Management of BPM Projects

Mathias Eggert
Management of BPM Projects

Enterprise Architecture and Innovations

- Workshop on Business Modeling
- Business Modeling
- Service Innovation
- Creativity Support Systems
- Creativity in Business Processes

Enterprise Architecture and Business Process Management

- Management of BPM Projects
- Business Process Compliance Management
- Domain Specific Reference Models
- Business Process Modeling – a new Method
- Meta Modeling and Application

Foundations and Course Organization

- Enterprise Architecture, Information Systems, and BPM
- Course Organization
Motivation and Project Management Goals

- Preparation of process modelling
- Strategy and organizational framework engineering
- As-is-modelling and as-is-analysis
- To-be modelling and process optimisation
- Design of a process-oriented organizational structure
- Implementation of Processes - Process roll-out
- Continuous process management
Management of BPM Projects

Mathias Eggert

Project Management Tasks

Cf. Rosemann et al. (2005).
Project Organization

- **Project steering committee**
  - Decision maker and control entity within the project

- **Project director**
  - Coordination of activities of project teams

- **Project team**
  - Professional and method agents
Example for a project organisation

Project steering committee

Strategy and central quality management

Project director

consolidation
modelling of taskgroups 1 - 4, 7:
  disposition, service, usage advice, fault clearance and value receipt
modelling of taskgroups 5, 6:
  planning and building, portfolio management and distribution
modelling of taskgroups 8, 9:
  materials management and human resource management

facility management coordination
planning and building coordination
human resource and social management and administration and financial coordination
Main tasks of project controlling
- monitoring and controlling function
- assurance of composed output and formal goals

Measures of project controlling
- coordination of project output with business management and strategic corporate goals
- alignment of as-is and to-be ratios
- application of project management software – methodical patency (e.g. process models for project planning)
- capacity adjustment
- prioritization of critical activities
- constant verification of economic efficiency
- ...

Management of BPM Projects
Mathias Eggert
**Management of BPM Projects**

**Mathias Eggert**

**Motivation and Project Management Goals**

**Preparation of process modelling**

- Strategy and organizational framework engineering
- As-is-modelling and as-is-analysis
- To-be modelling and process optimisation
- Design of a process-oriented organizational structure
- Implementation of Processes - Process roll-out
- Continuous process management
What do you think has to be prepared for process modelling in a BPM project?

There are
- multitude of usage purposes
- multitude of different modelling techniques
- multitude of modellers and model users
- multitude of models

Increased complexity
- of information models
- of model creation processes

Quality management needed for model design recommendations
Different content-regarding and methodical requirements for information models, depending on purpose

- E.g. regarding content: workflow management vs. benchmarking

- E.g. methodical: organization engineering vs. application system engineering

<table>
<thead>
<tr>
<th>perspective</th>
<th>detailed specification of input and output data</th>
<th>detailed eviction of key ratios</th>
</tr>
</thead>
<tbody>
<tr>
<td>benchmarking</td>
<td>-</td>
<td>+</td>
</tr>
<tr>
<td>workflow management</td>
<td>+</td>
<td>-</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>perspective</th>
<th>clearness</th>
<th>precise attribution</th>
</tr>
</thead>
<tbody>
<tr>
<td>organization engineering</td>
<td>+</td>
<td>-</td>
</tr>
<tr>
<td>application system engineering</td>
<td>-</td>
<td>+</td>
</tr>
</tbody>
</table>
## Preparation of Process Modelling – Selection of Model Types

<table>
<thead>
<tr>
<th>Variable</th>
<th>Description</th>
<th>Levels</th>
</tr>
</thead>
<tbody>
<tr>
<td>Content</td>
<td>The case material used in the study</td>
<td>Process</td>
</tr>
<tr>
<td>Grammar(s) constructs</td>
<td>The specific constructs available in the grammar and their possible relationships</td>
<td>With construct</td>
</tr>
<tr>
<td>Nature of comparison (intra- vs. intragrammar(s))</td>
<td>Inter: ERD vs. class diagram Intra: ERD with and without relationship symbol</td>
<td>Intragrammar</td>
</tr>
<tr>
<td>Use of grammar(s)</td>
<td>Rules for using the grammar constructs. e.g., ERD with and without optional relationships</td>
<td>With rule</td>
</tr>
<tr>
<td>Medium of content delivery</td>
<td>Media used to present content developed through grammar</td>
<td>Text</td>
</tr>
<tr>
<td>User characteristics</td>
<td>Individual traits that can affect outcomes: e.g. modeling experience (novice or expert)</td>
<td>Novice</td>
</tr>
<tr>
<td>Task</td>
<td>Interpretation/ “reading” or creation/ “writing”</td>
<td>Interpretation</td>
</tr>
</tbody>
</table>

What might be helpful documentation types for communicating business processes?

- Plots
  - ensure quick overview
  - are connected with high costs

- Handbooks
  - are dedicated to wide spreading
  - special layout conventions for models are to be defined

- Intranet
  - high actuality by adjustment “at the push of a button“
  - special layout conventions for models are to be defined
Communication Channels

- ensure quick overview
- are concerned with high costs
- high actuality by adjustment “at the push of a button“
- special layout conventions for models have to be defined
- are dedicated to broadcast process models
- special layout conventions for models are to be defined

Plots | Intranet | Handbooks
Guidelines of Modelling (GoM)

Correctness
- syntactic rules
- semantical correctness
- terminology

Relevance
- system, process structures, process instances
- resources, media

Economic Efficiency
- procedure model
- reference models
- structural model components

Clarity
- topology (e.g. minimize crossing lines)
- visualizing semantics
- naming/terminology

Comparability
- conventions for modeling (e.g. activities as places or transitions)
- terminology

Systematic Design
- view-integration
- level-integration (e.g. ARIS)

Perspectives
- Reorganization
- AB-Costing
- Automation/WFM
- IT-Inv.-Control,
- .... etc.

Methods
- Views
- General

Model Quality

Guidelines of Modelling (GoM)
Motivation and Project Management Goals

Preparation of process modelling

Strategy and organizational framework engineering

As-is-modelling and as-is-analysis

To-be modelling and process optimisation

Design of a process-oriented organizational structure

Implementation of Processes - Process roll-out

Continuous process management

Project Management – Procedural Model

preparation of process modelling
strategy and organisational framework engineering
as-is-modelling and as-is-analysis
to-be-modelling and process optimisation
development of process-oriented organisational structure
implementation of processes - process roll-out
continuous process management
Why do we need Organizational Frameworks?
Examples for Organizational Frameworks

- The Retail-H Model

```
contracting
  order management
  goods receipt
  invoice auditing
  accounts payable

marketing
  selling
  goods issue
  billing
  accounts receivable

general accounting and asset management
  cost accounting
  human resources
```

Management of BPM Projects
Mathias Eggert
Examples for Organizational Frameworks

The Y-CIM Model
Examples for Organizational Frameworks

- Public Administrations

Management Processes

- Organisation design
- Controlling
- Application systems design

Core Processes (strategic)

- Mayor
- Controlling

Core Processes (operative)

- Requirements
- Services

Supporting Processes

- Conference Services - FD10
- Information Systems - FD10
- Public Relations - FD10
- Cash Office - FD20
- Legal Issues - FD30
- Survey - FD61
- Facility management - FD63
- Construction - FD70

Examples for Organizational Frameworks

Management of BPM Projects

Mathias Eggert
Motivation and Project Management Goals

Preparation of process modelling

Strategy and organizational framework engineering

As-is-modelling and as-is-analysis

To-be modelling and process optimisation

Design of a process-oriented organizational structure

Implementation of Processes - Process roll-out

Continuous process management
Why should we do as-is-analysis?
basis for the identification of weaknesses and room for improvement

Basis for a new organisational framework

creation of transparency throughout the whole enterprise

Purpose of as-is modelling

reuse of model parts within the to-be concept

prerequisite for the development of migration strategies towards the to-be state

encouragement of the complexity of technical coherencies and problems

checklist for to-be modelling to prevent the missing of relevant issues
Select the Processes to Reorganize

- **Dysfunction:**
  - Which processes are in the deepest trouble?

- **Importance:**
  - Which processes have the greatest impact on the company’s customer?
  - Which processes have the highest strategic relevance?

- **Feasibility:**
  - Which process is the most susceptible to successful redesign?
  - What are the culture and politics of each process?
Management of BPM Projects

Mathias Eggert

Need to reorganize

<table>
<thead>
<tr>
<th>High</th>
<th>Low</th>
</tr>
</thead>
<tbody>
<tr>
<td>II</td>
<td>IV</td>
</tr>
<tr>
<td>III</td>
<td></td>
</tr>
</tbody>
</table>

Process Value

Hammer, Champy (1993)
Process Priorization

Degree of Freedom

<table>
<thead>
<tr>
<th></th>
<th>high</th>
<th>small</th>
</tr>
</thead>
<tbody>
<tr>
<td>high</td>
<td>II</td>
<td>III</td>
</tr>
<tr>
<td>low</td>
<td></td>
<td>IV</td>
</tr>
</tbody>
</table>

Frequency

- I: High Degree of Freedom, High Frequency
- II: High Degree of Freedom, Low Frequency
- III: Low Degree of Freedom, Low Frequency
- IV: Low Degree of Freedom, High Frequency

Davenport (1993)
Means & Sources to Identify Processes

- **Internal:**

- **External:**
Means & Sources to Identify Processes

- **Internal:**
  - written documentation
  - interviews
  - workshops
  - questionnaires
  - ...

- **External:**
  - professional journals
  - textbooks
  - prior studies
  - benchmarking
  - reference models
  - ...

Management of BPM Projects
Pros and Cons of As-is Modelling

- Same problem understanding and language
- Shows shortcomings of current situations
- Supports acceptance for the project (unfreezing)
- Completeness of to-be-processes can be evaluated
- If there is little demand for reorganization, process controlling, current processes can be used for documentation purposes
- Shows potential/limits of reengineering

- Current situation is obsolete as soon as to-be-processes are designed/implemented
- Danger of „narrow-focused“ process design (thinking in constraints)
- Time- and money-consuming, probably complicated

Management of BPM Projects

Mathias Eggert
Motivation and Project Management Goals

Preparation of process modelling

Strategy and organizational framework engineering

As-is-modelling and as-is-analysis

To-be modelling and process optimisation

Design of a process-oriented organizational structure

Implementation of Processes - Process roll-out

Continuous process management
Intention of To-Be Modelling

- revenue increase
- cost reduction
- throughput time reduction
- general quality improvement

Effective

Not Effective

Not efficient  efficient
Typical Analysis Approaches

1. **Which aim does the process have?**

2. **Why is the process executed as it is?**

3. **Which organizational units and application systems are involved – and where are (organizational and media) breaks?**
**Definition of views to be modelled according to purpose**

- **Example:**

<table>
<thead>
<tr>
<th>Purpose</th>
<th>Functional View</th>
<th>Organisational View</th>
<th>Data View</th>
<th>Process View</th>
</tr>
</thead>
<tbody>
<tr>
<td>Process-oriented reorganisation</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Certification with ISO 9000ff.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Benchmarking</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Software engineering</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Detailing degree:**
- High
- Medium
- Low
Process Improvement Approaches

- Function-oriented Approaches
- Object-oriented Approaches
- Ressource-oriented Approaches
**Function-oriented Approaches**

- **Elimination of functions**
  - Lean Management-Approach: elimination of activities not serving corporate goals; consideration of legal prescriptions; Outsourcing

- **Integration of functions**
  - Job Enlargement (horizontal compression);
  - Job Enrichment (vertical compression, empowerment)

- **Automation of functions**
  - Basic idea of IT-use;
  - Especially: Automation of control flow (workflow management)

- **Routing of functions**
  - Parallelization: delinearize processes (e.g. simultaneous/concurrent engineering);
  - Switch of functions
**Object-oriented Approaches**

1. **Elimination of Objects**
   - Secondary objects (copies, reports), e.g. prebilling

2. **Substitution of Object**
   - Substitute a complex object with a simple one; e.g. substitution of complex contracts

3. **Digitalization of Objects**
   - E.g. document management systems

4. **Harmonization of Objects**
   - Logistical units (e.g. pallets); IT from the same vendor (e.g. only Microsoft products)

5. **Separation of Objects**
   - Split objects in order to improve object standardization and workflow efficiency

6. **Process-oriented optimization of objects**
   - Bundling or separation of objects that belong to one business process

----

**Management of BPM Projects**

Mathias Eggert
<table>
<thead>
<tr>
<th>Resource-oriented Approaches</th>
<th>Case Worker/Process Owner</th>
<th>Reduction of Interfaces</th>
<th>Delegation of Responsibility</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Centralize activities to case workers; Define Process owners</strong></td>
<td><strong>Integrate process workers; Organize the office in a way that one process can be executed without interruptions</strong></td>
<td><strong>Task enrichment and enforcement of employees</strong></td>
<td></td>
</tr>
<tr>
<td><strong>Use of document management systems and one single print and scan service</strong></td>
<td><strong>Eliminate scan and print activities</strong></td>
<td></td>
<td><strong>e.g. Using the BI functionality of the ERP system</strong></td>
</tr>
<tr>
<td><strong>Integration of different Media</strong></td>
<td><strong>Reduction of Media Changes</strong></td>
<td></td>
<td><strong>Full Use of Software Functionality</strong></td>
</tr>
</tbody>
</table>

**Management of BPM Projects**

Mathias Eggert
Organizational Constraints
- Qualification
- Capacity
- Law (i.e., in governments)
- …

IT Constraints
- Legacy Software
- Interfaces
- Functionality of (existing) Software
- …

Cultural Constraints
- Persistence
- …
Motivation and Project Management Goals

Preparation of process modelling

Strategy and organizational framework engineering

As-is-modelling and as-is-analysis

To-be modelling and process optimisation

Design of a process-oriented organizational structure

Implementation of Processes - Process roll-out

Continuous process management
Aim: Optimal execution of processes by process-oriented organizational structure

Means (strategically): “Fit“ between organizational structure and process structure

Means (practically): Design criterion: minimization of organizational structure interfaces (if possible)

But: Classical organization theory: organizational structure determines process structure

Here: Process-oriented organization design: process structure determines organizational structure

→ Starting point for organizational engineering: to-be processes enriched by specific organizational data
1. Enhance organizational framework and to-be processes by variants
2. Derive organizational devices from processes (and variants)
3. Model roles, define resource demand
4. Create jobs and allocate to organizational devices
5. Consider the activities that were not modelled
6. Increase resource efficiency
7. Constitute management system
8. Describe and optimize organizational structure interfaces
Motivation and Project Management Goals

Preparation of process modelling

Strategy and organizational framework engineering

As-is-modelling and as-is-analysis

To-be modelling and process optimisation

Design of a process-oriented organizational structure

Implementation of Processes - Process roll-out

Continuous process management
Create acceptance/Communication concept
- create problem awareness
- continuous communication of goals
- top management support
- create incentives
- stimulate exchange of experience
- …

Create Capability/Training concept
- differentiated training concepts for top management, middle management, operative level, process managers
- …
Job and task transfer list: Visualization of transfer from “old“ to “new“ in a matrix)

<table>
<thead>
<tr>
<th>Old job</th>
<th>New job</th>
</tr>
</thead>
<tbody>
<tr>
<td>job old001</td>
<td>task new001</td>
</tr>
<tr>
<td>task A</td>
<td>✓</td>
</tr>
<tr>
<td>task B</td>
<td>✓</td>
</tr>
<tr>
<td>task C</td>
<td></td>
</tr>
<tr>
<td>job old002</td>
<td></td>
</tr>
<tr>
<td>task D</td>
<td></td>
</tr>
<tr>
<td>task E</td>
<td>✓</td>
</tr>
<tr>
<td>job old003</td>
<td></td>
</tr>
<tr>
<td>task F</td>
<td>✓</td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td>job oldxxx</td>
<td></td>
</tr>
<tr>
<td>task XXX</td>
<td>✓</td>
</tr>
<tr>
<td>task YYY</td>
<td>✓</td>
</tr>
<tr>
<td>task ZZZ</td>
<td>✓</td>
</tr>
</tbody>
</table>

...
Management of BPM Projects

Motivation and Project Management Goals

Preparation of process modelling

Strategy and organizational framework engineering

As-is-modelling and as-is-analysis

To-be modelling and process optimisation

Design of a process-oriented organizational structure

Implementation of Processes - Process roll-out

Continuous process management
Goal and Tasks of Continuous Process Improvement

**Goal:**
consistent, incremental improving of process structure

**Tasks of CPM:**
- Implementation of process-oriented control instruments (e.g., workflow management)
- Continuous interface management, especially in bigger, complex design problems
- React to changed environmental requirements
- Continuous monitoring of goal achievement
- Ratios as basis for new improvements
- Continuous communication and advancement of process concept
- …
Continuous Process Management
Procedural Model for CPM

- Business Process Reengineering
- Modelling phase
- Execution phase
- Analysis phase
- Goal redefinition phase

Management of BPM Projects
Mathias Eggert
Management of BPM Projects

Mathias Eggert
Succeeding at Reengineering – Most common mistakes

→ 50-70 % do not achieve the results they intended

- try to fix a process instead of changing it
- ignore everything except process redesign
- neglect people`s values and beliefs
- try to make reengineering happen from the bottom up and without top management commitment
- Assign someone who doesn't understand reengineering to lead the effort
- place reengineering in the middle of the corporate agenda

Hammer, Champy (1993)
Lessons learned

- Business Process Management drivers/ Why BPM?
- How to process/organize a BPM project? (Procedural Model)
- What are information models/process models? What are common objectives of conceptual modelling?
- What are critical issues/typical traps in a BPM project?
- How to optimize processes? What are optimal processes?
- When is BPM finished?
- …
Management of BPM Projects

Mathias Eggert
Management of BPM Projects

Mathias Eggert

Project Management – Procedural Model

Motivation and Project Management Goals

Preparation of process modelling

Strategy and organizational framework engineering

As-is-modelling and as-is-analysis

To-be modelling and process optimisation

Design of a process-oriented organizational structure

Implementation of Processes - Process roll-out

Continuous process management