PV207 – BPM & SOA

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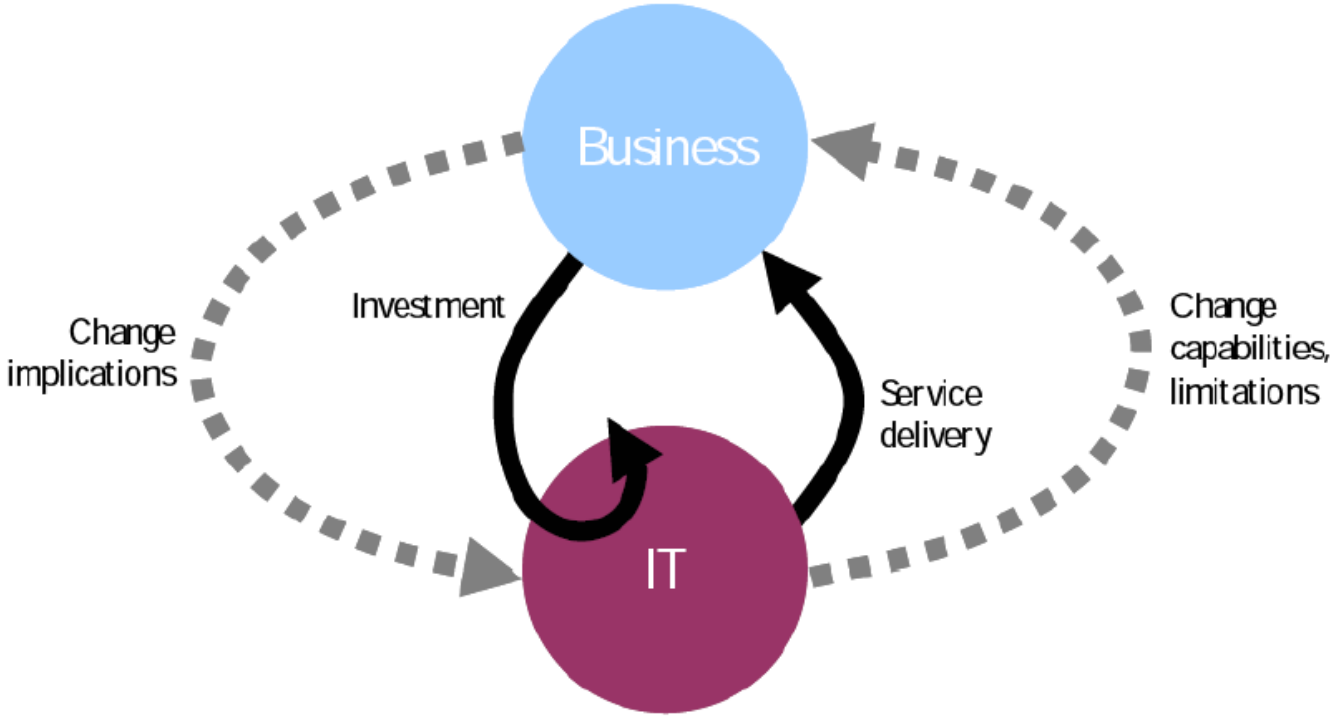
Motivation

Figure 1: The elements of IT-business alignment

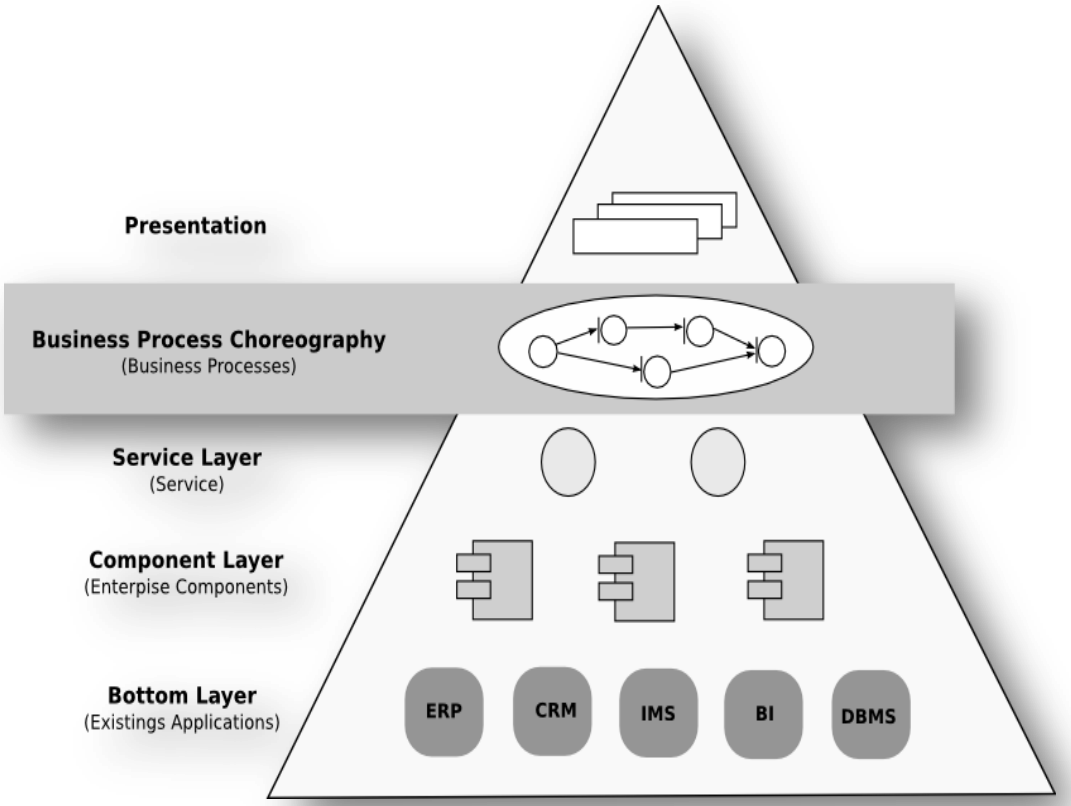


There are three important elements in IT-business alignment: investment, service delivery, and collaboration in change management.

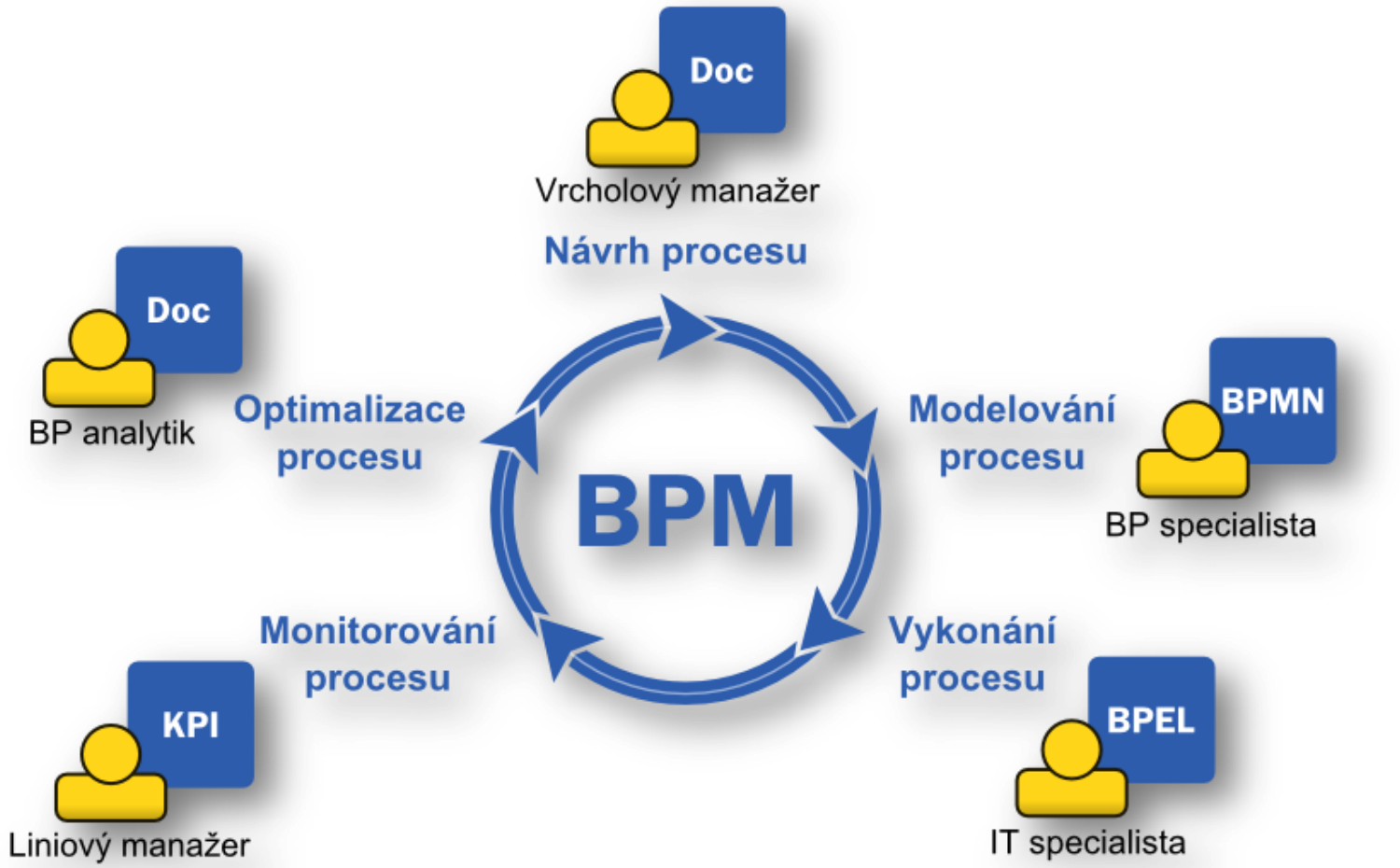
Macehiter Ward-Dutton

Role of BPM in IT Management

- Business requests are defined from top level
- Use of IT services from bottom level

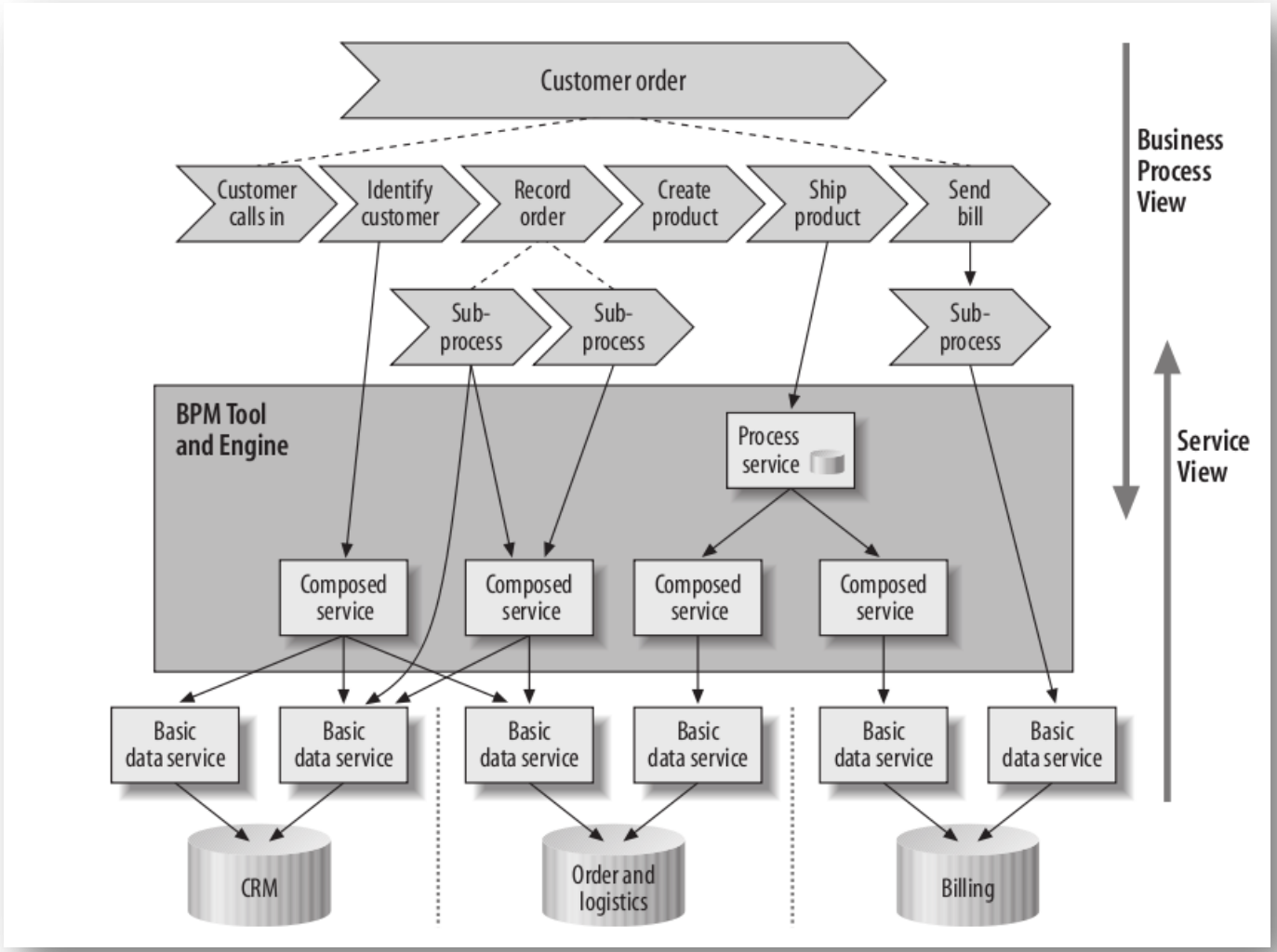


BPM Life-cycle



J. Pavlovič, P. Vašíček, IBA CZ, 2008

BPM and SOA Relationship



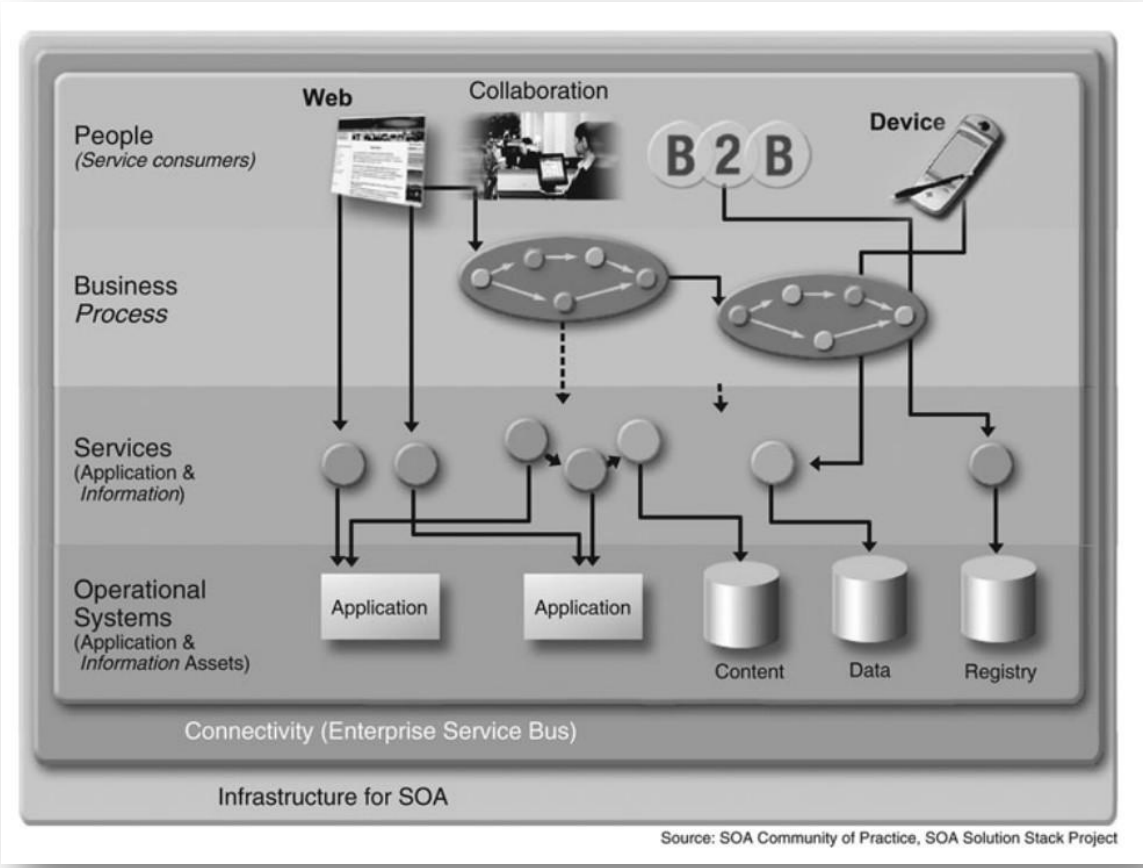
SOA in Practice, , Nicolai M. Josuttis

SOA Concept

- Cost cut on development and integration
- Simpler maintainace a integration
- Component/service reuseability
- Integration of Legacy applications
- Simplification of IS management
- Just-in-time management (real time business)

SOA Architecture

- Process layer
- Service layer
- Application layer
- Technological layer

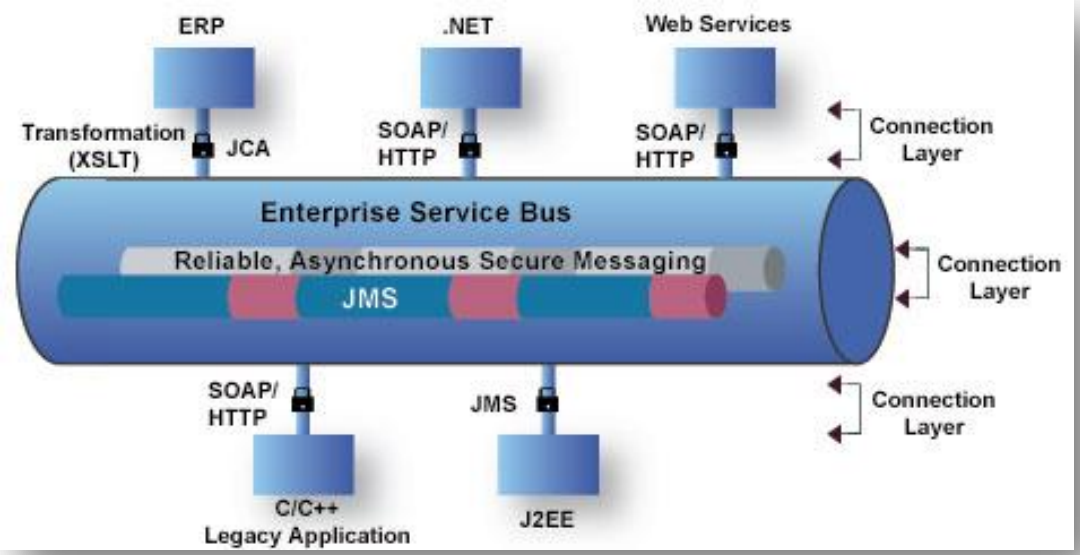


Web Service

- Service for message transport and remote method calling
  - Messages are transported in XML format
  - Transport protocol is HTTP/HTTPS (mostly)
- Web service define:
  - Operations (method) a and their parameters
  - Return types

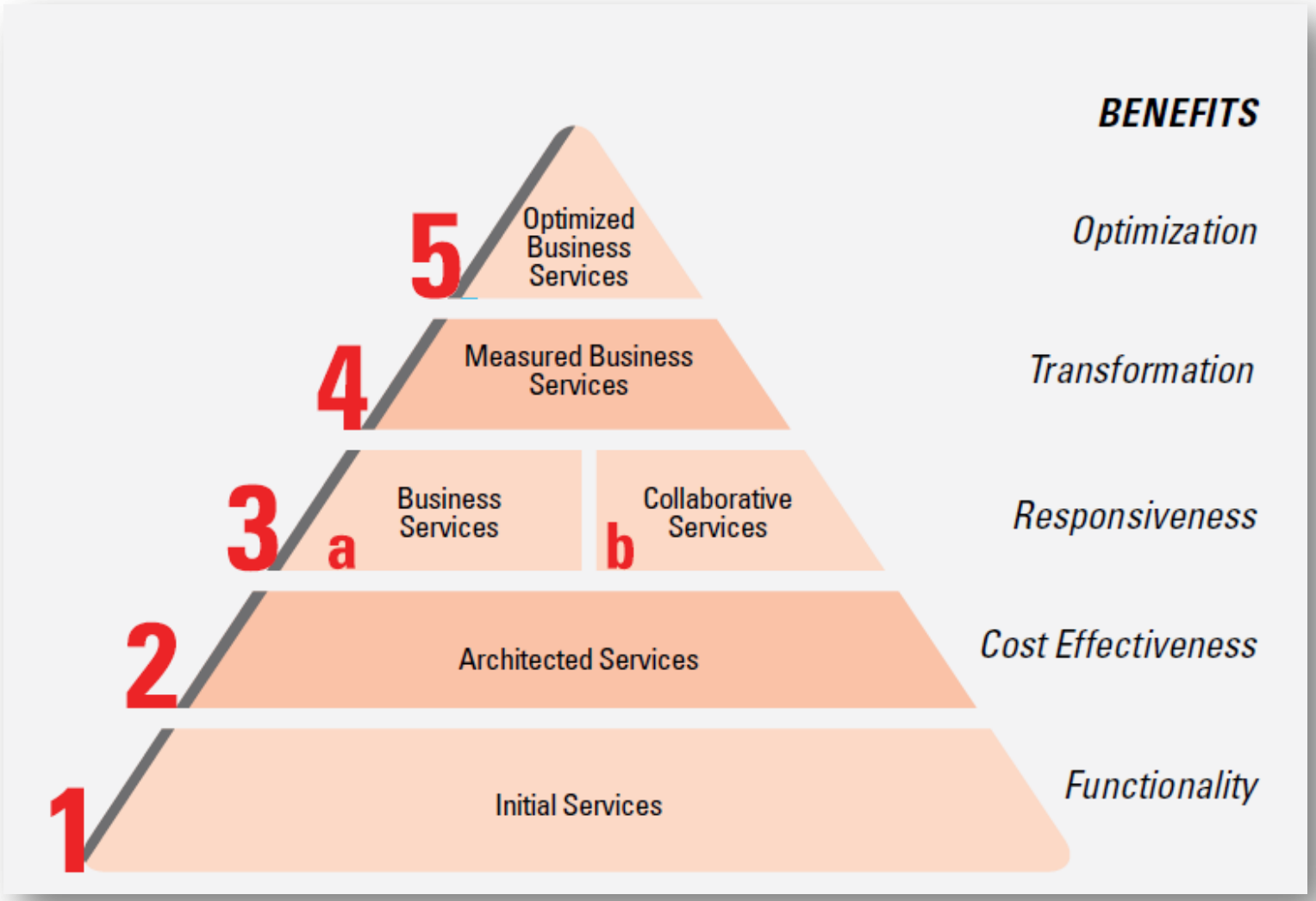
ESB – Enterprise Service Bus

- Message routing
- Unique message protocol conversion
- Orchestratization of communication



http://wso2.com/products/enterprise-service-bus/

SOA – Maturity Model



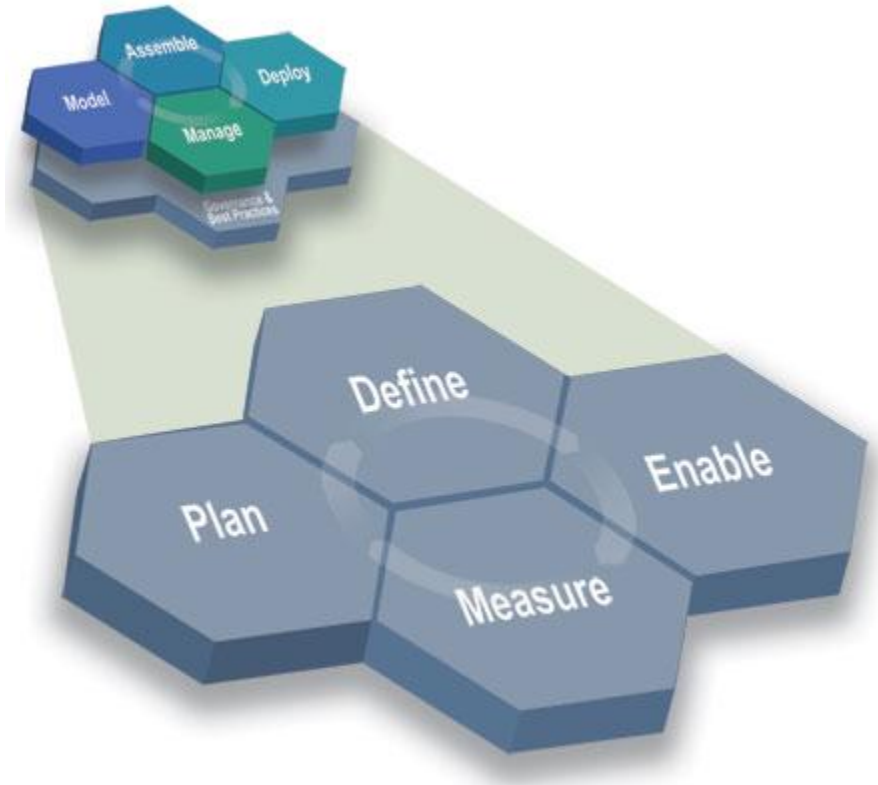
Sonic Software Corporation, AmberPoint Inc., 2005

SOA Maturity Model – Dimension Matrix

	1: Ad-hoc	2: Standardised	3: Managed	4: Measured	5: Agile
People	• No SOA team • Little or no knowledge of SOA	• SOA Arch team • Basic roles & resp. defined	• SOA training and certification plan • Roles and resp. defined and practiced	• Incentives provided based on reuse • KM	• Creating new business processes by orchestrating underlying services
Process	• Service life cycle not defined	• Service life cycle defined • Best practices defined for process, data & services	• Process, data & Service modelling • Service evangelisation for re-use	• Business activity monitored and measured for critical business processes.	• Event driven modelling • Agile and optimized business processes
Architecture	• No SOA Reference Architecture • No standards/best practices	• Initial SOA Reference Architecture with little control • Tools selected	• Reference Architecture compliant SOA • Business, information, application & tech. architectures aligned	• Activity and event monitoring infrastructure	• Dynamic / configurable SOA infrastructure • Event driven technology
Governance	• No sponsor for SOA strategy • No service ownership	• SOA is sponsored by top mgmt • Arch team tries to manage services	• Governance defined • Communication plan exists	• Metrics & measures implemented • Incentive for consumer and provider	• Metrics tracked and optimised • Federated governance in place
Services	• No services	• Services available • Service management introduced	• Service management in place • Service chargeback defined	• Service prioritization, metering implemented • Measure and improve service lifecycle	• Service virtualisation • Dynamic service discovery
Engagement, Delivery & Operation	• Concept of service operation does not exist	• Service delivery engagement defined • Estimation model	• Services operation process in place • Apply lean 6 sigma	• Metrics based development, deployment model • Benchmark service performance	• Integrated service delivery and operation

SOA Governance

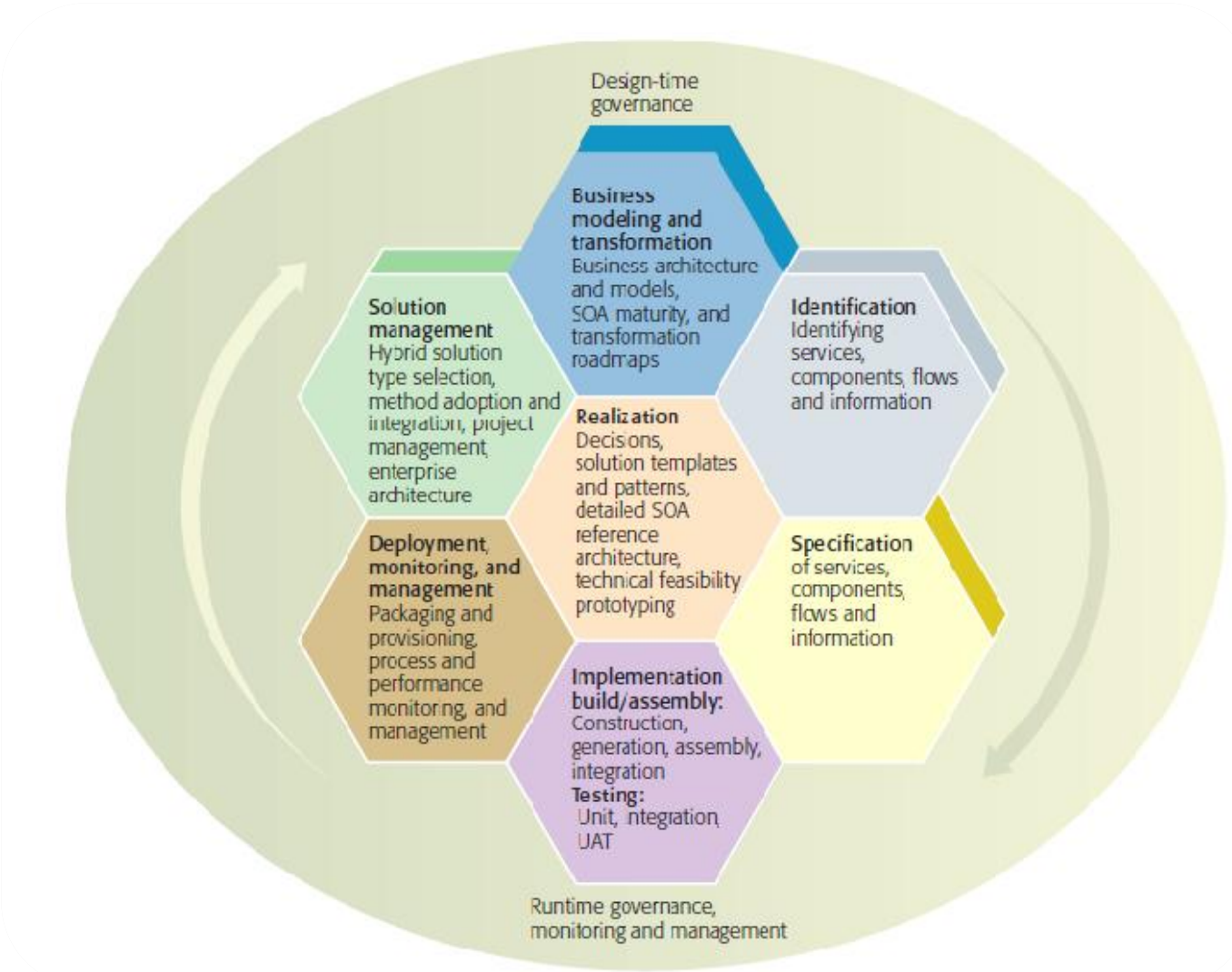
- Service definition
- Service deployment life cycle
- Service versioning
- Service migration
- Service registries
- Service message model
- Service monitoring
- Service ownership
- Service testing
- Service security



SOA – Methodologies

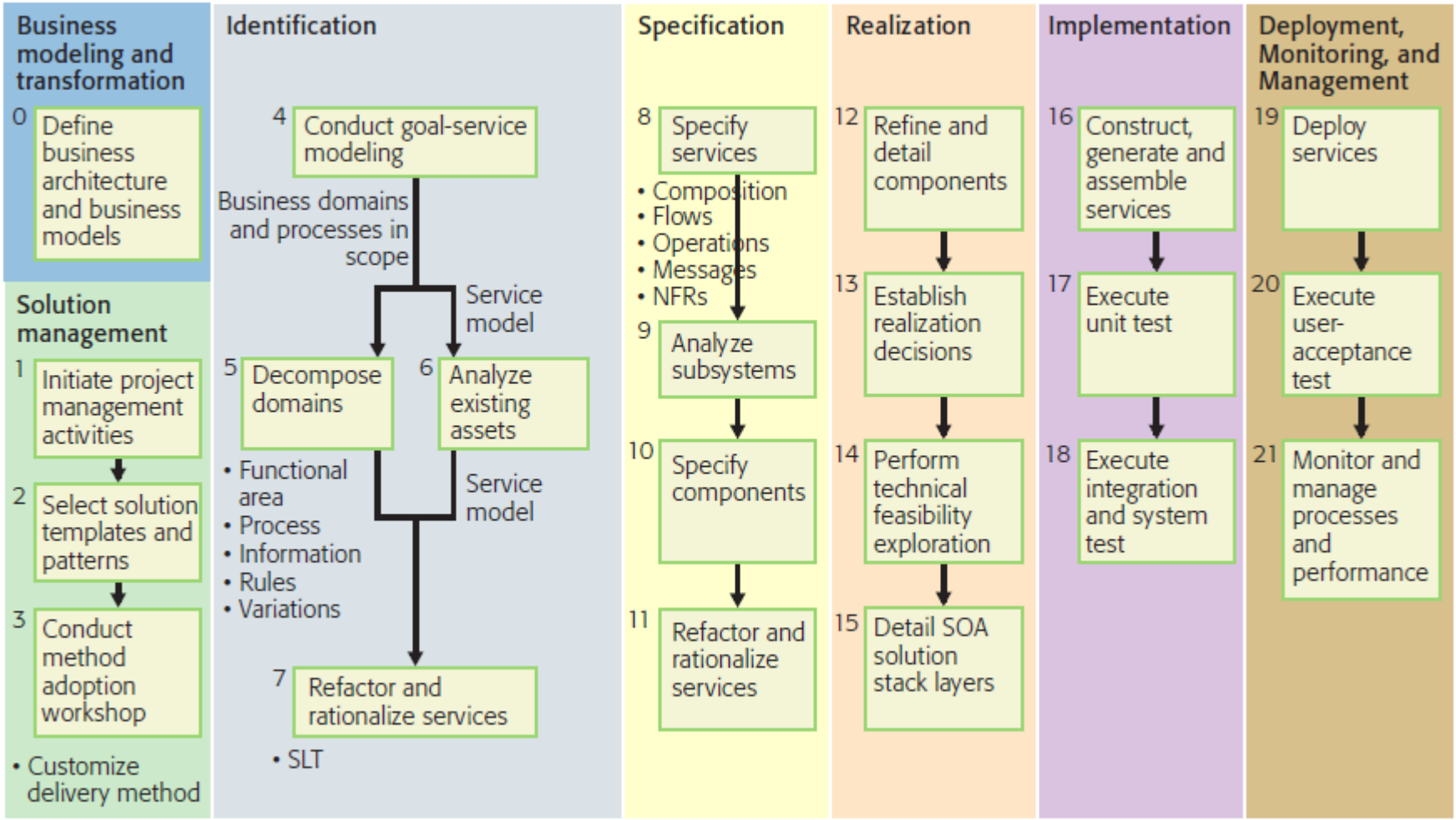
- SOA methodologies
  - IBM SOAD (Proprietary)
  - IBM SOMA (Proprietary)
  - SOA RQ (Proprietary)
  - CBDI-SAE
  - SOAF
- **Service-oriented modeling and architecture**
  - Ali Arsanjani, Chief Architect, SOA and Web services Center of Excellence, IBM, Software Group

SOMA - Phases



A. Arsanjani, IBM Systems Journal, Volume 47, Number 3, 2008

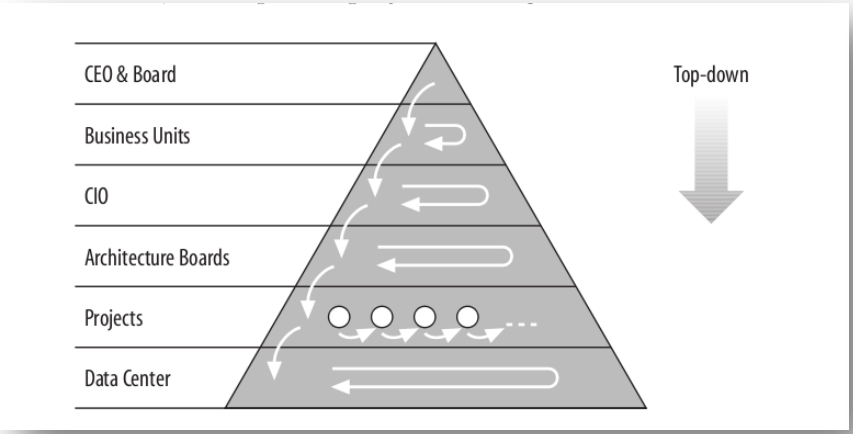
SOMA – Life-cycle flow



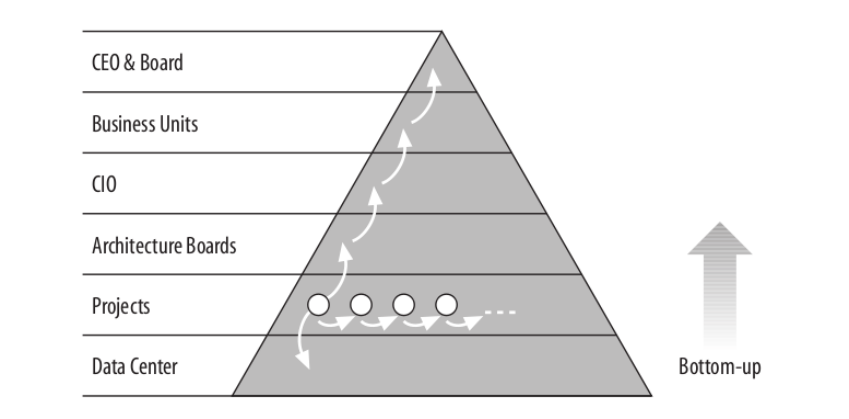
A. Arsanjani, IBM Systems Journal, Volume 47, Number 3, 2008

SOA Implementation

Coorect

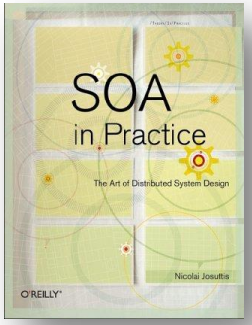


Wrong – high business risk



Sandy Carter, The New Language of Business SOA & Web 2.0, 2007

Information Resources



- **SOA in Practice**, Nicolai M. Josuttis, 2007, ISBN-13: 978-0596529550

- IBM Systems Journal, Volume 47, Number 3, 2008

Where to find SOA (at MU)

- Project: Tecnological pilot for IS IZS
  - SOA, SOA Governance, BPM, BPMS
- Project: SOA4OVSS (ÚVT MU)
  - SOA, SOA Governance

Recapitulation

- BPM and SOA architecture needs to has its **reason** in company business
- Investment needs to **return** (ROI)
  - Nutná analýza prostředí a návrh optimální varianty
- SOA has maturity **levels**
- SOA implementation must correspond to company **strategy**
- SLA IT architecture represents **restriction** for BPM