

# SAP NetWeaver Portal:

## Planning and succeeding with your SAP NetWeaver Portal Project



SAP Consulting  
SAP NetWeaver Solution Management “Portal & Collaboration”

December 2008

# Agenda



- 1. Introduction and Motivation**
2. Strategy and Vision
3. Business Case
4. Organization and Governance
5. Infrastructure & Architecture
6. Summary & Wrap Up



## **Scope of the document:**

Lots of portal projects primarily focus on providing a pure technical portal platform. Thus strategic aspects are often neglected although the reach of a portal implementation throughout the company is quite big. There are usually many touch points with other teams, departments and technical components. This could be for example the different business units, works council / HR, user management or security and network team.

Based on various customer projects, this presentations aims at providing some general information and guidance for successfully implementing an enterprise portal. Starting with a clear vision and strategy, we show how you can define step-by-step a clear roadmap including the concrete work packages.

## **Target group:**

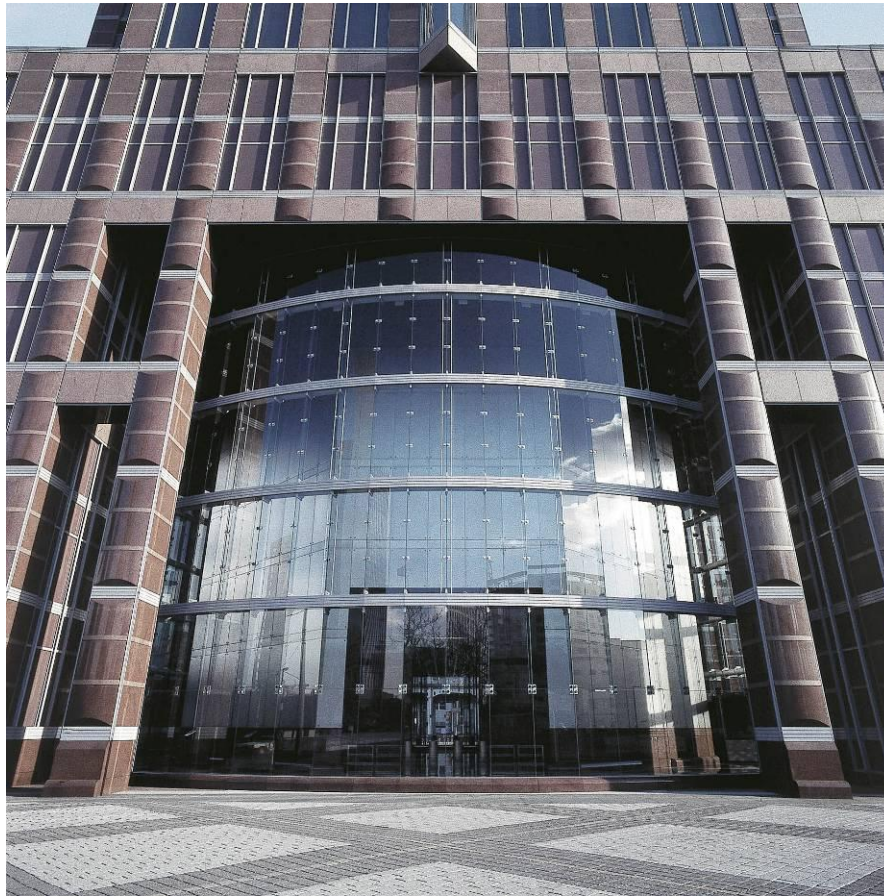
IT project managers, that would like to know the specialties of a portal project.

## **Additional Information:**

You can find additional product-related material and best practices on [SDN](#).

Feel free to discuss your ideas in our forums: <https://www.sdn.sap.com/irj/scn/forums>

# Accessing a Portal



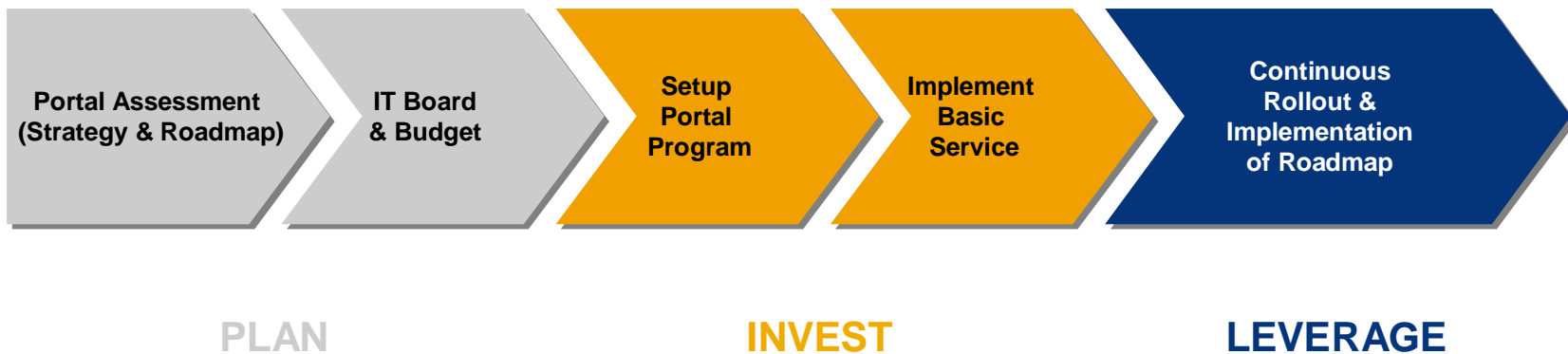
Who would you expect to access your portal?  
What kind of services would you expect inside your portal?

# Typical Drivers for Portal Initiatives



- Creating a Workplace for users as single point of access
- Consolidation of Intranets
- Custom pain points
- B2B scenarios
- Applications as drivers for portal runtime systems
  - Employee and Manager Self Services (XSS)
  - Reporting (BI)
  - xRPM
  - Business Packages

# Assessment of Potentials

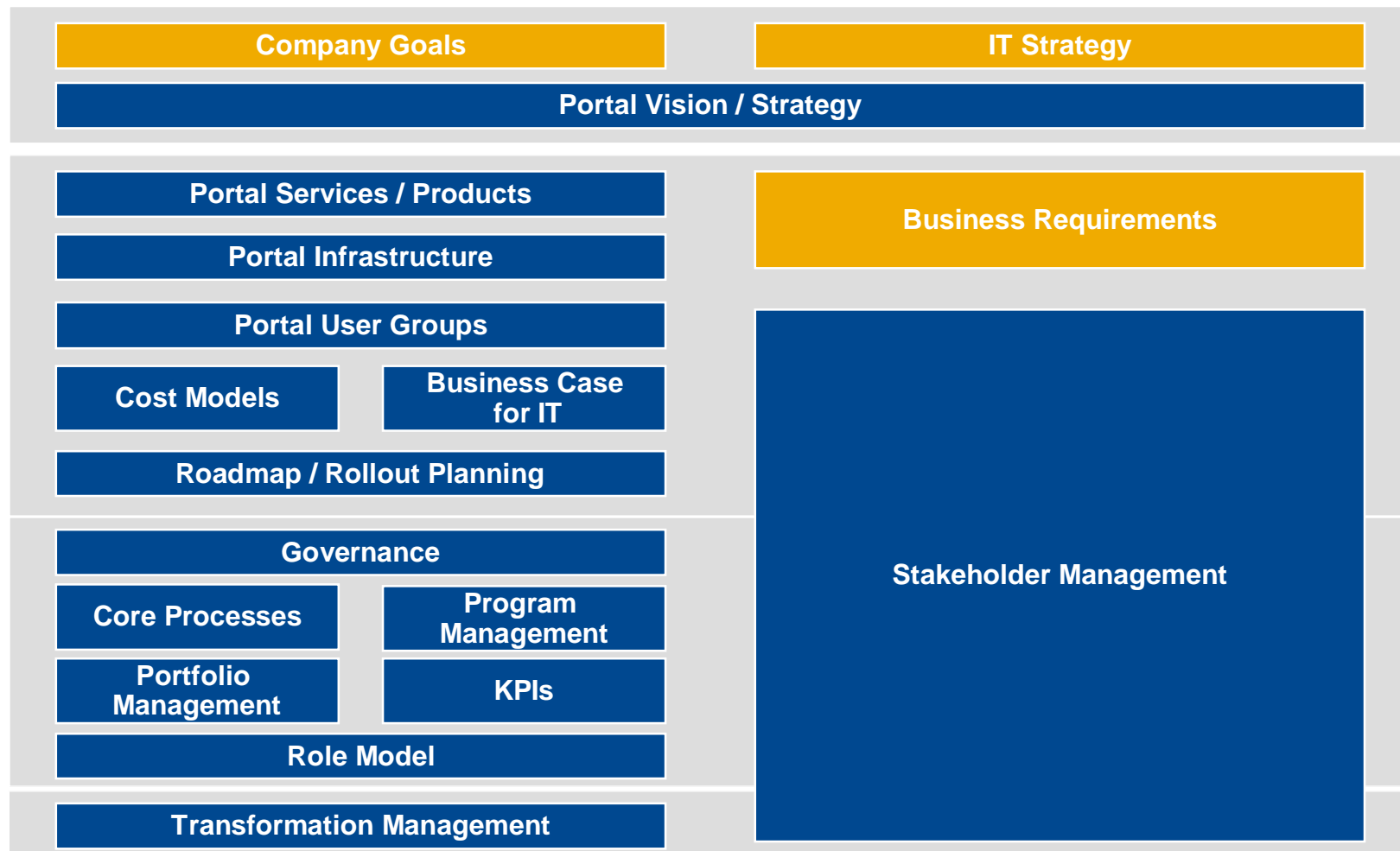


Clearly define a portal strategy and roadmap in order to justify investments and be able to show how to leverage the investments.

# Portal Management Assessment Building Blocks



Central portal competence center sets the framework and coordinates activities in the following areas:

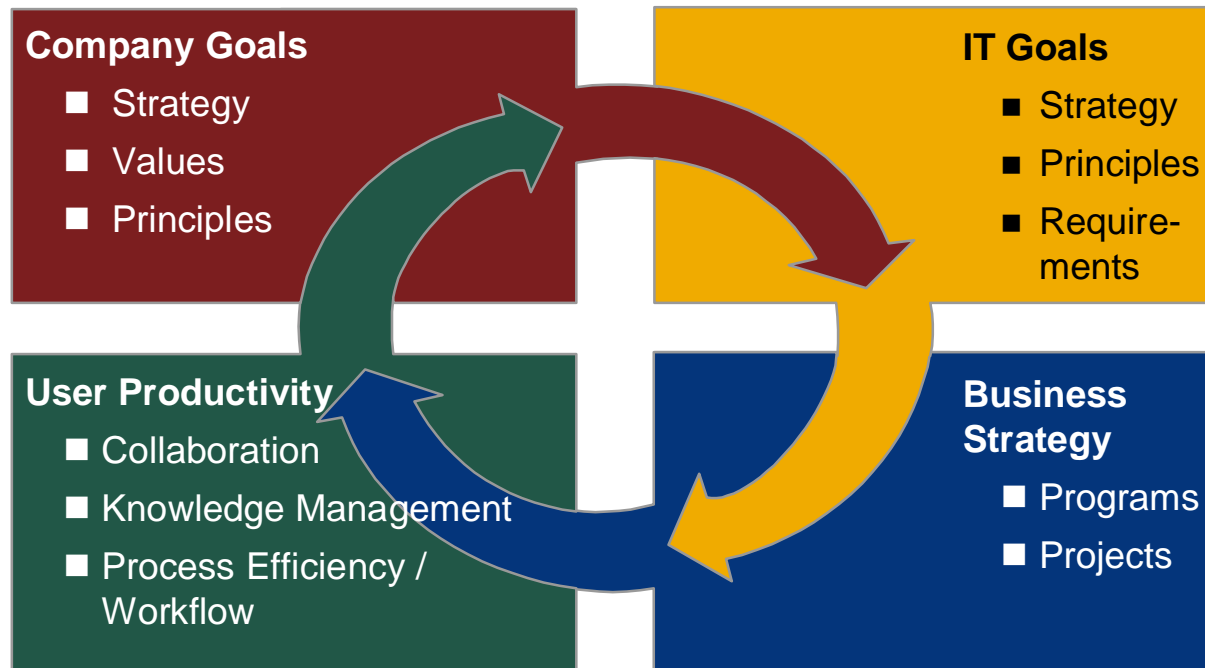


# Agenda



1. Introduction and Motivation
- 2. Strategy and Vision**
3. Business Case
4. Organization and Governance
5. Infrastructure & Architecture
6. Summary & Wrap Up

# Drivers for Portal Strategy



Analyze how Portal Services can support Company and IT goals, Business strategy like strategic programs and projects and improve User Productivity.

# Portal Implications from Business and IT drivers (Example)



## Implications for Portal Strategy

### Drivers from Business Strategy

- Faster Decision Making
- Enable Employees
- Accelerate Efficiency and cost reduction

### Drivers from IT Strategy

- Common processes and systems
- Central systems and local differentiation

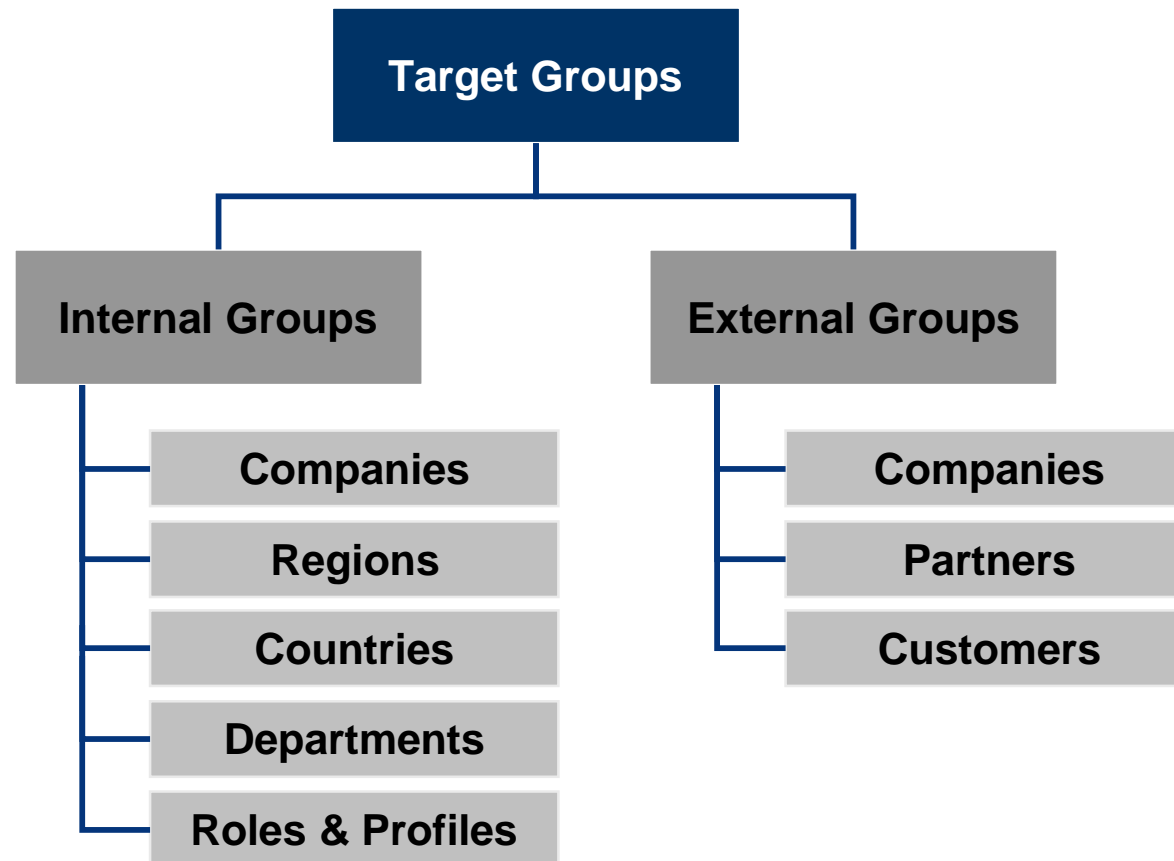
- Consolidate local Intranets into one global information platform
- Aggregate data and information from different systems to support processes and faster decision making.
- Portfolio of portal services can be used to quickly implement new business requirements.
- Increase employee productivity by role based portal work centers, online training material and employee self-services

# Strategic Programs and Projects



- Which strategic programs and projects currently exist or are planned for the next three years?
- Which programs address end user productivity and might be delivered by means of an enterprise portal?
- What are the timelines of the projects?
- What are the benefits of the projects? What is the strategic relevance?
- Who are the stakeholders?

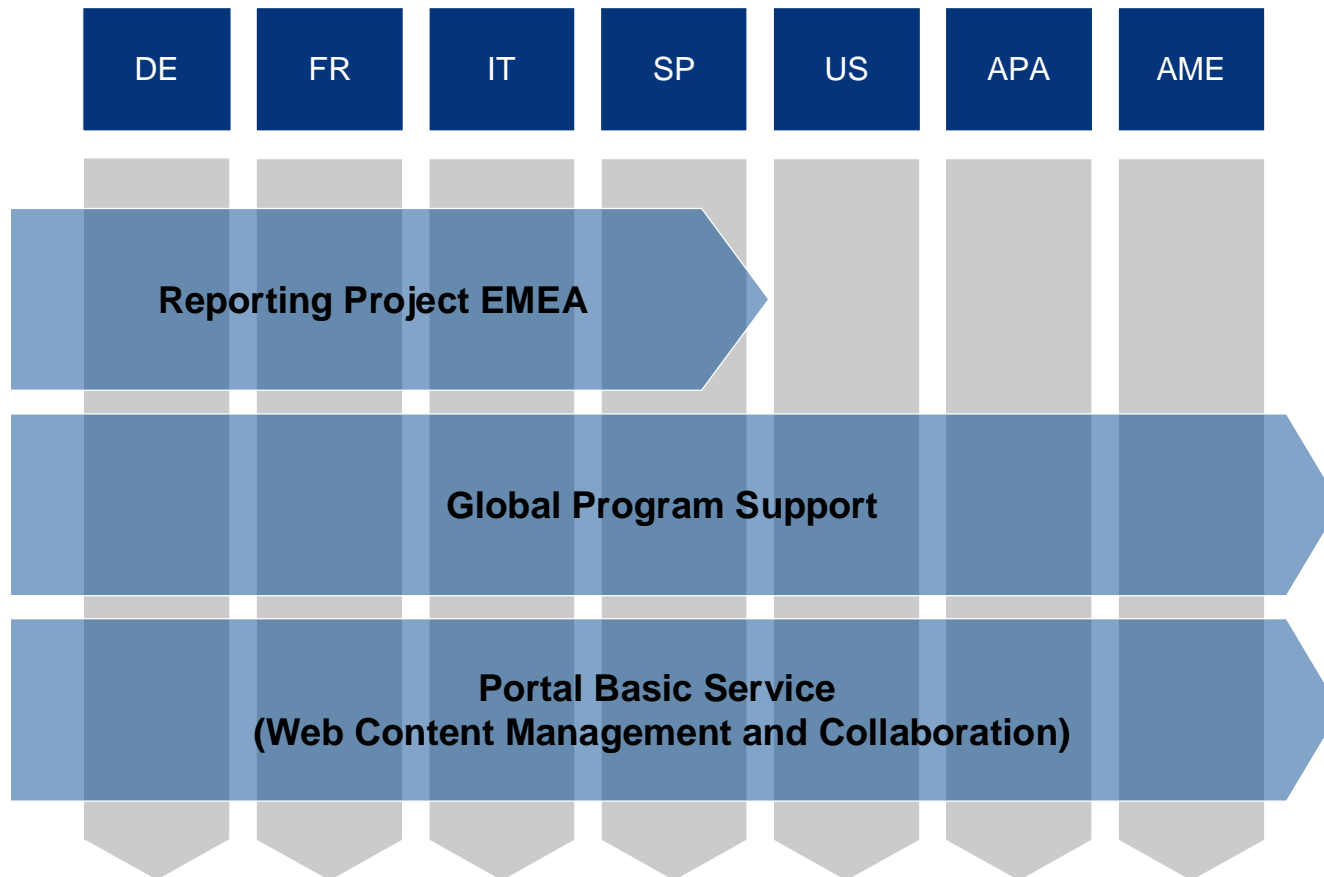
By asking these questions the enterprise portal may be positioned as strategic delivery channel for the relevant programs and projects. Very often programs do not plan for portal activities.



Analyze which target groups will be addressed for rolling out portal services.

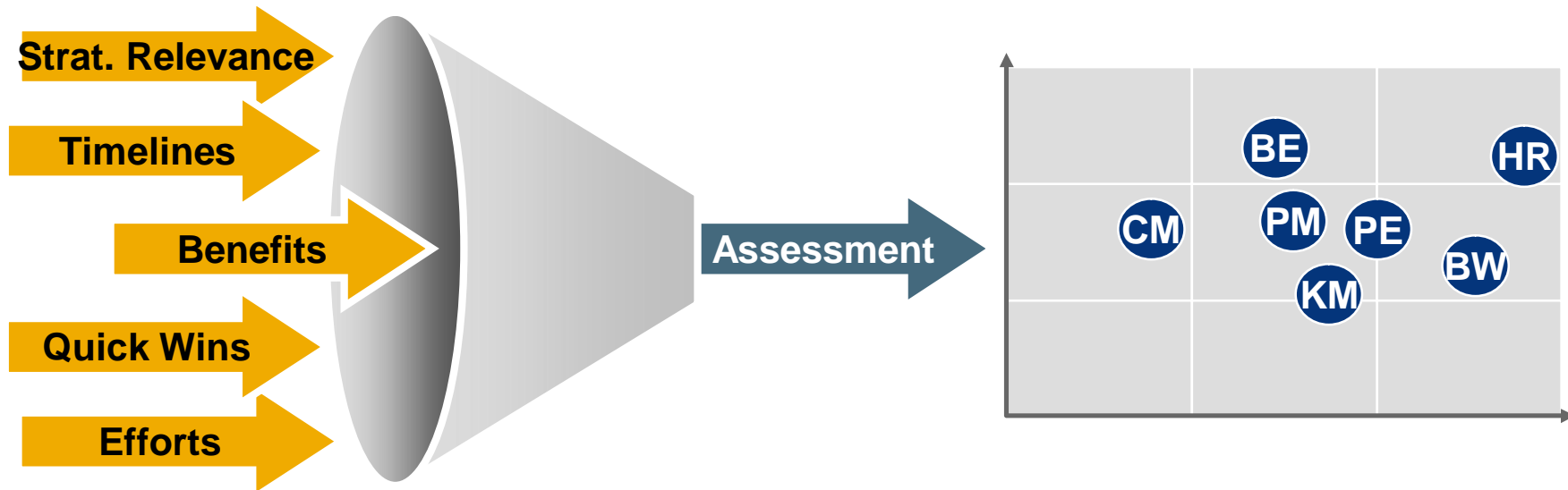
# Scope of Portal Services

## Content and Rollout dimensions



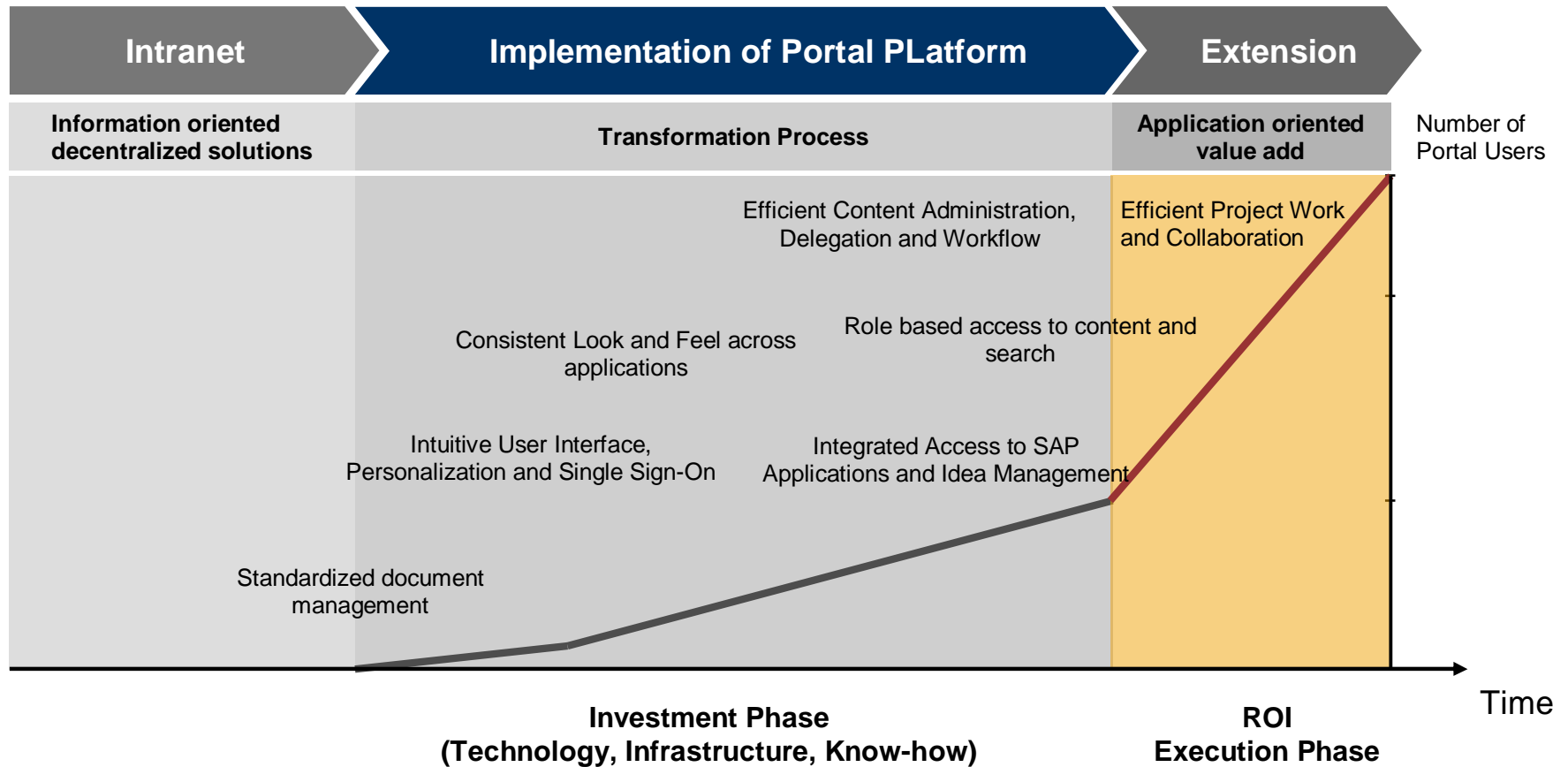
Analyze the potential to which target groups specific portal services can be rolled out. A wide scope increases the value add of the service.

# Portfolio Analysis and Roadmap



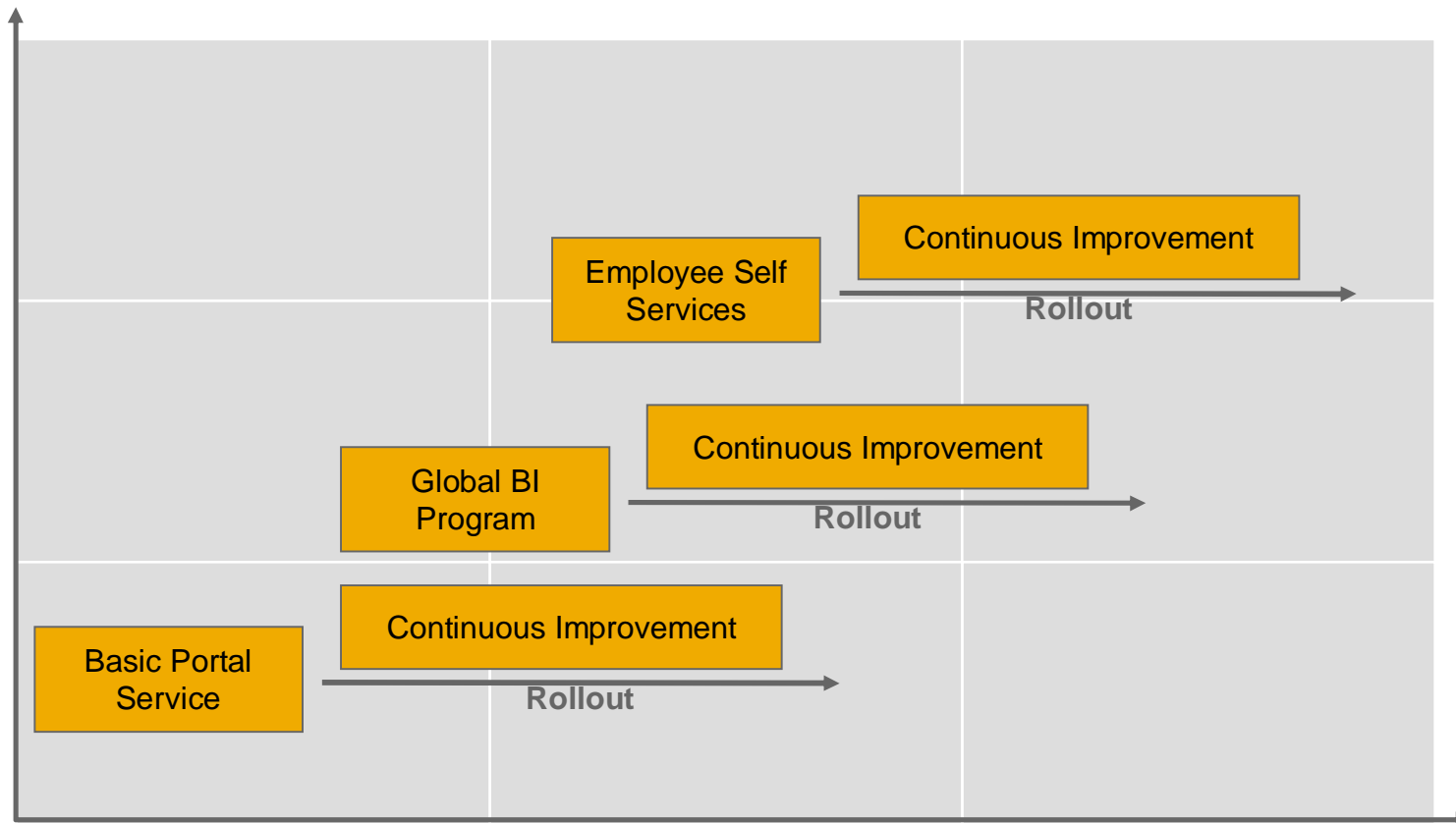
Based on individual evaluation criteria portfolio analysis will result in portal service roadmap.

# Business Roadmap (Example)



The systematic coverage of business benefits correlates with the number of portal users.

# Portal Service Roadmap



From the Portfolio Analyses you can derive a Portal Service Roadmap which gives an overview about development of services, rollout and also required resources over time (Development and rollout activities might overlap). Carefully plan the initial basic service.

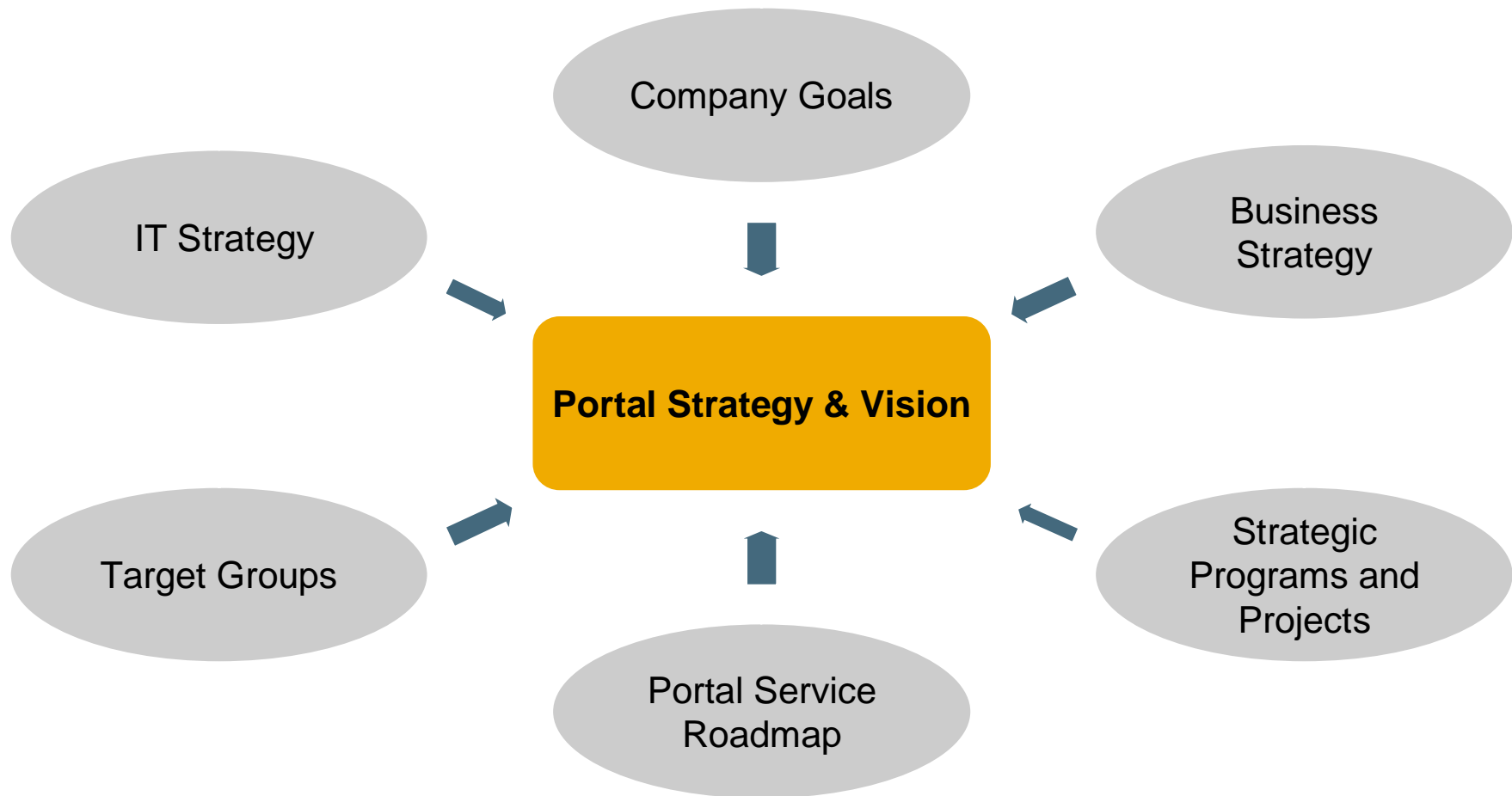
# Implementation Scenarios



**Success factors: Quick wins which have a high impact, significant added value, are broad in scope, user friendly and use cutting-edge technology**

	Vertical Approach	Horizontal Approach	Combined Approach
Approach			
Examples	<ul style="list-style-type: none"> <li>■ Manager Cockpit</li> <li>■ Professional applications for financial or HR planning</li> </ul>	<ul style="list-style-type: none"> <li>■ Corporate news &amp; events, guidelines, policies, FAQs</li> <li>■ Lunch menu</li> <li>■ Bulletin board</li> </ul>	<ul style="list-style-type: none"> <li>■ Self-services for Employees                             <ul style="list-style-type: none"> <li>■ Leave Request</li> <li>■ Time Recording</li> <li>■ Career Management</li> </ul> </li> </ul>
Advantage	<ul style="list-style-type: none"> <li>■ Breadth of functionality indicates potential</li> <li>■ Reduced risk of failure due to limited scope</li> <li>■ Expectations management</li> </ul>	<ul style="list-style-type: none"> <li>■ Broad in scope</li> <li>■ Quick wins with high impact</li> <li>■ Reduced complexity</li> <li>■ Rapid rollout</li> </ul>	<ul style="list-style-type: none"> <li>■ Quick wins with high impact</li> <li>■ Showcase for breadth of functionality (“lighthouse”)</li> </ul>
Disadvantage	<ul style="list-style-type: none"> <li>■ Complex requirements</li> <li>■ Time-consuming –delayed horizontal rollout</li> <li>■ No quick wins</li> <li>■ Minimal scope</li> </ul>	<ul style="list-style-type: none"> <li>■ Limited functionality</li> <li>■ High risk of failure because of dimension of project and limited ability to influence expectations</li> </ul>	<ul style="list-style-type: none"> <li>■ Highly complex project</li> <li>■ High cost of investment</li> <li>■ Very resource-intensive</li> </ul>

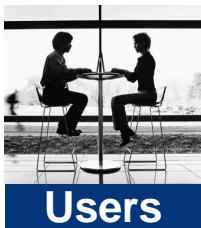
# Creating a Portal Strategy and Vision for the upcoming three years.



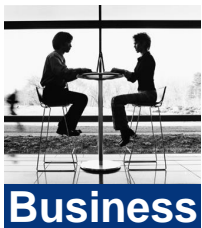
# Logical Building Blocks and Portal Services



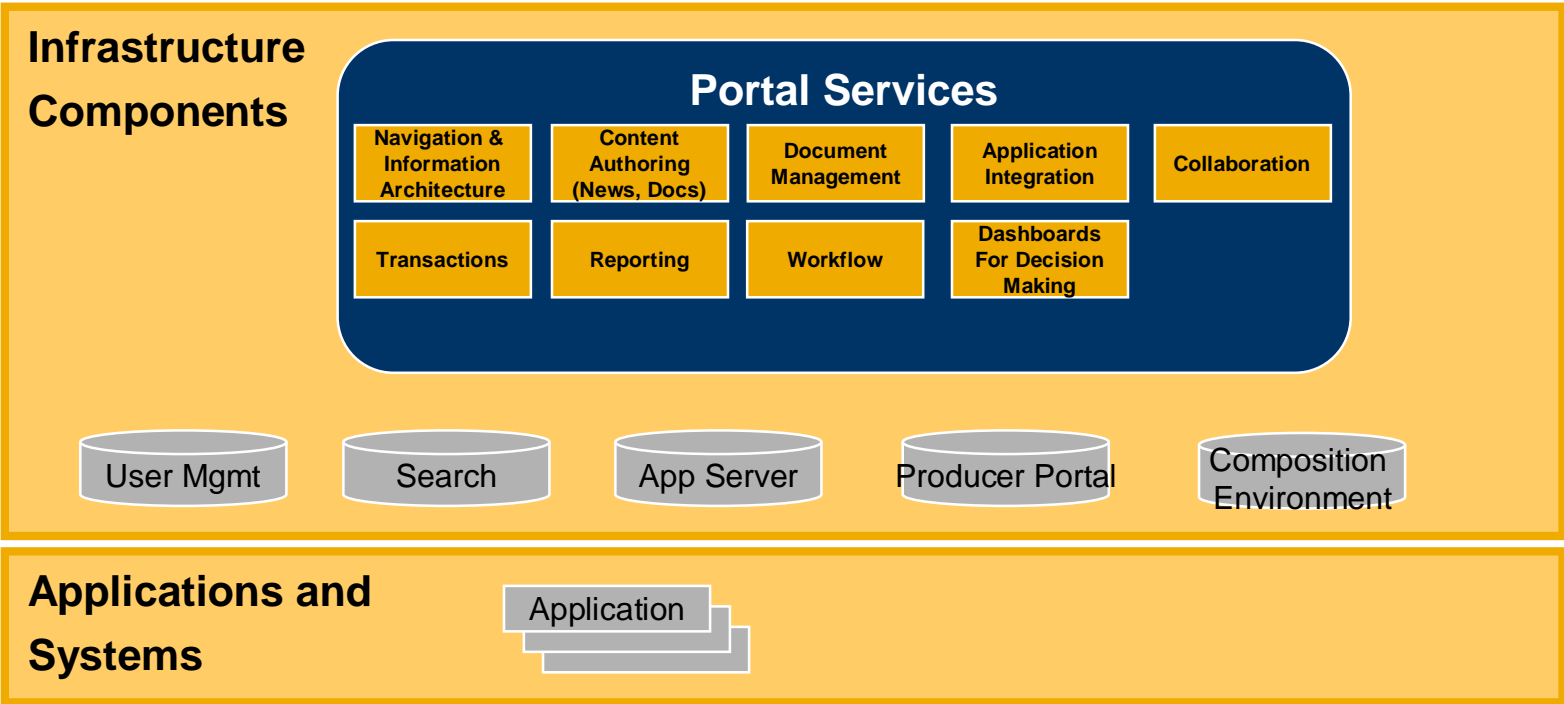
## Portal Strategy / Governance / Roadmap



Users



Business

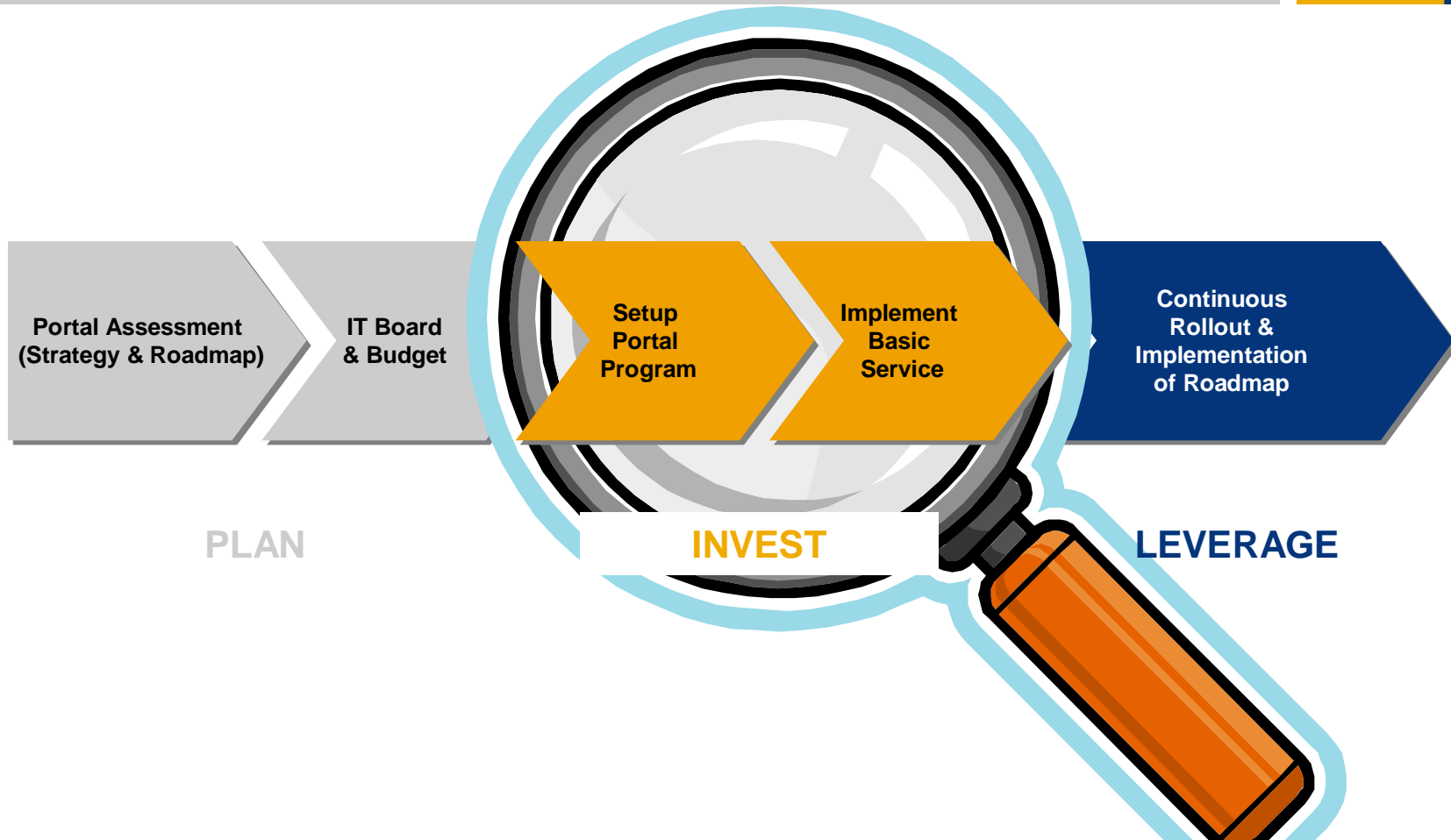


# Agenda



1. Introduction and Motivation
2. Strategy and Vision
- 3. Business Case**
4. Organization and Governance
5. Infrastructure & Architecture
6. Summary & Wrap Up

# Assessment of Potentials



Develop a high quality basic service which is the foundation for subsequent phases. Estimate the benefits of the following execution phases, which can leverage this foundation.

# Initial Basic Portal Service

Enable Adoption through delivery of high quality service



Special care needs to be taken into account when **defining the delivery** of the initial basic portal service in order to **meet the expectations** and create a **positive user acceptance**. The rollout must be successful in order to facilitate **adoption** and create interest in **further portal projects**. The foundation delivered with the basic service can be **reused and leveraged** in subsequent phases.

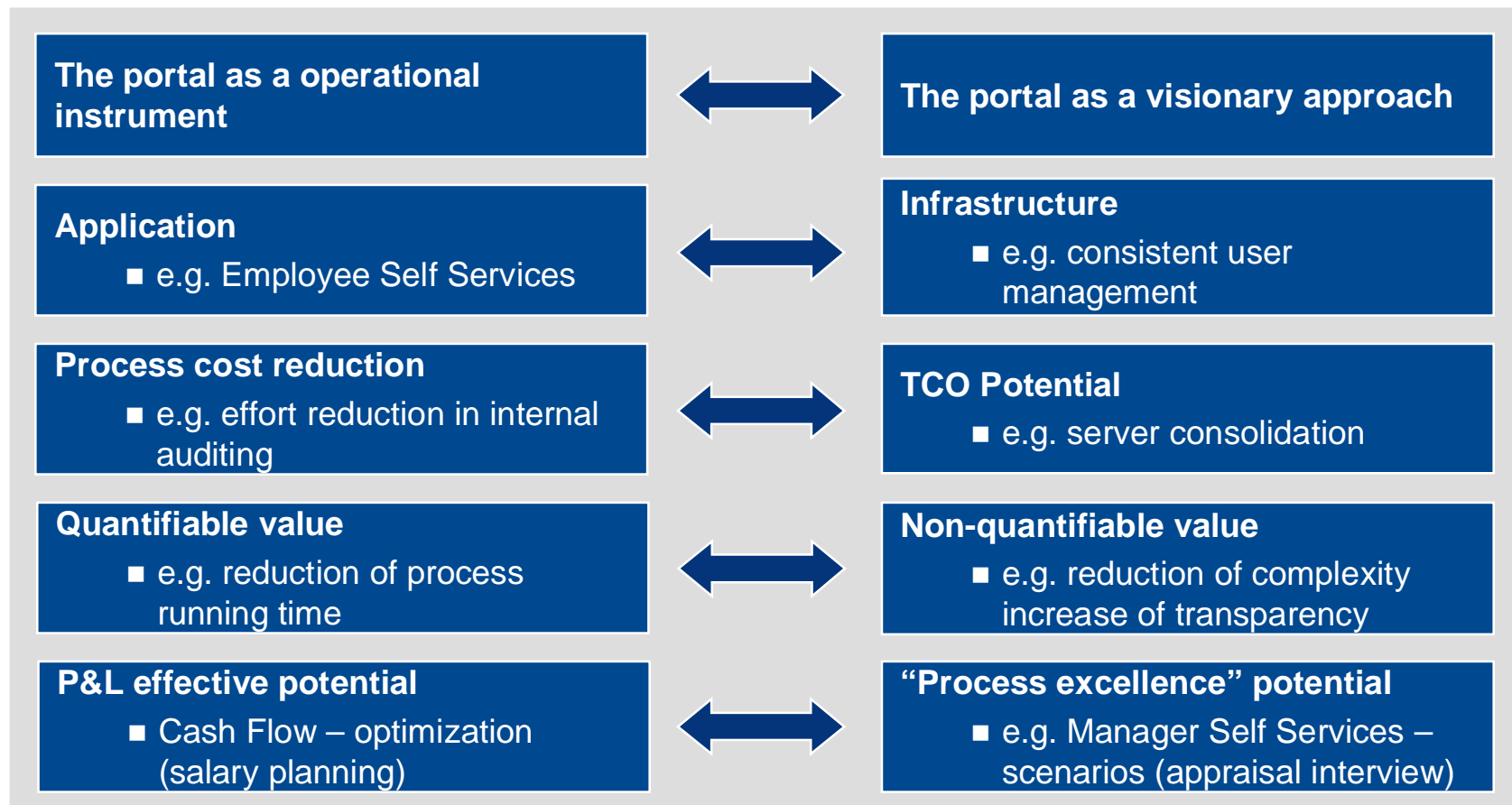
An **initial invest** needs to be made in setting up all the basic technical infrastructure and development of portal services providing a significant business benefit. Additionally all organizational processes need to be set up.

The following aspects should be considered:

- Providing a nice look and feel according to corporate guidelines to achieve a **positive user experience**
- Providing good performance for portal access for all portal users
- Providing **business benefits** (quick wins) for a large number of users
- Providing the organization to **enable change and improvements** (e.g. for localization)

The basic portal service refers to vision & strategy, technology (architecture, security, user management, development, operation), organization (governance, change management) and all functional aspects related to the basic service (design & layout, navigation and roles, etc.).

# How can a portal's business value be determined?

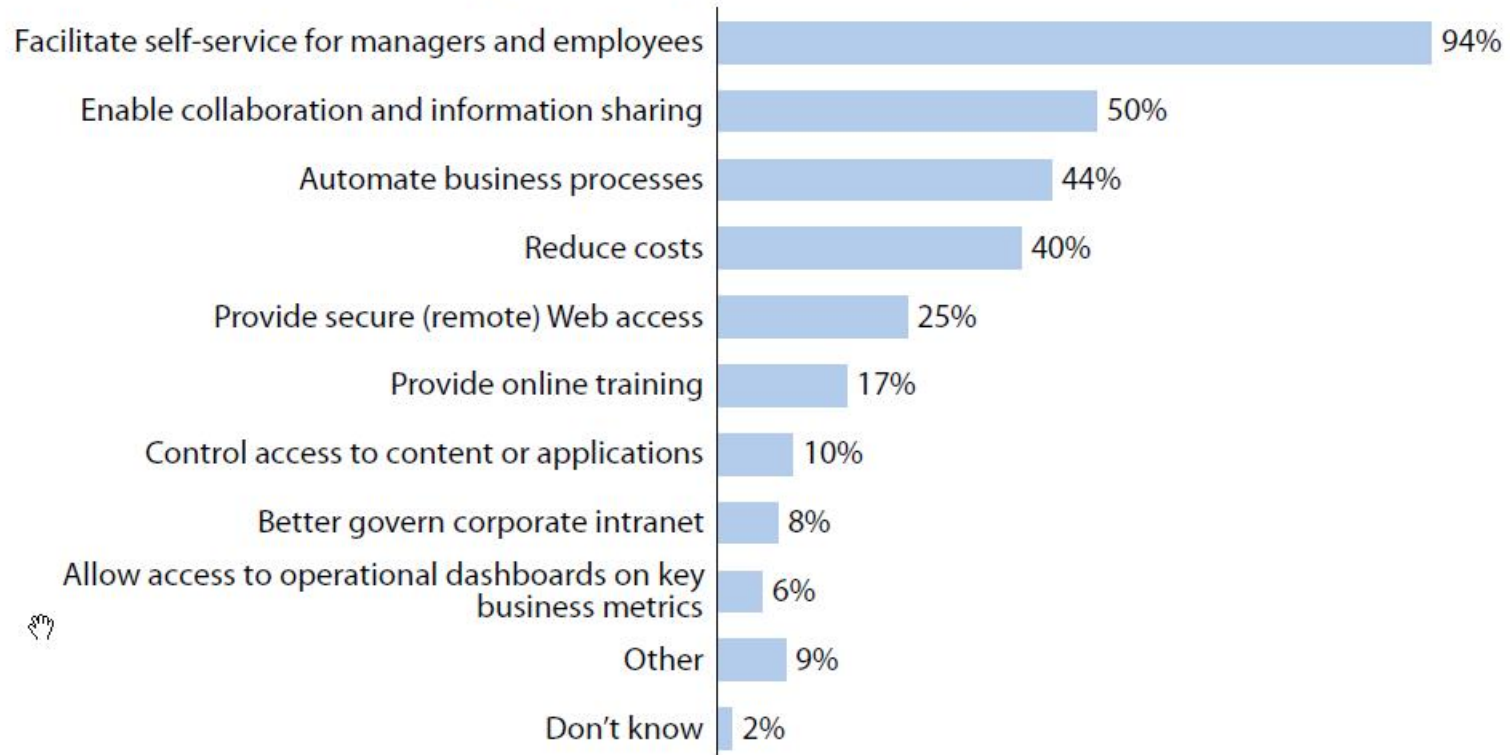


Quantification of an enterprise portal's business value remains a challenge. Portal can act as delivery channel for programs, integration platform or enabler for new business processes.

# Business Drivers for Employee Portals (Forrester)



**“What are the most important business drivers behind your decision to consider or implement an employee-facing portal?” (select top three)**



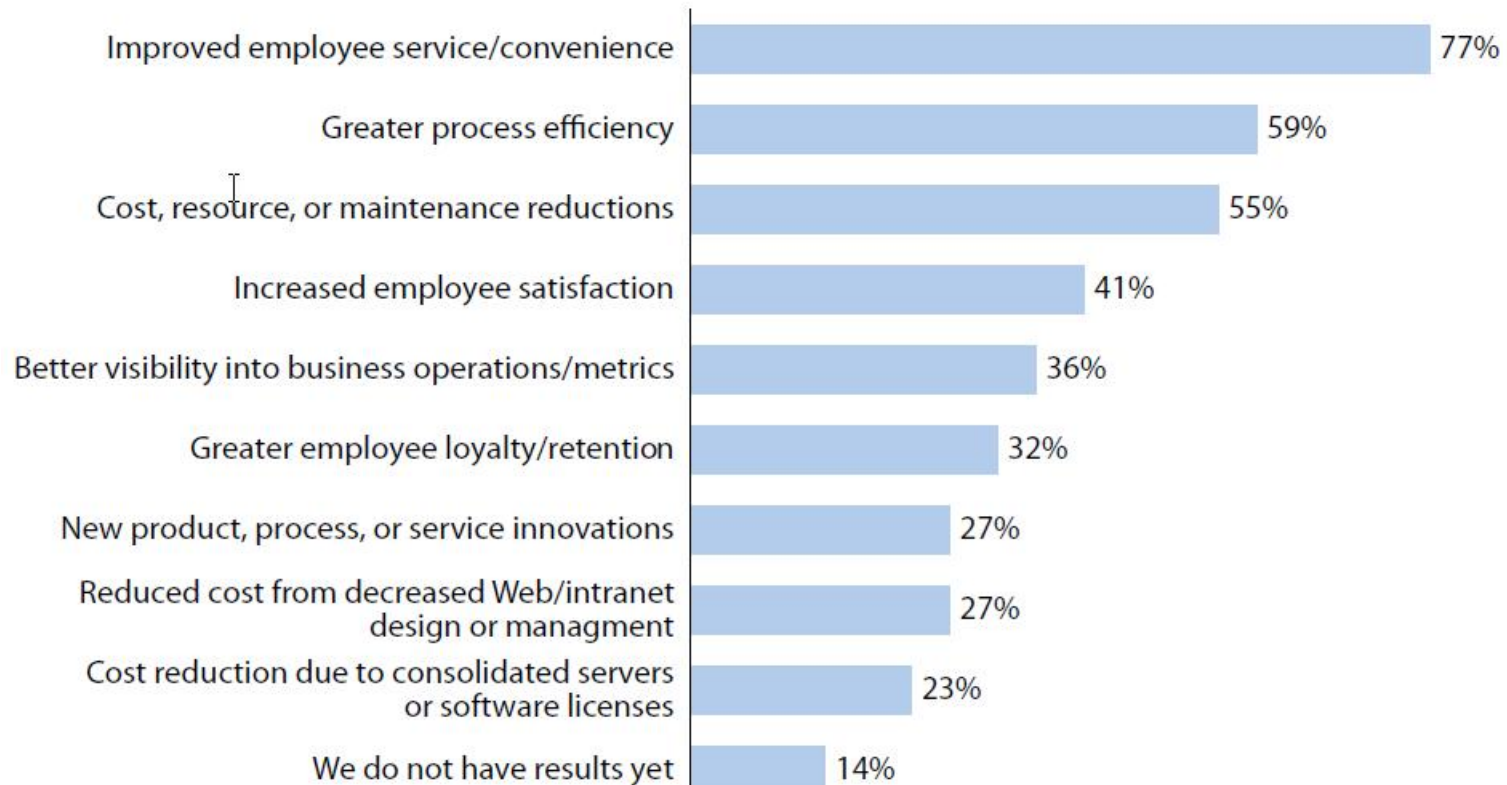
Base: 261 US employers that currently have or plan to have an employee portal

Source: *Employee Benefit News/Forrester Research 2006 Benefits Strategy And Technology Study*

# Business Outcome from Employee Portals (Forrester)



**“What results have you gained from deploying the employee portal?” (select all that apply)**



Base: 261 US employers that currently have or plan to have an employee portal

Source: *Employee Benefit News/Forrester Research 2006 Benefits Strategy And Technology Study*

## Bottom Line

Enterprise Portals have two categories of benefits



### tangible

- Costs ↘
- Productivity ↗



### intangible

- Strategy
- Soft Factors

# Tangible Benefits: Main drivers for Cost Reduction



**The following were identified as the main drivers for direct cost reduction:**

## **Training**

- Decreased spending on end user training for systems that are integrated into the EP.
- *Example: BW user training approx. 1 day, for Portal based BW only ½ day.*

## **Single Sign On**

- Decreased costs for password administration (IT) and system maintenance.

## **Hardware**

- Reduction of individual disc space.

## **Software**

- Built-in Knowledge Management and Search Engine make other software obsolete.

## **others**

- User Administration
- Consolidation of Intranets
- Get rid of old technology or maintenance of home grown systems.

# Tangible Benefits: Main Drivers for increased Productivity



**The following were identified as the main drivers for increased employee productivity:**

## **Document Management**

- Less time spent on searching for, distribution and administration of documents.

## **Collaboration**

- Faster access to information through on-the-fly workflows, application and information sharing, virtual team rooms.

## **Business Packages**

- Out of the box business content (e.g., Manager Self Service, ESS).

## **Integration**

- Related, coherent information on one portal page instead of multi-screen work with multiple log-on's.

## **Push / Alert**

- On demand and event driven information delivery, instead of searching.

## **Standardization**

- Faster processing through consistent look & feel of information & applications.

## **Training**

Quicker learning reduces downtime for employees.

## **Single Sign On**

Reduced maintenance for password administration, reduced idle time (waiting for password resets), ...



## Fit with Strategy: improved operations



- Improved ability for decision taking through personalised, real-time & integrated access to information.
- Higher Customer Retention through better informed employees and personalised communication platform.

### Driver (samples):

- Number of integrated Systems
- Heterogeneity of today's and future System Landscape
- Commonality of changes in System Landscape
- Usage of Web Services
- Number, and regional distribution, of End Users



## Fit with Strategy: Alignment with IT Strategy



- **Open platform for common technologies (J2EE, .Net).**
- **Know-how acquired and leveraged on future IT projects.**
- **Higher acceptance for new / future applications and system changes.**
- **Future-proof, scalable solution.**
- **High level of penetration (mobile access).**
- **Early adoption of SAP strategy**

### **Driver (samples):**

- Number of integrated Systems
- Heterogeneity of today's and future System Landscape
- Commonality of changes in System Landscape
- Usage of Web Services
- Number, and regional distribution, of End Users



## Fit with Strategy: Alignment with IT Strategy










- **Reduction of frustration among employees through more easily accessible tools & systems: increased employee satisfaction.**
- **Increased employee satisfaction and motivation through higher Corporate Identity.**
- **Better informed employees through improved knowledge sharing.**
- **Better access to employees for Corporate Communication.**
- **Leveraging existing investments & systems through higher usage.**

### **Driver (samples):**

- Number of integrated Systems
- Heterogeneity of today's and future System Landscape
- Commonality of changes in System Landscape
- Number and regional distribution of End Users



## Positive impact on strategic Goals

- Employee Productivity 
- Ability to decide 
- Employee and Customer Retention 
- Strong Synergy with increasing deployment of web based solution 
- Corporate Identity 
  
- Roll-out times for other systems and applications 
- Roll-out costs for other systems and applications 

# What makes the portal initiative to be successful?



Create a value system consisting of Principles and KPIs in order to measure the success of the portal:

- From the portal vision and strategy as well as for each individual portal service derive Key Performance Indicators (KPIs).
- Define how to measure KPIs.
- Define target values for measures.
- Define importance of each KPI.

Example: High Priority is the rollout of the basic service to countries. Target Value is 15 countries within one year.

The Principles and KPIs form a value system which is the foundation for the portal program management and determines which measures need to be taken in order to deliver a successful portal platform.

# Cost Model



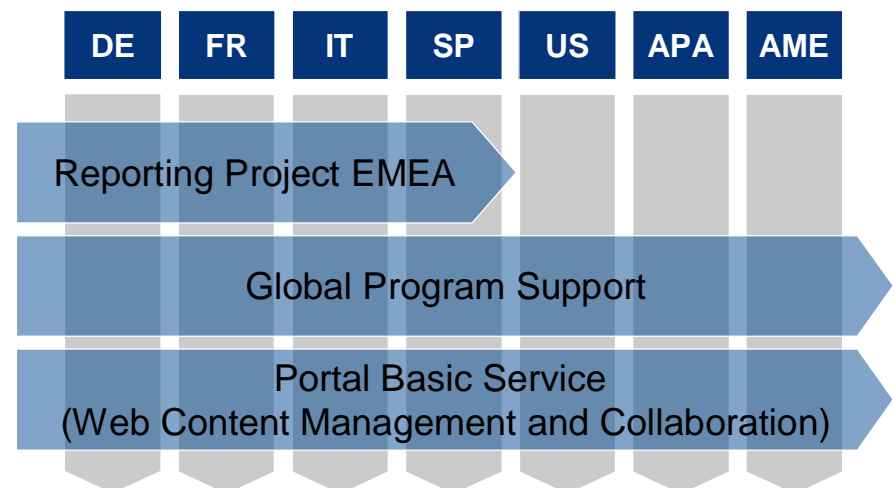
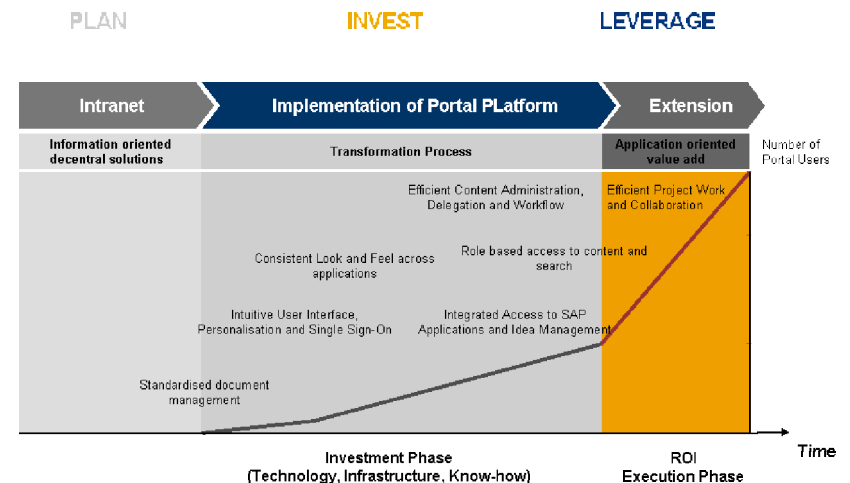
Who is paying for the initial invest?

Factors for the Cost Model:

- Organizational Costs
  - Setup of Governance, Organization and Processes
- Development and Maintenance Costs for Services
- Infrastructure Costs
- Rollout Activities

Factors for Charging back

- Rollout dimensions (number of users)
- Strategic Sponsoring
- Charge by project and Change Request (service development)
- Charge per user for
  - basic service and infrastructure
  - Premium services
- Charge for resources (e.g. disc space)



# Agenda

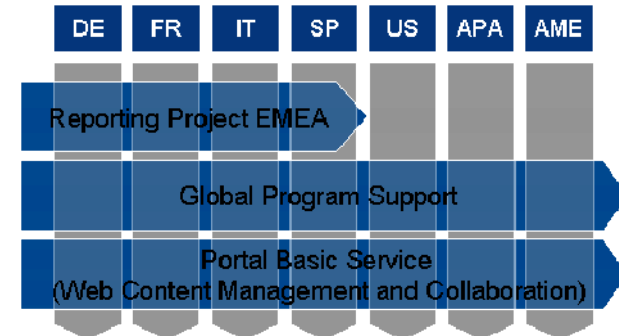


1. Introduction and Motivation
2. Strategy and Vision
3. Business Case
- 4. Organization and Governance**
5. Infrastructure & Architecture
6. Summary & Wrap Up



## Involved Organizations

- Sponsors
- Ownership
- Councils and communities
- Service Providers
- Customers & Business Owners
- Strategic Programs and Projects



## Typical Stakeholders

- CIO for strategic support
- HR department for delivering Employee Self Services
- Global Communication for intranet content and style guides
- Hosting partner for delivering technical portal infrastructure
- Involvement of local gatekeepers within councils

From the portal roadmap all relevant business stakeholders can be derived. Additionally the program organization needs to be set up, which provides the portal services. The roles and responsibilities of the different stakeholders need to be described.

# Portal Program Organization (Example)



**Steering Committee (CIO Level)**

**Program  
Management**

**Portal  
Committees**

**Portal  
Framework**

**Content  
Management**

**User  
Management**

**Search  
Capabilities**

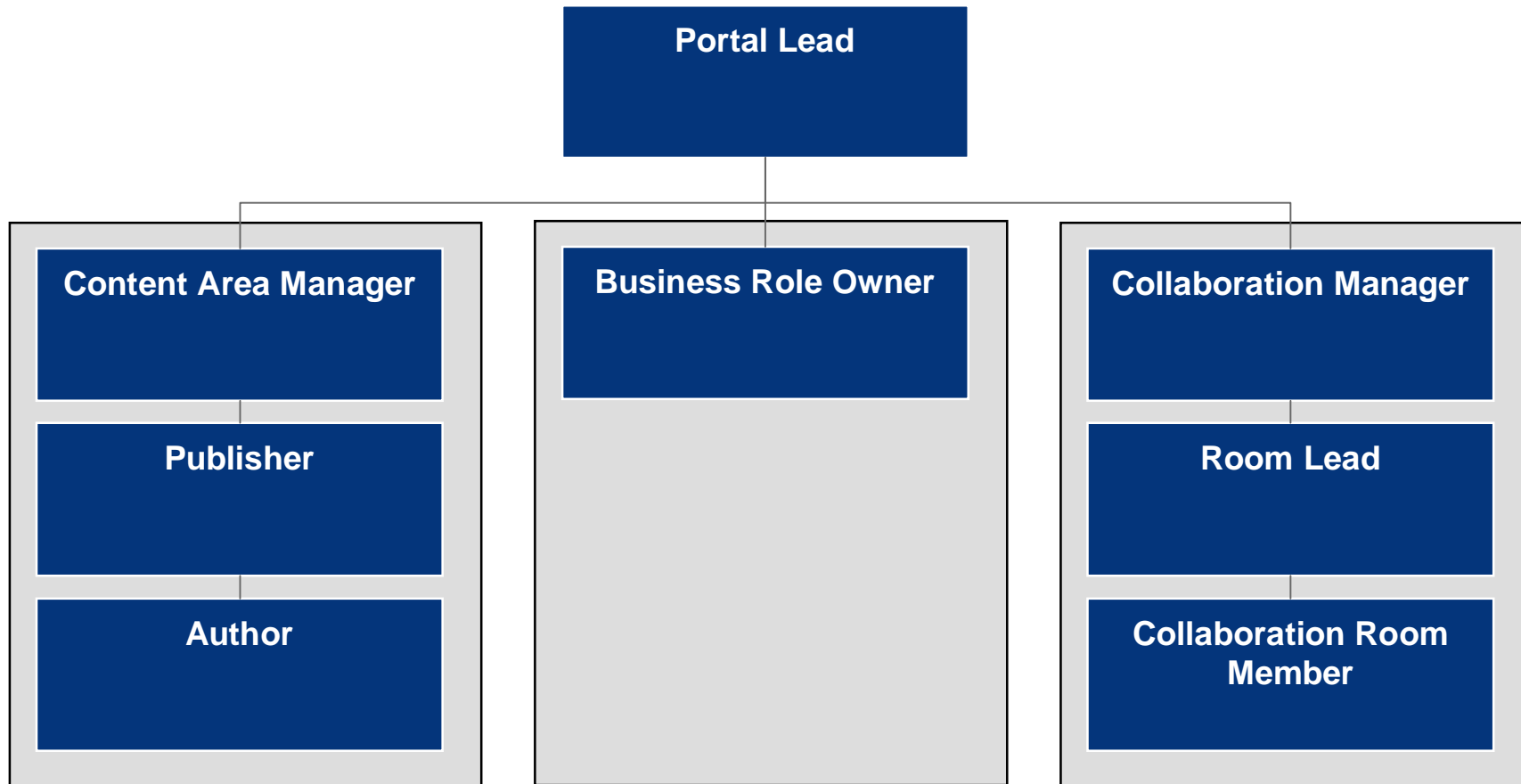
**Rollout  
Team**

**Corporate  
Comm.**

**Infrastructure, Network, Security**

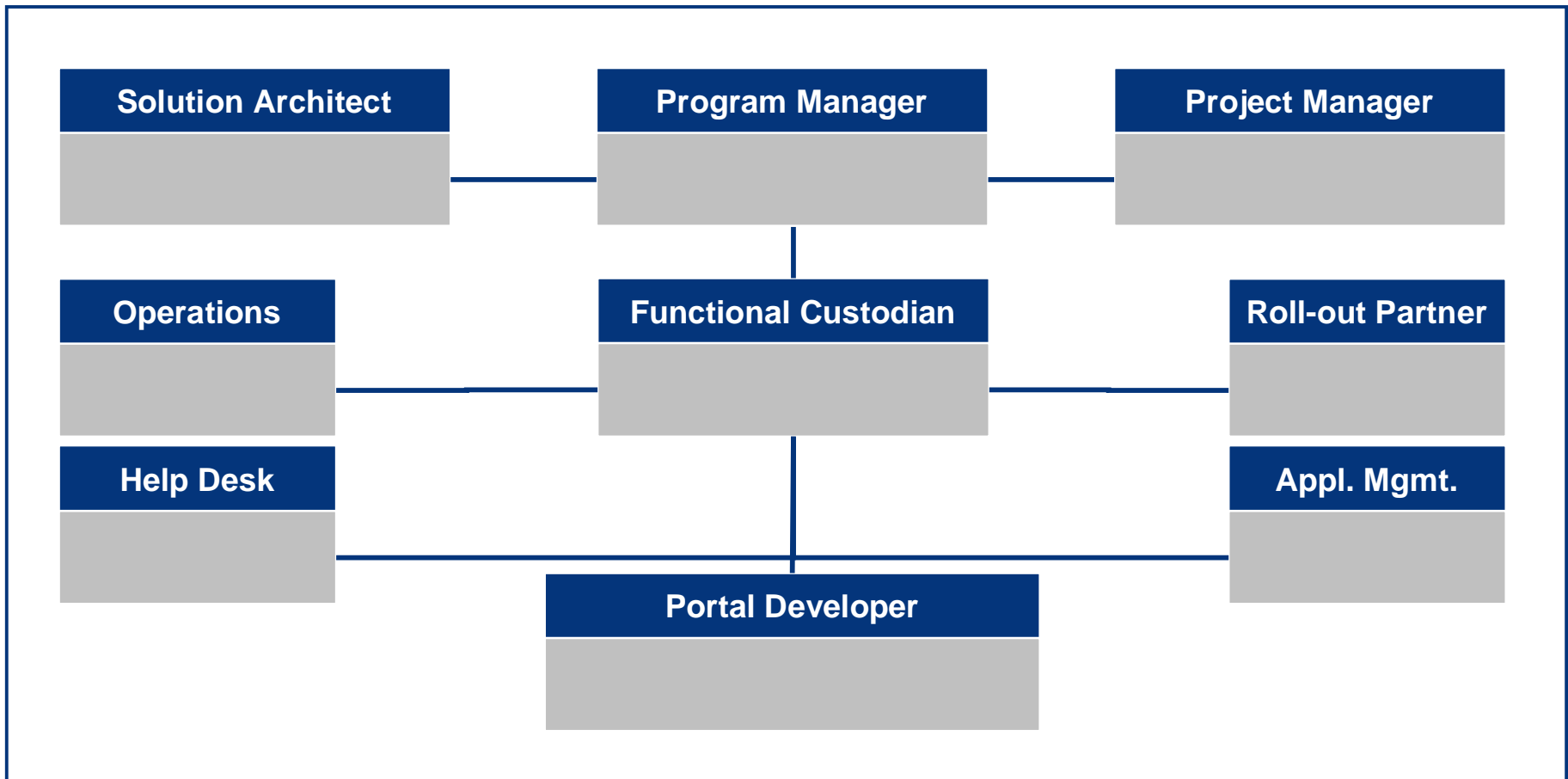
# Portal Content Management

## Example from SAP Corporate Portal



Governance Model covers managed and un-managed content in a delegated manner per line of business or region.

# Portal Program Project Roles (Example)



# Roles and Tasks (Examples)



Role	Tasks
Program Manager	Defines Strategy, goals, Governance, KPIs, Rollout and Release plan, roadmap, resource management, standards and guidelines, Stakeholder management, marketing and decisions which projects and services to realize.
Solution Architect	Integration of Portal into Corporate Enterprise Architecture, alignment with programs and solution architecture for integration projects, Identity and Access Management, enhancement of infrastructure (eg. internet access), solution architecture for new services, setup of governance structures, processes and guidelines.
Project Manager	Coordination and planning of all resources and activities.
Functional Custodian	Central Point of contact for all issues, Change Requests and project initiatives related to portal, evaluates CRs and plans solutions, tracks issues, responsible for smooth operations moderating between operational and application management team, driving program goals.
Portal developer	Support for programs and projects, continuously enhancing and improving portal services and development of new services
Portal Operation / Basis Support	Accelerated support for immediate actions in project and rollout phases.
Local Gatekeepers	Collecting local Change Requests, implementation of Change Requests if part of delegated authority, rejecting or forwarding to functional custodian.

- Embed into existing Change Management Process.
- Define Types of Change Requests and Responsibilities who will implement the change requests (depending on the services rolled out)
- Be aware of local responsibilities and delegation of activities.
- Plan flexibility for local Change Requests

Resource Management is closely connected to the Change Management Process and delegation concept.

# Portal Content Governance

## Central versus de-central content administration

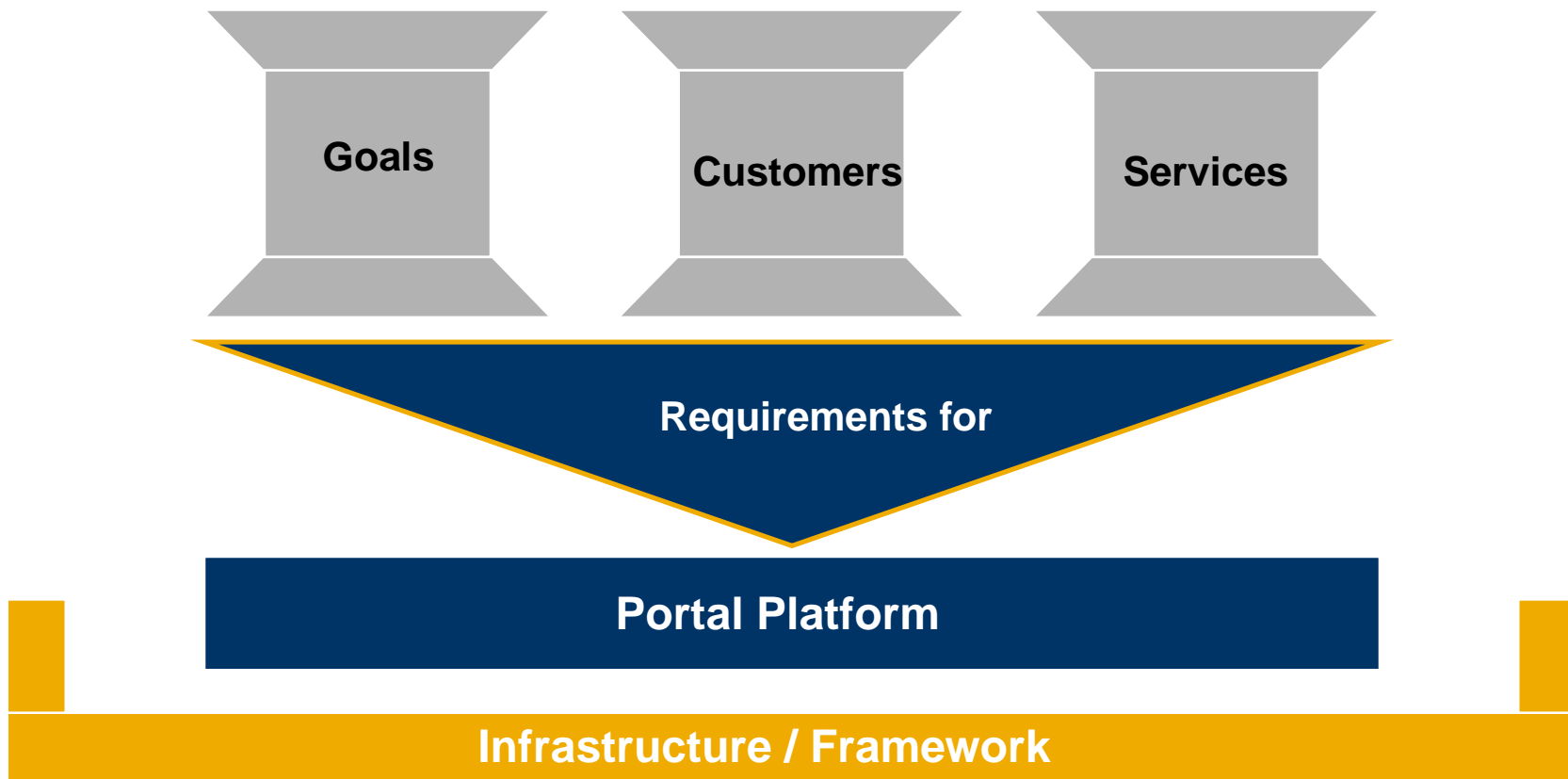


- Global Portal Framework (central versus de-central framework pages, corporate branding)
- Navigation and Role concept (top level navigation)
- Look & Feel / Design / Consistent Templates and Layouts
- Delegated Content Administration (guidelines and naming conventions)
- Application Integration (Systems)
- Languages and Localization
- Storage and Architecture for content
- Taxonomies
- Web Content Management Processes and Guidelines

# Agenda



1. Introduction and Motivation
2. Strategy and Vision
3. Business Case
4. Organization and Governance
- 5. Infrastructure & Architecture**
6. Summary & Wrap Up



# Logical Building Blocks and Portal Services



Portal Strategy / Governance / Roadmap

Business Drivers / User Centric Processes



Infrastructure Components

Portal Services

Navigation & Information Architecture

Content Authoring (News, Docs)

Document Management

Application Integration

Collaboration

Transactions

Reporting

Workflow

Dashboards For Decision Making

User Mgmt

Search

App Server

Producer Portal

Composition Environment

Applications and Systems

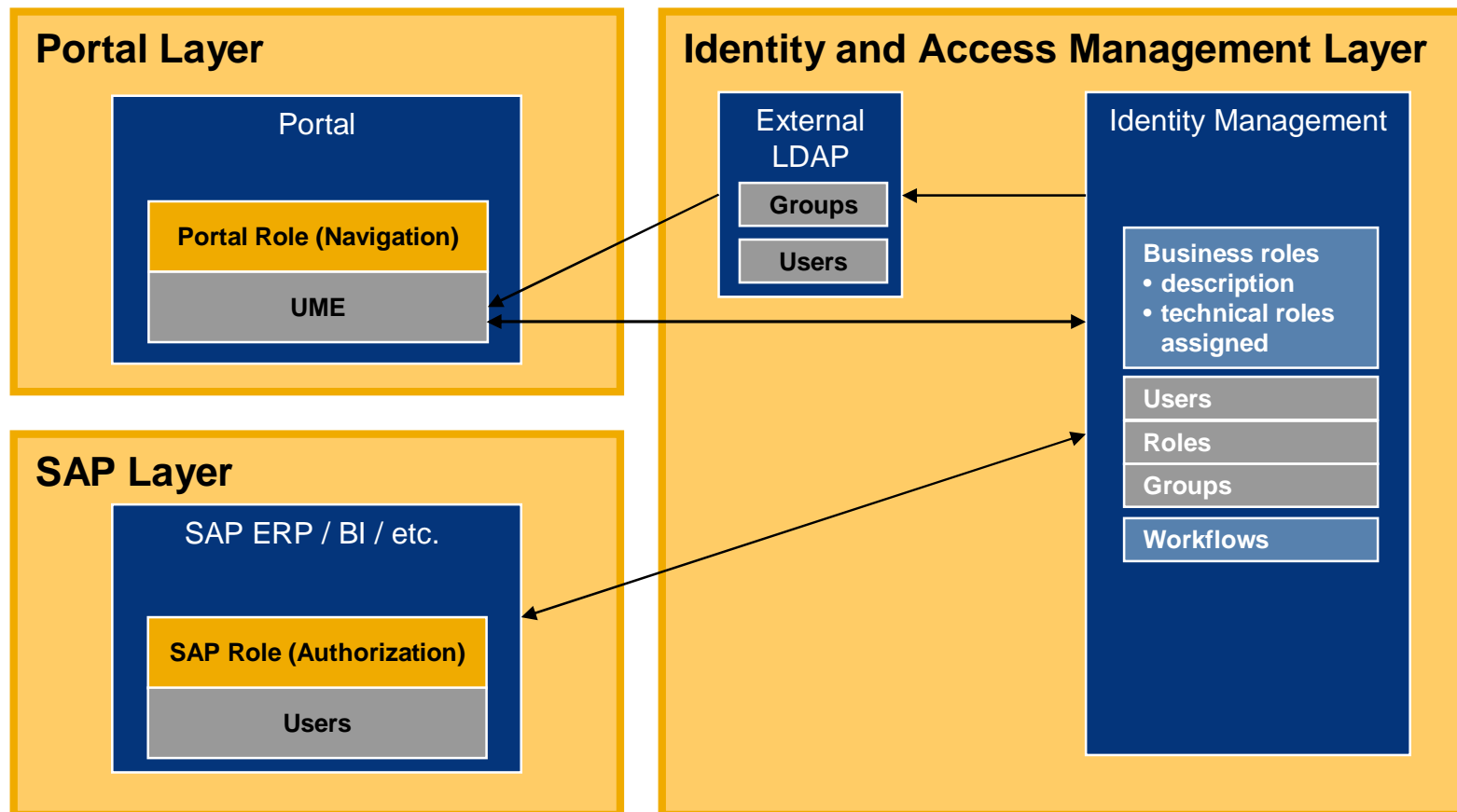
Application

IT Foundation  
(Client & Device Support, Security, Identity and Access Management, Web Platform, Enterprise Application Integration)

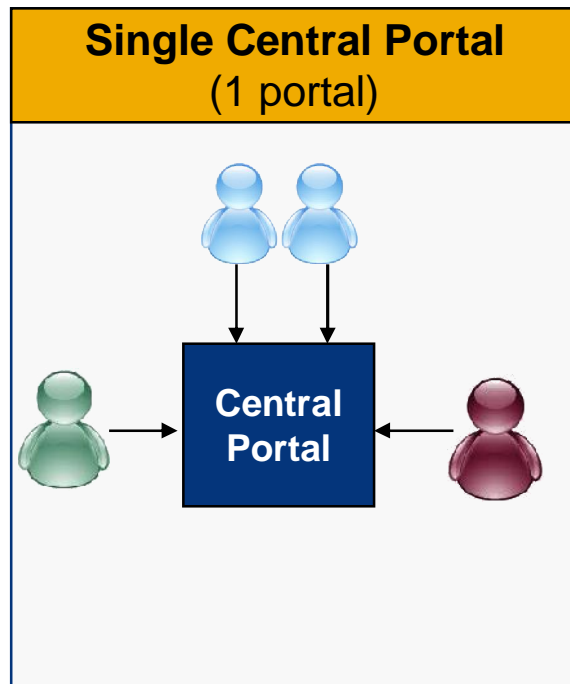
- The overall solution architecture consists of several components (portal, user management, applications, etc.).
- There are different portal integration and deployment scenarios (business packages, deployment of Web Dynpro application, etc.)
- Master guides describe the system architecture for each application.
- Due to release restrictions some architectures are not recommended (BI Java, XSS 6.0)
- Take the target scenarios into consideration when discussing deployment options (e.g. Custom development of Web Dynpro applications, storing documents).
- Also consider investments into infrastructure (e.g. Global access to portal via extended bandwidth and WAN accelerator).

Portal and integration architecture especially in complex scenarios need to be considered carefully. Make sure that you have a clear vision about what you really want to achieve (big picture). Portal architecture comprises a large number of components adding up to the overall solution.

# User Management / Identity and Access Management



# Portal Deployment Options (Portal Systems View)

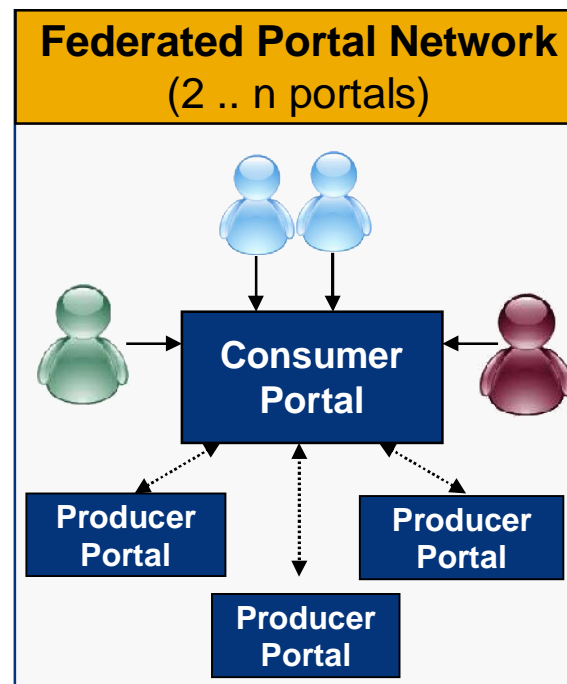


## Approach

- Integrating all applications, services and information into one central portal

## Benefit

- Centrally governed and administrated portal
- Simple landscape setup

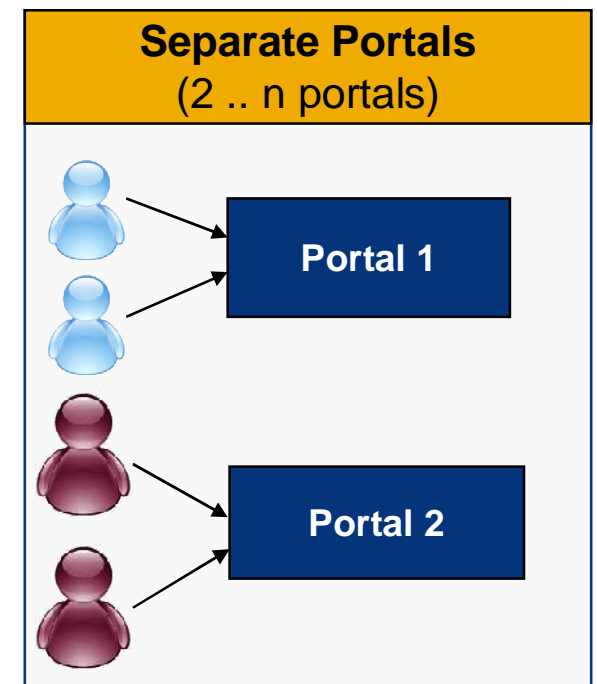


## Approach

- Using FPN mechanism for sharing certain content between multiple portals

## Benefit

- Central access to content via consumer portal
- Autonomous sub-portals
- Independent administration (e.g. release version)



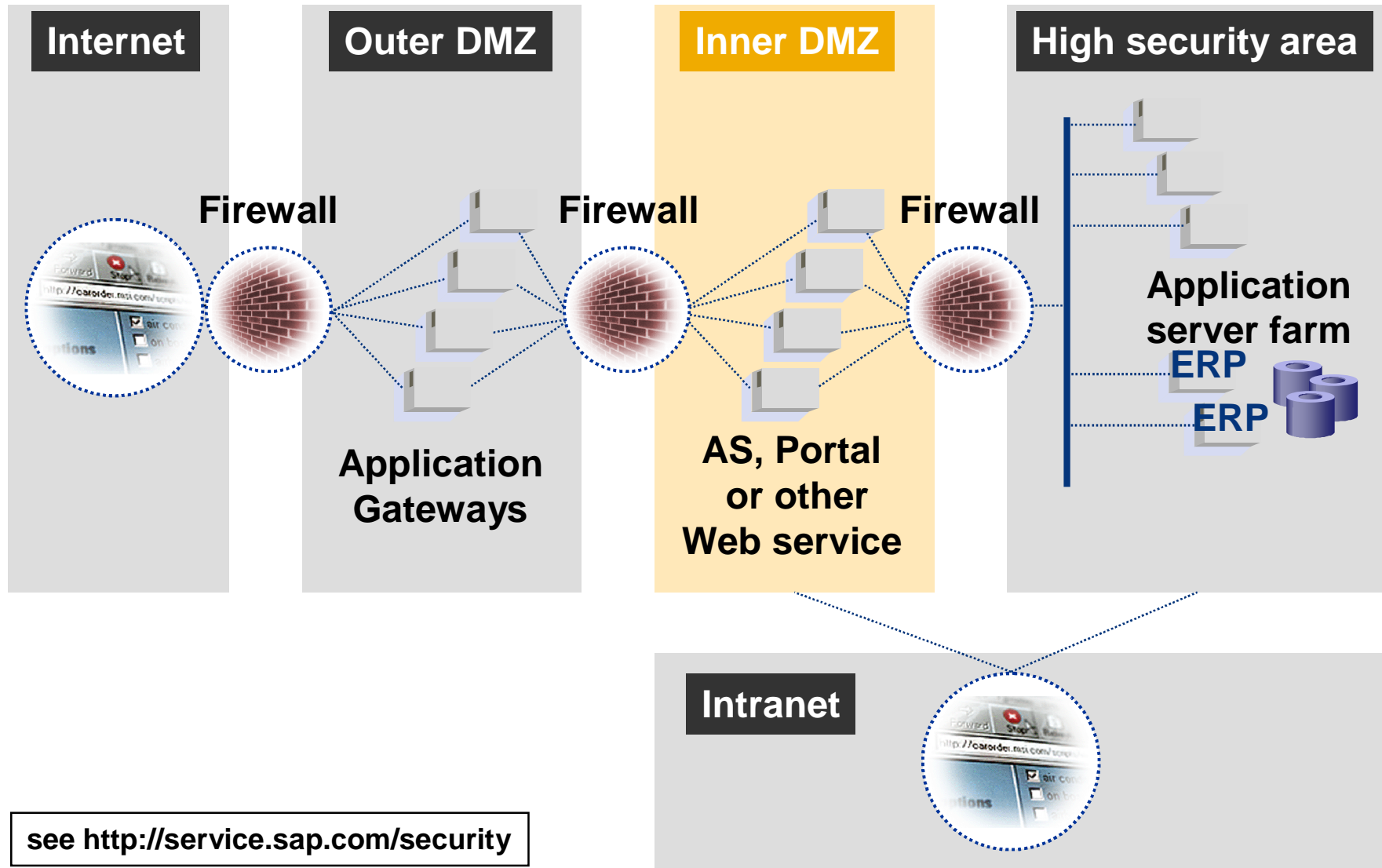
## Approach

- Installation of autonomous portals for dedicated scenarios

## Benefit

- Full flexibility in administration (e.g. release version)
- Avoid any dependencies or impacts (security aspects)

# How to Start?



see <http://service.sap.com/security>

# Agenda



1. Introduction and Motivation
2. Strategy and Vision
3. Business Case
4. Organization and Governance
5. Infrastructure & Architecture
- 6. Summary & Wrap Up**



- Portal is not simply about providing an infrastructure.
- Portal is a cross unit topic.
- Portal is an invest.
- Think about the big picture in order to be able to reuse and leverage the initial invests.
- Who is paying, owning and driving the portal initiative? Does the portal benefit from strategic support?
- Align the portal strategy with company goals and other strategic projects.
- Define a portal roadmap.
- Define how you want to measure portal success.
- Involve stakeholders and set up portal organization governance describing roles, responsibilities and guidelines.
- Define Change Management Process.
- From the roadmap derive or evaluate infrastructure and target architecture.

A blurred photograph of two business professionals, a woman in a grey suit and a man in a dark suit, walking from left to right in a modern office hallway. The background consists of large, light-colored rectangular panels. The overall image has a motion blur effect, suggesting a fast-paced business environment.

# Questions and Answers

Thank you!

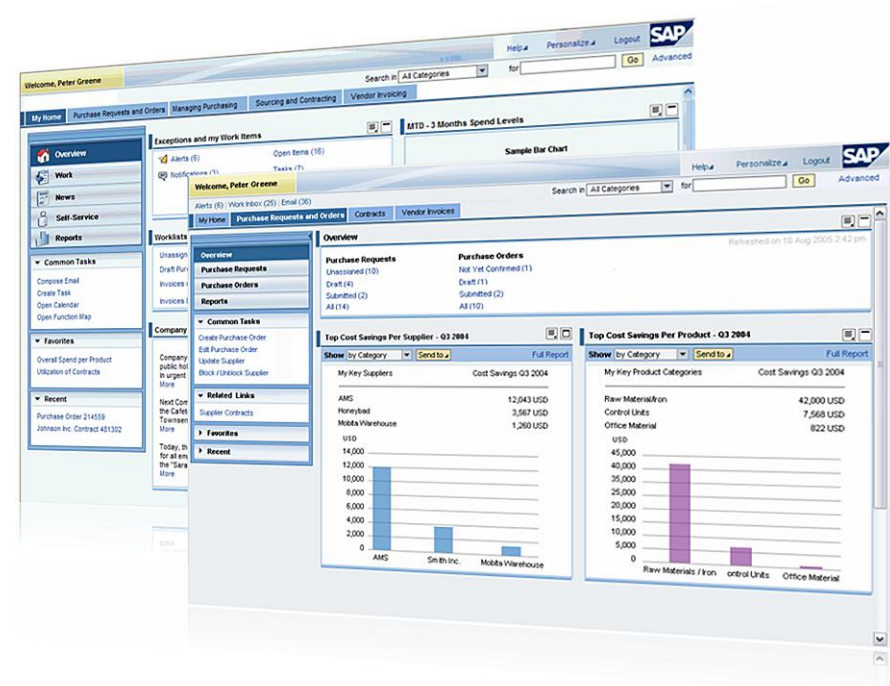
# Appendix



# Implementation of a Portal Project



- An implementation of a portal project means the delivery of a dynamic system.
- Evolution and growth at the project follow the evolution and growth of the company.
- Implementation is driven through new business processes and not by technology.



# Typical Pitfalls / Issues of the different Project Phases



The following pitfalls can be mitigated by a proper project preparation:



# Example: Identify Functional Requirements

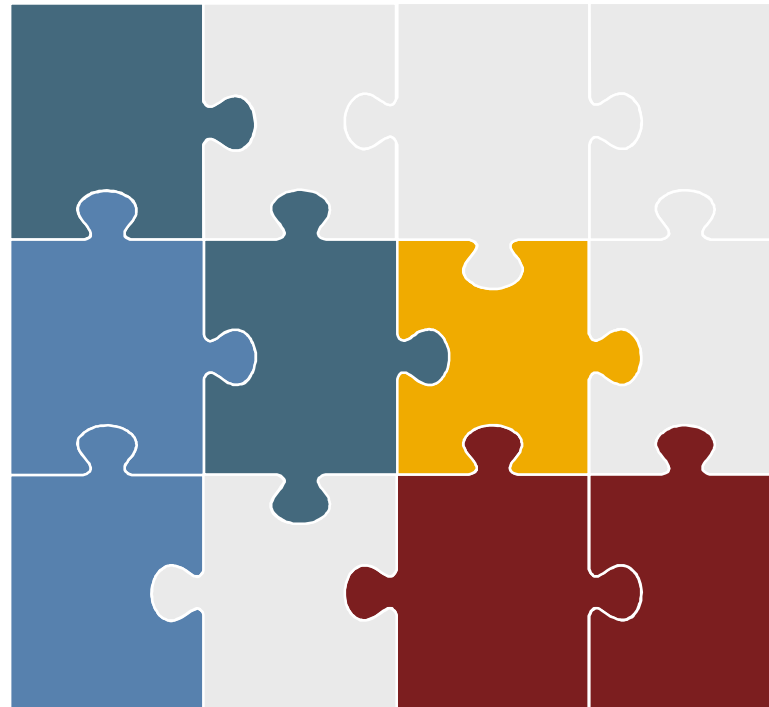


Example Question	Purpose of the Question
<i>What are the relevant <b>processes</b>?</i>	Overview of all the relevant processes and applications you have to consider
<i>Which <b>persons</b> are involved in the process?</i>	Identify affected users/roles: end user, administrator, author; customer, partner
<i>What kind of <b>information</b> does the user need to perform the task?</i>	Overview of relevant content: e.g. documents, reports, applications
<i>What does the user do within each process?</i>	Identify process steps including required input and output/results
<i>Are there dependencies in the workflow that require guidance / workflow?</i>	Identify transactional or collaborative processes.
<i>How does the user get the information?</i>	Clients, Tools, User Interface
<i>How is this information provided?</i>	Push / pull channels: document browser, application, self-services, email
<i>Where is the information stored?</i>	Identify data stores and connectivity
<i>Where does the user work from?</i>	Access scenarios: online/offline, browser/local client, security aspects
...	...

# Setting Your Portal Integration Roadmap (1)



- Customers can select the relevant building blocks, tools and services to implement their specific portal scenarios.
- Recommendation: Start small and extend the scope step-by-step



# General Recommendations and Considerations



- Portal projects usually **cover real company-wide topics** – it's not simply the pure installation of a piece of software
- There are **different starting points** and thus various paths to come to the final target architecture depending on the individual customer situation
- You have to talk to and **involve many people**: business, end user, IT, works council, etc
- Project complexity: **Think big, start small**
  - **General portal program** sets the framework: centrally managed guidelines and governance
  - Specific projects: ongoing, aligned with overall strategy
  - Short term: balance of horizontal or vertical rollout strategy – identify main pain points and use **quick wins / “Lighthouse projects”** to increase early adoption
  - Long term: portal should be made available to all employees
- Governance and Steering
  - Central sponsor and committee **aligns IT and business**
  - Application owners need to be involved and convinced to contribute to the project (pure top down approach might lead to frustration)



No part of this publication may be reproduced or transmitted in any form or for any purpose without the express permission of SAP AG. The information contained herein may be changed without prior notice.

Some software products marketed by SAP AG and its distributors contain proprietary software components of other software vendors.

SAP, R/3, xApps, xApp, SAP NetWeaver, Duet, SAP Business ByDesign, ByDesign, PartnerEdge and other SAP products and services mentioned herein as well as their respective logos are trademarks or registered trademarks of SAP AG in Germany and in several other countries all over the world. All other product and service names mentioned and associated logos displayed are the trademarks of their respective companies. Data contained in this document serves informational purposes only. National product specifications may vary.

The information in this document is proprietary to SAP. This document is a preliminary version and not subject to your license agreement or any other agreement with SAP. This document contains only intended strategies, developments, and functionalities of the SAP® product and is not intended to be binding upon SAP to any particular course of business, product strategy, and/or development. SAP assumes no responsibility for errors or omissions in this document. SAP does not warrant the accuracy or completeness of the information, text, graphics, links, or other items contained within this material. This document is provided without a warranty of any kind, either express or implied, including but not limited to the implied warranties of merchantability, fitness for a particular purpose, or non-infringement.

SAP shall have no liability for damages of any kind including without limitation direct, special, indirect, or consequential damages that may result from the use of these materials. This limitation shall not apply in cases of intent or gross negligence.

The statutory liability for personal injury and defective products is not affected. SAP has no control over the information that you may access through the use of hot links contained in these materials and does not endorse your use of third-party Web pages nor provide any warranty whatsoever relating to third-party Web pages

Weitergabe und Vervielfältigung dieser Publikation oder von Teilen daraus sind, zu welchem Zweck und in welcher Form auch immer, ohne die ausdrückliche schriftliche Genehmigung durch SAP AG nicht gestattet. In dieser Publikation enthaltene Informationen können ohne vorherige Ankündigung geändert werden.

Einige von der SAP AG und deren Vertriebspartnern vertriebene Softwareprodukte können Softwarekomponenten umfassen, die Eigentum anderer Softwarehersteller sind.

SAP, R/3, xApps, xApp, SAP NetWeaver, Duet, SAP Business ByDesign, ByDesign, PartnerEdge und andere in diesem Dokument erwähnte SAP-Produkte und Services sowie die dazugehörigen Logos sind Marken oder eingetragene Marken der SAP AG in Deutschland und in mehreren anderen Ländern weltweit. Alle anderen in diesem Dokument erwähnten Namen von Produkten und Services sowie die damit verbundenen Firmenlogos sind Marken der jeweiligen Unternehmen. Die Angaben im Text sind unverbindlich und dienen lediglich zu Informationszwecken. Produkte können länderspezifische Unterschiede aufweisen.

Die in diesem Dokument enthaltenen Informationen sind Eigentum von SAP. Dieses Dokument ist eine Vorabversion und unterliegt nicht Ihrer Lizenzvereinbarung oder einer anderen Vereinbarung mit SAP. Dieses Dokument enthält nur vorgesehene Strategien, Entwicklungen und Funktionen des SAP®-Produkts und ist für SAP nicht bindend, einen bestimmten Geschäftsweg, eine Produktstrategie bzw. -entwicklung einzuschlagen. SAP übernimmt keine Verantwortung für Fehler oder Auslassungen in diesen Materialien. SAP garantiert nicht die Richtigkeit oder Vollständigkeit der Informationen, Texte, Grafiken, Links oder anderer in diesen Materialien enthaltenen Elemente. Diese Publikation wird ohne jegliche Gewähr, weder ausdrücklich noch stillschweigend, bereitgestellt. Dies gilt u. a., aber nicht ausschließlich, hinsichtlich der Gewährleistung der Marktgängigkeit und der Eignung für einen bestimmten Zweck sowie für die Gewährleistung der Nichtverletzung geltenden Rechts.

SAP übernimmt keine Haftung für Schäden jeglicher Art, einschließlich und ohne Einschränkung für direkte, spezielle, indirekte oder Folgeschäden im Zusammenhang mit der Verwendung dieser Unterlagen. Diese Einschränkung gilt nicht bei Vorsatz oder grober Fahrlässigkeit.

Die gesetzliche Haftung bei Personenschäden oder die Produkthaftung bleibt unberührt. Die Informationen, auf die Sie möglicherweise über die in diesem Material enthaltenen Hotlinks zugreifen, unterliegen nicht dem Einfluss von SAP, und SAP unterstützt nicht die Nutzung von Internetseiten Dritter durch Sie und gibt keinerlei Gewährleistungen oder Zusagen über Internetseiten Dritter ab.

Alle Rechte vorbehalten.