Business-Driven Architecture: White Paper (Light version)

Workstream	Business-Driven Architecture
Klassifikation	Öffentlich
Abkürzung	BDA
Version	1
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Datum	20.02.2024

About the authors

As part of a CBA Lab workstream, we held various workshops over a period of 8 months with the participation of experienced architects from Basler, SBB, Telekom, Trumpf and TÜV Rheinland AG. During this timeframe, the BDA concept was iteratively developed and discussed.

Content

1 Introduction

Business-Driven Architecture (BDA) is becoming increasingly important as an aspect of Enterprise Architecture (EA) due to its ability to align IT with business goals, streamline processes, and drive strategic decision-making by ensuring that the IT strategy is in line with organization's mission. As businesses strive for agility and efficiency, BDA plays a vital role in enabling business agility throughout the organization, allowing companies to implement strategic changes effectively.[1]

Implementing a business-driven approach to EA ensures that technology investments are directly aligned with the needs of the business. Thus, the in-depth study of BDA becomes crucial to understand how companies can successfully synchronize their technology strategies with their business goals, ultimately leading to sustainable growth and competitive advantage.

2 Business-Driven Architecture: Theoretical foundation

2.1 Business-Driven Architecture: Definition

"IT/business alignment is the process of aligning IT strategies and initiatives with the goals and objectives of the business through clear linkage and quantifiable measurements established through business architecture activities. This involves shifting from a technology-centric to a business-centric approach and working collaboratively with business leaders to determine their needs and goals. To maintain alignment over time, regular meetings should be held, and the future state business architecture should be defined at least once a year." [2]

2.2 Business-Driven Architecture on Enterprise Architecture Layers

Looking at BDA not from a holistic perspective, but from the perspective of individual and common architectural layers, it becomes clear that the impacts, challenges and drivers of business-oriented architecture are primarily concentrated in the business layer. This means that the decisions and considerations for BDA are predominantly rooted in understanding and addressing the needs, goals, and processes of the business itself. However, it is important to note that BDA has cascading effects on the other architectural layers (information/data, application/integration and technology/infrastructure) as well. Nevertheless, the impacts decrease when transitioning into the more technical layers of the architecture.

Data security, privacy and third-party sharing, all found within the information/data layer, can only be implemented if it is driven by BDA. A key requirement for the data is to be of high quality. One challenge of this layer is that it is often lost between business and application. The implications for the application/integration layer, which facilitates the communication between software applications, is to map to the business architecture as a basis. The technology/infrastructure layer is the least impacted by BDA but driven by flexible technologies such as cloud, affecting business flexibility.

2.3 BDA Influences, Challenges & Enablers

BDA is a dynamic discipline that is influenced by various external and internal factors. They shape the strategic direction, decision-making processes, and outcomes of BDA initiatives. Understanding these influences is crucial for architects and stakeholders to effectively navigate the landscape and maximize the benefits of BDA. Nine dimensions were considered and have been summarized in the following figure, where each of them presents a challenge or serve as an enabler for BDA.

[1] LeanIX, 2023 (https://www.leanix.net/en/wiki/ea/value-of-enterprise-architecture)
[2] Oracle, 2011

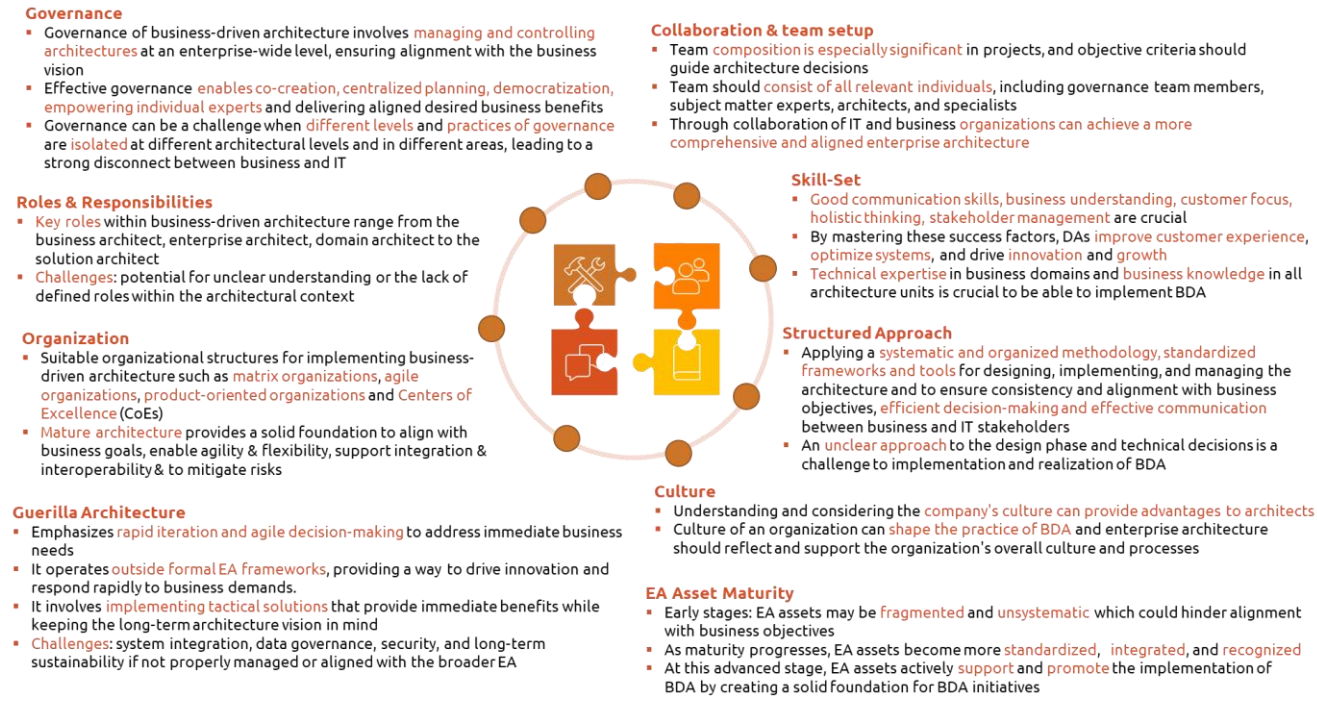

Figure 1 BDA Influences, Challenges and Enablers

It is important to note that both organizational type and culture are deeply rooted criteria of the organization that have evolved over years. Changing these is a challenge which cannot be solved from the position of the EA alone. Both are important factors that need to be considered when implementing BDA.

3 BDA Manual: How to apply Business-Driven Architecture

3.1 Methodology

The morphological box provides a framework for the analysis of complex enterprise-architecture structures by breaking them down into different dimensions and their respective characteristics. This method, which is particularly valuable in the early planning stages, offers practitioners a holistic approach to assess the current state of the organization as well as define the target state of a BDA. Based on theoretical findings, dimensions, and characteristics regardless of BDA were initially collected. Subsequently, the characteristics suitable for BDA were discussed and selected for each dimension. The result is a colored heat map.

3.2 Step 1: Consideration of the as-is and target state

The following morphological box serves as a basis to understand and analyze the current architecture of an organization prior to the potential implementation of BDA. By gaining a clear picture of how the architecture should ideally be designed, specific objectives and action plans for BDA implementation can be developed. The comparison between the current and target state if useful for defining roadmaps and actions (Chapter 3.4) and ensures that the implementation of BDA supports the desired benefits and strategic goals of the organization.

Approach	Internal oriented approach			External oriented approach	
	Capability-Based Approach	Process-Driven Approach	Data-Driven Approach	Customer-Driven Approach	Value-Driven Approach
Organization type	Matrix Organization	Product-Oriented Organization		Agile-Oriented Organization	Functional-Oriented Organization
Culture	Clan Culture	Adhocracy Culture		Market Culture	Hierarchy Culture
Team Setup	IT only	Business only		Mix of Business and IT	Central Unit only
Business & EA Collaboration	Consultative collaboration	Joint requirements gathering	Co-Creation during design and development	Review and Validation	Governance and Decision-Making
EA Role	Translator	Integrator		Connector	Moderator
EA Understanding	Business-focused	IT-focused	Data-focused	Process-focused	Capability-focused	Transformation-focused
EA Governance	Central		Decentral		Federal
EA Roles & Responsibilities	Enterprise Architect	Business Architect	Solution Architect	Domain Architect	Data Architect	Technical Security Architect	Platform Architect	IT Security Architect	Business Analyst	Project Manager
EA Skillset	Business-oriented thinking & understanding	EA & DA Knowledge	Architecture framework and pattern Knowledge	High experiences in at least one Enterprise function	(Agile) Project Management Knowledge	Software Architecture Pattern Knowledge	Software Development Knowledge
EA Community	Strategic EA Governance Board	Guiding Centre of Excellence (CoE)	Specialist-Based Communities	Role-Based Communities	Architecture / Innovation forums	No existent Communities

Legend	Nominated for all approaches	Average rating > 2.5	Average rating < 2	Average rating < 0.75	Nominated for one approach	Not nominated for one approach

Figure 2 BDA Morphological Box

The suitability of the other characteristics can be inferred based on their color codes. The characteristics visualized by a dark orange color imply a great relevance for all approaches.

When investigating **organizational forms**, three were considered the most suitable: product-oriented, agile-oriented and function-oriented organizations. In comparison to the matrix organization, they better support quick adjustments to business needs, clear responsibilities, focus on value creation and integration of agile principles.

The **culture** of adhocracy offers agile decision-making and innovation, while market cultures are focused on competition and results-oriented goals, which supports the agile requirements and strategic goals of BDA. In contrast, clan or hierarchical cultures with traditional structures and hierarchies could hinder agility and innovation.

Regarding the **team setup**, a mixed team of business and EA representatives provides a comprehensive insight into business requirements and the underlying architecture for the BDA, therefore promoting the exchange of expertise and a deep understanding of the challenges and opportunities, as BDA aims to create a seamless connection between these two domains. A mixed team composition is crucial to ensure that the BDA does not just remain a technological concept but becomes an integral and effective strategy that reflects the vision and goals of the company.

Especially design co-creation helps to develop meaningful long-term solutions that meet **business** requirements and **architectural** specifications. For example, business expertise is crucial in the requirements gathering process while EA experts ensure that the requirements are meaningfully integrated into the architecture.

There are various **roles** in the context of BDA implementation. The most important role is the integrator, who is positioned between technology, processes, and data, giving them the responsibility to ensure that different architectural elements work together seamlessly. This role goes beyond

simply translating requirements or facilitating collaboration; the integrator rather acts as a mediator between the different dimensions of the architecture and ensures that the developed solution is both business-driven and technologically robust.

For the implementation of BDA, the **EA understanding** of the architecture and the entire organization should focus primarily on business, IT, and transformation, rather than data, processes or capabilities. Such focus ensures that the architecture is directly aligned with business goals and requirements. Technology aspects are considered in the context of business goals, and the architecture serves as a strategic enabler for long-term change. This holistic approach enables dynamic adaptation to changing business environments by considering the interplay between people, processes, and technology.

A federal **governance structure** is particularly suitable in the context of BDA. It allows different business units or departments a degree of autonomy in decision-making, which is particularly important when different parts of the organization have different needs and dynamics. At the same time, it also complies with overarching strategic goals and guidelines.

The **roles** of Enterprise Architect, Business Architect and Project Manager each offer specific expertise and skills for a successful implementation of BDA. The Enterprise Architect designs the overall EA in line with strategic objectives. The Business Architect focuses on aligning business strategies with architecture and translating business requirements into architectural solutions. The Project Manager coordinates the implementation of BDA initiatives to make sure they are completed on time and in line with business objectives.

A successful Enterprise Architect must think business-oriented and have deep knowledge of EA and Domain Architecture (DA) to develop architecture solutions that not only meet current requirements but are also flexible and adaptable in the long run. The ability to understand business requirements, analyze architecture decisions for their business impact and ensure that the architecture supports the strategic goals of the organization are the hallmarks of business-oriented thinking. Centers of Excellence (CoEs) act as knowledge hubs in terms of sharing of best practices and insights related to BDA. Specialist-based communities focus on honing specific **skills** essential for BDA success, such as understanding business processes and customer needs.

Meanwhile, role-based **communities** facilitate collaboration among individuals with similar responsibilities, fostering a collaborative environment that aligns with the objectives of BDA. Together, these structures create a framework for consistent communication, skill development, and collaboration, contributing significantly to the sustainable implementation of BDA within an organization.

3.2.1 Influenceability of Dimensions

Post-analysis of the dimensions and criteria, it is furthermore necessary to consider which of these factors can be influenced, and to what extent, from the perspective of the EA. This dimension should be considered when implementing BDA initiatives in order to quickly realize quick wins, tackle mid-term initiatives and adapt long-term criteria that are difficult to realize.

Dimension	Influenceability
Approach	**Hard to influence**
Organization Type	**Hard to influence**
Culture	**Hard to influence**
Guerilla Architecture	**Easy to influence/ Neutral**
Team Setup	**Easy to influence/ Neutral**
Business & EA Collaboration	**Easy to influence/ Neutral**
EA Role	**Easy to influence/ Neutral**
EA Understanding	**Easy to influence**
EA Governance	**Easy to influence**

EA Roles & Responsibilities	**Easy to influence/ Neutral**
EA Skillset	**Easy to influence/ Neutral**
EA Community	**Easy to influence**
EA Asset Maturity	**Neutral/ Hard to influence**

Table 1: EA Dimension Influenceability

3.3 Step 2: Allocation to a scenario

After analyzing the current and target situation using the morphological box in Chapter 3.2, the next step is to define specific instructions for the implementation of BDA. As these are heavily dependent on the circumstances of the organization under consideration, four scenarios were defined based on the factors of culture, type of organization and approach, which are difficult to influence. The scenarios serve as an orientation for the application of the BDA Manual. Each of these scenarios describes a type of organizational structure, of which the one that best fits the organization under consideration can be used as the basis for implementing BDA. An individual roadmap was defined for each of these four scenarios, which is explained in Chapter 3.4.

	Scenario 1	Scenario 2	Scenario 3a	Scenario 3b
Culture	Market culture	Hierarchy culture	Adhocracy culture	Adhocracy culture
Organization type	Product-oriented or agile organization	Functional-oriented organization	Product-oriented or agile organization	Functional-oriented organization
Approach	Customer-Driven or Value-Driven	Process-Driven or Data-Driven	Customer-Driven or Value-Driven	Capability-Driven
Implications for BDA	Focus on customer via products and services	Focus on data and processes	Focus on agile and customer-oriented structures	Focus on cross-functional integration of flexible, innovative processes

Table 2: BDA Scenarios

Scenario 1: Agile innovation in market-driven architecture

This organization is characterized by a dynamic, competitive atmosphere. The combination of market culture, a product-oriented or agile type of organization and an externally oriented approach enables a high potential for innovation and the rapid market launch of new products. Customer centricity ensures that IT initiatives are directly aligned with customer needs. However, the constant changes in a market culture and the need for agile coordination and integration of teams can be challenging. The architecture in this environment requires a flexible, customer-centric, and innovative approach to successfully meet the ever-changing demands of the market.

Scenario 2: Efficient process design in hierarchical architecture

This organization maintains a hierarchical culture and a functional organizational structure, placing great emphasis on a structured and process-oriented approach to architecture. The challenges in this environment involve limited flexibility and hierarchically organized processes. At the same time, the clear structure offers the opportunity to design architecture processes and data management efficiently. The biggest opportunity is to create a consistent and well-structured architecture that meets process and data-oriented requirements.

Scenario 3a: Agile architecture and customer-centric solutions in the adhocracy culture

An organization that cultivates an adhocracy culture and has a product-oriented or agile organizational structure is characterized by a flexible and innovation-driven environment. The opportunities in this constellation lie in the ability to react quickly to changing customer requirements

and to develop innovative products or services. The challenges can be that the structure may be less predictable, which can lead to difficulties in adapting. At the same time, this provides room for creativity and agility in the architecture, paving the way for a customer or value-oriented approach.

Scenario 3b: Innovative architecture and flexible capability-driven approach in the adhocracy culture

An organization with an adhocracy culture, a functionally oriented organizational structure and a capability-driven approach in IT is marked by a flexible, creative, and innovative environment. The opportunities lie in the ability to react quickly to changing market conditions and to develop targeted capabilities in order to gain competitive advantages. The challenges could be that the organization may be less formally structured, which might lead to coordination problems. Simultaneously, this provides scope for efficient use of capabilities and an adaptive architecture that is geared towards the specific requirements of the company.

3.4 Step 3: BDA Roadmap

An individual roadmap and action statements for the implementation of BDA in the respective organizational environment were created for each of the scenarios mentioned. The roadmap is based on the dimensions explained in Chapter 3.2 and reflects the order in which specific recommendations for action are suggested. The approach under consideration and the respective target states are considered for each dimension. The target states are based on Figure 3 and were derived from the discussion and analysis of the morphological box. These are explained below.

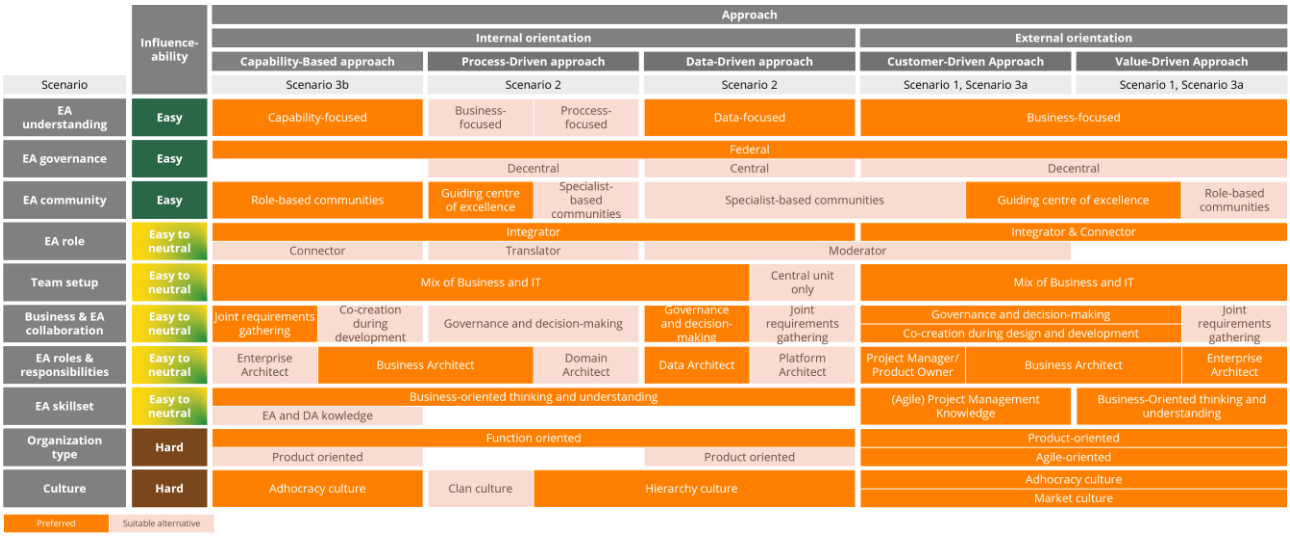

Figure 3: Target States

Roadmap for Scenario 1: Agile innovation in market-driven architecture

Dimension	Approach	Target state	Action statements
EA roles & responsibilities	Customer Driven	▪ Business Architect ▪ Project Manager	▪ Nomination of a central contact person or even a business architect for each department as contact for architecture ▪ Strengthening the business architecture role by defining and operationalizing the corresponding responsibilities and involvement ▪ Deep business and customer understanding and therefore strong collaboration between architecture and business required to develop customer-focused solutions and understand customer needs and include architecture accordingly. ▪ Collaboration and communication skills are deeply required to ensure effective cooperation and information and knowledge exchange
	Value-Driven	▪ Business Architect ▪ Enterprise Architect	
Skillset	Customer Driven	▪ (Agile) Project Management Knowledge	▪ Implementation of collaborative planning sessions, incremental architecture and solution development and agile communication methods between business and architecture ▪ Use of agile tools and methods, agile mindset in architecture work to promote adaptability and customer orientation

	Value-Driven	▪ Business-Oriented thinking and understanding	▪ Promoting the following skills of a Business Architect: Technical understanding, cost-oriented view from respective departments perspective and PM skills
Team Setup	Customer Driven	▪ Mix of Business and IT	▪ Define roles and responsibilities of business and IT, including the associated responsibilities and tasks. The responsibilities and tasks can be specified by name. ▪ Creation of joint committees and boards including corresponding roles, decision-making powers and structures within IT delivery processes ▪ Enabling of Architecture Roles ▪ Joint business and architecture trainings and cross-training programs ▪ Definition of common metrics
	Value-Driven		
EA understanding	Customer Driven	▪ Business-focused	▪ Create a common base of architecture understanding among all decentral stakeholders. ▪ Strengthening customer focus by aligning the mindset with customer needs and expectations to create targeted architectural solutions. ▪ Promote business understanding and communication by developing business knowledge, participating in business strategy discussions and fostering communication with clear business terms for effective collaboration with business stakeholders
	Value-Driven		
EA Governance	Customer Driven	▪ Federal (Alternative: Decentral)	▪ Harmonization of governance structures where needed by defining joint Governance guidelines to regulate cooperation and coordination in architecture decisions. ▪ Extract domain specific responsibilities and establish it close to the appropriate value chain / domain. ▪ Create a clear governance structure incl. policies and processes, governance bodies, roles (governance framework) --> overarching EA topics vs. domain specific topics
	Value-Driven		
Business & EA collaboration	Customer Driven	▪ Governance and decision-making ▪ Co-creation during design and development	▪ Create acceptance in decentralized units for central management (can be slower for business, but is accepted due to overall benefit for company) ▪ Define topics, which need centralized governance (and vice versa) ▪ Regular communication channels ▪ Regular retrospectives for continuous improvement. ▪ Definition of common architecture standards that take into account both business and technical requirements
	Value-Driven	▪ Governance and decision-making ▪ Co-creation during design and development ▪ Joint requirements gathering	▪ Create acceptance in decentralized units for central management (can be slower for business, but is accepted due to overall benefit for company) ▪ Define topics, which need centralized governance (and vice versa) ▪ Regular communication channels ▪ Regular retrospectives for continuous improvement. ▪ Definition of common architecture standards that take into account both business and technical requirements

Table 3: Roadmap for scenario 1: Agile innovation in market-driven architecture

Roadmap for scenario 2: Efficient process design in hierarchical architecture

Dimension	Approach	Target state	Action statements
EA community	Process-Driven	▪ Guiding CoE ▪ Specialist-based communities	▪ Community canvas ▪ Gain executive support for the BDA CoE. This may include the provision of resources, budgets and recognition of CoE activities. ▪ Identify suitable architects and experts as members of the CoE, considering technical knowledge and experience in understanding and implementing business requirements in IT and especially architecture. ▪ Establish community with focus on scaling
	Data-Driven	▪ Specialist-based communities	
EA understanding	Process-Driven	▪ Business-focused ▪ Process-focused	▪ Define and introduce business architecture related artefacts and methods, e.g., Business Capability Map, Process Map. Conducting appropriate training and workshops for these artifacts
	Data-Driven	▪ Data-focused	▪ Define and introduce data architecture related artefacts and methods, e.g., data catalog. Conduct appropriate training and workshops. ▪ Enforce data-driven roles in business and IT. ▪ Establish central units to define data standards
EA governance	Process-Driven	▪ Federal	▪ Create a clear and harmonize governance structure incl. policies and processes, governance bodies, roles (governance framework)

	Data-Driven		▪ Define overarching EA topics vs. domain specific topics. Define topics, which need centralized governance. ▪ Create acceptance in decentralized units for central management (can be slower for business, but is accepted due to overall benefits for company) ▪ Implementation of tools to support federated EA governance, which support the creation, review and approval of architecture documents and improve the exchange of information between units
Business & EA collaboration	Process-Driven	▪ Governance and decision-making	▪ Setup responsibilities for stage gates in IT organization, join portfolio management activities. ▪ Support strategic business projects. ▪ Design of the requirements gathering as a joint process between business and EA, which includes the definition of requirements, the clarification of business priorities and the coordination of technical options
	Data-Driven	▪ Governance and decision-making ▪ Joint requirements gathering	
EA role	Process-Driven	▪ Integrator	▪ Business Day visiting, be on business and IT fairs. ▪ Do solution designs for strategic projects and integrate EA into strategic decision-making processes. ▪ Do Software architecture fit confirmations on strategic projects. ▪ Provide best practices and lessons learned for business and IT. ▪ Clearly communicate the EA Integrator role, which brings together the various aspects of the architecture, particularly process and data-related aspects ▪ Establish architecture vision and strategy based and architecture principles in alignment with and based on business visions and goals
	Data-Driven		
EA skillset	Process-Driven	▪ Business-oriented thinking and understanding	▪ Mixed teams, stages and training for architects, covering both technical and business-related aspects, to promote a common understanding. ▪ Participation of the EA in strategic decisions and coordination to promote business understanding. ▪ Clearly link architecture initiatives to business benefits to demonstrate how architecture helps achieve business goals and generate value. ▪ Internship, Communities, Job rotation, Coaching
	Data-Driven		
EA roles & responsibilities	Process-Driven	▪ Business Architect ▪ Domain Architect	▪ Define common goals for all architects based on the company's business objectives and strategic direction. ▪ Based on this: Clear definition of roles for different architects. Clear definition of responsibilities and contribution to the overall architecture ▪ Use of common tools and platforms to promote collaboration and create consistent artifacts
	Data-Driven	▪ Data Architect ▪ Platform Architect	
Team Setup	Both	Mix of Business and IT as a result of BDA roadmap	

Table 4: Roadmap for scenario 2: Efficient process design in hierarchical architecture

Scenario 3a: Agile architecture and customer-centric solutions in the adhocracy culture

Dimension	Approach	Target state	Action statements
EA understanding	Customer-Driven	▪ Business-focused	▪ Create a common base of architecture understanding among all stakeholders. ▪ Training that focuses on customer-oriented principles and values. These not only cover technical aspects, but also consolidate a deep understanding of the customers' needs and values. ▪ Strengthening customer focus by aligning the mindset with customer needs and expectations to create targeted architectural solutions. ▪ Clear, customer-centric design principles that form the basis for architectural decisions. These principles with a focus on user-friendliness, value generation and customer experience ▪ Promote business understanding and communication by developing business knowledge, participating in business strategy discussions and fostering communication with clear business terms for effective collaboration with business stakeholders
	Value-Driven		

EA community	Customer-Driven	▪ Guiding CoE ▪ Specialist-based communities	▪ Community canvas ▪ Gain executive support for the BDA CoE. This may include the provision of resources, budgets and recognition of CoE activities. ▪ Identify suitable architects and experts as members of the CoE, considering technical knowledge and experience in understanding and implementing business requirements in IT and especially architecture. ▪ Establish community with focus on scaling. ▪ Organize regular workshops and training sessions for members of the BDA community. These events can cover both technical and business-oriented aspects of BDA and promote knowledge sharing. ▪ Provide common tools and platforms on which members of the BDA community can work together: Use of collaboration tools, discussion forums or shared repositories
	Value-Driven	▪ Guiding CoE ▪ Role-based communities	
Business & EA collaboration	Customer-Driven	▪ Governance and decision-making ▪ Co-creation during design and development	▪ Establishment of interdisciplinary committees made up of representatives from the business and the EA, which jointly make governance decisions and ensure that architecture decisions support the business objectives. ▪ Create acceptance in decentralized units for central management (can be slower for business, but is accepted due to overall benefit for company) ▪ Define topics, which need centralized governance (and vice versa) ▪ Joint requirement sessions in which business and EA representatives come together to identify and clarify requirements. This promotes a common understanding and avoids misunderstandings. ▪ Regular communication channels ▪ Regular retrospectives for continuous improvement ▪ Definition of common architecture standards that take into account both business and technical requirements
	Value-Driven	▪ Governance and decision-making ▪ Co-creation during design and development ▪ Joint requirements gathering	
Team setup	Customer-Driven	▪ Mix of Business and IT	▪ Define roles and responsibilities of business and IT, including the associated responsibilities and tasks. The responsibilities and tasks can be specified by name. ▪ Diverse mix of business experts and EA representatives in the teams to promote a broader perspective and a holistic approach. ▪ Creation of joint committees and boards including corresponding roles, decision-making powers and structures within IT delivery processes ▪ Define common goals for business and EA teams that are aligned with customer needs and value creation. This promotes alignment and focus on joint results. ▪ Transparency in decision-making processes and ensuring that the reasons for architectural decisions are clearly communicated. This promotes understanding and acceptance. ▪ Shared collaboration tools and platforms on which teams can work together (e.g., project management tools, document management or other collaborative platforms) ▪ Enabling of Architecture Roles ▪ Joint business and architecture trainings and cross-training programs ▪ Definition of common metrics
	Value-Driven		

Table 5: Roadmap for scenario 3a: Agile architecture and customer-centric solutions in the adhocracy culture

Scenario 3b: Innovative architecture and flexible capability-driven approach in the adhocracy culture

Dimension	Approach	Target state	Action statements
EA understanding	Capability-Based	▪ Capability-focused	▪ Create a common base of architecture understanding among all stakeholders. ▪ Capability-based training: Implement accessible training programs on capability-based architecture practices. ▪ Promote business understanding and communication by developing business knowledge, participating in business strategy discussions and fostering communication with clear business terms for effective collaboration with business stakeholders. ▪ Foster close collaboration between EA and business teams to better understand business capabilities and their value proposition

EA community	Capability-Based	▪ Role-based communities	▪ Community canvas ▪ Gain executive support for the BDA CoE. This may include the provision of resources, budgets and recognition of CoE activities. ▪ Identify suitable architects and experts as members of the CoE, considering technical knowledge and business capability expertise in IT and especially architecture. ▪ Establish community with focus on scaling. ▪ Organize regular workshops and training sessions for members of the BDA community. These events can cover both technical and business-oriented aspects of BDA and promote knowledge sharing. ▪ Provide common tools and platforms on which members of the BDA community can work together: Use of collaboration tools, discussion forums or shared repositories
Business & EA collaboration	Capability-Based	▪ Joint requirements gathering ▪ Co-creation during development	▪ Regular working groups and workshops in which representatives from business and architecture work together to gather requirements and develop solutions. ▪ Use of interactive formats such as design thinking workshops to create a collaborative environment in which ideas can be developed together. ▪ Implementation of collaborative tools and platforms to promote collaboration and visual tools such as diagrams and prototypes. ▪ Establish clear, shared goals for business and architecture with joint accountability for the success of projects and initiatives. ▪ Establish regular communication channels between business and architecture to discuss ongoing projects, communicate changes and feedback
Team setup	Capability-Based	▪ Mix of IT and Business	▪ Define roles and responsibilities of business and IT, including the associated responsibilities and tasks. The responsibilities and tasks can be specified by name. ▪ Diverse mix of business experts and EA representatives in the teams to promote a broader perspective and a holistic approach. ▪ Creation of joint committees and boards including corresponding roles, decision-making powers and structures within IT delivery processes ▪ Define common goals for business and EA teams that are aligned with customer needs and value creation. This promotes alignment and focus on joint results. ▪ Transparency in decision-making processes and ensuring that the reasons for architectural decisions are clearly communicated. This promotes understanding and acceptance. ▪ Shared collaboration tools and platforms on which teams can work together (e.g., project management tools, document management or other collaborative platforms) ▪ Enabling of Architecture Roles ▪ Joint business and architecture trainings and cross-training programs ▪ Definition of common metrics

Table 6: Roadmap for Scenario 3b: Innovative architecture and flexible capability-driven approach in the adhocracy culture

4 Conclusion

The present BDA Manual presents a comprehensive concept for the in-depth understanding and application of BDA and thus enables a comprehensive and profound understanding of this architectural approach. The methodology of the morphological box provides a detailed and structured view by breaking down BDA into different components. The discussion of different dimensions and their suitability for a BDA approach, including their influenceability, enables the analysis of the current state and a target state of these dimensions for the company under consideration. The assignment to one of the four predefined scenarios based on the usually deeply rooted and correspondingly difficult to influence criteria of organization type, approach and culture provides a basis and orientation for a BDA scenario, which forms the basis for the subsequent implementation. The individualized roadmaps for each scenario show which specific measures the EA can take to implement BDA successfully and sustainably. In summary, BDA is gaining importance within the EA as it aligns IT with business goals, increases the efficiency of processes and facilitates strategic decision-making. BDA has a critical role to drive business capability for organizations striving for adaptability and effectiveness. A business-driven approach ensures that technology investments are directly aligned with business needs, driving sustainable growth and competitive advantage.