

BearingPoint®

# Process digitalization

for efficiency and innovation in banking



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# Transformation of banking

Ever since new challengers such as N26 and Fidor Bank have successfully entered the banking market and are recording increasing number of users, it has become clear that traditional banks will only survive the fast-paced change in the financial services sector if they are able to reinvent their service and product offerings as well as their processes. The standard product portfolio, basic online banking applications and an extensive branch network are not going to attract young, digitally minded customers. What truly makes a difference is a broad, digitally available and cost-efficient offering that seamlessly follows the customer journey, individual needs and cash-flow requirements, which is accessible at all times. This applies to both retail and corporate banking.

The digitalization of services and products has become the norm for customers: from online shopping with a variety of available payment methods to tracking the delivery in real-time on a smartphone. The digitalization of services and products as well as 24/7 availability, once rated as delighters on the Kano model<sup>1</sup>, have become minimum requirements.

To attract new customers and retain existing ones, banks should expand the range of “Beyond Banking” products and complement them with new digital channels, such as video chat or voice control. In addition, customized service bundles as well as a digital ecosystem will be an integral part of business models in the banking industry. In the future, it is conceivable that customers will ask their bank via voice command about their maximum mortgage loan. The bank will then automatically quote a loan or comparable peer-to-peer funding offerings in real-time and provide related services through the bank’s service ecosystem such as indicating the best-rated brokers, notaries or real estate appraisers.

In addition to the pressure of increasing customer expectations, banks are still managing the adverse effects of the financial crisis and the low-interest rates environment. Many banks focus on cost optimization as the main lever to drive down high cost-income ratios. Specifically, the processes in middle and back offices are still suffering from various manual tasks, interfaces and historically grown process variants. The automation of tasks like market conformity verification, clearing/settlement and the entire credit and trading processes are important areas for the achievement of end-to-end digitalization.

As an additional major challenge, banks are confronted by constantly expanding regulatory requirements in terms of scope and complexity.

As a result, the need for action within these aforementioned areas and the prioritization and allocation of resources and budgets highlight the challenging and contradicting objectives between digitalization, cost reduction and regulatory initiatives.

Implementing an adequate process digitalization solves this conflict by targeting and developing all three areas (digitalization, cost efficiency, and adherence to regulatory requirements) in parallel, thereby creating the preconditions for greater customer loyalty.

A consistent process orientation is a key success factor in meeting these requirements and building bridges across historically-grown gaps between divisions and departments of banks. This applies to both horizontal and vertical silos.

“Culture eats strategy for breakfast.” This frequently quoted observation of Peter Drucker is once again verified by the results of BearingPoint’s Digitalization Monitor.

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<sup>1</sup> The Kano model is an insightful way of understanding and categorizing 5 types of customer requirements “or potential features” for new products and services.

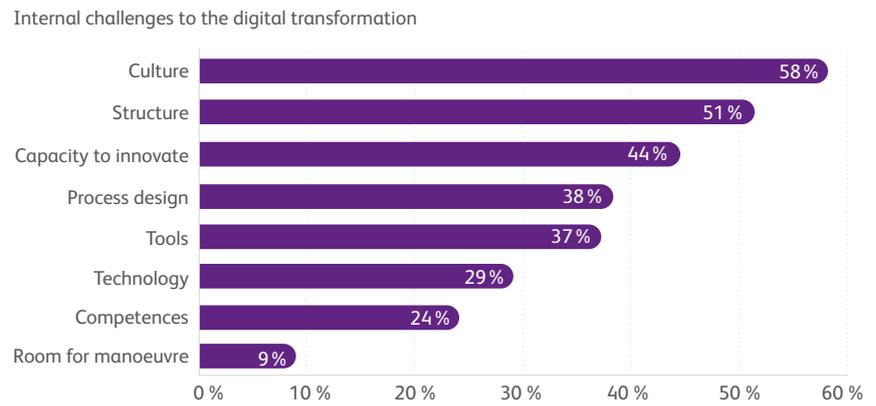


Figure 1: Drivers and inhibitors of the digital transformation<sup>2</sup>

Despite increasing external pressure, digital transformation is often not carried out due to obstacles such as legacy systems, governance, the leadership culture and an unwillingness to change. These are “traditional, hierarchical, vertical and functional rather than agile, horizontal and process-oriented.”<sup>3</sup>

This indicates that solely investing in new systems and technologies is not sufficient. Undertaking structural, cultural and procedural reforms is necessary to enable banks to fully exploit the opportunities of digitalization.

The multiple facets of digitalization, with trends such as social media, sensor technology, big data analytics, internet of things, blockchain technology, artificial intelligence (AI) and robotic process automation (RPA) come into conflict with complex legacy systems, a lack of an innovative corporate culture, cumbersome organizational structures and processes, and a lack of methodological knowledge, making it difficult for digital transformation to unfold its many possibilities.

The solution for process digitalization presented here provides an adaptable framework, which allows the structural embedding of standardized approaches for the digital transformation of processes within a bank. Furthermore, it resolves the aforementioned conflict between chances and obstacles of digitalization. Rather it creates the prerequisite to identify digital customer experiences, opens opportunities for cooperation or co-creation with FinTechs and ensures the important methodological and procedural know-how transfer.

<sup>2</sup> Results from the BearingPoint Digitalization Monitor, 2016.

<sup>3</sup> BearingPoint Digitalization Monitor 2016.

# Innovation and efficiency

The financial sector is expected to accelerate innovation in the areas of accessibility, comprehensibility and security. Banks need to create a new customer experience while reinventing and expanding their product portfolio along the customer journey. To achieve this, both internal and customer-oriented processes must be redesigned. It is now clear for most market participants that the typical toolkit facilitating incremental improvements is no longer sufficient to foster disruptive innovation in banking. Banks must implement new methods and approaches that will promote these innovations.

A wide-spread belief is that decision-makers need to choose between increasing efficiency or improving customer experience when scoping digitalization projects. As the focus is often placed on efficiency enhancements, opportunities to concurrently revamp customer experience are ignored.

What Harvard Professor Clayton Christensen describes as the “Innovator’s Dilemma” is a typical problem for banks.<sup>4</sup> As conventional business case calculations and economic figures are typically used to decide on the allocation of resources, the final decision is mostly taken in favor of efficiency projects. The reason for this is the difficulty of measuring concrete economic added value of disruptive innovations in the short-term. Or can someone accurately predict the financial benefits of blockchain technology for banks?

The apparent contradiction between innovation and efficiency in the status quo could be avoided if all possibilities provided by digitalization were adequately exploited. Frequent obstacles include limited or specifically allocated monetary resources as well as a target-specific deployment of either digitalization or cost reduction experts. This is usually related to a biased scope limitation focusing on either front or back office processes.

In addition to embedding digitalization into the organizational structure, the answer to the dilemma is the implementation of a holistic process digitalization approach for the execution of projects, which focuses on the end-to-end value chain of a bank and prevents the early limitation of any specific aspect of digitalization.

## The process digitalization approach

### Phase 1 – Service and product design

The first phase of BearingPoint’s process digitalization approach is the design of effective services and products. Two aspects play a particularly decisive role.

On the one hand, the design takes place without any consideration of the As-Is processes following a greenfield approach. In this way, current trends, customer needs and behaviors as well as technologies (for example, chat bots, cognitive agents, big data or artificial intelligence), data requirements and regulatory aspects can be considered in the final service or product design.

On the other hand, the approach follows a consistent market and customer orientation and considers the customer journey as well as the customer experience while constantly testing and improving the results with existing or potential customers. Only this way is a target-oriented design of effective products and the development of a monetization strategy possible.

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<sup>4</sup> RS. Christensen, Clayton M. (2016): The Innovator’s Dilemma.

Following the design thinking approach, the first phase provides the purpose definition and determines the overarching development direction (True North). Notwithstanding existing services, processes, infrastructure, technological prerequisites and organizational constraints, the focus lies on the best possible target state based on the maximum maturity level of the service or product. In other words, the core design features and their prioritization within the services or products are worked out together with customers and are validated via rapid prototyping and further translated into success factors.

The implementation of the service and product design requires an innovation strategy and appropriate innovation processes. The innovation strategy is dependent on the overall digitalization strategy and the overarching development direction. Figure 2 shows a methodological framework developed by BearingPoint, giving an overview of the innovation activities within an organization.

In the first step, “definition of the vision”, the overarching development direction is established in line with the strategy. Based on this, the innovation process is determined to ensure an effective and efficient approach.

Subsequently, step 2 provides a deep understanding of the challenges faced by the customer before the service and product design is created in step 3 and tested with customers through rapid prototyping (step 4). Comprehensive phase-specific tool sets and methodologies complement the innovation framework and support the innovation activities.

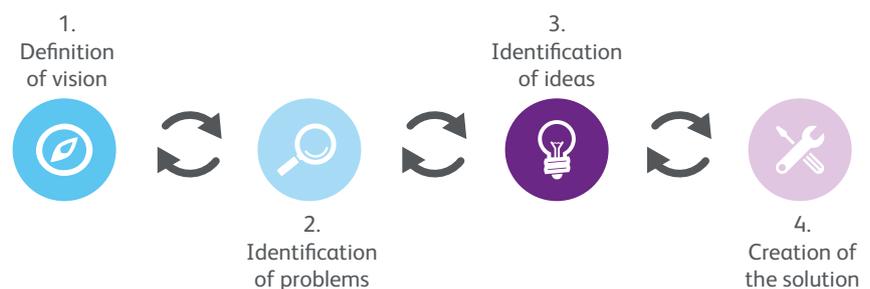


Figure 2: BearingPoint's innovation framework

## Phase 2 – Process design

The first phase specifies customer, business and regulatory requirements, validates and prioritizes the design characteristics and success factors of the service or product (effectiveness). The second phase defines the process design in the sense of an operational production (efficiency), also following the greenfield approach, thus the main objective relies on process efficiency.

Process design in process digitalization follows a strict order: data requirements, data sources as well as data interfaces, and lastly the most efficient, and possibly parallel, data processing. To ensure end-to-end digitalized processes, the best data sources are to be identified and all data requirements along the different process sequences are to be met wherever possible by the original (sensors) or primary data sources.

If it is not possible to connect to the primary data source, alternative sources should be selected that have the highest scores for data quality, currentness, integrity and availability.

As in the first phase, current trends and technologies (for example, RPA, AI, cloud or blockchain) should be considered to maximize process efficiency.

For the design of the overall digital process, the SIPOC approach (supplier, input, process, output, customer) extended by additional columns for data requirements, data sources, systems, targeted KPIs, etc. is recommended.

The evaluation dimensions for the optimal target production process are derived from both the prioritized success factors of phase 1 (for example, cycle times, timeliness, customizing, usability) as well as from basic economic factors (for example, costs, degree of automation, scalability).

The results from phases 1 and 2 are the maximal and optimal maturity levels of the service or product as well as of the underlying target production process and, hence, the overarching goal and direction of development of the entire process digitalization endeavor.

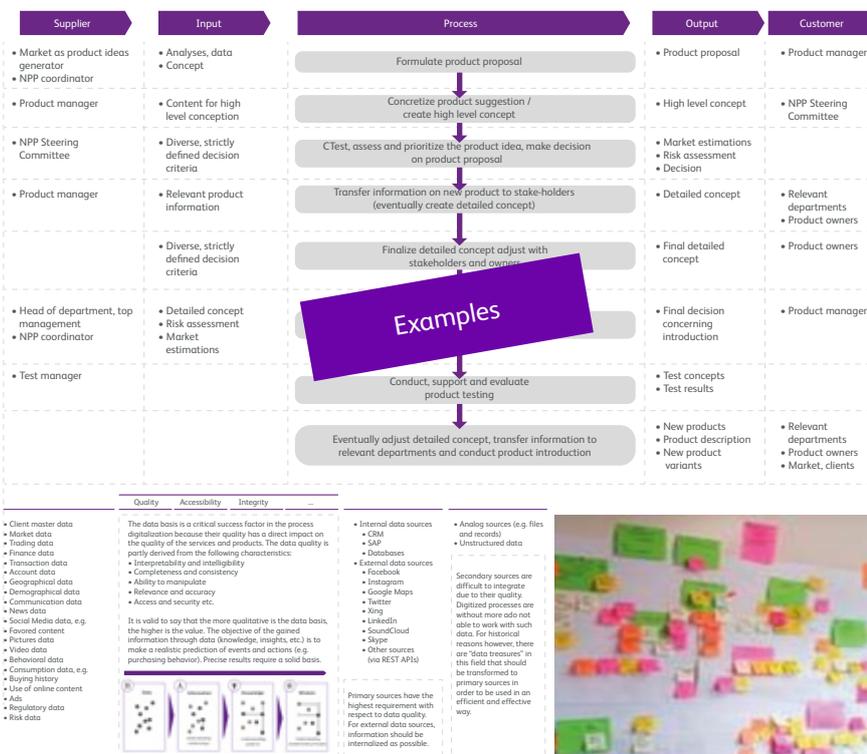


Figure 3: Methods & tools of the phase "process design"

## Phase 3 – Transformation

Throughout the first two phases of the BearingPoint process digitalization approach, the state of the current offering has been entirely excluded to work on service and process design without being influenced or limited by any technical, organizational or procedural constraints. However, in the third phase, the overarching target and development direction must be compared to the As-Is situation to enable the planning of scope and timeline for a phased transformation. Hence, the first step of phase 3 is the detailed compilation of the As-Is process in workshops and structured interviews as well as an assessment of the respective performance measures (for example, frequencies, cycle times, bottlenecks, error rates).

For the same reasons as in phase 2, the SIPOC approach is applicable to document the As-Is process. It also simplifies the comparison of the As-Is process with the target process defined in the previous phase.

Now, functional building blocks, or individual gaps, can be identified. Transformation measures to close these gaps can be detailed and validated independently, including feasibility checks, budget allocation and timeline planning.

The feasibility analysis and a precise effort assessment per gap and transformation measure require the intensive involvement of the IT department. In doing so, it should be taken into consideration that a business case view may only be viable in conjunction with the closure of additional gaps, other initiatives or subsequent activities.

The design and planning of the individual gap closures generally follows the idea of an agile project setup. Keeping the impact per sprint at a minimum allows for maximum flexibility over the duration of the transformation program as well as quick wins in realization (Minimal Viable Product – MVP).

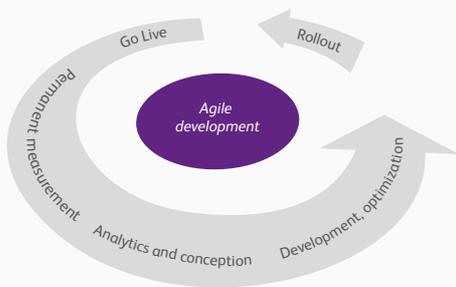
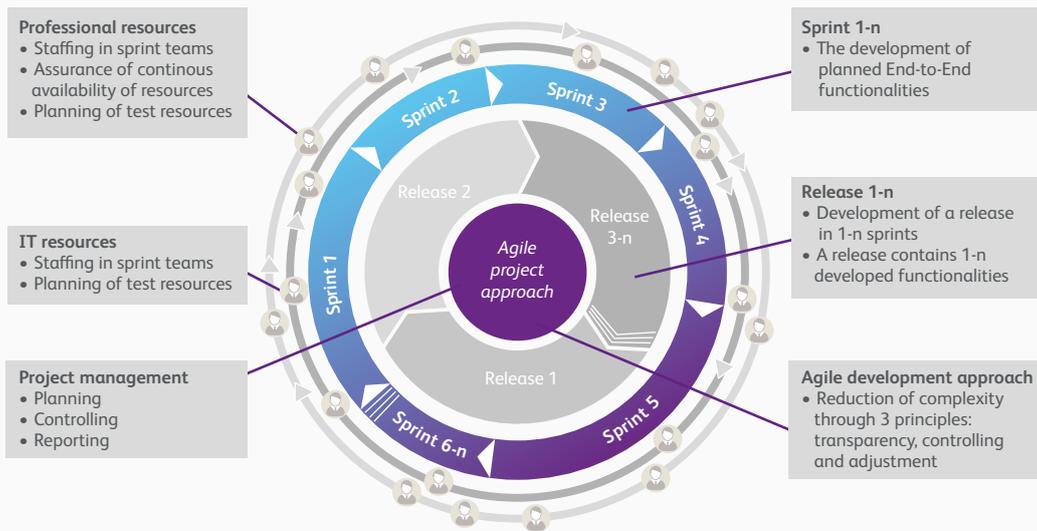
Considering the terminology, As-Is, To-Be and target processes must be differentiated. While the target process is developed in phase 2 and the As-Is process is compiled in phase 3, each individually planned gap closure results in the respective To-Be process. Immediately after implementation, the To-Be process automatically becomes the As-Is process.

## Phase 4 – Implementation

Phase 4 consists of the phased transformation and closure of every single gap in order to realize the target service or product and the underlying target process. Here an agile development approach is used (such as the scrum framework) and the implementation of the requirements is prioritized and distributed over individual sprints.

The frequent integration of customer feedback along the sprints provides for a continuous assessment of the degree of target achievement and ensures maximal customer satisfaction.

Due to the overall timespan to close all gaps and to realize the target process and target services can spread over several years, and despite continuously testing and adapting according to the agile development approach, the process should be re-initiated with phase 1 after about two to three years. The reasons for this are that the changing environment, customer needs and wishes, competition, trends and technologies, necessitate the redefining of the overarching direction of development (True North).



Meeting	Participants	Frequency	Owner	Comments
Daily scrum	Each team: all participants of a sprint team	Daily	Scrum master	Fixed time of the day, max. 30 min
Scrum of scrums	All product owners and scrum master	Weekly	Subproject management	
Architect jour fixe	All architects	Weekly	Architect lead	
Sprint planning	All participants of a sprint team for each team	Monthly (sprint start)	Scrum master	
Sprint retrospective	All participants of a sprint team for each team	Monthly (sprint end)	Scrum master	
Sprint demo	Functional requester, product owner for each sprint team, representative of the sprint team for the presentation	Monthly (sprint end)	Scrum master	
Pre-selection user story	Product owner, scrum master, pate architect	Approx. 2-3 weeks before sprint start	Scrum master and product owner	The next relevant user stories are roughly discussed

Figure 4: Agile development processes

# Change management

Continuous change management complements the four phases of process digitalization and represents a permanent workstream along the implementation of each individual step. It comprises communication aspects to create transparency as well as training and development measures.

The definition of a communication strategy and the formulation of internal and external objectives, key messages, strategic digitalization guidelines and the expected benefits are of utmost importance because the approaches (design thinking, rapid prototyping, customer integration, customer journey, customer experience, digitalization, new trends and technologies, agile implementation, etc.) and the impacts (permanent change, new services, high degree of process automation) significantly deviate from conventional projects and initiatives.

This clearly includes constructive structural consideration of the main determinants in classical behavioral theory and the respective effects towards change readiness and acceptance, risk perception and motivation across all stakeholder groups.

Additionally, central questions such as data ownership and governance could and should be examined and implemented as part of the change management measures.

Another key aspect is organizational learning and the promotion and improvement of innovation capabilities.

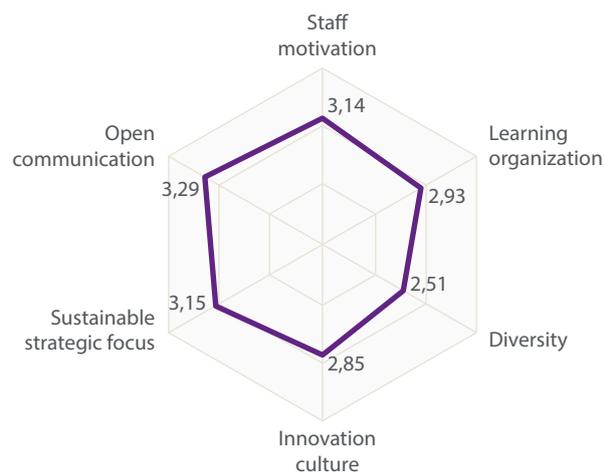


Figure 5: Dimensions of innovation capability

The inevitably triggered examination of the bank's own innovation potential or its innovation strategy (Sense-Probe-Response) as well as cross-functional collaboration across divisions and departments causes valuable changes in the bank's corporate culture, organization and processes. Improvements can actively be achieved across all six dimensions of innovation capability.

# Success factors

The conflict between innovation and cost pressure poses one of the central challenges for banks. Developing disruptive solutions to secure a bank's competitiveness requires a holistic process digitalization approach which provides the methodological foundation for digitalization endeavors throughout the organization and supports the resolution of that conflict.

Especially for the definition of new digital services, products, and the associated production processes, the process digitalization approach plays a significant role, since the majority of the later production costs are already determined during the course of designing the services and products.

However, the approach is also effective to incrementally improve services, products and processes as a target vision has to be formulated and the newest technologies are being considered.

Success factors and preconditions in process digitalization not only include methodological approach but also governance considerations such as data and process ownership. In addition, top management commitment (see BPM Study 2015 and 2017) as well as a target-oriented know-how development by employees (methodological and technological skill set) are both necessary to progressively internalize changes coming along with the digital transformation.

Internalization within the bank is supported by the implementation of key performance indicators (KPIs) that measure process performance, degree of customer demands realization as well as sustainability of the digitalization endeavor itself.

Another topic to emphasize is data management, which is gaining significant importance in light of process digitalization and the management of future, mostly automated, processes. Along with the criteria of availability, quality, confidentiality and integrity, a clear definition of data requirements and the identification of appropriate sources are the central elements. It is essential to develop an appropriate governance and organizational integration that takes into account a structured cartography and architecture.

The customer-centric digitalization approach integrates all relevant stakeholders early in the process so that the digital process takes internal and external requirements into account (for example, front and back office as well as IT). The execution of phases 1 and 2 without taking the As-Is process into consideration, as well as early inclusion of the customer and the orientation along the customer journey especially enable innovative services and processes.

As a result of process digitalization projects, innovation is automatically generated, learned and experienced within the bank and therefore, innovation capabilities are enhanced. Simultaneously, cost efficiency is improved through an appropriate degree of automation.

Agile implementation approaches support a fast realization while providing higher flexibility.

# Key takeaways

1. Banks are facing the challenge to overcome the conflict between regulatory requirements, innovation and efficiency. BearingPoint's holistic and phased process digitalization approach supports the resolution of this conflict.
2. The approach is designed to minimize implementation latency and realize tangible service, product, process and data requirements.
3. A systematic innovation process in the initial phases (including design thinking, customer engagement, customer journey, etc.) provides for high effectiveness as well as a consequent orientation to customer demands.
4. Through an appropriate degree of automation and the utilization of new technologies such as robotic process automation or artificial intelligence, optimal cost efficiency is targeted.
5. The agile implementation approach supports a fast impact generation and flexible reactions to changes or re-prioritization.
6. A continuous, holistic and integrated change management approach not only facilitates the initiative itself but also enables the intended increase of innovation capability throughout the entire organization.

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## Contact



Theodor Schabicki  
Partner  
[theodor.schabicki@bearingpoint.com](mailto:theodor.schabicki@bearingpoint.com)



Matthias Scholz  
Senior Manager  
[matthias.scholz@bearingpoint.com](mailto:matthias.scholz@bearingpoint.com)

Authors: Nicolas Knecht, Silke Varnholt, Marie Witter



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