



SAP RESEARCH

SYSTEMATIC THOUGHT LEADERSHIP FOR INNOVATIVE BUSINESS

# **Business Grids: an SAP Perspective**

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THE BEST-RUN BUSINESSES RUN SAP



# Summary of SAP Today



## **SAP AG in 2005 revenues: €8.5 billion**

- More than 34,600 companies run SAP software
- Providing more than 25 industry solutions
- 37,743 SAP employees (June, 2006)

## **12 million users in 120+ countries team with us to...**

- Integrate their business processes
- Extend their competitive capabilities
- Get a better return on investment at a lower total cost of ownership

## **Unique partner ecosystem**

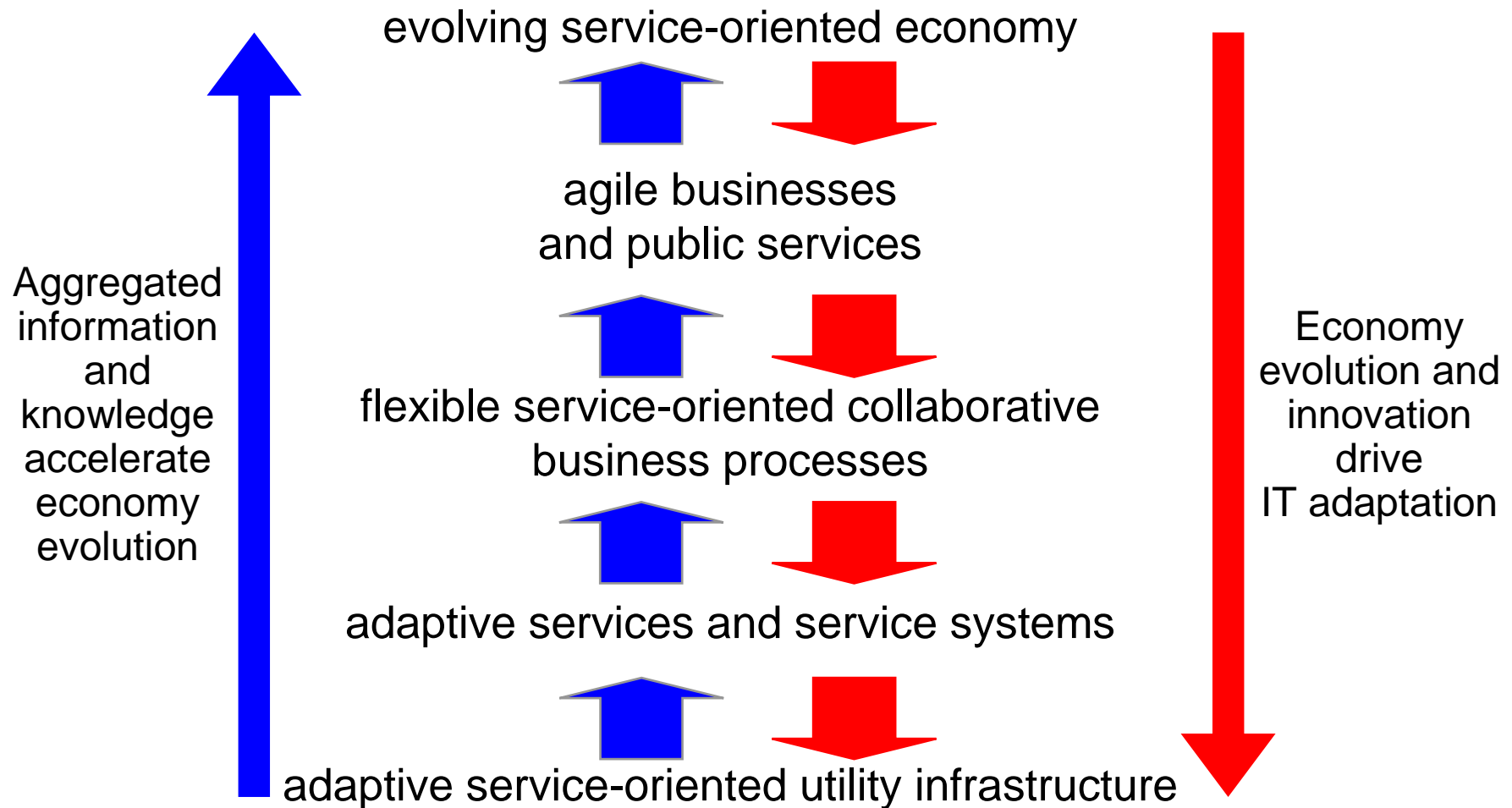
- More than 1,600 partners
- Overall more than 180,000 SAP partner certificates

## Future Business Needs



- **Consolidation** will alter the structure of many markets and **accelerate specialization**, leaving fewer, larger players in command
- Changing customer needs continue to be the key growth opportunity, but will require **business model innovation**
- The ability to **adapt strategy and business models** quickly will be a critical source of competitive advantage
- Flexibility and speed of innovation become “design imperatives” with IT being integral to organizations’ ability to **boost competitive advantage**, not just cost efficiency

## Agile businesses drive adaptive IT



**“Business Grids providing  
an adaptive service-oriented utility infrastructure  
for business applications”**

## Major ICT infrastructure for the following scenarios

- Future ICT backbone for large enterprise solutions
- Support hosting scenarios for small and medium sized enterprises

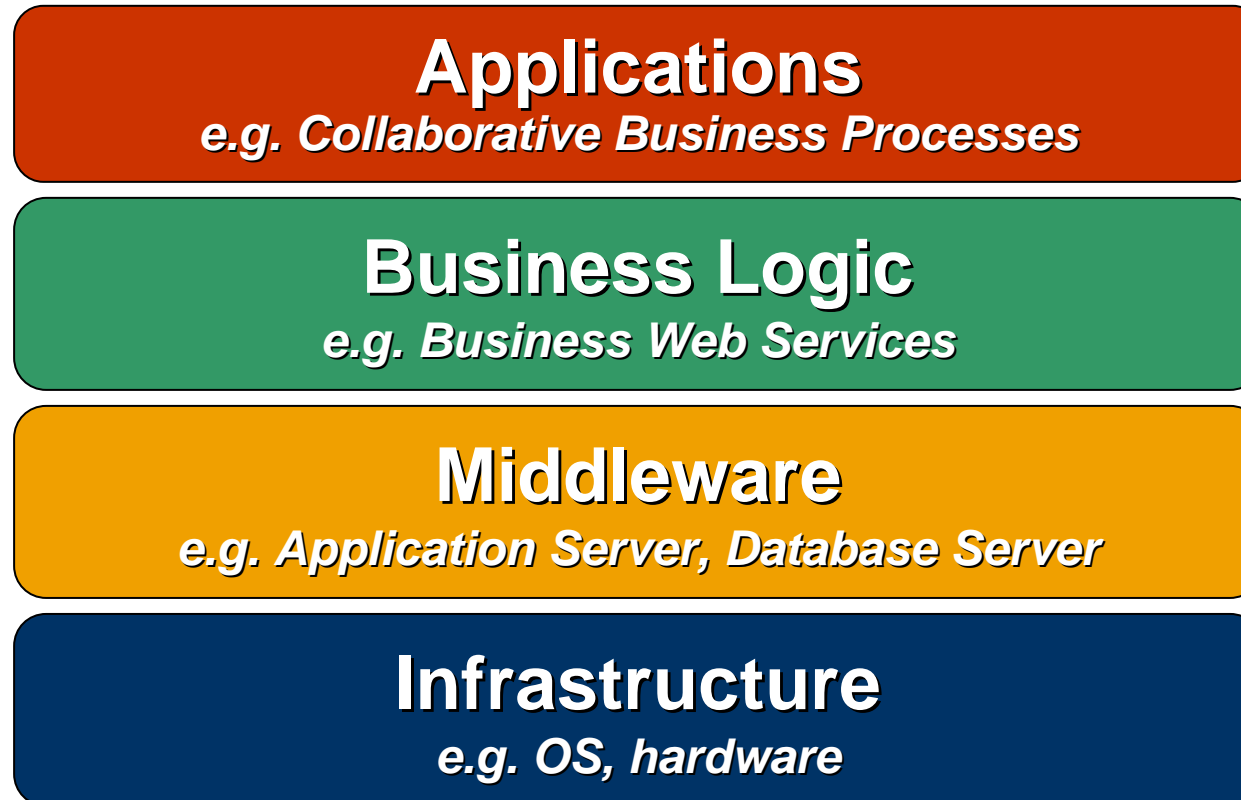
## As inter-working between administrative domains evolves...

- ICT-infrastructure to support service-oriented economies
- eventually support the emergence of new types of applications

| eScience Grids   | Business Grids   |
|--|--|
| ■ focus on specific application areas  | ■ general purpose infrastructure for arbitrary business applications   |
| ■ provide shared access to specialised high performance computing resources or datasets    | ■ aimed at providing business flexibility efficiently  |
| ■ independently executing, stateless batch jobs which can be easily moved around a network | ■ applications involve complex technology stack (e.g. application servers, co-existing applications); often interactive or session-based |
| ■ jobs executed based on some given input files  | ■ jobs heavily use transactional data  |

# Typical layers of existing business solutions

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## Business Grids

- targets the infrastructure layer
- solutions might also span across several layers

## Service-oriented

- Dynamic allocation and assembly of resources via infrastructure services
- Infrastructure a utility

## Knowledge-assisted

- Translating high-level business requirements into infrastructure requirements
- Matching infrastructure requirements to infrastructure capabilities

## Accountability

- Auditing
- Billing

## Principles

- research issues to be derived from business scenarios
- pragmatic approach
  - ◆ starting from today's business challenges
  - ◆ stepwise evolution towards long-term vision

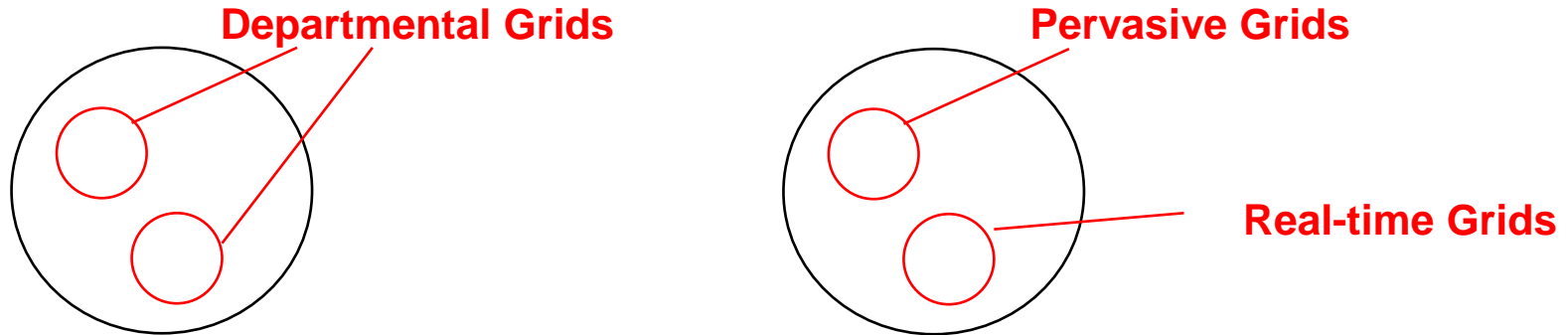
## Approach

- derive basic model of how resources relate to administrative domains
- describe business scenarios via basic model
- specify business requirements
- derive research challenges

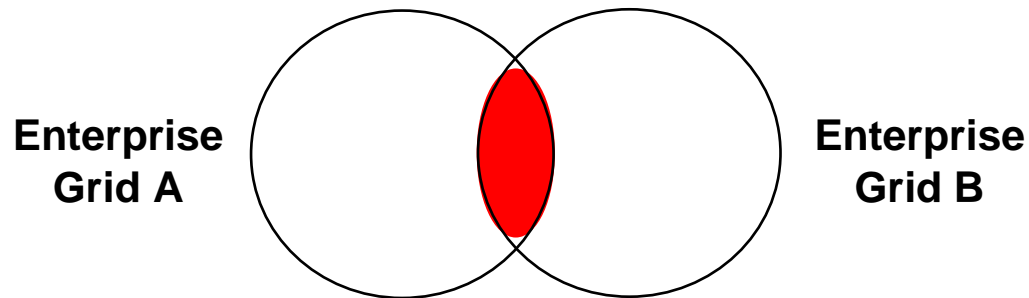
# Basic Model: some examples

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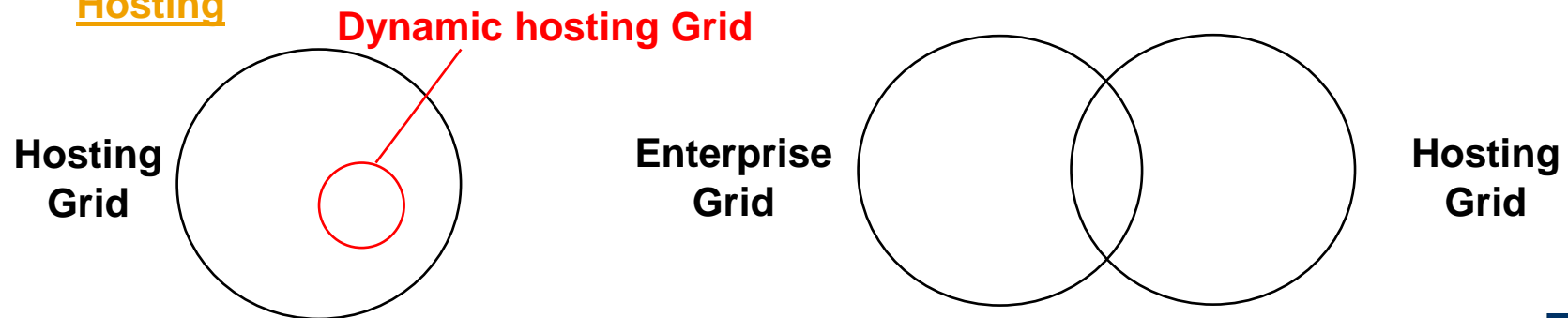
## Enterprise Grid (single administrative domain)



## Virtual Organisations



## Hosting



## Some business scenarios expressed via basic model

- **Enterprise Grid**
  - ◆ core scenario for traditional infrastructures
- **Hierarchical Enterprise**
  - ◆ includes notion of enterprise policy hierarchies
- **Special-Purpose Grids**
  - ◆ e.g. pervasive, real-time or compute grids included
- **Hosting**
  - ◆ special case of enterprise grid & virtual organisation
- **Real-time enterprise**
  - ◆ dynamic, event-driven enterprises
- **Mergers & acquisitions**
  - ◆ extends virtual organization scenario
- **Business value networks**
  - ◆ a network of virtual organizations

 **Thank you**

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**Questions???**

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