Strategic Considerations for SAP Users

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Agenda

- **Application Strategies and Innovation**
- **What is SOA?**
- **How can SOA be leveraged to the customer’s advantage?**
- **What are the risks involved?**
- **SAP’s motivation and strategies pursued with SOA**
- **Strengths and weaknesses of SAP‘s NetWeaver**
- **What determines the right strategy?**

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Common Myths and Deceptions

- **Switching to an integrated apps suite eliminates application issues**
- **Integrated apps will be deployed everywhere with all their functions**
- **Integrated apps vendors adopt new technology just in time**
- **It is easy and cheap to constantly upgrade integrated apps**
- **Homogeneous platforms can be implemented durably**
- **Application strategy and architecture can be safely once and for all times outsourced to (one single) (apps) vendor(s).**

A different look

- Example: city planning
- No chance to upgrade technology across the board
- Planning horizon: decades to centuries
- Optimum not feasible – criteria change (post war: quick reconstruction, housing, now: ecology, preservation of style, traffic; tomorrow: address the elderly, revive deserted cities, avoid boredom and crime…)
- Architectural paradigm: evolution, “urbanisation”, fusion (recitals from many sources, modest structural changes, leveraging past investments, strong focus on maintenance and increasing labor and energy costs, understanding long-term impacts

SOA Requirements (or promises/hype?)

- Leveraging of existing solutions !
- Usage of common "standard" infrastructure
- Lower costs
- Higher agility as base for faster adaptation (go to market, process improvements)
- Lower risk
- Process oriented architecture
- Base for NBT (GRID-computing, on demand/software as a service…)

Infrastructure and Applications

Have a different lifecycle
Infrastructure must link diverse applications
Infrastructure must be more robust, more scalable and more "technology elastic"

- Have a different lifecycle
- Infrastructure must link diverse applications

Web Services, SOA, ESA – What is it?

- **Web Services and the associated standards define the basics of an infrastructure**
- **However, in contrast to the name, they do not automatically form an interconnect of SERVICES. It is up to the programmer to assure a suitable program structure**
- **SOA helps with additional constructs and methods to structure services**
- **E-SOA adds the notion of business objects and integration repositories. E-SOA is aimed at building an SOA in an ERP environment.**
- **E-SOA is also the base for migrating SAP's own applications into an SOA PRODUCTIVELY. Hence, it provides functions vital for this task. As this part of the E-SOA objectives is proprietary, E-SOA itself is and will be proprietary.**

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Is E-SOA more than just a transitory step?

- **Web Services evolve around a broad standards movement. The idea is:**
  - **<u>If it works for everybody (like a phone), it will work for you, too</u>**
- **E-SOA evolves around finding a solution out of SAP's architectural permafrost leveraging Web Services. The idea is:**
  - **<u>If it works for SAP, it will work for you, too. If not, buy the rest from SAP</u>**

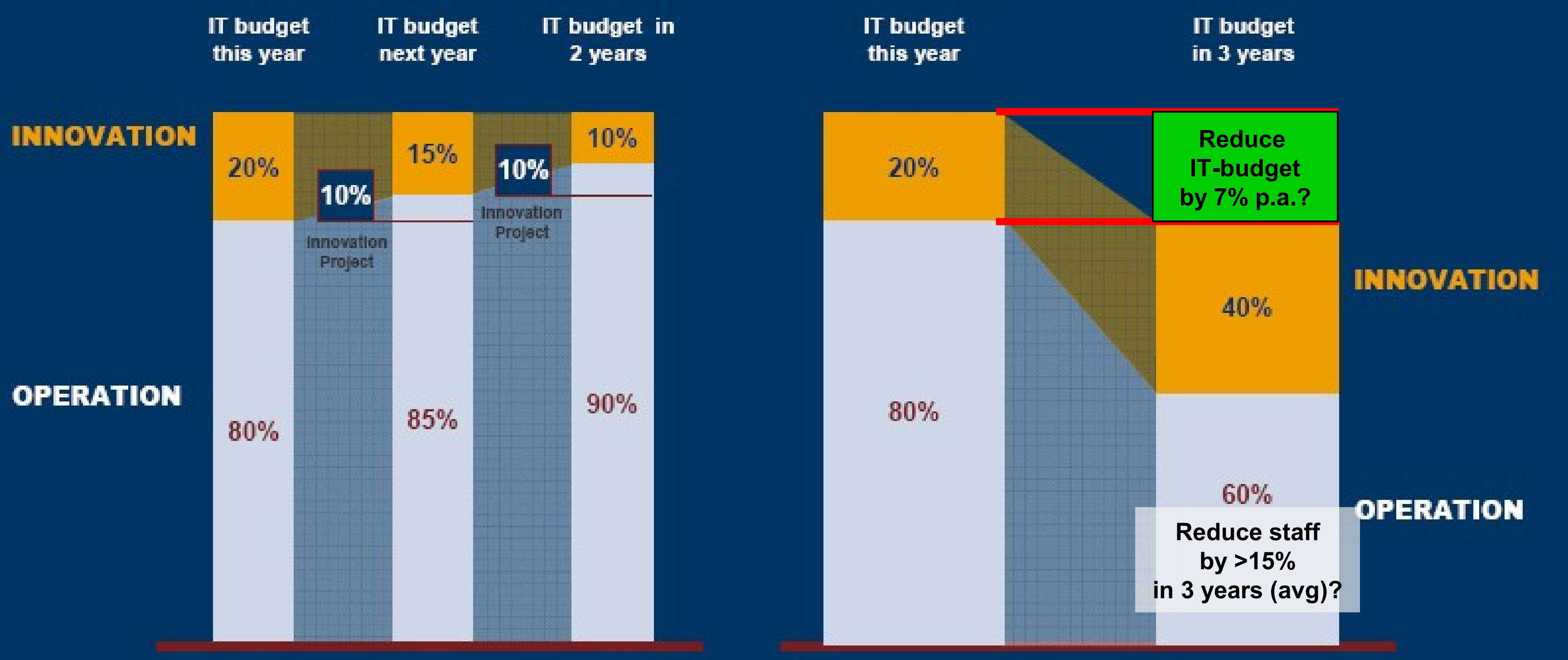
Web Services and SOA

	Subject	Name	BEA	IBM	Oracle	Open Source	Microsoft	SAP
Portal	Portlet	JSR-168	x	x	x	x	-	-
	Web Services Remote Portlet	WSRP	x	x	x	x	x	-
	Content Management Repository	JSR-170	x	x	x	x	-	-
Dev. Environmt.	Java Server Faces	JSR-127	x	x	x	x	-	-
	Service Data Objects	JSR-235	x	x	x	x	-	-
	BPEL-J	JSR-207	x	x	x	x	x	-

- **Standards**
  - **SOAP**
  - **XML**
  - **WSDL (Web Services Description Language)**
  - **UDDI (Universal Description, Discover, Integration)**

- **These standards help to create Web Services. Using them, however, does not automatically create an SOA**
- **Vendors need to COMPLY with standards – not only participate in the process…**

HOW TO GET TO A SUSTAINABLE COST STRUCTURE?



Source: SAP (Sapphire 2004)

Boundary Conditions for Application Strategies for SAP-Users

- Cost of operation is eating up budget – room for innovation is limited
- No positive impact on bottom line – no budget
- No “big bang” any more
- Increasing demand for “non-disruptive” innovation
- Goal: amortization in 18-24 months – sometimes even much shorter
- Minimum lifecycle 5 years – 10 years expected average

→ “Organic” innovation

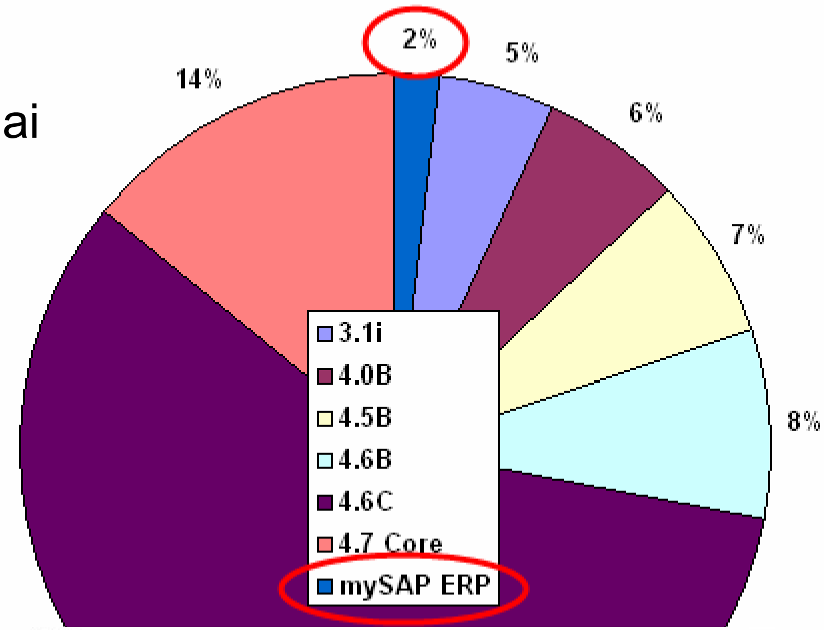
Customers have changed their view

- Focus on core business
  - IT investments must be related to core business (function)
  - ROI – impact on core business
  - Keeping current with IT-technology is NOT a core business function – it is not the role of an enterprise to serve as an IT-technology show case in its own right.
- If customers take a risk, than they prefer to see it related to their core business
- The trend towards IT-outsourcing has pushed application stability – changing SLAs is a sizeable effort and service providers CHARGE.

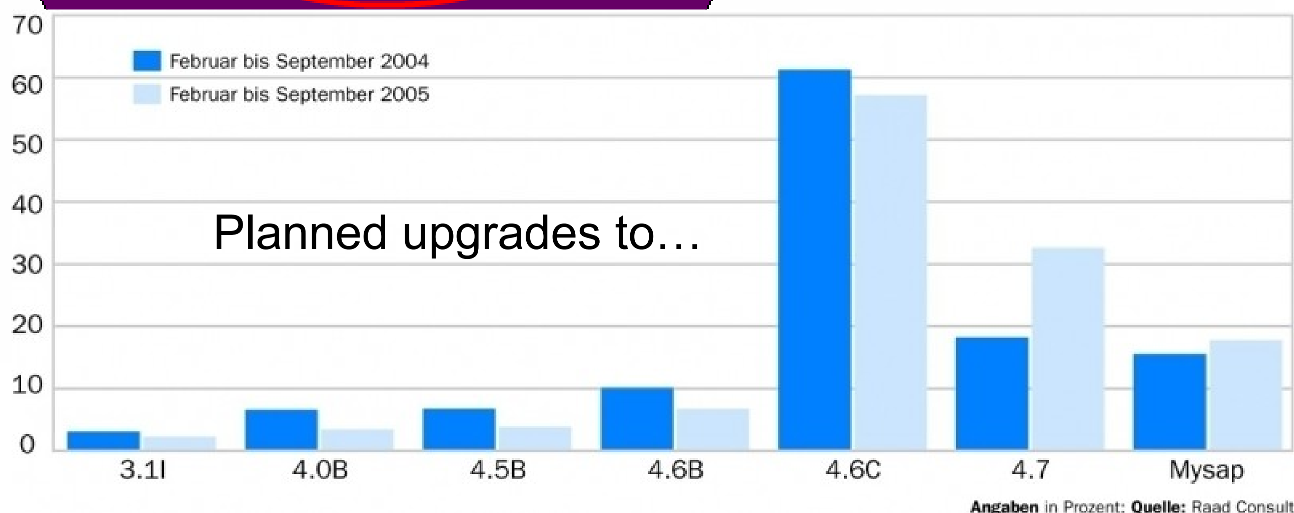
Estimate 8/2006: no more than 15% of all SAP customers use mySAP exclusively in production.

SAP Versions Installed 5/2005

"Over 70% of all customers have mySAP-contracts" (Shai Agassi, Sapphire 2006)



Planned upgrades to…



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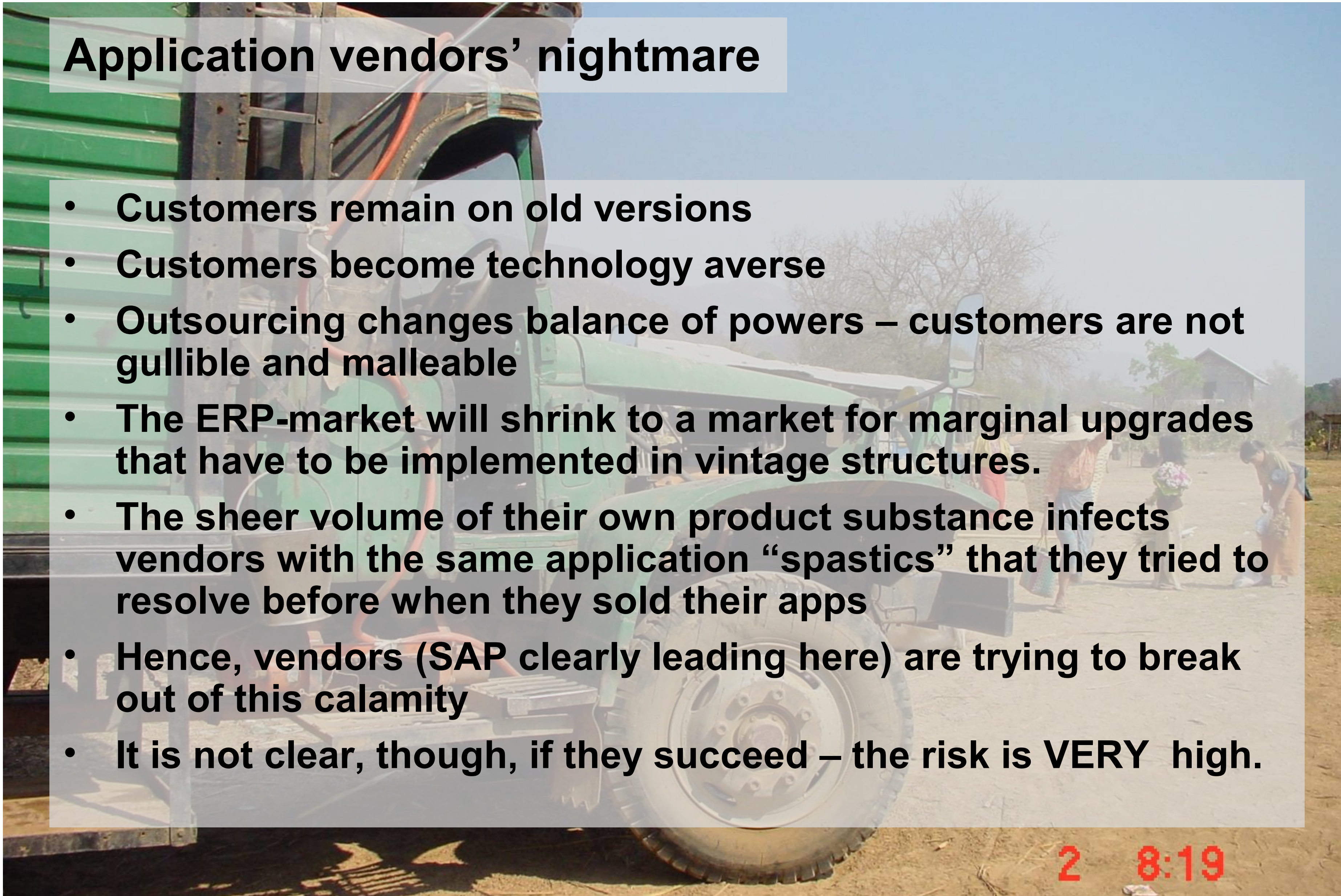

Application vendors' nightmare

- Customers remain on old versions
- Customers become technology averse
- Outsourcing changes balance of powers – customers are not gullible and malleable
- The ERP-market will shrink to a market for marginal upgrades that have to be implemented in vintage structures.
- The sheer volume of their own product substance infects vendors with the same application "spastics" that they tried to resolve before when they sold their apps
- Hence, vendors (SAP clearly leading here) are trying to break out of this calamity
- It is not clear, though, if they succeed – the risk is VERY high.

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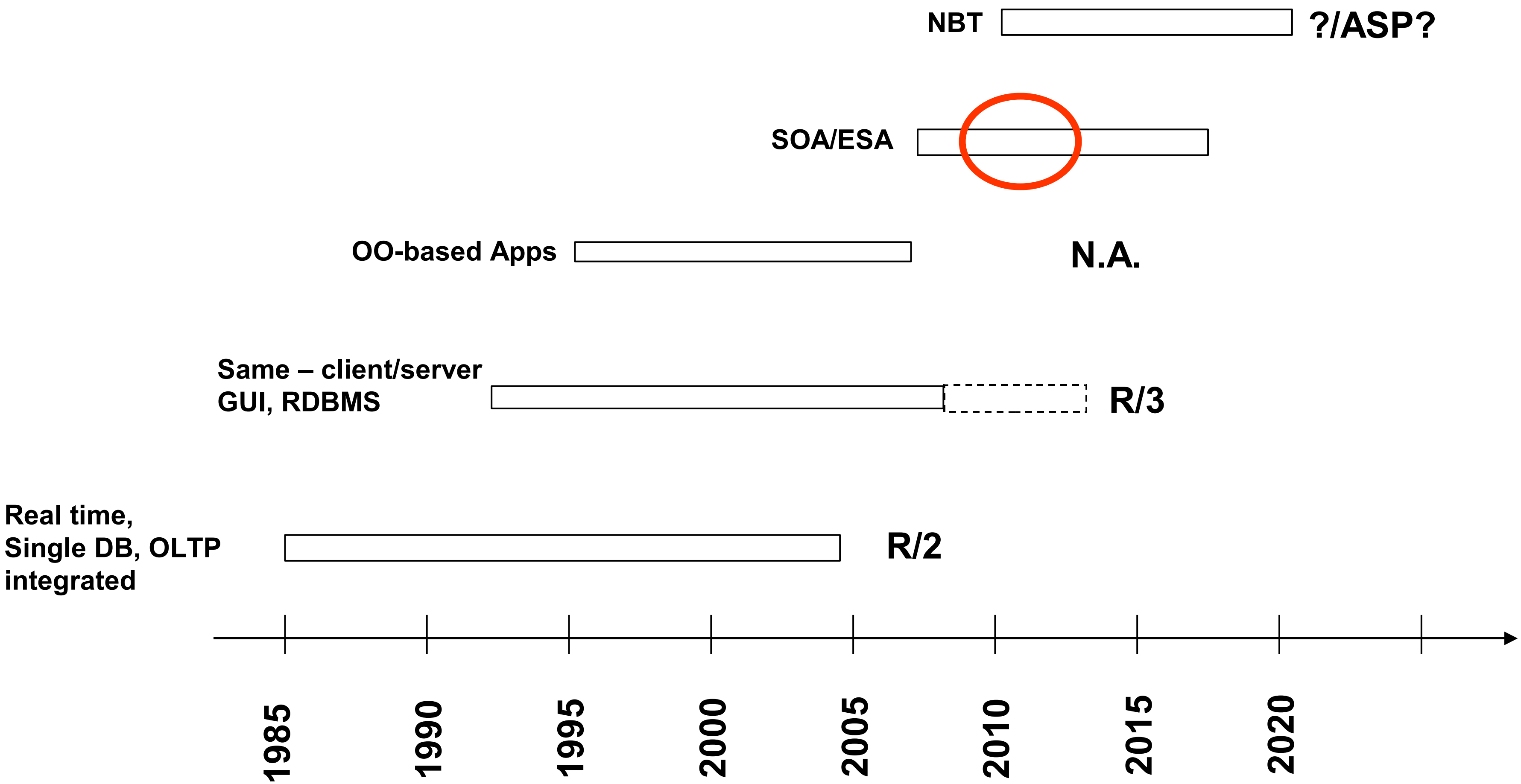
ESA/SOA: A Historical Perspective



New Application Strategy SAP

- **Vehicle for BPP**
- **Kayak**
- **SAP Solutions – new pricing**
- **ESA -→ Enterprise SOA**

Main purpose of SAP E-SOA:

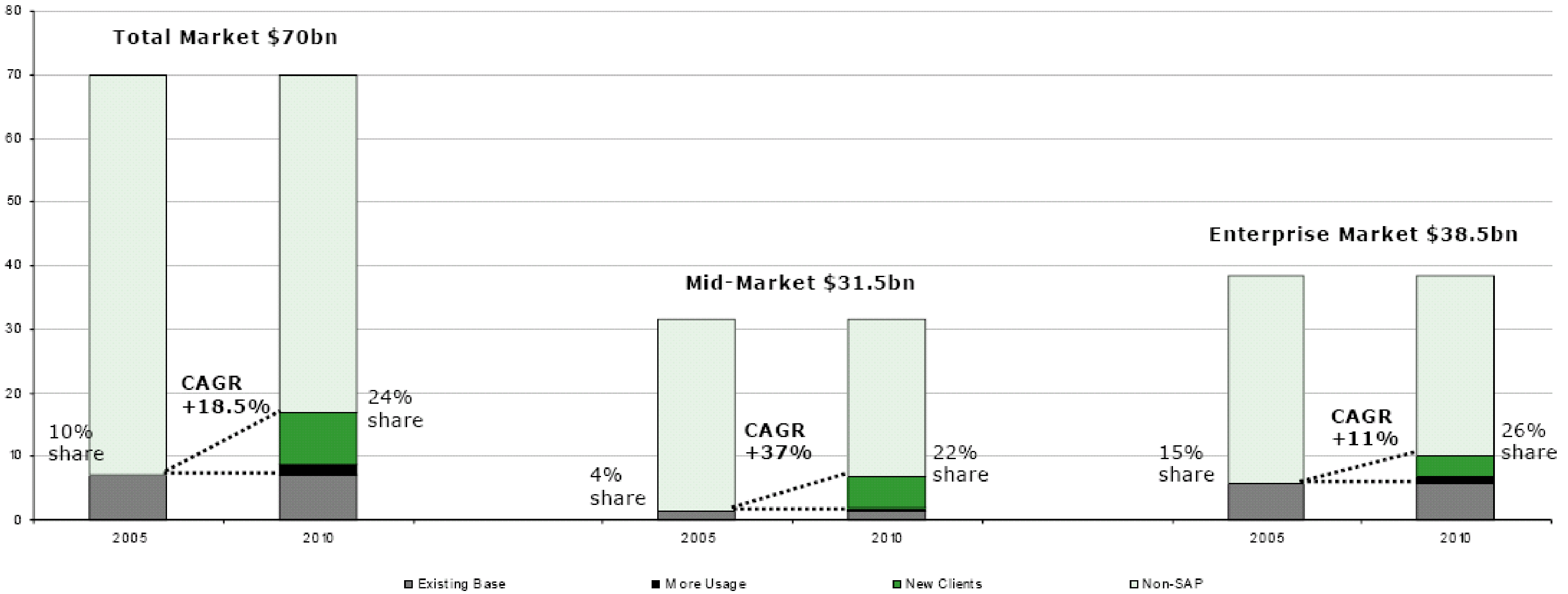
SAP's primary goal is to make sure that their applications are supported and their partners are supported.

R. "Ray" Wang
Principal Analyst, Forrester Research Inc.
(http://searchsap.techtarget.com/originalContent/0,289142,sid21_gci1212980,00.html)

✂ → **High risk, not stable**

SAP wants to double its revenue by 2010 – but how?

SAP's product revenue growth – 2005 to 2010F



Source: ABN AMRO forecasts, company estimates and IDC

-Higher growth than the market
-Higher growth than most of SAP's customers
-Not enough new products to fuel growth
-Difficulties with installed base migration
-Resorting to changes in price structure and maintenance increases (by 30%!)

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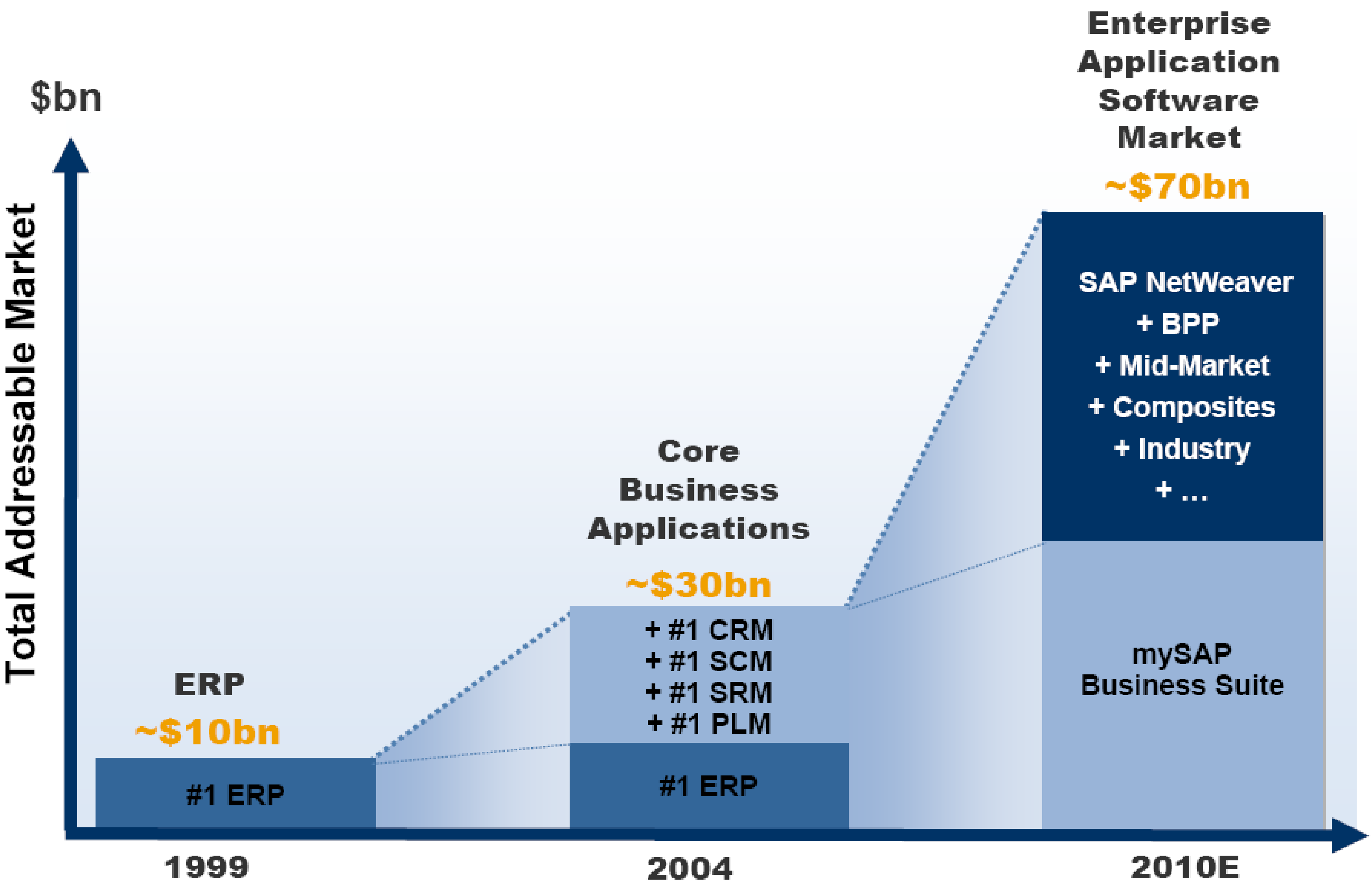

Source: SAP 2005

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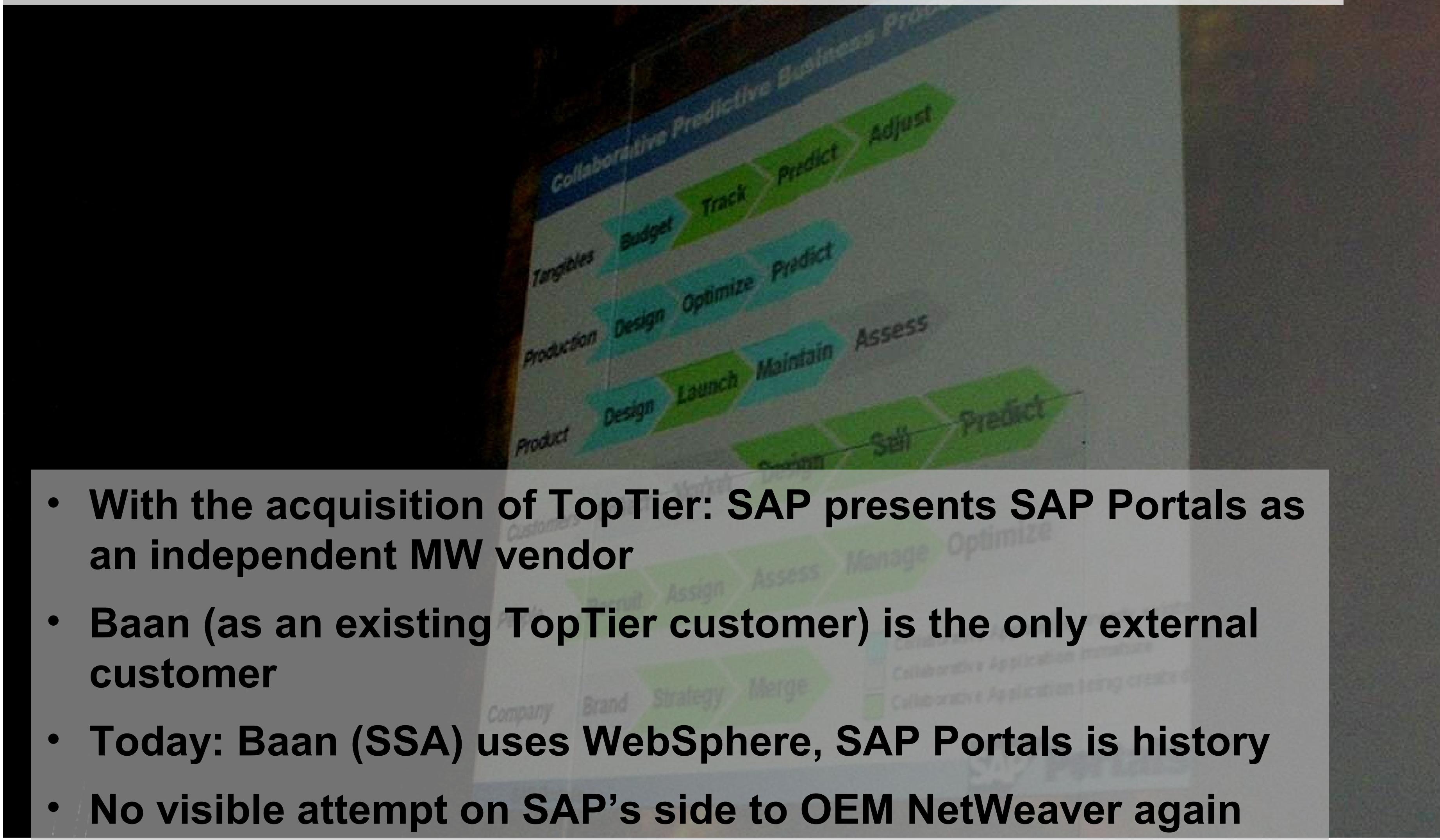
Characteristics of Key Stack Vendors

Vendor	Strong Middleware Experience in Open Market	Application Business	Stack used by Competing ISVs
IBM	+++	---	N.A.
BEA	+++	---	N.A.
MSFT	+++	+	+++
ORCL	+++	++	++
SAP	---	+++	---

SAP: The Business Model for Middleware has changed and will continue to change



- With the acquisition of TopTier: SAP presents SAP Portals as an independent MW vendor
- Baan (as an existing TopTier customer) is the only external customer
- Today: Baan (SSA) uses WebSphere, SAP Portals is history
- No visible attempt on SAP's side to OEM NetWeaver again

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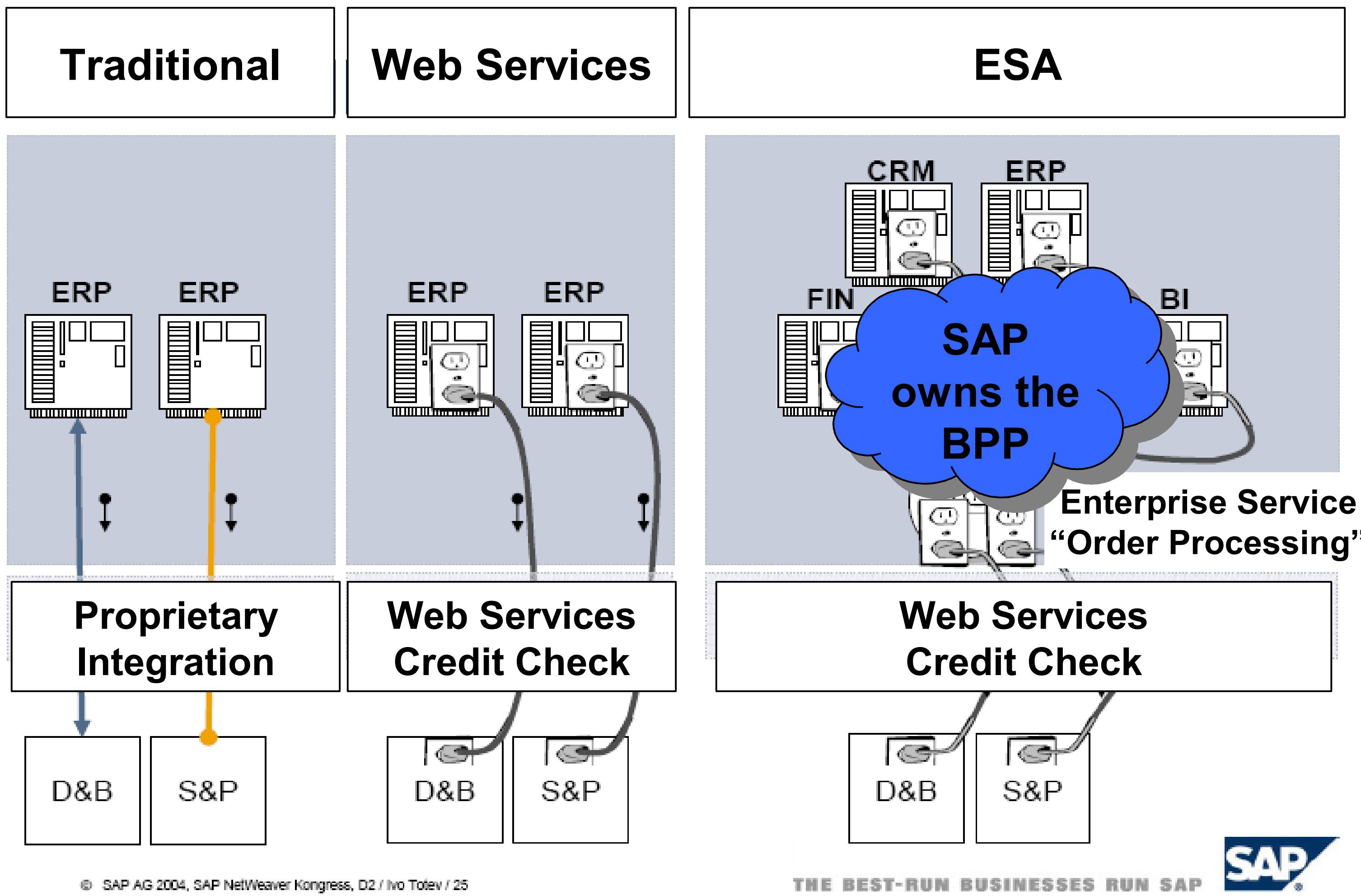
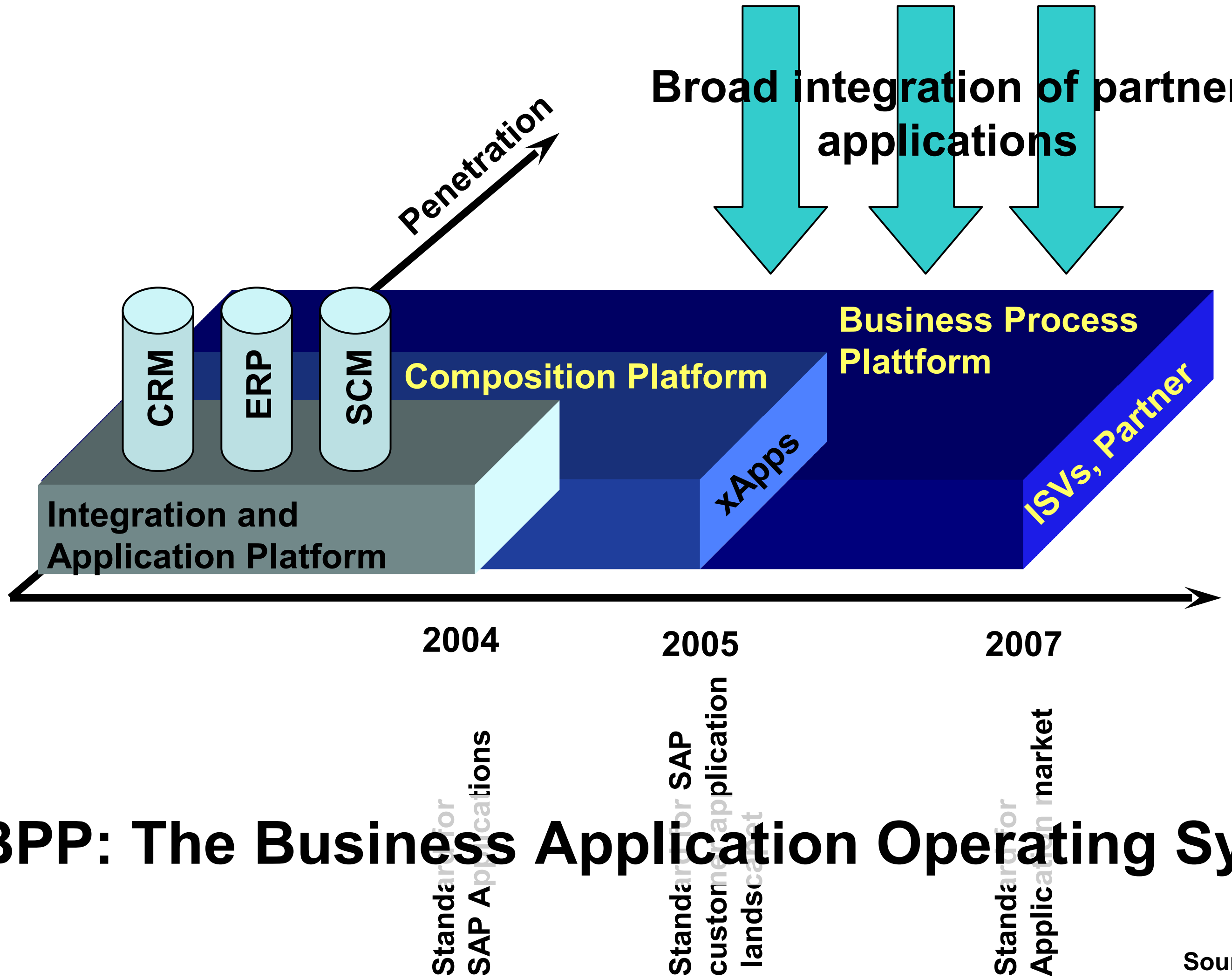
From Point Integration to ESA – the SAP View



BPP – the Base for a New ISV Strategy



BPP: The Business Application Operating System

Source: SPI

NetWeaver Maturity Deficits

- High availability concepts (hot standby, failover)
- Load levelling
- Easy installation features for smaller customers
- Groupware
- Natural language support
- Instant messaging

NetWeaver Proprietary Elements

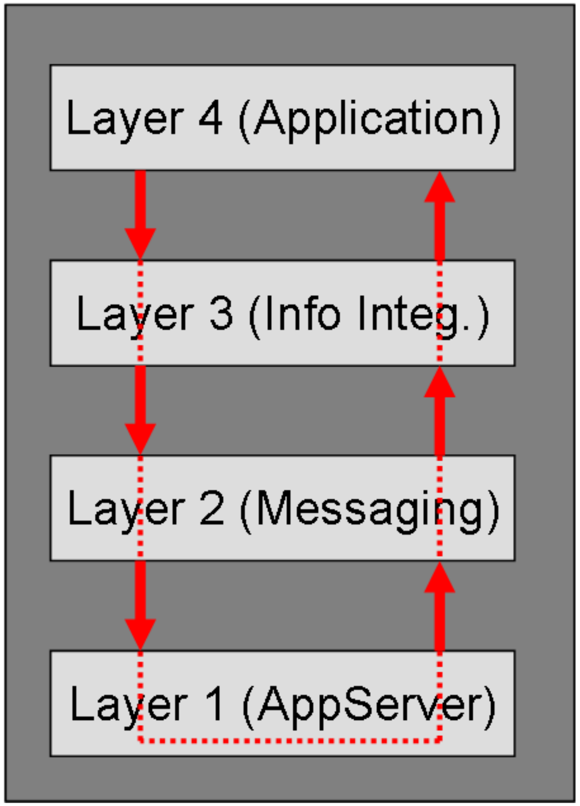
- ABAP and its development environment
- iViews
- WebDynpro
- Java Development Infrastructure
- Business Server Pages, HTMLB for Web

	Applications	Middleware	Vendor consulting	Partners
SAP	**SAP‘s own Applications, Partner applications Together <5000 applications**	**WAS first released in 2003**	**SAP has >9000 consultants**	**SAP has about 500 NetWeaver partners**
IBM	**87000 WebSphere customers 3150 active ISV solutions**	**WAS first released in 1998**	**IBM Global Services has > 60000 consultants**	**IBM has > 4000 ISV partners**

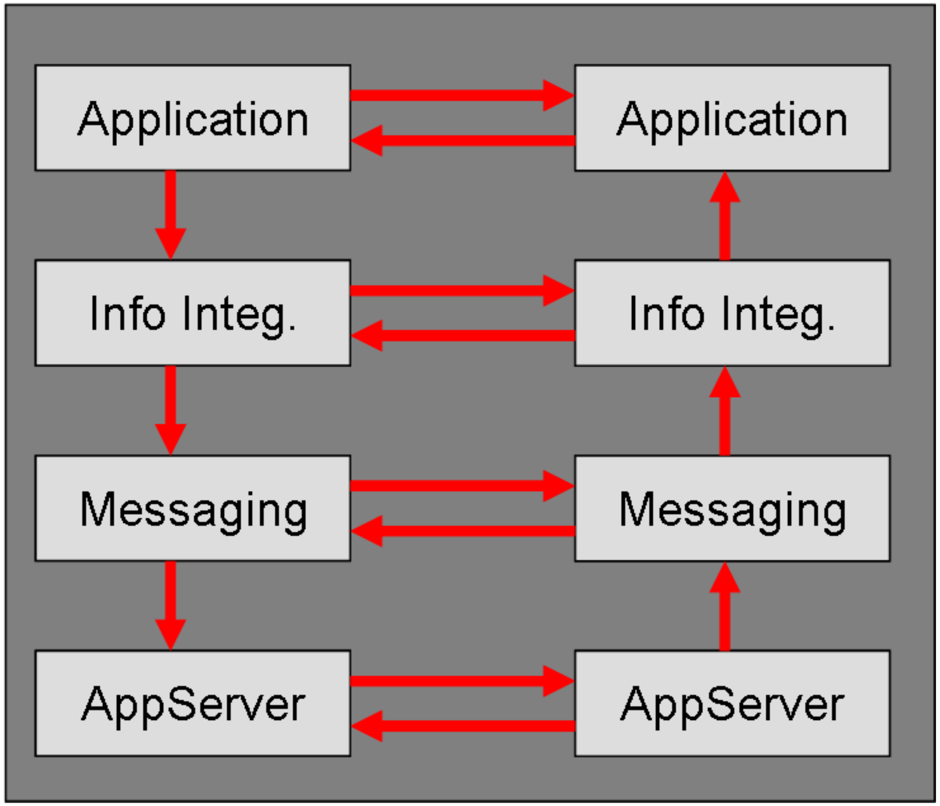
Sources: IBM: IBM and 10K SAP: SAP Annual Report 2004, p. 21 and p. 64, SDN

Middleware Experience: The Details Matter

SAP NetWeaver:
Strict Layering



IBM WebSphere:
Loose Coupling



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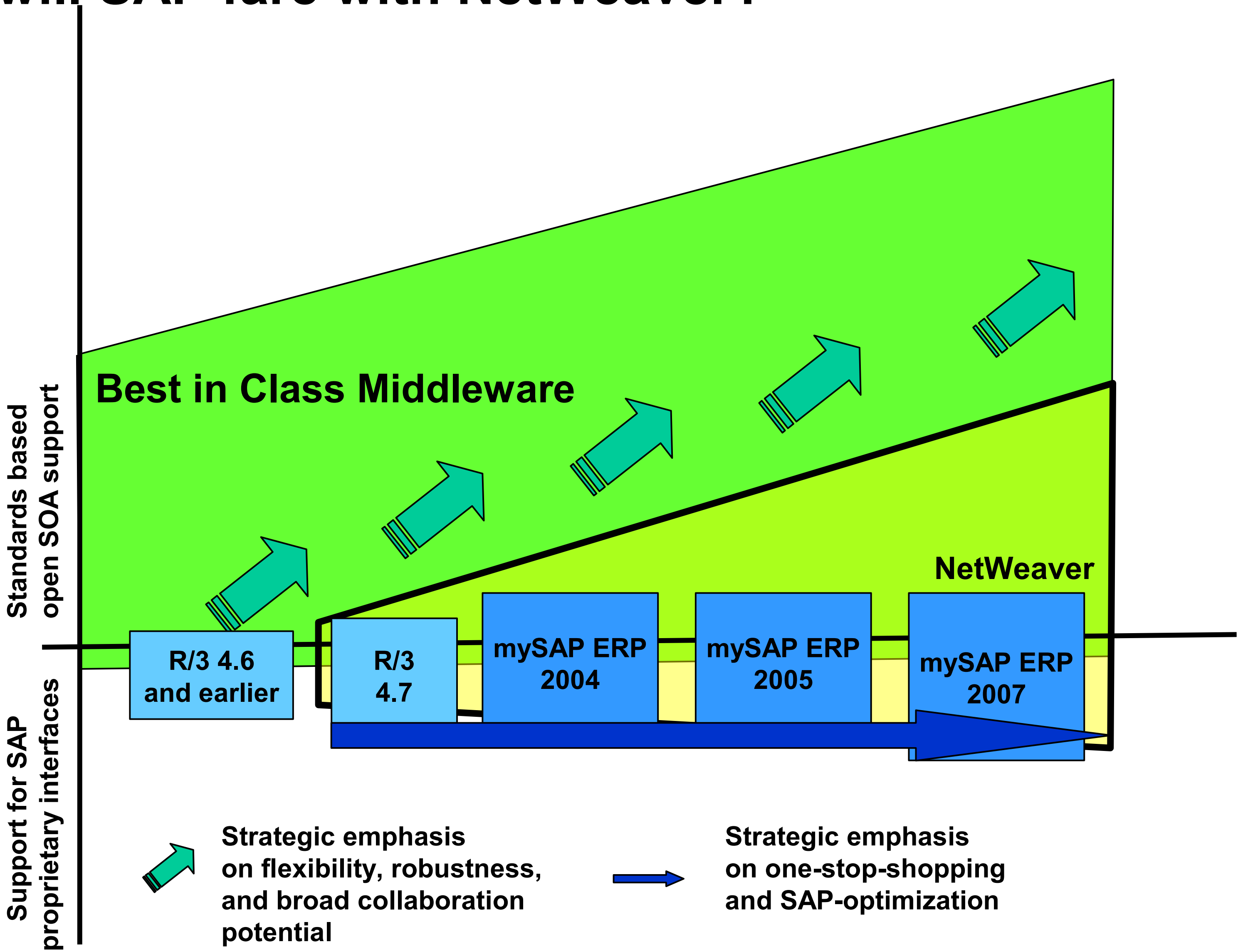
Application Server

How will SAP fare with NetWeaver?



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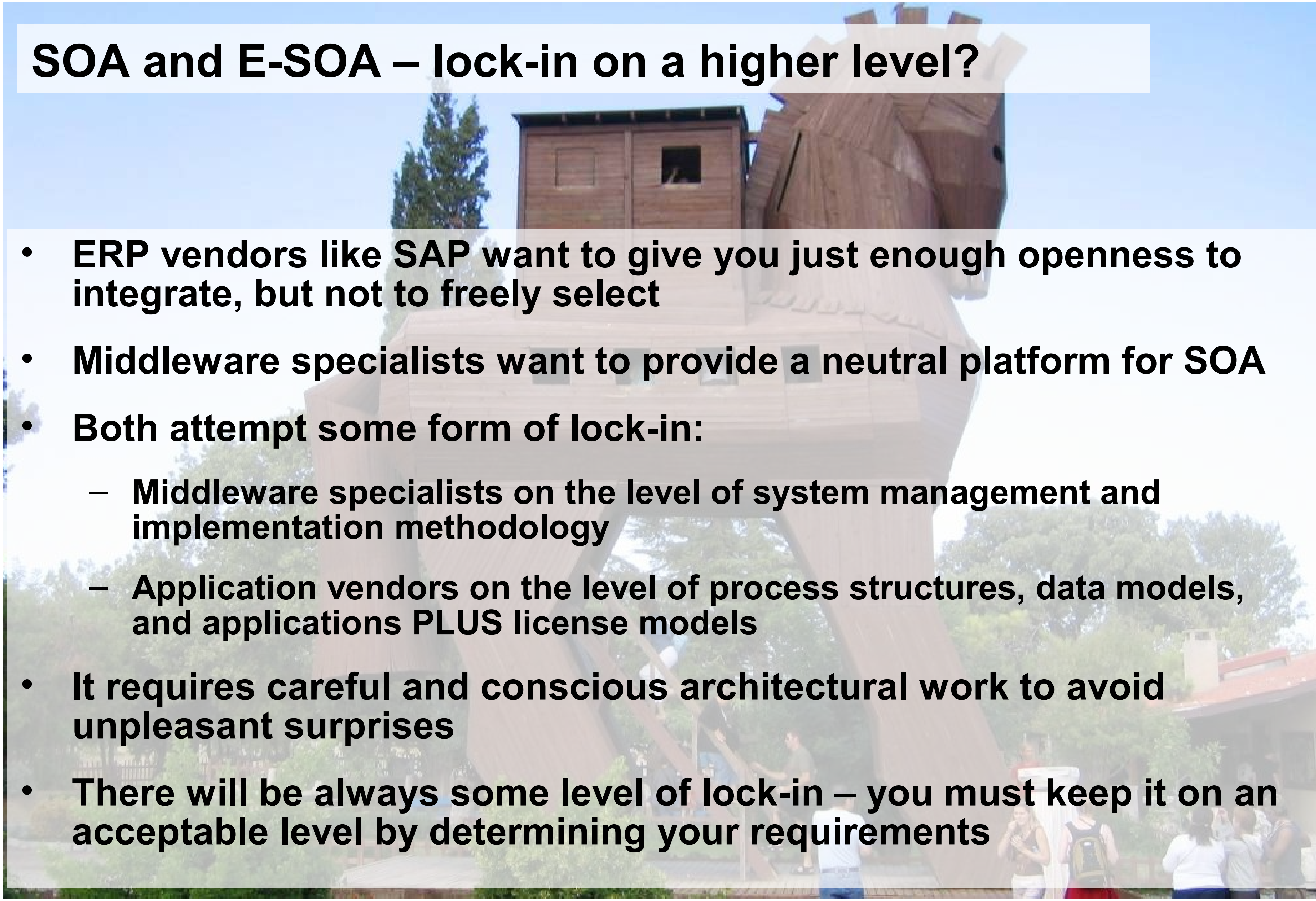

SOA and E-SOA – lock-in on a higher level?

- **ERP vendors like SAP want to give you just enough openness to integrate, but not to freely select**
- **Middleware specialists want to provide a neutral platform for SOA**
- **Both attempt some form of lock-in:**
  - **Middleware specialists on the level of system management and implementation methodology**
  - **Application vendors on the level of process structures, data models, and applications PLUS license models**
- **It requires careful and conscious architectural work to avoid unpleasant surprises**
- **There will be always some level of lock-in – you must keep it on an acceptable level by determining your requirements**

Summary

- IT has become sufficiently complex and costly to inhibit innovation. SOA can help to overcome this impediment.
- Innovation must have a direct impact on business
- IT landscapes can only evolve – no chance for revolution
- SOA is a key enabler to innovate selectively
- SOA is not an end in itself. It is not about proprietary software integration from a single vendor!
- Beware of lock-in, watch standards and compliance and changes in business models of vendors
- SOA is not plug and play. Start with a few intranet services
- Architecture is vital. You cannot rely on ONE application vendor for certain.
- There is no substitute to vendor experience
- Process knowledge and management on all levels is required

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