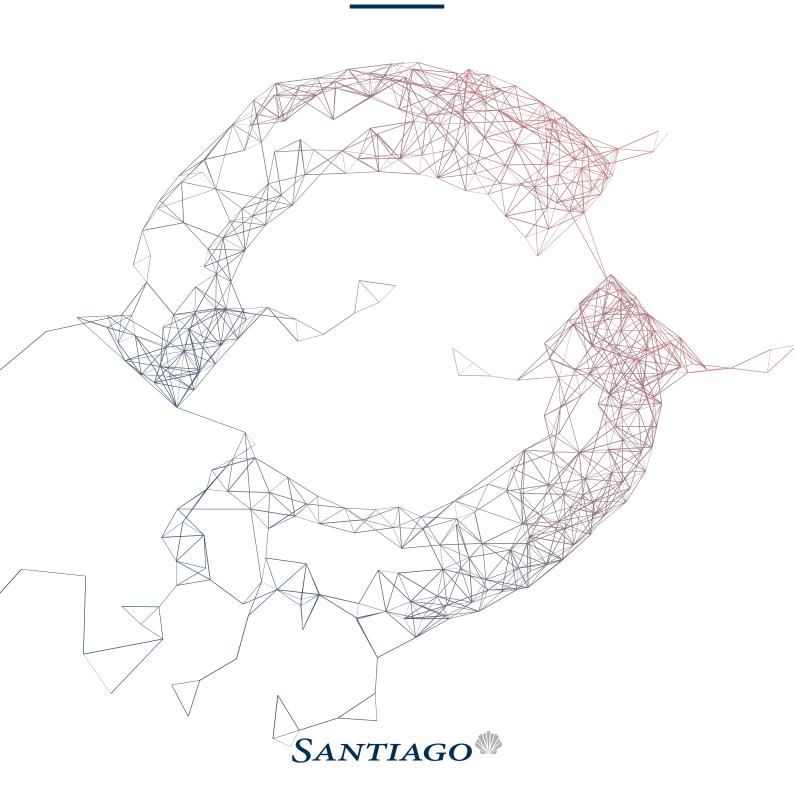
STATE OF AGILE – HOW ARE COMPANIES INCREASING AGILITY

Results from the first phase of a study conducted together with the University of Cologne



Imprint

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Layout BOROS www.boros.de

Print Druckerei Jakobs GmbH

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STATE OF AGILITY: WHERE ARE WE TODAY?

In many companies the topic "agility" has reached the corporate agendas and initiatives have been started to increase corporate agility. Also, the topic of agility is stressed by many publications from different sources that often try to convince the reader to use certain tools or instruments to improve agility in their organization.

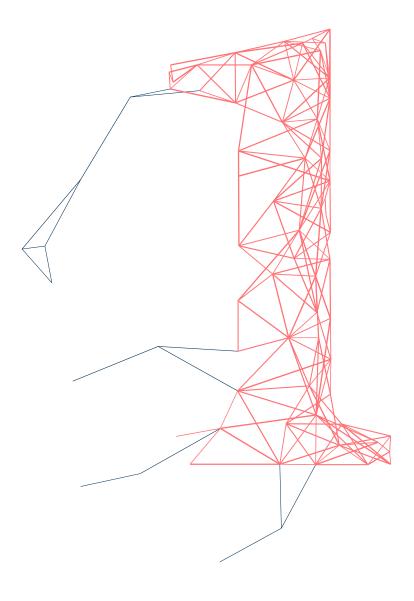
Many positive effects are promised by implementing agile instruments and many experts offer their support in agile tools for almost every potential application in the company. The tools that are promoted range from trainings of agile teams to implementation of work concepts like scrumban up to implementing agile organizational concepts like holacracies and the elimination of hierarchies.

Unfortunately, there is hardly any evidence existing today that tells us to what extent agility measures have truly generated benefits, what benefits were generated and in which contexts the measures were successful. This was our motivation to begin a study together with the department for corporate development and organization of the University of Cologne.

The study is set up in two phases. The first phase pursues the goal to achieve a general overview of agility instruments applied in companies today and their success. In a second phase, the study shall identify why companies use agile instruments and which framework conditions are needed to successfully increase agility.

The following pages will give you an overview of the results of the first phase of the study. These results are based on interviews with 25 experts from companies of different industries and sizes, as well as functional backgrounds.

STUDY APPROACH

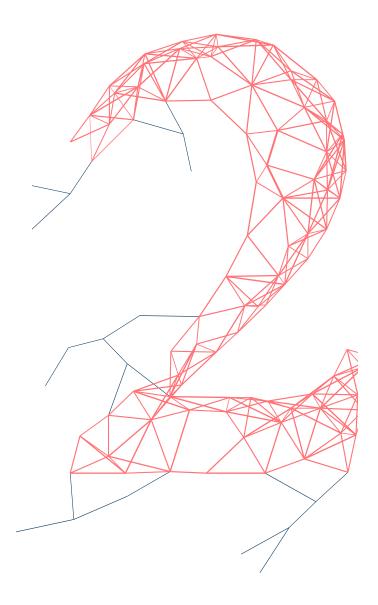


To gain an overview on how companies are increasing agility we conducted interviews with 25 experts that have applied agile instruments in their respective areas of responsibility and/or have an oversight on initiatives in their companies directed at increasing agility.

The interviews were carried out using a standardized set of questions to ensure that all the aspects that our interview-partners considered relevant were collected. Following the questionnaire-based interviews we processed the gained qualitative data by coding the statements from the interviews. Based on this step the prepared data was clustered and analyzed to identify similar patterns and the results were interpreted.

Industry mix	Total		100 %
	Chemicals		46%
	Transport		
	Med-Tech	8 %	
	Others	25 %	
Functional split	Total		100 %
	Sales & Management		21 %
	HR & Change	e	
	IT		
	R&D		
	Purchasing	8 %	
	Others		

STUDY RESULTS



Summary

- Companies have a very broad and heterogeneous understanding of "agility".
 Given definitions often evolve around external drivers (e.g. changing customer requirements) or organizational challenges (e.g. prerequisites, structures)
- Accordingly, the perception on how agility can be achieved differs significantly between companies. Eight types of instruments were identified during the study, the majority of which originate from the IT environment
- Market dynamics and changing customer requirements drive companies to apply agile methods. This is reflected in their key goals: increasing speed, improving innovativeness and generating more customer-centric outputs
- Almost all companies perceive their experiments with agile instruments as being successful. However, systematic measurement of success is considered challenging and not frequently done
- The foundation and key lever of agility is the way in which companies meet challenges and change. Necessary requirements for successful implementation of agile methods is a strong purpose, the right mindset and culture as well as specific skills

What does agility mean?

When asked to define their understanding of agility, companies display very broad and heterogeneous interpretations of the term. Typically, respondents come up with one of two general perspectives on the matter: An external perspective, focused on factors that drive the application of agile methods – or an internal perspective, which is predominantly concerned with organizational requirements.

Most companies lean towards the external perspective. Frequently mentioned drivers for the application of agile methods are higher flexibility, increased speed, fast reactions and more customer centricity. At the heart of all these drivers is a faster reaction to changing requirements and customer needs. This is the most important external source of pressure for change that drives the application of agile methods in companies.

From the internal perspective, agility is predominantly defined by organizational structure, working methods and corporate culture. Commonly mentioned critical issues are the need for a trial and error approach, tolerating faults and encouragement of interdisciplinary exchange, even without concrete topics or projects.

What instruments and measures are used to increase agility?

Eight different types of instruments have been mentioned by companies on the quest to agility. These instruments are quite heterogeneous regarding their underlying rationale, application and impact.

Agile Instruments

- a Utilization of agile working methods
- b Set-up of lab environments
- c Flexibilization of resources
- d Cross-functional process/know-how integration
- e Digitalization of processes & procedures
- f Organizational ambidexterity
- g Corporate Foresight
- h Agile organization

The eight agile instruments can be differentiated into four overarching topics. The first topic is methodology, which is represented by agile working methods and lab environments. The second topic is establishing the requirements to enable more innovative results or more flexible reactions. The third topic assumes a more process-oriented perspective, aiming at a higher level of cross-functional interaction and digitalization. The fourth topic represents yet another perspective, focusing on the needs of companies or functional units for more organizational or strategic flexibility.

One agile instrument, namely agile organization, cannot be fitted plainly into one of these four topics, as it is a bit of everything. In order to attain a truly agile organization, methodology, resource flexibility, process adequacy and strategic flexibility need to be united in a comprehensive concept. So agile instruments should not be ranked against each other but rather be seen as cumulative measures in a holistic concept.

a — Utilization of agile working methods The utilization of agile methods is the most common application of agile methods. This includes the application "One workshop is not enough – it needs decision autonomy and a flat hierarchy to reach higher agility"

of one or several working methods, such as Scrum, Design Thinking or agile project management, aiming at more agile workflows. Agile methods represented a third of all responses. Considering the limited structural and financial requirements and the broad field of potential applications of agile methods, this may not come as a surprise. "Acting in uncertainty is tough. Clearly defined requirements can help create certainty in uncertainty" Many agile methods originate from the IT environment, and application of these techniques to other areas has begun relatively recently. Nonetheless, a variety of corporate functions have been mentioned as application fields of agile

methods in the course of this study. Most commonly mentioned were Enabling Functions, HR and IT, but also Innovation, Sales and other business functions. About 40% of mentioned applications strive for higher speed, nearly as many aim at attaining more customer centricity.

b — Set-up of lab environmentsA commonly used instrument is to
set up lab environments. Such labs are
usually devoted to a specific function.
To date, labs prevail mostly in the IT

"Successful labs have the right topics and the right ideas. Therefore, incentives need to be in line with market requirements"

and digital environment. However, there seems to be an increasing number of cases where labs are set up for different topics, such as R&D.

"Labs can't work on everything. They need a clear (and limited) scope" Labs are spaces where teams interact with internal and/or external experts to develop novel solutions. Next to interdisciplinary exchange and dedication, a major advantage of

lab environments is that focused work can be done detached from bureaucratic processes and other limitations that typically apply to business projects within companies. Lab environments are considered especially promising in areas where innovative and customer-centric solutions are required.

c — Flexibilization of resources

This instrument assumes a completely different perspective, as it is focused on enablement instead of producing tangible results. We termed it resource flexibility, meaning to describe a wide variety of concepts, processes and action plans that participating companies apply in different areas.

"Company culture and leadership style is key for flexible allocation of personnel resources" The fundamental purpose of resource flexibility is to establish the necessary conditions in order to be able to react quickly to changing environments. In practice, this means transition to more flexible deployment of economic factors

such as labor, budgets or computing capacity. Thereby companies try and attain the ability to quickly detach themselves from conventional practices and longterm goals in challenging situations, being able to switch to different tasks or goals more quickly.

d — Cross-functional process/ know-how integration
Another instrument is the introduction and promotion of cross-functional processes. By breaking down "Some major challenges can only be solved if mental barriers and functional silos are overcome"

functional silos, these initiatives aim at intensifying collaboration and fostering interdisciplinary know-how sharing. This instrument is typically most effective if applied by central functions or in group-wide initiatives. Two thirds of the initiatives that implemented cross-functional processes named higher speed as their main target. STATE OF AGILE – HOW ARE COMPANIES INCREASING AGILITY

e — Digitalization of processes & procedures

Digitalization of processes and procedures was mentioned several times by participating companies. The focus of this instrument is an initial digitalization and subsequent automation of tasks. The more repetitive and standardized a task, the more potential lies in digitalization and automation. The most commonly mentioned application field is procurement.

"It takes more than just digital processes to attract the digital natives we need to run them" This is certainly not a novel concept and not what one might expect even in a comprehensive catalogue of agile instruments. However, digitalization represents a necessary preparatory step in the transition towards agile procedures.

This being part of participating companies' understanding of agility might give an impression of the long way that still lies ahead for many companies to become proficient in the field of agility.

f — Organizational ambidexterity

Organizational ambidexterity is an instrument that is typically used in the IT environment. The underlying rationale is to structurally sepa"It was hard for us to run two different working modes in one unit, we had to create a home for each that operated under different leadership principles."

rate robust, repetitive high-quality processes and more creative or disruptive endeavors. The differing tasks and requirements demand for separate KPIs, skills and degrees of freedom for each of the streams.

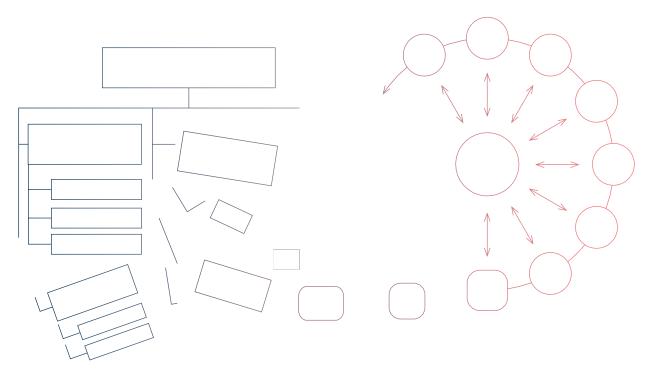
g — Corporate Foresight

In the context of accelerating industry and customer trend cycles, the need for a more proactive handling of change arises. Therefore, some participating compa-

"To be agile and responsive you have to know how the requirements of your customers are changing and translate this into your products fast." nies set up structures to develop scenarios and strategies in advance, ensuring a quick implementation of predefined measures once a potential trend becomes relevant. The resulting structures have been termed Corporate Foresight.

"Today we are using agile concepts only h — Agile organization The previously described instruments in selected parts of our organization." are powerful devices for companies that want to become more agile, supposing they are successfully implemented and results adequately measured and monitored. Applying selected agile instruments is currently state-of-the-art in most companies. While this might be enough for some, the application of individual instruments can only be an intermediary state for those companies that truly strive to become cutting-edge in the field of agility. They way ahead – though it wasn't explicitly mentioned by the study participants - is applying the agile concept to whole parts of the organization. We feel the time has come to lift experiments with alternative forms of leadership, responsibility and collaboration to a new level. This being the case, the purest form of agility shall be aspired: a consequently agile organization in those units

where it really adds value to the company.



Traditional organization

Agile organization

Characteristics of agile organization:

- No formal reporting ines
- No rigid organizational units
- Dynamically forming groups address tasks
- Empowered and self-organzied teams

Targets of agile organization:

- Innovative, creative and fitting solutions
- Quick and flexible reaction to demands
- Acceleration of time-to-market
- Efficient use of resources in dynamic enviroments

What are the preconditions to become more agile?

The study results clearly show that being agile takes much more than just choosing the right instrument. In order to unleash the full potential of agility, it is necessary to unite a strong purpose, the right mindset and specific skills. This is doubtless a high order for most companies but neglecting this foundation agility will always lead to mediocre results.

We identified eight prerequisites for true agility:

1 — Clear purpose

Distinct understanding of pursued goals and clearly defined interfaces to other units/customers

2 — Initial training

Introduction to agility and methodological training of involved employees and managers

3 — Collaboration

Formats for and appreciation of cross-functional and cross-hierarchical interaction

4 — Leadership commitment

Leaders that actively drive agile implementation, walk the talk and rate effective structures higher than short-term results

5 — Constructive company culture

llingness to learn, take risks and leadership approach with an open error-culture.

6 — Suitable team

Employees with required skills, entrepreneurial thinking and creative problemsolving attitude

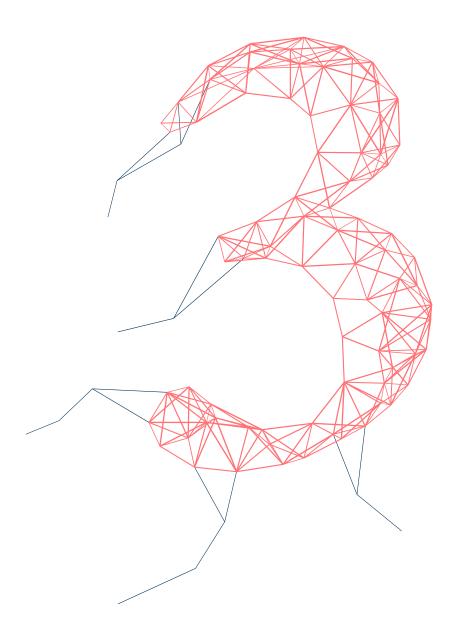
7 — Degrees of freedom

Adequate decision frame, time availability, financial freedom and trust

8 — Promotion of benefits

Measurement and active communication of practical benefits

FINDINGS BEYOND THE QUESTIONNAIRE



Agility in practice

In addition to the study results described above, there are some further insights on agility. These insights result from reflections on statements from the interviews and "between the lines" inferences. Though maybe not as substantial as the study results, these insights are certainly a powerful source for an alternative view on the state of agile.

During the interviews for the agility study, two different factions could be distinguished. The first faction consisted of participants who can be described as true drivers of agility. They actively "research" and test agile methods, draw their conclusions and adapt their approach. Unfortunately, this holds true only for a small minority of the study participants. The majority belongs to the second faction, knowing and talking about agile methods, but lacking a clear idea on how to apply them to effect.

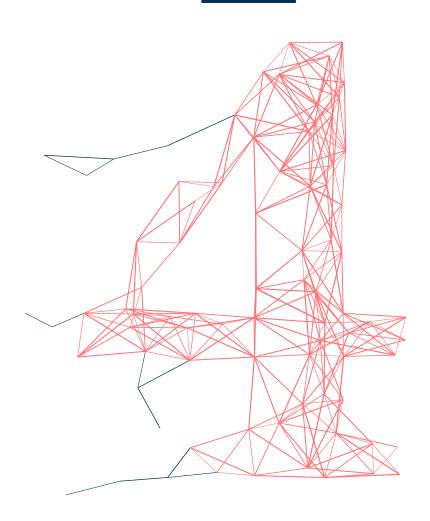
"Root-driven" implementation approaches for agile methods were mentioned by several study participants as a typical pitfall. It is quite common for middle management to pilot agile methods after clearing with the top management level. In this case however, top managers tend to demand business cases or achievements quite early in the process, forcing middle managers to revert to traditional waterfall schemes. This again shows the need for a deeper understanding of and commitment to agile methods on all management levels as a prerequisite for sustainable success of agile methods.

There is a tendency for companies to focus more on agile methods than on an overarching agile vision – meaning what they try to achieve using agile instruments and why. For example, some companies build "Innovation Labs" or similar spaces to become more agile. In practice, however, these spaces are often used to host trainings in agile methods such as scrum, instead of serving the original purpose. Consequently, it is not enough to establish agile structures, but to use them to purpose and measure their success against predefined goals.

Some companies explore the relation between agile methods and alternative organizational set-ups. For example, some participants experimented with holacracy and other participative concepts. However, central questions regarding which organizational concepts support agile methods best have not yet been answered. There is still a need for profound research regarding integrated agile and organizational concepts.

The sustainable use of agile methods seems to be driven by the success of early applications. For companies to be prepared to invest in agile methods and experiment to a larger scale, perceivable utility and good feedback is required. Especially suitable for initial experiments are easily implementable measures such as Kanban Boards – they are implemented relatively easily and cost-efficiently, but immediately give transparency on priorities and pending tasks to employees and customers

DESIGNING A NEW FRAMEWORK FOR PROCESSING SAMPLES TO CUSTOMERS



In the following we introduce a case study showing how a Germany-based company used agile approaches and levers to master its current challenges in sampling and which benefits could be realized. Sampling is the provision of samples of newly developed materials to potential customers.

Case teaser

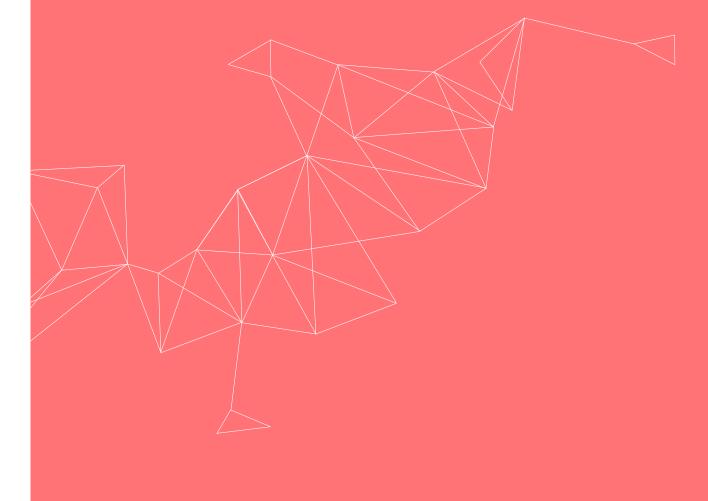
STATE OF AGILE – HOW ARE COMPANIES INCREASING AGILITY	18-19
Focus: New sampling process for a € 2.5 bn business of a German company	This project was carried out for a sector of a German-based chemical company aiming to become best-in-class in sampling to its customers.
Initial situation: Growing competitive and regulatory pressure affecting sampling speed	Over the last years, competitors of our client became more and more advanced in fast and reliable sampling of newly developed products. In parallel, stronger regulations increased complexity, intensified data collection requirements and need for better cross-functional alignment. Faster sampling became key priority for the business.
Problem: Sample requests and data collection take way too long	The major limitation was not sample delivery, which is the same process as for finished goods, but the so called "sample request" process, where all required information is being collected and aligned between functions. This includes future product and supply chain characteristic, target regions, but also necessary regulatory information needed for setting up product master data and local attributes – with other words the product should be set up in all systems before it can be shipped. Without this information, the sample delivery to customer cannot be initiated. All these activities took our client up to 30 days, whereas the shipment itself takes 4 days.
	A workflow solution promised a reduction of this "sample request" time by multiple times, but a first development attempt failed after spending over 1 year of time and resources.
Project results: Significant reduction of sampling lead time via new workflow designed with agile techniques	We identified, that the first attempt failed because every new input or informa- tion had the potential to screw up the entire work so far. To do it differently, we agreed with the client to set up a cross-functional agile team ("squad") including Developers, Product Managers R&D, Customer Service, Key Account Managers as well as a coordinator from Santiago. The team had daily "stand-up" meetings to review the progress and made a bi-weekly update to the upper management. After each of the short development cycles ("sprints") the further developed tool mock-up was tested with a broader range of stakeholders. Alignment between functions could be achieved quickly for each newly proposed tool feature and the developers adjusted the tool directly. The project took 3.5 months until first pilot. For first samples, which ran
	through the new workflow tool, the total "sample request" lead time dropped to 5 days, a reduction by over 80%.
Success factors: Continuous iterations and alignment of different functions	Application of an iterative (agile) process ensured that all functions and busi- nesses felt involved without being afraid that the final design will not meet their business requirements. Changes were implemented on-the-go so that the

At the end of the project, the team decided to reduce the amount of stand-up meetings and stay in this setting for another 6 months to drive continuous improvements.

usability could be tested real-time. Continuous feedback motivated the partici-

pants which became major promoters of the agile techniques.





Although many companies are adopting agile techniques to some extent, it is too early to speak about overall success. Agile practices are just starting to migrate into the corporate world outside IT and are still creating a lot of tension between agile operating teams and established parts of the organization. However, mid- to long-term utilization of agile techniques has the potential to transform many functions in almost every industry.

Once Organizations learn to apply agile techniques to their full potential, they will be able to make even better use of limited resources like time, energy, talent and work-force. In the current environment, in order to stay competitive, companies will need to adapt their daily work to continuous disruption and change, revise their global operating models and prepare a systematic transition towards agile operation.

In the second phase of our study, which is currently ongoing, we will present a sample detailed case studies from companies that succeeded in adapting agile concepts to their individual purposes. Additionally, we will review success factors and good practices.