Identification and Evaluation of Use Cases for inter-organizational Business Capability Modeling

Oliver Schmidt – Final Presentation
Supervisor: Fatih Yilmaz, M.Sc.
05.10.2020, München
Agenda

Motivation

Research Questions

Research Approach

Results

Limitation & Future Work
Motivation

Collaboration becomes increasingly important for companies – inter-organizational collaboration instead of competition [8]

EAM Organization needs to align their IT and business [17]

Importance of inter-organizational collaboration in Enterprise Architecture Management (EAM)

Different directions of collaboration
In this thesis focus on horizontal collaboration:
Collaboration partners are competitors from the same industry sectors with the same/similar capabilities

Creation of a common Business Capability Map as collaborative visualization tool

The task of Business Capability Maps in horizontal inter-organizational collaboration?

Thesis Goal: Use Cases Challenges (Usage + Collaboration) Success Factors
Motivation

Introduction to the Business Capability Modeling (BCM) Concept

A business capability defines the organization’s capacity to successfully perform a unique business activity.

- describes what an enterprise does and not how
- abstracts and encapsulates the people, process/procedures, technology, and information

Typical modeling result is a Business Capability Map:

A visual representation of a nested hierarchy of the main functions in the enterprise which are necessary to support the company’s business model and which reflects the company’s strategic direction.

Usage context described within one organization and not in the context of EAM collaboration

Source: [6]
Motivation

The BCM must be Incorporated into the Enterprise Architecture for an effective Usage
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Explanatory construct & Research Questions

Impact of factors influencing the usage of BCM in inter-organizational collaboration

RQ 1: What use cases for the business capability map can be found in the literature?

RQ 2: What are typical challenges in inter-organizational collaborations, and can the business capability map be used to resolve them?

RQ 3: What are use cases for the business capability map in horizontal inter-organizational collaborations?

RQ 4: What are challenges and success factors for the business capability map usage in inter-organizational collaborations?
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### Research Approach

#### Multiple Case Study Design & Partner Overview

- **Design Science Approach** (Hevner et al., 2013; Peffers et al., 2007)
  - **Multiple Case Study Design** according to Yin (2014)
    - semi-structured interviews

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**Context**

<table>
<thead>
<tr>
<th>Cross-organizational relationship structure</th>
<th>Case 1</th>
<th>Case 2</th>
<th>Case 3</th>
<th>Case 4</th>
<th>Case 5</th>
</tr>
</thead>
<tbody>
<tr>
<td>Main Reason</td>
<td>Harmonization</td>
<td>Harmonization</td>
<td>Reference architecture</td>
<td>Merger</td>
<td></td>
</tr>
<tr>
<td>Participants are Competitors</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Collaboration Form</td>
<td>Working Group</td>
<td>Working Group</td>
<td>Community of Practice</td>
<td>Community of Practice</td>
<td>Working Group</td>
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<td>Industry</td>
<td>Broadcasting</td>
<td>Broadcasting</td>
<td>Broadcasting</td>
<td>Banking</td>
<td>Lottery/Gambling</td>
</tr>
<tr>
<td>Number interviewed Experts</td>
<td>8</td>
<td>1</td>
<td>2</td>
<td>0</td>
<td>2</td>
</tr>
<tr>
<td>Data Collection</td>
<td>Interviews</td>
<td>Interviews</td>
<td>Interviews</td>
<td>Protocols</td>
<td>Interviews</td>
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</table>

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Literature Review Results – 18 Use Cases identified
Identified Use Cases for BCMs in the Context of Single Organizations

1. **Strategy & Business Model Mapping**
   - Business impact - strategic relevance [1, 2, 7, 13, 14, 20]
   - Outsourcing for single organization [6, 13]

2. **Value Stream Mapping**
   - 

3. **Organization/Organizational Structure Mapping**
   - Stakeholder groups and concerns [20]

4. **Initiative/Project Mapping**
   - Agile team organization [2]
   - Running projects & cost [2]

5. **Business Process Mapping**
   - 

6. **Soft aspects**
   - Communication improvement [7, 12, 18]

7. **Information Mapping**
   - **No Use Case** but possible information (person responsible for a business capability, user stories [7])

8. **Application Architecture Mapping**
   - Application lifecycle [2]
   - Application extended support [2]
   - Capability spanning applications [2, 19]
   - Cloud candidates or cloudification [2]
   - Application harmonization [2]
   - Infrastructure components [2]
   - Infrastructure components – extended support [2]

9. **Cost, Performance, Compliance & Complexity Mapping/Analysis**
   - Compliance issues [2, 13]
   - Capability dependencies [2, 9]
   - IT costs for applications [2, 13, 18]
   - Costs and the number of users per application [2]
   - Business process performance per capability [1]
Literature Review Results – 5 Use Cases identified

Identified Use Cases for BCMs in the Context of Inter-organizational Collaboration

- Outsource in an inter-organizational collaboration [4, 5]
- Value creation potential & to-be scenarios for merger & acquisitions [10]

- New collaborative value streams identification [21]
- Clarification of roles and responsibilities [19, 21]

- Benchmarking [14]
Multiple Case Study Results – 24 overall: 6 Use Cases in application; 13 potential; 5 potential & new
Overview of Use Cases for BCMs in Horizontal Inter-organizational Collaborations

Strategy & Business Model Mapping
- Business capability assessment for collaboration
- Outsourcing in an interorganizational collaboration
- Value creation potential & to-be scenarios for merger & acquisitions

Business Process Mapping

Initiative/Project Mapping
- Running collaborative projects
- Project information and outcome exchange

Value Stream Mapping
- New collaborative value streams identification
- Clarification of roles and responsibilities

BCM

Organization/Organizational Structure Mapping
- Organizational structure clarification

Cost, Performance, Compliance & Complexity Mapping/Analysis
- Benchmarking
- Compliance issues for collaborative projects or shared applications

Application Architecture Mapping
- Application harmonization
- Collaborative application development
- Application lifecycle
- Application extended support
- Capability spanning applications
- Cloud candidates or cloudification
- Infrastructure components
- Infrastructure components – extended support
- Potential application functionality
- Common applications procurement

Soft aspects
- Inter-organizational communication between Enterprise Architects
- BCMs comparison regarding business understanding
- Language unification

Information Mapping
- BCM-base wiki with common application and technology standards

used  potential (conformed)  potential (new findings from interviews)
### Literature Review

- Resulting in 32 challenges, which were ranked by number of sources and cut off after the 15 challenge.

### Multiple case study

- Only Case Collaboration 1, 2, 5 (actively using BCM).
- Expert evaluation (perceived & BCM can help).

### Research evaluation

- Mapping of use cases to challenges.

### Key findings

- Social challenge are difficult to support (BCM allows shared vocabulary and taxonomy).
- Use case can partly help in 8 of 15 challenges.

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**Multiple case study results**

**Typical challenges in Inter-organizational Collaborations and how the BCM can help**

<table>
<thead>
<tr>
<th>Use Cases</th>
<th>BCM could help</th>
<th>Perceived challenge</th>
</tr>
</thead>
<tbody>
<tr>
<td>Inter-organizational communication between Enterprise Architects</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Application harmonization</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Clarification of roles and responsibilities</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Language unification</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Compliance issues for collaborative projects or shared applications</td>
<td></td>
<td></td>
</tr>
<tr>
<td>BCM-base wiki with shared application and technology standards</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Running collaborative projects</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Ontology differences**

- Heterogeneity & lack of standardization
- Lack of top management support & commitment
- Failing communication and timely responds
- Decision making
- Lack of information & knowledge sharing
- Inter-organizational connections
- Balance of benefits and costs at the firm level
- Partner/s identification and selection
- Equal access to information
- Lack of trust and commitment
- Risk identification and management
- Communication between geographically separated teams
- Achievement of operational alignment
- Selection of investment type

![Bar chart showing the challenges and their impact](chart.png)
Multiple case study results

**Challenges when Using the BCM in Inter-organizational Collaborations**

- Only Case 1, 2, 5 (actively using BCM)
- 11 Experts

**Key findings:**
- 12 Challenges identified
- Challenges mainly concerned with introduction phase of the BCM

- Lack of acceptance and awareness by stakeholders and decision makers
- Issues with the naming of business capabilities
- Labor and time-intensive work
- Lack of support by top level management
- Necessary tool support
- Right level of detail of the BCM
- Balance between using vs. refining the BCM
- Undesired transparency
- Different knowledge level at firm level
- Positioning of applications
- Positioning of project
- EAM awareness and commitment
Multiple case study results
Three of the most important Success Factors for the BCM Usage in Inter-organizational Collaborations

**Sufficient communication of the BCM to necessary stakeholders and decision makers in each organization**
- Show tangible BCM value proposition (big challenge)
- **Consideration:** educating the necessary stakeholders and decision makers (workshops, case studies and examples)

**Sufficient communication that the BCM mappings are a work and time-intensive task**
- Creation of BCM mapping is a time-intensive task, especially in the initial phase
- Ensure that the necessary resources, whether financial, time, or human, are available

**A step-by-step and iterative procedure for introduction and expansion**
- Iterative and multi-stage procedure (reduce the complexity)
- Require change management
- **Best practices** can help (still missing in the literature)
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Limitation & Future Work
## Limitation & Future Work

### Limitations

<table>
<thead>
<tr>
<th>Icon</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>🧠</td>
<td>Subjective interview results</td>
</tr>
<tr>
<td>⏰</td>
<td>Early state of BCM at collaborations</td>
</tr>
<tr>
<td>⚡</td>
<td>No data saturation due to limited number of experts</td>
</tr>
<tr>
<td>⚠️</td>
<td>General limitations of case studies (validity, external validity and reliability) [16]</td>
</tr>
</tbody>
</table>

### Future Work

<table>
<thead>
<tr>
<th>Icon</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>🔍</td>
<td>Case study at later stage with Case collaboration 1 and 2 (more in-depth)</td>
</tr>
<tr>
<td>🔍</td>
<td>More experts (also business side) and further case studies</td>
</tr>
<tr>
<td>⛹️</td>
<td>Approach for integration of BCM concept into organizations</td>
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<tr>
<td>🔢</td>
<td>Measuring of business capabilities Benchmarks</td>
</tr>
<tr>
<td>🔑</td>
<td>How can soft aspects be supported [18] Organizational culture</td>
</tr>
</tbody>
</table>
QUESTIONS?

THANK YOU!
References - 1


References - 2


Backup
Research follows a Design Science Approach (Hevner et al., 2013; Peffers et al., 2007) - **Use Cases as Artefacts**

**Multiple-case study design according to Yin (2014)**
- semi-structured interviews
Multiple case study results – Case Collaboration 1

Identification of Potential Use Cases for BCMs in Horizontal Inter-organizational Collaborations

Strategy & Business Model Mapping
- Business capability assessment for collaboration
- Outsourcing in an interorganizational collaboration
- Value creation potential & to-be scenarios for merger & acquisitions

Business Process Mapping

Initiative/Project Mapping
- Running collaborative projects
- Project information and outcome exchange

Value Stream Mapping
- New collaborative value steams identification
- Roles and responsibilities clarification for collaborative value streams

Organization/Organizational Structure Mapping

Cost, Performance, Compliance & Complexity Mapping/Analysis
- Benchmarking
- Compliance issues for collaborative projects or shared applications

Application Architecture Mapping
- Application harmonization
- Application lifecycle
- Application extended support
- Capability spanning applications
- Cloud candidates or cloudification
- Infrastructure components
- Infrastructure components – extended support
- Potential application functionality
- Collaborative application development
- Common applications procurement

Soft aspects
- Inter-organizational communication between Enterprise Architects

Information Mapping
- BCM-base wiki with common application and technology standards

used potential potential & new n/a currently not wanted

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Multiple case study results – Case Collaboration 2
Identification of Potential Use Cases for BCMs in Horizontal Inter-organizational Collaborations

- Strategy & Business Model Mapping
  - Business capability assessment for collaboration
  - Outsourcing in an interorganizational collaboration
  - Value creation potential & to-be scenarios for merger & acquisitions

- Business Process Mapping

- Initiative/Project Mapping
  - Running collaborative projects
  - Exchange of project outcome with collaboration

- Soft aspects
  - Inter-organizational communication between Enterprise Architects
  - Language unification

- Value Stream Mapping
  - New collaborative value streams identification
  - Roles and responsibilities clarification for collaborative value streams

- Information Mapping
  - BCM-base wiki with common application and technology standards

- Application Architecture Mapping
  - Application harmonization
  - Application lifecycle
  - Application extended support
  - Capability spanning applications
  - Cloud candidates or cloudification
  - Infrastructure components
  - Infrastructure components – extended support
  - Potential application functionality
  - Collaborative application development
  - Common applications procurement

- Cost, Performance, Compliance & Complexity Mapping/Analysis
  - Benchmarking
  - Compliance issues for collaborative projects or shared applications

- Organization/Organizational Structure Mapping

- RQ 3
  - Potential application functionality
  - Collaborative application development
  - Common applications procurement
  - BCM-base wiki with common application and technology standards
Multiple case study results – Case Collaboration 3 & 4

Identification of Potential Use Cases for BCMs in Horizontal Inter-organizational Collaborations

- Strategy & Business Model Mapping
- Business Process Mapping
- Initiative/Project Mapping
- Value Stream Mapping
- Organization/Organizational Structure Mapping
- Cost, Performance, Compliance & Complexity Mapping/Analysis
- Information Mapping
- Application Architecture Mapping
- Soft aspects: BCMs comparison regarding business understanding

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Multiple case study results – Case Collaboration 5
Identification of Potential Use Cases for BCMs in Horizontal Inter-organizational Collaborations
## Multiple case study results

### Overview Case Collaborations and current Usage BCM

<table>
<thead>
<tr>
<th>Case Collaboration &amp; Context</th>
<th>Collaboration Aims</th>
<th>Use Cases in Practice</th>
</tr>
</thead>
</table>
| **Case Collaboration 1**    | • Identification and support of collaborative projects  
   • Establishing comparability  
   • Identification of harmonization potential (applications and business processes)  
   • Creation and rollout of possible common application and technology standards  
   • Knowledge exchange through a common wording and same framework | • Inter-organizational communication between Enterprise Architects  
   • Application harmonization  
   • Business capability assessment for collaboration |
| **Case Collaboration 2**    | • Identification of harmonization potential for the application architecture and business objects | • Provide overview of collaborative application development |
| **Case Collaboration 3**    | • Creation of a reference BCM  
   • Knowledge exchange (e.g. use cases for BCMs) | - |
| **Case Collaboration 4**    | • Creation of a reference BCM  
   • Knowledge exchange (e.g. use cases for BCMs) | • Comparing BCMs to refine the understanding of what the business does |
| **Case Collaboration 5**    | • Identification of potential synergies  
   • Management and rationalization of the application architecture | • Clarification of organizational structure after merger  
   • Application harmonization |

BCM usage is focused on collaborations aims and the EAM functionality perception by organizations.
Summary Key Findings – Use Cases for Inter-organizational Collaborations

24 use cases overall identified

- 9 new use cases
- 15 use cases from literature

- 4 in practice
- 5 potential
- 2 in practice
- 13 potential

- **6 use cases** are currently in practice:
  - Merger: 2 use cases
  - Working groups: 3 use cases
  - Community of practice: 3 use cases

- **18 potential use cases** were identified:
  - Merger: 0 use cases
  - Working groups: 18 use cases
  - Community of practice: 0 use cases
<table>
<thead>
<tr>
<th>Use Case</th>
<th>Description</th>
<th>Context</th>
<th>Source</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Organization/Organizational Structure Mapping</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Stakeholder group and concerns</td>
<td>Business unit to business capability mapping to identify groups of stakeholder and concerns for a business capability</td>
<td>Intra</td>
<td>[20]</td>
</tr>
<tr>
<td><strong>Initiative/Project mapping</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Agile team organization</td>
<td>Mapping of use stories to business capabilities to evaluate the staffing of agile project teams</td>
<td>Intra</td>
<td>[2]</td>
</tr>
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<td>Running projects &amp; cost</td>
<td>Long term-planning of projects due to the mapping of running projects to BCs</td>
<td>Intra</td>
<td>[2]</td>
</tr>
<tr>
<td><strong>Application Architecture Mapping</strong></td>
<td></td>
<td></td>
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</tr>
<tr>
<td>Application lifecycle</td>
<td>Assessment of retirement dates of applications</td>
<td>Intra</td>
<td>[2]</td>
</tr>
<tr>
<td>Application extended support</td>
<td>Assessment of applications that have run out of vendor support</td>
<td>Intra</td>
<td>[2]</td>
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<tr>
<td>Capability spanning applications</td>
<td>Assessment of application landscape complexity, which are represented by capabilities supported by multiple applications</td>
<td>Intra</td>
<td>[2,19]</td>
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<td>Cloud candidates or cloudification</td>
<td>Evaluation and identification of cloud potential by presenting which applications already operates in the cloud</td>
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<td>[2]</td>
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<tr>
<td>Application harmonization</td>
<td>Assessment of functional redundancy of applications within BCs</td>
<td>Intra</td>
<td>[2]</td>
</tr>
<tr>
<td>Infrastructure components</td>
<td>Evaluation of BCs and their infrastructure components and cost</td>
<td>Intra</td>
<td>[2]</td>
</tr>
<tr>
<td>Infrastructure components – extended support</td>
<td>Evaluation of BCs with infrastructure components run out of vendor support</td>
<td>Intra</td>
<td>[2]</td>
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## Literature Review Results

### Identified Use Cases for BCMs (intra- & inter-organizational) with Description - 2

<table>
<thead>
<tr>
<th>Use Case</th>
<th>Description</th>
<th>Context</th>
<th>Source</th>
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<tbody>
<tr>
<td><strong>Value Stream Mapping</strong></td>
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<tr>
<td>Roles and responsibilities clarification for collaborative value streams</td>
<td>Identification and evaluation of BCs, whether a participation in a value stream is possible and which role and responsibility is intended</td>
<td>Inter</td>
<td>[21]</td>
</tr>
<tr>
<td>New collaborative value streams identification</td>
<td>Identify and creation of value streams from BCs within the collaboration</td>
<td>Inter</td>
<td>[19, 21]</td>
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<tr>
<td><strong>Cost, Performance, Compliance &amp; Complexity Mapping/Analysis</strong></td>
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<td></td>
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<tr>
<td>Compliance issues</td>
<td>Evaluation of compliance issues for business capabilities</td>
<td>Intra</td>
<td>[2, 13]</td>
</tr>
<tr>
<td>Capability dependencies</td>
<td>Evaluation of BCs complexity represented by dependencies between them</td>
<td>Intra</td>
<td>[2, 9]</td>
</tr>
<tr>
<td>IT costs for applications</td>
<td>Assessment of average operating costs for each application with a BC</td>
<td>Intra</td>
<td>[2, 13, 18]</td>
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<tr>
<td>Costs and the number of users per application</td>
<td>Assessment of applications with few users and high IT costs</td>
<td>Intra</td>
<td>[2]</td>
</tr>
<tr>
<td>Business process performance per capability</td>
<td>Assessment of business process performance for BCs</td>
<td>Intra</td>
<td>[1]</td>
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<tr>
<td>Benchmarking</td>
<td>Creation and sharing of benchmarks for BCs</td>
<td>Inter</td>
<td>[14]</td>
</tr>
<tr>
<td>Use Case</td>
<td>Description</td>
<td>Context</td>
<td>Source</td>
</tr>
<tr>
<td>----------------------------------------------</td>
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<td><strong>Soft Aspects</strong></td>
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<td>Communication improvement</td>
<td>BCM as tool for the communication between business and IT (shared taxonomy and vocabulary)</td>
<td>Intra</td>
<td>[7, 12, 18]</td>
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<tr>
<td><strong>Strategy &amp; Business Model Mapping</strong></td>
<td></td>
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<tr>
<td>Business impact - strategic relevance</td>
<td>Evaluation of BCs according to their strategic value</td>
<td>Intra</td>
<td>[1, 2, 7, 13, 14, 20]</td>
</tr>
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<td>Outsourcing for single organization</td>
<td>Evaluation of potential BCs for outsourcing</td>
<td>Intra</td>
<td>[6, 13]</td>
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<tr>
<td>Outsourcing in an inter-organizational collaboration</td>
<td>Evaluation of BCs for in and outsourcing within the collaboration</td>
<td>Inter</td>
<td>[4, 5]</td>
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<tr>
<td>Value creation potential &amp; to-be scenarios for merger &amp; acquisition</td>
<td>Identify and capture the critical value creation potential of the acquisition target and communicate the to-be scenario of the acquisition</td>
<td>Inter</td>
<td>[10]</td>
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<td><strong>Information Mapping</strong></td>
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<tr>
<td><strong>Business Process Mapping</strong></td>
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</tbody>
</table>
# Identified Use Cases for BCMs (horizontal inter-organizational) with Description

<table>
<thead>
<tr>
<th>Use Case</th>
<th>Description</th>
<th>Status</th>
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</tr>
</thead>
<tbody>
<tr>
<td><strong>Organization/Organizational Structure Mapping</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Organizational structure clarification</td>
<td>Creation of the organizational chart from the business capability map</td>
<td>new</td>
<td></td>
</tr>
<tr>
<td><strong>Initiative/Project mapping</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Project information and outcome exchange</td>
<td>Mapping of project information and outcome form individual organizations to the BCM to share success and failure for possible project adaption by other collaboration participants</td>
<td>new</td>
<td></td>
</tr>
<tr>
<td>Running collaborative projects</td>
<td>Mapping of running collaborative projects to the BCM to create an overview about the collaboration areas and potential areas for collaboration</td>
<td>similar</td>
<td>[2]</td>
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<tr>
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<td>Compliance issues for collaborative projects or shared applications</td>
<td>Identify and highlight compliance issues for collaborative projects or shared applications</td>
<td>known</td>
<td>[2, 13]</td>
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<tr>
<td>Benchmarking</td>
<td>Creation and sharing of benchmarks for BCs</td>
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## Multiple Case Study Results

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<td>Identification and evaluation of BCs, whether a participation in a value stream is possible and which role and responsibility is intended</td>
<td>known</td>
<td>[21]</td>
</tr>
<tr>
<td>New collaborative value streams identification</td>
<td>Identification of new value streams from BCs within the collaboration</td>
<td>known</td>
<td>[19, 21]</td>
</tr>
<tr>
<td><strong>Application Architecture Mapping</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Application lifecycle</td>
<td>Assessment of retirement dates of applications</td>
<td>known</td>
<td>[2]</td>
</tr>
<tr>
<td>Application extended support</td>
<td>Assessment of applications that have run out of vendor support</td>
<td>known</td>
<td>[2]</td>
</tr>
<tr>
<td>Capability spanning applications</td>
<td>Assessment of application landscape complexity, which are represented by capabilities supported by multiple applications</td>
<td>known</td>
<td>[2,19]</td>
</tr>
<tr>
<td>Cloud candidates or cloudification</td>
<td>Evaluation and identification of cloud potential by presenting which applications already operates in the cloud</td>
<td>known</td>
<td>[2]</td>
</tr>
<tr>
<td>Application harmonization</td>
<td>Assessment of functional redundancy of applications within BCs</td>
<td>known</td>
<td>[2]</td>
</tr>
<tr>
<td>Infrastructure components</td>
<td>Evaluation of BCs and their infrastructure components and cost</td>
<td>known</td>
<td>[2]</td>
</tr>
<tr>
<td>Infrastructure components – extended support</td>
<td>Evaluation of BCs with infrastructure components run out of vendor support</td>
<td>known</td>
<td>[2]</td>
</tr>
<tr>
<td>Potential application functionality</td>
<td>Comparing application functionality between organizations for BCs to uncover unused functionality</td>
<td>new</td>
<td>-</td>
</tr>
<tr>
<td>Collaborative application development</td>
<td>Overview in the collaborative application development process by identifying BCs from each organization needed</td>
<td>new</td>
<td>-</td>
</tr>
<tr>
<td>Common applications procurement</td>
<td>Identifying applications, which can be purchased together by one organization as well as provide an overview by highlighting such applications (e.g. mapping application owner)</td>
<td>new</td>
<td>-</td>
</tr>
</tbody>
</table>
## Multiple Case Study Results

### Identified Use Cases for BCMs (horizontal inter-organizational) with Description - 3

<table>
<thead>
<tr>
<th>Use Case</th>
<th>Description</th>
<th>Status</th>
<th>Source</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Soft Aspects</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Inter-organizational communication between Enterprise Architects</td>
<td>The BCM is used as basis for the communication between Enterprise Architects from different organizations within the collaboration, by providing a shared taxonomy and vocabulary</td>
<td>similar</td>
<td>[7, 12, 18]</td>
</tr>
<tr>
<td>Language unification</td>
<td>A common BCM in English and a mapping between BCMs in the respective national language of the organizations can reduce language barriers and possible misunderstandings</td>
<td>new</td>
<td></td>
</tr>
<tr>
<td>BCMs comparison regarding business understanding</td>
<td>New collaboration members can compare their BCM to the collaboration owned BCM to refine their understanding of the business</td>
<td>new</td>
<td></td>
</tr>
<tr>
<td><strong>Strategy &amp; Business Model Mapping</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Business capability assessment for collaboration</td>
<td>Identification of BCs needed for collaboration and the evaluation whether these are sufficiently developed</td>
<td>new</td>
<td></td>
</tr>
<tr>
<td>Outsourcing in an inter-organizational collaboration</td>
<td>Evaluation of BCs for in and outsourcing within the collaboration</td>
<td>known</td>
<td>[4, 5]</td>
</tr>
<tr>
<td>Value creation potential &amp; to-be scenarios for merger &amp; acquisition</td>
<td>Identify and capture the critical value creation potential of the acquisition target and communicate the to-be scenario of the acquisition</td>
<td>known</td>
<td>[10]</td>
</tr>
<tr>
<td><strong>Information Mapping</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>BCM-based wiki with common application and technology standards</td>
<td>Sharing of common application and technology standards with a BCM-based wiki with the whole collaboration and respective stakeholders interested in these or responsible to check their adherence</td>
<td>new</td>
<td></td>
</tr>
<tr>
<td><strong>Business Process Mapping</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>