practice concepts as 'available to promise' and 'just in time inventory.

- *Coordination across geographical distances*, enabling managers to follow what is happening at every point of their organisation around the globe. Easier Corporate Consolidation / Managerial control

- *Consolidation of terminology*, making sure the same term is not used with different meanings in different systems or functions. Single definition of data.

- *Consistent application logic, information and interface*, creating an IT environment easier to understand and thus to work in

- *Single system*, creating an IT infrastructure easier to manage. (For example in conversion issues such as Y2K and the Euro currency)

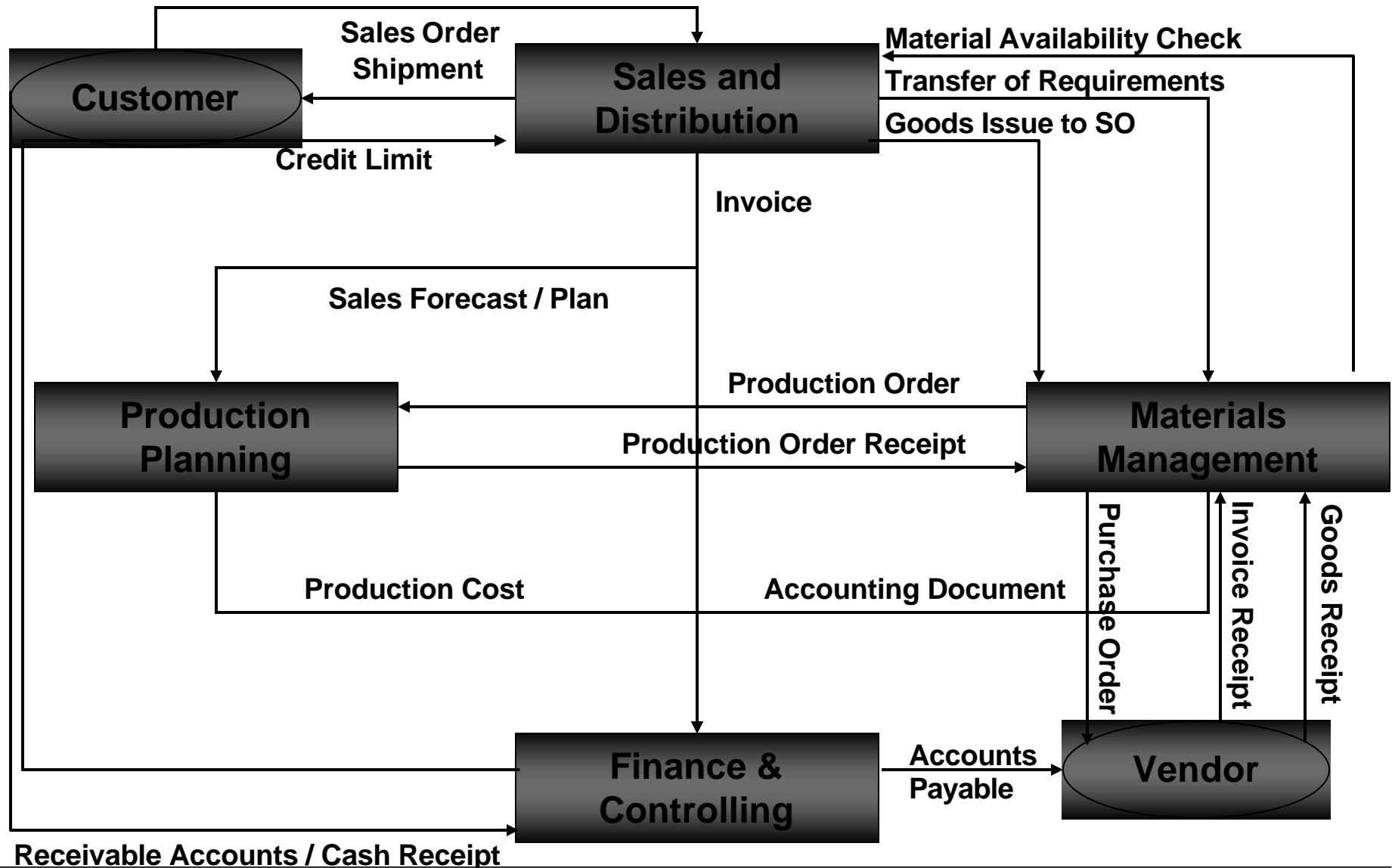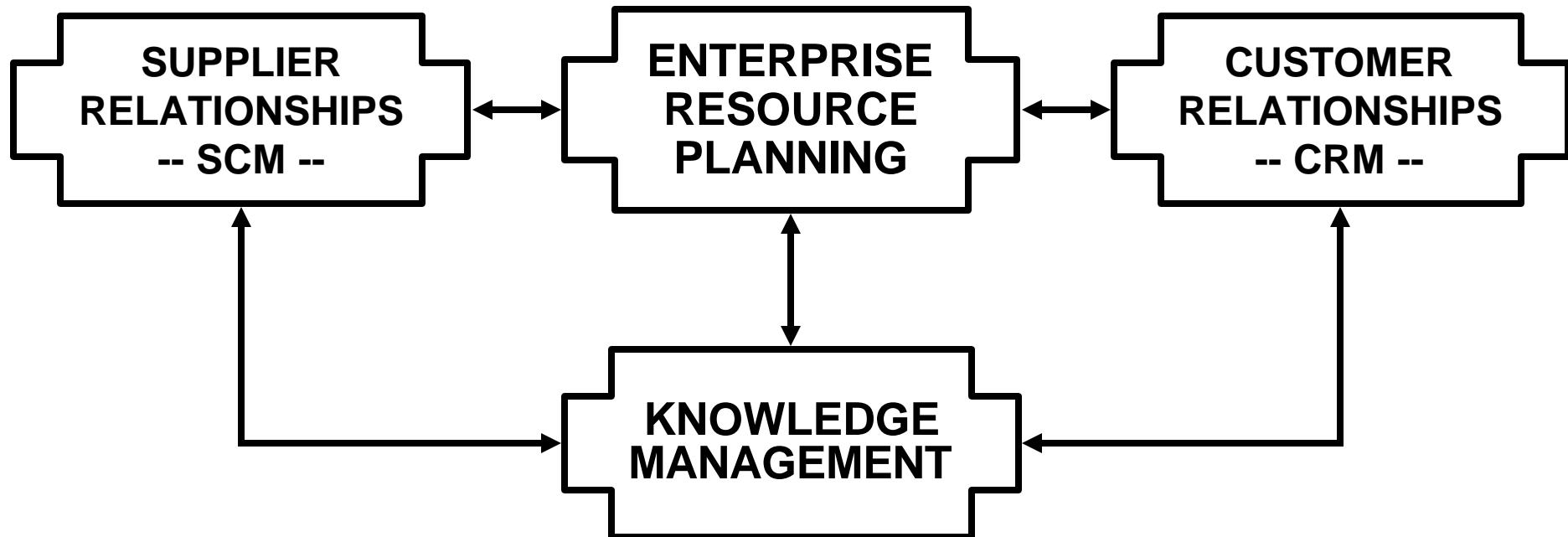- *Avoiding building your own integrated systems*, something involvinglarge costs and risks

- ***Need for common platform*, with the intent to replace a myriad of legacy systems and some times with the catalyst being to avoid specific issues (Y2K for example)**

- ***Process improvement* expected from the implementation.**

- ***Data visibility* that could be used to improve operating decisions.**

- ***Operation cost reductions*, as evident by the metrics used for measuring the success of the implementation.**

- ***Increased customer responsiveness* in operations.**

- ***Improved strategic decision making***

- ***Personal Improvement***

SD
Sales &
Distribution

FI
Financial
Accounting

MM
Materials
Mgmt.

CO
Controlling

PP
Production
Planning

AM
Fixed Assets
Mgmt.

R/3

Client / Server
ABAP/4

QM
Quality
Mgmt.

PS
Project
System

PM
Plant
Maintenance

WF
Workflow

Other
Modules

IS
Industry
Solutions

Modular and Integration - An Example

```
┌──────────────┐      ┌──────────────┐      ┌──────────────┐
│   SUPPLIER   │ ◄──► │  ENTERPRISE  │ ◄──► │   CUSTOMER   │
│RELATIONSHIPS │      │   RESOURCE   │      │RELATIONSHIPS │
│  -- SCM --   │      │   PLANNING   │      │  -- CRM --   │
└──────────────┘      └──────────────┘      └──────────────┘
        ▲                    ▲                     ▲
        │             ┌──────────────┐             │
        │             │  KNOWLEDGE   │             │
        └───────────► │  MANAGEMENT  │ ◄───────────┘
                      └──────────────┘
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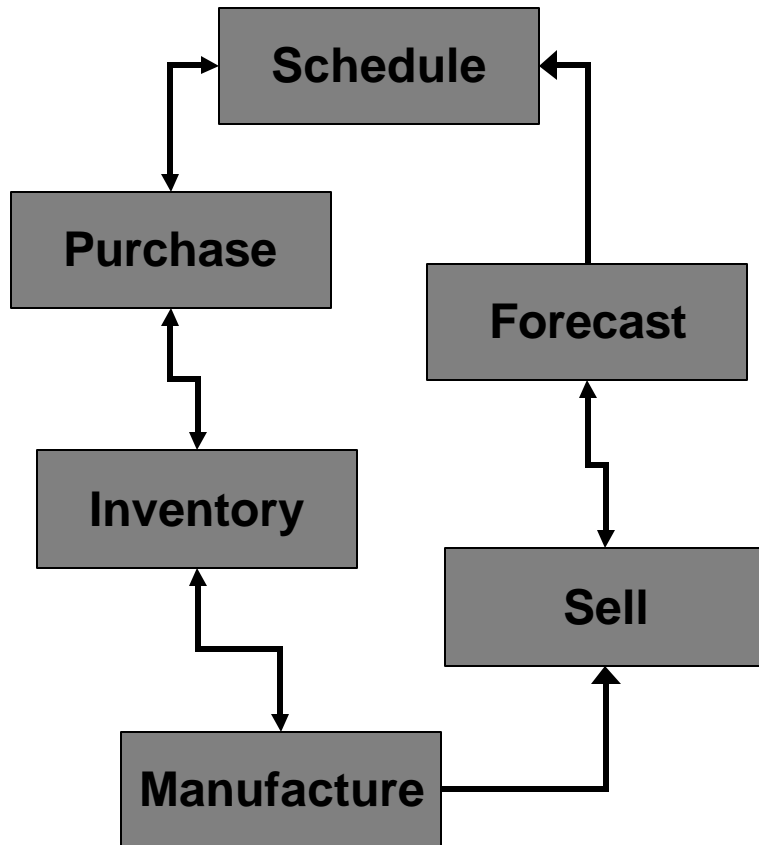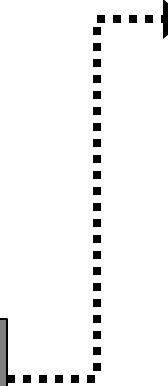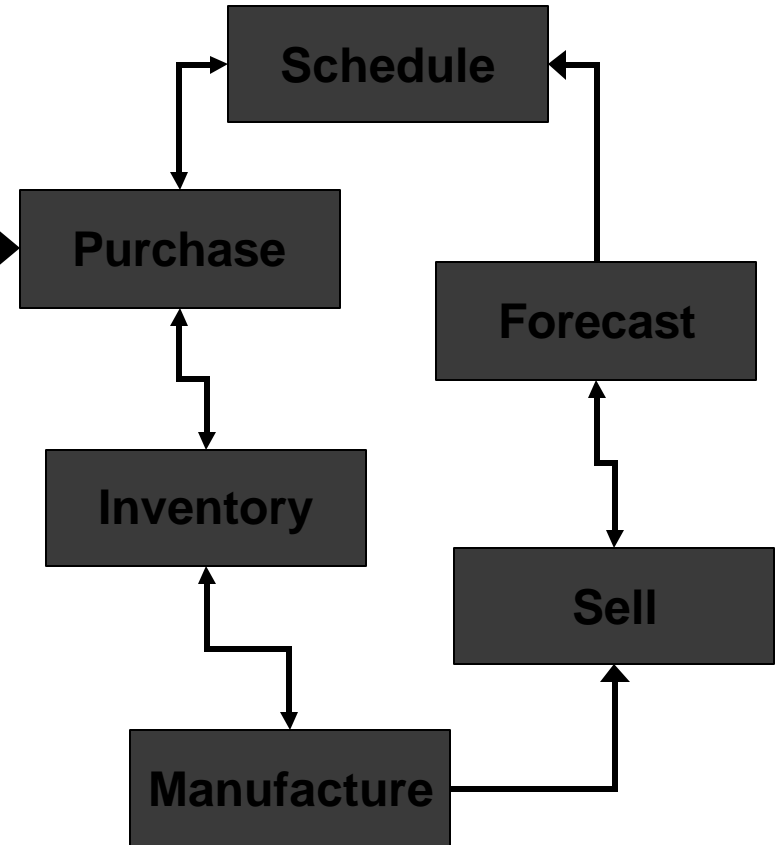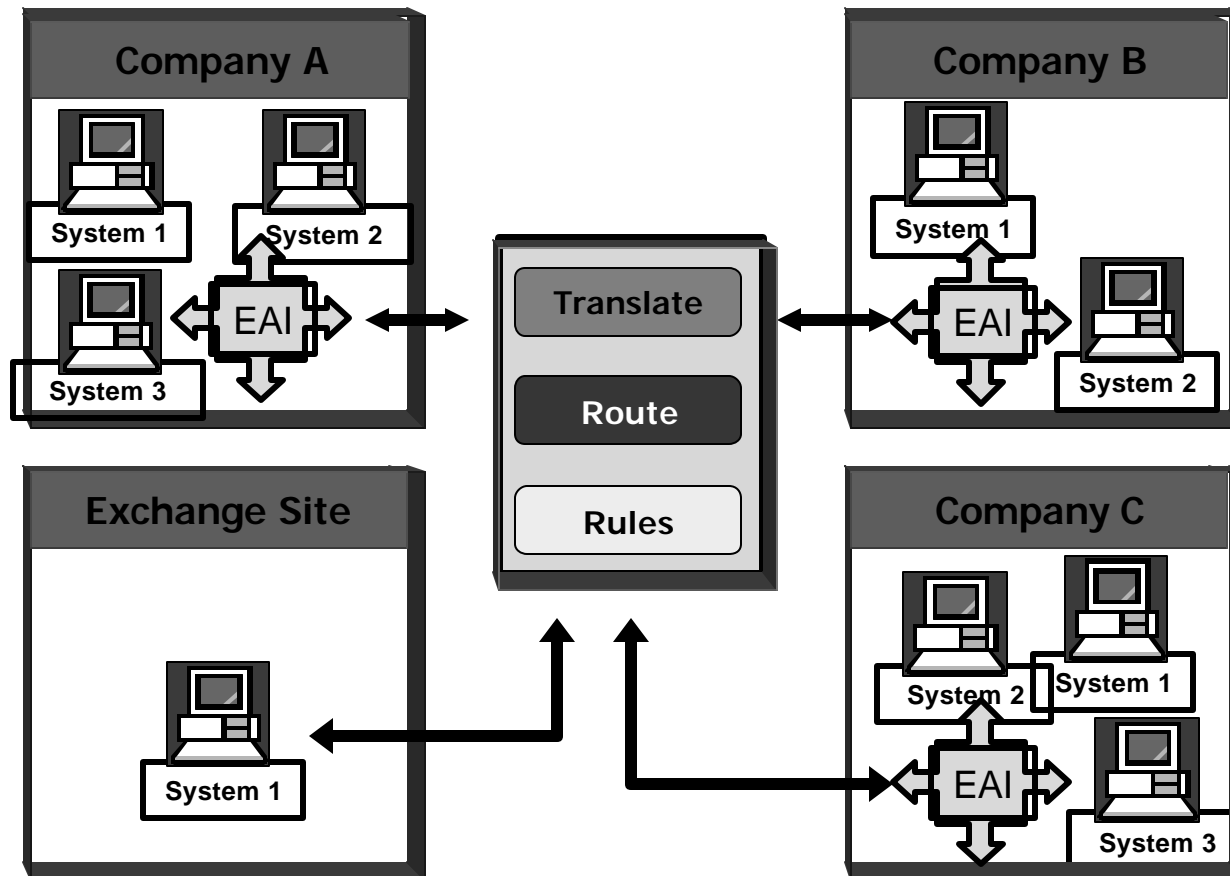
Enterprise Application Integration
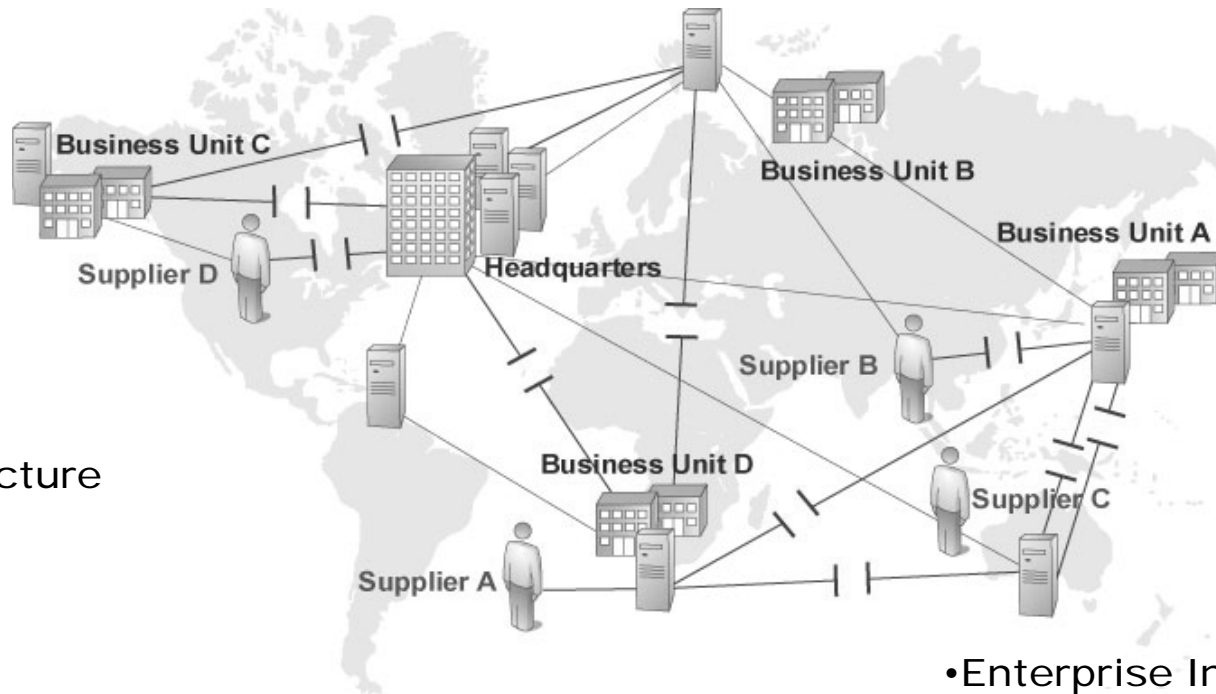
Integration Challenges

•Business data

•End-User Integration

•Infrastructure

•Enterprise Application Integration

•Enterprise Information Integration

•Integrating Business Partners

WIPRO
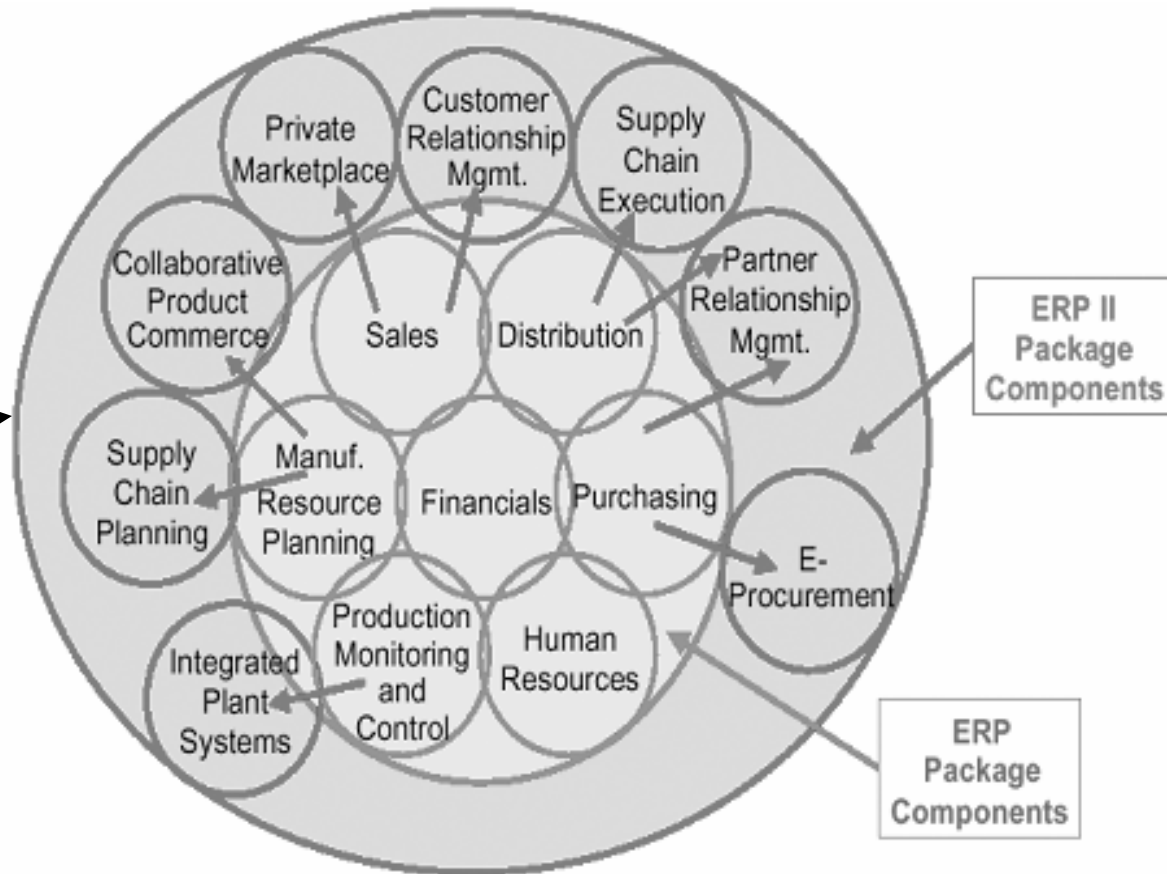*Applying Thought*

•Press

– '**Backoffice admin & operations applications common to most companies**'

•Analysts

– '**ERP = HR + Finance + Corporate Functions + Blue Collar Operations**'
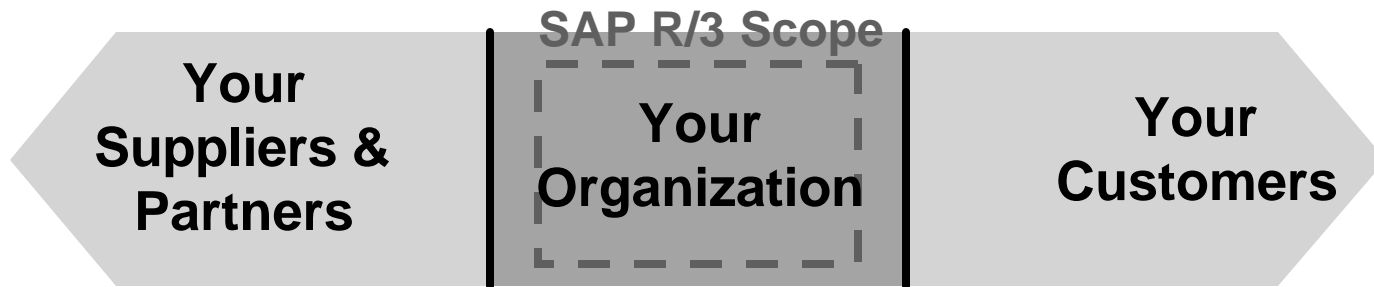
•Competitor

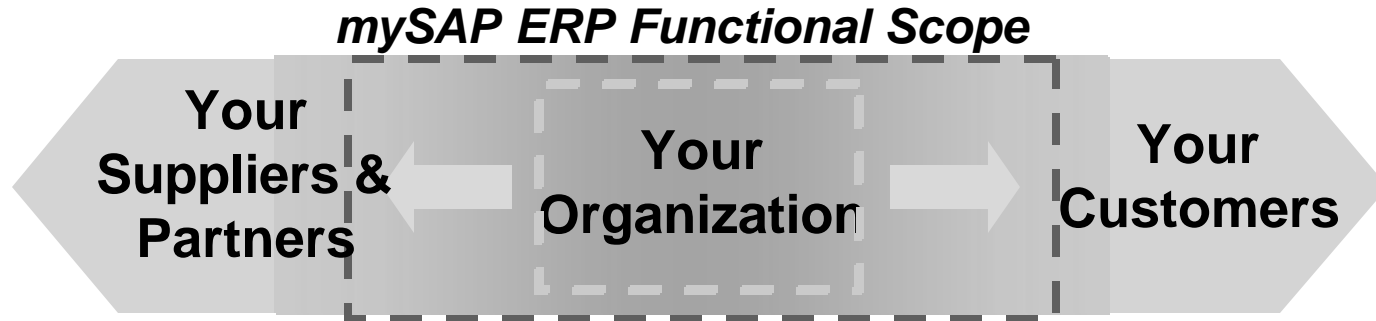– '**HR + Finance + Purchasing + Distribution + Portal + Technology**'

Source: Gartner Research

SAP R/3 Scope

Your
Suppliers &
Partners

Your
Organization

Your
Customers

WIPRO
Applying Thought

Extension of Adaptable End-to-End Business Processes

mySAP ERP Functional Scope

Your
Suppliers &
Partners

Your
Organization

Your
Customers

ADAPTABLE business processes

Evolved Technology Platform

Your
Suppliers &
Partners

Your
Organization

Your
Customers

ADAPTABLE business processes supported by FLEXIBLE platform

Scope of mySAP ERP vs. SAP R/3

New Role-based Portal / User Interface

Improved PRODUCTIVITY and increased INSIGHT

Your Suppliers & Partners

Your Customers
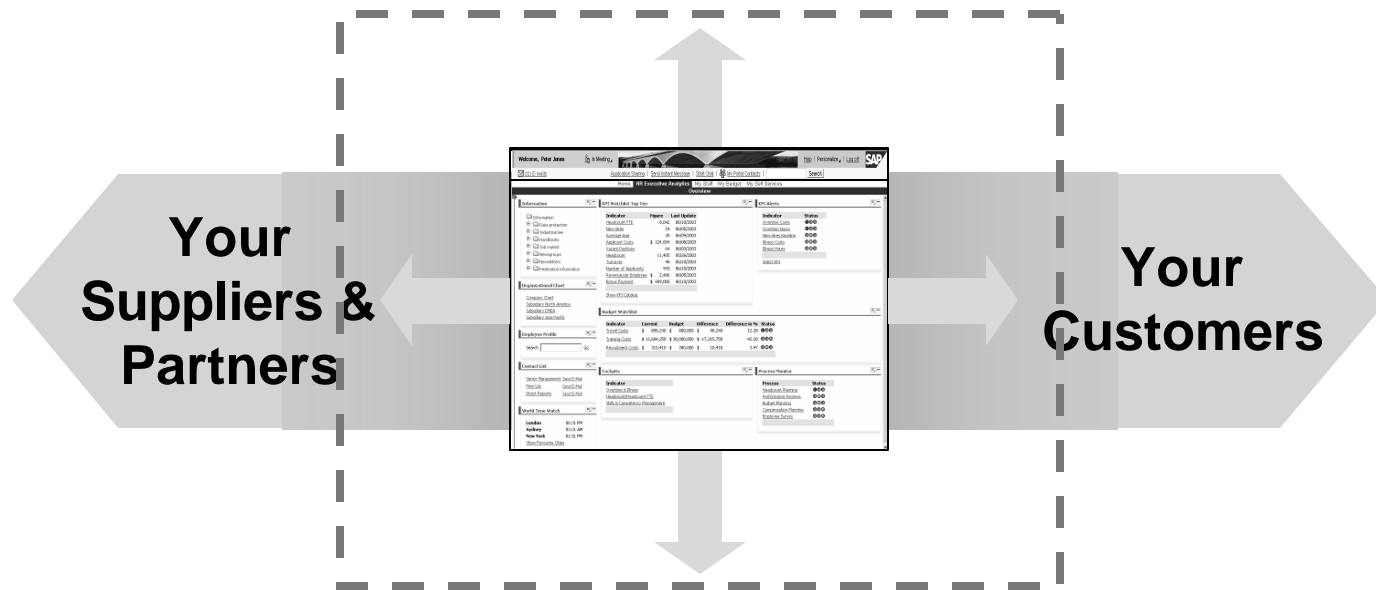
ADAPTABLE business processes supported by FLEXIBLE platform

•… we could "extract" the execution of business scenarios from the complexity of existing application landscapes ?
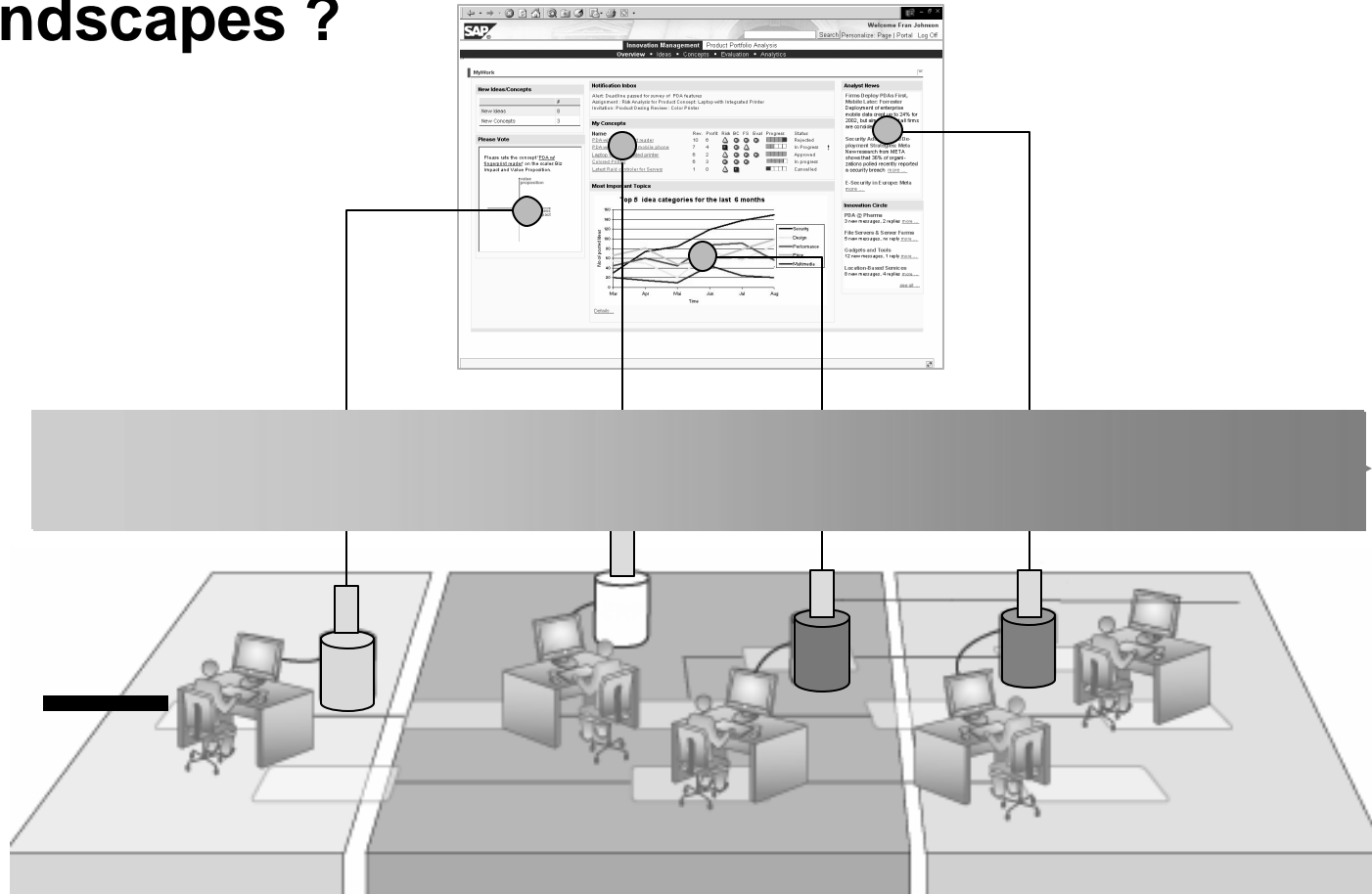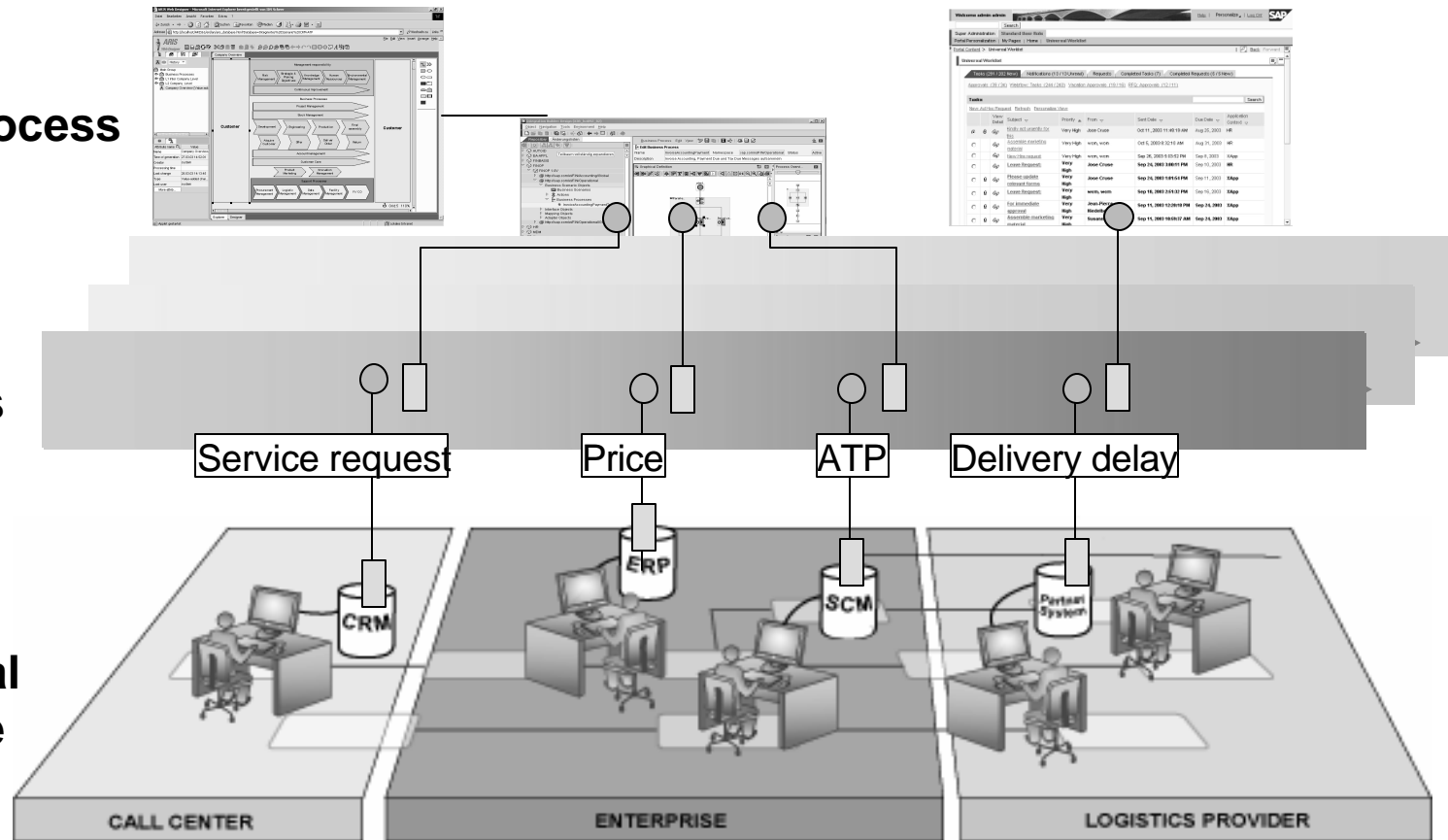
Service-Oriented Architectures Enhance Enterprise Agility

- Model-driven processes based on abstract services delivered through open standards
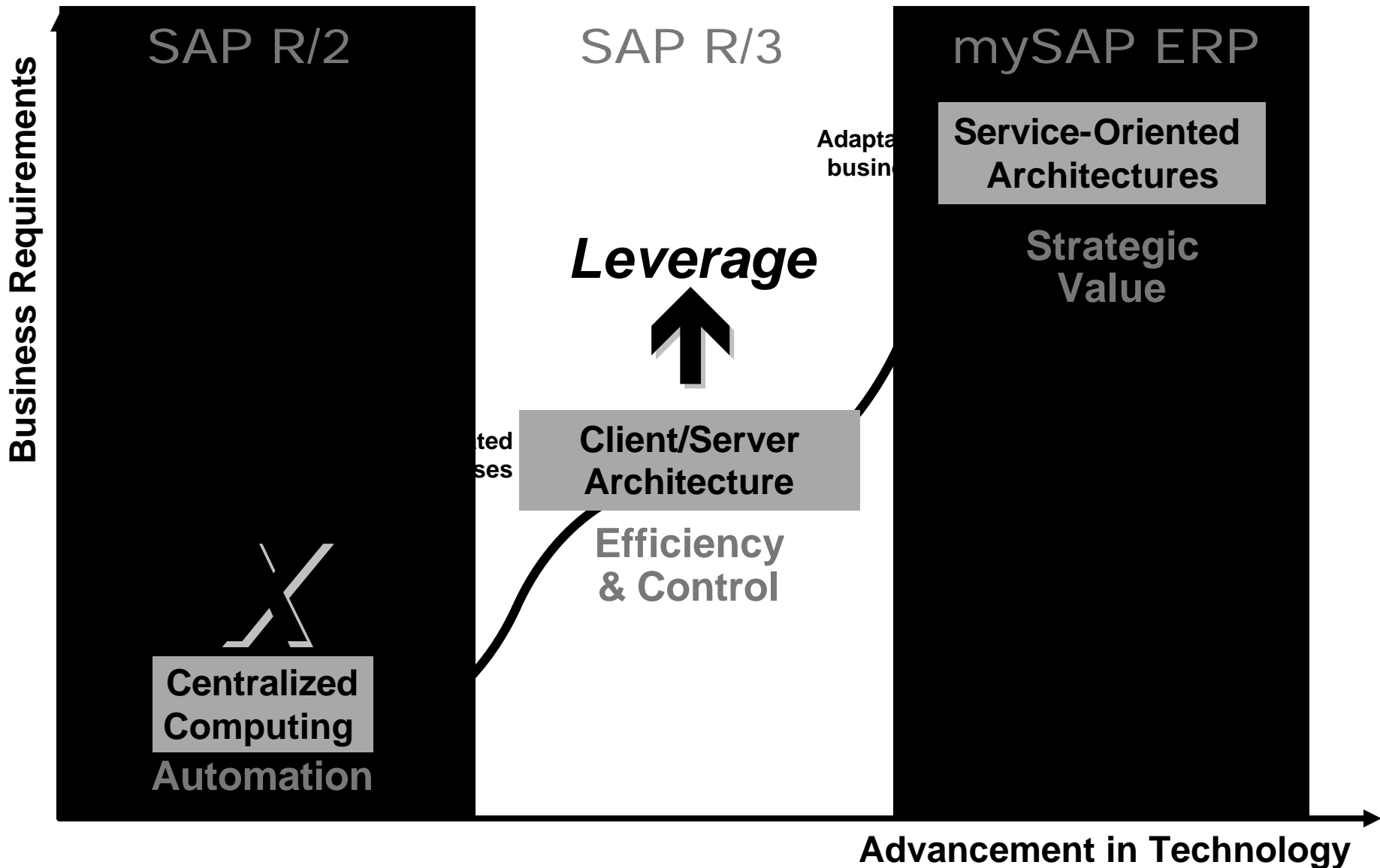

NEW **Business Process Model**

NEW **Business Scenarios**
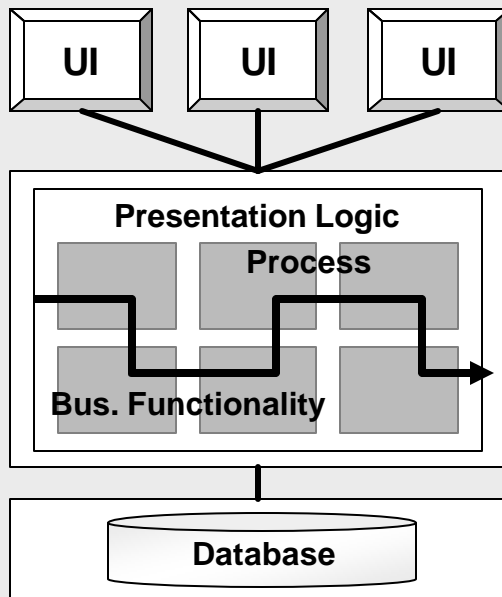
STABLE **Operational Enterprise System**

Service request Price ATP Delivery delay

Business Requirements

SAP R/2

SAP R/3

mySAP ERP

Service-Oriented Architectures

Adapta
busin

Strategic Value

Leverage

ted
ses

Client/Server Architecture

Efficiency & Control

Centralized Computing

Automation

Advancement in Technology

3-tier Client/Server Architecture

UI **UI** **UI**

Presentation Logic

Process

Bus. Functionality

Database

- **Expose business functionality thru a given UI**
- **Low level APIs exist, but hard to use**

Enterprise Services Architecture
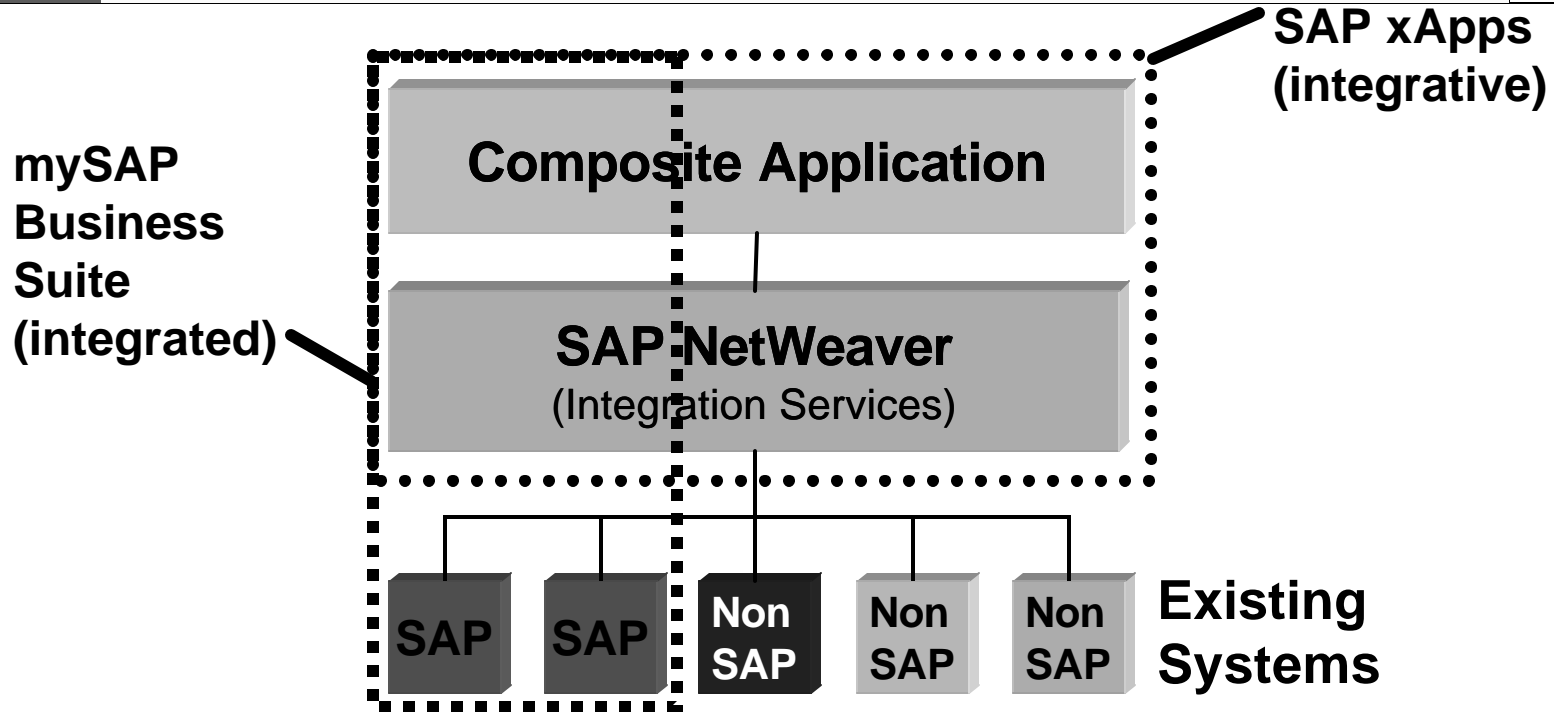
Role-specific UI

Bus. Functionality

DB   **DB**
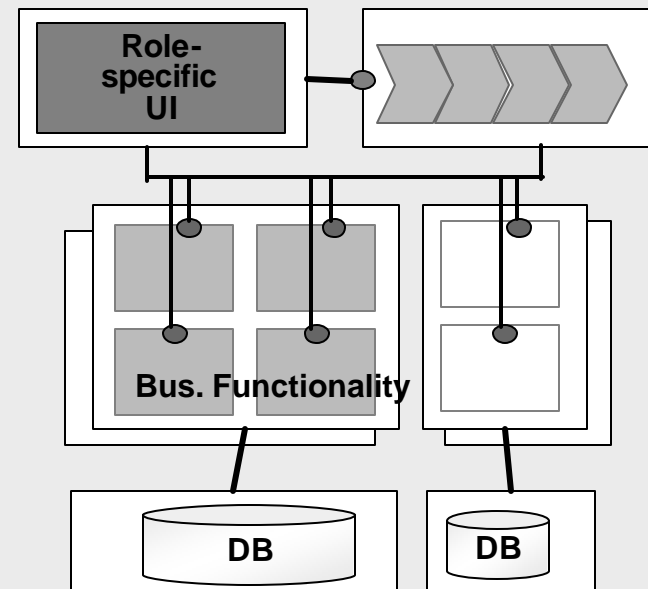
- **Role-based UIs built on Enterprise Services**
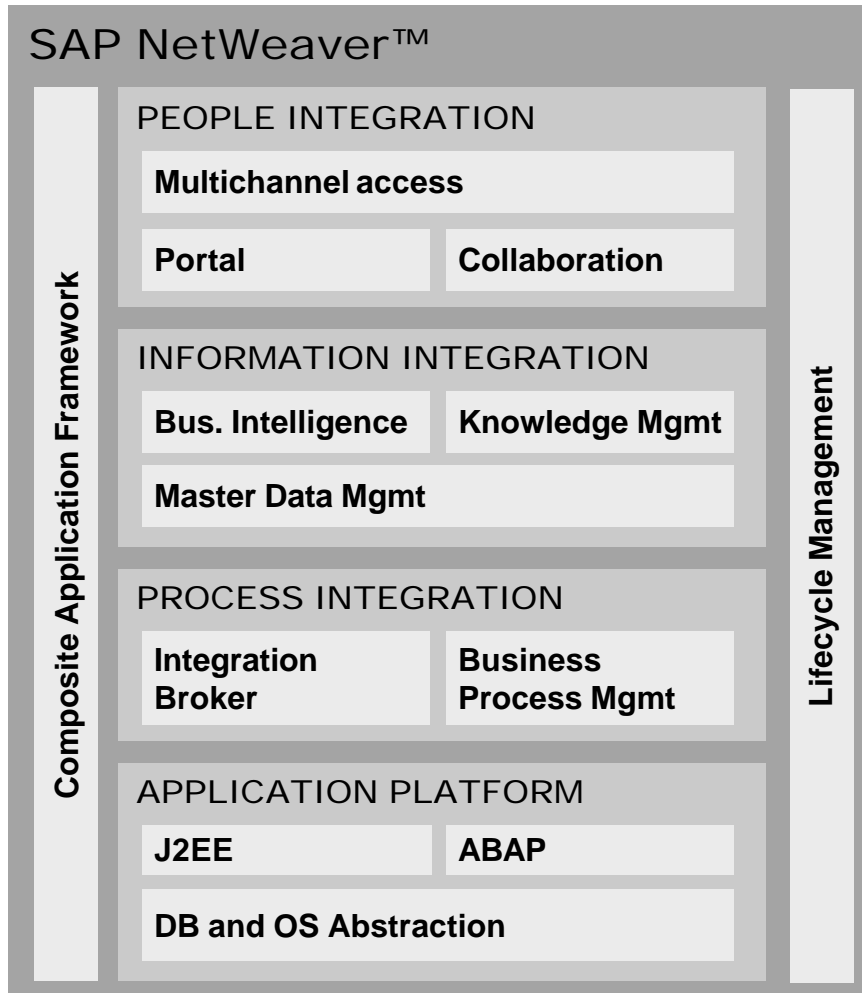- **Process automation within and across organizational boundaries built on Enterprise Services**

SAP xApps (integrative)

mySAP Business Suite (integrated)

Composite Application

SAP NetWeaver
(Integration Services)

SAP   SAP   Non SAP   Non SAP   Non SAP

Existing Systems

- **Terminology**
  - xApps **are Packaged Composite Applications (PCAs)**
  - mySAP **consists of Composite Apps and Engines (R/3, APO, …)**
  - Packaged Solutions **combine specific CAs and Engines and Consulting Services into industry specific solutions to given business pain points.**

SAP NetWeaver™

Composite Application Framework

PEOPLE INTEGRATION

Multichannel access

Portal	**Collaboration**

INFORMATION INTEGRATION

Bus. Intelligence	**Knowledge Mgmt**

Master Data Mgmt

PROCESS INTEGRATION

Integration Broker	**Business Process Mgmt**

APPLICATION PLATFORM

J2EE	**ABAP**

DB and OS Abstraction

Lifecycle Management

...

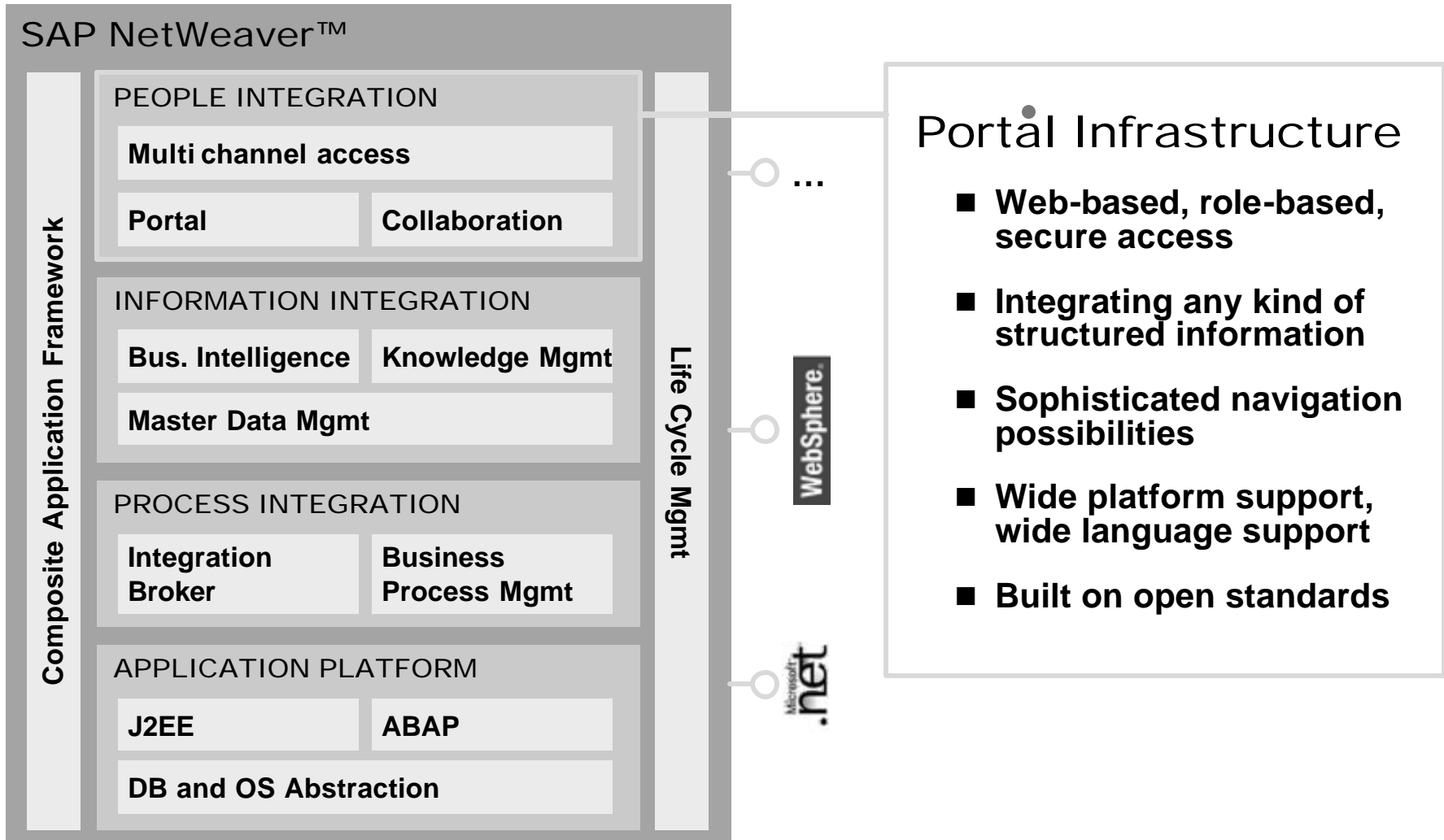- •Deliver Superior business value
  - Prepackaged business content
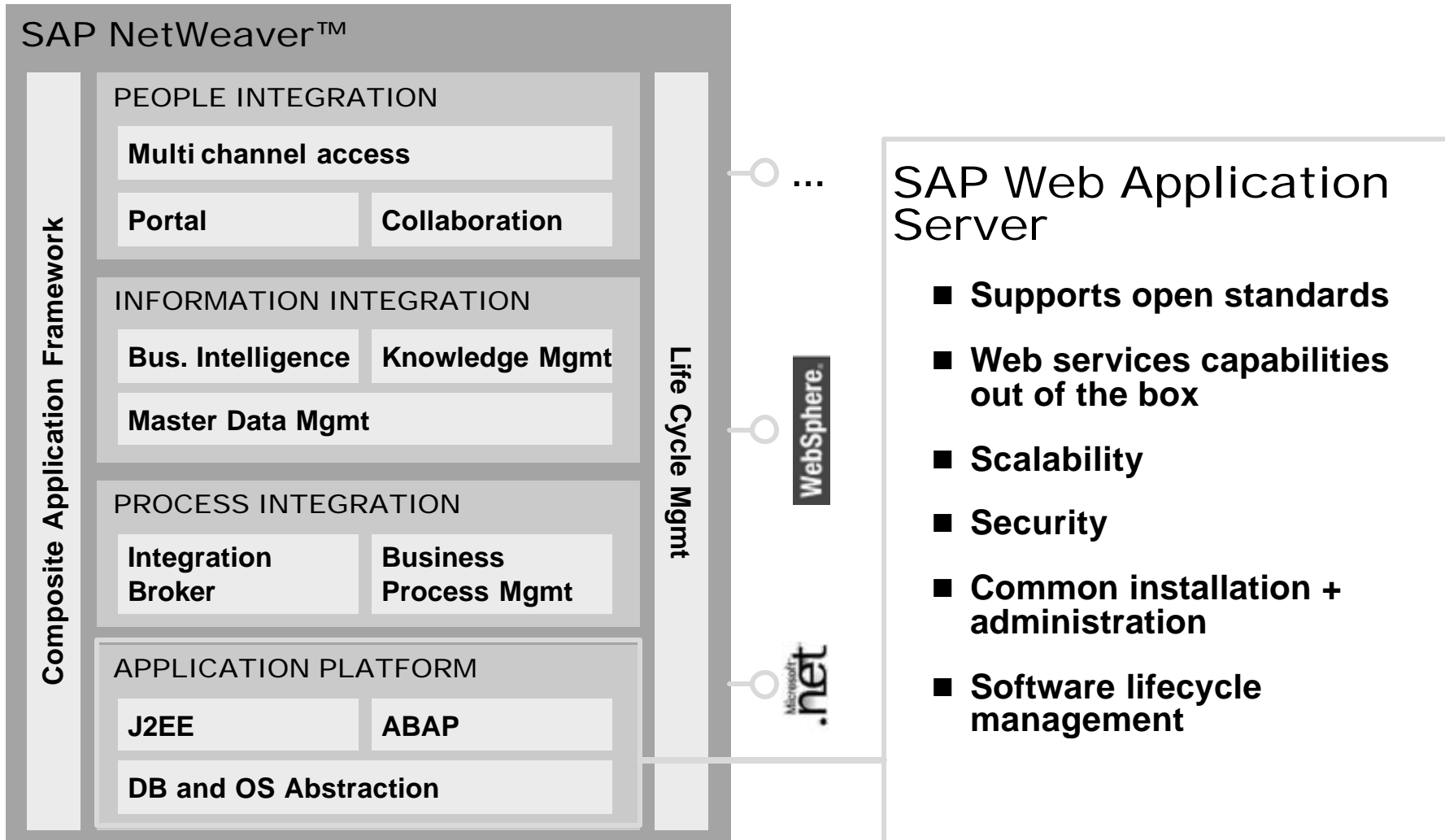 - Reduces complexity

WebSphere

- •Open, flexible architecture
  - Service oriented architecture
  - Open standards-based

Microsoft .net

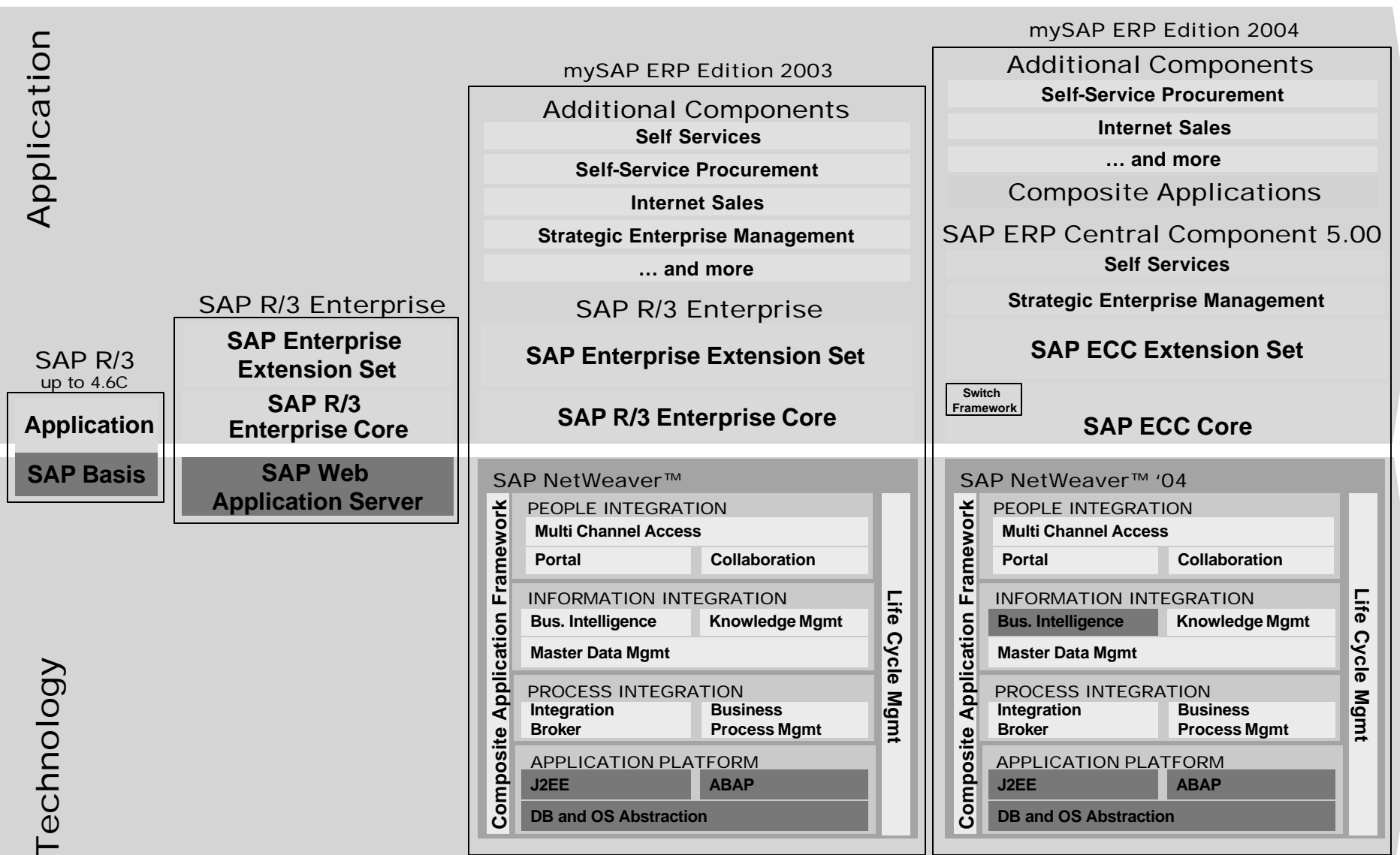- •Reduce TCO of the entire IT landscape
  - Leverage existing investments
  - One integrated platform
  - Best Integration with SAP

SAP NetWeaver™

Composite Application Framework

PEOPLE INTEGRATION
- Multi channel access
- Portal | Collaboration

INFORMATION INTEGRATION
- Bus. Intelligence | Knowledge Mgmt
- Master Data Mgmt

PROCESS INTEGRATION
- Integration Broker | Business Process Mgmt

APPLICATION PLATFORM
- J2EE | ABAP
- DB and OS Abstraction

Life Cycle Mgmt

...

WebSphere.

Microsoft .net

Portal Infrastructure

- **Web-based, role-based, secure access**

- **Integrating any kind of structured information**

- **Sophisticated navigation possibilities**

- **Wide platform support, wide language support**

- **Built on open standards**

SAP NetWeaver™

Composite Application Framework

PEOPLE INTEGRATION

Multi channel access

| Portal | Collaboration |

INFORMATION INTEGRATION

| Bus. Intelligence | Knowledge Mgmt |

Master Data Mgmt

PROCESS INTEGRATION

| Integration Broker | Business Process Mgmt |

APPLICATION PLATFORM

| J2EE | ABAP |

DB and OS Abstraction

Life Cycle Mgmt

WebSphere.

.net

...

SAP Web Application Server

- **Supports open standards**

- **Web services capabilities out of the box**

- **Scalability**

- **Security**

- **Common installation + administration**

- **Software lifecycle management**

Application

Technology

mySAP ERP Edition 2004

Additional Components
Self-Service Procurement

Internet Sales

… and more

Composite Applications

SAP ERP Central Component 5.00
Self Services

Strategic Enterprise Management

SAP ECC Extension Set

Switch Framework

SAP ECC Core

---

mySAP ERP Edition 2003

Additional Components
Self Services

Self-Service Procurement

Internet Sales

Strategic Enterprise Management

… and more

SAP R/3 Enterprise

SAP Enterprise Extension Set

SAP R/3 Enterprise Core

SAP R/3 Enterprise

SAP Enterprise Extension Set

SAP R/3 Enterprise Core

SAP Web Application Server

SAP R/3
up to 4.6C

Application

SAP Basis

SAP NetWeaver™

Composite Application Framework

PEOPLE INTEGRATION
Multi Channel Access

Portal | **Collaboration**

INFORMATION INTEGRATION
Bus. Intelligence | **Knowledge Mgmt**

Master Data Mgmt

PROCESS INTEGRATION
Integration Broker | **Business Process Mgmt**

APPLICATION PLATFORM
J2EE | **ABAP**

DB and OS Abstraction

Life Cycle Mgmt

SAP NetWeaver™ '04

Composite Application Framework

PEOPLE INTEGRATION
Multi Channel Access

Portal | **Collaboration**

INFORMATION INTEGRATION
Bus. Intelligence | **Knowledge Mgmt**

Master Data Mgmt

PROCESS INTEGRATION
Integration Broker | **Business Process Mgmt**

APPLICATION PLATFORM
J2EE | **ABAP**

DB and OS Abstraction

Life Cycle Mgmt

Positioning Within SAP's Product Portfolio

SAP for <Industry>
- **SAP for Aerospace & Defense**
- **SAP for Automotive**
- **...**

SAP Packaged Solutions
- **Service Management for <Industry>**
- **Financial Insights for <Industry>**
- **...**

> **mySAP ERP is a solution located in mySAP Business Suite**

SAP xApps
- **SAP xApp Resource & Program Mgmt**
- **SAP xApp Product Definition**
- **SAP xApp Mergers & Acquisition**
- **...**

mySAP Business Suite

mySAP PLM

mySAP SRM

mySAP ERP
Analytics
Financials
Human Resources
Corporate Services
Operations

mySAP CRM
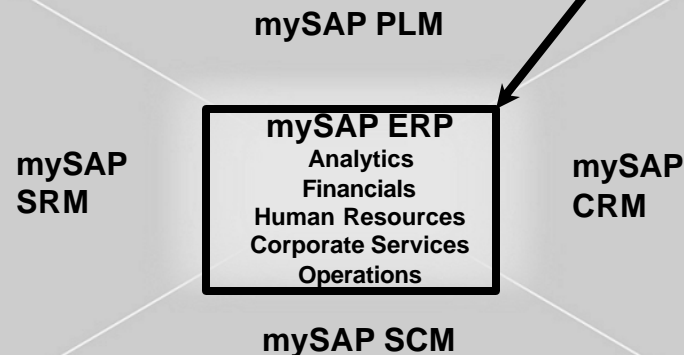
mySAP SCM

SAP Smart Business Solutions
- **mySAP All-in-One**
- **SAP Business One**
- **SAP Business One Server**

SAP NetWeaver
- **SAP Enterprise Portal**
- **SAP Master Data Mgmt**
- **SAP Business Intelligence**
- **SAP Exchange Infrastructure**
- **---**
- **...**

Added Functionality

Self-serve portal increases flexibility and productivity

Motivate employees to achieve, and design innovative reward strategies

Streamlines invoicing and payment processes

Extensive analytics, intuitively accessible portal(s)

Ensures adherence to new legal obligations

Supports full procure-to-pay and order-to-cash processes

Empowers employees and improves HCM, reducing costs

Includes Internet Sales to boost revenues

Unique set of value-added services to greatly improve management of resources and assets

Self-Services and Roles in mySAP ERP			
Analytics	Strategic Enterprise Management	Financial Analytics	Operations Analytics	Workforce Analytics
Financials	Financial Accounting	Management Accounting	Financial Supply Chain Management	Corporate Governance
Human Capital Management	Employee Life-Cycle Management	Employee Transaction Management	HCM Service Delivery	Workforce Deployment
Operations: Value Generation	Procurement	Inventory & Warehouse Management / Manufacturing	Transportation	Sales Order Management / Customer Service
Operations: Support	Life-Cycle Data Management	Program & Project Management	Quality Management	Enterprise Asset Management
Corporate Services	Travel Management	Environment, Health & Safety	Incentive & Commission Management	Real Estate Management
SAP NetWeaver™	People Integration	Information Integration	Process Integration	Application Platform

Mobile Infrastructure, portal connects people

Aggregate and analyze information across technology and the organization via SAP Exchange Infrastructure

Model, execute, and monitor processes across technology and the organization

Open system architecture enables easier integration

Analytics

Self Services	Strategic Enterprise Management	Financial Analytics	Operations Analytics	Workforce Analytics
Manager Self-Service (S61, S60, S22) Employee Self-Service (S61)	Legal & Management Consolidation (S60, S22) Balanced Scorecard (S60, S22) Risk Management (S60, S22) Management Cockpit (S60, S22) Strategic Planning (S60, S22) Value-Based Management (S60, S22) Financial Statement Planning (S60, S22) Investment Planning (S60, S22) Stakeholder Relationship Management (S60, S22)	Financial & Management Reporting (S22, S60) Financial Planning, Budgeting & Forecasting (S22, S60) Profitability Management (S22, S60) Product & Service Cost Management (S22, S60) Overhead Cost Management & ABC/M (S22, S60) Payment Behavior Analytics (S22, S60) Working Capital and Cash Flow Management (S60, S22)	Procurement Analytics (S64) Inventory & Warehouse Management Analytics (S64) Manufacturing Analytics (S64) Transportation Analytics (S64) Sales Analytics (S59) Customer Service Analytics (S59) Program & Project Management Analytics (S62) Quality Management Analytics (S62) Enterprise Asset Management Analytics (S62)	Strategic Alignment (S61) Reporting & Benchmarking (S61)

SAP Product Available
SAP Product Available with Future Releases
Future Focus

Partner Product Available
Partner Product Available with Future Releases
Collaborative Business Map Available

Sxx, Vxx, Bxx   SAP Product & Service
Pxx   Partner Product

For more information see: http://www.sap.com

Financials

Financial Accounting	Management Accounting	Financial Supply Chain Management	Corporate Governance
General Ledger (S60)	Profit Center Accounting (S60)	Credit Management (S22, S8)	Audit Information System (S60)
Accounts Receivable (S60)	Cost Center & Internal Order Accounting (S60)	Electronic Presentment & Payment (S22, S8, B10, B23, S60)	Management of Internal Controls (S60, S55)
Accounts Payable (S60)	Project Accounting (S60)	Collections Management (S22, S8)	Business Risk Management (S60)
Fixed Assets Accounting (S60)	Investment Management (S60)	Dispute Management (S22, S8)	Whistle Blower Complaints (S60)
Bank Accounting (S60)	Product Cost Accounting (S60)	In-house Cash (S22, S8)	Transparency for Basel II (S60)
Cash Journal Accounting (S60)	Profitability Accounting (S60)	Cash & Liquidity Management (S22, S8)	
Inventory Accounting (S60)	Revenue & Cost Planning (S60)	Treasury & Risk Management (S22, S8)	
Tax Accounting (S60)	Transfer Pricing (S60)		
Accrual Accounting (S60)			
Fast Close (S60)			
Financial Statements (S60)			
Parallel Valuation (S60)			

Human Capital Management

Employee Life-Cycle Management	Employee Transaction Management	HCM Service Delivery	Workforce Deployment
⬤ Recruiting & Talent Management (S5)	⬤ HR Administration (S61)	⬤ Manager Self-Services (S61, S60)	⬤ Project Resource Planning (S14, S61)
⬤ Enterprise Learning (S24, S66)	⬤ Organizational Management (S61)	⬤ Employee Self-Services (S60, S61, S53)	⬤ Resource & Program Management (S23, S70)
⬤ Performance Management (S61)	⬤ Expatriate Management (S61)	⬤ Interaction Center (S61, S14)	⬤ Call Center Staffing (S59, S21)
⬤ Compensation Management (S61)	⬤ Benefits Management (S61)	⬤ Alternate Delivery Channels (S61, B26)	▶ Retail Scheduling (S59, S21)
⬤ Workforce Deployment (S14, S61, S23, S70, S59, S21)	⬤ Time & Attendance (S61)		
	⬤ Global Payroll (S61, S52)		

Operations: Value Generation

Procurement	Inventory & Warehouse Management	Manufacturing	Transportation	Sales Order Management	Customer Service
● Self-Service Requisitioning (S63) ● Purchase Order Processing (S64) ● Receipt Confirmation (S64) ● Invoice Verification (S64)	● Inbound Processing (S64) ● Outbound Processing (S64) ● Cross Docking (S64) ● Warehousing & Storage (S64) ● Physical Inventory (S64)	● Manufacturing Planning (S64) ● Manufacturing Execution (S64)	● Transportation Planning (S64) ● Transportation Execution (S64) ● Freight Costing (S64) ● Foreign Trade & Legal Services (S64)	● Internet Sales (S59) ● Field Sales (S33, S59) ● Quotation and Order Management (S59) ● Contract Management (S59) ● Billing (S59)	● Installation & Configuration Management (S59) ● Service Contract & Entitlement Management (S59) ● Planned Services (S59) ● Service Requests and Order Management (S59) ● Field Service (S62, S33) ● Warranty Management (S59)

Operations: Support

Life-Cycle Data Management	Program & Project Management	Quality Management	Enterprise Asset Management
⬤ Document Management (S62)	⬤ Project Planning (S62)	⬤ Quality Engineering (S62)	⬤ Technical Assets Management (S62)
⬤ Product Structure Management (S62)	⬤ Project Execution (S62)	⬤ Quality Assurance / Control (S62)	⬤ Preventative & Predictive Maintenance (S62)
⬤ Recipe Management (S62)	⬤ Interfaces (S62)	⬤ Quality Improvement (S62)	⬤ Maintenance Execution (S62)
⬤ Integration (S62)	⬤ Program Management (S62)		⬤ Work Clearance Management (S62, S45)
⬤ Change & Configuration Management (S62)	⬤ Design Collaboration (S62)		
	⬤ Collaborative Project Management (S62)		

⬤ SAP Product Available
▶ SAP Product Available with Future Releases
◉ Future Focus

🅟 Partner Product Available
▷ Partner Product Available with Future Releases
🌀 Collaborative Business Map Available

Sxx, Vxx, Bxx   SAP Product & Service
Pxx   Partner Product

For more information see: http://www.sap.com

Corporate Services

Travel Management	Environment, Health & Safety	Incentive & Commission Management	Real Estate Management

Travel Management
- Travel Request & Pre-Trip approval (S60, S61, S22)
- Travel Planning - Online Booking (S60, S61, S22)
- Travel Expense Management (S60, S61, P78, S22)
- Mobile Self-Service - Anytime & Anywhere (S60, S61, P6, S22)
- Global Travel Policy Compliance (S60, S61, S22)
- Analytics (S60, S61, S22)

Environment, Health & Safety
- Basic Data & Tools (S38)
- Product Safety (S38)
- Hazardous Substance Management (S38)
- Dangerous Goods Management (S38)
- Waste Management (S38)
- Industrial Hygiene & Safety (S38, S23)
- Occupational Health (S38, S23, S62)
- Emissions Management (S67)

Incentive & Commission Management
- Design Incentive Compensation Plans (S9)
- Calculate Variable Compensation - Direct Sales Commissions & Incentive Compensation (S9)
- Effectiveness Analysis (S9)
- Organizational Management (S9)

Real Estate Management
- Property Acquisition and Disposal (S62, S60, S201)
- Property Portfolio (S201, S60, S62, B9, P14, P36)
- Commercial Management (S201, S60, S64)
- Technical Management (S201, S62, S64, S63, S14, V42, P75, P14)
- Controlling & Reporting (S201, S60, B12)

SAP Product Available
SAP Product Available with Future Releases
Future Focus

Partner Product Available
Partner Product Available with Future Releases
Collaborative Business Map Available

Sxx, Vxx, Bxx   SAP Product & Service
Pxx   Partner Product

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SAP NetWeaver™

People Integration	Information Integration	Process Integration	Application Platform
● Portal Access (B20) ● Collaboration (B20) ● Portal Content (B20) ● Multi Channel Access (B20, B26, B28, B40)	● Business Intelligence (B12, S14, S51, S34, S22, S23, S47, B20) ● Knowledge Management (B20, S65, B24) ● Master Data Management (B25) ● Content Organization (B12, B20, P18) Ⓟ	● Business-to-Business (B21) ● Business Process Management (B28, B7, B21, B20) ● Connectivity (B21) ● Integration Content (B21) ● Message Handling (B21) ● Infrastructure (B21, B28)	● Productive Development (B28, B11, B30, B33, B8, B32) ● Openness and Interoperability (B28) ● Reliable Operation (B28, B17) ● Security (B28, B8) ● Platform Architecture (B28, B20, B26, B33) ● Life Cycle Management (B4, B8, B30, B33, V152, B32) ● Composite Application Framework (B10, B20, B28)

● SAP Product Available
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◉ Future Focus

Ⓟ Partner Product Available
▷ Partner Product Available with Future Releases
Ⓒ Collaborative Business Map Available

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