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SAP integration workshop

SAP strategy and directions

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This presentation covers SAP strategy and directions as part of the SAP integration workshop. It will give you an introduction to SAP as a company and the relationships to IBM. Also it will show the product history and roadmap.

The agenda for this module is to start with a company portrait of SAP to introduce the company itself. Then focus will shift to the different products and the roadmap.

Then the SAP enterprise Service Architecture – also known as eSOA – is discussed.

Finally, the SAP strategy for the future will be covered.

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SAP company portrait

- Founded 1972 in Mannheim, Germany by five former IBM employees as "Systemanalyse und Programmentwicklung"

- Today:
  - SAP employs more than 41,900 people in more than 50 countries
  - SAP has about 1,500 partners
  - SAP counts about 12,000,000 users
  - SAP maintains about 91,500 installations

- SAP started its' winning tour by providing standard software in the financial area.

- Extended mission and became service provider too.

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SAP was founded in 1972 by five former IBM employees.

The names of the founders are Claus Wellenreuther, Hans-Werner Hector, Klaus Tschira, Dietmar Hopp and Hasso Plattner.

Today, SAP means "Systems, Applications and Products in data processing"

SAP has more than 41,900 employees in over 50 countries all over the world and they have grown from a software-only provider to offer services also.

Section

SAP products – roadmap – mySAP solutions

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This section covers more details about the roadmap of SAP, covering also the different product sets.

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SAP software characteristics

- Main SAP products have been <u>SAP R/2</u> – <u>SAP R/3</u> – <u>mySAP solutions</u>

- SAP provided standard software components which were customizable to meet the special customer needs

- Very high reuse factor – minimize custom software developments

- Very fast learning curve for SAP users – defacto standard for business software

- Business modules run on top of a common and consolidated platform
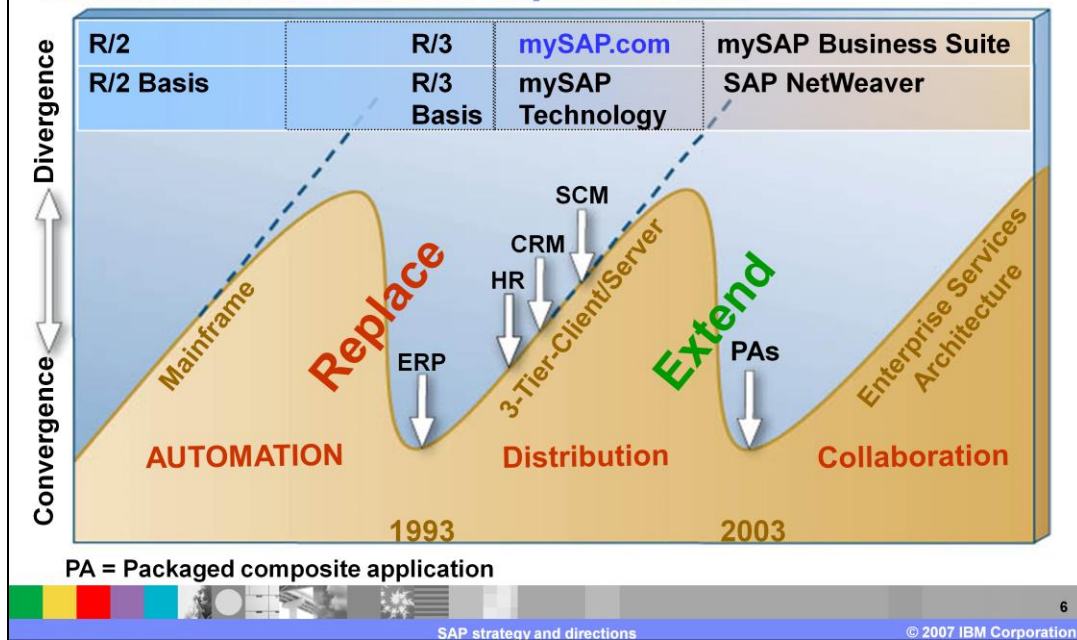
- Invention of programming language - ABAP

The well known SAP products started with SAP R/2. Over the years the new releases came out as SAP R/3 and mySAP solutions. Most recently, the NetWeaver product set was released with the eSOA architecture.

This standard software is very customizable so that customers can configure it to meet specific business needs.

The base product delivered a high reuse factor and a very fast learning curve for the SAP users. These benefits moved SAP to an informal standard in business software and the footprint in the marketplace has grown very quickly.

The founders of SAP invented their own programming language – called ABAP – to develop their product.

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Technology change within SAP Next Step: Extension instead of replacement

R/2		R/3	mySAP.com	mySAP Business Suite
R/2 Basis		R/3 Basis	mySAP Technology	SAP NetWeaver

Divergence / Convergence

Mainframe

Replace

ERP

HR

CRM

SCM

3-Tier-Client/Server

Extend

PAs

Enterprise Services Architecture

AUTOMATION   **Distribution**   **Collaboration**

1993   2003

PA = Packaged composite application

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This slide illustrates the different product generations.

The R/2 was built on a mainframe architecture. The move to R/3 on a 3-tier architecture was a complete replacement of the old product.

In R/3 the different components for ERP, HR, CRM, and others were created.

The move to an Enterprise Service Architecture was different. It was not a replacement, it was an extension. The complete R/3 components run further on, but were extended to support new technologies and features.
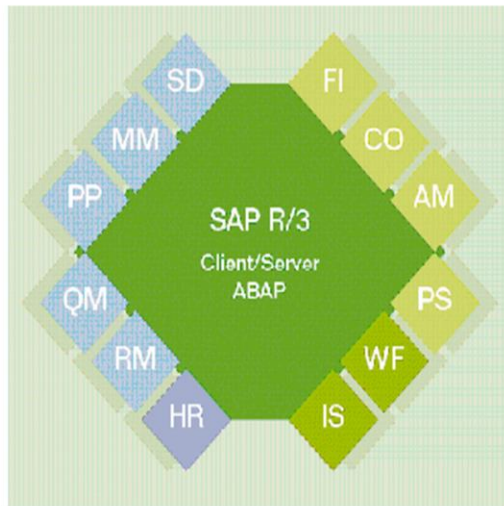
The modular architecture that was introduced with SAP R/3 focused on special solutions for dedicated market segments. These components had the same foundation - the SAP R/3 core server - and enhanced the functionality in different ways.

Industry solutions

- The modular architecture of the SAP core system enables SAP to rapidly develop Industry specific solutions

- Industry solutions (IS) are available for about 26 industries

- IS reuse a lot of common components which were already used in standard SAP R/3 based modules (SD → Retail)

- Developed by SAP business experts not targeted to a special customer

- Described in SAP Business Maps which are Blueprints visualizing key business solutions

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More and more industries needed special applications tailored for their needs. The modular architecture of the SAP system enabled SAP to rapidly develop such solutions.

So there where more than 26 industry solutions which reused common components from standard SAP R/3.

Ready to use industry solutions

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- Aerospace and defense
- Automotive
- Banking
- Chemicals
- Consumer products
- Defense and security
- Engineering, construction and operations
- Healthcare
- High tech
- Higher education and research
- Industrial machinery and components
- Insurance
- Life sciences
- Logistics service providers

- Media
- Mill products
- Mining
- Oil and gas
- Pharmaceuticals
- Postal services
- Professional services
- Public sector
- Railways
- Retail
- Telecommunications
- Utilities
- Wholesale distribution

Ready to use and customizable
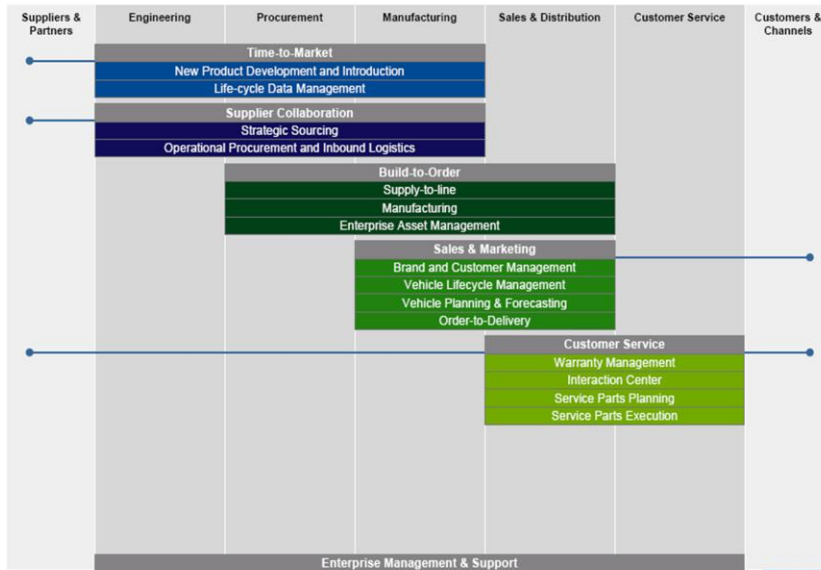
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Here you see a list of ready to use industry solutions.

But keep in mind that they are prepackaged – but they need a lot of customization and often a lot of extension to fit the current customer situation.

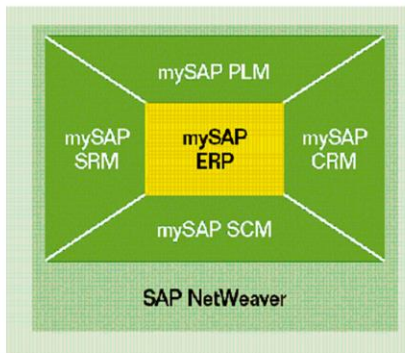They are a buyable starting point for the different industries.

Here is an example of an industry solution.

SAP covers the whole product life cycle with different components.

mySAP Business Suite – Service oriented architecture

mySAP PLM

mySAP SRM | mySAP ERP | mySAP CRM

mySAP SCM

SAP NetWeaver

- mySAP ERP (core)
- mySAP Product Lifecycle Management
- mySAP Customer Relationship Management
- mySAP Supplier Relationship Management
- mySAP Supply Chain Management

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The mySAP business suite was based again on a core SAP system – the mySAP ERP.

In the product bundle four of the most used enhancements were shipped as explained in the next slide – PLM, SRM, SCM and CRM.
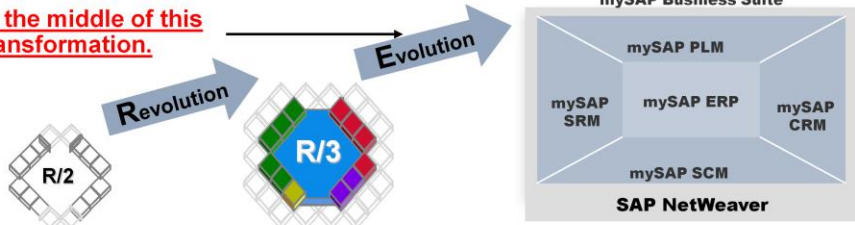
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mySAP Business Suite

- **mySAP ERP (core)**
  - SAP ERP is a next-generation enterprise resource planning solution that powers your core business functions, including analytics, human capital management, financials, operations, and corporate services. It delivers industry-specific capabilities that let you seamlessly integrate key business processes from end to end.

- **mySAP Product Lifecycle Management**
  - The collaborative solution that helps designers, engineers, and suppliers achieve new levels of innovation.

- **mySAP Customer Relationship Management**
  - The fully integrated CRM solution that facilitates services across all customer touch points.

- **mySAP Supplier Relationship Management**
  - Covers the full supply cycle, from strategic sourcing to operational procurement and supplier enablement, for lower costs and faster process cycles.

- **mySAP Supply Chain Management**
  - Targeted to dramatically improve planning, responsiveness, and execution of supply chain processes.

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Here you have more details on the single products for your reference.

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Technology transition

Still in the middle of this transformation.

Revolution **Evolution**

R/2   R/3

mySAP Business Suite

mySAP PLM

| mySAP SRM | mySAP ERP | mySAP CRM |

mySAP SCM

SAP NetWeaver

Market trends and customer needs	• Standardization • Consolidation • Mainframe real-time technologies	• Client-Server • BPR • Industry consolidation	• Internet • Collaborative business • Open Integration • Globalization	• Cost Control & Consolidation • New Opportunities (BPO, RFID,...) • New Regulatory standards • Adaptive Computing • Data standards (Rosetta Net,...) • Need for Transparency • Enterprise Service Architecture
Solution	• Standard Business Processes • Integrated Real-Time • Multiple languages, currencies, legal standards	• 3-Tier Client-Server ERP • Integrated component-based ERP • Industry specific extensions	• Collaborative Processes • SAP NetWeaver Integration platform • Flexible Component Architecture	• SAP NetWeaver Integration Platform • Transparent Analytics & Governance • People-Centric Computing • Extendibility & Scalability • Adaptive Computing Infrastructure

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This slide reflects the Market trends for the SAP solution. Customers are still in this transformation stage; many customers still have old SAP installations that just run, and there is no "product" need to enhance their license.
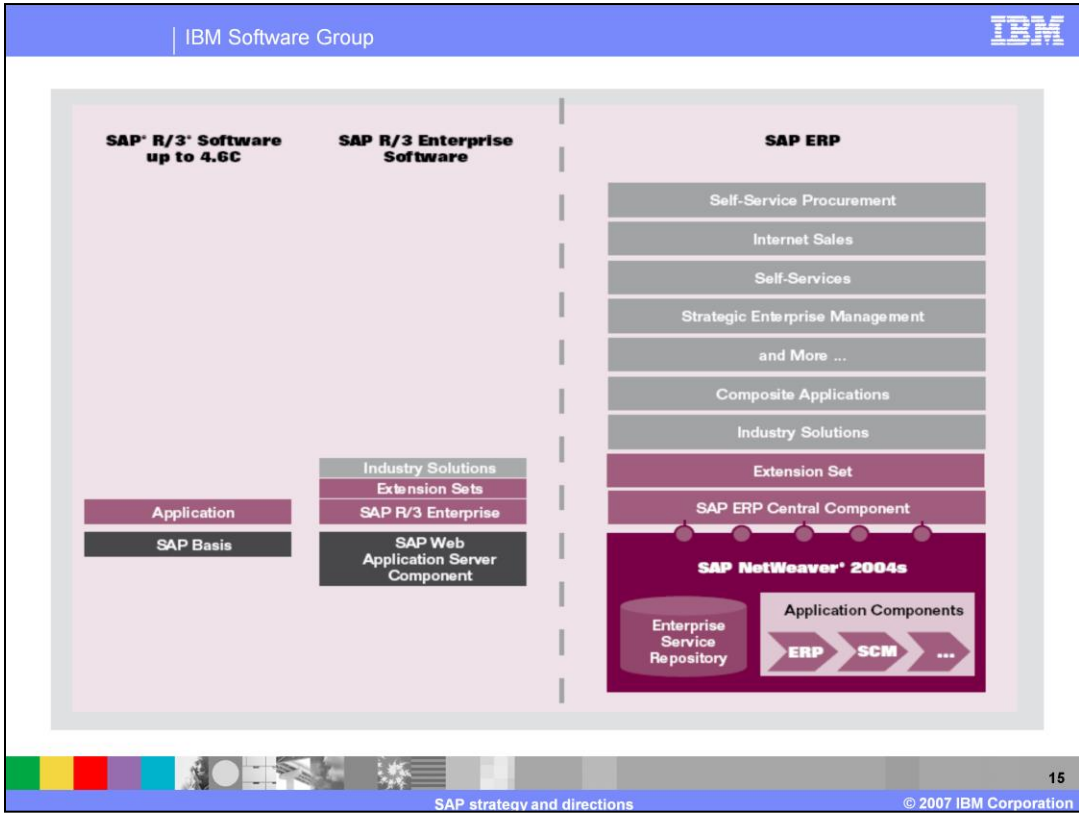
It is just the maintenance issue that forces customers to upgrade.

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Section

SAP NetWeaver and SAP Enterprise Service Architecture

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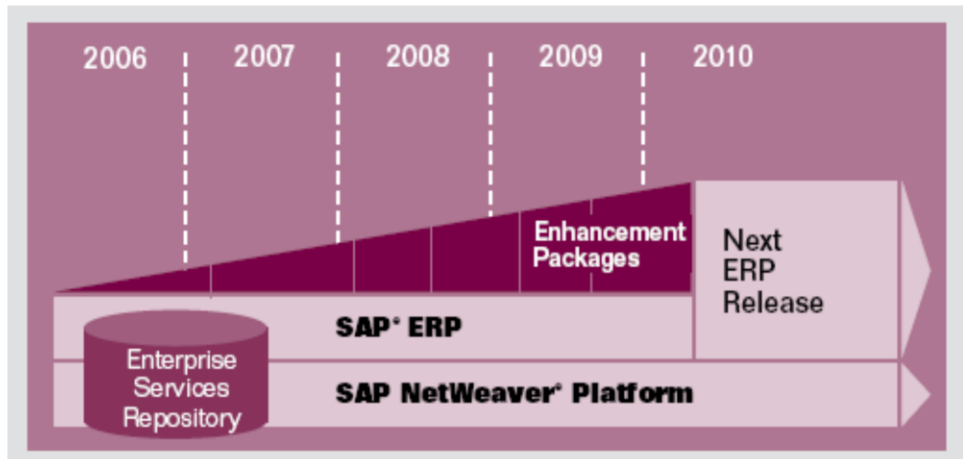
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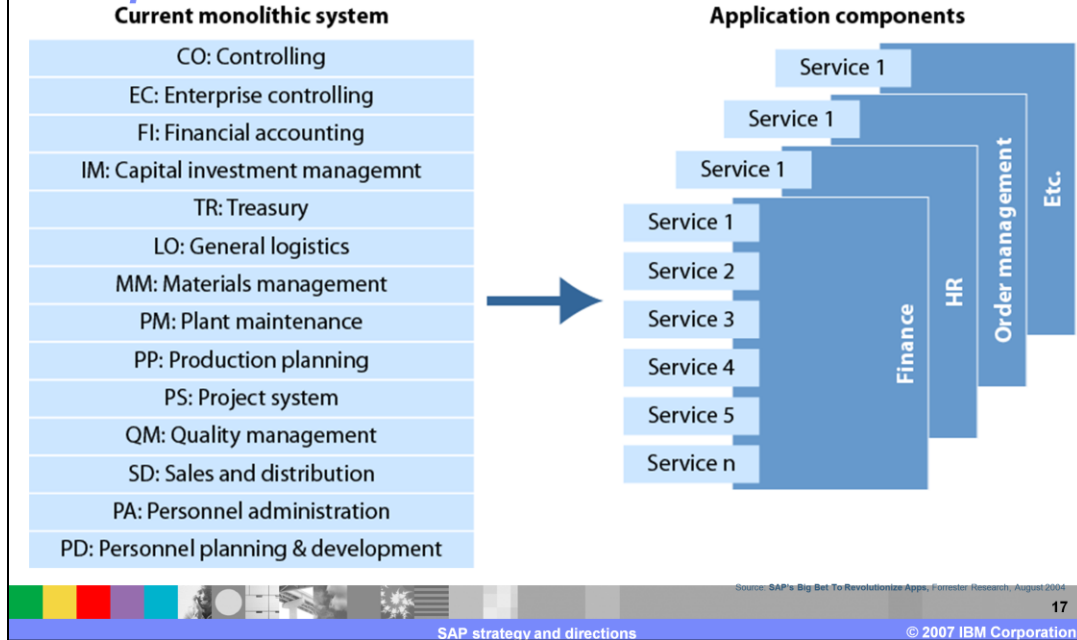This section looks into the newest product generation of SAP.

In the NetWeaver product there are many more components than in the older product versions, but the general architecture is similar. There is a core component based on SAP Web Application server, and there are other components based on this core.

The strategy for the SAP ERP is that one after another additional Enhancement packages are developed until in 2010 a new ERP release will get bundled.

Quick ESA -> move from monolithic to component architecture

Current monolithic system

- CO: Controlling
- EC: Enterprise controlling
- FI: Financial accounting
- IM: Capital investment managemnt
- TR: Treasury
- LO: General logistics
- MM: Materials management
- PM: Plant maintenance
- PP: Production planning
- PS: Project system
- QM: Quality management
- SD: Sales and distribution
- PA: Personnel administration
- PD: Personnel planning & development

Application components

Service 1, Service 2, Service 3, Service 4, Service 5, Service n

Finance, HR, Order management, Etc.

Source: **SAP's Big Bet To Revolutionize Apps**, Forrester Research, August 2004

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Also the movement from monolithic systems to component based applications is on-going. The different components offer services that can be leveraged by different applications.

Define enterprise services oriented architecture

- SAP eSOA:
  - is a methodology for building reliable services-oriented applications
  - offers an enterprise wide blueprint for comprehensive business process evolution
  - protects investments through the reuse of existing IT systems
  - builds on Web Services to aggregate existing systems functionality into easy to use, high level Enterprise Services
- Enterprise Services Architecture:
  - is relevant for all SAP solutions, mySAP Business Suite, SAP for Industries and SAP xApps
  - is based on the incorporation of open standards for easy extensibility
  - covers the design of newly build applications and the extension of a given customer IT landscape

Here is the SAP SOA definition.

SAP eSOA is a methodology for building reliable services-oriented applications. It offers an enterprise-wide blueprint for comprehensive business process evolution while protecting investments through the reuse of existing IT systems. SAP eSOA builds on Web services to aggregate existing systems functionality into easy to use, high level enterprise services.

The Enterprise Services Architecture is relevant for all SAP solutions, mySAP Business Suite, SAP for Industries and SAP xApps.

The Enterprise Services Architecture is based on the incorporation of open standards for easy extensibility, and covers the design of newly built applications and the extension of a given customer IT landscape.
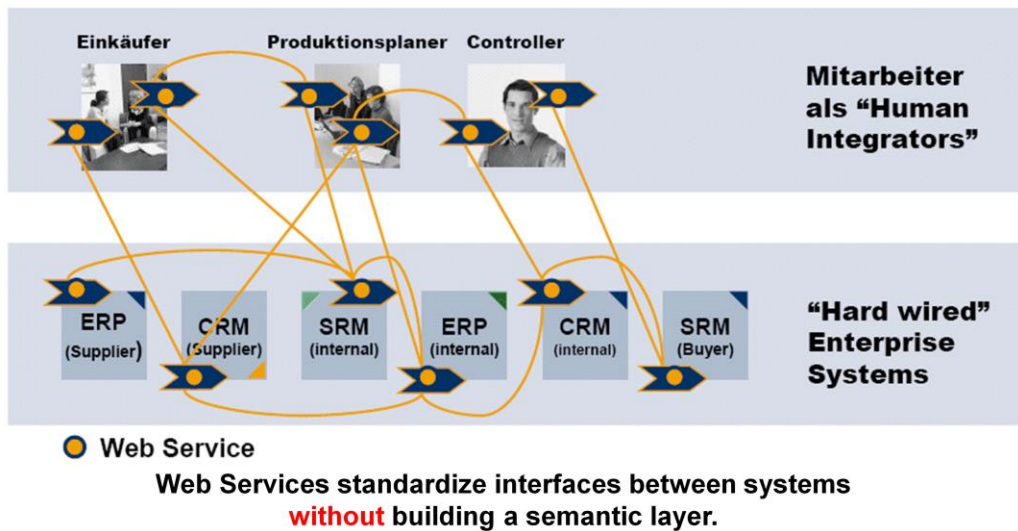
An Enterprise Services Architecture expands the concept of Web services into a services-based, enterprise-scale business architecture.

The technical enabler of SAP's Enterprise Services Architecture is **SAP NetWeaver.** NetWeaver is the *open* integration and application platform designed to unify and align people, information and business processes across technologies and organizations.
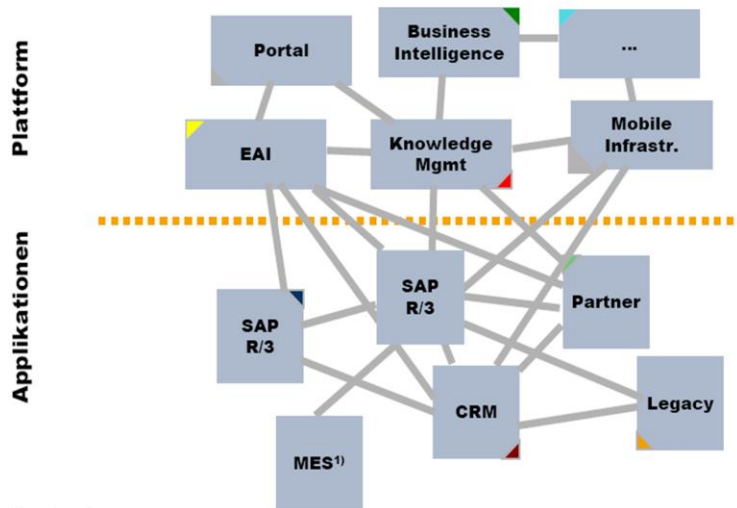
The Web Application Server is a technical Web Service based platform for all SAP NetWeaver components. Web services are the choice technology for building service-oriented applications.

This presentation has provided a picture of the company and the products. But what is the vision behind the products? What is the strategy?

Here the initial situation of many customers is shown: many different systems connected with each other.
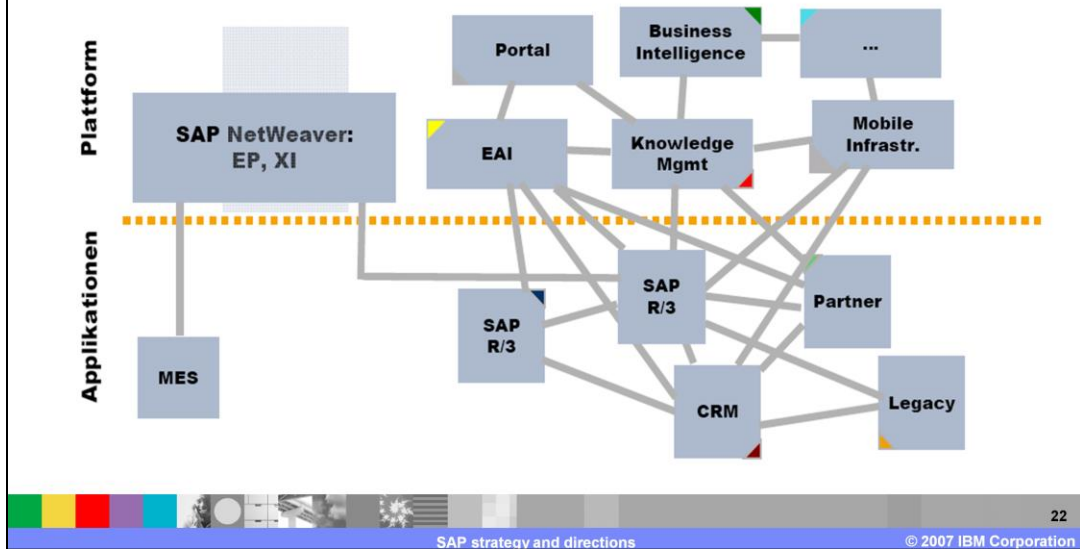
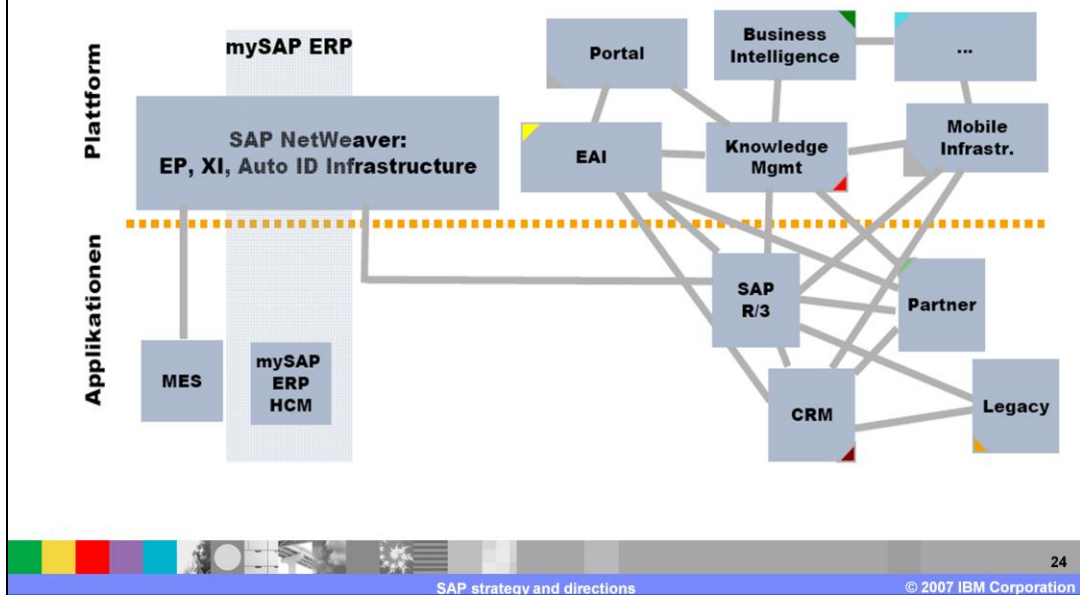The first step is the installation and setup of an SAP NetWeaver EP and XI. These can be connected to the existing infrastructure.
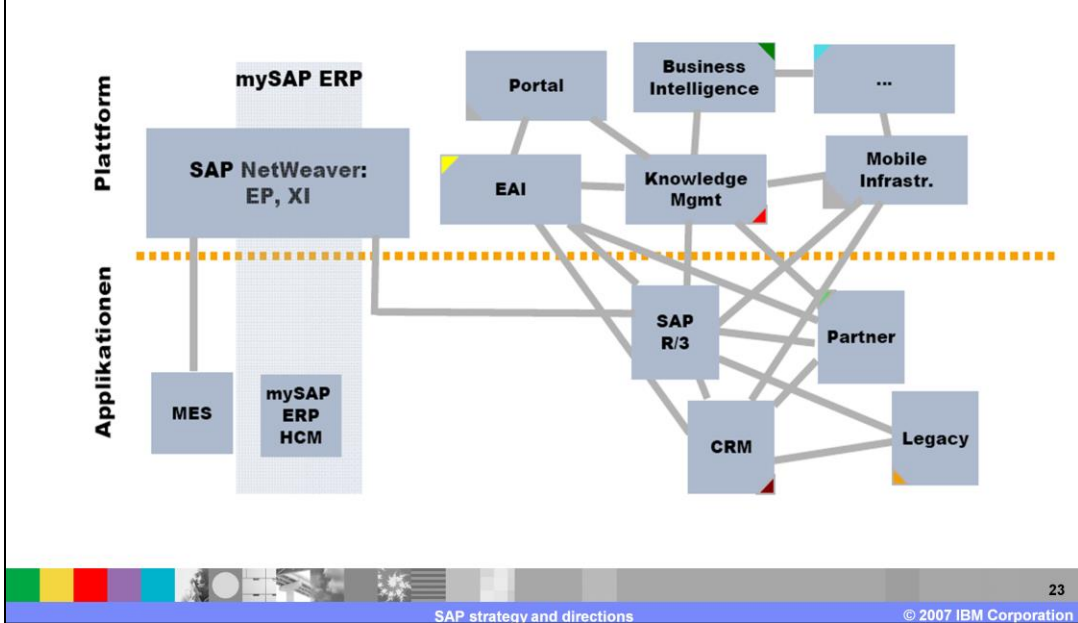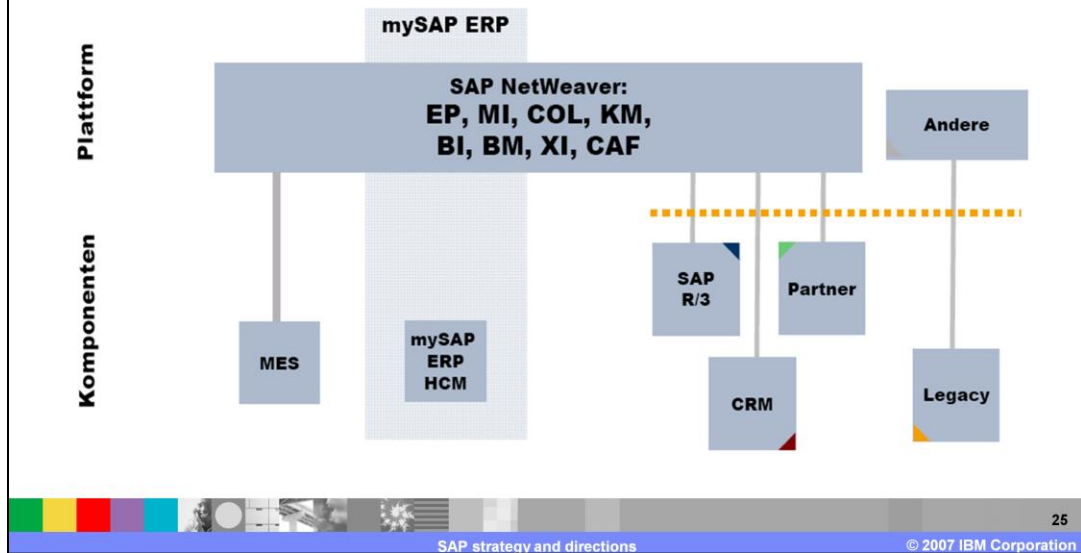
As a next step, an SAP ERP gets transformed in the new stack – in this example the HCM solution was used in the ERP.

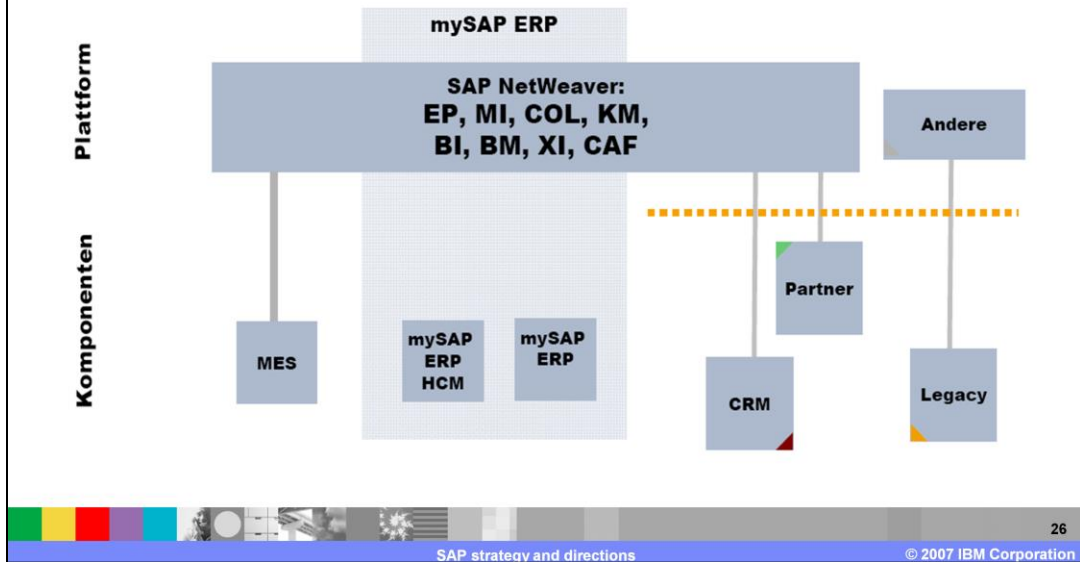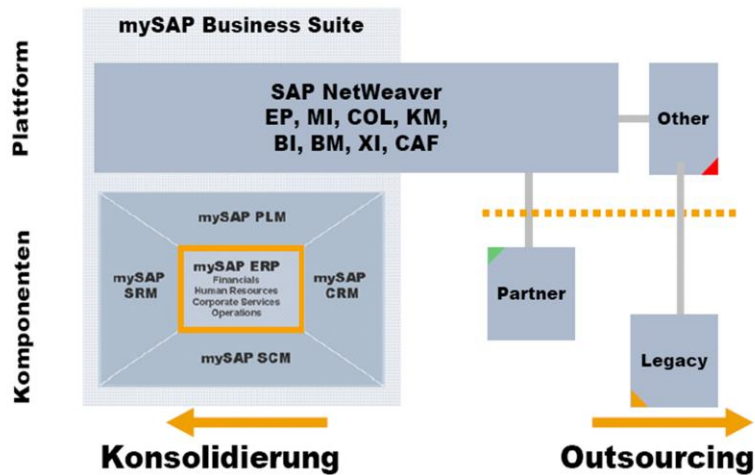After that the NetWeaver platform is enhanced by the Auto ID infrastructure.

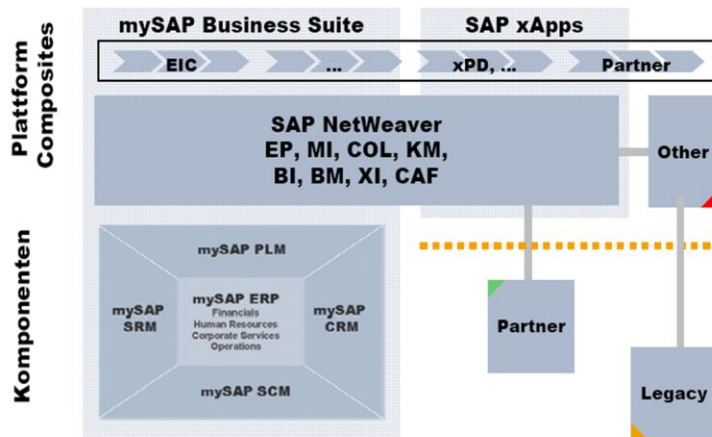Now all the platform components get transformed in the new NetWeaver portfolio.

After that, the second SAP ERP can get included in the NetWeaver stack.

Step 6: Use of mySAP Business Suite

After the CRM was also included here, all applications of the SAP Business suite are used.

Now, on top of this, new business processes can be placed to meet new business goals.

So you have seen the product strategies and there are several reasons to move to NetWeaver. Also it is possible to cover the complete solution within the portfolio.

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IBM/SAP Alliance

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Finally, a word about the relationship between IBM and SAP.

The IBM and SAP alliance is a committed partnership on all levels

TECHNOLOGY
SAP
GLOBAL PARTNER

SOFTWARE
SAP
PARTNER

SERVICES
SAP
GLOBAL PARTNER

HOSTING
SAP
PARTNER

- IBM has been the first development partner for SAP in 1972

- Today IBM and SAP share more than 9,000 customers

- The IBM internal SAP implementation ranges among the Top10 installations of SAP

- IBM maintains the largest SAP practice in the industry with 12,750 consultants worldwide

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