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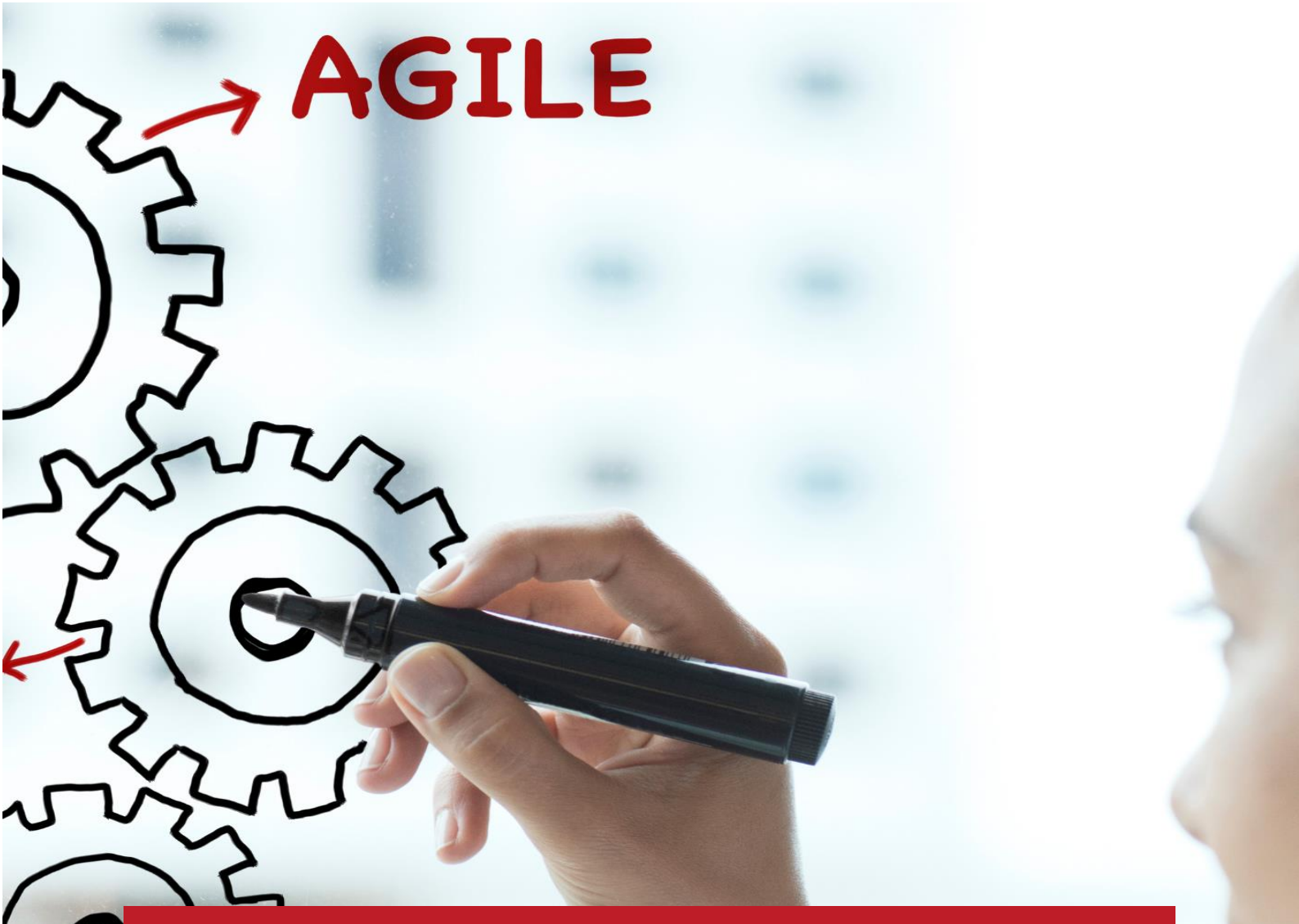
CONTROLLING & AGILITY

International Group of Controlling

Fundamentals, Approaches, Examples, and Recommendations for the Future Finance Function



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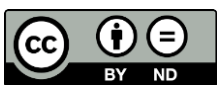

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The International Group of Controlling (IGC) is an international platform of institutions and organisations that understand controlling as a core element of sustainably successful management. IGC was founded in 1995 to set and establish internationally recognised standards for controlling and the required education and training. The IGC considers itself as "The International Voice of Controlling". In line with this objective, important standards such as the controller mission statement (available in 15 languages), the Controlling Process Model or the Controller Competence Model were created and are publicly available at https://www.igc-controlling.org/downloads/standards. In addition, the IGC seal of quality was introduced as an option for certification of controlling training. This seal of quality is awarded by IGC International Group of Controlling and guarantees that the respective certified educational program meets IGC quality standards.

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Preface

Nowadays most controllers and managers know and use the acronym VUCA, which describes the current business situation of most organisations, characterised by volatility, uncertainty, complexity, and ambiguity. Controllers should be concerned not only with analysing the current situation but also with preparing for the future. The question arises, therefore, how to deal with VUCA. One important answer emerged over the last few years in the form of the imperative of “agility”. Agility is an umbrella term, to which one might attribute many characteristics, leading to confusion caused by the ambiguity of the wording.

Part of IGC´s mission is to develop and disseminate an international, uniform conception and terminology. At IGC, we believe that agility is and will be an important part of a controller’s work. It is not completely new but adds new facets to our daily work. Agility, by definition, encompasses a lot of flexibility. Thus, we do not see the necessity of adding our own definition to the agility debate. Instead, we want to bring more clarity to the understanding, application, and use of agile instruments, specifically for controllers and their toolbox.

Therefore, the book is divided into seven parts:

1. The **introduction** shows the connection between agility & controlling.
2. In the **fundamentals** we describe the origins and underlying concepts of organisational agility.
3. The **description of agile approaches** discusses the core terms, instruments, functioning, and pros & cons for 46 agile approaches.
4. Real world organisations shared their experiences in 11 **implementation examples**.
5. **Application recommendations** give advice on how to optimally combine agility & controlling.
6. An **outlook** summarizes the main findings and shed light on possible development.
7. The extensive **literature list** provides sources for further reading.

The book targets a wide audience of controllers: Those who want to have a first introduction into agility, those who want to develop their own organisation towards more agility, and those who look for specific knowledge or use cases.

How to benefit most from the book depends on your goal, background, and previous knowledge. If you are new to the field of agility, a sequential read is a good start, and you may skip special subchapters like 3.3 “IT-Oriented Approaches”. If you have a basic knowledge about agile approaches and are looking for recommendations, you may directly look into chapter 5 “Application Recommendations” and occasionally jump back to 3 “Agile Approaches”. If you are looking for inspirational use cases and guiding examples, you may start with chapter 4 “Implementation Examples”.

I thank all contributors for their valuable inputs and the time they devoted to the project and wish you an insightful reading.

Prof. Dr. Klaus Möller

(Leading Editor and IGC Board Member)

St. Gallen, April 2022

Management Summary

In a VUCA environment (volatile, uncertain, complex, ambiguous) controllers need to act even more dynamic and flexible to meet the changing demands of management. Agility emerges as a recipe for success in this context. It describes the quick recognition and adaptation of changes by flexibly adapting processes, resources, or activities to new requirements for better goal achievement. Thus, agility is based not only on instrumental agile approaches, but also the provision of agile values and principles. To incorporate agility in the daily work of controllers the following questions are relevant:

1. Which agile approaches are suitable in which context?
2. What adjustments should be made to the controlling processes?
3. How does the role of controllers need to evolve in terms of skills and competencies?

In order to address agility adequately, first some fundamentals are described: Agility emerged from the production/supply chain field as well as from the software development in the 1990s, being prominently introduced by the agile manifesto. Nowadays it´s strongly rooted in the dynamic capability literature and the lean management approach. Agility is an umbrella term, that can encompass everything from an individual perspective through internal/external up to organisational agility – which we concentrate on in this book.

We have identified 46 agile approaches and describe them in detail regarding core terms, instruments, functioning, and pros & cons. Therefore, we have differentiated:

- *Core Agile Approaches* (Scrum, Kanban, Krystal). Elements of these like sprints, backlogs, Kanban-boards are prevalent in nearly all agile applications.
- *Leadership-Oriented Agile Approaches*: Under the subsections of Goal Setting, Coordination, Feedback we identified a plethora of overlapping approaches (e.g., Everest goals, skill mapping, retrospective), which can easily be implemented and individualised.
- *IT-Oriented Agile Approaches* (e.g., Extreme Programming, Test Driven Development) once formed the origin of the agile movement and still can serve as great idea sources also for non-IT applicants.
- *Holistic Agile Approaches* (e.g., OKR, Holacracy, SAFe) require sometimes a fundamental change and organisation wide implementation of agile principles, and thus can have a huge breakthrough potential.

With eleven implementation examples from practice, we illustrate the application of several approaches, as well as the possible changes and wins, but also the pitfalls. They range from renowned global production companies like Bosch towards small and medium sized service organisations.

The book closes with applications recommendations regarding the use of the 46 agile approaches as well as necessary process and competence changes. The use of agile approaches is always context-specific and should consider the organisational implementation level, the timeliness, the steering focus, and the targeted change horizon. The aim of an agile transformation should not be to change all controlling processes immediately, but rather to use a stepwise, continuous, and trial-and-error approach starting with individual processes. Controllers should perceive agility as an opportunity to be an integrated and reliable partner in supporting and driving change in the organisation.

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1 Introduction

The term agility has become en vogue in management and is also highly relevant for controlling. Agility means being able to react quickly, flexibly, and ideally in anticipation of changes. Today, agility is mostly understood as a new, swifter approach to managing projects. Approaches like Scrum emerged and spread widely. However, further approaches have been developed that aim to support the agility of organisations or their parts in different ways and for different areas of application. It is important to understand that organisational agility must be viewed more broadly because it is based on special organisational forms, process models, and control principles as well as a special mindset and corporate culture.

For controllers, this development has two major consequences:

1. In their role as management partners, controllers are required to have knowledge of the most essential agility approaches, their functioning, and how to link them to the company's controlling system.
2. Controllers are required in their own area of responsibility to make the controlling system more agile. This applies in particular to the design of corporate planning.

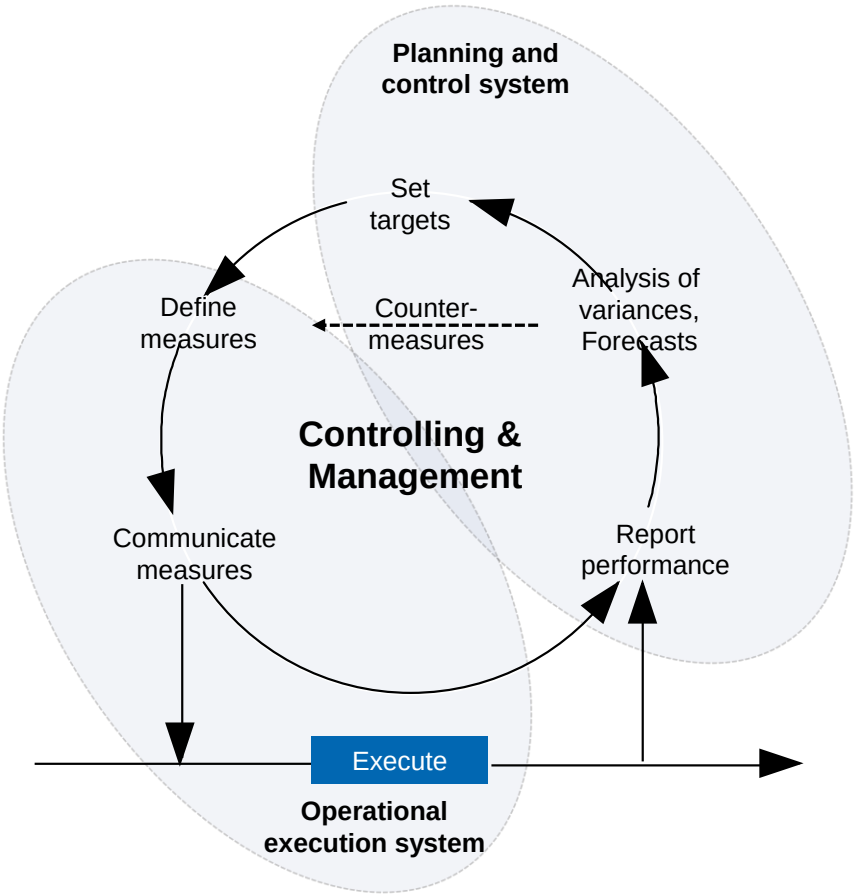

Figure 1. Building blocks of organisational agility (own representation)

The controller mission statement of IGC states *"... controllers design and accompany the management process of defining goals, planning and management control ..."*. In a stable and less dynamic environment, long-term corporate goals can be defined in strategy development, then be broken down to the corporate units and backed up with measures, and subsequently be provided with budgets in operational planning and implemented as efficiently as possible. After the planning horizon has expired, this process is started all over again. Many companies still try to follow this ideal today, even if the dynamics and speed of change have increased dramatically.

In a time of accelerated change, as we are facing today, it is necessary to react quickly to changes and unpredictable events, i.e., to be appropriately agile. This raises the question of whether this traditional form of control is still adequate. It is no coincidence that management with strict budgets is blamed for companies not being able to react flexibly and quickly enough to unexpected market changes.

Conversely, it is obvious that flexible plans and budgets remain ineffective in rigid, crusty organisations and do not lead to the desired agility. It is useless if controlling recognises changes in time and switches to an alternative plan, but the organisation is sluggish and cannot or will not react. Both an "agile planning and control system" and an "agile operational execution system" are necessary for the desired organisational agility.

The basic motivation for this book lies in the combination of these two elements. It is intended to make controllers familiar with the basics of organisational agility at the beginning and then give them an overview of the most important agility approaches. These are not only described theoretically; Rather, concrete practical examples provide insights into operational implementation. Finally, the book provides recommendations on which approaches can best be applied in certain contexts, how they affect controlling processes, how they can be used in controlling, and which competencies are becoming more important for controllers.

2 Fundamentals of Agility

The following chapter lays the foundations of agility[1] and approaches the topic from different angles. The origins of the concept are inspired from operational as well as strategic reasonings, so the understanding is highly dependent on the scope and context. As an important milestone, the underlying agile values and principles are presented in the form of the Agile Manifesto. Afterward, the differences between traditional and agile development are discussed. With the dynamic capabilities approach a theoretic reasoning is described for using agile approaches. Finally, we discuss and differentiate agility from related management streams.

2.1 Origins of Organisational Agility

The term organisational agility emerged in the 1990s and represents a complex and multidimensional concept with different understandings. Operational/ strategic or internal/ external agility count as two major categories (Overby et al., 2006; Proba, 2021). Operational agility describes a team's or individual's ability to frequently sense unforeseen changes or occasions and quickly incorporate them into products, services, or processes by flexibly adjusting resources, processes, priorities, or tasks to satisfy customer needs (Conboy & Fitzgerald, 2004; Gemino et al., 2021; Proba & Jung, 2019). External or strategic agility, by contrast, describes the ability of organisations to redefine and maintain corporate strategies, corporate goals, business models, and organisational behaviour based on the ongoing reflections and learnings from changing market conditions and stakeholder interests (i.e., customers, suppliers, or competitors).

Organisational agility, thus, rests on four aspects: responsiveness, flexibility, adaptability, and customer focus. These are reflected in the definition from Ganguly et al. (2009, p. 411) explaining that organisational agility is "an effective integration of response ability and knowledge management in order to rapidly, efficiently and accurately adapt to any unexpected (or unpredictable) change in both proactive and reactive business/customer needs and opportunities without compromising with the cost or the quality of the product/process." Pragmatically, organisational agility is the ability and willingness of an organisation to (pro)actively search for changes or opportunities and integrate them to ensure customer satisfaction. It is not so important to be the first or most innovative company but the fastest in recognising, adjusting, and aligning changes into the organisational context without compromising quality or costs.

Organisational agility and its evolution can be attributed to a minimum of four business areas: software development (Sutherland & Schwaber, 1995), manufacturing (Sharif & Zhang, 1999), supply chain management (SCM) (Lee, 2004), and individual performance management (Brown et al., 2019). The first – agile software development – aims to provide development teams with the ability to frequently sense and quickly respond to changes during a development project by readjusting resources, priorities, or activities in a flexible manner to satisfy users. To gain this ability, practitioners created various agile methods (i.e., Scrum or Extreme Programming), consisting of practices, techniques, artifacts, or process models, for

[1] Throughout the book the term agility is used in the meaning of organisational agility. At this point, it is important to mention that the general use of the term "agility" usually refers to a specific kind of dog training.

operating in an agile mode (doing agile) (Sutherland & Schwaber, 1995; Conboy & Fitzgerald, 2004). In 1991, Jeff Sutherland and Kent Schwaber developed the first and most popular agile method: Scrum. The decisive force for introducing agility in software development was the challenge for programmers to reconcile the increasing digitalisation and growing user power into software solutions in equal measure.

At the same time, agile manufacturing appeared in various literature streams. Agile manufacturing was brought forward by researchers from Lehigh University in 1990, aiming to incorporate customer requirements into product design and functions into the production process. Even though, there are no frameworks or methodologies, such as in agile software development. Flexibility and responsiveness in manufacturing were enabled by rapid prototyping, new information systems, automated production facilities, flexible machine locations, and demand-based machine planning, as well as agile artifacts (i.e., Kanban Board). The concept was an attempt to counter global competition, recognise the increasing customer power by moving away from mass towards customised products, and consider latest production technologies (Sharif & Zhang, 1999; Yusuf et al., 1999).

Similar to agile manufacturing, agile supply chain management (SCM) deals mainly with production and logistics but enlarges the approach to the entire value chain of an organisation and its collaborating suppliers and customers. Standardised and centralised production facilities and mass products served organisations with production efficiency; however, demanding customers, aggressive competition, global supply chains, interdependent production systems, and growing regulatory requirements triggered the need for agility in SCM. In particular this means that a corporate's supply chain needs to be reactive and adaptive to meet market (supply and demand) and network changes (i.e., low product quality or bankruptcy of suppliers). Furthermore, supply chains of global companies with multiple stakeholder groups are dependent on mutual exchange and alignment (Lee, 2004).

Another stream in the growing body of agility can be identified in individual performance management. Triggered by the generation change – moving from generation X to Y and Z – and a change in the nature of work – teamwork vs. individual competition or flat vs. steep hierarchies – individuals are nowadays forcing corporations towards empowerment, meaningful work, career development, and engagement. Agile values, principles, and leadership practices target these demands from three different angles. First, identifying meaningful work by aligning individual interests and tasks along business strategy. This is intended to promote the value-generating contribution of employees. Second, the continuous reflection of task accomplishment and goal achievement for quick adjustments in case of unpredictable changes. Third, the regular review of personal skills and capabilities that are necessary for personal and corporate goal achievement (Brown et al., 2019).

2.2 Manifesto for Agile Software Development

A major milestone from agile software development is the "Manifesto for Agile Software Development". In 2001, 17 software engineers – which simultaneously represent founders of the various agile methods – outlined four values and 12 principles serving as a behavioural guideline to shift individual's mindset towards agility (being agile) (Beck et al., 2001). The agile methods should focus on different values and principles of the Manifesto, which in turn requires a context- and purpose-oriented application of the methods.

In addition to agile software development, the values and principles have become a general standard for agile organisations. They provide an indication of behavioural (individual

Manifesto for Agile Software Development		
Values		
No.	Aggregation	Values of the Manifesto
1	Individuals and interactions	Individuals and interactions over processes and tools
2	Working software	Working software over comprehensive documentation
3	Customer collaboration	Customer collaboration over contract negotiation
4	Responding to changes	Responding to change over following a plan
Principles		
No.	Aggregation	Principles of the Manifesto
1	Customer satisfaction	Our highest priority is to satisfy the customer through early and continuous delivery of valuable software.
2	Welcome changes	Welcome changing requirements, even late in development. Agile processes harness change for the customer's competitive advantage.
3	Frequent delivery	Deliver working software frequently, from a couple of weeks to a couple of months, with a preference to the shorter timescale.
4	Daily interaction	Business people and developers must work together daily throughout the project.
5	Motivated individuals	Build projects around motivated individuals. Give them the environment and support they need, and trust them to get the job done.
6	Face-to-face conversation	The most efficient and effective method of conveying information to and within a development team is face-to-face conversation.
7	Working software	Working software is the primary measure of progress.
8	Sustainable development	Agile processes promote sustainable development. The sponsors, developers, and users should be able to maintain a constant pace indefinitely.
9	Continuous improvement	Continuous attention to technical excellence and good design enhances agility.
10	Simplicity	Simplicity--the art of maximizing the amount of work not done--is essential.
11	Self-organizing teams	The best architectures, requirements, and designs emerge from self-organizing teams.
12	Retrospectives	At regular intervals, the team reflects on how to become more effective, then tunes and adjusts its behavior accordingly.

Figure 2. Manifesto for Agile Software Development (see www.agilemanifesto.org)

interaction), strategic (corporate direction), and transformational (corporate structure) aspects.

2.3 Traditional vs. Agile Development

Traditional development approaches originate from a time when corporate contexts were characterised through stability and transparency. This enables the execution of corporate activities according to a predefined, closed sequence that is linear and repetitive (Fernandez & Fernandez, 2008; Papadopoulos, 2015). Traditional approaches therefore focus on long-term planning accuracy, which typically follows the principle of the "Plan-Do-Check-Act" cycle. This means that the sum of goals and requirements – information, requirements, or resources – are precisely determined in advance, scheduled for a certain time horizon, and evaluated after product delivery. Therefore, no changes are considered during

a development cycle to enable a plan/actual comparison (Möller & Schmid, 2021).

To enable activities to be carried out with planning accuracy, management adopts a command-and-control management approach. On the one hand, managers can provide clear instructions to employees regarding task execution. On the other hand, direct control over employees and their actions provides the manager with the ability to take corrective measures. Traditional development approaches are useful for simple to complicated tasks, which occur in a regular sequence. Those tasks are performed by functional teams, with specific domain knowledge. Typical application fields are research & development (R&D), recruitment, accounting, risk assessment, or governance. Traditional development has the advantage of providing users with detailed long-term plans regarding corporate targets, quality, time, costs, and resources. However, it lacks the recognition and integration of internal and external changes, leading to over- or under-engineering of products, services, or processes (Möller & Schmid, 2021).

increasing use of agile approaches. In an agile set-up, tasks and corporate activities are embossed by uniqueness, newness, and complexity, making upfront planning impossible. Thus, agile processes have multiple repetitions in form of small iterations, allowing to inductively build small increments (i.e., product features, functions, or prototypes), and welcome unpredictable changes in between iteration cycles. Agile development focuses on deploying value-adding output in a frequent manner. This allows stakeholders and customers to review product functions or features frequently; simultaneously changes can be specified by stakeholders and customers and reconsidered by development teams (Boehm & Turner, 2005).

When it comes to development teams there are two major aspects. First, team members are integrated into cross-functional teams aiming for a broad knowledge, skill, and capability expertise to cope with challenging tasks. Second, team empowerment for fast decision-making and product adjustments. Those teams are typically located in corporate areas with

	Traditional development	Agile development
Applicaiton context	Stability and transparency	Dynamic, uncertain, and complex
Corporate activities	Linear and repetitive	Unique, new, and complex
Process structure	Predefined and closed	Incremental and iterative
Output deployment	Final product	Multiple product increments (funcitons, features, or prototypes)
Leadership style	Command-and-control and top-down	Team empowerment and bottom-up
Team structure	Functional teams	Cross-functional teams
Application area	Recruitment, accounting, risk management, or governance	Project and innovation management, R&D, or software development
Strengths	Long-term planning of corporate targets, quality, time, and resources	Customer and stakeholder involvement, continuous and fast change integration, and flexible and effective resource allocaiton
Weaknesses	Lacking internal and external change recognition and integration and over- or-under-engineering	Lacking long-term plan and deviation in resource and time consumption

Figure 3. Traditional and agile development compared (own representation, based on Möller & Schmid 2021)

Dynamic, uncertain, and complex changes, however, exert pressure on organisations and their status quo. Accordingly, traditional sequential development approaches lost applicability and relevance, leading to the

a high degree of creativity and innovation, including project management, R&D, or software development. One core strength of agile development is that only the products and features that are demanded by direct customer

interaction are developed. In addition, changes are integrated frequently and resources can be used in a flexible and effective manner. On the downside, this approach does not consist of long-term plans and wrong application might lead to deviating resource and time consumption (Fernandez & Fernandez, 2008; Mirza & Datta, 2019).

Even though agile development has gained awareness and popularity across industries, it should be noted that there are various conditions in which traditional development methods (i.e., waterfall) are still justified. Especially with complex projects like in the building industry or in the aircraft manufacturing industry the overall project is not manageable with agile approaches. Nevertheless, also these industries experiment with agile project structures – within a limited solution room, e.g., the replacement of doors.

2.4 Dynamic Capabilities

In strategic management over the last few decades there was a move from the resource-based view (resources as main core competencies of an organisation, thus the organisation should focus on acquiring and controlling these resources), via the market-based view (the organisation should focus on solving market problems and adapt best to market needs and trends) (Mintzberg and Waters, 1985) to a combination of both: the dynamic capabilities approach (Teece et al., 1997). It describes an ability to adjust, reconfigure, renew, or build internal and external knowledge, skills, competences, or resources to cope with volatile business environments. Thereby, those capabilities illustrate the reaction and transformation speed of an organisation. The time component plays a vital role for organisations in order to gain a competitive advantage over their competitors (Teece et al., 1997). Dynamic capabilities are a pre-requisite for gaining organisational agility. On the one hand, having the capabilities of recognising changes or opportunities from various sources; and on the other hand, transforming new insights into value-adding products, services, or processes for satisfying customers. There is a very rich literature stream (Agarwal & Selen, 2009; Conboy & Fitzgerald, 2004; Lee & Xia, 2010; Zhang & Sharifi, 2007) about dynamic capabilities, concentrating on the following facets:

- *Adaptability:* Capability of an organisation to align processes, systems, products, or services according to an organisational change.
- *Collaboration:* Capability of an organisation to align and perform interrelated tasks together with other individuals, teams, functions, or organisations.
- *Communication:* Capability to (non-) verbally interact with other individuals, teams, functions, or organisations to coordinate tasks, solve problems, exchange information, or share knowledge.
- *Creativity/innovativeness:* Capability of creating or accomplishing a new, meaningful, and effective solution to a given or newly created problem.
- *Customer focus:* Capability of individuals to interact, collect, or recognise customer information to make sense of it in order to fulfil customer needs.
- *Effectiveness:* Capability of an organisation to utilise input in a way to achieve a desired corporate goal.
- *Efficiency:* Capability to optimise the relationship between output and input.
- *Flexibility:* Capability to react to a specific situation by readjusting resources, processes, activities, or priorities.
- *Leanness:* The completion of targets by minimising the amount of waste (non-value adding activities).
- *Learning:* Capability of individuals to create, process, transfer, and utilise information and knowledge for improving and growing.

- *Quickness/speed:* Minimal amount of time an entity requires to process a corporate activity.
- *Responsiveness:* (Pro)active reaction to adjust, adapt, incorporate, or anticipate to any changing circumstance.
- *Sensing:* Pro(actively) identify or recognise information, deviations, changes, or opportunities.
- *Value generation:* Capability to create with a given amount of corporate resources various value-adding elements for different stakeholders (e.g., shareholders, customers, employees, or suppliers) that ensure long-term survival and success for an organisation.

2.5 Lean Management

Lean management evolved out of the automotive industry in the 1990s and targets competitive advantage by eliminating waste ("muda") in production processes. Originally, seven major types of waste, namely motion, waiting, overproduction, overprocessing, defects, inventory, and transportation were specified (Dahm & Haindl, 2011; Wilson, 2010). Further developments of lean management resulted in an eighth category: underutilisation of talent (Do, 2017). Thus, the categories of waste can be described:

1. Motion: Describes minor and recurring everyday movements of employees (e.g., walking, reaching, or printing), work materials (e.g., binders or order forms), or work equipment (e.g., laptops or machines). Unnecessary movements lead to an increasing time and resource consumption.
2. Waiting: Dependencies (e.g., on people, materials, machines, or testing) in processes can cause people to wait for continuing their tasks or product completion. Waiting not only leads to lower employee productivity but can affect the entire value chain and cause delays.
3. Overproduction: Any kind of production, creation, or processing of (partial) products, evaluations, reports, projects, services, or copies, without demand. Overproduction triggers various types of waste: inventory, motion, transportation, or defects.
4. Overprocessing: In a nutshell, overprocessing describes "doing more than necessary". This means that employees perform additional and time-consuming activities within a corporate process or incorporate unneeded product features into products that the customer is not asking or willing to pay for.
5. Defects: Any kind of defect results in marginal or non-usability of products, services, or processes. Therefore, products either must be reworked or scrapped, leading to additional resource consumption and thus higher costs.
6. Inventory: A result of overproduction, lead times in the production process, inefficient resource allocation, data duplication, incorrect or outdated information, or retention of printed emails. As a rule, inventory incurs additional costs on the one hand, in the form of storage or rent. On the other hand, inventory can lead to wait times to search for or obtain the desired products, material, or information.
7. Transportation: The sum of additional carriage or movements of people, work equipment, material, or products due to long distances (i.e., spatial or temporal), causing lead times, product defects or damage, additional alignment, formal documentation, or handovers between employees.
8. Underutilisation of talent: Occurs when companies use employees only to carry out operational tasks. Employees, however, might identify problems and their causes at an early stage based on their experience in process execution and direct customer interaction. If employees are not

supposed or allowed to use their skills and competencies, their potential is wasted and rapid solution identification and resolution in organisations is prevented.

Through continuous reflection of the production process, any type of waste should be identified and eliminated by continuous improvement and learning by empowered teams. The goal of lean is to improve product quality by using standardised processes with the least possible waste. In addition, customer value should be increased by reducing activities that the customer is not willing to pay for (Cabrita et al., 2016). Lean management therefore follows five principles to eliminate waste (Dahm & Haindl, 2011; Pakdil & Leonard, 2014):

1. define value,
2. map value stream,
3. create flow,
4. establish a pull system,
5. pursue perfection.

First, customers or users should *specify the value* of a product, service, or process; they determine demand and requirements. In the case of product innovation and the possible circumstance that customers or users do not know their needs, teams should strive for determining the value by using qualitative or quantitative survey methods. Defining the value ensures meaningful and relevant work for teams.

The second principle, *mapping the value* stream, aims to identify all relevant actions and tasks according to defined value. Actions and tasks can be classified as either value-adding, non-value-adding and necessary, or non-value-adding and non-necessary. The latter is a category for which the customer is not willing to pay. Consequently, this waste must be eliminated from the production or development process.

The *creation of a smooth workflow*, as a third principle, fosters teams to eliminate distraction during process execution by avoiding unnecessary lead times or delays. Therefore, upfront clarification and planning of bottlenecks is crucial.

In line with optimising the workflow and generating value for the customer, the fourth principle deals with *the integration of a pull system*. This means that work should only be started as soon as it is requested or as soon as a current task has been completed to optimise work in progress (WIP).

Finally, the fifth principle – *pursuing perfection* - targets ongoing and continuous elimination of waste. Therefore, lean is not only a management approach but should be a general corporate and people mindset. This means that employees should autonomously ensure progress and further development of the firm through continuous improvement.

In the area of operational agility, similar principles can be found, such as continuous reflection and improvement of a development process by self-directed teams. Even though both management approaches aim to increase product quality and thus customer satisfaction, agility builds its success on customer centricity, whereas lean follows a process-centred approach. In an agile work mode, customers are continuously involved in the production presses. This might lead to a higher resource consumption, due to multiple product adjustments, customer reviews, or specifications of new requirements, which further distinguishes agile from lean (Poth et al., 2019; Yusuf & Adeleye, 2002).

3 Agile Approaches

Based on the different understandings of agile, a plethora of approaches are described in literature and in corporate examples. In order to handle this complexity, four categories are described subsequently, inspired also by the historic development of agile: core agile approaches, followed by leadership-oriented approaches, IT-oriented approaches, and finally holistic approaches.

The main aspects are described in the sequence of positioning, application (including features, process, phases), roles & responsibilities, pros & cons, summarised by a key takeaway.

3.1 Core Agile Approaches

3.1.1 Scrum

Never do work that you don't think is good. You either give your customer something good, or you don't. There is no 'try'.

– Jeff Sutherland

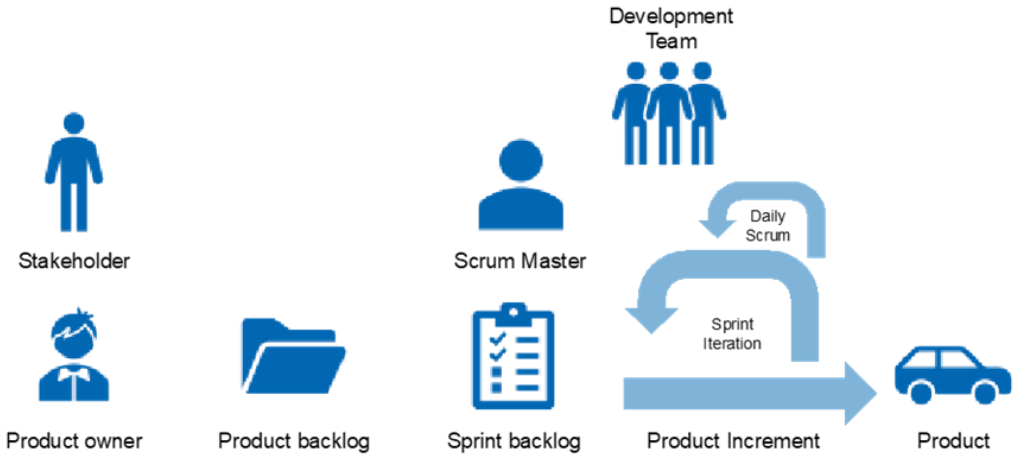

Figure 4. Scrum (own representation, based on Schwaber & Sutherland (2011))

Positioning

Jeff Sutherland and Ken Schwaber created Scrum in 1991. Scrum helps to deliver high- value customer products while addressing adaptive and complex problems during product development. It also introduces an interactive and incremental development cycle to control unpredictable changes or risks. Scrum is based

on the idea of breaking down elements, such as product complexity (i.e., various technological components, regulations, or multiple stakeholder needs), into manageable work packages to speed up the development process. All critical decisions in Scrum are made based on its core pillars: transparency, inspection, and adaptation:

- Transparency refers to visualising work tasks, priorities, or team capacity. On the one hand, the Scrum team is capable of experiencing progress, planning free capacities efficiently, and assigning tasks effectively according to people's skills and capabilities. On the other hand, transparency shows stakeholders the development progress and prevents the endless definition or reprioritisation of new work tasks (i.e., Product Backlog or Sprint Backlog).
- Inspection provides direct stakeholder involvement in the development progress – both for requirement specification and feedback generation.
- Adaptation results from stakeholder feedback and enables a higher product quality. In addition, Scrum considers lean elements focusing on reducing waste (i.e., over-engineering, upfront planning, or documentation).

Scrum has proven itself as a reliable agile method for complex product and software development. Due to its iterative and incremental development process, Scrum has become a synonym for continuous change recognition and adaptation in operations. Thus, the method gained high popularity not only in small to medium-sized organisations but can be also found in large enterprises such as Hilti, Netflix, Adobe, Intel, or Vodafone.

Application

Scrum is based on events and artifacts which provide transparency and enable better identification, adaptation, and control of unpredictable changes in product development.

The Scrum process starts with a customer/business counterpart request by approaching the Product Owner (PO) to develop or improve a product. The PO, together with the relevant stakeholders, defines User Stories indicating the need and functions of a product. The sum of product functions is cumulated in:

1. the Product Backlog, which is an emergent and ordered list of tasks required for product development. Based on the Product Backlog, the Development Team can initiate
2. the Sprint Planning (also called Planning Poker). During this event, the Development Team aims to clarify two underlying questions: First, what should be done within an upcoming development cycle (Sprint) and second, how can it be done? The specified work packages are determined in the
3. Sprint Backlog to ensure development focus of the Development Team, while at the same time enabling progress transparency for stakeholders. Then, an incremental development cycle – called
4. Sprint – can be initiated by the Development Team, lasting for approx. two to four weeks. Thereby, the sum of necessary actions and tasks are performed by the Development Team, as specified in the Sprint Backlog. One core event during a Sprint is
5. a Daily Scrum (also called Daily-Stand-Up Meeting). It is a 15-min. morning routine between team members exchanging three key aspects: what was done the previous day, what will be done today, and what potential problems exist. Daily Scrum has a positive impact on communication and collaboration within the team, identifying obstacles, and promoting quick decision-making processes. A Sprint ends with
6. an Increment. Increments usually represent a product feature or function which can be demonstrated and tested by customers during

7. a Sprint Review. This allows future improvements or adaptations according to customer expectations and might result in a reversed Product Backlog. This event, nevertheless, ensures product quality and customer involvement. Finally,
8. in the Sprint Retrospective, a team-internal reflection together with the PO and Scrum Master is performed to improve the effectiveness and efficiency of future Sprints. Potential improvements might consider Sprint Planning, customer involvement, or requirement specification.

Roles & Responsibilities

In Scrum, there are three leading roles: Development Team, Scrum Master, Product Owner (PO):

- The Development Team consists of five to nine people who perform the actual development tasks. Development teams carry out all work required to develop an Increment during a Sprint. The Scrum Master provides conceptual support and guides the Scrum process (i.e., ensures the daily execution of Daily Scrums).
- In addition, the Scrum Master is responsible for removing distractions from Development Teams (i.e., customers approaching the Development Team instead of the PO) and coaching agile practices, principles, and values.
- There is also a PO, who is responsible for a certain product. In addition, the PO is accountable for managing the Product Backlog according to the product vision and represents the voice of stakeholders and customers – especially in the context of lack of customer access.

Pros & Cons

Scrum ensures fast delivery, efficient use of time and resources, development transparency, quick-change recognition, and stakeholder as well as customer involvement. Moreover, Scrum increases customer involvement through demanding requirements and gaining feedback. Scrum also divides complex projects into manageable work packages for fast turnaround and testing.

On the other hand, Scrum could have limited utilisation in large project set-ups with a high degree of repetitive work. In fact, theory and practice started to re-design or combine Scrum with other agile or traditional management methods, leading to hybrid methods (i.e., Scrumban or Waterfall-Scrum). In addition, there is the threat of scope creep due to a lack of a definite end-date or fuzzy project vision. Another downside of Scrum might be the strict utilisation of events and artifacts leading to overhead costs. Finally, there is also potential knowledge and capability loss if a team member leaves due to rather informal and tactical knowledge-sharing.

Key Takeaway

Scrum helps deliver high customer value products while addressing adaptive and complex problems.

3.1.2 Kanban

"Without slack there is no tactical agility in the business."

— David J. Anderson

Positioning

The most comprehensive definition of Kanban was introduced by David Anderson in 2010. Kanban is a method for visualising and improving the current workflow within the organisation. It is based on the Work-In-Progress (WIP) limitation, which helps create a pull system – start a new task when a current

task has been completed. This system prevents team members from work overload and improves product quality by ensuring a focus on a single aspect instead of doing multiple things in parallel. Furthermore, Kanban uses a Kanban Board as a tool to visualise the

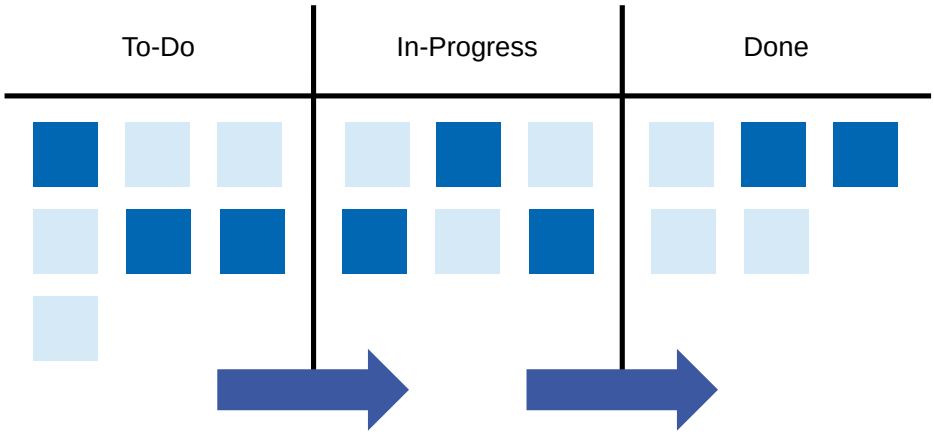

Figure 5. Kanban (own representation, based on Henriksen (2016))

process. The Kanban Board is composed of at least three columns.

1. To Do presents the tasks that have not yet been started.
2. Doing lists tasks that are currently in progress.
3. Done covers the tasks that have been successfully completed.

Kanban Cards represent the tasks on the Kanban Board. The most important rule in Kanban is that only one card can be used per one work item. Kanban can be implemented in any type of work where there is a repeatable process. Therefore, Kanban could be implemented in all types of companies and business functions. The method has proven its efficient manner in companies such as Spotify, HP, Pixar, or Zara.

Application

Kanban consists of six core components:

1. Visualising Workflow is crucial in the adaptation of the Kanban method. It enables observing the workflow by creating a visual model, which leads to better communication within the Team since the work is transparently shown to everyone. Therefore, it supports the Team's effort in boosting the workflow.
2. Limiting Work-In-Progress (WIP) directly impacts team satisfaction. It encourages individuals to focus on current work, complete it and start only a new task if the current one has been completed. Moreover,
3. Managing Workflow is vital for the final delivery of the product and improves the outcome's quality. This practice should be implemented after the first two practices since it enables analysis of the work and makes various improvements to reduce the production time.
4. Making Process Policies Explicit is essential since it creates a common ground for all the team members. Therefore, the policies should be defined and visualised at the top of the Kanban Board.
5. Implementing Feedback Loops is another important part of Kanban. It incentivises the team to review the different development stages and use continuous

feedback on the work process to improve the outcome.

6. Last but not least, improve Collaboratively and Evolve Experimentally helps in adopting small changes and improving gradually at the pace right for the team.

Roles & Responsibilities

Kanban does not show any specific roles or team structures. Since there are no specific role requirements, the method does not provide clear responsibilities.

Pros & Cons

First, Kanban is established as an agile method that has a low entry barrier, is highly intuitive, does not require special training or experience, and does not have predefined roles and responsibilities. Furthermore, it ensures task flexibility (reprioritisation is always possible), continuous delivery, focus on prioritised tasks and reduces cycle time.

On the other hand, the method shows a lack of management guidance (i.e., who should define or prioritise tasks). Kanban has no specific timeframe (no exact iteration cycle time), which may lead to poor delivery timing or team frustration (feeling of a hamster wheel). Finally, there are missing roles, responsibilities, and practices for performing daily operations in an agile manner.

Key Takeaway

Kanban is a work in progress management method which supports the visualisation of the workflow and aims to maximise efficiency.

3.1.3 Crystal

"We get things wrong before we get things right."

— Alister Cockburn

Positioning

Alister Cockburn created Crystal in the mid-1990s. Crystal is an agile method that focuses on individuals and their interactions, especially in software development. Therefore, Crystal encourages teams to closely collaborate and communicate, instead of following rigid pre-defined processes and routines. It is one of the most flexible methods for developing software. Since every project is different, the list of relevant practices should be based on size and complexity. Therefore, Crystal is mainly designed to scale projects. There are four methods within the Crystal family which are recommended, depending on the team size:

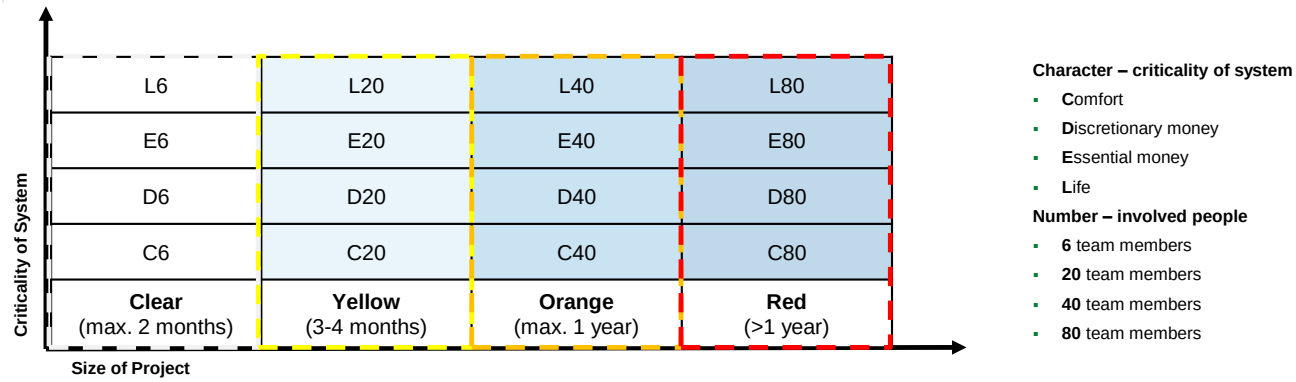

Figure 6. Crystal (own representation, based on Anwer et al. (2017))

1. Crystal Clear is used by teams of 1-6 members,
2. Crystal Yellow is suitable for teams of 7-20 members,
3. Crystal Orange is considered for teams of 21-40 members,
4. Crystal Red is utilised by teams of 80-200 members.

When it comes to its applicability, Crystal has been used mainly within technology-oriented companies. For instance, companies such as WeTransfer, GigSmart or Fly.io have implemented Crystal into their organisation.

Application

Guidelines need to be fulfilled to run a successful project using Crystal.

1. Frequent Delivery should be the priority of any project since it enables customers to observe in real time whether the project is aligned with their expectations. Moreover,
2. Reflective Improvement encourages the team to reflect and adjust when necessary. For instance, weekly meetings could trigger adjustments which help improve the development process and consequently the project outcome.
3. Osmotic Communication requires physical proximity (i.e., face-to-face communication) since it is based on the background hearing. Then team members might pick up information relevant for them while not being part of conversation, which improves their general understanding.
4. Personal Safety relates to building trust within the Team. Therefore, it is crucial to encourage team members to speak up without fear of retaliation. Furthermore, ensuring
5. Focus of Leaders to set their priorities straight. However, other team members must get the work done in an efficient way.
6. Access to an Expert User plays a vital role for Crystal since it contributes to real-time feedback and reduces the final product's cost and time.
7. An integrated technical environment might support teams in integrating their systems into an existing landscape. In addition, it might allow a quicker and easier identification of technical issues.

In general, Crystal represents a set of guidelines to perform projects efficiently and effectively to satisfy customer needs. Nevertheless, Crystal consists only of a few practices that may be considered when implementing Crystal. Potential practices are incremental development cycle, milestones, automated tests, user involvement, two user viewings per release, review workshops (at the beginning and during an incremental development cycle) and starting new tasks only after the current task has been approved.

Roles & Responsibilities

In the implementation of Crystal, there are six recommended roles: Executive Sponsor, Business Expert, Designer, Programmer, User Ambassador, and Unit Tester.

- The Executive Sponsor initiates the project, allocates resources, and takes crucial decisions during the project’s progress.
- The Business Expert provides requirement (policies) input and prioritises them according to their need.
- Designers and
- Programmers are accountable for developing solutions.
- User Ambassadors specify user requirements and are responsible for testing the final product.
- Unit Testers ensure continuous testing of the software to keep track of the quality and provide feedback in case of software issues.

Pros & Cons

Crystal enables flexible adjustment of the method based on project type, team size, and requirements. Furthermore, it also involves prioritisation guidance through criticality assessment.

On the other hand, Crystal may lack guidance for project execution, software design, and coding. The degree of communication hinders usability in large, globally acting, and interdependent project set-ups. There is also no specification of Crystal orange and red, resulting in limited applicability. Finally, complex role and responsibility requirements may create problems with the implementation of the method in small- to medium-sized organisations, due to an insufficient number of employees or employee capacity.

Key Takeaway

Crystal is a method that focuses on individuals and their interaction as the main priority in delivering high-quality products.

3.2 Leadership-Oriented Agile Approaches

Agility relies heavily on the individual leadership process. Thus, a lot of recommendations exist how to design and further develop the individual steering based on agile values and principles. Contrary to the previously described approaches, which are more positioned as complete instruments, the leadership-oriented approaches are more practices in the sense of routines or procedures. Consequently, they are often overlapping and use similar wording but with different connotations. Very often several of these practices are combined with each other. Especially consultants or software vendors typically combine core, IT-, and leadership-oriented approaches into an individual approach, emphasising individual definitions and understandings.

Below, the agile approaches are categorised into three phases, reflecting the core management and controlling processes introduced in chapter 2:

1. Goal setting aims to implement the strategy by concretising goals and initiatives. Thus, it deals mainly with the right attitude, behaviour, process, concretisation, and facilitation of goals.
2. Coordination of tasks and employees is focused on achieving the organisational goals. They should be able not only to act, but also to quickly adapt if necessary.
3. Feedback is about giving and integrating reflections for learning.

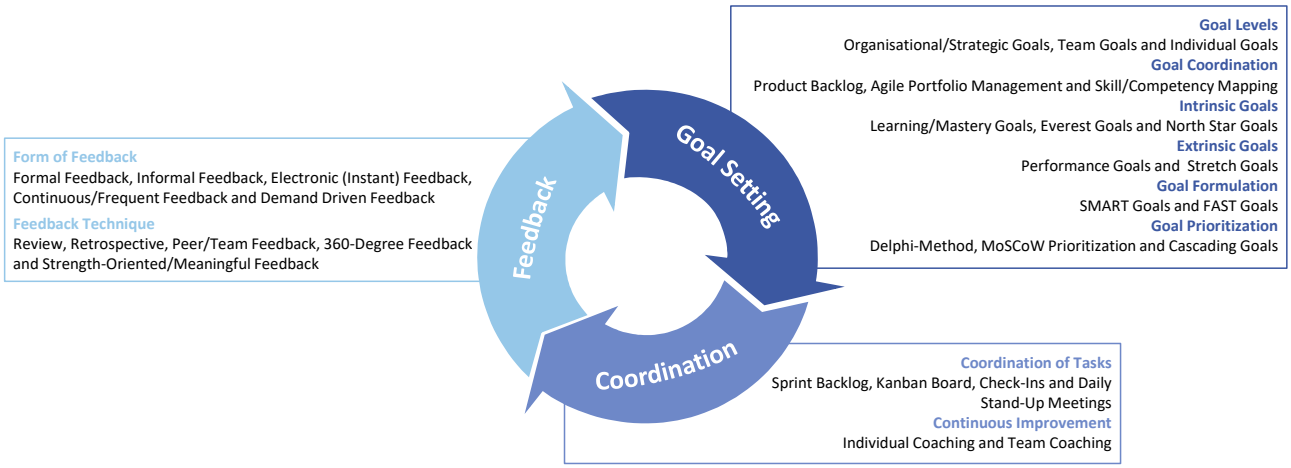

Figure 7. Overview of leadership-oriented agile approaches

3.2.1 Goal Setting

Goal Levels

Organisational/strategic goals: These are objectives at a more abstract/holistic corporate level, aiming to achieve an organisation's vision and mission. These goals represent the translation of a strategy into tangible and measurable operational goals guiding organisational members towards a particular direction. Furthermore, organisational/strategic goals serve to maintain or expand a competitive advantage by giving a guideline for future actions. In doing so, the goals should address the concerns of key stakeholders, such as customers, employees, or shareholders. Goals might consider both financial and nonfinancial aspects of a corporation.
Organisational/strategic goals should consist of success factors required to achieve the goal (i.e., specific resources, knowledge, or technology) and a specific scope. Strategic goals are crucial for business decisions regarding prioritisations, allocation of resources, definition of business requirements, guidance for business units/functions in setting team or individual goals for an upcoming year, or budgeting issues.

Team goals: Team goals serve as a facilitator for groups to coordinate and align the sum of team actions towards common goals. They also present a single source of truth when it comes to decision-making, problem-solving, or resource utilisation. Team cohesion, focus, and satisfaction are outcomes of such goals and increase team performance and success.

Individual goals: Individual goals are targets set for an individual corporate member to control, manage, and measure his/her individual performance in completing tasks. Individual goals are frequently financially incentivised, leading to increased self-interest (maximise incentive instead of following corporate interests). This might result in a competitive team culture and divert attention from strategies that promote group/organisational performance. Nevertheless, this type of goals is relevant when it comes to personal career development.

Goal Coordination

Product Backlog: A Product Backlog is a list of feature requirements for a product (see also the Scrum approach and the corresponding Sprint backlog later). It acts as a logbook that contains a detailed task plan of which functionalities should be integrated as part of the overall project. The composite tasks of a Sprint

represent the goal and key deliverables are the tasks. A Product Backlog should contain all types of work required to deliver or enable releasable product increments by the end of each Sprint.

Agile Portfolio Management: Agile Portfolio Management addresses how an organisation identifies, prioritises, organises, and manages different products or services. Therefore, it decomposes, prioritises, and coordinates work across teams, functions, or business units to respond quickly to changing business priorities and plan deviations. It is typically inspired by strategic goals but does not require deploying the goals on a team level, but rather on a product/service portfolio of a unit.

Skill/Competency Mapping: The organisations aim to identify required and available skills to ensure target achievement. On the one hand, the practice should build awareness regarding the available skills within an organisation to allocate them effectively according to corporate internal needs. On the other hand, skill mapping is used for target-specific hiring to ensure efficient and effective task execution.

Intrinsic Goals[2]

Learning/mastery goals: Learning/mastery goals are self-referential and aim to develop personal skills, abilities, and knowledge by learning through the process of goal achievement. Learning/mastery goals aim to generate knowledge and skills by achieving a challenging goal. During the process of goal resolution an individual should acquire additional skills by gathering new information or techniques and support creative problem-solving to achieve such a goal. In a nutshell, the practice is not so much about the actual goal but rather the process of goal achievement.

Everest goals: The Everest goal goes beyond "traditional" goal setting. They represent a pure intrinsic, ultimate, extraordinary achievement by an individual. Therefore, these goals tend to be long-term in nature. Everest goals require a deeper inner commitment, supreme effort, a complete, sincere desire, openness to learning in order to achieve the goal, strengthening a positive relationship with the goal, and personal values and purpose in life. Everest goals should expand or reflect a personal goal. Examples of Everest goals are becoming CEO of a multinational company or participating in an Iron Man.

North star goals: A north star goal is a single goal which a company wants to achieve above everything else. North star goals can act as a valuable heuristic when making business decisions and drive a company on the path of strategy realisation. These goals are defined by a north star metric which is the single most important metric that captures the value of a company and the value of products to the customers. Therefore, the metric will be unique for every company. North star goals are used by companies such as LinkedIn, Facebook, Uber, Airbnb, or Instacart.

Extrinsic Goals

Performance goals: Performance goals have a normative character, i.e., by meeting the goals individuals can demonstrate their competencies. Performance goals give direction to individuals as to what actions to take and how much effort is required. They enable employees to adjust their effort and actions as necessary to achieve the goal.

Stretch goals: Stretch goals are intentionally set above normal standards, which classifies them as high-effort and high-risk goals. They often require organisations and their stakeholders to significantly adjust or change the process of achieving them. As a result, stretch goals are often perceived as unattainable, difficult, or impossible to achieve. However, the goal is

[2] Since the 1970s Self Determination Theory has distinguished between intrinsic and extrinsic motivation. Intrinsic motivation comes from initiating and executing an activity because it is interesting and satisfying in itself, opposed to extrinsic motivation, where individuals fulfill external goals, see Ryan, R.M., Deci, E.L., Self-determination theory: Basic psychological needs in motivation, development, and wellness, New York 2017.

to challenge employees and their work routines to generate new skills and capabilities and dynamically adapt organisational business processes. General Electric was the first to introduce and use stretch goals.

Goal Formulation

SMART goals: According to the SMART acronym, goals must be Specific, Measurable, Attainable, Realistic, and Time-bound. Managers and employees work together to identify performance goals that are specific to the employee's job. SMART helps ensure that these goals can be communicated effectively and clarifies what employees are accountable for. Not all aspects of SMART need to be always met; for example, the benefits of abstract goals can be lost through quantification. But the closer goals are to SMART, the more guiding they will be for the executing employee.

FAST goals: FAST goals are an acronym for goals that are embedded in regular discussions, set ambitiously, measured with specific metrics, and transparent to everyone in the organisation (frequent – ambitious – specific – timely). FAST goals work well in a variety of industries from technology companies like Netflix and Google to more traditional companies like AB InBev, Burger King, or Kraft Heinz.

Goal Prioritisation

Delphi Method: The Delphi technique is a group process that facilitates consensus building and informed decision-making. It is used to gather opinions from "experts" rather than objective facts through a series of questionnaires. Starting with an open and exploratory first round, each participant anonymously provides their opinion on a particular topic. Incorporating the opinions from the previous round, several successive rounds of questionnaires are administered. This process is iterated until a clear group opinion emerges. Therefore, it helps to structure a group communication process to deal with complex problems as subjective assessments are incorporated on a collective basis to build consensus. Through a participatory approach, decisions are made with the help of collaborative group processes. This facilitates that individual thinking is avoided and group thinking is promoted.

MoSCoW prioritisation: The MoSCoW method is used to prioritise tasks and requirements in a project with a fixed deadline. MoSCoW is an acronym and stands for Must Have, Should Have, Could Have, and Won't Have. Requirements are sorted into one of the four categories. Work is being done in an order that prioritises Must Haves over Should Haves and Should Haves over Could Haves. MoSCoW can be used for a project as well as for each individual project task. It supports teams to focus on the most important work that needs to be done. MoSCoW simplifies decision-making procedures. Requirements are being set in close coordination with all stakeholders. Priorities are being revaluated at each project increment, making it easy to adapt throughout the process.

Cascading goals: Cascading goals are about setting and breaking down overarching goals into smaller goals on a functional, team, or individual level. The idea is to link the organisation's strategic goals down to each employee by refining them through each level.

3.2.2 Coordination

Coordination of Tasks

Sprint Backlog: A Sprint Backlog represents a detailed task plan that must be executed by a specific team in a predefined development cycle (Sprint, see also Scrum). The corresponding tasks and their priorities are derived from the Product Backlog. The number of tasks per development cycle is determined based on team capacities, their skills, and capabilities. The individual team members must specify what they are capable of developing

and how much time they need for it. Once a Sprint Backlog is defined and implemented, no further changes can be included in the associated development cycle. The changes are recorded in the Product Backlog to be considered for future Sprint Backlogs. The purpose of this procedure is to prevent any disruptive factors and to ensure the team has as much work focus as possible.

Kanban Board: A Kanban Board displays all details in one place to minimise the time spent on tracking progress and updating during meetings. The elements of the Kanban Board are cards and lanes. Cards represent work items that can be moved through the process, while lanes (columns) represent process steps consisting of at least three items. (1) To Do presents the tasks that have not yet been started. (2) Doing lists tasks that are currently in progress. (3) Done covers the tasks that have been successfully completed.

Check-Ins: Check-Ins are two-way dialogues between managers and employees as a frequent, informal substitute for annual appraisals/goal setting at the individual level. The goal is to have more meaningful conversations that lead to deeper insights and greater employee satisfaction. It relies on a weekly or monthly rhythm where each team member initiates the Check-In with the supervisor to discuss current issues and keep performance on track. In this way, expectations can be set, priorities reviewed, work commented, and coaching offered for the employee's personal development. Check-Ins encourage regular interaction with supervisors and allow for continuous improvement for the employee.

Daily Stand-Up Meetings: Daily Stand-Up Meetings align daily status updates within a team. On each day of a sprint (development cycle), sprint members hold timed (approx. 15 min.) daily scrum (meetings) to review and adjust activities since the previous daily Stand-Up Meeting, which is a type of sub-interval. Daily Stand-Up Meetings allow to identify potentials and obstacles and respond to them more quickly. As a result, teamwork becomes more flexible and competitive advantages through fast reaction can arise.

Continuous Improvement

Individual coaching: Coaching focuses heavily on facilitating learning in and for the future rather than evaluating past performance. Coaching is often delivered to individuals in a more informal and frequent manner. The coach (doesn't have to be the direct supervisor, can be another person from a different team or function) shares insights, knowledge, or experiences to support and develop the employee personally and from a job perspective. Sometimes it can be helpful if the coach provides a formal agenda of topics to talk about. Individual coaching allows the employee to identify his/her strengths/weaknesses and develop further. Through further development, the employee is more likely to achieve the goals and continuously develop in certain areas.

Team coaching: Team coaching involves working specifically with an entire team to facilitate and challenge the team to maximise its collective performance. Central are impulses for reflection and help for self-help. The team coach moderates the work on agreed coaching goals and provides food for thought, but the concrete solutions must be developed by the team itself.

3.2.3 Feedback

Form of Feedback

Formal feedback: The characteristic of formal feedback is defined by the source dimension: Formal feedback consists of formal appraisals, performance reviews, or scheduled conversations with the supervisor. The information for the feedback itself is obtained through formal mechanisms and management control/reporting systems. Formal feedback is

also rigidly scheduled with the supervisor and subject to strict rules (clear agenda, formal documentation).

Informal feedback: Feedback might be given informally by social sources, i.e., supervisors, peers, or external parties, without considering it an evaluation. It is characterised by informal discussions of performance, behaviour, and recognition that occur continuously throughout the year. Informal feedback can either be regularly scheduled (such as check-ins) but can also be provided on request. The focus is on discussions, reflections, and feedback that are conducted independently, without set rules and without the need to present a formal outcome. Self-assessment is welcomed in the sense that employees seek and collect informal performance information from their environment on their own responsibility.

Electronic (instant) feedback: Electronic feedback captures the tasks performed in terms of input, process, and output, thus evaluating an individual's performance. Electronic feedback shortens the time spans between feedback and task execution. This is a result of increased electronic monitoring of performance, as more data is available and is constantly being analysed. This constant monitoring provides the necessary data to immediately act on feedback, such as the current level of goal achievement, presentation skills, or employee behaviour. This allows potential adjustments to be communicated and possible areas for improvement to be immediately derived with recommendations for necessary training. Furthermore, employees' development potential and talents can be identified more quickly and can also be addressed in a much more targeted manner. Instant feedback systems are app-based tools that allow companies to collect feedback in real time.

Continuous/frequent feedback: Continuous/frequent feedback is defined as a mechanism or process where an employee receives ongoing feedback and is managed in a systematic manner by openly discussing the employee's strengths and weaknesses through the manager. In addition to formal performance reviews, continuous feedback is a process in which employees and supervisors engage bilaterally in a cyclical feedback process whereby feedback can be given and received informally by both parties at any time. Through constant interaction with feedback providers, it is possible to learn at any time and constantly evolve to act more independently.

Demand-driven feedback: Demand-driven feedback is based on the fact that employees choose whether, when, and how frequently they want to receive feedback. Employees can receive feedback on any task at any time. This process can most easily be done via app and allows for immediate gratification. Hence, employees have more control and autonomy, which increases their motivation and satisfaction. The ability to choose when and if to receive feedback furthermore increases the psychological weight of feedback information by the employees, which can improve decision-making compared to assigned feedback. However, demand-driven feedback increases the chances of employees to prioritise easy tasks over difficult tasks because of immediate gratification effects. To mitigate these consequences, it is advisable that employees must keep a record of the percentage of easy versus difficult tasks that they have accomplished. These records improve the working memory of an individual, allowing to increase self-control in systematically prioritising easy over difficult tasks. Employees plan their tasks more balanced if gratification of feedback lies further in the future.

Feedback Technique

Review: Reviews refers to feedback involving stakeholders for achieving objectives and improving the quality of outcomes. The Review provides an opportunity for stakeholders and teams to interact by checking the status of a product, testing features, or providing additional insights or feedback. The feedback serves as a guidance for further product development, adjustments, or refinements.

Retrospectives: The Retrospective is an internal team feedback session. Retrospectives aim to evaluate the current collaboration within a team by adjusting the process to improve the overall work process. Typically, the team discusses what worked well and what can be improved to be more efficient and effective in future. The reflection therefore serves exclusively to improve the work process and team collaboration.

Peer/team feedback: Peer/team feedback is a multi-source feedback system in which people with close working proximity to the person being assessed provide feedback. It can be used at different organisational levels, as they all have different views, perspectives, expectations, and experiences about and with the employee. Employees, for instance, experience interpersonal behaviour and communication first-hand in their work environment and may value cooperative behaviour more than a supervisor. Through individual role expectations, the multifactorial peer approach captures all aspects of an employee and how well they confirm the rater's expectations. Furthermore, multidimensional feedback by peers facilitates self-reflection and communication within the group, which in turn fosters team autonomy.

360-degree feedback: 360-degree feedback, also known as multi-rater feedback, is a system in which anonymous feedback about an employee is collected from various people with whom they have working relationships. These are usually their managers, peers, direct reports, or subordinates. It is designed to allow several people to share their opinions and to get a well-rounded view of a person. It is used primarily as a development tool because it provides information about a person's work competencies, behaviours, and work relationships. 360-degree feedback is characterised by a multi-perspective, competency-based assessment of an individual. Thus, 360-degree feedback overcomes the traditional approach of a single source of evaluation/feedback from a single manager.

Strength-oriented/meaningful feedback: In strength-oriented/meaningful feedback, an employee is discussing the degree to which he/she is using his strength in relation to future comparable situations – instead of the weakness. Strengths can be better identified and developed, and the employee can be sustainably motivated for work content. The manager adds the necessary knowledge so that the employee's talent is more likely to lead to success in comparable situations in the future. The manager and employee jointly consider exercise possibilities in which the employee can further test his/her talent by means of concrete challenges. It is important to consciously select the level of difficulty of the practice opportunity so that the employee has a chance to experience success.

3.3 IT-Oriented Agile Approaches

3.3.1 Extreme Programming (XP)

XP is a lightweight methodology for small to medium-sized teams developing software in the face of vague or rapidly changing requirements.

– Kent Beck

Positioning

XP is an agile software development method created by Kent Beck in 1999. XP aims at delivering high-quality and sustainable software in highly uncertain and rapidly changing environments. The highest priority in XP is the value creation and satisfaction of customers. The ongoing development of small and functional software increments allow at any point in time “on-the-run” adjustments and incorporation of constantly changing business needs into the resulting software. XP works

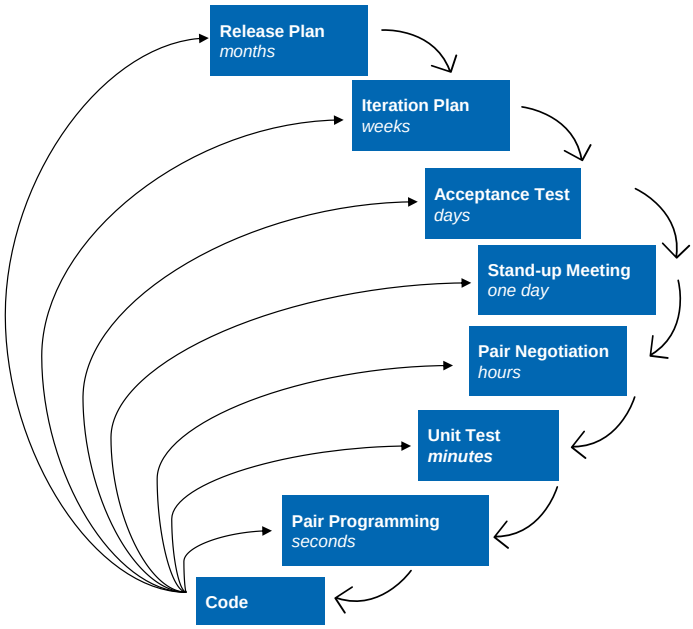

Figure 8. Extreme Programming (own representation, based on Beck (2000); Lindstrom and Jeffries (2004))

efficiently in small- to medium-sized groups of programmers.

Application

Extreme programming (XP) can be divided into four phases.

1. Planning composes of sub-tasks such as the creation of requirement documents, the release schedule, and the division of the project into iterations.
2. Managing is about making sure that the team works efficiently in a collaborative manner and having effective communication.
3. Designing involves the development team to design the system and control the interaction of the objects. Afterwards, developers are responsible to code the designed software.
4. The last phase – Testing – consists of performing unit tests and fixing potential bugs to guarantee high quality before releasing a code.

XP consists of twelve practices serving as a guideline for developers for executing the phases: Planning Game, Small Releases, Metaphor, Simple Design, Testing, Refactoring, Pair Programming, Collective Ownership, Continuous Integration, 40-Hour Week, On-Site Customer, and Coding Standards. The development team can individually select and configurate practices based on their needs. Planning Game and Pair Programming can be distinguished as the most utilised practices. The former is a core planning element of XP to organise smooth cooperation and share responsibilities between software developers and customers. Pair (or Peer) Programming is a technique where two programmers sit next to each other and develop software increments together. This technique is implemented to increase the efficiency of the work due to a division of tasks; the former focuses on writing lines of code while the latter controls the quality and suitability of the code.

Roles & Responsibilities

There are two primary roles, Customer and Developer and two secondary (optional) functions: Tracker and Coach in XP.
The Customer can be the Product Owner or a user and is responsible for specifying software requirements. Apart from that, the customer needs to specify acceptance criteria of business value to make the software quality measurable. Developers perform all tasks to develop the software. The Tracker is responsible for controlling relevant metrics of progress and ensures continuous improvement of the development team regarding communication and collaboration. The Coach is often an outside consultant with experience in XP. This role might be useful for companies starting to utilise XP. His/her role is based on mentoring and coaching self-discipline of teams and the practices of XP.

Pros & Cons

Extreme Programming helps achieve fast delivery of valuable/useable software increments while maintaining efficient use of time and resources. It builds on high requirement transparency through customer involvement. Moreover, work is divided into manageable work packages lowering individual task pressure. Besides that, no specific corporate restructuring regarding roles/responsibilities is required.

On the other hand, XP has limited applicability in large or non-software projects. Furthermore, its scope can creep due to the ongoing development of increments and a lacking start and end. Finally, the method faces potential knowledge or capability loss if a project member leaves due to the tactical and informal exchanges/lacking documentation.

Key Takeaway

XP is about steering and developing software in the constantly changing environment. The method helps achieve higher software quality without overburdening the team.

3.3.2 Test-Driven Development (TDD)

"*Write tests until fear is transformed into boredom*"

– Kent Beck

Positioning

TDD is an agile method which was created by Kent Beck in 2003. The method represents an extension of XP. It is based on an interaction between coding, testing, and design to make the code clear and easier to understand.
In addition, it is vital that the code works as expected for a test case. However, in contrast to most methods, TDD codes do not aim to reach an optimum solution on the first attempt. Instead, the code should be iteratively improved one test case at a time.

There are four critical elements related to TDD.

1. Management support is required at all points in time.
2. The development team must understand the process and principles of TDD.
3. It is vital to run all tests as part of the development pipeline (a failing test should pause the pipeline).
4. Finally, the value that is generated by the implementation of TDD needs to be monitored and measured.

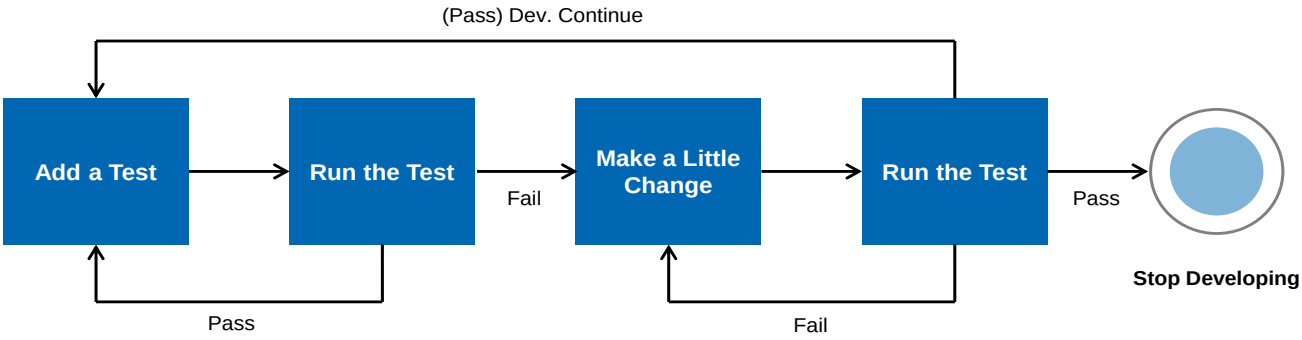

Figure 9. Test-Driven Development (own representation, based on Anwer et al. (2017))

Application

Test-driven development (TTD) consists of five core phases. (1) Adding a test should be in the form of creating unit tests. It aims at making the software developer focus on requirements before starting to write a code. (2) Running all tests checks whether the test harness works properly. (3) Writing the simplest code that passes the test emphasises that only enough code should be written to pass the test (4) Passing all tests aims at ensuring that the new code meets all requirements. (5) Refactoring ensures that the functionality of the code is preserved.

The workflow can also be called Red-Green-Refactoring, which has a repetitive nature and shows the status of the current work.

- Red phase: Code fails the unit test
- Green phase: Code passes the unit test
- Blue phase: Refactoring of the code, then repeating and collecting of tests over time

Roles & Responsibilities

There are to two critical roles in TDD, Programmer and Tester. Programmers drive test cases using requirements before writing the code. Then the code is only written or adjusted if failures occur during testing. At the same time, Testers ensure that requirements are well defined.

Pros & Cons

TDD serves as a method to develop software instead of being pure unit tests. It supports identifying defects in an early project stage and near to their origin. Moreover, TDD provides quick feedback from tests, decreases defects and costs as well as increases quality. Finally, this method is an efficient approach to iteratively test, find failures, and improve software reliability by correcting failures.

On the other hand, TTD requires special skills (writing tests) from programmers. There is also limited applicability apart from software development. A lack of documentation may also cause maintenance issues, especially in cases of team members leaving or newly joining the development project. Finally, rapid failure detection and adjustment might lead to longer development cycles.

Key Takeaway

TDD is a test-first method rooted in XP that is based on creating a failing test case and then writing a code that is good enough to pass the test.

3.3.3 Feature Driven Development (FDD)

"[…] there has to be some informational/analytical activity at the start to give us the knowledge to set a baseline that we can track and report against […] FDD is the only agile method that gets this part right." –

Jeff De Luca

Positioning

FDD is an agile method which was created by Jeff de Luca in 1997. FDD aims for efficient delivery of tangible (software) results by its customer-centric, incremental, and iterative features. In comparison with other agile methods like XP or TDD, FDD is a feature-focused instead of a delivery-focused method. FDD is concerned with progress by developing predefined features. Therefore, status reporting is used to control progress. In addition, information exchange between team members occurs through formal documentation instead of frequent team meetings. FDD is used in large and complex projects. Through a higher degree of documentation and a pragmatic approach, large teams can organise and structure work more effectively in long-term projects.

Application

There are five core phases of Feature Driven Development (FDD).

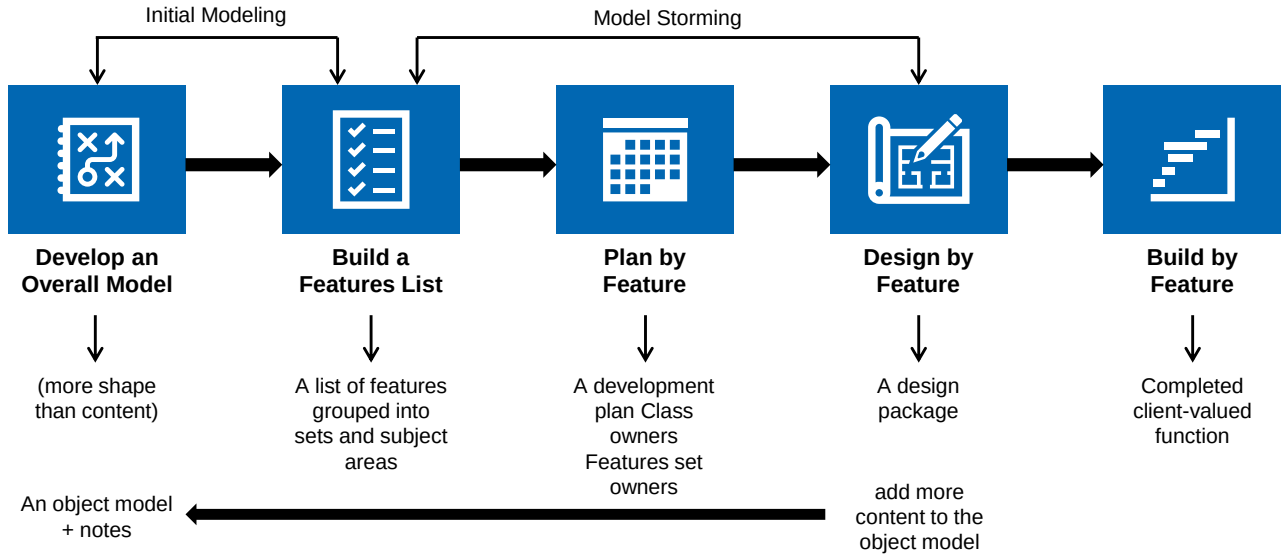

Figure 10. Feature Driven Development (own representation, based on Anwer et al. (2017))

1. Developing an overall model aimed to identify and understand the fundamentals of the domain.
2. Building a features list based on the information gathered in the previous phases to prepare a list of purposes or goals.
3. Planning by feature aims to analyse each feature and plan the next tasks to be accomplished by the team members.
4. Design by feature is about the determination of the feature to be designed and built.

5. Building by feature consists of building user interfaces, creating a feature prototype, testing, inspecting, and approving.

In addition to that, there are five practices that support FDD's core activities: Domain object modelling; creating a high-level class diagram and supporting artefacts; developing by feature and individual class ownership; inspections; and reporting/visibility of results.

Roles & Responsibilities

FDD depends on seven roles: Project Manager, Chief Architect, Development Manager, Chief Programmer, Class Owner, Domain Expert and Feature Team. The Project Manager leads the overall project, manages people, and reports progress to involved stakeholders. The Chief Architect manages the overall system design. The Development Manager supervises development activities and supports issue resolution. The Chief Programmer leads the actual development activities. The Class Owner shapes code and tests features. Finally, the Domain Expert provides relevant business knowledge for specifying relevant features.

Pros & Cons

FDD is a highly adaptive development framework that focuses on design and modelling features to ensure overall product quality. It follows user-centred feature development. FDD is also a scalable project management method for large and long-lasting projects. Finally, it has simple onboarding of new joiners due to documented information.

On the other hand, FDD requires various predefined roles. Multiple responsibilities within a single role might lead to overburdening and a higher pressure of team members. In addition, FDD assumes a high degree of team-internal documentation and rejects informal team meetings. There is also a lack of guidance regarding user requirement collection. Another disadvantage refers to old or large systems (i.e., SAP) which are potentially limited in feature creation or adjustment.

Key Takeaway

FDD is a practical method designed for long-term and complex projects, which focuses on implementing feedback into the product over time to iterate an improvement.

3.3.4 Lean Software Development

"Attempting to maximise utilisation is a self-defeating process."

— Mary Poppendieck

Positioning

Lean Software Development was introduced by Mary and Tom Poppendieck in 2003. It is an agile method to optimise development time and resources by eliminating waste in the software context. Therefore, the main goal of Lean Software Development is to deliver only products that are needed by the customer. Moreover, it encourages the development team to take responsibility for the products and incorporates the Minimum Viable Product strategy (MVP). MVP emphasises the role of learning in product development. The learning is derived from the customers' actual behaviour with products, which is more valuable than asking customers what they would do with the product.

Lean Software Development was initially designed for software development; however, it is also applicable in project and product development.

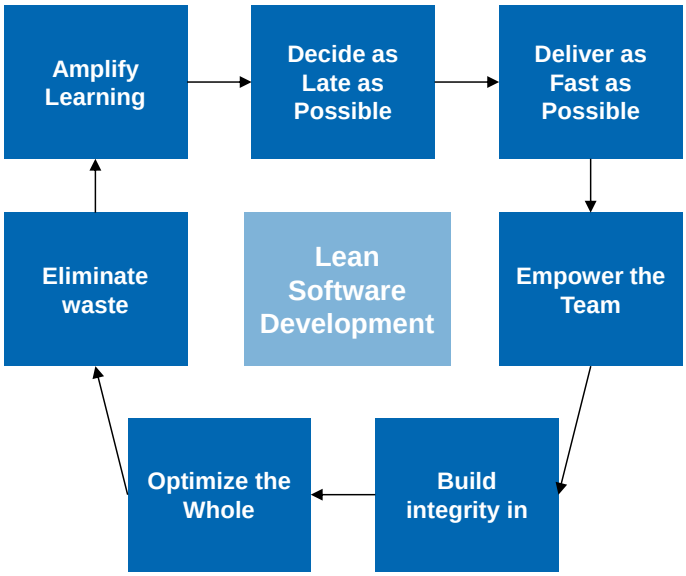

Figure 11. Lean Software Development (own representation, based on Poppendieck and Cusumano (2012); Ries (2011))

Application

To properly implement Lean Software Development, an organisation needs to follow seven core guidelines of lean methodology.

1. Eliminating Waste is crucial for reducing time and costs. It means that anything that will not add value to the customer should be eliminated.
2. Building Quality is a disciplined practice aiming to ensure quality. Due to the fact of lack of practices for building quality in Lean Software Development, it is recommended to borrow and implement quality-ensuring practices from other agile methods such as pair programming or test-driven development. One of the simplest guidelines in Lean Software Development refers to
3. Creating Knowledge; however, it requires focus, willingness, and discipline of individuals to be implemented. Team members are encouraged to create an infrastructure of documenting learnings. Furthermore,
4. Decide as Late as Possible encourages team members to show responsibility by collecting information and keeping options open before making the final decision in creating and developing product functions.
5. Delivering as Fast as Possible in lean puts the factors that slow the process in the spotlight. Another guideline refers to visualising the needed results and providing the team with freedom to organise itself. A team should be encouraged to create value without major defects and transfer it to the customer as soon as possible.
6. Empower the Team highlights one of the most critical elements for Lean Software Development - respect for people. Lean puts the focus on communicating proactively and encouraging healthy conflicts to deliver the best quality possible. Finally,
7. Optimising the Whole refers to the sub-optimisation problem, which is one of the most severe issues in Lean Software Development. Therefore, the concept supports eliminating sub-optimisation and

vicious cycles by understanding thoroughly the capacity of the whole.

There are also various additional practises that could be used while implementing Lean Software Development, for instance, value stream mapping, set-based development, pull systems or queueing theory.

Roles & Responsibilities

Lean Software Development Teams consists of two roles: Business Analyst and a Development Team.

- The Business Analyst specifies business and project requirements.
- The Development Team develops and delivers project features and improves the project process.

Pros & Cons

Lean Software Development is a streamlined method that enables delivery of the final product in less time. Continuous waste elimination leads to greater efficiency in terms of cost and time. Finally, early and continuous development and delivery of small increments positively impact the final product.

On the other hand, depending on the commitment and capabilities of team members. Lean Software Development also strongly depends on documentation. Therefore, there is a high dependency on Business Analysts since the role is responsible for collecting and documenting business requirements. Another disadvantage refers to the lack of process model and practices that can be used to translate the guidelines into real action.

Key Takeaway

Focusing on eliminating waste, Lean Software Development is aimed at delivering only the products needed to optimise time and resources.

3.3.5 Dynamic System Development Method (DSDM)

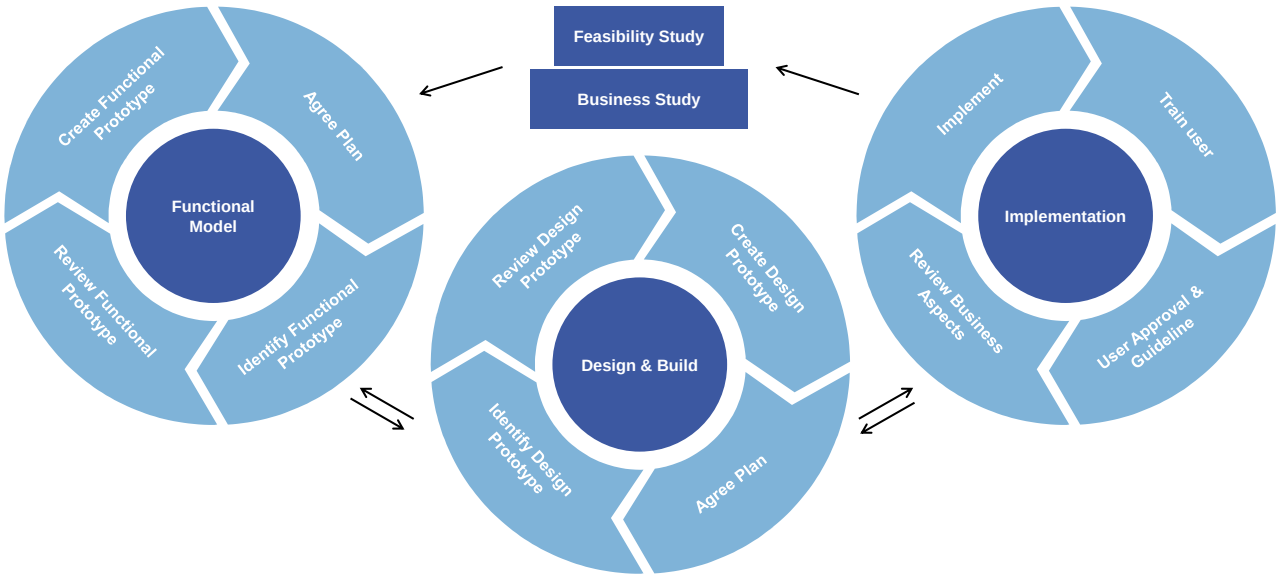

Figure 12. Dynamic System Development Method (own presentation, according to Anwer et al. (2017))

"The Dynamic Systems Development Method is about people not tools. It is about truly understanding the needs of a business, delivering software solutions that work and delivering them as quickly as possible."

– J. Stapleton

Positioning

Dynamic System Development Method (DSDM) is an agile method, which was created in 1994 by a consortium of organisations in the UK. DSDM aims at providing best guidance to deliver a project on-time and within budget. It focuses on delivering actual business value. Furthermore, DSDM is a vendor-independent method, which covers the full project lifecycle. DSDM could be implemented in any business or technical environment and is a method with proven scalability. However, it is recommended for larger organisations due to its implementation costs.

Application

DSDM builds on five phases.

1. Feasibility study is introduced to check whether DSDM is the right approach for the project and whether a project is realistic in its assumptions.
2. Business study is based on discussions where all actual business problems as well the technical capabilities should be analysed.
3. Functional model iteration aims at refining the business aspect that is created on the high-level requirements pointed out during the previous phase.
4. System design and build iteration occurs when the system is created to reach a sufficient standard for the users. The product of this phase is the Tested System. Phases three and four could be divided into four sub-stages: The identification of the design prototype, the acceptance plan and schedule, the creation of a design prototype and the review of the design prototype.
5. Implementation is the last part, where the product is given to its users. In the meantime, feedback, and timely reviews are collected, and the team provides special training to the end-users. This phase consists of four sub-parts: user approval, and user guidelines, user training, and implementation.

Several techniques are used to support the execution of DSDM, for instance, Timeboxing, MoSCoW (prioritisation technique), Prototyping, Testing, Workshop (stakeholder exchange), Modelling, and Configuration Management.

Roles & Responsibilities

The team could be divided into three sub-teams. At the project level, there are Sponsor, Visionary, Technical Coordinator, Business Analyst and Project Manager. Solution Development Team consists of Team Leader, Business Ambassador, Solution Tester, and Solution Developer. Finally, there are a few supporting roles, such as Technical Advisor, Business Advisor, Workshop Facilitator, and DSDM Coach.

Project level roles initiate and specify project goals, control the whole project, ensure progress, and update stakeholders. The solution development team is responsible for taking all actions regarding designing and building the project outcome. Finally, supporting roles ensure the DSDM guidance and provide development support.

Pros & Cons

First, DSDM ensures high flexibility regarding change incorporation at any project stage. Second, it facilitates the incorporation of other methods and practices. In addition to that, project progress transparency and understandability are controlled across involved parties in DSDM. Finally, the method secures a high business value.

On the other hand, large and complex method requirements might potentially cause overheads. It involves administrative effort due to many roles. There might also be a lack of suitability in small organisations due to the number of roles and costs of implementation. Lastly, DSDM does not indicate team size and project duration. DSDM might also negatively impact creativity since the project should be executed exactly as specified.

Key Takeaway

In addition to focusing on the full project lifecycle, DSDM aims at creating actual business value, on-time, and within-budget.

3.4 Holistic Agile Approaches

3.4.1 Design Thinking

"[…] (the engineer) can take on some aspects of the artist and try to improve or increase the scalability of a product or machine by beautifying or bettering its appearance, or by having a keener sensitivity for the market and for the kinds of things people want or don't want."

– John E. Arnold

Positioning

One of the first people to write about Design Thinking was John E. Arnold in the 1950s. Design Thinking is a non-linear and iterative concept to cope with uncertain, chaotic, or even unknown problems. It involves visual elements, which enhance creativity and create innovative solutions. Additionally, mistakes are seen as part of the creative process. Thus, they are allowed to learn and continuously improve the development process and the actual outcome. In Design Thinking, team members must try to focus always on their product's end users. The goal is to understand how customers use a product, where problems are when using the product, and how the situation is best solved from the customer's point of view. Furthermore, Design Thinking is also characterised by rapid prototyping at an early stage and throughout the whole development process.

Application

Design Thinking usually consists of six repeating phases or processes.

1. Emphasising aims at conducting comprehensive research to understand the problem the team faces. The team needs to observe or to interact with the target customer group of the product to understand all the relevant factors.

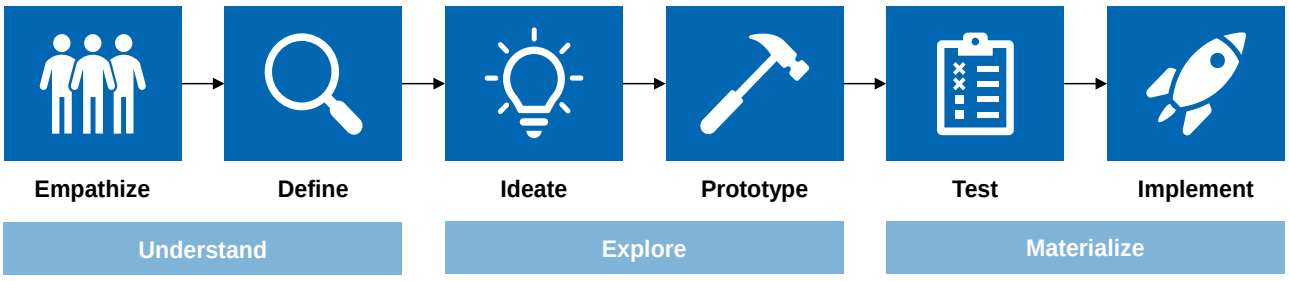

Figure 13. Design Thinking (own representation, based on www.dschool.stanford.edu/resources)

2. Observing & Engaging requires the team to explore new ways of using it or recognise current challenges. The goal of this phase is to gain an understanding of the problem and to define the status quo.
3. Defining is based on the knowledge gained in phase two and breaks it down into one prototypical user of the product. The use of Venn or onion diagrams is helpful in the process.
4. Ideating involves every team member individually brainstorming for possible solutions. Thinking outside the box should be encouraged. Later, team members share ideas, discuss, and improve them. In the end, one idea needs to be picked.
5. Prototyping requires creating a prototype to be comprehensible enough to generate feedback from other team members and customers (MVP). Prototypes can take many forms. With each iteration, prototypes gain more validity regarding the feedback they generate.
6. Testing is the phase where prototypes are tested, and feedback is generated. It aims at gaining data on how the prototype might be improved. Phases one through six are repeated until a product is market ready.

Roles & Responsibilities

There are five vital roles in Design Thinking: Design Thinking Project Leader, Design Thinking Project Member, Design Thinking Coach, Design Thinking Innovator, and Stakeholder Engagement Leader. The Coach is responsible for generating a better understanding of Design Thinking among the team members. The Innovator takes care of development and proper communication towards new approaches in Design Thinking. The Project Leader leads the team and explicitly applies the Design Thinking practices.
The Project Members follow the instruction of the Project Leader regarding the Design Thinking approach and takes active roles in generating and developing solutions and evaluating prototypes. Stakeholder Engagement Leader is a supportive role, which focuses mainly on engaging with stakeholders to gather a deep understanding of stakeholder needs and pain points.

Pros & Cons

First, Design Thinking helps to bring multiple perspectives to the project. Since many cross-functional teams work on the problem, there is a better understanding of the problem and, thus, more different project ideas are taken into consideration. Moreover, due to the close cooperation with customers, feedback implementation and potential improvements are more efficient. Finally, bad ideas can be identified at an early stage, and they can be thrown out to save resources.

On the other hand, Design Thinking requires strong involvement from clients, which may significantly increase the project duration. Moreover, processes can be overstretched to the point of constant iteration with no clear end in sight. It could also be hard to find a good mix of new ideas and break them down into relevant solutions.

Key Takeaway

Design Thinking is a product development technique that offers a solution-based approach to understand users, redefine problems, challenge assumptions, prototype, and test.

3.4.2 Scaled Agile Framework

"It's said that a wise person learns from his mistakes. A wiser one learns from others' mistakes. But the wisest person of all learns from others' successes."

— Dean Leffingwell

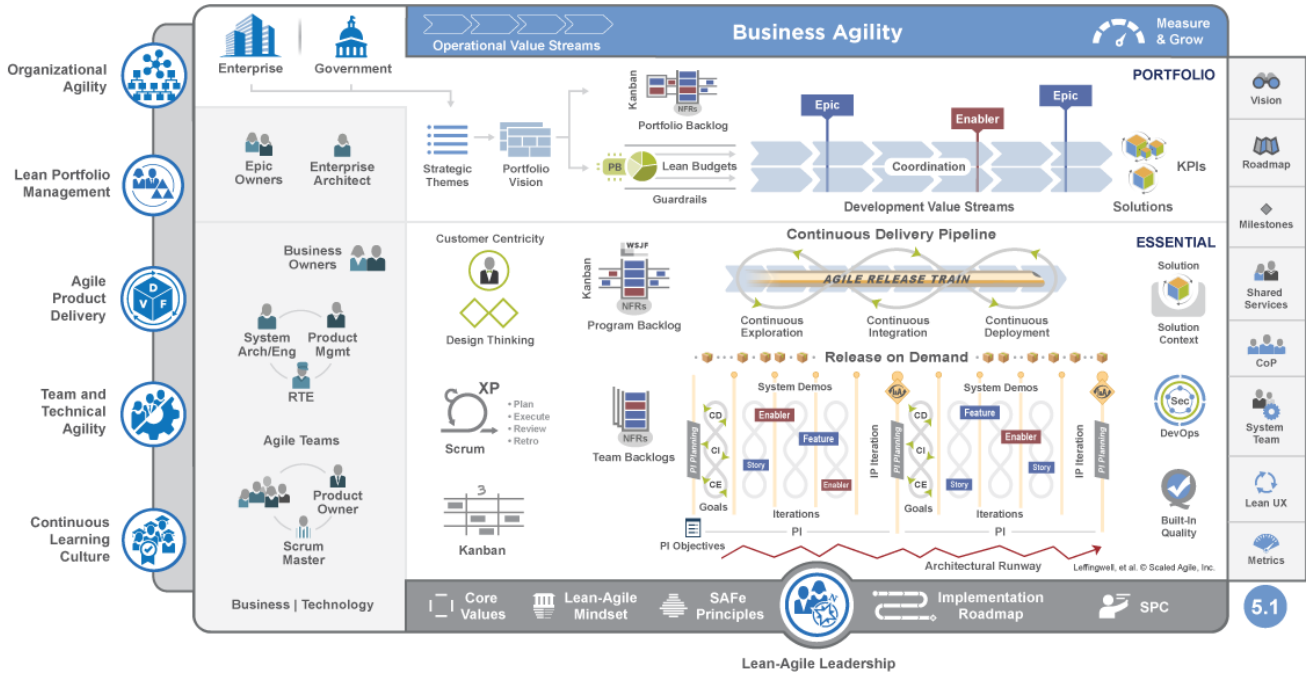

Figure 14. Scaled Agile Framework (www.scaledagileframework.com)

Positioning

Scaled Agile Framework® (SAFe) was created by Dean Leffingwell in 2011. SAFe is a holistic approach for implementing agile, lean, and DevOps practices at scale. Thus, it combines the sense and response approach (agile), reduces waste as much as possible (lean) and increases the fit between software development and corporate operations (DevOps). It is built upon fundamental concepts, which are derived from agile methods (i.e., Scrum, XP, or Kanban). The implementation of SAFe is recommended for medium-to-large organisations that deliver tech-based solutions. The concept has been successfully used by companies such as Porsche, CVS Health, Clobo, or Deutsche Telekom.

Application

The SAFe implementation consists of 12 phases.

1. Reaching the tipping point aims at overriding the structural imperative to achieve the change.
2. Training lean-agile Change Agents is based on building a powerful coalition among the employees to push forward the transformation.
3. Training Executives, Managers, and Leaders is about making sure that all the managers are on board and train their lean-agile Mindset.
4. Creating a lean-agile Centre of Excellence targets creating a small team of dedicated people to lead the transformation in a lean-agile way.
5. Identifying value streams and Agile Release Trains (“ARTs”) rests on the identification of value teams and ARTs, which are the backbones of SAFe.
6. Creation of the Implementation Plan consists of three activities: picking the first value stream, selecting the first ART, and creating a preliminary plan.

7. Preparing for ART launch covers the conversion of plans into further implementation.
8. Training teams and launch ART forces to reserve time for team training and be ready for a smoothness launch of ART, which creates first business benefits
9. Coaching ART execution is crucial to master the SAFe team roles and events.
10. Launching more ARTs and value streams aims to realise the benefits of SAFe thanks to launching new ARTs.
11. Extending to the portfolio focuses on the portfolio that should be aligned to make the implementation capacity and agile forecasting possible.
12. Accelerate suggest that the previously implemented activities might be accelerated to foster the organisation's transformation towards agility.

Roles & Responsibilities

In the SAFe concept, there are two crucial roles, Product Owner and Scrum Master. However, to fully implement the concept, eight additional roles are needed: Team Members, Epic Owners, Enterprise Architect, Business Owners, System Architect, Product Management, Release Train Engineer, and Solution Train Engineer.

The Product Owner is responsible for defining stories, which are created with other team members. In addition, his/her role is to control the team backlog and ensure the technical and conceptual integrity of the team's work. Scrum Master is a coach for the team, which helps remove impediments to progress and fosters the right environment for continual improvement. Team members should be specialists in their areas of knowledge to be able to make impactful changes and perform the necessary activities. Epic Owners are responsible for administrating and coordinating Epics within the Portfolio Kanban System. In doing so, Epic Owners work with various stakeholders from the Solution Train or Agile Release Train (ART) to specify the value of an Epic through its underlying product features and functions. The Enterprise Architect is responsible for a technology strategy and roadmap to support business capacities. Business Owners are the stakeholders responsible for aspects, such as technical responsibility or compliance, who help in delivering value by ART. The System Architect defines and communicates a shared vision for ART. Product Management defines and supports the process of identifying and defining customer needs and deriving the features that need to be implemented in the final product. The Release Train Engineer coaches for the Agile Release Train. The Solution Train Engineer helps the team to better understand the Solution Train.

Pros & Cons

SAFe is a roadmap to gain business agility since it offers a proven step-by-step guide for implementing real change. Moreover, it improves time-to-market as it improves the decision-making process as well as promoting effective communication. SAFe also impacts quality and emphasises the value of integrating quality tightly within the development cycle. Furthermore, SAFe offers support for creating immeasurable improvements by empowering teams and eliminating unnecessary work. Finally, SAFe increase employee engagement, which has a positive impact on the minimisation of burnout among employees.

One of the drawbacks of SAFe is that it might be considered an overly top-down approach since it does not include developers in the decision-making process. It also increases administration and coordination, which might overburden employees. Apart from that, it might limit the flexibility of developers and slow down some processes. Finally, its big picture perspective may cause longer planning cycles and fixed roles within a development cycle.

Key Takeaway

Scaled Agile Framework is a top-down approach and one of the most complex concepts that helps organisations to drive business agility.

3.4.3 OKR

"Ideas are precious, but they're relatively easy. It's execution that's everything."

— John Doerr

results. OKRs is a practice that consists of two elements: Objectives (in the sense of goals or targets) which define what one wants to achieve and Key Results (also Metrics or KPIs) which translate the goals into concrete and measurable results that should be achieved. One of the key goals of OKRs is to create alignment within the organisation. Since transparency is vital in implementing OKRs, accessing OKRs of different teams or even employees should be done frequently. Nevertheless, OKRs should be used for critical projects/initiatives rather than day-to-day operations. OKRs have gained relevance for companies independent of their size.
The concept started its success in IT-organisations, start-ups, and organisations with

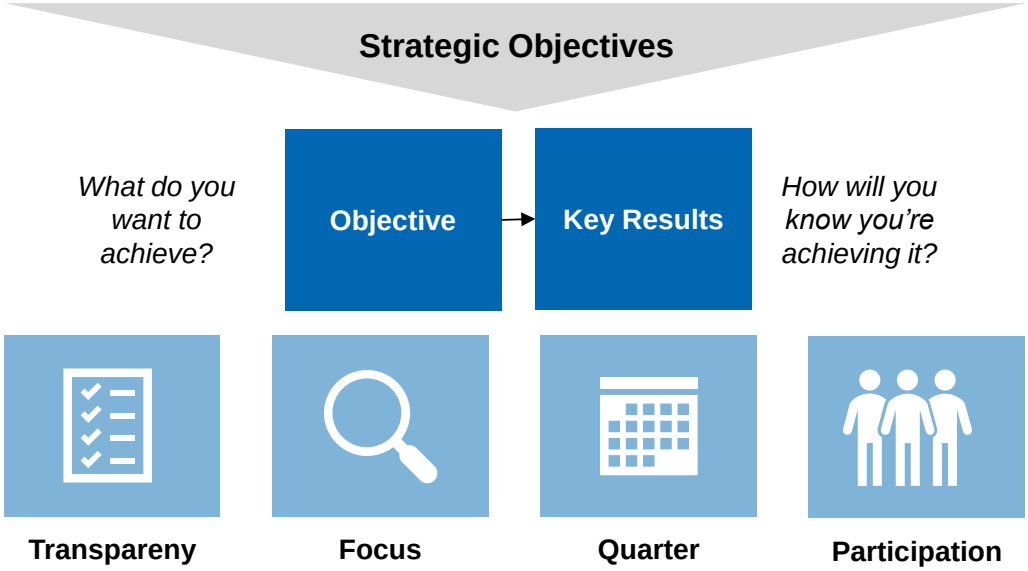

Figure 15. OKR (own representation)

Positioning

John Doerr was one of the main drivers of Objectives and Key Results (OKRs) in the 1980s, which he learned from Andy Grove at Intel. OKR enables the organisation to react effectively to the changes in the business environment, since it builds on frequent reflection and adjustments of objectives and

growth objectives but is now used also in established companies and NPOs. OKRs have been considered a success factor in companies such as Google, Haufe-umantis, Amazon, or Intuit.

Application

A maximum of five goals should be set per quarter. Goals are meaningful, concrete, actionable, aspirational, and closely linked to business strategy. They provide direction, i.e., what should be achieved. Each goal consists of a minimum of one to a maximum of five key results. Key results must be specific, time-bound, aggressive, realistic, and measurable. On the other hand, key results explain how the achievement of the goals can be measured. After OKRs are established, they should be transparent throughout the organisation. OKR meetings are held at each organisational level where managers set priorities, and each individual/team reflects about key results in order to agree upon in a participative manner.

Roles & Responsibilities

There are no specific required roles in OKRs. However, the role of an ambassador or facilitator could be introduced to the organisation during the first implementations of OKRs. The person ensures that everyone who is using OKRs is adequately trained, engaged, and provides ongoing help and guidance when needed and especially secures that OKRs are applied rigorously.

Pros & Cons

Similar to FAST goals, transparency of OKRs leads to positive peer pressure, increasing individual and team performance. In addition, breaking goals into smaller, measurable key results allows employees to think through what is needed to achieve a particular goal. Moreover, the OKR concept allows for a degree of agility to be created within the organisation since it is applied on a quarterly or even monthly or weekly basis.

Even though OKRs are transparent and interdependent, OKRs are still set at the individual level or with the individual manager. Moreover, there is a threat of setting too many OKRs, which might create confusion within the organisation. Finally, too ambitious goals might lead to emotional exhaustion of teams.

Key Takeaway

OKRs create a concept for both managers and employees to discuss how the work of an individual impacts the company's business strategy.

3.4.4 Holacracy

"Holacracy is not a governance process of the people, by the people, for the people — it's governance of the organisation, through the people, for the purpose."

— Brian J. Robertson

Positioning

Holacracy is a management concept created by Brian Robertson in 2007. In contrast to the top-down authority of the typical hierarchical model of organisations, Holacracy is characterised by the distribution of power among self-organised groups. The core of Holacracy is the decentralised authority and independency of autonomous teams. Holacracy replaces the traditional hierarchical organisation structure with a set of nested circles (outer and inner), which perform different roles. Every circle must have a clear purpose/goal (i.e., product- or service-based). The purpose can be adjusted at the outer circle and aims to provide orientation regarding goals, actions, and tasks for inner self-organised circles. Furthermore, Holacracy defines dynamic roles instead of functions or job titles. Therefore, employees can adapt dynamically to work requirements and become more entrepreneurial and innovative. In addition, dynamic roles provide employees with the possibility to follow personal interests or redirect

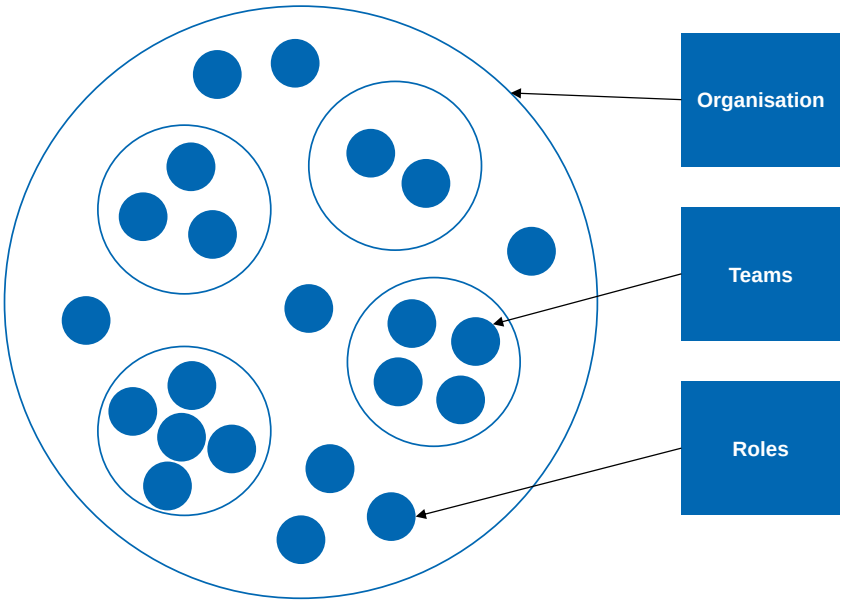

Figure 16. Circle organisational structure of Holacracy (own representation based on Robertson (2016))

focus during their career development. Holacracy has been used by companies, such Zappos.com, Freitag, HolacracyOne, or Viisi.

Application

Holacracy tackles decision bottlenecks and power distance. Therefore, it provides employees with extensive authority and engages them as leaders. Moreover, working in and on the team is a crucial part of Holacracy. It involves a process that provides all employees with the power to alter the organisation-specific rules. That is why all employees might act as change triggers within the organisation. That counts not only for products, services, or processes but also for adjusting the corporate environment according to changing market conditions. Holacracy also requires a general awareness and understanding of corporate guidelines. It involves introducing clarity and transparency about responsibilities of all employees. Thus, Holacracy leads to a reduction of inefficiency regarding decision-making and an improvement of power dynamics.

Application of Holacracy requires introducing two types of meetings: Governance and Tactical. Governance meetings are focused on creating, removing, or modifying the roles and guidelines of the inner circle, while tactical meetings are focused on operational work (i.e., planning or coordination issues). Finally, a set of guidelines for operating and governing a Holacracy organisation is described in the Holacracy Constitution.[3]

Roles & Responsibilities

A circle requires four roles in its basic structure: Lead Link, Rep Link, Facilitator, and Secretary.

- The *Lead Link* prioritises the work and establishes a strategy for his/her circle for goal achievement. Additionally, he/she is responsible for finding and inviting people from the organisation to fill out roles in the circles.

[3] For further information on the rules please see: https://www.holacracy.org/constitution

- The *Rep Link* represents his/her circle and reports challenges to the outer circle when they cannot be solved inside.
- The *Facilitator* presides over the Governance and Tactical meetings following the Holacracy Constitution.
- The *Secretary* is responsible for scheduling the meeting and recording the output, which is later distributed to the circle members.

Pros & Cons

Holacracy significantly impacts staff commitment and increases their entrepreneurial thinking and acting. Due to the new equal division of responsibilities, all employees are empowered to act, which increases the effectiveness of an organisation regarding sustainable development. Furthermore, Holacracy removes job titles and thus minimises frictions between employees and managers. As a result, it also reduces team tensions and work inefficiencies.

On the other hand, the adaptability of Holacracy is very cost-intensive regarding changing corporate structures and replacing hierarchies. In addition, Holacracy requires changing people's habits and mindset towards independent decision-making and self-regulation, which is a long process and requires intense training and onboarding processes.

Key Takeaway

Holacracy is an organisational management concept in which a structure of self-organising teams replaces a hierarchical structure of people.

3.4.5 Hoshin Kanri

"Hoshin Kanri, however, focuses on people—not the process. It details how people can be developed to solve their own problems."

— Mohammed Hamed Ahmed Soliman

Positioning

Hoshin Kanri is a concept created by Yoji Akao in the 1950s, using the compass metaphor to help align an organisation. Hoshin Kanri is very much inspired by the lean concept and should ensure that an entire company sets the strategic goals that lead to progress at all of the company's levels. Hoshin Kanri is also built on the Plan-Do-Check-Act cycle and links to different stages of the PDCA cycle. Hoshin Kanri has its own unique tool, "X-Matrix", which names all goals, plans, measures, success metrics, and resources on one page and shows the relationships. The X-Matrix consists of the company's vision, long-term breakthrough goals, annual goals, processes and measures, successes, and the teams that implement each measure by cascading the business objectives to the different areas. A link between strategy and practice in the operational area is possible, by ensuring that there is a higher alignment with business objectives. Hoshin Kanri has been used as a strategic planning concept and has proven its value-added in various larger organisations, such as Toyota, HP, or Xerox.

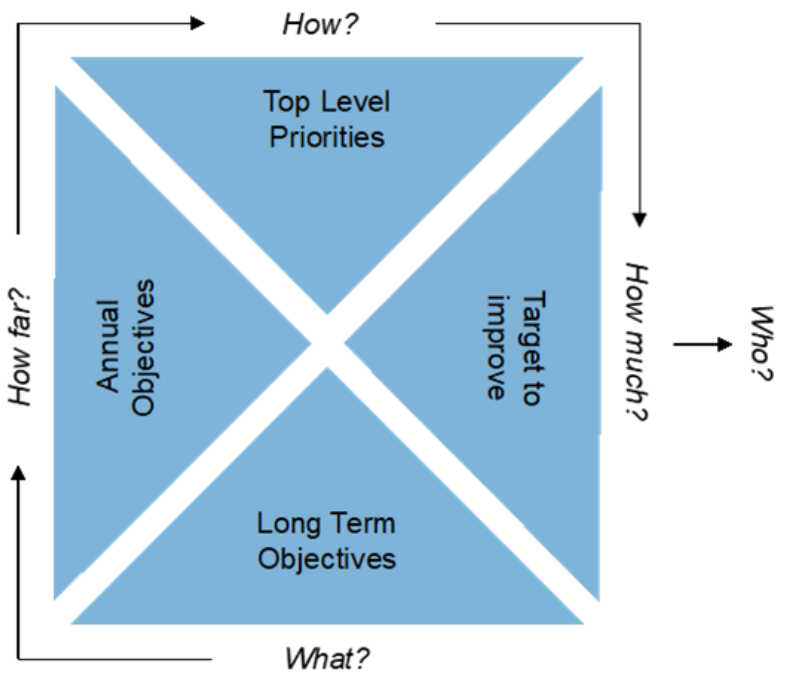

Figure 17. Hoshin Kanri (own presentation)

Application

The Hoshin Kanri process is broken down into four phases:

1. Creating a strategic plan is done by the company's leadership, who develop a strong vision that answers the question, "Why does the company exist?". The leadership team defines key goals or even a mission. When achieved, they create a competitive advantage for the company. These are fundamental goals that usually require the cooperation of all employees in the company and that are not completed in a month or quarter.
2. Developing tactics is based on breaking down the goals into annual objectives. Once the yearly goals are created, they must be "deployed" to all levels of the organisation. This "goal setting" process begins at the top and is passed on to all employees.
3. Execution aims at converting goals into results.
4. Reviewing and adjusting ensures that the plan is being executed as defined through monthly reviews. There should also be an annual review at the end of the year to confirm the result achieved and consider potential adjustments.

The execution of Hoshin Kanri should be done by the visualisation of the Hoshin Kanri X-Matrix, which summarises all goals, measures, and metrics. In the lower quadrant, breakthrough goals are noted to be achieved in the next three to five years. On the left side, the condensed annual goals are written down and are to be implemented in the shorter term. The top quadrant shows the actions, strategies and approaches that have been identified as essential steps in achieving the goals. Finally, the last quadrant, on the right, shows the key figures that are of particular importance. In addition, the areas, departments, or employees who contribute to the strategies are also discussed.

Roles & Responsibilities

To efficiently use the Hoshin Kanri concept, three roles are required: Leadership Team, Team Members, and Hoshin Kanri Core Committee. The Leadership Team plays the role of a steering committee and is responsible for the creation and execution of strategic plans. Team members are part of strategic initiatives. The goal of Hoshin Kanri is to organise cross-functional teams led by a Team Leader. Hoshin Planning Core Committee composes key initiators of the Hoshin Kanri implementation within the organisation. Their goal is to prepare plans, review, and implement corrections through Hoshin policies.

Pros & Cons

Hoshin Kanri places emphasis on measurable objectives and is solution-oriented.
It recognises the fact that the long-term results are strongly impacted by today's actions at every level of the organisation. The concept ensures that every employee is aligned with the organisational strategy, which increases engagement among the employees. Finally, the Hoshin Kanri X-Matrix is applicable at all levels of the company and in all departments to align and review strategy implementation.

A major disadvantage of Hoshin Kanri is the rigid and extensive implementation.
The implementation of Hoshin Kanri requires a lot of patience and commitment before noticing the positive impact of the concept.

Key Takeaway

Hoshin Kanri is a holistic lean concept used for improving an organisation's ability to guide the strategic improvement of an entire company in an agreed-upon direction

3.4.6 OGSM

Positioning

The origin of OGSM is unclear. However, it can be traced back to 1950s Japan with roots in Total Quality Management. The abbreviation OGSM stands for objective, goals, strategies, and measures. It is a concept to define the way to achieve planned goals. Although OGSM was initiated by car manufacturers, it could be implemented by every organisation regardless of its size. For instance, OGSM has been used by companies such as Procter & Gamble, Coca-Cola, Mars, or Reckitt Benckiser. Moreover, individual teams may also use OGSM to organise their contribution to the top-level objectives.

Application

The implementation of OGSM consists of four phases:

1. Setting objectives is done to ensure that there is a common understanding of the organisation's strategy. This should lead to setting a clear statement of objectives.
2. Choosing goals requires setting quantitative results for successful objectives. To ensure that the goals are set correctly, the SMART technique could be used.
3. The developing strategy phase refers to outlining the way the goals and objectives could be achieved. The aim of this phase is to create strategies that enable reaching the set goals.
4. Deciding on measures is based on creating the right measure to control progress. This phase could be completed by using various dashboards to visualise progress or by including tools or concepts such as the Hoshin Planning System or the Balance Scorecard. The product of this phase should be a one-page business plan.

Figure 18. OGSM (own presentation, according to smartinsights.com)

Roles & Responsibilities

OGSM requires the roles of the OGSM owner and the Process Owner to be fully implemented. The OGSM owner is mainly responsible for the results and content of OGSM. However, the ownership could also be partially delegated to other team members, who could increase the involvement of team members. The Process Owner is focused on the implementation of the plan. This role should support the team in solving certain obstacles and keeping the team sharp. The Process Owner does not need to be part of the team.

Pros & Cons

OGSM is an easy concept to follow due to its clear structure and lightweight roles and responsibilities. In addition, it provides a guideline for task prioritisation. OGSM also promotes long-term results instead of short-term wins. The final product is a straightforward and condensed one-page strategic plan. In addition to that, OGSM helps to improve progress reporting and combines various elements from vision to execution. It also supports the internal communication of the plan. Finally, OGSM ensures that the business is moving forward and achieves its goals.

OGSM requires keeping the OGSM documentation up to date, which might be time-consuming.

Key Takeaway

OGSM provides organisations with the basis for strategic planning and execution and enables companies to control their progress towards their long-term goals.

4 Implementation Examples

The following section presents implementation examples from various organisations in different industries, e.g., manufacturing, banking, or insurance. The examples show the practical implementation of agile approaches consisting of transformational as well as methodological aspects to achieve organisational agility in the real world. The sequence follows the alphabetical order of the companies.

4.1 A1 Austria Controlling – Controlling New {Thinking, Living}

Helmut Hotter is Director Controlling of A1 Telekom Austria, Austria

Initial Situation

Increasing uncertainties, a rapidly changing operating business context, shorter product life cycles, increasing complexity, and new business models have not spared the Austria Controlling unit of A1 Telekom Austria AG (hereinafter referred to as "A1"). The successful positioning as an internal business partner of the management has led to an increase in consulting topics, which are demanded frequently by A1's internal customers. As a supporting unit within the company, it was also necessary to react to constantly changing market conditions and customer requirements. Furthermore, the Controlling unit needs to ensure the capability of continuous development.

Within the company, controlling is responsible for driving efficiency and simultaneously is a role model in this respect. Within A1 Finance, for example, efforts have been made for years to offer (internal) products and services at lower costs. Since the main cost drivers in the Controlling unit are personnel costs, it has impacted the number of employees.

The increasing demand for controlling services, the increased complexity, and the extended reporting obligations (e.g., EU taxonomy) had and still have to be reconciled with the full-time equivalents (FTE) goals. Digitalisation and agilisation within the existing organisation could only keep up with this to a limited extent. Therefore, it was necessary to strive for change in the fields of demand management ("What we do in controlling") and organisational development. The future-oriented Controlling unit requires skills and technologies, which are hardly or not yet available and need to be built up in the medium term.

The Organisation and the Controlling Unit

A1 is the Austrian part of the A1 Telekom Austria Group, a leading provider of digital services and communication solutions in the Central European region with around 25 million customers in seven countries. In Austria, A1 is Austria's leading telecommunication provider with revenues of EUR 2.6 billion, approx. 5.1 million mobile customers, and 1.8 million fixed lines in 2021. The corporate's business areas include communication solutions, payment, and entertainment services as well as integrated business solutions.

These various business areas are managed, designed, supported, and planned by a Controlling unit based in Austria. Following the establishment of a company-wide "reporting factory" within the organisation of the BICC (Business Intelligence Competence Centre) in 2016, around 55 FTEs are currently employed in A1 Austria Controlling.

#Valuefoundationworldchampion – the Finance Strategy

In line with the A1 Finance vision of becoming the #valuefoundationworldchampion, a strategic focus of A1 Finance is on value-oriented and continuous change and thus the use of new working methods and tools. The aim of this initiative is to constantly align with current organisational conditions and to continuously develop the organisation. "Rethinking Controlling" – as a major and essential measure to reorganise the Controlling unit – is strongly oriented towards this strategic direction.

Before initiating the transformation, Controlling was organised in a classical and hierarchical manner with managers responsible for people management and domain topics. Although changes in the Controlling unit were introduced several years ago, outsourcing of reporting topics and the strong collaboration with business units (area controlling units) are still in vogue.

Prioritisation in the individual teams was initially possible to counteract resource pressure. However, a cross-functional prioritisation of topics became necessary over time. Nevertheless, it was difficult to realise it due to the specialisation of individual controlling functions and the organisational attachment in pre-defined teams. Looking ahead, the "old" Controlling unit was no longer capable of satisfactorily meeting the requirements described above. Hence, the previous way of working was radically questioned, and an organisational model had to be found as an answer to current and future challenges. Organisational structures characterised by a process organisation, focus on preliminary processes, and placing the customer at the centre of thinking and acting, were already established and known in other parts of the company. Those structures were considered for further development.

In autumn 2020 and with a six-month delay due to the Corona pandemic, the project "Rethinking Controlling" was initiated from a 100% home-office situation.

The Project

The aim of the project was to develop a sustainable organisation that continuously adapts to changing conditions in a dynamic and self-organised manner, focusing on the necessary transformational topics.[4] At the beginning, however, it was the approach and the set-up around the considerations that did justice to an agile work approach. The search for the right organisational model was open-ended and ex ante; it was not clear how much agility the new Controlling unit requires in order to be successful. The project team quickly realized that it was not a matter of finding the highest level of agility, but rather a suitable and customized degree.

Most of the project execution followed the agile principles. First, a diverse project team was formed out of a group of volunteers with different experiences and competences. In addition, agile roles were defined and assigned accordingly. Second, a general work mode was specified: a fixed common working time, a two-week Sprint, and the use of Epics and User Stories. Customers and stakeholders were used for gathering requirements, were integrated into the entire project process, and were contacted for regular Reviews. The project was executed in a transparent manner. In particular, the controlling employees were informed about the progress at regular and short intervals. This was particularly important to counteract uncertainties and meet the increased need for information during home office times, which were almost always present due to Corona. By including an experienced HR employee in the project team, the cross-functional aspect was also covered with links to the already established agile units in the company. The employee provided valuable

[4] Nowotny, V., Agile Unternehmen - Nur was sich bewegt, kann sich verbessern, Göttingen 2016, pp. 248

experience regarding dos and don'ts during the reorganisation project.

The project scope of "Rethinking Controlling" was fixed on the development of the essential elements of the new organisation (comparable to the "hardware") and a rough modus operandi ("software") in the sense of a minimum viable product (MVP). The launch of the new organisation triggered a new project for further developments (“fine tuning”) driven by a new agile team.

requirements within A1. This structure is based on the system founded by the American Brian J. Robertson under the title Holacracy. It is a revolutionary management system for a volatile world.

According to Robertson, a holacratic organisation form targets the coordination of work instead of focusing on people. A high degree of self-organised employees is therefore a prerequisite. The concept builds on clearly defined roles with unambiguous responsibilities

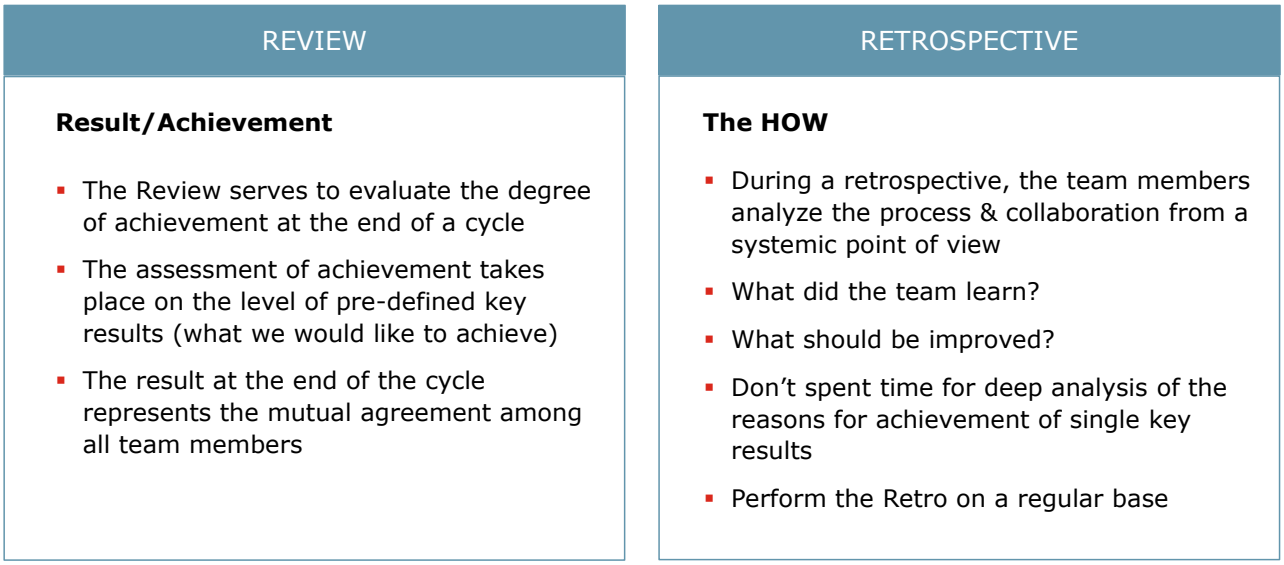

Figure 19. Illustration of exemplary agile practices

The New Organisation

In the old Controlling organisation, responsibilities were defined in static job descriptions and hierarchies. In the new organisation, the A1 controllers take on roles that are needed in the respective situation. Employees have several roles at any given time. Roles that match each other or can be divided in terms of their content form a so-called Circle. The Circles represent themes and Controlling tasks consisting of their own purpose, goals, and responsibilities. Circles are regularly redefined and questioned via a standardized process to adapt them to constantly changing

that continuously evolve through newly acquired knowledge and changing environmental conditions. Job descriptions have no place in the Holacracy concept. In fact, job descriptions typically do not reflect reality nor actual collaboration requirements. In many cases, a role is too extensive for one person. Therefore, more extensive roles are divided into several sub-roles forming a sub-cycle. The external representatives of the Circles are called Lead Links in theory. They are responsible for strategy development and the prioritisation of the topics within the Circle. Furthermore, the Leads ensure that sufficient resources, information, and (sub) roles are available within

the Circle to fulfil its purpose.[5] In the agile context, these Leads can be compared to Product Owners, who are very much concerned with the WHAT in contrast to the Circle employees, who are responsible for the HOW.

During "Rethinking Controlling", the first self-organised basic Circles were oriented towards internal customers, controlling products, and important future topics. The self-organisation of the Circles – as a key component in “Rethinking Controlling” – allows them to continuously adapt to changing customer requirements and environmental conditions as well as optimizing processes and routines.

controlling management, and the unit senior management. This person strategically addresses the Circle with topics, prioritises backlogs and prioritises resource allocation in the controlling management.

Controlling products and their roles, as well as the handling of the future topics of digitalisation and data analytics, are mapped in horizontal execution Circles, which are strategically coordinated by execution leads and represented across boundaries.

The focus of future transformational topics is ensured by visualising future themes of an individual Circle and the overlapping personnel roles across Circles.

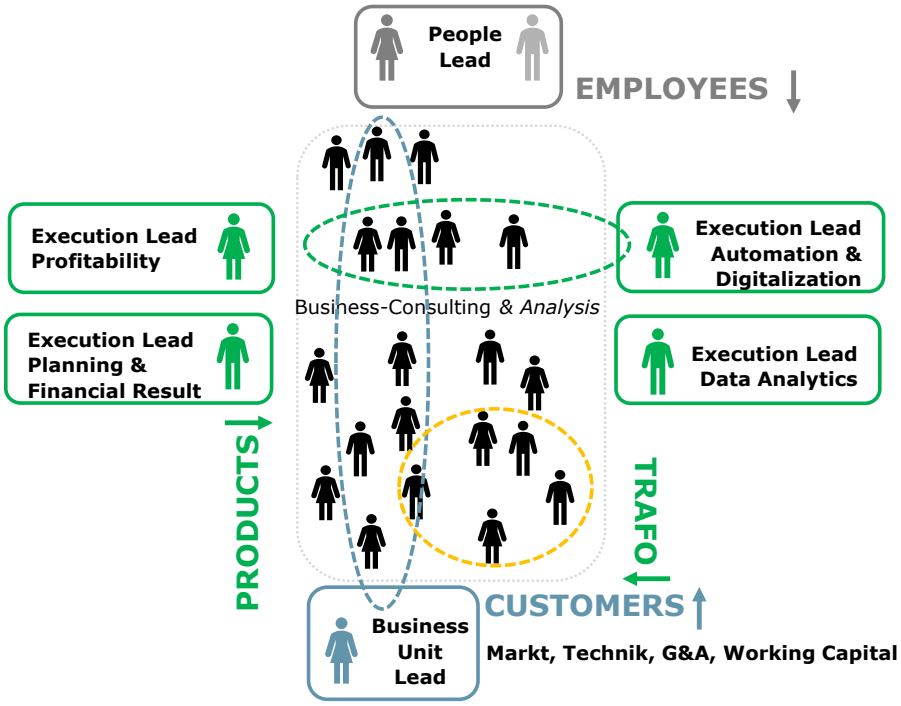

Figure 20. Organisational design according to the concept of Holocracy

In the Controlling department at A1, "Vertical Customer Circles" support business units as business contact persons and continuously challenge planning and profitability of a unit’s projects. A business unit lead establishes the link between the Circle, the higher-level

Apart from the strategic function of the Execution and Business Leads, People Leads were integrated to address the development of employees and their skills. People Leads take care of all people issues; they are in constant interaction with employees and lead functions,

[5] See Robertson, B. J., Holacracy: The Revolutionary Management System That Abolishes Hierarchy, London 2016, pp. 35

coordinate the allocation of controlling resources to the Circles, and foster people development besides "daily business". Similar to other lead functions, People Leads typically perform multiple roles within a Circle. This means that there are no full-time lead roles.

In the case of new (larger) tasks (e.g., implementation of IFRS15 or controlling projects), new Circles are initiated which have a temporary character and consist of a clear purpose. In contrast to classic projects, the colleagues work in an agile mode with a Product Owner and an Agile Master, who are called Lead and Circle speaker at A1. The controlling employees and their tasks are managed within the framework of the CO dailies, the CO steering, and the CO-all – a weekly Stand-Up consisting of all controllers.

In the future, controlling employees will work in several circles, depending on their qualifications and interests, and they will be capable to actively participate in and shape new topics in case they have free resources and can use their own initiative. Participation in several circles has the advantage of broadening controlling know-how (T-Shape goal within the Finance Strategy), dealing with various topics, and improve corporate internal networking. The latest organisational developments enable the corporation and the controlling department to address the following issues: increase adaptability regarding volatile and complex customer needs, shorten decision-making paths, improve the focus on digitalisation and automation, and emphasise data-driven decision-making for gaining resource-efficiencies and fact-based actions.

Since the launch of the organisation, the team of "Controlling in a new way" continuously worked on improving the "operating system". Roles and tasks are specified more precisely. It is also about "becoming agile". Based on the various experiences within the corporation, it became clear that textbook agile processes and methods hardly lead to success. Agile working should rather be aligned with corporate principles and characteristics. Therefore, it is important to create spaces of experience in which elements help to make the agile principles tangible. In addition, standards and templates for agile work in controlling were developed (e.g., how to conduct a retrospective), which can be optionally utilised by the controllers.

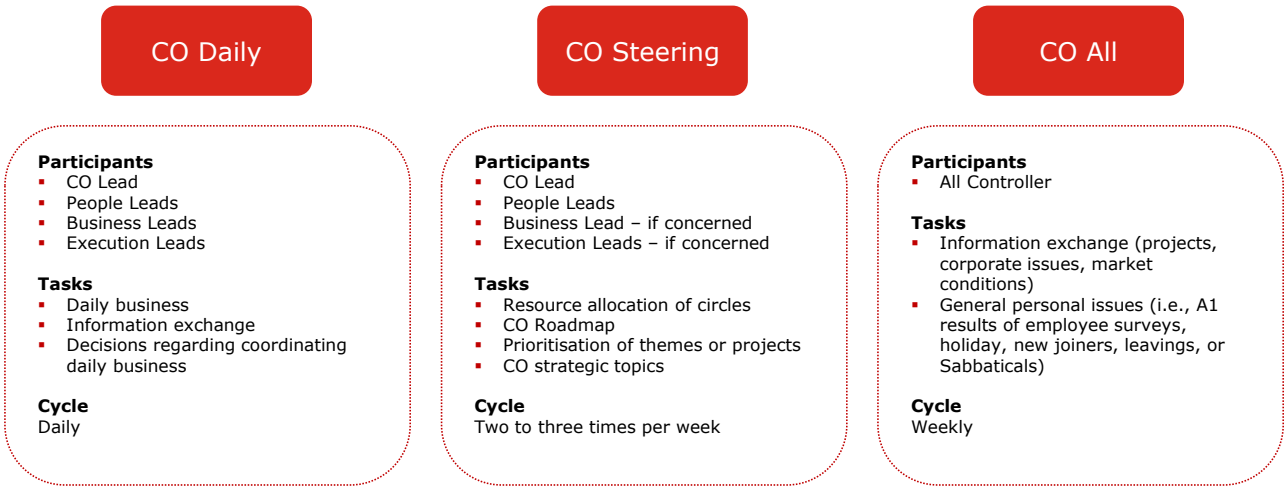

Figure 21. Steering Controlling (CO) - following a transparent and open information exchange

To conclude, after three quarters of a year and since the launch of the new organisation, many positive aspects have been achieved. This is reflected by high employee satisfaction in an employee survey. Even though there are still many hurdles to overcome and constant improvements are being initiated, the agile principle of continuous improvement is actively lived at A1.

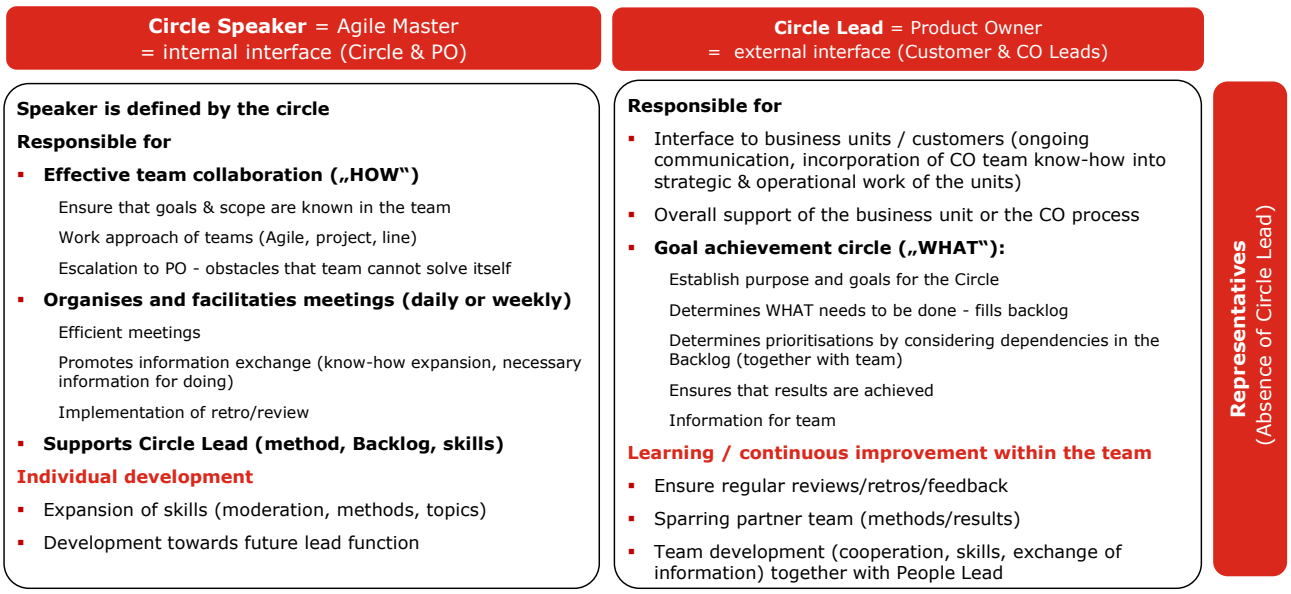

Figure 22. Controlling (CO) roles

Principles for Representation in the Circle

- Representation is part of the autonomy of the Circle
- Representation is a learning and development issue (T-Shape to go)
- Representation is important and we take time for it (both sides)

- Circle thematises and prioritises representation timetable
- Each controller has a substitution for each topic (n people)
- Documentation facilitates substitution, especially for heterogeneous topics
- Contact persons in the department must be known (and vice versa)
- Determine depth of support (e.g., high-level monthly analysis yes, deep dive no)

Figure 23. Principles within the Circle

4.2 Agility in Controlling at Bosch Service Solutions

Sven Grandi is CFO of Bosch Service Solutions, Germany

Moritz Möbus is Executive Assistant of the CFO of Bosch Service Solutions, Germany

Introduction

In a dynamic and rapidly growing service market environment, Bosch Service Solutions' Finance and Controlling function focuses on customer and employee orientation, flexibility, and speed to ensure sustainable and effective corporate success. The achievement of those objectives is strengthened by applying agile methods such as "Agile Leadership", "User Experience", and "Design Thinking".
The advantages of agile methods and leadership are demonstrated along a project, targeting the introduction of a “Cost Centre Self-Reporting”.

Bosch Service Solutions (SO) is a leading global provider of Business Process Outsourcing for complex business processes and services. Using the latest technology and the Internet of Things, the Bosch division develops integrated and innovative service solutions in the areas of Mobility, Monitoring, and Customer Experience. Around 10,000 associates at 36 locations support national and international customers in around 40 languages, primarily from the automotive, travel and logistics sectors as well as information and communication technology.

As one of 14 divisions in the Bosch Group, SO has the global product and profit responsibility for its business activities. The Finance and Controlling function is responsible for financial planning and analysis, strategic controlling initiatives as well as operational activities including risk management, global reporting, and a wide range of profitability analyses. Both the active sales (i.e., pricing of services) and operations support (i.e., improving productivity and efficiency) are central elements of the controlling activities. The strategic development of the Finance and Controlling function is part of the Bosch Finance Transformation initiative. The transformation constitutes a joint concept development on group level and a corresponding implementation in all divisions.

Agile Leadership and Mission Statement

"We LEAD Bosch" is the building block for collaboration and leadership at Bosch. It consists of ten principles providing strong guidance for some 400,000 employees and managers worldwide across all functions and business sectors. From an agile leadership perspective, core components are quick decision-making, goal-oriented and transparent communication across all hierarchical levels, and an innovation culture which perceives mistakes as an opportunity to learn. This agile leadership approach is proactively used in the Finance and Controlling function of Bosch Service Solutions.

Moreover, the global Controlling team sharpened the value proposition of the function and closely aligned it with the needs of the internal customers. The insights were summarised in the mission statement "We are valued Business Partners with passion". In addition to role clarity for internal customers and increased role identification for employees, the mission statement also addresses the very important emotional and human-related factors and so supports an effective day-to-day collaboration with “passion”. The individual letters of “passion” describe major tasks and responsibilities of the Finance and Controlling function. It further conveys the mindset of the Controlling team and guarantees compliance with legal requirements and internal regulations of the Bosch Group. This mission statement guides all activities of the employees, promotes agile and customer-centric behaviour, and is valued throughout the organisation.

Figure 24. Bosch leadership principles

Internal and external changes play a decisive role in the overall Bosch Finance Transformation. Digitisation as a megatrend of the twenty-first century offers new opportunities for the Controlling organisation. Additionally, the Controlling team plays a substantial role in the development of new business models. To sum it up, in today's VUCA world dynamics and changes are continuously increasing and need to be answered appropriately. Therefore, also the Finance and Controlling function must always remain flexible and adaptable by using appropriate tools and methods. To meet these requirements, Bosch Service Solutions launched “Agile Controlling” defined as "*the release of gridlocked processes to become more flexible by increasing customer orientation and focusing on customer needs".* The ongoing enhancement of the leadership culture towards more agility provides employees with more autonomy and responsibility and promotes the path towards an agile organisation in general. The consistent use of agile and digital methods increases process speed, triggers efficiency gains, and ultimately offers employees the opportunity to use their skills for more value-creating activities and less manual reporting tasks.

Implementation of Cost Centre Self-Reporting using UX and Design Thinking

User Experience (UX) is a core agile method supporting the objective of customer-centricity. UX focuses on all aspects of the customer’s perception of a product or service, including the current product status, its functionalities, the interfaces between humans and machines, available features, relevant services, and the customer experience during the purchase process. Consequently, a positive UX directly increases customer satisfaction. Structured UX interviews are an instrument for collecting essential customer needs and aggregating them into relevant clusters. In another step, the clusters can be used for defining appropriate measures to improve the UX.

The agile methods described above were initially used as a pilot for the introduction of a Cost Centre Self-Reporting System at the headquarters of SO in Frankfurt, Germany.

Figure 25. Mission statement of the SO Controlling team

The first step addresses the identification of the core users of the Cost Centre Self-Reporting System. Knowing the users of the application is highly important for analysing and optimising the process. Only those who know their users and needs can empathise with them to generate a positive UX.

To understand and identify user needs of the Cost Centre Reporting System, UX interviews were conducted with several cost centre managers from different functional areas. The goal of the interviews was to obtain a holistic picture of the current Cost Centre Reporting process. Both personal experiences and expectations were described by various customers. Therefore, open questions were asked to provide customers with the opportunity to express their needs and wishes. UX made it possible to understand the situation of the customers and to identify key elements of the current process. All participants welcomed and gratefully accepted the implementation of the agile method UX. The findings of the UX interviews were evaluated on the UX board.

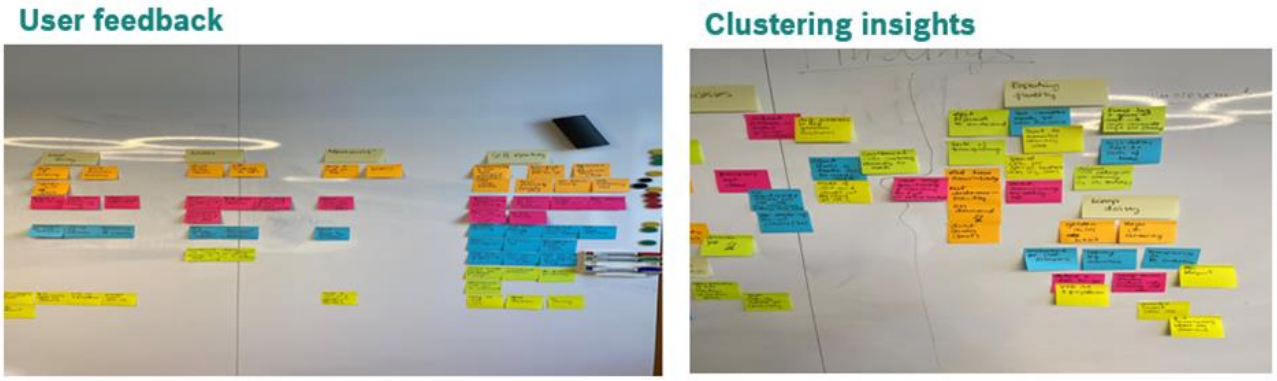

Figure 26. UX Board

The feedback of all interview partners was processed, evaluated, and categorised into clusters. This served the project team with the opportunity to generate an overall picture of the user feedback and to obtain important input and aspects for the agile Cost Centre Self-Reporting System. The results summarise user challenges, their subjective experiences, and their future needs. Afterwards, a distinction was made between "Top Findings" and "General Findings". Top Findings represent the user's most critical aspects when it comes to Cost Centre Self-Reporting. In contrast, General Findings do not specifically relate to the topic but can be valuable and interesting in the overall context of the system for potential optimisation. After clustering the results into the two categories, possible solutions were discussed and elaborated on in the team. The evaluation quickly showed the need of a flexible, constantly available, and Controlling-independent data access by cost centre managers. In addition, it is important for customers that newly developed solutions deliver fast and stable performance, as well as being user-friendly and easy to use. The findings of the UX interviews also suggest a "one-click solution" without the need to enter passwords multiple times for different systems. Finally, the evaluation showed that individual cost elements via a drill-down function, a graphic display of the results, and the option to select and compare different scenarios (actual, forecast, plan) were frequently mentioned by customers.

The second phase of the project focused on the technical implementation of the system, which was carried out in collaboration with corporate headquarters to use available know-how and synergy effects across divisions. The development of the Power BI solution was conducted by using the agile method "Design Thinking". The agile work approach aims for a flexible and lean development process and thus gets the software up and running more quickly than in a classic, plan-driven process model. Therefore, the design phase was reduced to a minimum to deploy functional software features as quickly and early in the development process as possible.

The individual development steps are carried out in so-called sprints with a fixed development cycle length, usually a few weeks only. In addition to design and development activities, sprints always include testing and reviewing software functions by relevant users to ultimately increase their customer satisfaction. Sprints belong to the agile method Scrum and replace work packages of the traditional project management approach.

After several sprints, a Power BI prototype was developed and ready for use. Final design changes were realised based on further intensive user tests. The most important features from the customer's point of view were integrated and visualised in Cost Centre Self-Reporting.

Now, cost centre managers have direct access to their data, can flexibly select reporting months and years, and choose individual cost centres or cost centre groups. In addition, it is possible to compare data with selected reference periods (previous year, plan, forecast, still-to-go). Another feature represents the drill-down function for selecting individual cost types and their detailed information (i.e., for personnel costs, further details according to remuneration, overtime, special payments, pension scheme, etc.) to analyse deviations. Finally, a positive UX is generated by dashboards, displaying selected KPIs, e.g., cost development in a monthly graph. The user onboarding was supported by an expert team with online training for the installation and application of the most important features. The new Power BI solution increased not only customer satisfaction but also improved employee satisfaction in the Controlling team. The positive customer feedback during the pilot project in Germany triggered the next step, namely the worldwide rollout of Cost Centre Self-Reporting.

Conclusion

Within the dynamic service market environment, the Finance and Controlling team of Bosch Service Solutions applies agile methods for the

sustainable development of the function and so contributes to the overall business success.
Two aspects are crucial for agile operations of the SO Controlling team. The first is an actively promoted agile corporate culture based on common leadership principles and the second is the mission statement of the Controlling team, including a high degree of role identification for employees and expectation management for internal customers.
The positive experience with the agile methods UX and Design Thinking applied along the project of Cost Centre Self-Reporting encouraged the Controlling team to advance other topics in a similar way, which will inspire customers and employees along the further finance transformation journey.

4.3 Lean Portfolio Management at Croatia Insurance Plc.

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About Croatia Insurance Plc.

Croatia Insurance Plc. (CO) is the leading Croatian insurance company with a 26% market share of the total written premium on the Croatian market. The company provides a wide range of insurance lines, such as life, property, motor, transport, casualty, health, and credit insurance, as well as reinsurance. It also offers pension fund management, private medical services, vehicle inspection services and financing. As of 2014, the company has been part of the Adris Group, one of the most successful companies in Croatia, a leader according to the criteria of profitability, competitiveness, and innovation.

Given its role as a market leader, the development of innovative products, the implementation of new technologies, and a clear client-oriented approach are imperative. To create a stable foundation for organic growth and potential acquisitions on the regional market, the company's primary focus is on long-term value creation through continuous business model transformation.

The Journey from Traditional to Lean Portfolio Management

Fast response to a constantly changing and ever-evolving landscape has become a key competence, especially in the insurance industry, which was accustomed to measuring the pace of change in decades rather than years or quarters. For a long time, predictability was the name of the game as opposed to delivering customer value.

Successful companies think about their future in the context of macro topics around them, not just trends in their own sector. To maintain the leading market role, CO had to rethink its strategy and its operational model. Instead of adapting to ongoing trends, as other competitors did, the decision was to turn them to its advantage. In 2019, the company initiated three large transformational programs: lean business transformation (Sprint), IT transformation (New Core) and digital transformation (launch of a 100% digital insurance brand Loqo).

Balancing growth and profitability was not an easy task. Supporting a significant investment cycle while strengthening the market position demanded zero tolerance towards any inefficiency. That is where the CO lean business transformation program Sprint played the key role.

Step 1: Shift from Profit to Value-Oriented Goals

To achieve a 5-year strategic plan, a value stream mapping exercise was performed across the entire organisation. Based on desired value creation, 18 transformation initiatives were defined.

All initiatives were designed around the idea of generating additional value instead of profit maximization. Good examples of CO achieving efficiency through value-generation instead of cost cutting are the 'AA-based pricing' initiative which was defined instead of linear price increases and the 'Redesigning sales network incentive scheme' initiative to ensure maximum return instead of cutting commissions.

The Plan-Do-Check-Act cycle is frequently used to provide structure to continuous improvement efforts in all initiatives. The anti-fraud process is a great example, as it went from process improvement based on a Closed File Review to introducing an automated fraud detection process. Furthermore, AA models complemented automation where now the company is introducing RPA to reduce

assessor waste time. The goal is to get from idea to process improvement piloting within two months, with the aim to scale or fail fast.

In robust organisations, it is utopian to expect a complete shift from a traditional to an agile way of working. Being aware that a hybrid setup was the right fit for CO, the goal was set to become more agile in the delivery of strategic, transformation initiatives, where idea time-to-market is of the essence. For that, a shift from traditional to lean project portfolio management was required.

Step 2: Introduction of Lean Project Portfolio Management

The new portfolio management process had to ensure each project delivers 5 goals: contribution to strategy execution, decision-making consistency, line management independence, self-organizing project planning and resource management, and absolute transparency.

Contribution to strategy execution

Each CO project needs to go through the project nomination process. Besides the regular project description, to assess project value-contribution to corporate strategy, a predefined set of information is required:

- Strategic relevance (strategic pillar contribution)
- Commercial contribution (customer base impact, expected commercial gain)
- Operational efficiency contribution (process automation, cross-functional relevance)
- P&L effect (premium and cost effect, financing, and resource requirements)
- Regulatory requirements (legislative, risk mitigation, compliance)

Decision-making consistency

Within the project nomination form, the initiative owner is required to submit a valuation form. A value score is assigned to the initiative based on the predefined set of criteria to assure decision-making consistency. The value score is comprised of both value contribution and resource intensity as it considers the budget, resources, and time required to deliver the proposed change. Once a project receives a value score, the project owner is required to work out initiative epics which are allocated to

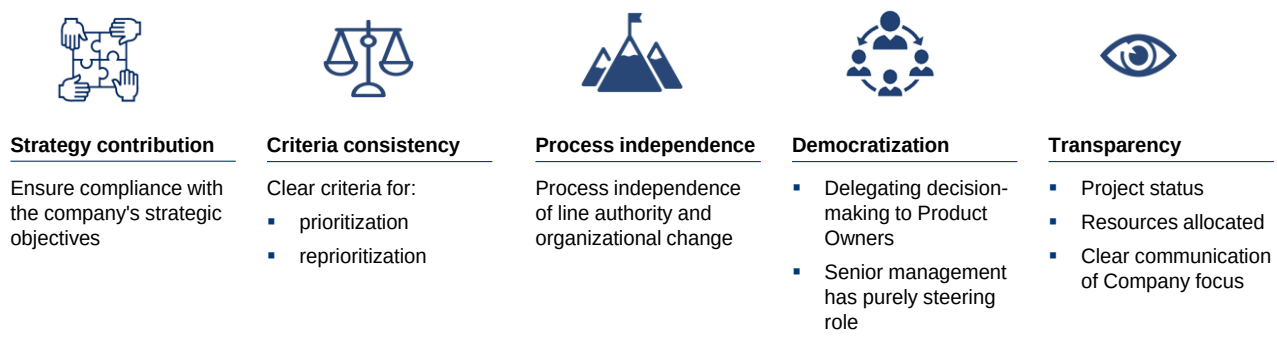

Figure 27. Lean Portfolio Management goals

the product backlog of agile development teams.

role of the Transformation Office was designed around the aim to ensure that team effort is contributing to desirable strategic outcomes

Priority criterion	Points >	1	3	5
Strategic priority				
New product - commercially critical				
Yearly GWP increase		<1,000,000 HRK	1,000,000-5,000,000 HRK	>5,000,000 HRK
Market oriented project with non-financial benefit mid-/long-term				
Customer-oriented BPR				
Internal BPR/process automation		1 Department	2+ Departments	
Cost reduction		<500,000 HRK	500,000 - 2,000,000 HRK	>2,000,000 HRK
Risk reduction		1 Department	2+ Departments	
Legal requirement				
Internal audit recommendation				
External audit/Regulator recommendation				
Financial sanction		<750,000 HRK	750,000-3,500,000 HRK	> 3,500,000 HRK
Non-financial sanction (loss of license)				
Estimated implementation time		>100 MD	30-100 MD	<30 MD

Figure 28. Initiative scoring based on value contribution criteria

without the interference of line management.

Line management independence

To realise the full value of any transformation, business and technology teams must become aligned and stay aligned. Within a traditional approach, business units provide cost and time estimates of their business ideas and executives prioritise funding based on perceived value delivery in 12 months or longer. Teams are measured according to how well they can stay on budget and on time. This ensures outcome predictability but does not necessarily result in progress, which is measured by a company's ability to respond to market dynamics in a faster, more innovative and customer-centric way.

Traditional methods of portfolio management historically proved to be insufficiently efficient at CO. The decision was made to adopt leaner portfolio management practices to drive alignment across the entire organisation. The

The portfolio management process was redesigned in a way that an idea for a business improvement initiative can arise from any part of the organisation. All initiatives follow the same assessment flow, where initiative value scoring results in the funding of portfolio teams based on the enterprise's strategic needs.
The Transformation Office is responsible for progress and result monitoring to make sure all teams are aligned towards the execution of a defined strategy.

The leadership team makes decisions at a set cadence, and both the project activities and the governance follow that cadence to synchronize and align the planning and feedback loops.
The Lean process provides Agile teams with more autonomy for faster, better decision-making by empowering those closest to the work with the autonomy to make decisions.
Changes within project planning and resources

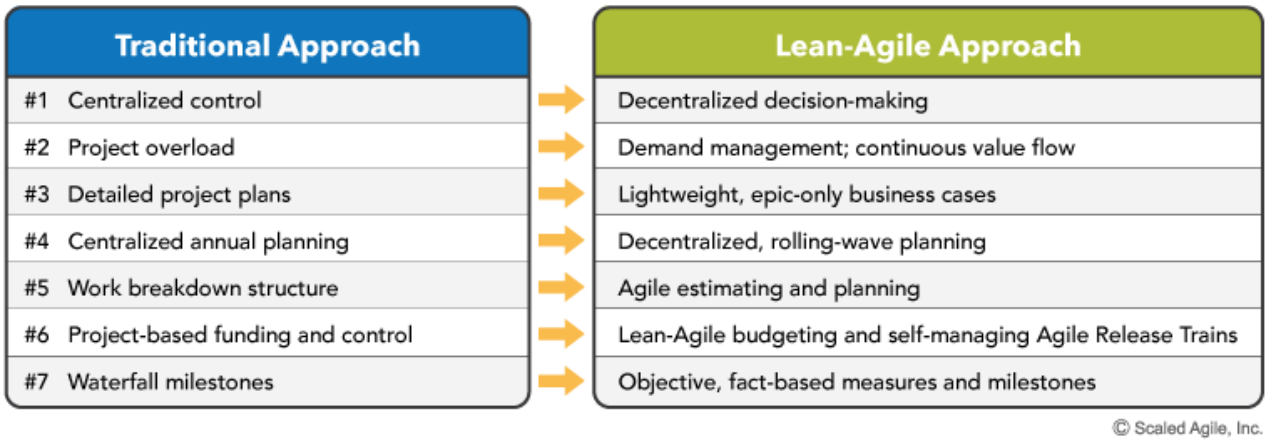

Figure 30. Difference from traditional to lean-agile approach (derived from https://www.scaledagileframework.com/extend-to-the-portfolio/)

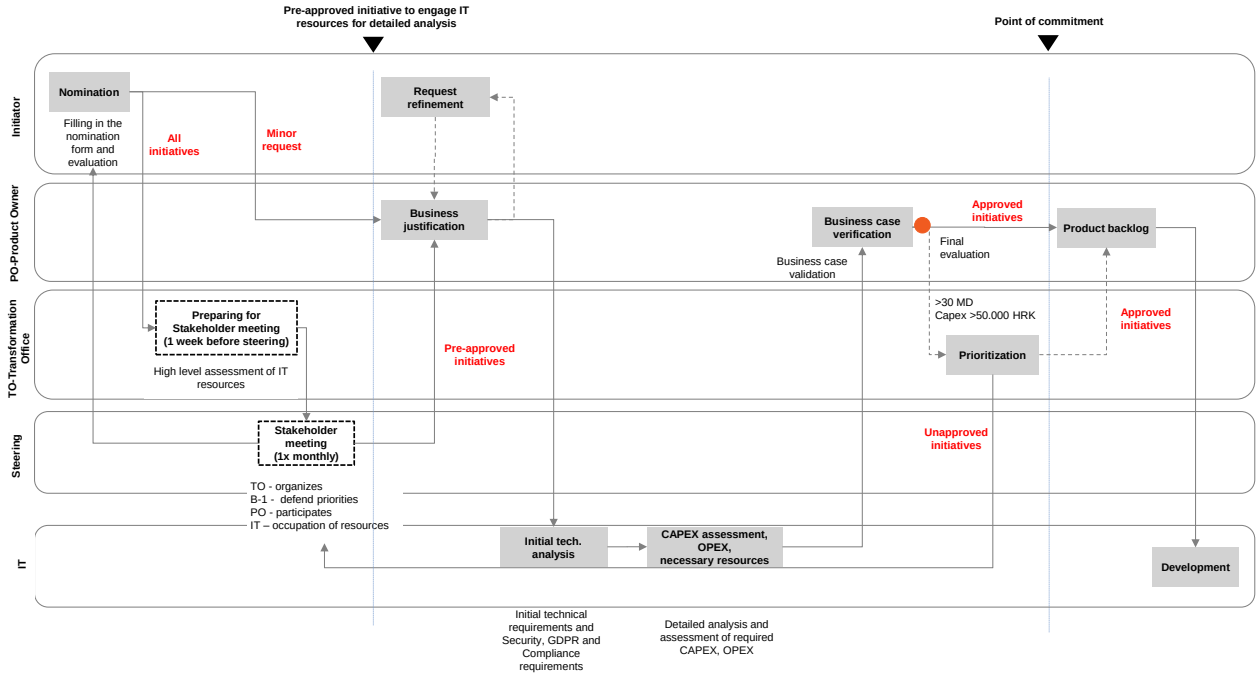

Figure 29. Project investment approval process

at CO are handled at the project level without having to involve senior management, providing more time for senior management to handle more strategic work.

Self-organizing project planning and resource management

Working with multiple teams and projects at the same time, the largest challenge is to coordinate planning and resource allocation optimally in order to ensure the time-critical release schedule. The first step where this challenge is filtered is regular project portfolio team alignment. Both project owners and

technical leads discuss requirements and interdependencies. The team works out the optimal proposal for resource allocation and communicates risk, delays, and proposed scope adjustments to the Transformation Office. If several value streams are needed to complete an initiative within a scheduled cadence, business owners and stakeholders sit together to decide how to allocate investments. Although these conversations can be difficult, they result in a more informed, more inclusive system that ultimately makes the organisation more effective. This model creates a forum where value stream leaders share, learn, and help to ensure that the organisation is making the best use of its resources.

focus are documented, assuring compliance to the defined process and governance model.

The Project Portfolio Kanban is linked with each individual initiative project board providing relevant information about a project easily and efficiently at a different level of detail depending on the stakeholder. Regular stakeholder updates are provided in real time, with a deep dive option in case of problem-solving or resource reallocation requirements. Project delays and missed milestones can derail any project. A single stuck task creates a cascading effect because of dependencies in the project. Transparency is crucial in this case, so project managers and team members can identify the bottleneck and work out solutions to correct

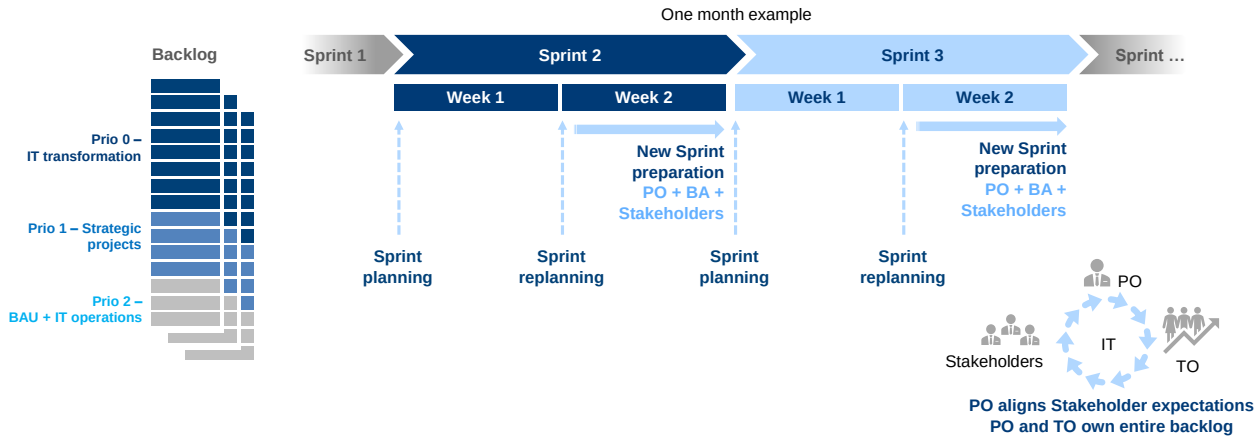

Figure 31. Agile project planning

Absolute transparency

Like so many things, creating transparency requires the right tools. Choosing the best software that works well for your team can give you the framework you need to give your team the transparency needed to become even more successful. The entire CO project lifecycle is communicated and reported through Project Portfolio Kanban in Jira. Each stakeholder has full transparency over project scope and evolution. All changes to scope, dynamics, and

the situation before it becomes too late for any action.

Everyone wants to understand how his or her part contributes to the larger goals of team management or the company. With this purpose, a dashboard overview is prepared showing both project ranking based on value contribution as well as approval status and reasoning. By giving all employees a view of the big picture encourages collaboration and initiative-taking.

Step 3: Capability Building

Ensuring all necessary changes to happen in a short period of time, a shift in mindset was required. Besides usual HR practices of adopting new, digital skills, the most effective way of capability building proved to be the promotion of diversity of thinking and healthy conflict. Having teams organized around value streams granted cross-functionality. A mindset shift towards E2E customer process thinking pointed out some missing capabilities, where external, diverse industry hirings were needed (especially on customer facing and support functions). Horizontal management rotations as well as internal promotions often came naturally. Even top management was given stretch roles, with board members being assigned project sponsor roles on projects outside of their direct line of responsibility. This proved to be very fruitful, especially in mentoring-up, supporting an active learning approach on all levels.

Existing performance management was complemented with SMART goals which include employee competence assessment and 360 feedback. The entire progress was communicated to every part of the organisation through regular top management blogs and by introducing a mobile-first internal social network.

Key Takeaways

A Lean Transformation implies a fundamental shift from traditional management practices towards a more value-driven, streamlined approach. In some organisations, it begins as an isolated case led by a single team, eventually spreading throughout the organisation, whilst in others it is a call from the top as a coordinated strategic stretch.

It is difficult to imagine that all organisations follow the same approach. An example from CO shows that the successful initiation of Lean management practices, even in a conservative and resilient industry such as insurance, can be done within 3 years by applying four essential elements, identified as:

1. Shift from profit to value-oriented goals
2. Introduction of a lean project portfolio management
3. Capability building

The journey from a traditional to a lean portfolio management is a series of transitions for an organisation. Making learning and successes visible across the organisation is critical for open communication, feeding employee ambition for innovation and building trust in leadership.

4.4 Agile Development of a new Controlling Unit: The Case of Hays Financial Business Development

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Marius Knierim is Head of Value Creation of Hays AG, Germany

Introduction

Hays plc is a personnel service provider, acting worldwide as a matchmaker between companies and candidates. The company focuses on providing many fields and industries with highly trained and well-educated experts, be it temporary or permanent candidates. Due to a rapid growth in the D-A-CH business, the firm reorganised the sales activities to create synergies and increase productivity. In addition to responding to the changed business structure, the Controlling department itself identified need for change to better serve its customers by acting as business partners and not only as a report sender. Among other things, the outcome was the development of a new team that focusses on initiatives based on the commercial and financial view and supports business initiatives with its unique view from the finance function in their implementation process. The new team established a pipeline with the logic of a Kanban board as a first step to get an overview of the customers' demands and developed an agile approach especially in terms of implementation to work on the given topics. The introduction of a Work in Progress (WIP) Limit for all activities was supported with evolving prioritisation criteria and a weekly prioritisation meeting with the CFO.

Starting with a brief introduction about Hays and their business model, the chapter describes the challenges of the controlling department based on the reorganisation of the firm and the derived vision and role for the new unit Financial Business Development as well as the roadmap to a more agile way of working with a Kanban pipeline and an agile implementation approach. Closing, the example with the status quo of learnings and planned next steps is described.

Who is Hays?

Hays plc is the leading global specialist recruitment group and continues to grow. The company provides experts for leading companies and, in doing so, shapes important major projects in all industries. As market leader in the D-A-CH region, Hays is in contact with the best specialists and knows exactly where to find the right talents and how to place them in suitable positions. In addition, the company has long-standing partnerships based on mutual trust with many of its prior specialists. The recruiting services of Hays offer companies today a comprehensive, single-source solution for the workplace challenges they will face tomorrow. In various distribution models, Hays places independent experts, fills vacancies for permanent employment, or organises temporary employee leasing. Hays is also experienced in the field of workforce management or contract work. All services are offered in various industries and fields such as Finance, Engineering, Legal, Life Sciences, or IT.

Transformation to an Agile Way of Working

The first aspect and challenge for the existing world is the tremendous and rapid growth of Hays in the D-A-CH region over the past 20 years. Although many processes are as old as Hays Germany itself, they fulfil the current requirements but are not further scalable. With almost 2,500 employees in the D-A-CH region in 2020, the number of initiatives and projects to improve those processes increased

9	specialisms
2,700	employees
3,600	customers
50,000	job searches per month
220,000	placements
450,000	candidates in our pool

Figure 32. The business of Hays in the D-A-CH region

accordingly. They span from single business unit related initiatives up to strategic growth initiatives that impact the whole company. And controlling resources were required to help with the financial aspects.

As a second impact factor the reorganisation of the business units in 2020 from 34 down to 8 was an additional trigger to transform the controlling department accordingly in order to be able to meet the expectations of the newly installed organisational structure. The controlling department at Hays D-A-CH was for the longest time responsible for "traditional" accounting activities. More and more demands from the sales business units called for other focus areas such as business partnering, giving advice on initiatives based on the commercial impact and related financial outcomes. This was the first step in separating core controlling activities and additional value-creating activities. While this first step was

Figure 33. Growth of Hays in the D-A-CH region from 2003 to 2020 in employees and Net Fees

crucial and fruitful, the business partnering team received a lot of requests to take part in projects, help with financial evaluation of initiatives, or draft business cases for projects. Again, controlling faced the dilemma on which activities to focus because of the limited capacity. In addition, the transformation revealed that there were no dedicated resources to identify and follow up on blind spots in the firm's operation procedures. E.g., during the quarterly business review process one of the controlling business partners suspects an improvement opportunity in the financials of one business unit. He or she shares the finding with the business unit head, who then can decide on whether to follow up or not based on available capacity. In this scenario, no one has the capacity to find out further whether such a situation also exists in one or more other business units and whether this improvement opportunity should not be addressed holistically.

Vision for the New Department and Transformation Roadmap

Based on the previously described challenges the starting point for creating the new team was the lack of a systematic and consistent approach to work on topics that are related to the value of the business model. Luckily there were no established processes or patterns that needed to be followed when defining the scope of topics. Therefore, the responsible people within Hays started categorizing the demands that the existing business partnering team was facing using the Cynefin matrix by Dave Snowden.[6] The team quickly realised that most of them could be identified by their complicated and complex requirements. For example, business review processes and budgeting are stable in cause-and-effect relationships and occur on a regular basis. Thinking about new business models or holistic approaches to

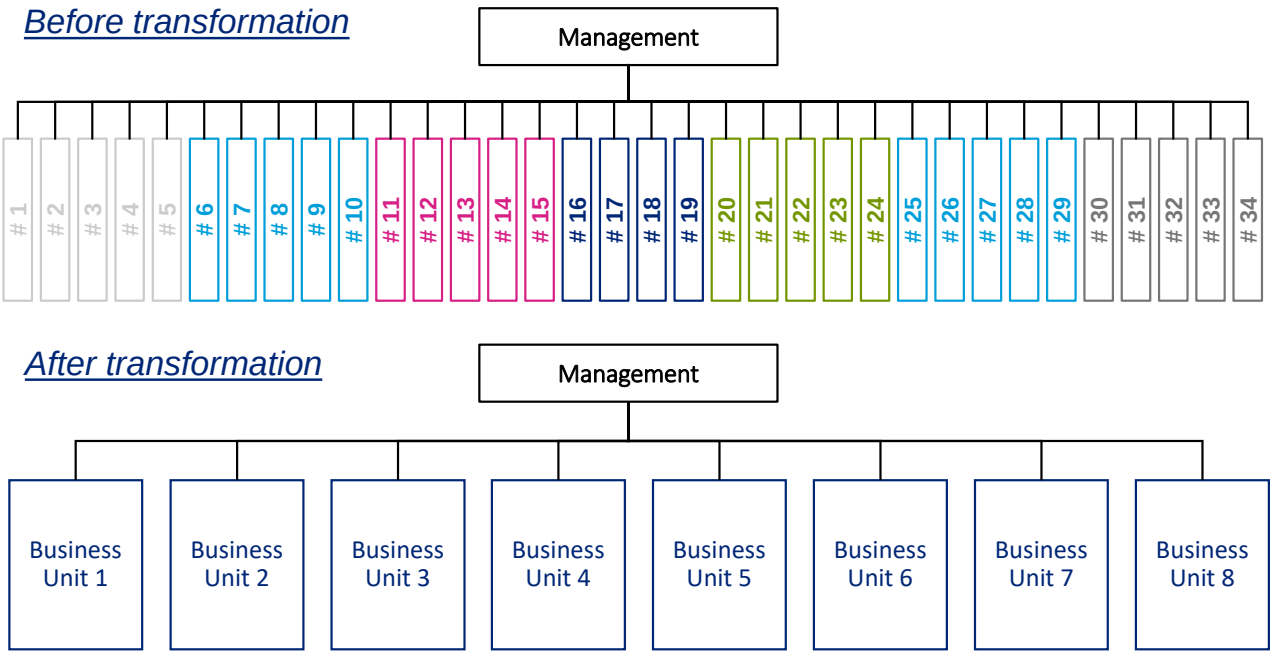


Figure 34. Reorganisation of the sales business units in the D-A-CH region

[6] Snowden, D., Cynefin: a sense of time and space, the social ecology of knowledge management, in: Despres, C., Chauvel, D (ed.): Knowledge Horizons: The Present and the Promise of Knowledge Management, 2000

optimise the company value isn't something where decision-making is easy or foreseeable and falls in the domain of complex tasks.

To begin the journey, the first rule of Kanban was used: start with what you are doing and visualise it. Based on the value proposition, categories in which the tasks could be

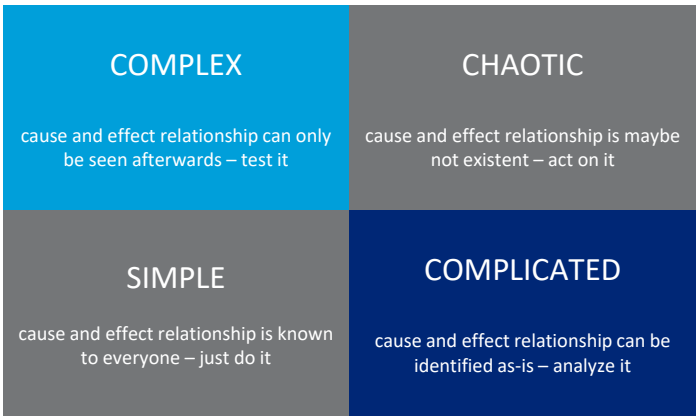


Figure 35. Cynefin matrix

With the findings of the task evaluation, a value proposition for the new team Financial Business Development was derived, stating clearly to address primarily the complex domain with suitable actions. It was identified that the top management was the primary customer segment, and it was found that the value that can be brought to them lies in the systematic and consistent search for blind spots and undiscovered value pockets regarding the business model. To derive the vision statement, the methodologies of the Value Proposition Canvas and Business Model Canvas were used.

separated were identified. The current version of the Kanban board has four columns: unprioritised backlog, prioritised backlog, work in progress, and done. All topics that were already on the agenda were sorted to set the first prioritisation criteria: financial impact for the company (the team started with sizes S, M, L, XL) and added value for the strategy. In addition, the team created four rows that allow to visualize the different levels of tasks – from new business model ideas and team-driven initiatives, strategy topics to support of small business initiatives and know-how transfer. An online collaboration whiteboard was used to

We help our customers generate value by unveiling and conquering blind spots and value pockets from a holistic perspective.

We do it systematically and consistently from start to implementation.

We are accountable for our transparent and measurable value creation.

Figure 36. Financial Business Development value proposition statement

visualise the different tasks in every category, so that everyone with the permission to edit the board can get an overview easily.

data and information on whether hypotheses are right or wrong.

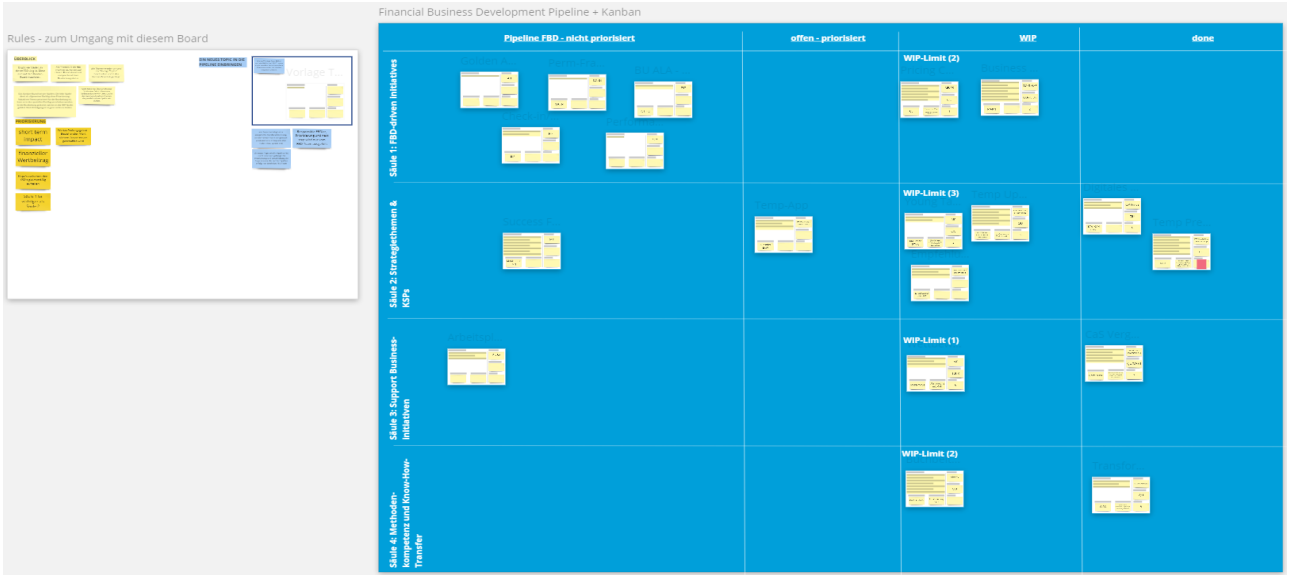


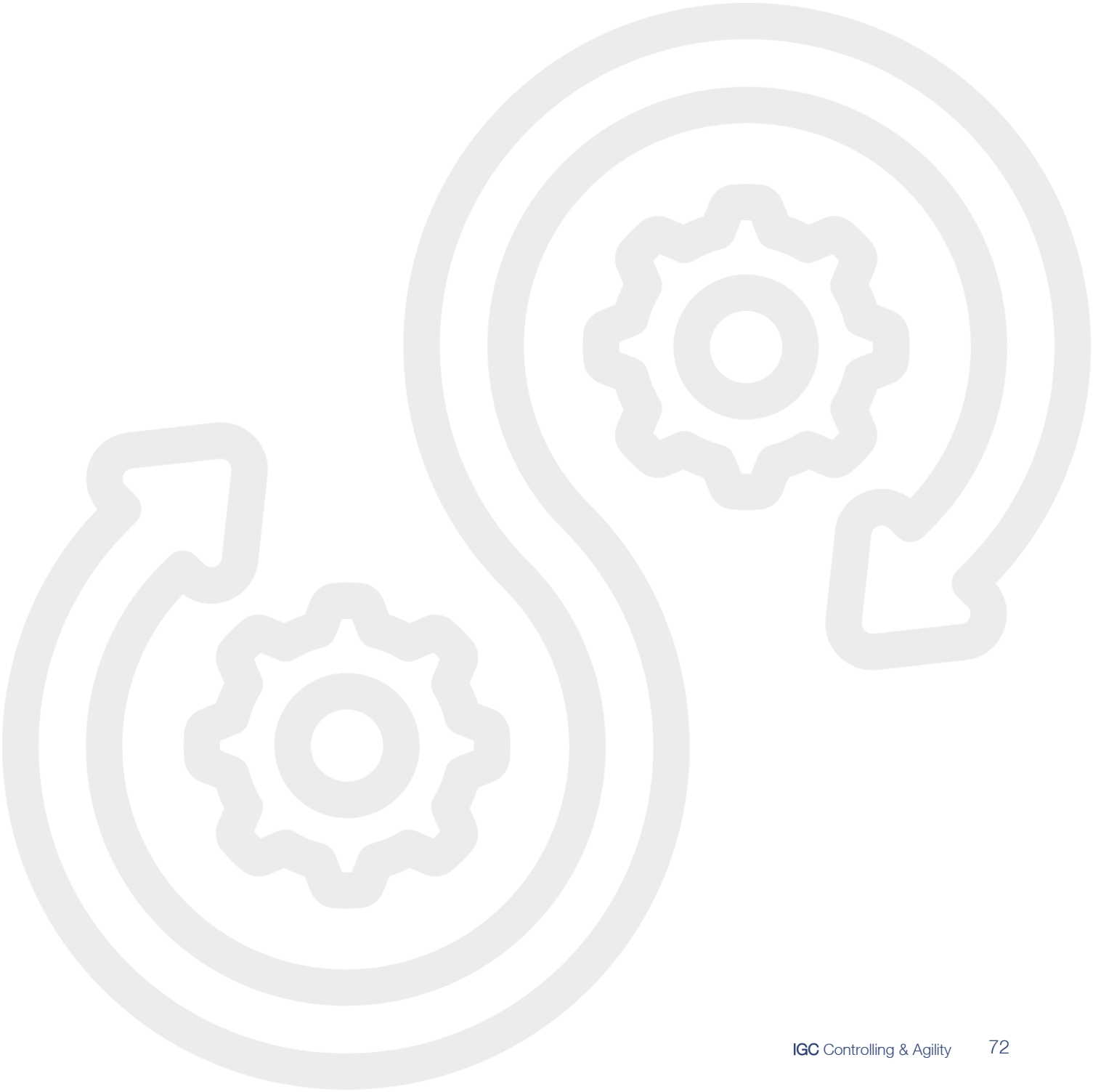
Figure 37. Online Kanban board of Financial Business Development

While the support of small business initiatives belongs more to the area of simple or complicated tasks, they can often be done in a waterfall-like approach with checklists and Excel-based analyses. For the tasks in our complex domain, we decided to follow a try storming approach. In a sales organisation like ours, even small changes in our business model often have a major financial impact when we scale them throughout the whole organisation. That's why we approach new topics from two sides. On the one hand, the team tried to use gemba (originally Japanese, used in the Lean world to go and see on site what is really going on) to obtain authentic information about the actual situation on site and to derive hypotheses that are relevant for our business model. These are then validated and used for the new business model. On the other hand, the team used the gemba insights to improve the current situation in rapid learning cycles with feedback from the organisation. This allowed us to be very quick in improving organisational processes and getting real-time

Lessons Learned and Next Steps

In the practical implementation example, the aim was to show the background and approach of a new controlling unit that improves existing business models and supports finding new ones based on the financial view. Having in mind the different levels of demands that reach the controlling department it was learned that constantly re-evaluating the nature of the demand is crucial. A weekly prioritization meeting helped to get a better understanding of the stakeholders' prioritization criteria. Although this is an approach where quick learning cycles and rapid improvements are included, the speed of a single-unit initiative is still the baseline for timelines from our business unit heads. This will be an ongoing process of change communication showing that the results on company level justify the longer timespan.

The major next step besides onboarding more colleagues to the team is developing a standard how to measure the impact as a team.
The resources and work which is put in the topics is not only valuable for the firm in terms of mindset-building but also from the financial point of view. That is everything what the Financial Business Development team is standing for.



4.5 Agile Target Setting at IGP Powder Coating

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Marc Züllig is CEO of IGP Powder Coating, Switzerland

Changing Market Conditions put an Entrepreneurial Mindset at the Centre

Agile financial management aims to break down a company`s strategy into a financial grid in order to give the organisation a strategic direction. This article focuses on strategic North Star Targets for IGP Powder Coating, Switzerland, using the House of Performance approach. IGP produces and distributes powder coatings for industrial and architectural applications. It is an independent family-owned company of the Dold Group, based in Switzerland, with 3 production plants and 10 subsidiaries in Europe and the USA. IGP employs 570 people worldwide with sales of CHF 150 million.

The leadership style in many companies is undergoing a fundamental shift from transactional to transformational leadership. The traditional budget focuses on financial metrics as the key measure of success, which is strongly rooted in the understanding of a transactional leadership style. The financial goals of the organisation are set and cascaded throughout the organisation in a "command and control" approach. Good performance means achieving the budget. The approach is based on the assumption that financial results can be planned ex ante and thus ex post control of results is reasonably possible. The assumption of absolute plannability no longer applies in most markets and companies and thus traditional financial management with detailed planning and control at the level of the cost centres collapses (Strathoff & Flinspach 2021).

Due to the lack of detailed planning at IGP, the organisation must be able to react more quickly to changes. To do this, it needs a higher degree of autonomy in decentralised decisions and thus entrepreneurial behaviour throughout the organisation. This is not compatible with the aforementioned "command and control" approach and requires decentralised empowerment. The project also involved a stronger focus on transformational leadership.

Financial North Star Targets in the Context of Planning

In the new financial management approach, the financial North Star Targets take over the motivational function of the budget. Within the framework of the financial target setting, the strategy is translated into a financial number grid. This serves as a long-term orientation for the organisation at all management levels. Planning becomes a decentralised, iterative process that takes over the coordination function of the traditional budget. Planning deals with the allocation of resources and the derivation of measures to achieve the financial North Star Targets.

This separation of target (financial North Star) and planned values (planning) increases the autonomy in the organisation in deriving the measures, which eventually supports a transformational leadership style. Measuring success is done by closing the gap between actual values (actual vs. actual comparison) to the financial North Star Targets. Thus, it is not about achieving the budget at the end of the year, but about closing strategic gaps over a strategic period of several years.

Performance Management at IGP

The starting point for the introduction of the new performance management was the alignment with the corporate culture. The entrepreneurial culture with sustainable decisions was rather undermined than promoted by the classic budget control due to its focus on the end of the business year and

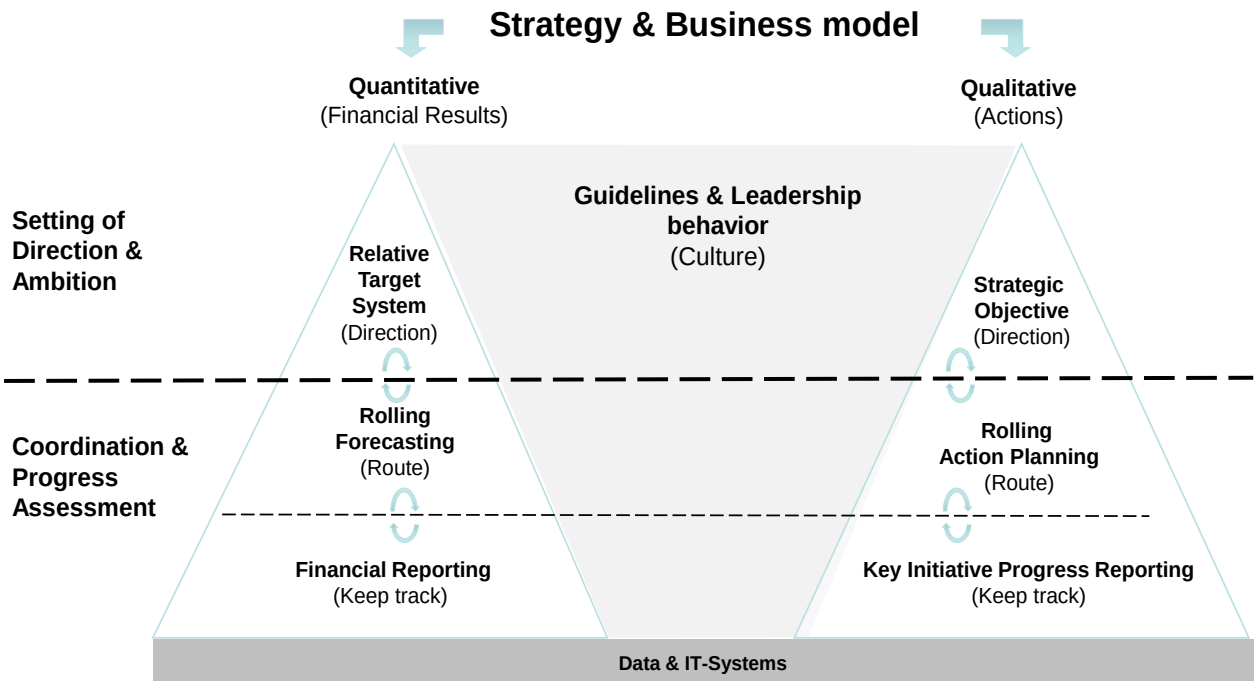


Figure 38. St. Galler Performance Management Modell (Eurich et al., 2019)

the narrow focus on cost centres. Performance management should promote a learning organisation, making clear to employees the value of their work and promoting independent development. Performance management should also promote entrepreneurial thinking, which means enabling employees to understand the strategy and its implications for their own activities and performance. Due to the strong increase in volatility of markets, more and more flexibility and agility is required. Again, annualized planning of cost centres was not considered appropriate. For this reason, it was decided to use ambitious but realistic financial North Star Targets. These are intended to translate the strategy into a numerical number grid that enables progress to be measured against the past or against the market by means of relative key figures. The financial North Star Targets serve as a medium- and long-term orientation for the organisation and allow for more autonomy in decentralised decisions due to a lower level of detail. This implies a high level of trust throughout the organisation.

The St. Gallen Performance Management Model was used as a starting point and framework for the new performance management approach. Studies show that on average 37% performance is lost between strategy and execution in day-to-day business (Mankins & Steel 2005). For this reason, the approach focuses on aligning the entire organisation with the strategy. For this purpose, as described before, a distinction is made between the goal (translation of the strategy into financial North Star Targets) and the plan as an iterative process to coordinate measures and allocate resources, the two elements are separated by the dashed horizontal line. In addition, the St. Gallen Performance Management Model distinguishes between financial goals and content goals. The content-related goals are measured and managed using strategy maps or balanced scorecards, while the financial goals are anchored in the organisation using the House of Performance (see also Eurich et al., 2019).

Financial North Star Targets in the House of Performance of IGP

The starting point for setting financial targets is the ROCE of the IGP Group compared to alternative investments in the sense of portfolio management. Within the House of Performance all financial North Star Targets are mapped out. Starting with ROCE, the KPI is broken down into its drivers Growth, Profitability, and Capital Efficiency.

For the design of the House of Performance at IGP, the value creation logic was broken down to all management levels in a consistent and

in days. The reduction of DIO is a strategic goal of the sales organisation and, at the same time, of production. The sales organisation and production are each responsible not only for their own local warehouse, but for the entire warehouse. The sales organisation can only directly influence the local warehouse and would tactically optimise the order quantities in this respect. However, by planning sales as accurately as possible, it has a strong influence on the capital tied up in the plant. If both units are controlled by the same KPI, they have an incentive to work together and optimize the DIO in terms of an overall optimum.

All KPIs in the House of Performance are

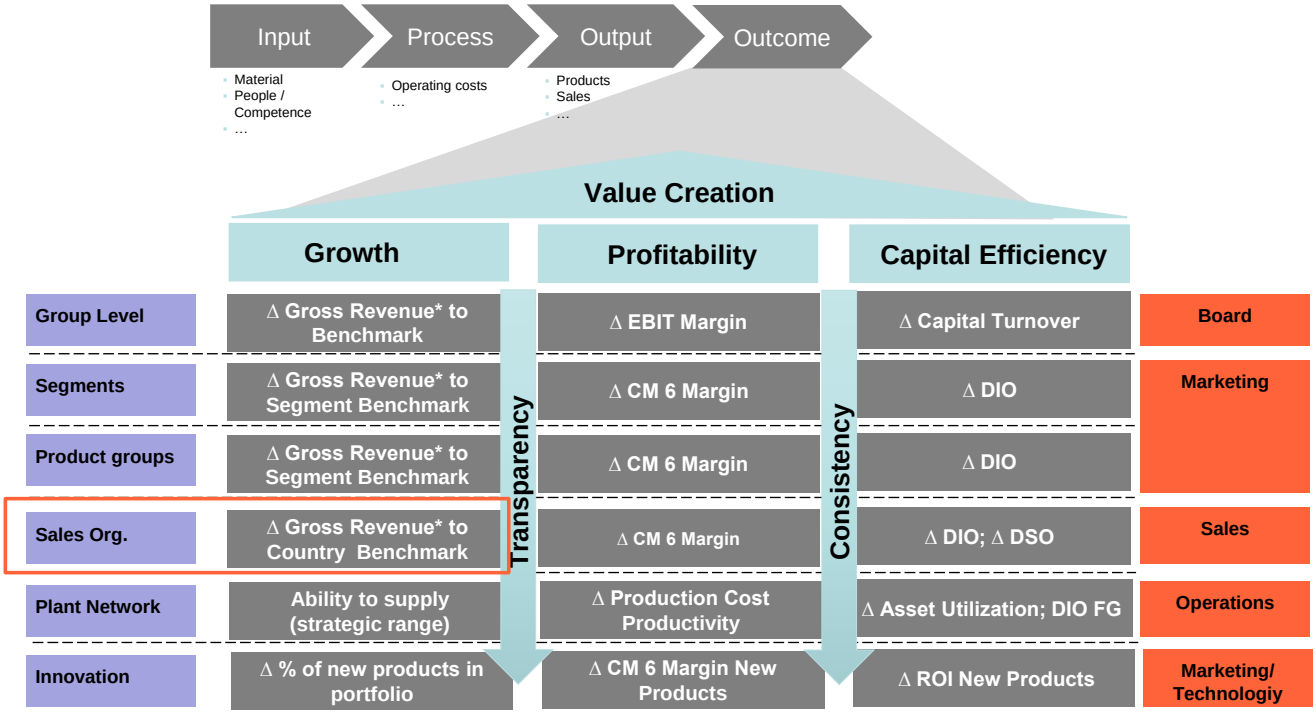


Figure 39. House of Performance Cockpit of IGP

transparent way. The definition of the KPIs follows the logic that the responsibility of the management level is always somewhat greater than the direct influenceability of the KPI. This is intended to strengthen corporate responsibility, cross-divisional cooperation and reduce silo thinking. An example here is DIO, i.e., inventory

defined as flexible, relative delta targets. The strategic ambition thus follows a relative target logic. The relative delta target varies according to a defined logic depending on a reference value (actual value of the previous period). For example, the higher the current performance is, the lower the improvement

ambition for the coming period should be. The target logic should allow maximum self-adjustment of the targets. In this way, targets can provide direction to the organisation as a long-term North Star.

For DIOs, a strategic goal of 40 days is defined. If actual performance is 60 days, an improvement of -6 days would be planned in the coming period. As actual performance increases, the value steadily decreases along a relative target curve to 0 days of improvement ambition at 40 days actual. The decreasing ambition is intended to maintain a constant difficulty in the targets. In addition, there is no incentive not to overachieve the target, because the target will decrease in the next period. This is to eliminate the so-called ratchet effect of budgeting, which penalises good performance.

The relative growth targets are also based on the market and benchmark targets are used. In contrast to the flexible relative delta targets, the reference value is flexible. The growth target is defined based on the market, which at IGP is mapped by peer group benchmarking due to a lack of alternative data. Here, a benchmark of about 50 companies is built up. The companies consist of competitors, customers, suppliers, and companies with similar market cycles. In this way, the strategic goal of "outperforming the market in the premium segment" is translated into a numerical North Star Target. Market growth is defined using the median of the growth in sales from the benchmark (for example 5%). To this is added the strategic ambition "to grow faster", therefore 2 percentage points are added. The financial North Star Target is therefore 7%. If market growth drops to 1% and IGP grows by 3%, the strategic goal would still be achieved. Thus, again a constant degree of difficulty is integrated into the self-adjusting target system. From a motivational point of view, the target system proved to be easier to communicate because it is perceived in the organisation as fair and logical compared to absolute budgets. The target values are based on growth rates that comparable companies also achieve. The selection of the companies was made with the

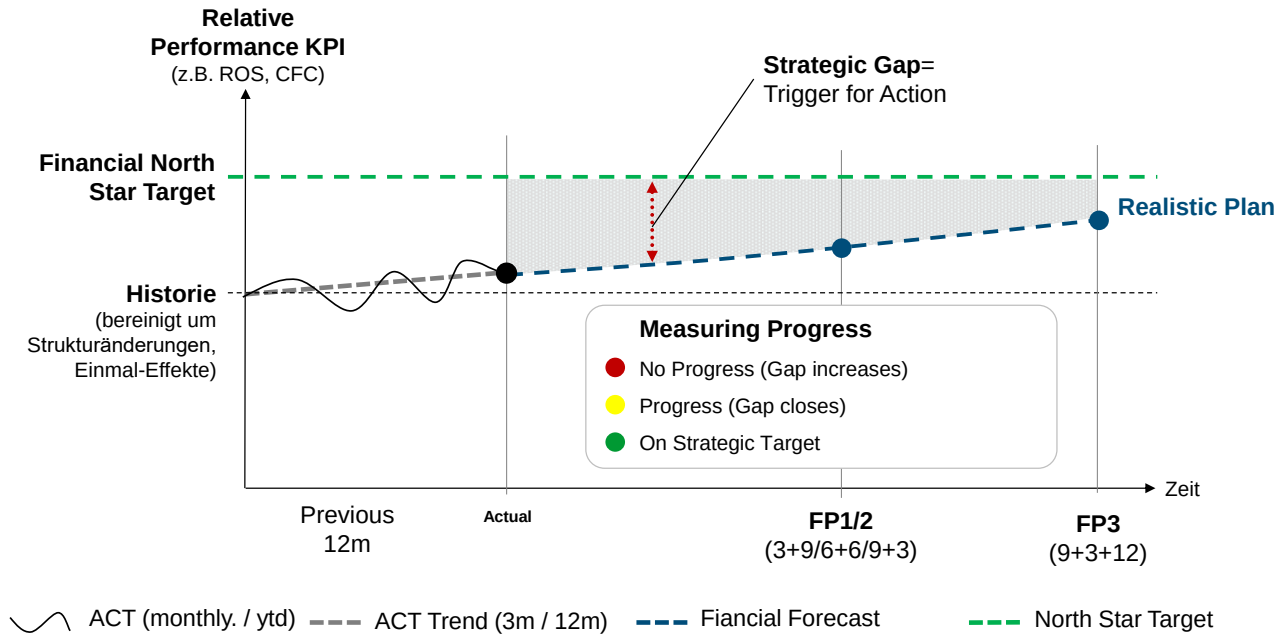


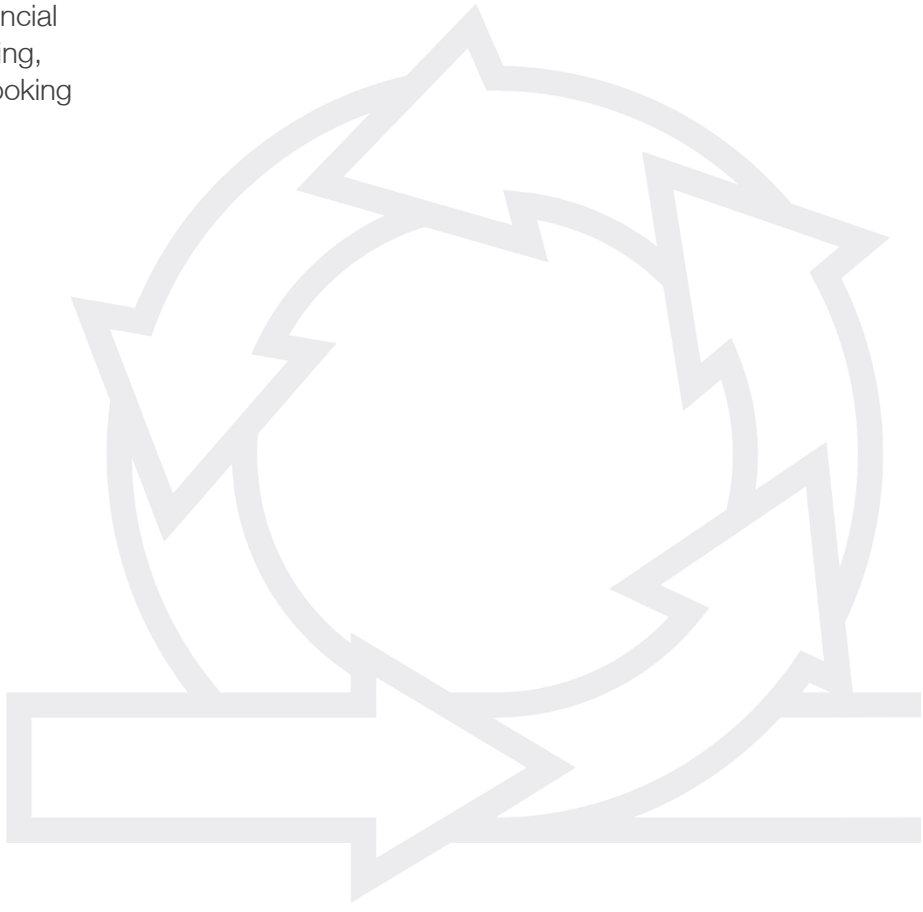
Figure 40. Measuring progress instead of target achievement (Flinspach & Isbruch, 2020)

involvement of the organisation and was not predetermined top down in order to ensure maximum acceptance.

Rolling Planning and Progress Monitoring to Close the Strategic Gap

The financial North Star Targets from the House of Performance did not replace IGP's financial planning. They reduce the targets' binding character in order to make the planning free of tactical elements. Financial planning serves purely to anticipate opportunities and risks and the target remains throughout the House of Performance. This creates a strategic gap between the planned value and the strategic target value. Success is measured by closing the strategic gap in the actual progress. This strategic gap thus plays a central role in the derivation of rolling measures. Rolling financial planning and rolling action planning are synchronized. They are supported by reporting, which focuses on progress in terms of closing the strategic gap.

Managing the strategic gap between financial North Star Targets, rolling financial planning, and actual progress enables a forward-looking discussion of measures.



4.6 Agile Transformation of an Automation Company – The KEBA Way

Gerhard Luftensteiner is CEO of KEBA AG, Austria

Introduction

KEBA is a globally operating automation firm, specialising in developing industrial, handover, and energy automation. In recent years, the environment has shifted, like for many other firms, more and more towards volatile and uncertain conditions. On the one hand, the company has lost long-term plannability, and, on the other hand, new employee generation demands co-determination and freedom in creating impact. Existing structures, values, roles, and methods, though, cause operational conflicts with dynamic changes. The leadership team, consequently, initiated an organisational transformation towards agility. The major target of the agile transformation is to ensure sustainable corporate success, customer- and employee-centricity, and shareholder value generation. In 2015, a small transformation team started to challenge the status quo, inspired by the Laloux concept, to gain decentralised and self-organised teams. Along with the concept, customised agile values and principles were specified. In addition, the traditional hierarchical concept of functions and responsibilities was removed.
The compensation system was adapted accordingly, and the planning process was changed towards a more forecast-based process.

The implementation example is structured by starting with the company description and followed by the underlying corporate challenges that spurred the need for transformation.
In another step, conceptual components of the agile transformation at KEBA are illustrated before showing the actual implementation.
The final sequence shows general gains and persisting challenges at KEBA.

KEBA

KEBA is an internationally operating, privately-owned electronic firm specialising in industrial automation, handover automation, and energy automation. The company was founded in 1968 in Linz (Austria) and operates 25 sites in 15 countries with a revenue of about EUR 500 million, with an export quota of 90% and an R&D quota of 15%. The firm's success builds on its approx. 2,000 engaged and passionate employees who drive technological innovations and strive for customer satisfaction. Customer-centricity builds the foundation of KEBA's competitive advantage. The current CEO has been steering the company since 2007, serving before for more than ten years as managing director in different countries.
He took over progressively not only responsibility, but also shares from one founder.

During the company's history, KEBA has been confronted with regular challenges, which were accompanied by ongoing organisational adaptations. Early on, the management at KEBA recognised that the corporate culture is essential for successful corporate transformations. Therefore, the company builds on the core values of professional, innovative, hand in hand, and passionate.

Like other companies, KEBA is increasingly pressured by a VUCA environment causing two major challenges: First, the company faces a lack of long-term plannability due to rapid technological, customer, and governmental changes. Traditional annual planning and scenario tools lack the flexibility to consider dynamic changes. As a result, the CEO realised increasing company result deviations in general and from individual plans over the years.
The second challenge constitutes the changing requirements, values, principles, and behaviour of empowered people. Instead of hamster wheel execution and reward systems, these employees focus on generating impact for

Business area		
Industrial automation	*Handover automation*	*Energy automation*
The development and production of automation solutions consisting of hardware and software components for machines and robots. The solutions range from operation, steering, and safety technologies. The solutions are used in the manufacturing and robotics industry.	Handover solutions target the secure and contactless handover of cash, parcels, or products as well as a controlled access to shared objects. Popular solutions are ATMs, parcel machines at postal companies, or handover machines in the healthcare sector.	Energy Automation is the pioneering area of KEBA producing solutions for electric vehicles. The solutions provide safe, reliable, and connected charging. Heating systems are another product segment in this business area.
		

Figure 41. Business areas and product portfolio of KEBA

themselves and the company by using their knowledge, skills, and capabilities. Consequently, rigid organisational systems, structures, leadership principles, and instruments conflict with the interests of tomorrow's generation. To conclude, KEBA's existing steering systems and leadership mechanisms did not address dynamic challenges but required agility, people's courage, systemic changes, and a variety of new perspectives.

Organisational Transformation Towards Agility

The vision of the agile transformation at KEBA is to ensure sustainable corporate success, customer- and employee-centricity, and shareholder value generation. Therefore, three components must be in place. First, shifting the company's focus from a one-dimensional financial to a multi-dimensional customer- and employee-oriented perspective. Instead of following strict target or budget plans to maximise an individual bonus, employees are encouraged to sense and understand customer problems to develop sustainable product

solutions. Therefore, as a second component, leaders need to shift from a hierarchical, command-and-control towards a self-control leadership approach. This means that leaders and employees need to learn that knowledge is not owned only by the leader. Employees are also capable of making decisions based on their experience, knowledge, and available information and furthermore can take responsibility for their actions. The new definition of employee responsibility, finally, requires a changing understanding of corporate roles. Instead of assigning pre-defined roles to employees, roles are adapted to employees' skills, abilities and interests, or employees choose roles that match their skills and interests.

The CEO together with the CTO initiated the agile transformation in 2015. Therefore, a core agile transformation team was formed, consisting of eight members, including the CEO, five executive members, one HR representative, and one consultant. The core task of this team was to conceptualise the overall vision and define key drivers for the agile transformation at KEBA. Additionally, 35 individuals across the organisation were selected to support the implementation processes as well as building an understanding and enthusiasm for organisational agility. In the following step, the next management level, which still existed at that time, was involved in supporting the implementation processes together with the core team and promoting the understanding and enthusiasm for organisational agility. The employees were involved in wide-ranging creation and information campaigns. This gave them the opportunity to engage intensively with the ideas and concepts at a very early stage and to participate. The basic structure of the new organisation was finally shaped by around 100 people (delegates) who were elected by the employees themselves from the entire company. In this way, a high level of identification was achieved, and the project was placed on a broad base. The shareholders played another crucial part in the agile transformation through an early buy-in and ongoing support.

KEBA decided at the beginning to integrate the Holacracy concept. After a two-year phase, however, the core agile transformation team realised that the sum of methods within the Holacracy concept is too much. Therefore, approaches were adjusted to the requirements of the firm. Especially the glassfrog software was kept in order to keep an overview of the organisation of the company.

The model consists of multiple circles, transparently showing their relationship to each other. Larger circles indicate an organisational unit, for example, “People, Culture, Structure (PCS)” or “Platform & Technology alignment”. In each circle, smaller circles represent self-organised teams. Each team consists of different experts from different backgrounds to ensure a broad state of knowledge and to minimise external dependencies. In other words, each team should be capable of solving problems independently. Apart from that, each circle consists of a performance lead and a crew-responsible. The former is accountable for its circle by selecting and assembling employees who are capable of creating value for the concerning organisational purpose. The latter is responsible for people management, including personal career development, coaching, and other HR-related topics. In case of employee dissatisfaction, the performance leader can communicate issues to the crew-responsible who is in charge of problem resolution regarding employee-related issues.

KEBA additionally replaced the yearly fixed budget through a forecasting process. The necessary information for generating the forecast is delivered by teams who have direct customer and market access. Resources should only be consumed if customers have a certain demand. Besides that, KEBA redesigned its compensation system. Incentives are no longer linked to individual goal achievement, but only group performance.

Finally, the core agile transformation team specified six general principles, which serve as a behavioural guideline for all employees:

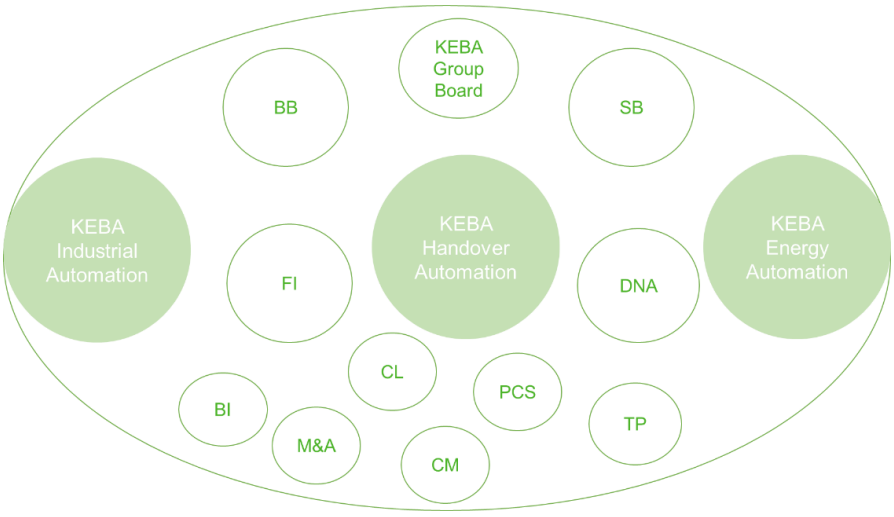


Figure 42. Organisational structure of KEBA

1. Value generation: We organise corporate activities along the value chain, starting from market demands.
2. Self-organisation: We distribute authority and strengthen decentralised responsibility.
3. Corporate success & profitability: We use resources in an efficient manner.
4. Agility: We utilise an incremental and iterative development approach to ensure fast identification, reaction, and integration of dynamic changes in the business environment.
5. Feedback: Feedback is an integrated component for a successful collaboration.
6. Responsibility: We operate in a respectful and responsible manner.

Implementation

The agile transformation was carried out in three phases from February 2015 until August 2018 and is an ongoing process. The first phase concerns the initiation and conceptualisation of organisational agility at KEBA. The core agile transformation team started by specifying an overall vision including major corporate components. Afterwards, corporate values, principles, and structures were analysed according to their fit and validity in an agile set-up. Based on existing weaknesses or prohibiting factors, the team searched for potential agile methods to overcome the limitations. In addition, industry best practices and agile experts were brought in to further evaluate potential agile methods for KEBA. In the end, Holacracy was selected as a facilitator. Before moving to the next phase, intensive dialogues and discussions with the next level management were held for gaining commitment.

The second phase was about shaping KEBA towards organisational agility. For this purpose, various representatives from the entire organisation were selected and formed into the extended agile transformation team. On the one hand, representatives needed to have a great passion for agility. On the other hand, they needed a good understanding of the organisation, as well as a motivating influence on organisational members. During the implementation process, the team had two responsibilities: First, testing and evaluating different agile methods, practices, values, and principles in selected teams. Depending on how the agile instruments were perceived and adopted by operating teams, the extended agile transformation team incorporated or

excluded instruments from the general agile KEBA concept. Second, the team was responsible for onboarding individuals, exchanging agile knowledge, and continuously motivating them during the agile transformation journey. In the final phase, the agile concept at KEBA was rolled out in 2017 throughout the whole organisation. The corporate-wide agile execution allowed individuals to adjust their roles according to their talents and interest. This is a continuing process that needs recurring input, which is mainly driven by the DNA-circle and the respective facilitators.

Conclusion

KEBA successfully completed its agile transformation in 2018, but teams are still reflecting on and optimising the agile concept. In general, the agile transformation resulted in growing profitability and huge growth. This was mainly driven by decentralisation. Teams are now capable of quickly recognising and understanding customer needs and transforming them into sustainable and innovative solutions. Another important gain concerns employees, who show higher work satisfaction, which can be reflected in a decreasing number of resignations. Furthermore, a modern way of working attracted young, motivated, and highly educated individuals. Finally, new opportunities for the company were discovered. Employees are no longer bound to specific organisational units and their responsibilities but can use their full potential in different roles to generate long-term value for KEBA.

On the other hand, transformational changes need time. Prior routines or employee concerns had to be overcome by continuous training to ensure the active use of agile values and principles. Another challenge is the increasing onboarding effort for new employees. Even though people are attracted by an agile work culture, it requires in-depth explanations and hands-on demonstrations. Lastly, it should be mentioned that agility should not be confused with anarchy. Even if there is an agile concept, it is still necessary that employees use specific approaches, and it is important to find a common alignment again and again.

4.7 How Strategic Management, OKR and Agile Working Work Together Successfully: The Case of LUMANAA

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Tomas Schiffbauer is Founder and Managing Partner of Lumanaa GmbH & Co. KG, Germany

Orientation in the VUCA World

Our world is characterised by volatility, uncertainty, complexity, and ambiguity (VUCA). Thus, a failure culture is a prerequisite for meeting the contradictory demands in today's reality. It quickly becomes clear that a 5-year plan hardly provides any value in this context, as no one can look so far into the future. Nevertheless, the medium-term orientation is necessary for utilizing resources towards target achievement. It is therefore important, on the one hand, to keep the effort for this manageable (after all, the corporate conditions might change quickly, leading to deviations from the plan), and on the other hand, regularly review the topicality of the orientation. With the following example of Lumanaa it is shown how strategic planning based on success factors in combination with Objectives & Key Results (OKRs) leads to corporate competitiveness in a VUCA world. By doing so, the goal of agile management – breaking down goals into smaller elements – can be successfully combined with the medium-term, strategic orientation of an organisation. Founded in 2020, the consulting company Lumanaa summarised the initial situation in a few words: "Newly founded team full of visions and images of the future for a better economy." The strategic target of Lumanaa is: "We take an active role in the market: We create awareness – We create strategies – We change culture. Human – sustainable – economic – innovative." We have also defined our target values for sales and a growing team.

Strategy as a Navigation System

Imagine strategy development and implementation as simple as a navigation system: Entering the key destination and the navigation system shows the path. But why is it way more complicated than routing? At first glance, the situation within companies is similar. It starts with the analysis of the initial situation. Where does the company currently stand? Or formulated from the perspective of corporate strategy: What is the strategic orientation? And as a goal: Where does the company want to go? Sounds like solvable tasks for a navigation system. However, the comparison is not appropriate: a company is characterised by more than just two coordinates indicating the geographical location. Usually, the corporate picture is blurred and discussions are diverse. But why? In the discussions, the participants remain blurred to preserve their picture to hardly adjust themselves. This means fewer conflicts, but it does not lead to a common vision. In addition, the limited capacity of people triggers the circumstance of reducing complexity to a minimum in order to be able to focus strategically. In the end, however, if someone focuses on everything, nothing is done correctly. That's easy to say and it makes sense to most people.
But focusing and prioritising is often a difficult and painful process. Which corporate elements have a higher chance of success? Which ones should be consciously avoided? This type of focus can be achieved by clearly and concisely formulating targets and additionally defining only a few levers of control that foster goal achievement. This means that employees have to surrender things they potentially like to do. Generating a deep focus, though, is one of the success factors of a good strategy, even if it is so exhausting.

Methodology and the Approach

The initial situation of the consulting company Lumanaa newly founded in 2020, was summarized as followed: “Newly founded and a team full of visions and images on the future for a better economy.” This is supplemented by the current sales and employee numbers. The strategic target position is to “take an active role in the market by creating awareness, developing strategies, and change culture. Human – sustainable – economic – innovative.” In addition, target values regarding sales and a growing team number were specified.

a macro perspective, the dimensions are often very similar, for example:

- Sales focus and positioning
- Product and service innovations
- Efficient projects and processes

The differences, though, are in their details and prioritisation. Once again, the key is not to take on too much and to formulate the topics so concretely that everyone in the team has the same picture in mind. From a methodological perspective, a two-step approach makes sense:

1. Determine the 3-7 critical success factors that the company must master to achieve its goals.
2. Derive appropriate measures: What is needed for a respective success factor?

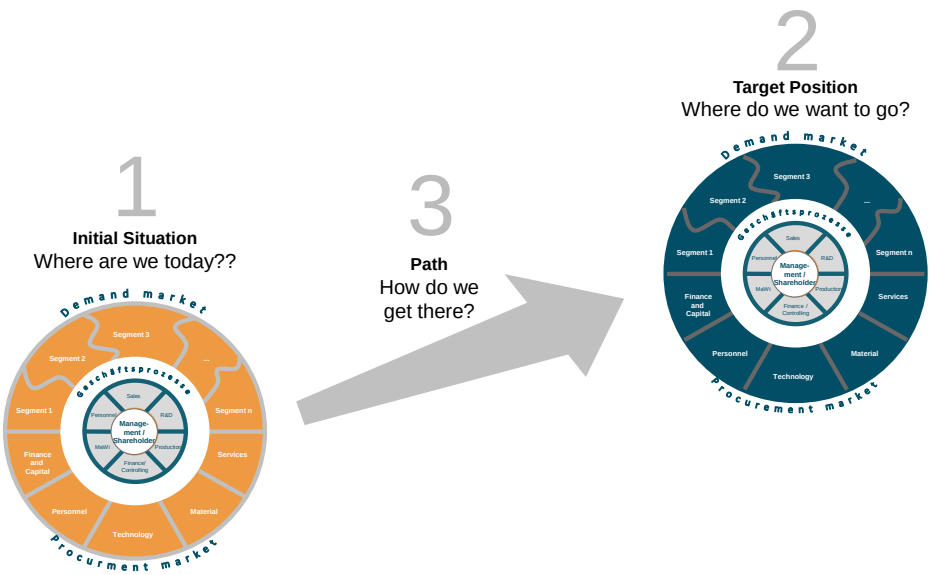


Figure 43. Steps of strategy development

More Transparency Through OKRs

But how could this be achieved? Which direction should be chosen? Even a navigation system usually provides different routes for a less complex task, including a fast, short, or most scenic route. In the case of strategic planning, this requires identifying the most important success factor’s goal achievement. In other words: What does the organisation need to master to reach the desired target position in a specific amount of time? From

In the following sequence the two steps are illustrated with an example: In consulting, Marketing & Sales is a crucial success factor, which should be based on a trustful relationship. This is exactly where Lumanaa wants to invest, in order to achieve a pull effect:

Online Pull-Effect and Maintaining Customer Network by content and customer relationship

Determination	--	-	0	+	++
Quality of Content			A	T	
Quantity of Content		A	T		
Continuous Networking (online & in person)		A	T	T	
Active Maintenance of Customer Journey		A	T		
Customer Networks & Relationship Management		A	T		
Get Part of Professional Business Networks		A	T		

Legend
A = as-is
T = Target End of 2022
0 = Industry Average
++ = Industry Leader

Figure 44. Success factors and measures for Marketing & Sales

Lumanaa's clients need to think of the company at the right moment, namely, exactly when a specific problem arises. In order to build this pull, the company has to invest in its network and relationships on the one hand and position itself with concrete know-how and practical tools on the other.

To create the path of implementation, these factors and goals are systematically translated into concrete determinations. Based on the success factors, medium-term priority topics are defined, which are then further specified in the OKR process. The priority topics result from the discussion of the current situation and

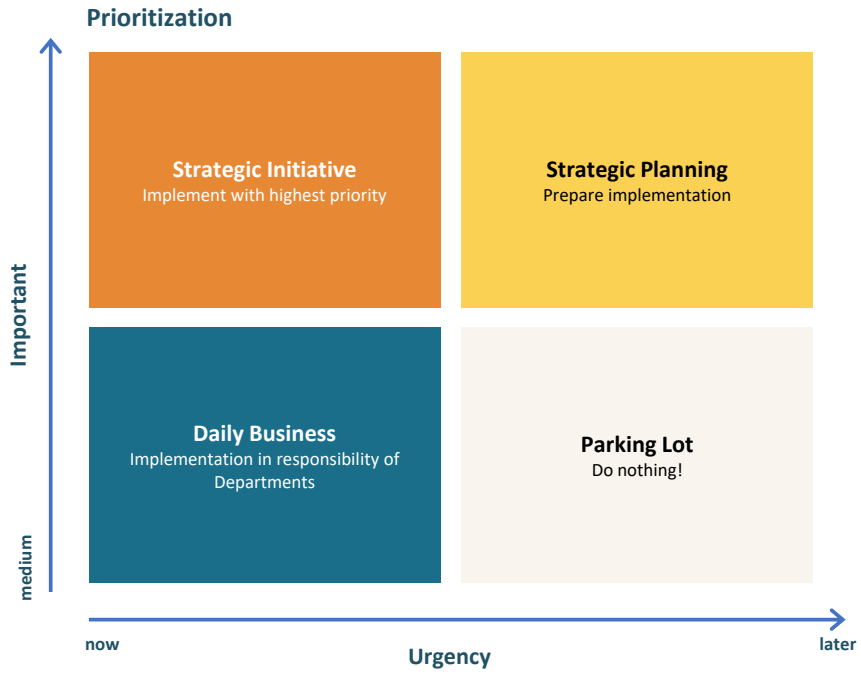


Figure 45. Prioritisation of the thematic fields

target position of the determinants. These can be further prioritised by using a matrix.

OKRs serve as a link between strategy and concrete implementation on an operational level. Thus, OKRs are core instruments for agile management. For an upcoming quarter, sub-goals for all teams are derived, based on strategic considerations. The transparent and measurable OKRs therefore provide guidance for this upcoming period. This small-scale planning helps to react more flexibly and at the same time allows a higher degree of transparency and continuity for all individuals. This increases the intrinsic motivation of the employees because they can relate their tasks to the company's goals and thus find more meaning in their work. To summarise with the following formula: "Consistently keep your finger on the pulse instead of stubbornly following the plan!"

How is the OKR framework reflected in the responsibilities within the company? Key results are always assigned at a team level, while tasks are assigned to individual employees. An OKRs set consists of an objective that describes the "what". The Key Results determine the path, i.e., the "how". Concrete tasks and projects are derived from these Key Results. Objectives are the qualitative goals to which the quantitative Key Results lead. The latter are defined by using SMART (Specific, Measurable, Attractive, Realistic, and Timed) to make them verifiable. For each of these sets, one team member is responsible and accountable for the concrete implementation. This strengthens the autonomy of the team working on a project. Clear responsibilities, clear tasks, and clear goal structure provide focus and guidance in everyday life in the VUCA world.

More Motivation with OKR

OKRs consist of a high degree of ambition, making them nearly impossible to achieve. The idea is to get out of the comfort zone, seek a challenge, and strive to achieve the goals. Simultaneously, it is true that an objective is already achieved when 70% of it is fulfilled. The above-mentioned error culture is lived at all levels: 70% is good! Perfection is not the goal. At this point, it becomes particularly clear why OKR helps to establish an agile mindset. These "stretched goals" can be seen from a sports context, where a fitness trainer always challenges individuals to push them towards their limits and make them better overall. From an individual perspective, people tend to set "only" realistically achievable goals and find it harder to move out of their comfort zone.

Figure 46. Objectives, Key Results, and Tasks

Transparency and self-efficacy are lived through meetings: A Daily Stand-Up Meeting of approx. 15 minutes gives everyone an overview of the daily tasks. Following the same pattern, a "Weekly" meeting is held, which focusses on the degree of goal achievement. A measure, therefore, is how comfortable the team currently feels with the Key Results and the overall status. If there is a general feeling of discomfort, the “Weekly” practice is used for jointly considering what the team can change to still achieve the goals. At the end of the three months, a review takes place in which the work results are discussed together.
The Retrospective focusses on assessing the current process: How was the team collaboration? How was the process as a whole? If at the end of the three months the full 70% has not yet been achieved, parts can be included in the next three-month OKR Sprint.

At the end of the OKR Sprint, and independent of the Daily, Weekly, or Review, the major focus lies on the why. The search for culprits does not play a role, but the joint pursuit of the goals does. A very positive side effect of this meeting structure is that there is much more coordination across functional boundaries. This so-called cross-functional commitment once again draws the importance of the "why". Independent of the previous company structures, people should work along with a common goal.

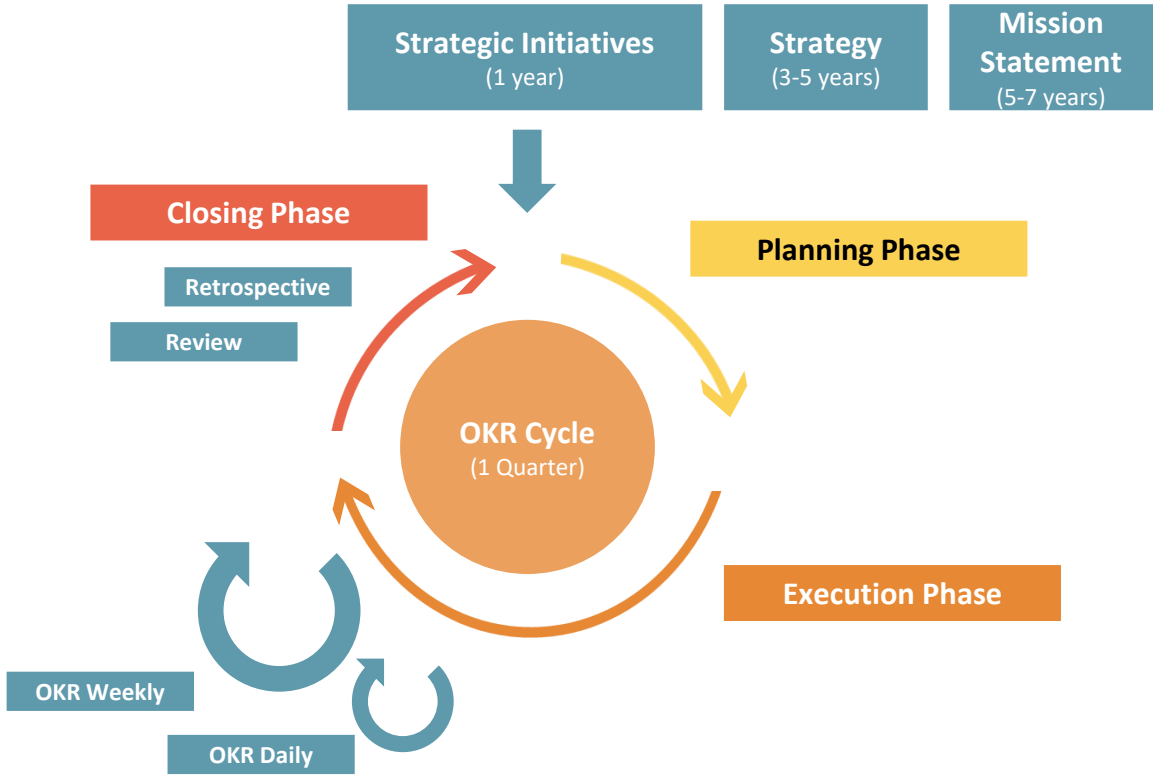


Figure 47. OKR cycle, inputs, and meetings

The OKR concept does not completely ignore medium and long-term goals and visions. Rather, it combines long-term and medium-term goals (such as mission statement, vision, or strategy) with short-term goals and concrete tasks. Every employee in the company knows where and with which specific tasks he or she contributes to the company's success. This is a great motivational boost, which at the same

time fosters efficiency. This can be also explained by the fact that goals and strategy are defined 40% top-down and 60% bottom-up.

A strategy is usually formulated for 3-5 years; supplementary, so-called Mid-Term-Goals (MOALS) are defined periodically, which in Lumanaa's case correspond to the strategic initiatives. The core of OKRs are manageable goals that can be achieved within a specific period, and the sum of people work towards the big goal, i.e., the corporate strategy and vision. Despite all the concretisation, it is often underestimated that the OKR methodology triggers a real change in thinking, a change in consciousness at all levels. This requires the ability of the management to give up responsibility and at the same time the willingness to take on responsibility on an operational level. Consequently, great responsibility arises. But if you understand this as a system of continuous learning at all levels and allow each other to learn, the OKR method makes it possible to work in a very fulfilling and appreciative way.

More Leads Through LinkedIn: A Concrete Example from our Start-Up Process

Coming back to the example mentioned above, a strategic initiative "Show yourself!" has been defined. Lumanaa's management believes that the corporate message can only be sufficiently communicated by significantly increasing the presence in different channels and on different platforms. Appropriately, a clear objective has been specified: "Build an online pull effect and a network cultivation from the customer via content and relationship". Based on the objective it is illustrated how the OKR concept looks in concrete terms. In addition, this objective fosters Lumanaa's vision of changing the market and bringing the idea of a new corporate culture to various companies. As a consulting company, Lumanaa targets the increase of its sales.

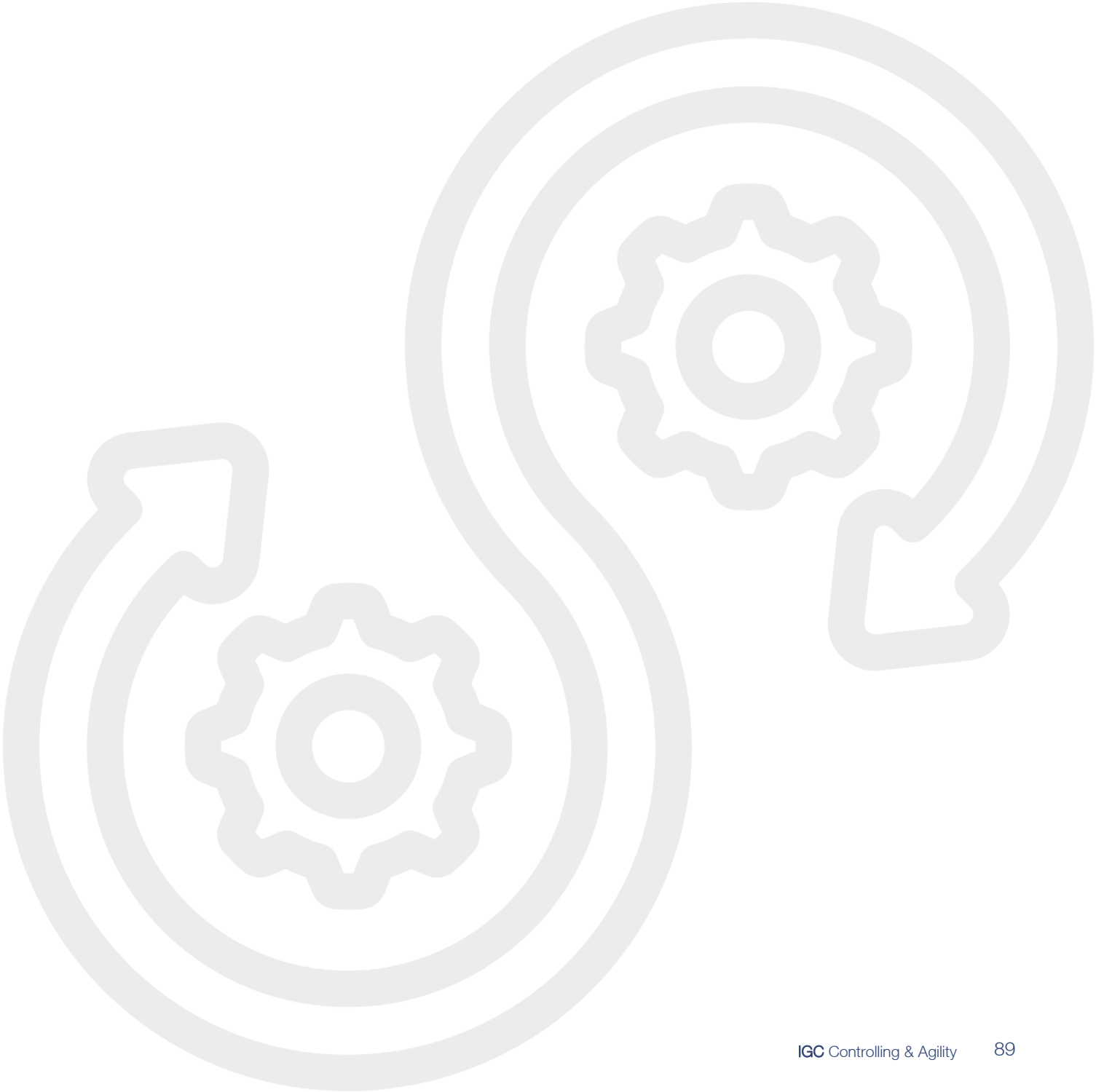
How could this pull effect be achieved? This could be achieved for instance by very specific tasks regarding Lumanaa's LinkedIn posts:

- The initial situation: Generating too few leads via our website.
- As a qualitative Objective, the following was specified: The social media posts inspire readers and encourage spontaneous reactions, i.e., likes and in the best-case comments or shares.
- Based on the Objective, the following Key Result was derived: Improving the conversion rate from LinkedIn to the website to have five times as many clicks on our website blogs as social media posts go out.
- Concrete Tasks:
    - Find out how the LinkedIn algorithm works
    - What does a good/successful social media post look like?
    - Create a guideline for successful posts
    - Give internal training
    - Do more of what works and thus increase the conversion rate. Plan and execute clear social media activities.

To return to the image of routing, one could assume that this case does not represent the shortest route via the motorway. This could be also achieved by a short route, namely aggressive cold-calling. Lumanaa has chosen a path that allows a few stops for substantive exchange. It has been shown that the business network LinkedIn is a relevant social media channel for (potential) customer attraction. Therefore, the firm targets to develop expertise and a kind of topic leadership in the present market segment. It's not exactly a relaxed holiday drive on the country road, but it's also not the lead foot in the left lane either. The target is to sustainably inspire people for the firm's content and thus increase the pull to the website and Lumanaa's services.

The path to the pull effect exemplifies how well the methods presented can be combined. A solid strategy and fast operational work are

not opposites, even in a VUCA world. Quite the opposite: the combination of strategy and the OKR method creates transparency at all levels, promotes the condensation explained at the beginning, and thus the speed of concrete implementation. The fact that the chosen route can be adapted more flexibly because it is regularly put to the test is another plus on the way to more agility.



4.8 Agile Mindset in Group Controlling at Österreichische Post AG

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Österreichische Post AG and the Challenges of the Group Controlling

Österreichische Post AG is one of Austria's leading logistics companies in the mail and parcel delivery business. In addition to complementary businesses along the value chain – especially in the e-commerce sector – the company is primarily active in the Southeastern European and Turkish parcel business. The financial services business relating to Bank99 and activities in real estate development and rental complement the portfolio of the company. In total, the Post Group generates annual revenue of EUR 2.5 billion.

The approximately 27,000 employees represent the core of the company. Österreichische Post AG shapes and builds its future on numerous investments including various logistics centres in Austria and abroad as well as innovative IT solutions for improving quality and efficiency regarding production processes or for increasing customer value. Another change addresses the firm's management control system, moving from traditional and past-oriented performance indicators, i.e., productivity, unit costs and revenues, sales, earnings, or cash flow, towards future-oriented data. These relate to sales forecasts, but also to long-term targets related to ESG indicators. From a short-term perspective, capacities per service volume, overtime, sickness rates, or runtime quality become relevant indicators on a daily base. Apart from this, there has been a shift towards greater centralisation of the Controlling activities of the Post Group.

Figure 48. Product and service portfolio of Österreichische Post AG

Numerous reports with little automation had to be standardised and automated based on a uniform database and unified KPI definitions.

In recent years, the Group Controlling at Österreichische Post AG started to question the existing work approach since it lacked applicability in a context of various business activities. Besides a clear focus on increasing efficiency, new business developments had to be supported at the same time. To conclude, not every task or activity in the Controlling function requires the same employee competencies and skills. This can be particularly seen in the following challenge: First, reporting well-established financial as well as daily operational productivity and quality indicators. Second, developing sustainability and diversity indicators including reliable data management and utilization. Testing and implementing agile work approaches was ultimately triggered by the changing demands and requirements of the Controlling function and on the other hand driven by a new generation of employees.

Moving from an Individual "Number Cruncher" to a Team Player

Employees in the Controlling function require to fulfil two roles during their work in companies:

1. They are service providers who continuously supply people in business units with figures – typically in the form of reports – to support them in decision-making to take appropriate actions and measures quickly and efficiently.
2. They perform numerous governance tasks, to make interdependencies, opportunities, and risks transparent and ensure overall cohesion and stability within the organisation.

In its highest form, both tasks require a high degree of communication and resilience. Important success factors are discipline in the sense of delivery skills and the ability to listen to internal customers. Therefore, the management team of the Group Controlling at Österreichische Post AG decided to integrate agile methods to get rid of the image of the “number cruncher” behind the Excel file.

In 2007, a dysfunctional, small team showing poor collaboration skills was embedded in the first institutionalised internal exchange in the form of Daily Stand-Up Meetings. The initial aim was to significantly increase the impact of the employees by sharing progress and aligning next steps. The major questions within the meetings concerned: "Who needs whom? Who can contribute what and where?"

In retrospect, the following years have shown whether the decentralised parcel Controlling function would have a reason for existence in the Post Group and whether it would add value. At the beginning, this was not yet clear. But the Daily Stand-Up Meetings were one of the main drivers for a group of lone fighters to form a team that gradually supported and strengthened each other. The team showed how an individual can contribute to the bigger picture. Another example was the lacking structure of the planning process. Through a daily exchange, weaknesses of the process became transparent, allowing to integrate early countermeasures. While it was initially a case of improvising towards a clearly defined goal, ongoing coordination resulted in a sustainable process that has already survived for years in its basic form. Even in the development of the comprehensive product calculation, all the pieces of a puzzle fit together over time.

Either after all these years only a transfigured positive memory of those times remains or there was nothing wrong with this very simple and effective instrument. Even the fear of "wasting" 15 to 20 minutes a day on valuable work could be overcome. Employees from the initial pilot still talk about how important Daily Stand-Up Meetings in a group of 6 to 8 colleagues were. The daily exchange became a matter of course even without institutionalisation. During the first Covid lockdown, Daily-Stand-Up Meetings experienced a successful revival in form of virtual meetings since physical meetings were not possible.

Centralised but still Close to the Internal Customer?

In 2015, centralisation was key at Österreichische Post AG. Business units were requested to follow a strict centralisation approach. Accordingly, it was important to provide internal customers with effective tools. Therefore, the entire reporting system was harmonised, standardised, and modernised. The core target was to meet the needs of the core users. The underlying success factor was utilizing the concept of "Design Thinking". Visualisation and prototyping reduced tensions and brought joy into the daily work routine and thus also attracted a new group of employees to the company.

The starting point was a bit of luck and diversity in the team. An employee originally located in the operations area of the organisation, showing an affinity for processes, joined and strengthened the Group Controlling team. She brought the concept into the team, which was implemented in another step into the Group Controlling. First, training was offered to team members in the Group Controlling, who were expected to practise Design Thinking. Simultaneously, those employees received on-the-job training using real examples and accompanied by service design-trained colleagues from the Austrian Post. Some impulses were also given from the outside to improve quality in execution.

The approach led to a rapid rethinking among the employees. For most of the employees in Group Controlling, the benefit for the recipient of reports became clearer than before. The major reason was interview techniques with direction of internal customers. The ongoing exchange continuously reduced the fear between the team and customers. At the same time, the composition of the teams also triggered a certain standardisation. It was necessary to find a best-of for all participants. The Group Controlling, which had been centralised over the years, recognises the power of standardisation, and can take advantage of its knowledge. Coupled with the knowledge of how to build up a uniform database step by step (i.e., data lake), Design Thinking became the major concept for staying in contact with customers.

The initial fear that a lack of supervisor control over the development of key performance indicators would be erroneous or not in line with governance requirements was largely unjustified. Nevertheless, the right composition of the diverse teams in the Design Thinking workshops on management support is essential. Management must ensure that teams are truly diverse and inclusive – in terms of background, hierarchical level, and personal skills and capabilities – to enable creativity and solution-oriented actions. These interdisciplinary teams increase the probability of successfully solving challenging tasks.

A major learning of utilizing Design Thinking is its importance in explorative processes and tasks. However, it was neglected to follow up with classic project management methods, which were readjusted over time. It is a misconception that projects become successful if there exists a boundless acceptance of all stakeholders and a clear goal. Goal acceptance and understanding does not mean goal achievement. Sometimes it takes a longer breath than expected.

Employee Competencies Before Rigid Roles and Responsibilities

Apart from the methodological aspect, the management team of Österreichische Post's Group Controlling has been intensively engaged in finding the right competences for interdisciplinary teams. This approach became a routine over the years, so that the management team was not even aware that this is also an agile element. Apart from centralisation and customer orientation the question arises whether all controllers have the right place within the company? A controller who addresses not only numbers but serves as an internal consultant for customers requires a different skill set than an IT specialist building and developing the data models for the Group Controlling.

The management team of the Group Controlling specified various competences, defined their required characteristics and attributes, and assigned them to existing employees. In addition, each employee was encouraged to do a self-assessment by means of “Action Anchors” to assign themselves to a competence type and to show further development ambitions. A “Competence Field Matrix” as well as the Action Anchors – a description of how one would behave in clearly described situations – form the basis for regular, at least annual development discussions.

The expectations between employees and managers became more transparent than ever before. Planned development steps were not only discussed, but also offered. In some cases, there was a change in job positions within the Group Controlling aiming to increase the fit between employees’ strengths and their tasks and activities. New positions were advertised and filled in a targeted manner to build a sustainable work force. In some cases, the integration of competence specification and evaluation led to the point that a permanent non-fit between a job and a person led to dismissal. These steps form an essential cornerstone in the further development of the Group Controlling at Österreichische Post AG.

The greatest learnings from the changes at the Controlling function can be assigned to this aspect. It is not uncommon for both supervisors and employees to make mistakes in their mutual actions. However, it is much more important to have an open and transparent exchange about future development steps instead of assuming them. It is therefore surprising how difficult it seems to be to openly discuss and talk about future development issues in society – indeed, it sometimes seems unusual. The world is constantly moving and changing and with it the demands on the contemporary controller. Hence, it is fundamental to know where people belong and which tasks suit their strengths.

A Recipe for Success in the Future? The Agile Controlling Framework of Österreichische Post AG

In 2020, the question arose how the agile instruments described above can be used on a bigger landscape to generate value. As a result, the “Agile Controlling Framework” was developed. The goal of the framework was to relieve managers by providing the Group with more decision power. Furthermore, a new generation of employees requests self-determination regarding an increasing exchange within the Group and can hardly relate to classic, hierarchical leadership principles. The change is intended to attract well-trained and motivated employees who are willing to create the future.

At the beginning, there was another pilot consisting of three managers and a professional organisational developer. The two most important findings from the pilot were:

- Agile is a question of mindset, and
- not every task is suitable for utilising agile methods.

Therefore, a framework was needed.

The concept “Objectives and Key Results” (OKR) was used as the foundation for the Agile Controlling Framework. However, it was quickly realised that, no matter which tool was used to support the agile way of working, the key success factor builds on the mindset of individuals. Accordingly, the first objective was "introducing an agile mindset". In a first step, OKRs were tested together with “partners in crime” –particularly motivated employees – who communicated and spread the successes of the concept accordingly. It was not only important to keep the individual steps and activities of performing OKRs transparent for everyone in an MS Teams environment. Additionally, it was important that employees could volunteer for the respective OKRs.

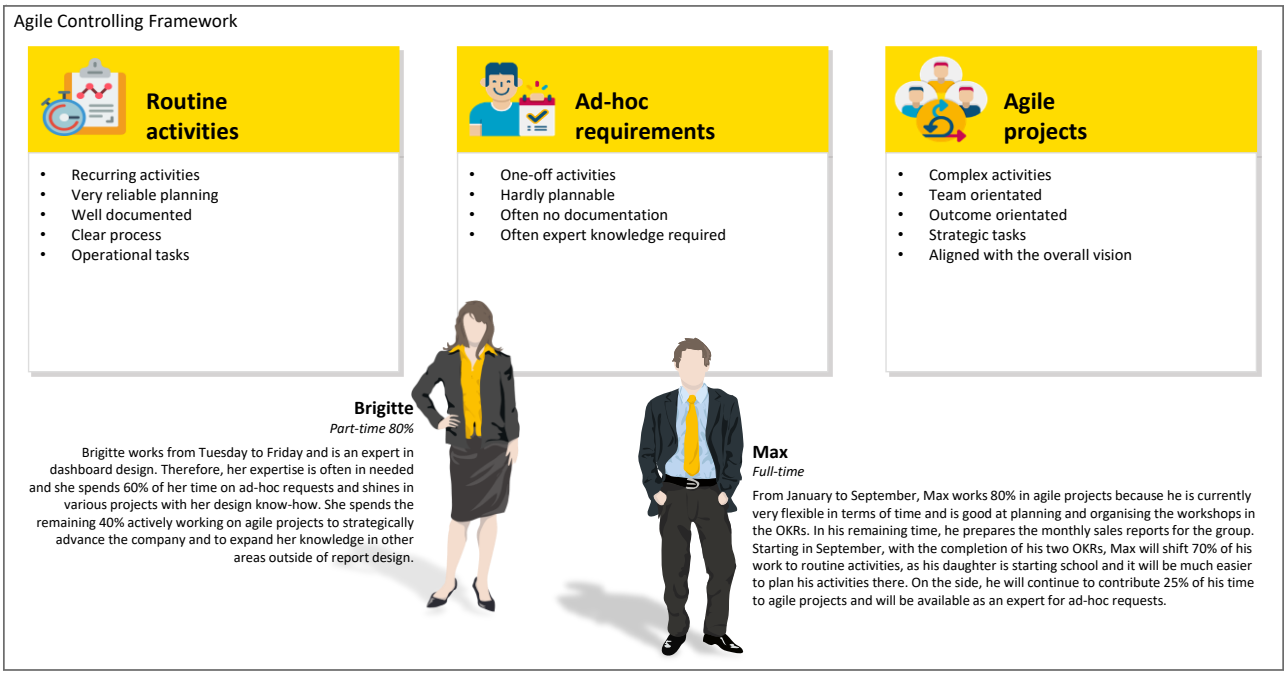

Figure 49. Routine activities, ad-hoc requirements, and agile projects in the Agile Controlling Framework

In addition, the agile practice “Retrospective” was implemented to complement OKRs by frequently reviewing and adjusting them. The first Retrospectives quickly showed the benefits of OKRs regarding their increase in transparency, improvement of goal clarity, and a cycle time of three to four months. This was also indicated by a higher efficiency and quality of the results delivered due to the focus on the essential OKRs. On the other hand, the success of OKRs was reflected in high employee motivation. Since results are delivered within a shorter period, success quickly became apparent.

An agile mindset does not emerge within a short period of time. Firstly, agile success stories should be continuously shared to create awareness regarding agile working being a team task and not causing additional effort. Secondly, it takes time and patience from an employee, team, and management perspective.

The time and effort invested towards an agile mindset is a relevant step for the future of Österreichische Post AG. The future of work is based on the creation of meaning, self-determination, and flexibility within and across the Controlling function. The manager of the future should therefore be responsible for ensuring the necessary framework conditions for employees and a new employee generation. This is ensured by the Agile Controlling Framework within the Österreichische Post AG. Ultimately, it is necessary to find a way to harmonise the non-agile, but sequential and plannable control activities with the unpredictable ad-hoc requests and the agile OKRs, with the self-determination of the employees and their capacity.

Lastly: Find Your Own Agile Way of Working!

Whatever philosophy and form of agile working is followed, the Group Controlling at the Österreichische Post AG has selected suitable elements and combined them in a customized framework. This requires a joint exploration and should be seen as well invested time. On the

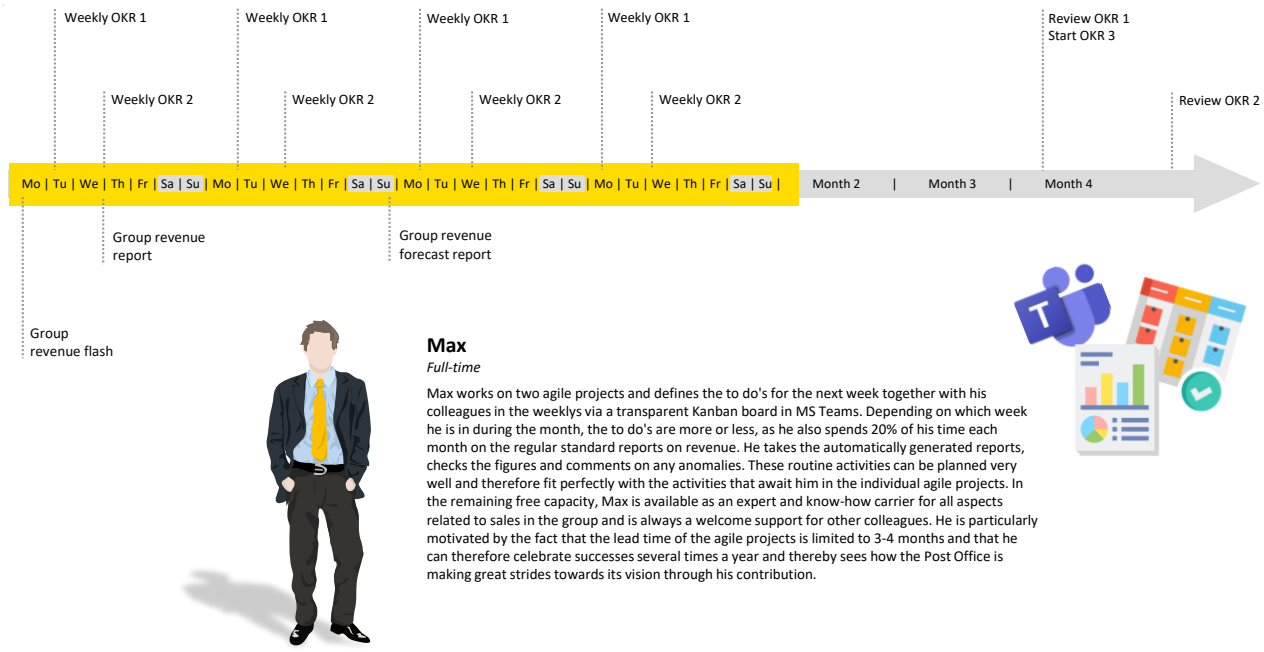

Figure 50. Exemplary illustration of the tasks of Max over time

other hand, integrating agile textbook methods and their culture is not considered to be effective nor sustainable for the work environment of the Controlling function. In a nutshell, the Agile Controlling Framework is a set of agile methods and practices and represents an extension of the classic management principles. Embark on an agile journey. Try it out and stick with it. You will see that an undertaken agile experiment pays off and is also fun.

4.9 SAFe – The Serengeti Way

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SCRUM and Organisational Agility

Scrum is still the most popular choice when selecting an agile framework to enable a single team to deliver optimal performance. Scaling Scrum becomes a necessity as soon as the product (or service) development needs to grow beyond the capacity of a single Scrum team. Typically, one selects an agile framework with a core purpose of effectively scaling Scrum to efficiently manage multiple Scrum teams in an agile way. Nevertheless, to achieve true business agility at the enterprise level in the age of digital transformation and remain competitive in the digital economy this is not enough.
A framework is needed to achieve business agility in every aspect of your business operations. This will enable you to focus the entire enterprise on delivering maximum value to your customers in a rapidly changing global environment. In practice, this is applicable in the delivery of products or services to external clients, as well as in the work of controlling or delivery of content to internal clients for better business decisions.

Serengeti is a company with more than 10 years of experience in offsite software delivery with our team extension engagement model and internal product development in an agile way. Serengeti supports client needs in the development of their complex business applications. Therefore, Serengeti's teams consist of very experienced engineers in several business domains and several software methodologies, especially Agile ones.
This experience and these competencies help our clients to adopt and execute SAFe in practice.

The Scaled Agile Framework

The Scaled Agile Framework (SAFe) was developed to augment the traditional hierarchical organisation and provide an agile customer-centric and enterprise-wide "business operating system" aimed at accelerating innovative solution (product, service, or system) delivery while maximising customer value in the fast-changing global market. Applying SAFe will allow for efficient identification and delivery of customer value increments. As the solution portfolio is evolving, the proper framework application will ensure that quality is consistently maintained. Additionally, its features enable a timely response to new competitive threats through quick adaptation. To achieve its goals, SAFe encompasses all the necessary integrated and (empirically) proven principles, competencies and best practices enabling the implementation of Lean, Agile, and DevOps at scale.

SAFe was created in 2011 by Dean Leffingwell, who is also Chief Methodologist at Scaled Agile Inc., which is the company that makes this framework freely available. The framework was originally released in 2011 (version 1.0) and has progressed through five major updates to the current version 5.0 (released in January 2020).[7] It is intended for companies that want to work according to Lean and Agile principles and need to plan, synchronize, and coordinate the development of solutions at the Program and Portfolio levels. In practice, it is used to create solutions for controlling, but also other business solutions that serve to improve the conduct of business activities. Many of the world's largest companies have introduced Scaled Agile Framework into their business model.

When talking to our customers, we see that most of them invest heavily in agile and digital transformations, i.e., in IT modernisation. But large organisations in this case often have trouble evaluating the results of this modernisation and linking them to the achievement of corporate goals. One possible way of linking strategic objectives and

[7] See https://www.scaledagileframework.com/

operational implementation can be implemented using controlling instruments, such as the Balanced Scorecard. By introducing an agile way of working in the field of software development, teams really are better and faster in delivery, i.e., they are more productive at the team level. However, company management teams often do not see progress at the level of the entire organisation. They are primarily interested in answers to the following questions: Did our agile way of working help us deliver the right product to the market before our competitors? Have we increased profitability? Are we more competitive in the market?

Practically from the perspective of controlling we can look through the prism of effectiveness, doing the right things, and efficiency, doing things the right way - or briefly to meet the needs of our clients (external and internal) through the "pull" principle and in an efficient way with as little resource consumption as possible.

Digital Age

Software has nowadays become a key part of every large organisation. It can be said that every industry depends on technology and every big company is (at least in part) a software company. For example, banks increase profits not only by introducing new financial products but also by focusing on user experience with their mobile applications. Insurance companies compete in request processing speed, for which a software solution is key. Airlines are positioned in the market based on the simplicity, security and speed of reservation processing and flight management systems. For example, the CEO of the BMW Group expects that in the future, more than half of their R&D staff will be developers (Mik Kersten, Project to Product, 2018).

Agile development has provided many organisations with significant improvements. However, agile software development alone is not enough. What started in software development should be extended to the entire company. Put simply, companies need Business Agility. Therefore, the agile way of working, which was proven to be excellent in the field of software development, should be meaningfully extended to the entire organisation.

The Way from Agile Teams to Corporate Agility

As we have seen, Agile and Lean principles have been used long enough and practice has shown that teams are truly more efficient when working like this. In an environment with multiple SCRUM teams, how do we know whether an agile team within our organisation is working on the most important task – or 'Story', as it's called in Scrum – business-wise?

We can hardly know for sure unless we do the following:

1. Ensure that all work performed is transparent ("Make all work visible"),
2. Establish a direct link between the strategy and each delivery and the work performed ("Connect strategy to execution"),
3. We can see progress in relation to the desired outcomes and goals at any given point in time ("See progress against outcomes"),
4. Enable real-time decisions ("Make real-time decisions").

This is significantly supported by controlling process groups such as planning, analysis, reporting, and business partnering. Large companies have another problem and that is the focus on the client. Smaller companies are already naturally focused on the client, but, as they grow, they slowly build a hierarchical structure to be more efficient internally. However, along the way, they often stop focusing on what the client needs. This can be successfully overcome by creating strategic maps, using Balanced Scorecard perspectives, linking leading and lagging indicators. For full synchronisation and operational implementation, this concept needs to be developed at the company level, and then

cascaded to the level of individual organisational units, and finally to the level of individual employees themselves.

If we want to keep focusing on the client in a large organisation environment, the solution is not to discard what we have and what has been introduced for better efficiency.
The solution is to introduce a new framework that connects these two seemingly opposite ways of working. We need a link between the stability of a hierarchical organisation on the one hand and focusing on the customer and prompt response to his needs with innovative solutions on the other. SAFe is a framework that enables this.

Many of the world's largest companies have already implemented SAFe, and it has been proven in practice and in our projects for these three reasons:

1. SAFe enables faster time to market,
2. SAFe dramatically increases quality and productivity,
3. SAFe increases employee engagement.

SAFe is by no means a method that strictly prescribes what to do and how to do it, nor is it an organisational structure. It offers tools to apply an agile way of working and becomes an intersystem that connects the right people to solve problems and allows them to focus on problem-solving with all the necessary support for delivering a solution that gives added value to the user.

How SAFe is Organised?

SAFe is organised on multiple levels:

1. Agile Team: It starts from the basic unit, which is an agile team. Each of the teams operates according to Scrum or Kanban and less often according to any other agile methodology with the use of XP (Extreme Programming) for quality assurance. Agile team members are brought together to ensure they have all the competencies needed to define, build, test, and deliver business value in short iterations. Featured roles in an agile team are Scrum Master

Figure 51. SAFe as an additional operating system for business agility (https://www.scaledagileframework.com/)

and Product Owner. SAFe includes several types of agile teams – they can be dedicated to software development, to hardware configuration, or they can be business teams, operational teams, support teams, or multidisciplinary teams.

2. Teams of Agile Teams: Just like any slightly more complex solution, due to its scope, it usually requires more hours of work and more competencies than one agile team can provide, so additional teams are involved which need to be organised in a team. In this case, SAFe introduces the Agile Release Train (ART), which is a permanent team of agile teams that, together with other stakeholders, incrementally develops and delivers solutions. Each ART has a unique mission that is carried out according to the business and technical requirements described in the form of 'Story', 'Feature', or 'Enabler' and found in its Program Backlog. ART usually consists of about 5-12 agile teams. Each ART delivers within a Program Increment (PI) that typically involves five iterations.
3. Program: At this level, the focus is on product delivery, which is carried out under the guidance of a Product Manager, System Architect, and Release Train Engineer who has the role of Chief Scrum Master for the ART level. At the Program level, the principle of customer-centricity is applied, as well as innovative and creative methods for designing solutions – design thinking. The most important thing in SAFe is that the development takes place in a fixed cadence, which ensures that all important events such as PI panning, Demo (of systems or solutions) and retrospectives take place regularly in a schedule defined in advance. The next very important concept that SAFe applies is DevOps, which enables continuous delivery of value to the user, through continuous research, continuous integration, continuous development, and deployment of solutions on demand and as needed by the user. Each ART at its level maintains this whole range in a way that delivers the solution as independently as possible.
4. Enterprise Solution Delivery: At this level, complete solutions are delivered, including the coordination of ARTs and suppliers according to a common business and technological mission.
5. Portfolio: All the above describes practices on how to build and deliver complex business solutions. However, none of the above answers more important questions such as what solutions we need to work on and why. The answers to these questions relate to the level of the Portfolio, which is also being modernized in line with Lean and Agile principles in Lean Portfolio Management (LPM). LPM connects strategy, implementation and work itself by applying lean and agile principles and System Thinking.

With so much flexibility offered by the SAFe framework, when introducing SAFe, members often wonder if a decision is in line with SAFe or not. In case of a dilemma, it is important to remember the goal – a satisfied customer who receives a high-quality solution that has business value in the shortest possible time. Only then should you rely on the Lean mindset and core values of SAFe (Alignment, Built-in Quality, Transparency, Program Execution) and ask yourself if a decision is in line with those values.

How Do You Know If an Organisation Is Ready for SAFe? Some of the indicators that show that it is time to introduce a new framework are:

1. Successful use of Agile at the team level.
2. Multiple teams delivering solutions, but inconsistently.
3. Wanting to use Agile throughout the organisation.
4. Agile has been applied, but consistency and alignment with strategic goals have not been established.
5. The time it takes to create a solution is a common problem at the organisation level.

How is SAFe Introduced?

Depending on the needs of the organisation, SAFe offers four configurations and allows each organisation to adapt the framework to its own business. In this way, SAFe supports a whole range of needs, from those that require a small number of teams to those complex systems that require hundreds or even thousands of people to build and deliver. For example, Essential SAFe is intended for medium-sized organisations. Then there is Large Solution SAFe, a configuration intended for large organisations that deliver complex software solutions. The final two options are Portfolio SAFe and Full SAFe.

Serengeti cooperates with clients from a variety of business domains, some of whom introduced SAFe during our collaboration on the recommendation of their consultants. Since our employees were directly involved in the transition to SAFe – and one of our colleagues was promoted to ART Leader (Release Train Engineer) – we know first-hand what the process should look like.

The main reason that encourages clients to introduce SAFe is that isolated Scrum teams cannot fully realise their complete potential in an organisational culture in which the waterfall methodology is deeply rooted, i.e., while practicing long-term planning and budgeting. After introducing SAFe, technological debt is reduced – thus, a part of the budget intended for system maintenance can be set aside for innovation. There has been a decrease in the number of Help Desk Tickets. In addition, internal surveys indicate an increase in employee engagement and satisfaction.

Some more specific tips are that one should be prepared for direct communication during work, especially when doing PI planning. Furthermore, transparency is very important, for leaders should encourage and emphasise the importance of open and honest communication. And finally, the most important thing is to communicate the vision clearly.

Conclusion

Today's environment has contributed to business agility being a key to economic success. Companies that have adopted Lean-Agile ways of working at the level of the entire organisation respond faster to customer needs, thus making higher profits and/or increasing market share, while at the same time employees are internally more engaged and satisfied.

SAFe is a framework that allows us to coordinate not only agile teams at the Program and Portfolio level, but also their alignment with organisational strategy (top level). It is popular, among other things, because in addition to agile methodologies, it uses Lean and DevOps. It is intended for large organisations and companies from a myriad of business domains – from finance, insurance, medical research, to air services and industrial automation – that have implemented it have benefited greatly.

An example of such an implementation is at our client NETS CEE, who operates in BFSI and offers several payment solutions to its customers and has introduced scaled agile methodology guidelines to manage its products, solutions, and portfolio. This process allows our client to achieve business agility. As its software development partner, we have supported this reorganisation process with professional developers and one of Serengeti's developers has been promoted to the ART Leadership position. The biggest challenge was resistance to organisational change and here the Lean-Agile Leadership takes the main role to prevent and mitigate. A second challenge was to define and segment the business of the organisation, so that departments are positioned as correctly as possible according to the methodology. The SAFe framework allowed our client to increase its customer satisfaction, achieving great team engagement and a productive collaboration. In addition, this methodology enabled our client to manage all joined corporate units in the same way, which led to monitoring and reporting being conducted in the uniform way for every part of the organisation.

Agile methodology can be implemented in all business and even some private domains, and the project regularly provides numerous benefits such as: cost cuts, improved ROI, efficient teams, faster achievement of results, ability to scale, and finally a satisfied customer. When applying agile practices for multiple teams and especially in the context of distributed software development, it is always a benefit to use a more knowledgeable and experienced external partner. This will enable you to further improve any existing internal practices. Software development nearshoring and consulting companies working in distributed teams on international projects have a lot of accumulated knowledge and experience in scaling agile practices. This puts them in a unique position to offer valuable guidance.

4.10 From Number Crunchers to Controlling Business Partner Consultants: Agile Performance Management at Vetter Pharma

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Claudio Galbusera is Team Leader Corporate Planning, HR & Quality Controlling of Vetter Pharma, Germany

Introduction

The pharmaceutical industry has long been known for its steadiness: non-volatile customer demands, regulated business models and comfortable profit margins. However, this situation has started to change and the Corona pandemic that has held a tight grip on Big Pharma's supply chains since its onset is only the latest tip of the iceberg.

As one of the leading specialists for aseptic fill and finish, Vetter Pharma (headquartered in Ravensburg, Germany) is deeply entrenched in Big Pharma's supply chain and excels at one of the key value creation steps of liquid drug manufacturing: filling drug substances (incl. highly complex proteins) in vials, syringes, or capsules while ensuring an extraordinary level of quality. Vetter Pharma has been on a successful growth path over the past years and currently has 5,000 employees generating a revenue of more than EUR 800 million. Within the organisation, the Finance department consists of three Vice President divisions (Controlling Business Partner & Performance Management, Controlling Systems & Business Intelligence, Finance & Treasury) including more than 40 Controllers spread across the entire Controlling value chain (Business Partners, Business Architects, Information Managers etc.).

Given this business context, Vetter Pharma is often directly affected by the dynamic changes unfolding in the industry nowadays, including sudden changes in customer demand, regulatory adaptations, or sourcing shortages. Moreover, it is not only the external but also the internal business context that requires an increased capability to change: For example, as a hidden growth champion, workforce recruitment is one of the key pillars for the company's future success and adapting quickly to changes in the local workforce market is vital (especially when operating in rural areas such as Ravensburg facing full employment and demographic issues).

This increased dynamism was one of the main drivers for the Controlling department at Vetter to rethink its steering approach and the mindset applied to it. The mission was to alter our performance management system to overcome typical pitfalls of traditional Controlling and thereby become more versatile, dynamic, and prospective. This led to the integration of agile performance management in our daily business: On the one hand this involves a change in mindset, which revolves around the following ideas:

- As a Controlling function we are service-oriented and pro-active – the departments, management, and shareholders we are working with are our clients and our existence is justified based on the value-adding services we offer
- Our knowledge base is Finance & Controlling – however, we need to have a deep understanding of operational processes (and its technical challenges), strategic foresight and the motivation to constantly learn new skills and change (i.e., organisational development, psychology, Data Science etc.)
- Processes are more important than hierarchical structures – process moderation and coordination means that you enable decision-making
- Problem-solving is dynamic and customer-oriented – it involves multiple feedback loops, pilots, and adjustments
- Collaboration is based on roles and competences and not on silo-thinking

On the other hand, this mindset has led to a system of Agile Performance Management. At the highest level of abstraction, it is comprised of two sub-systems.

1. Social Sub-System – the social sub-system characterises the organisational infrastructure (i.e., cross-functional Controlling Teams) and qualifications or roles (i.e., Controlling Business Partner Consultants) necessary to operate the technical sub-system consistently and in line with the overall business objectives.
2. Technical Sub-System – the technical sub-system relates to the instrumental, methodological and (IT) system infrastructure required to provide the social sub-system with the means to excel.

The following sections will go into more detail by delving into selected examples. The first section on the social sub-system will establish our new roles and virtual, cross-functional teams as key fundamentals. In the second section on the technical sub-system, it is shown how retrospective analysis, optimisation, and prediction-driven foresight are combined through Performance Dialogues (PD) and Rolling Forecast (RFC), equipping our new roles in the department with adequate instruments and processes.

Social Sub-System: Cross-functional Organisation

In general, there were three questions we asked ourselves:

- Q1: How do we adjust within the company to changing responsibilities and needs in the short-, mid-, and long-term? (Status Quo & in future)
- Q2: How do we as Controlling Business Partners adapt our organisation within the Finance organisation?
- Q3: How do we live our newly defined role, what is our self-perception, our added value, and what must be done to reach our ambitions?

Regarding Q1 it is necessary to state that a few years ago the whole Vetter organisation recognised that it must adapt significantly to new requirements from e.g., customers and employees. This involved a shift in thinking: from a hierarchy-oriented to a process-driven organisation. As a service department we in

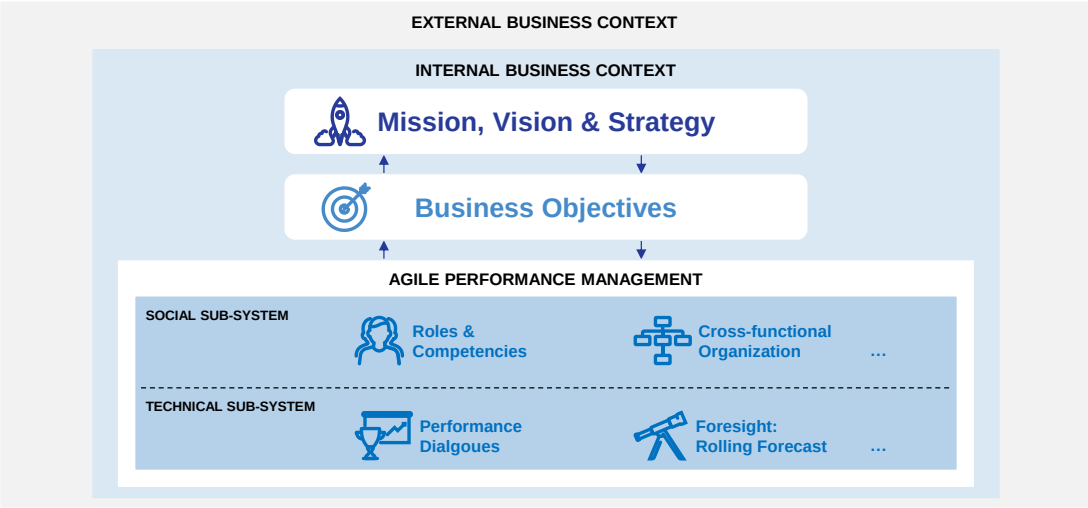

Figure 52. System of Agile Performance Management at Vetter Pharma

turn had to change (internally) as well and assume new roles and responsibilities (Q2).

In doing so, we conducted a multitude of interviews among senior management (sales, operations, HR, logistics etc.) regarding the role of Finance and their requirements from us. Analysing the results, we realised that we had to drastically change our operating model as there was not only a clear need for more reaction speed, flexibility, and process orientation but our internal customers essentially wanted us to expand our consulting and performance management activities: in essence, they not only wanted us to deliver data and analysis but become an active part of the management team. This led to a new role in terms of providing guidance and support as consultants (that means classic controlling functions enhanced by profound consulting skills such as problem structuring, coordinating, moderating, and holistic or strategic thinking). Driven by these impulses we quickly implemented several measures.

Firstly, we abolished the existing homogenous *Controller* role and split it up into two: *The Business & Performance Specialist (BPS)* and *the Business & Performance Consultant (BPC)* were born (for more information see the section on roles).

Secondly, we realised that senior decision-making within our Finance department was too slow to adapt to our customer requirements for various reasons (i.e., no preparation or pre-filtering of decisions). Therefore, we implemented the so-called *Finance Competence Centre,* which essentially is a virtual group (meeting once a week) comprised of members of the various Finance departments (Controlling Business Partner, Controlling Systems & Business Intelligence, Finance & Treasury) and that is responsible for preparing decisions (incl. discussing them from the various angles and perceptions of our Finance departments) before they are being taken to senior management. Having implemented this new unit in late 2019, we can safely state that this has vastly increased decision speed as well as understanding for each other.

Thirdly, we recognised a necessity to change the way employees in the Finance department were working with each other. Traditionally, as mentioned before, the Finance department was split up into three departments. Interaction was based on ad-hoc events or necessity and led to a multitude of misunderstandings and inefficiencies as well as silo-thinking. To overcome these challenges while at the same time preserving the organisational structure, we designed a system of virtual cross-functional teams. Like the Finance Competence Centre, they are comprised of various members of different Finance departments, but their focus is much more operational and process oriented. For example, we now have a cross-functional team on HR Controlling consisting of Controlling Business Partner employees and HR-systems specialized Business Architects (from Controlling Systems & Business Intelligence). Meeting on a weekly basis, this cross-functional team ensures that information flow is constant and new customer requirements and challenges can be addressed immediately. More importantly, by discussing topics from various perspectives, new ideas and innovations can take place. Nowadays, at least half a dozen cross-functional teams exist in Finance.

Apart from the obvious benefits of this new organisation, it has also greatly helped our quest to enable and motivate employees. Instead of having to present every need for action to their superiors, employees can now self-responsibly decide on the operational level based on the process know-how within the cross-functional team.

Social Sub-System: Roles & Competencies

While the first section has given an answer to Q1 and Q2, this section will elaborate on the newly created roles within our Controlling Business Partner department (Q3).

As mentioned above, we quickly realised that to fully implement a new mindset we also had to adapt our roles and self-perception: the existing role of the Controller was too homogenous,

rigid, and, most importantly, not contemporary. Our employees were already having far more differentiated roles than their official job title of "Controller" would suggest. However, these changes had trickled in over the years and it was now time for a paradigm shift.

The basis for the new role design were in-depth interviews with employees, a large-scale activity structure analysis and several workshops with the team leaders of the department as well as discussions on changing roles in Controlling with various external experts. In doing so, we created the BPS and the BPC, which are two fully differentiable roles with transparent skill requirements and development paths.

The core competence of the Business & Performance Specialist (BPS) is within the operational planning and servicing of our internal clients (i.e., monthly reporting, operational budgeting). Moreover, they have expert knowledge in using relevant IT systems (i.e., ERP, PowerBI, KNIME) and have specialised know-how of our client processes (i.e., production or quality processes). Additionally, they are highly skilled at detailed analysis and calculations. In the context of project teams, BPS take on an expert function.

Conversely, the Business & Performance Consultant (BPC) has a clear focus on strategy, project management, and coordination. While BPSs normally have one specific client (i.e., production department), BPC clients can change over time (depending on the project or issue). Moreover, their share of routine work is far lower and requires more flexibility.
For example, BPCs at Vetter are responsible for coordinating our planning processes (strategic, operative), project management in strategic initiatives, and setting up business cases including in-depth market and competitor analysis. They are also constantly challenging and thereby developing our performance management system in a holistic manner. Therefore, they have far more contact with senior management and must possess comprehensive presentation, moderation, and communication skills.

The reception we received upon implementing these new roles was very positive and fully accepted within the organisation and by the employees. In addition, they greatly helped us recruit new talent as we were able to differentiate our offering. However, early in the implementation phase we identified several pitfalls, which we tried to avoid:

- Employee insecurity: change is often not met with a warm welcome at first. Therefore, we decided to let the employees actively participate in role development and made them part of the change design. Despite our efforts we were met with workforce fluctuation as some employees opted to leave the department during the implementation phase.
- Non-transparent communication: instead of working out a fully detailed concept before communicating, we opted to employ several feedback loops and could thereby reduce rumours to a minimum.
- Role equality: BPS and BPC are clearly different from each other regarding skills, requirements, and tasks. Yet what they are not different in is remuneration, career development (each role has three career stages) and significance. Both roles are equally important to achieve our overall Business Partner and Performance Management goals.

The role design was key to ensure focus, specialisation and change in self-perception in our workforce. However, the importance of creating an environment in which these roles can operate must not be underestimated. Therefore, the next two sections will delve into the technical sub-system, presenting two exemplary elements that equip Specialists and Consultants with adequate processes and instruments to fulfil their missions.

Technical Sub-System: Performance Dialogues (PD)

PDs are an integral part of our performance management approach and illustrate how we create value for our internal customers. They

can be characterised by the following five attributes.

- Specificity: The focus of PDs is the holistic optimization of a specific element. In the case of Vetter this often relates to a manufacturing resource such as a cleanroom or a laboratory. PDs aim at generating highlight-oriented insights into performance trends to infer potentials for optimizing these resources.
- Roles & Responsibilities: In order to ensure maximum efficiency in PDs, the group involved in such a process consists of five interdisciplinary roles: Operator (responsible for operating a resource, such as the head of production of a cleanroom), Production Planner (delivers information regarding future resource utilisation), Technical Expert (head engineer responsible for maintenance) and Lean Expert. Finally, these four roles are complemented by a BPC responsible for coordinating the group as well as analysing and structuring performance trends in preparation.
- Metrics: In line with the overall PD goal, metrics employed in the analysis and discussion must be resource-specific and comprised of non-financial and financial KPIs. The performance of cleanrooms is often measured by metrics such as Overall Equipment Effectiveness (OEE) or order deviations. Regarding laboratories, there are various performance indicators available (e.g., cycle times, tests per employee, quality level etc.).
- Process: One of the main requirements for a successful PD is repetition. At Vetter, performance dialogues usually take place every month for every resource / resource cluster. In doing so, constant communication between the five roles can be ensured and action-taking is immediate, dynamic, and quickly adaptable if the situation changes (i.e., change in mid-term production schedule necessitates boost in capacity offering instead of resource shut-down to implement technical improvements).
- Context: Action-taking in PDs must be aligned with overall business objectives. Therefore, PDs need to be deeply

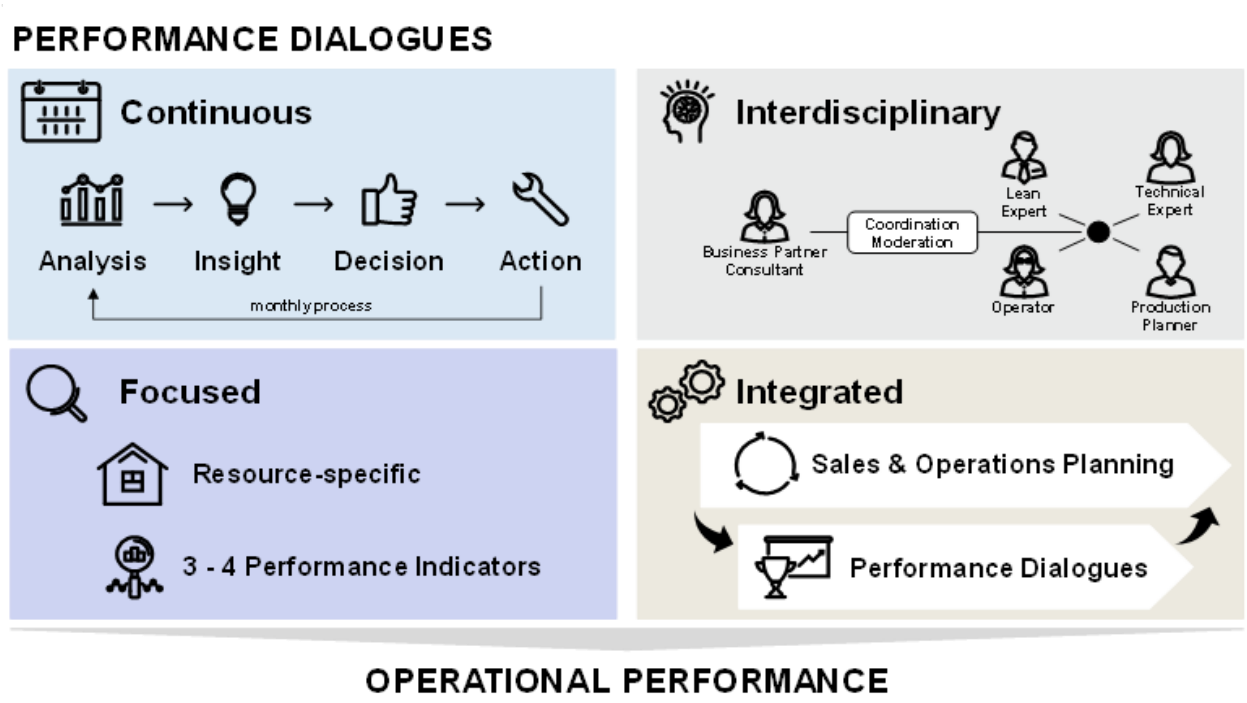

Figure 53 Performance Dialogues at Vetter Pharma

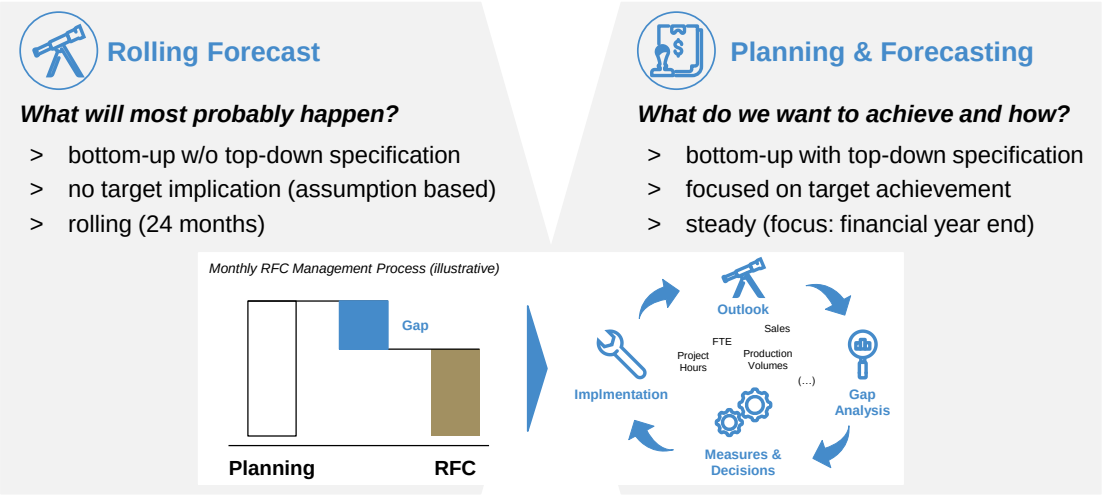

Figure 54. Rolling Forecast vs. Planning at Vetter Pharma

embedded in a company's steering and overall optimisation processes. At Vetter, this is ensured by directly linking PDs to our S&OP process (sales & operations planning) and project planning procedures to achieve fast decision-making.

Besides these attributes, the success of PDs relies on two integral prerequisites:

- Data: consistent and automatised performance data processing for fast analysis and insight generation
- Commitment by all five disciplines involved

Especially the existence of the second prerequisite can be a challenge as it requires an organisational culture that embraces joint optimisation and collaboration instead of departmental entrenchment or finger pointing.

Traditionally, PDs have been focused on retrospective analysis and insight generation. However, in recent years prediction-driven foresight in the form of a Rolling Forecast (RFC) has entered the realm of possibilities and allows PDs to further refine optimisation activities by adjusting to future needs and requirements.

Technical Sub-System: Rolling Forecast (RFC)

At the core the RFC at Vetter answers the following question: What will most probably happen?

In essence, the RFC can be considered a monthly, bottom-up prediction of main financial (revenue, costs, EBITDA, EBIT) and related non-financial metrics (staff numbers, production volumes, and capacity requirements etc.) for the near-term future (24 months). It thereby complements traditional steering instruments such as yearly budgets by uncovering target gaps as well as supporting forward-looking decision-making. Its set-up requires highly automated data processing, integrated systems, and synchronization (i.e., fitting predicted revenue and production volumes). In doing so, its goal can be achieved: A monthly prediction of the profit & loss statement over a 24-month time frame.

For this instrument to contribute to our agile performance management approach, the RFC must be part of the monthly management process. Since RFC predictions only state the most probable outcomes based on current information, communication and interpretation of RFC results is key and requires a structured,

interdisciplinary decision-making procedure. More importantly it requires Business Specialists or Consultants to assume a pro-active role within the whole management process. Its practical, dynamic implementation can be illustrated by the following two examples.

In the case of PDs, the RFC can give insight into future production portfolio volatility. This is an important improvement since PDs traditionally focus on past developments to infer future optimisation needs. However, what is the value-added of product-specific optimisation when future volumes shrink drastically while previously minor products experience strong demand increases? In contrast, based on RFC information, PDs can now anticipate future portfolio changes, act accordingly, and execute optimisation efforts more precisely.

Apart from rather obvious areas of application (e.g., revenue), the RFC adds transparency to one of our key resources: personnel.
The operation of cleanrooms is personnel intensive, and Vetter's rapid growth requires the recruitment of hundreds of production workers each year. Our RFC offers an outlook on future employment tendencies and allows to quickly analyse deviations from planned human resources. In doing so, measures to counteract future staff shortages can be taken immediately to ensure that planned shift model changes or new cleanroom installations can go ahead without any disruption.

Outlook

"Progress is impossible without change; and those who cannot change their minds cannot change anything" (George B. Shaw).
In summary, the main message of this chapter was that to develop a system of Agile Performance Management there are two prerequisites: Firstly, having and living the right mindset, as described in the introduction, is key to success. Secondly, Agile Performance Management is not so much about disrupting traditional Controlling but more about developing existing elements in a concise and coordinated manner: new roles in Controlling (social sub-system) can only leverage their full potential if processes and instruments (technical sub-system) exist that support their mission. Conversely, processes such as PDs or instruments like RFC can only be adequately operated if roles capable of coordinating and managing these are present. In the future we want to refine our performance management approach in two directions.

On the one hand, we want to further improve our existing methods and instruments. In the case of PDs for example, we work on setting up an operational target setting system in which non-financial objectives (e.g., reduction of breakdowns, capacity enlargements, order deviations etc.) are dynamically defined and measured. In doing so, PD's main question of "What can we improve?" is complemented by "What is our ambition as an interdisciplinary unit?". The focus of this concept is the positive motivation of decision-makers as well as specifying overall company objectives on the operational level.

On the other hand, we will add further elements to the technical and social sub-systems: one of the more progressed ideas in this area revolves around strengthening our process-orientation in steering and decision-making by identifying process value drivers and linking them to planning and optimisation. Moreover, we want to open our cross-functional teams to non-Finance departments as well and thereby create true E2E process orientation.

Last but not least, we have just finalized our new corporate strategy Vetter NExT 2029, which will be a catalyst for even more change: for example, one of the main initiatives is to enlarge the cross-functional impact of our strategic planning process by linking it with organisational development. As Controlling Business Partners, we are confident that this strategic program will help us to further develop our mindset and system of Agile Performance Management and in turn increase our ability to contribute to the overall company success.

4.11 Performance & Development at Zürcher Kantonalbank

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Introduction and the "Reason why"

Zürcher Kantonalbank is one of the most successful banks nationally and internationally active in Switzerland. Like the entire financial industry, Zürcher Kantonalbank is under pressure to develop unique services and customer solutions, not only by itself but together with new competitors on the market. Empowered and encouraged employees, who can act along with the company's strategy and make their contribution accordingly, play a central role in the future success of the bank. The individual performance management system, based on the Management by Objectives (MbO) approach, no longer met the changing conditions and requirements of the bank. Thus, the MbO approach together with individual performance appraisals and individual target agreements were abolished, although the company is still managed with goals.

In 2016, the top management discussed intensively how the bank must respond to changing requirements in its management work and systems. Individual target setting, interim feedback, and performance appraisals caused an administrative, large-scale effort without any benefit. Moreover, the PM practices were seen as an obstacle on the path to greater agility, flexibility, and interdisciplinary collaboration. Finally, there was the question of whether it is appropriate to give mature employees a grade for their behaviour and performance at the end of the year. The key issue of the top management discussion was always how to improve the performance of Zürcher Kantonalbank in the future. A comprehensive framework – Performance & Development – was finally created in response to meet the challenges of a complex and rapidly changing corporate environment and to accelerate performance.

The following article is structured as follows: To start with, there is a brief introduction to Zürcher Kantonalbank, followed by an outline of the transformational development and implementation process of Performance & Development. In a further step, the new framework is described based on its three pillars "Strategy Transfer", "Employees at the Centre", and "Development and Support". Finally, the article provides a summary of the system and the most important lessons learned during the transformation.

Zürcher Kantonalbank

Founded in 1870, the independent and public-law bank, Zürcher Kantonalbank, is today one of the largest, securest, and most successful banks in Switzerland. In addition to a state guarantee and a AAA rating, the bank reported outstanding results and assets under management of CHF 402 billion and a consolidated profit of CHF 942 million in 2021. A key success factor is the approx. 6,000 committed employees. After all, Zürcher Kantonalbank is regarded as "the close bank" – both externally and internally. The bank fulfils a so-called performance mandate in the canton of Zurich. The bank's core tasks include not only general financial services for the population and corporations (i.e., financing or asset management), but also support economic and social tasks (i.e., pension provision) and respectful and responsible interaction with society and the environment (i.e., promotion of art, culture, and sport).

Zürcher Kantonalbank, as well as the entire financial industry, is increasingly characterized by volatile market conditions. These include complex and interdependent national and international regulations, digitalization, new currency systems, or global competitors. Like other companies, Zürcher Kantonalbank has also recognized that a key element for long-term success is its employees, who are willing

to constantly develop themselves and thus remain employable and acting on their responsibility in the sense of "the close bank". Zürcher Kantonalbank, therefore, focuses on the development of every employee, so that the entire company remains competitive and successful in the long term. Trust in employees has always been a high priority in the discussion on how to achieve this in concrete terms. While a strong culture of collaboration was already present, this did not mean that there was no room for improvement. Even today, the question arises of how a corporate framework with ambitious demands should look so that employees can use their trust-based responsibility and courageously perform tasks. The previous MbO approach, however, consisting of annual, individual performance appraisals certainly did not support this path. Performance & Development is therefore the way forward at Zürcher Kantonalbank “to become even stronger from a strong position”.

Transformational Aspects and Success Factors

Due to the disadvantages of the old PM system outlined above, the top management decided to take a disruptive step in the summer of 2016 and abolish MbO. The further path became radical because the abolition was valid with immediate effect, without knowing what would come as a response. After long discussions, the top management team was convinced that this radical and new direction was consistent and credible; it turned out to be a key success factor for a broad acceptance of the new performance management framework. This process was supported especially by the CEO, who had the deep belief and inner conviction that the corporate culture had gained the necessary maturity to be able to take this step.

The development of Performance & Development initially took place in a small circle made up of talents in top management. The HR team was involved, initially, to play an accompanying role, and later was largely responsible for selecting the performance management tools and designing the processes. During the development phase, the transformation team responsible tried to incorporate positive aspects of MbO into the new solution. Overall, Performance & Development was created in just a few months and successfully introduced as a leadership task and not as an HR project.

During the introduction phase, there was an intensive discussion as to whether and in what form centrally managed programs, monitoring, etc. were needed. The decision was consciously and deliberately different. If the cornerstones of Performance & Development are the promotion of personal responsibility and creative freedom ("steadfast in belief"), teams and business units should not be told what to do and how ("freedom in action"). The direction and extent of the performance management system implementation were left to the individual business units – merely with the clear commitment to approach this consciously.

A New Area: Performance & Development

The concept of Performance & Development targets the development of every employee in order to secure long-term corporate success. This was guided by the following premises:

- Clear orientation towards the bank’s strategy and the business unit. Everyone knows the individual/team contribution that will be made to achieve the strategy, with employees given a higher self-responsibility in designing and shaping this path. The latter is regularly discussed with the supervisor.
- Focusing on strengths and the future development direction of each employee for a better performance (moving away from assessments that lie in the past and working on weaknesses).
- Continuous and individual dialog and exchange between supervisors and employees to jointly pursue development paths – both for reflecting on the small steps taken in everyday life and on major

future-oriented ambitions (instead of just annually recurring discussions).

In the following section, it is demonstrated how different day-to-day actions and activities are nowadays designed at Zürcher Kantonalbank. In addition, it is shown how those are interlinked with the three core pillars of Performance & Development: (1) Strategy Transfer, (2) Employees at the Centre, and (3) Development and Support.

1. Strategy Transfer is to be understood as a management task or process targeting the communication of the bank's strategy and corresponding strategic goals to teams. Furthermore, the strategy understanding serves as a basis for the joint orientation of work initiatives.
   The strategy is communicated to the employees; as a result of following steps (e.g., workshops) which can differ from team to team, everyone knows his or her contribution to the big picture. This is discussed and reflected upon in regular dialogues. An important tool – especially during the introduction and onboarding phase of employees – for a better strategic understanding of the Zürcher Kantonalbank as a whole and making it more tangible is the "blauweiss" App, which was frequently used especially at the beginning of the implementation process of Performance & Development. It playfully illustrates and includes further corporate aspects such as the business model, strategic priorities, and the history of the bank.
2. Employees at the Centre refer to three dialogue formats or processes – covering a people, team, and portfolio view – which managers utilize to anticipate the future. The second pillar, therefore, represents a further instrument for strategy implementation, with a special focus on people as well as their skills and capabilities.

- The team view is closely linked to the first pillar – Strategy Transfer – and is the basis for strategic workforce planning. In addition to the corporate strategy as the guiding framework, there is also the conscious consideration and adoption of external trends. This results in future requirements for the team (target situation). Afterwards, an assessment is made of the extent to which the "target" of future requirements is already covered today or whether there exists a "gap". Finally, measures are derived as to how the "gap" between actual and target requirements can be closed. Countermeasures for reducing the "gap" include target-oriented recruitment, the development of employees, and structural decisions regarding the organisation of work.
- In the annually recurring people view, managers discuss the strength-oriented development directions and needs of each employee in their area. Peers calibrate their assessments of performance, behaviour, and potential. In particular, the team and employee views provide relevant insights for strengthening- and future-oriented employee development.
- The portfolio view serves as a kind of consolidation of the other two views and takes place bottom-up per business unit. The focus lies on specific groups of employees to whom increased attention should and must be paid. These are, for example, talents (high-potential employees) who strongly shape the success of the bank today and in the future. Input from the employee perspective provides the basis for these dialogues. The portfolio view is also about discussing specific job profiles of the future. A discussion is predominantly triggered by the team. Those actions are performed without any administrative effort and are the responsibility of each business unit.

3. Performance & Development provides hands-on tools for both employees and managers. Besides continuous dialogues, the tools are used to communicate and translate the topics from the first and second pillars into the everyday life of employees, especially into their development plan.

Instruments for dialogues include, for instance, “Short Meeting” or “Development Dialogue”. The Short Meeting is intended as a regular, 15–30 minute exchange, while the Development Dialogue takes a more medium- and long-term perspective. In both, however, the focus is less on business issues than on mutual feedback or coaching for overcoming challenging situations. In addition, Performance & Development provides various tools for individual development planning.

Finally, there are tools targeting the dialogue and feedback from other people. For example, the “Team Barometer” helps to reflect the current team collaboration (also in "non-traditional or agile teams" such as project teams). “Instant Feedback” follows the logic of social media applications. It aims to provide quick and personal feedback through “Likes” to employees via an app or desktop solution.

management framework, continuous improvements and further developments have been made.

For example, with the introduction of the portfolio view in the second pillar Employees at the Centre, talents as high potentials were systematically and explicitly identified and made visible across the bank for the first time. Initially, there was a lack of a development offering to address the entire target group of talents, regardless of their hierarchy, age, etc. Consequently, as a further development step of Performance & Development, talent management at Zürcher Kantonalbank was comprehensively revised in 2018. Three established development programs, which targeted only specific talent groups, were supplemented by a new offering: " Talent Community". The offering addresses all talents at Zürcher Kantonalbank and approaches the

Instrument	Description
Talent Ted Talks	Talents share experiences and insights with other talents according to the principle of the well-known "Ted Talks".
"Fragenhagel"	A format similar to Carpool Karaoke, i.e., an employee answers various questions during a tour of Zurich. This conversation is recorded and made available to all talents on the online platform of the "Talent Community"on the intranet. The focus here is on showing courage and opening up.
Booster-Café	A coaching meeting with external development experts on the personal development plan.
Personal Vision	Coaching session regarding the goal and meaning of a personal vision, as well as sharpening your vision.
Mystery Lunch	Networking Lunch with four talents randomly assembled to promote networking.
Design Sprint	Four-day process in which an interdisciplinary team from different areas works in a group on a concrete solution for an internal bank challenge.
Entrepreneurship with corporate clients	Keynote speeches by inspiring leaders from Zürcher Kantonalbank's corporate clients.

Figure 55. Exemplary offerings from the Talent Community

Continuous Development – Performance & Development and the Way Forward

The elements presented above are the cornerstones of Performance & Development. Since the introduction of the performance

development and contribution of the talents. The “Talent Community” represents a networking and offering platform for a self-contained online community that is embedded into the learning portal of the Zürcher Kantonalbank. Along with their development goals, talents decide for themselves where to

focus and which offers to take. Personal responsibility and dialogue with their supervisors are again a prerequisite to benefit from the “Talent Community”. The offerings are designed in a modern and iterative manner and build on the active demand of talents. Apart from that, the offers are based on a structure along "personal development, networking, visibility, and inspiration". Representative examples are:

Another milestone in the further development of Performance & Development soon followed. An internal employee satisfaction survey in 2019 revealed the broad acceptance and approval of the PM system. The understanding of Performance & Development seemed to have caught on with employees – development had a higher priority from their perspective than before, and their contribution can be better related to the bank’s strategy. All these actions were only single elements of positive development. During the survey, further need for action was identified: 1. how to become even more ambitious in the demands on performance without building up pressure; 2. how to better establish self-responsible learning in the full range of the organisation. "Give.Take.Learn", an initiative that addresses just that, was designed and rolled out in 2020. It raises awareness of lifelong learning and offers concrete, supportive products for implementation in everyday work.

An exemplary tool and product from Give.Take.Learn is the “Development Folder”, which supports tackling personal development planning very specifically in five steps. The “Development Folder” is a holistic guide for creating, implementing, and reflecting on one's development plan with focus also on continuous improvements in day-to-day life. The contents are developed with the help of self and external reflection. In this sense, it is to be understood as a further development and enrichment of Development and Support.

Outlook

The transformation of Zürcher Kantonalbank towards more flexibility and agility regarding growth with the help of Performance & Development is more important than ever due to the dynamic market requirements. It is important to focus on each employee with his or her strengths, aligned with the ambitions of the company and the requirements of the labour market. Zürcher Kantonalbank, “the

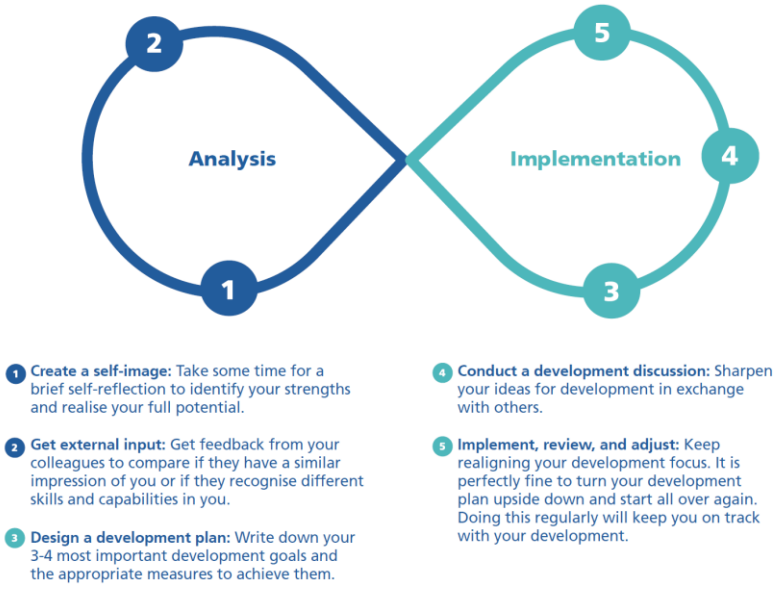

Figure 56. Development Folder

close bank", believes in "becoming even stronger from a strong position". From a transformational perspective, management's support and deep belief in change and the maturity of the organisation are important transformational requirements.
The decentralized scope for design and self-responsibility in implementation and the understanding of the task – people development – as one for supervisors are further success factors and learnings. For the development of the system itself, not only external consultants and HR, but primarily internal employees, should be used. This increases the likelihood of an employee-centric solution and increased acceptance during implementation. Finally, the continuous development of Performance & Development shows, among other things, that change is not a sprint, but a marathon.

5 Application Recommendations

5.1 Use of Agile Approaches

It has become clear that there is a great variety of agile approaches which can be used in different contexts. This raises the question: When or where is which approach suitable? Therefore, the agile approaches presented are classified based on four criteria in order to create better guidance:

1. Level (individual/team/organisation)

   The hierarchical position of the application very often determines the depth of the implementation of agile approaches. As seen in some implementation examples: if the owner or CEO wants to bring forward agile, the implementation can be done companywide (see for example the KEBA case). On the other end of the spectrum is a team leader who wants to experiment with contemporary management approaches and implements only one approach for the interactions between team leader and members. This opens the possibility to combine different agile approaches and test in which combinations they provide the highest effect.

2. Cycle (week/quarter/year)

   In general, agile approaches are short-term oriented in order to quickly learn and integrate feedback and change. Nevertheless, specific approaches and especially the holistic approaches also cover longer periods in their application in order to support long-term learning and development of the organisation.

3. Steering (goal setting/ coordination/ feedback)

   Agile approaches sometimes cover the whole management control cycle (see chapter 1) or are focused on a specific steering process. This is especially relevant for the leadership-oriented approaches that most often tackle only goal-setting, coordination, or feedback. Similar to “level” and “cycle”, also here holistic approaches cover the whole process and often prescribe a clear sequence, content, or use of the different elements.

4. Change (quick wins/mid-term/long term)

   As agile approaches are in many cases simple advice of “how to”, they can often be implemented very fast, producing quick wins – or at least quick change. Especially the more complex approaches are – they have usually a longer process cycle – the longer the time span of change. As a result, it can often be observed that throughout the journey towards more agility a combination of quick-win producing instruments and others with more long-term effects is a good mix.

The classification should be seen as an orientation and not as a binding assignment since the agile approaches can be designed in different ways. Here, contingencies play a major role for the effectiveness of the implementation and use of agile approaches. Contingency

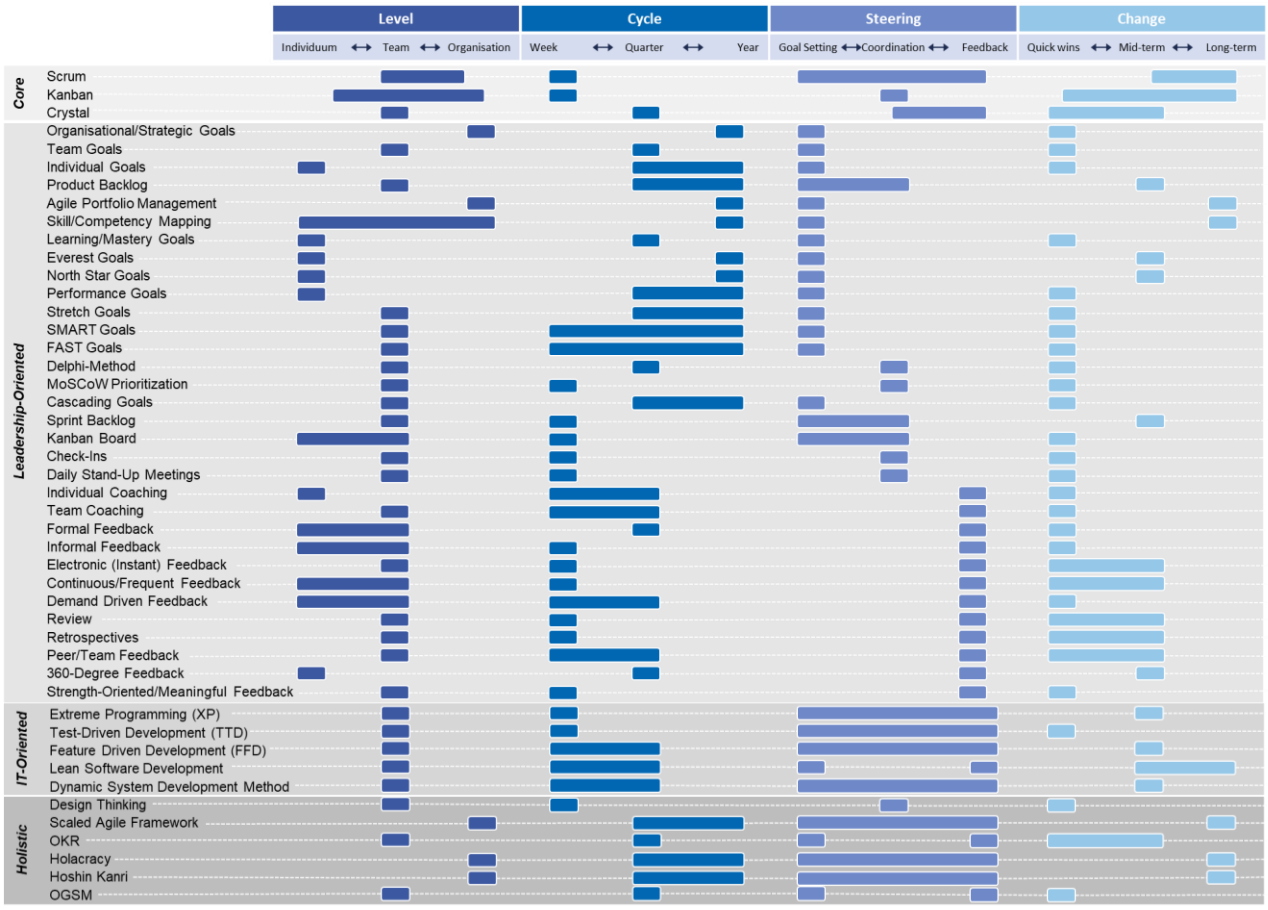

Figure 57. Classification of agile approaches (own representation)

theory describes that a management approach is only successful in its application if it fits its context (Gerdin & Greve, 2004). Numerous contextual factors have been identified so far (Cao et al., 2009; Conforto et al., 2014): culture, organisational and team structure (i.e., team dedication or self-directed teams), management behavior, agile maturity level (i.e., agile understanding, willingness to operate in an agile mode, or agile work approach of other functions), process landscape, customer or user presence (knowledge capability or accessibility), task characteristics, project types, or decision-making power.

Illustrated by the implementation examples, it has already become clear that a supportive management behavior is a fundamental driver for an agile transformation. On the one hand, early management buy-in can help to give the transformation strategic importance, make fundamental structural changes, and incorporate shareholder- and stakeholder-related aspects. On the other hand, the proactive demonstration and operation of agile approaches by management serves as a role model for employees. Apart from that, the team structure constitutes another major contingency factor. Individual team members should be assigned to a single and dedicated team. First, to prevent dependencies and shared capacities across different teams. Second, to enable focused and team-internal task and problem-solving. Third, to eliminate hidden reporting lines – caused by various supervisors, team, or project managers – which may cause goal and interest conflicts as well as increase planning and coordination efforts.

To conclude, there is no one-size-fits-all agile approach. It is much more a balancing act to bring the goal of an agile transformation in line with appropriate agile approaches and the corporate contingencies.

The use of agile approaches is always context specific and should take into account the organisational implementation level, the timeliness of feedback, the steering focus, and the targeted change horizon.

5.2 Agility and Controlling Processes

From the preceding discussion, it is clear that agility has an impact on the instruments and processes of controlling. Controllers are faced with the challenge of adapting the controlling system to agile organisational and management principles. This chapter will provide an overview of the impact of agility on controlling processes.

Overall, agility means more flexibility and thus reacting more often and faster. This has a variety of consequences in management, e.g., a more decentralised organisation with more personal responsibility and less strict targets, more flexible strategies and investments ("small bets") or more rapid operational adjustments and budget shifts. For the planning and control system, this does not mean turning completely away from planning and budgeting, but to use a changed approach. In the center of such an approach there must be a more "flexible attitude" of the controller, i.e., expecting changes in plans or variances, preparing for more rapid responses and preparing forecasts more frequently. Nevertheless, the increased organisational flexibility and more frequent changes not only affect planning, but also all controlling processes. These affects range from

- methodological changes (e.g., Scrum instead of waterfall method in project controlling), to
- structural issues, such as the question of whether the effort for detailed cost allocation rates is still worthwhile in flexible organisational structures, to
- challenges of adequately mapping ongoing changes in IT systems in terms of quality and time.

All in all, agility requires an initial decision to adapt the controlling system and, following, a continuous adaptation and adjustment, especially of the controlling processes. The continuous adaptation/improvement phase will follow more a trial-and-error approach than a fully cascaded plan and thus require considerable change effort from controlling in order to adapt the controlling processes to the management needs. This has in turn consequences for the initial change decision, which cannot be made on a detailed pre-defined action plan and thus requires bold front-up decisions from management and controlling together. The IGC controlling process model is suitable for describing the framework that needs to be addressed and effected. However, it should not be concluded that agile controlling requires the transformation of all controlling processes. Rather, it is important to prioritise which levers should be turned in order to move the organisation as a whole more in the direction of agility.

Agility is already prevalent and will impact in the future all controlling processes. This transformation will happen in different ways from content to design to positioning changes, but mostly in a stepwise change process.

Main process	Major impact of agility
Strategic Planning	- More frequent strategy re-evaluations and questioning of planning premises - Establishment of a strategic early warning system - Develop and pursue multiple strategic options (small bets and fail fast approach)
Operational Planning, Budgeting and Forecasting	- Increased focus on more frequent forecasts for faster responsiveness - Larger budgets for more flexibility (e.g., target profit margin instead of detailed targets for cost types) - Gradual release of discrete fixed cost blocks - Reserving of flexible budgets for initiatives - application of the “Principles of Modern Budgeting"
Investment Controlling	- Investment budgets: Reservation of strategic investment buckets without immediate return requirement, which can be allocated flexibly ("Small Bets") - Investment appraisal: Change from pure NPV valuation to benefit analysis - Investment monitoring: potential analysis, with quick investment stop
Cost Accounting	- Core question of how detailed cost accounting should be pronounced - More frequent adjustments of cost center structure, possibly coarser cost center structure - Simplified internal activity allocation - Flexible planned cost accounting to better reflect changes in quantities
Management Reporting	- Greater transparency about what is happening in not-predefined areas - more Ad-hoc reporting and self-service BI - Faster reporting - - Project progress reporting becomes an important component".
Business Partnering	- For the controller: knowledge of agile methods - Strengthening of decentralized business partnering
Project Controlling	- Change from a few well-planned large-scale projects based on the waterfall method to Scrum-oriented projects - Increasing importance of multi-project management
Risk Controlling	- More frequent review of risk sources - less precise quantification (value at risk ...) - Simulation of the impact from the failure of small bets
Data Management	- faster and more frequent control of new master data - faster and more frequent adjustments in existing IT systems and adaptation of software products
Further Development of Organisation, Processes, Instruments and Systems	- Faster adaptation of the controlling system
Controlling of Functions	- Use of agile approaches in the departments - Knowledge of the agile approaches by decentralized controllers - integration of the above mentioned effects

Figure 58. Impact of agility on the main processes of the IGC controlling process model

5.3 Agility in Planning and Forecasting

For the change towards agility in planning, budgeting, and forecasting two questions must be answered:

- How can planning become much more flexible and agile in the future, especially in a VUCA environment, without fundamentally questioning the planning function?
- Which adaptation needs and/or new principles are required in this regard?

Below, some answers to these questions will be given. A lot of ideas for the necessary changes have already been discussed (see for an overview especially the ICV Statement modern budgeting). In the case of planning adaptations in the agile environment, first a differentiation can and should be made with regard to possible adaptations in the context of strategic planning as well as operational planning. For example, the Scrum approach can be transferred very well to strategic planning and integrated into the Balanced Scorecard concept (Knechtel, 2020, p. 155). First of all, one can start from a traditional strategic analysis, which is also required in the agile context and continuously also in the VUCA environment. The result of the analysis can lead to a new or modified strategy map, where the new or adjusted initiatives that have been agreed can be transferred to a business sprint. For example, these sprints last four months with integrated work meetings every 14 days. The measurement of the realisation of the strategic initiatives is particularly important in the sprints; for this purpose, the OKR method can be used in a supportive manner (Knechtel, 2020, p. 159). Often, in the agile context, there is a fundamental requirement for controllers/management accountants to make the plan coordination more adaptive (Schäffer & Weber, 2019, p. 63). For example, in line with the concept of Beyond Budgeting, it is recommended that targets are set ambitiously, but that they are better designed in relative terms. This helps to limit coordination procedures and political games (Schäffer & Weber, 2019, p. 63) and to avoid absolute budget buffers.

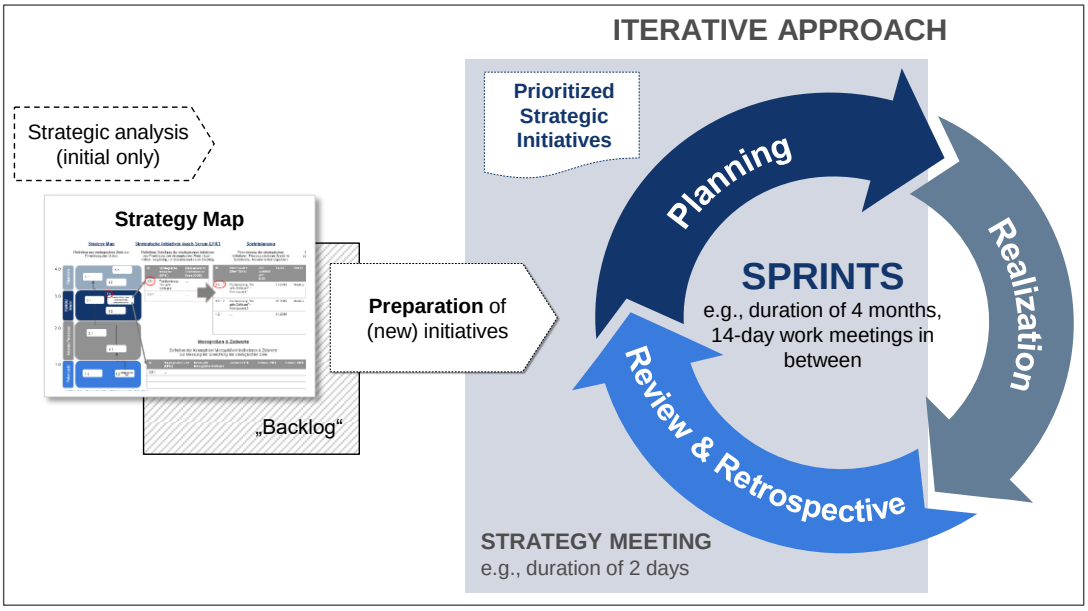

Figure 59. Agile approach in the context of strategic planning (Knechtel, 2020, p. 155)

Another example how operational controlling can benefit from an agile approach is a more flexible execution of forecasts in the VUCA environment. This implies that the relevance of current forecasts will increase significantly. Additionally, more frequent feedback loops should be established in order to be able to react quickly to changes in the environment (Weber & Schäffer, 2016, p. 12). The accelerated reaction speed and the resulting increase in information content should significantly enhance the importance of forecasting for adequate management control in the future. However, creating more flexible structures also requires streamlining processes, both the forecasting and planning processes.

Referring to this, Péter Horváth calls not only for further flexibilisation of processes but also for an adaptation of the planning in the VUCA environment, since existing planning systems and logics no longer work for the following reasons (Gimpl, 2021):

- Early start of the planning and the resulting lead times
- Insufficiently precise allocation of responsibilities to processes
- Lack of possibility to perform simulations
- Use of different systems in the process with uncoordinated interfaces.

Agile (operational) planning thus should include (Horváth, cited from Gimpl, expanded/modified):

- New planning principles (the example of Bosch, cited from Stoi & Asenkerschbaumer, 2015). Accordingly, the planning should
  - become more agile, simpler, and more flexible,
  - start later,
  - be more decentralised,
  - be more integrated,
  - be more flexible e.g., with rolling forecasts,
  - start with rough guidelines and
  - it should separate incentive and plan targets.
- Adapted planning contents

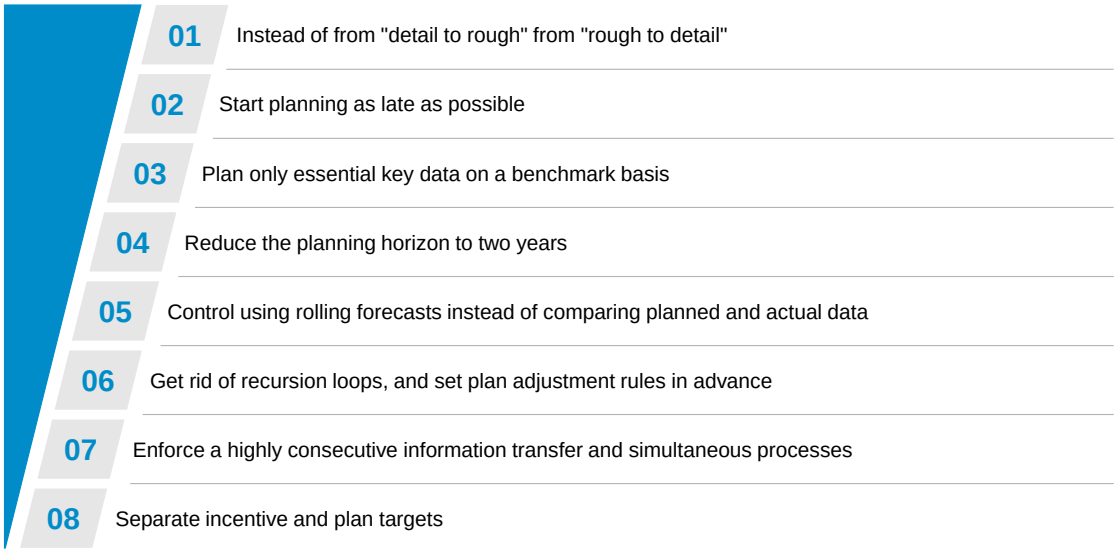

Figure 60. New planning principles at Bosch

(Planning contents should not be too detailed and should only include the key performance drivers with a focus on strategy)

- Extended data basis

  (Data basis should be expanded with external data which can be used for scenarios in the context of planning)

- Leaner and streamlined planning processes and organisation
- Application of modern IT tools for planning (Business Analytics)

  (Implementation of modern tools to create an integrated planning approach, a flexible and (partly) automated forecasting or to perform planning simulations)

The example of Bosch (a German technology and services group with currently approx. 395,000 employees and EUR 71.5 billion sales in 2020) is based on several projects in controlling that have been carried out there in recent years to adapt planning to the VUCA environment and to make it faster and simpler. The new planning principles are closely related to the core theses on new planning and control propagated at Bosch (Stoi et al., 2015, p. 21):

- Flexible, up-to-date planning requires a drastically shortened planning process.
- The key to this is market-oriented top-down specifications and a focus on essential targets.
- Corporate management in volatile markets requires decentralised decision-making authority.

Bosch also sees itself as a pioneer in the implementation of agile concepts such as Scrum in the finance sector (see also the Bosch contribution in this book and in Weber & Asenkerschbaumer, 2018, p. 20).

Another good example of what a modern planning concept can look like and where some important principles described above are taken into account is the concept "ONE!" of Grünenthal. Grünenthal is a German pharmaceutical company based in Aachen with about 4,600 employees and an annual turnover of EUR 1.28 billion in 2020. There, controlling has very consistently pushed the integration of planning. Especially the integration of operative data into the planning has led to the fact that controlling is now very closely involved in the operative business and can act much more flexibly. In terms of tools, Grünenthal uses TM1

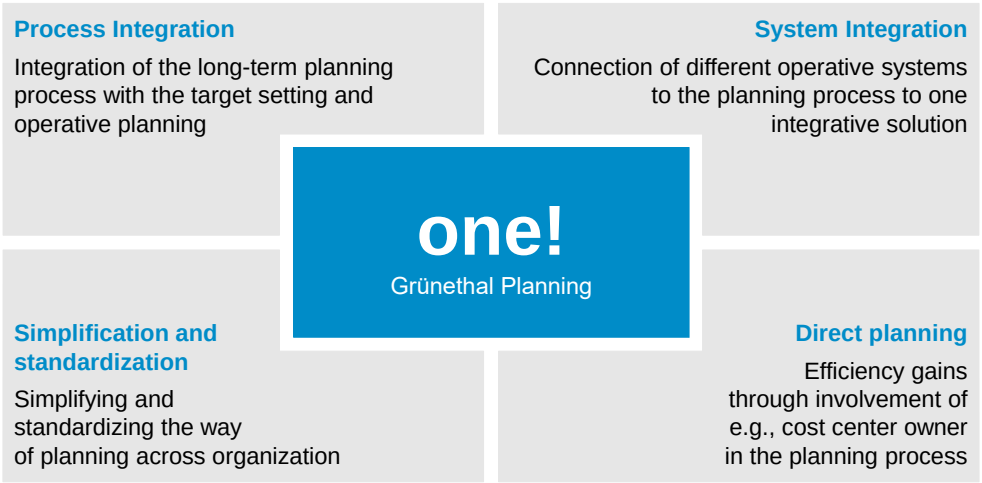

Figure 61. Grünenthal's new planning concept (see Bertram, 2020)

from IBM as a supporting planning tool.

There is no one, right solution for agile planning, budgeting, and forecasting. It is important to clarify that agile planning does not equal uncontrolled, arbitrary activities. Instead, agility removes the concentration on plan-actual-deviation analysis and replaces it by a focus on flexible control of the development of the actuals towards a planned goal or within a planned corridor in order to identify possible actions to (re)achieve the defined goals. Thus, the focus changes from controlling to action-planning activities.

Agility in planning, budgeting, and forecasting means replacing plan-focused deviation analysis with flexible, decentralised, simplified and future-oriented steering approaches.

5.4 Agility and Controlling Competencies

An agile controlling organisation needs not only technologies, working methods, and tools, but first and foremost controllers who are able to take up the new working models and work in an agile way. Successful work in an agile environment – whether in a project or in the operational organisation – requires special competencies, just like the fundamental agile transformation of companies. Competencies that should be present in every single controlling employee, but especially in managers.

It is therefore long overdue not to regard the competencies as something secondary, but to dedicate a lot of attention to them in parallel with the working methods, tools, and the new roles. In many organisations today, however, this development logic is still running in the opposite direction: While the ways of working and tools are renewed, the competencies are neglected, not at all considered as an integrative part of the implementation, but, on the contrary, left to chance. This, in turn, greatly impairs the success of any transformation.

For many, learning is still simplistically seen as the mere acquisition of knowledge, skills, and qualifications. Though these learning processes are still a prerequisite for education in the company, they most certainly do not suffice anymore given the demands. What is asked for today is competencies such as the ability to solve practical problems in a self-organised manner. We define competencies in this sense as the disposition for self-organisation.
We distinguish between two types of competencies: competencies required for self-control strategies, where the objective is known – though possibly loosely defined, and competencies required for self-organisation strategies in the narrower sense, where the objective is open. The first group is dominated by professional and methodological competencies (PM), the latter by personal (P), socio-communicative (S), and activity-oriented competencies (A) (IGC, p. 22f).

Below we highlight what we consider to be the special core competencies of an “agile controller”, where no sharp cutting dividing line can be drawn between agile and “non-agile” controllers, as there is a large overlap of skills that are needed as core competencies in the agile and non-agile worlds. In addition, there are some competencies that are generally relevant for the controller job, but which will not be discussed further here (IGC, Controller Competency Model, 2016).

A central competency is that of self-leadership – because only controllers, who are able to organise and lead themselves can also lead others and take responsibility for team members or as partners of management. This requires a high degree of self-management and self-reflection. This includes, among other things, the ability to delegate by handing over responsibility to others and trusting their competencies. In addition, effective time management and one's own self-perception play an important role. The mindset of acontroller is crucial: only those who themselves follow agile values, such as transparency, interaction, communication, and strong teamwork, can pass these values on to others. Self-leadership is a hybrid competency, i.e., "personal" (P) and activity-oriented (A) in

the sense of the four basic competencies according to Heyse and Erpenbeck (2009). As agility generally is connected with a higher degree of decision-making, a more decentral organisation and less hierarchy, self-leadership is a crucial concept and competency to support agility.

Another core competency is the ability to cooperate, a social-communicative competency (S). This is the ability to cooperate socially. This includes the ability to form - at least temporarily - a mutually complementary and supportive community out of individuals who are open to new things and willing to act, and who are not hostile towards other people and groups. Important here are the will and the ability to include even difficult people in the cooperation. To work together successfully in an agile context requires not only the ability to recognise and acknowledge the ideas of others, but also the willingness to empathise with other people's attitudes. Within an agile culture, controllers should therefore be particularly able to build mutual trust and allow for mistakes and mutual feedback. Agile controllers create space for respectful cooperation based on partnership, in which they advocate decisions on an equal footing and try to overcome rigid hierarchies. The mindset of an agile controller is also crucial here. Openness and respect are important to develop oneself and the organisation as a team.

In order to make thoughtful and wise decisions, an agile controller needs a strong problem-solving ability. This is the ability to analyse, understand and ultimately solve complex problems. Problem-solving competency goes beyond the cognitive-logical ability to analyse and understand complex issues (analytical competency), which is often required in the first place for controllers, and also includes the creative ability to find new approaches to solutions and to rethink unknown problems, as well as to outline options for action and decision-making based on this. This is particularly important in uncertain situations: It is a matter of recognising difficulties quickly, reacting to them immediately and pushing forward with sustainable decisions. According to Heyse and Erpenbeck (2009), problem-solving competency is a combination of professional and methodological aspects (PM) on the one hand and activity-oriented aspects (A) on the other hand.

Agile controlling requires a high level of agile methodological competency. This is a distinct understanding of agile methods and principles (professional and methodological competency/PM) in combination with the ability to implement the methods (activity-oriented competency/A). Agile working methods are, as this publication shows, flexible and easy to apply. This contributes to the fact that agile working is becoming more and more established in companies. Many even are working agilely without knowing it. Nevertheless, the added value of the approach is only fully unleashed when it is anchored in the DNA of the company. Here, controllers must take the reins and drive development themselves. To achieve this, suitable smaller projects should first be processed in an agile manner in order to put the methods and their feasibility in one's own company to the test. In order to determine and decide at which point in the controlling processes an application of agile approaches makes sense, sound methodological competency and significantly more than just a rough idea of agile working is needed. Ultimately, it is the controllers who create the framework conditions for agile working and flexibility in their area of responsibility. In addition, controllers find themselves more and more frequently in agilely managed areas as business partners, where it is a matter of accompanying decisions in a methodologically suitable form and “staying in the game”. Agile work takes place in teams in both cases, in one's own area of responsibility as well as in the context of business partnering, although the different teams can have different forms of work that cover specific focal points such as flexibility or quality assurance (see chapter 3 “Agile Approaches”).

In addition to agile methodological competency, an agile controller should have specialised professional knowledge. There are three areas of specialisation for expertise which are to be specified depending on the concrete activity. In particular, these are "technical mastery",

"business mastery", and "transformational mastery". Technical mastery refers to the technical expertise for a specific role. Business mastery reflects the expertise as an expert of business-driven innovation and product development. Transformational mastery includes expertise as an organisational developer and change catalyst.

But how do agile controllers manage a successful transformation from the "old" to the "new" agile world? A high degree of change competency is needed here, which describes the ability to understand changes as learning situations and to act accordingly. This is a mixed form of personal competency (P) and activity and implementation competency (A). Controllers are change-competent if they are able to identify the need for change, develop change goals, design change processes, steer them to the desired change result, maintain the result, and possibly improve it further. This is relevant for the controlling-processes as well as for the organisation as whole. Ultimately, controlling is always change-oriented, because it is intended to turn an actual state into a desired target state. Even if a (good) actual state is to be maintained, changes are usually necessary. A high level of change competency arises from the interaction of personality traits, methods and supporting framework conditions in the company. An absolute prerequisite for successful change is the willingness to change. This is not necessarily the case because "people love progress but hate change" (Voltaire).

Communication skills are key for controllers in any context. After all, controllers usually provide managers with important information. Not infrequently, communication fails - and the situation escalates. Communication is a skill that is always and everywhere in demand, but especially of the highest priority in the agile environment. Collaboration fails if communication in the team is not right. A transformation from the classic to the agile way of working fails if there is no facilitator who has increased communication competency (S). It is therefore essential that agile controllers possess this social-communicative competency to a high degree. The competency can be experienced when controllers approach their dialogue partners openly and benevolently, establish contacts quickly and develop them, address problems openly, listen well, show appreciation and empathy, meet objections objectively, are frustration-tolerant, successfully address their own messages, convince, and influence the others, and motivate through strong identification with their own arguments.

The controller competency model of the International Group of Controlling offers a consistent methodology for competency management in the controller field. It answers questions such as “Which competencies are generally important for controllers?”, “Which competencies are critical to success for typical controller functions?”, “Which competencies are critical to success for a specific controller function in a specific company?”, or “To what extent do they exist? What is the need for development?”.

The model consists of a competency catalogue, which builds on the process model and the controller mission statement of the IGC and deals with controller competencies in detail, and an output-oriented competency grid. Output-oriented means that the individual controller competencies are assigned to different categories according to their contribution to controller performance. The competency catalogue is completed by sample function profiles and sample competency profiles derived from them (IGC, 2016). This provides controllers, management, and HR with a concretely applicable tool for competency development, review, and talent management. The model is suitable for the agile context. The agile core competencies listed above are all included in the IGC generic competency catalogue from 2016, although the agile context today has made the competencies more complex and therefore a situation-specific adaptation of the original competency descriptions is highly recommended.

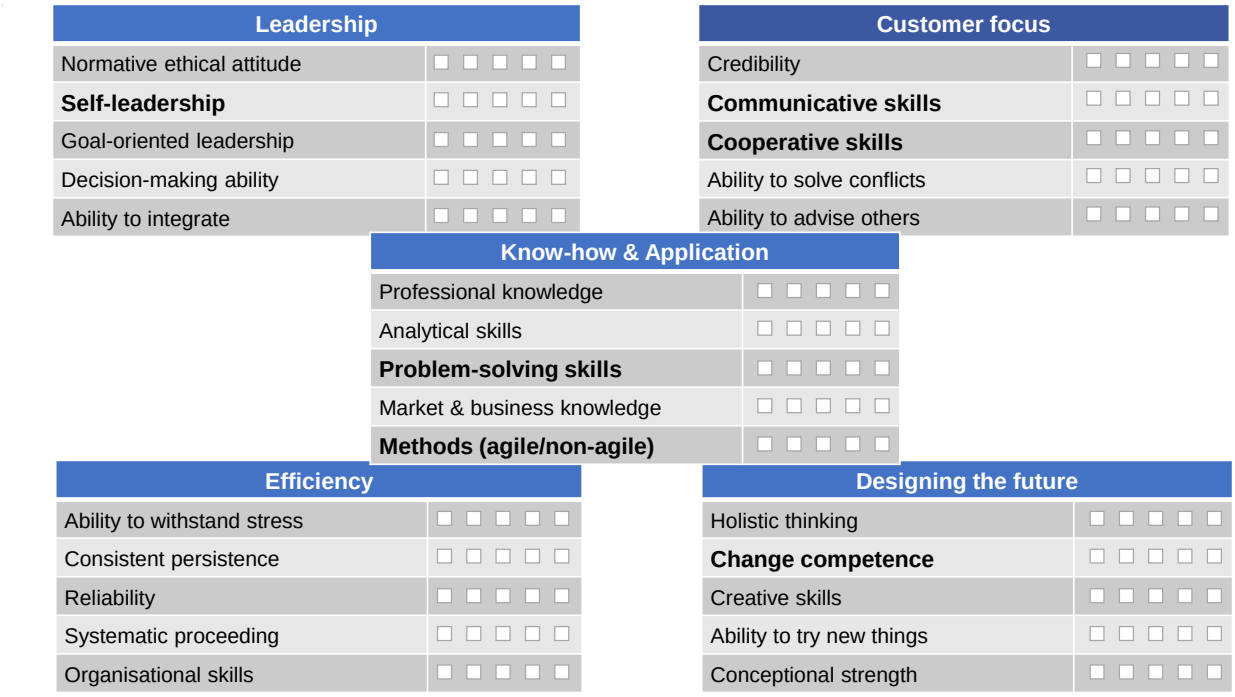

Figure 62. Competence grid with agile core competencies

To actively accompany the transformation from the classic to the agile working world, controllers will have to invest more decisively in skills. While the overall need for agile controllers is increasing due to the progressive agility of companies, the search for comparable competency profiles remains very difficult because of the lack of skilled professionals on the labour market. At the same time the development of existing professionals lags massively behind the requirements, since adaptive competency strategies rarely exist in companies. Controllers thus run the risk of missing out on developments and losing leeway. Since changing and adapting competency profiles and structures is a long-term process, new, more agile approaches to learning and competency development are in demand in addition to a lot of openness to change and mutual respect among all stakeholders.

Agile transformations require an adaptation of the controller's competence profile through the acquisition of dynamic skills and capabilities in order to successfully choose and implement agile as well as classic controlling approaches.

6 Outlook

Most companies today are shaped by the demands and changes of a VUCA environment. Therefore, controllers are not only responsible for analysing the current situation but even more for preparing the future of an organisation. This demands more agility in being and doing for controllers, meaning they should be able to quickly recognise and adapt to changes to meet the needs of business and management. In became clear that there is no standard recipe for success in the agile context. The use of agile approaches is always dependent on several contextual factors like implementation level, timeliness, the steering focus, and the targeted change horizon. It will be a balancing act to align the goal of an agile transformation with appropriate agile approaches – core approaches (e.g., Scrum), IT-oriented approaches (e.g., Extreme Programming), leadership-oriented approaches (e.g., 360-Degree Feedback), and/or holistic approaches (e.g., SAFe). Apart from that, a successful agile transformation further builds on management support, a restructuring of teams, and an adaptation of the controlling system and its processes.

The change towards agility does not mean withdrawing controlling processes, e.g., planning and budgeting. Rather, it is a matter of prioritising which controlling levers need more flexibility, frequency, and adaptability to support organisational agility. Specifically for planning this incorporates replacing plan-focused deviation analysis with flexible, decentral, simplified, and future-oriented steering approaches. These should include regular feedback loops, adaptive planning contents and advanced technologies to streamline processes to ensure a clear focus on future actions. The change will and should occur in small steps and not in a big bang – following exactly the self-understanding of agile approaches as a sense-and-response or trial-and-error methodology.

A basic prerequisite for the successful choice and implementation of agile and traditional controlling approaches as well as the support of business partners in a VUCA context is the adaptation of the controller's competency profile. The acquisition of dynamic skills and capabilities plays an essential role to cope with operational dynamics, demanding customers, and future corporate challenges. Important skills and capabilities include self-leadership, strong communication and cooperation skills, problem-solving competency, agile know-how, and change competency.

What is absolutely crucial in the change process towards agility is true top management support. This is demanded for countless instruments and initiatives and here it is really core: Management needs to hand over responsibility to decentralised units. If this is not done consequently, the respective persons and units will not be able to be agile and will suddenly fall back to the classical command and control working style. Management must be very clear about this move, as this is a leap of faith, requiring boldness and consequence. In order to support this organisational change, organisations need to build in parallel agile communities of practice in order to promote the learnings and support the change agents in their doing.

Rather than asking questions about the future, Agile concentrates more on how to tackle the change. Nevertheless, some light can be shed on future developments: First, agility will be an important skill for controllers to meet continuously the needs of their (management) business partners better. Through agile approaches it is possible to react faster and in better aligned manner. Thus, agility will be an important promoter for controllers to better master the move towards true business partnering. Second, agility will support the successful change towards integrated performance management systems. In the past,

controlling very often relied on tight system and process controls (like in budgeting), even if most of the participants assessed them as inappropriate. This is not anymore possible in agile environments, where inappropriate solutions will be optimised in the next sprint. With the move towards agile controllers will lose formal power but can come nearer to the business and in turn gain true involvement and design capability – we should use that! Third, agility is a precondition for the ever-increasing trend towards digitalisation, as this is always powered by IT applications. And IT has already switched completely towards agile development and application methodologies. So, if controllers would like to speak the language of IT (which they need to do in the digital age), they must speak agile.

This publication provided a comprehensive overview of the status quo of controlling and agility. However, it is to be expected that there will be a dynamic development of agile approaches in line with the dynamics of the environment. Consequently, existing knowledge regarding agility must be constantly renewed and supplemented. Agility is becoming or has already become the new normal in dynamic environments. Therefore, controllers should perceive agility as an opportunity to be an integrated and reliable partner for management in supporting and driving change in the organisation.

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7.7 Application Recommendations

Use of Agile Approaches

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