

The waves of Agile

A great condensed book that makes you feel as if you're having a conversation with Derk-Jan. Based on his wide expertise on the matter, he shares a lot of insights and gives recommendations on how to build quality systems and surf the three waves of Agile. Reading this book, you'll find a comprehensive overview on how you, as a manager, Agile coach or team member, can be a part of the Agile journey.

Claudia Badell, Agile enthusiast, independent consultant and organizer of the TestingUy conference, Uruguay

If you've been part of or are in the middle of an organizational transformation, you know how hard it is to be successful. Many organizations focus on changing processes and the way of working. Even though it brings good results quickly, it's often a short-term change. There's more to changing your organization and this book shows you all of it. With the focus on the relationship between leadership and coaches – in my eyes, a key relationship to make change happen. The practical tools, real-life experience and business cases – this book gives you everything you need to know to start making the change needed. A must read for all coaches and leaders.

Marcella Koopman, Head of Agile at Navico, New Zealand

You've enjoyed Agile when you first started with like-minded colleagues. But as Agile grows into organizations and companies, you'll feel like it doesn't work well. If you want to give up Agile, read this book. It will be very helpful to you.

Murian Song, Agile & Software Testing Evangelist, Senior Consultant at STA Consulting, Korea

Transformation is defined as a "thorough or dramatic change in form or appearance." Other definitional terms include "a metamorphosis" or a "spontaneous change." In simple terms, Agile transformations are about broad and deep change both at an organizational and a personal level. As we've all experienced, change is hard, and to be brutally honest, you need all of the experienced help you can get to navigate these harsh waters. This book provides practical, seasoned, thoughtful real-world advice to help make your journey easier and your outcomes transformational. I also truly appreciate the quality focus that Derk-Jan brings to the table. It's often a forgotten focus in effective transformation that nicely rounds the book out. I can't recommend the book highly enough. Read it once. Reflect. Then read it again. Then transform!

Bob Galen, Director of Agile Practices at Zenenergy Technologies, USA

Over the past few months, I've had the opportunity to work closely with Derk-Jan through numerous workshops, exploring what might come next for agile organizations. What makes it truly rewarding to work with him is his ability to break down complex structures into simple, visual models that anyone can understand and apply to drive organizational development. Blending the cultures of IT and business – and integrating their working models – demands much more from agile organizations and the cultures they nurture. This transformation, which we see as the true 4th wave, isn't just technological; it's cultural, organizational and deeply human. And yes, AI will be a major disruptor in this ecosystem, reshaping how we collaborate, deliver value and define success. Thank you, Derk-Jan, for your incredible work!

Marcel Oostveen, Founder of InnSpire

The BIQ circle as presented in this book very nicely visualizes the various possible levels of maturity in IT delivery teams. By describing how quality measures can be practically implemented in various stages of maturity, this book is a valuable addition and extension to the vision of delivering business value using IT.

Rik Marselis, principal quality consultant at Sogeti and fellow in the research network SogetiLabs, the Netherlands. He has contributed to a variety of papers, articles and books on quality and testing. He co-authored the 2020 TMAP book "Quality for DevOps teams."

Agile, with Scrum as the most adopted Agile framework, crossed the chasm around 2005- 2006. Around that time, Agile became an accepted way of working and started gradually replacing the old, waterfall way of working. As the adoption of Agile kept steadily increasing, more and more large organizations felt the need and the urgency to become more agile. Derk-Jan has supported several large organizations in achieving that purpose. He has collected his experience and observations in his book to help such large organizations embark on the journey of becoming more agile too. Derk-Jan hasn't just summarized the nature of Agile but has listed and described what might happen along the road, what challenges might emerge and what are potential ways to tackle those events and challenges.

Gunther Verheyen, independent Scrum Caretaker and author of "Scrum – A pocket guide," Belgium

Energy, energy, energy and the talent to engage you. Derk-Jan has continued his coaching style on paper. A story in which Agile theory and his personal experiences are supplemented with concrete practices. A valuable handbook for me as an organizational coach. It's not a script to follow from A to Z but offers hundreds of practices and insights that I can apply to improve my work.

Gijs Scheepers, transformation consultant and coach at Randstad Groep, the Netherlands

Derk-Jan de Grood has written an important book for anyone who's serious about aligning organizational agility to the delivery process of software-based products and services. He connects the rapidly changing consumer demands to the use of innovative development and testing practices. The book offers guidance for leadership and other organizational actors to take on their roles as the organization fast forwards into its future. At the core of his book is the recognition that agility comes in three waves. In whatever wave your organization finds itself, you'll find practical tools and encouraging stories to facilitate the transition to the next wave.

Mariëlle Roozmond, chair of Agile MarCom Consortium and co-author of "Scrum in actie," the Netherlands

All kinds of common and persistent Agile transition pitfalls pass by express train. This practical book is highly recommended for any manager or consultant about to embark on an Agile journey!

Han Niessing, scrum master and Agile coach, the Netherlands

One of the ideas that Derk-Jan has captured well in this book is that context is very important. Large organizations have different challenges than small co-located teams. It can be a long journey to transform these large organizations, and in his "three-waves" concept, Derk-Jan has captured how as coaches, we need to look at what the teams need in their journey and adjust our approach accordingly. I started with Chapter 3 and the three waves, but I think Part 6 might be the most important chapter in my mind – building in quality.

Janet Gregory, Agile testing coach and process consultant with DragonFire and author of, a.o., "More Agile testing: learning journeys for the whole team," Canada

SURFING **THE WAVES** **OF AGILE**

Unlocking value delivery
in a changing world

Derk-Jan de Grood

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TECHWATCH

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Preface by Wilco Dona



In my work, I have the opportunity to interact daily with a great team that's constantly evolving our products through a permanent interaction with our customers. Our mindset is one of adaptivity, co-creation and experimentation. UX research sessions drive the analysis of operational data, deepening our understanding of our customers every day. We conduct experiments to learn what they need and understand what we should offer more to them. With Videoland, we experimented by varying the subscription model. We understood that giving customers the choice to receive advertisements in exchange for a lower monthly price made the customer appreciate those ads more.

I promote a culture that invites team members to be curious, passionate and entrepreneurial. A mindset geared to adapting toward changing circumstances and driving a permanent learning cycle. Ideally, we want our customers to drive our roadmap, based on the data they provide us.

Growing this necessary Agile mindset across the company is a long and arduous journey. I've been involved firsthand with transformations in telecom, e-commerce, banking and staffing companies. From this experience, I learned that each company needs to go through its own specific journey. Through trial and error, organizations find an outcome that fits their people, their culture and the market they're in. The talks I had with Derk-Jan and his work in our teams have helped me numerous times with my journey. I'm glad he shared his ideas and experiences in this book.

Being Agile is rewarding, compelling and even necessary. But to make the Agile journey a success, it's important to understand the factors impacting it and, by consequence, to oversee the transformation. In large organizations, this can be a significant challenge. This book explains the dynamics of organizations and recognizes how these relate to the ambition of keeping the customer happy. Understanding is the first step in changing for the better.

Wilco Dona

Head of consumer products at RTL/Videoland

Preface by Arie van Bennekum



Agile is hot and hip. The risk that comes with this is dogmatism. In today's Agile world, dogmatism is often seen to overpower the principles of Agile and it smothers the benefits Agile stands for. Good coaches are needed, now more than ever, to help organizations focus on their value delivery. Key questions are what makes a good coach and what should a good coach (not) do?

Coaches aren't just needed in the Agile world. They're needed everywhere, all the time. In soccer, we see the best professionals in the world team up with highly skilled coaches. A lot of managers and professionals in business should take this as an example.

In this book, Derk-Jan shares his vision on coaching. I like his ambition to stand above the methodologies. The focus on mindset and value is spot on. Scaling this up to a larger group or even to corporate level isn't an easy task. Paradigms aren't easily shifted, and organizational structures get in the way.

I'm not going into the details here. You can do that for yourself by reading this book. It holds answers to both key questions. Read it with the aim to understand. Too often I see dogmatists reading (or listening) to criticize. I recommend you get above this level and use this work to your benefit. It has a lot to offer.

Arie van Bennekum

Co-author of the Agile Manifesto

Introduction to the second edition

Ring ring – suddenly, the phone rang. My publisher called to announce that we had almost run out of books again. “Reprint? Of course, I want a reprint!” I replied.

As I hung up, it occurred to me. This was the perfect opportunity to revise the book more thoroughly. Since 2021, the world – and the Agile community in particular – has changed quite a bit. This was my chance to reflect those changes and incorporate new insights into the book.

What has changed? First, I’ve corrected some errors, improved the readability of the illustrations and added photos that I believe significantly enhance the overall user experience. On top of that, I’ve added several new chapters. These cover topics that I often refer to in my daily work, but that weren’t available or mature enough when I first wrote the book. You’ll now find new content on the Value Framework and prioritization, the Clover Model, organizational growth and OKRs and KPIs.

I also enjoyed many engaging discussions with peers on broader topics: what’s happening in our world? How do these shifts influence the way organizations and individuals approach Agile? We explored the evolution of transformational programs and the changing role of Agile coaches. In the end, we felt the book’s core was strong and still very relevant. It remains a rich source of practices and insights – a valuable asset for the target audience. Throughout the book, you’ll notice small updates though: refined paragraphs, slight changes in tone and modernized language. These are subtle yet meaningful adjustments that reflect today’s context.

Finally, let’s talk about the title. We made a small but important change to emphasize that it’s not just about Agile – it’s about a continuous flow of value delivery. This also led to a bold decision: we’ve added a fourth wave to the model.

With renewed pride, I present the revised edition of “The waves of Agile.”

Derk-Jan de Grood

June 2025

Introduction to the first edition

If you're working in a medium or large organization that's in an Agile transformation or is thinking about starting an Agile journey, this book is for you. It helps you to deliver valuable, high-quality solutions using Agile and Scrum.

As an Agile coach, I've experienced that the uncluttered Agile theory doesn't hold if we try to apply it in larger organizations. Organizational transformations are challenging and certainly not always as successful as we want them to be. I've also noticed that it's difficult to lead an Agile transformation in a running organization and, at the same time, keep the business outcome priority number one with everything we do.

In this book, I share my knowledge and opinions to help you maximize the value you deliver to your customer. We want to offer the customer the right solution with sufficient quality at the right moment. If this is also your goal, this book is for you. Whether you're a manager, an agile leader who needs to run a business, an Agile coach who's convinced that Agile will help optimize the organization or an Agile practitioner who wants to maximize his/her impact for the organization.

Agile is a versatile domain. I've noticed this in practice and while writing this book. With every topic I selected for the book, I had to exclude two or more other topics. So, this book is not a complete guide. But it tells an important story that's consistent and provides useful insights. The topics discussed are derived from daily practice. A lot of them pop up during the meetings and discussions I attend. This convinces me that they're relevant. I don't have a solution for every situation, and even when I have a clear vision of the solution, it needs to be tailored to the context. But every step forward starts with observing and recognizing the problems and challenges. With this book, I aim to contribute to just that.

The first part of the book explains how a customer focus impacts the way we develop our solutions. I introduce the three waves of Agile and use this model throughout the book. It helps to prioritize the challenges and measures we take and puts them in the context of the Agile journey. In the second half of the book, we take a more practical approach and I explain how to get role clarity, how to organize the change process and how to build in quality. Throughout the book, I give practical examples and I'm proud of the contribution of other practitioners who wanted to share their experiences. It makes the book more versatile and better to read. I hope you enjoy

doing that, and that the book provides you with enough examples to get you thinking, enough ideas to get you inspired and enough handles to get you started.

Derk-Jan de Grood

June 2021

Who is this book for?

I've written this book to help and inspire people who are in an Agile transformation or responsible for its success and progress. In fact, that can be anyone. If you want to be engaged and if you're looking for insights and tips, I'm sure this book delivers value to you.

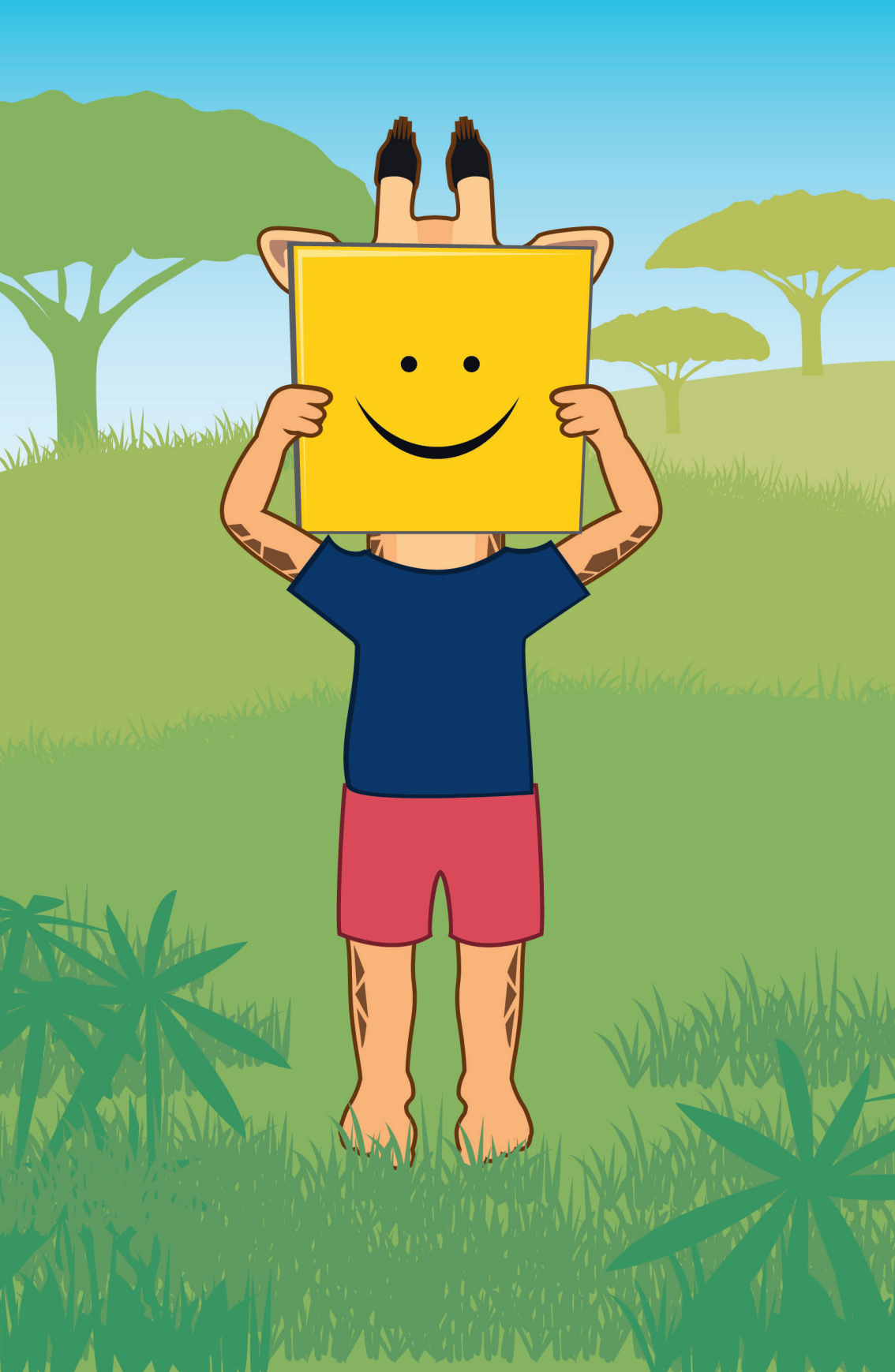
The book focuses primarily on Agile coaches, transformation leads and members of the leadership team. The content is part of my personal Agile journey. I've worked with many organizations and have learned why organizational transformations are hard and challenging. If you're an Agile coach or a transformation lead, you'll surely recognize a lot of the things discussed in this book. I trust the book helps to put things into perspective and address the relationship between the various aspects of agile working, so it will contribute to a better understanding. The book provides a lot of ideas, checklists and tips to get you on the way. Agile coaches might also recognize that the role of leadership is crucial. Therefore, I address leaders of the organization and the Agile transformation as a second target group.

Throughout the book, I discuss the role of leadership. So, if you're part of the leadership team, you'll find a lot of tips and advice. You can use those to determine what your own role is in the transformation. In chapter 6.4, I conclude that Agile coaches and the leadership team need to collaborate in making it work. So, the chapter on the role of the Agile coach is as important for leadership as the leadership parts are for Agile coaches. Mutual understanding of each other's role is key to making it work.

The book is also written with product owners and scrum masters in mind. The section on the change process and the roles might be most beneficial for you. It describes how ideas are translated into effective user stories and what to expect from the role. Quality is a topic that concerns everyone, and if you're a test or quality manager, you might be extra motivated to read the section on built-in quality.

Reading guide

This book is divided into six parts. Part one describes what brings value to our customers and how this impacts our development. It discusses how agility is challenged when aimed for in medium and large organizations. Part one also introduces some development practices that are used throughout the book. Part two discusses the Agile journey, what we need consider to make a success of our transformation and what organizations encounter on their Agile journey. Part three looks at how Agile coaching is changing accordingly. It discusses how the role of the Agile coach is evolving and how Agile coaches and transformation leads can support the leadership team. Role clarity is important to optimize the value delivery, as is an effective change process. Parts 4 and 5 provide practical tips to improve both. Part 6 is about built-in quality. It describes how we can create a mechanism to continuously improve the quality of the development life cycle and how this contributes to keeping the customer satisfied.





Developing in medium and large organizations

A vast majority of the organizations believe they can only survive if they are able to keep up with the digital innovation. 84 percent fears to be out of business or absorbed by a competitor that innovates more quickly, within a timeframe of six years, if they don't [Kong, 2021].

More and more organizations are discovering that they need to adopt new technologies and speed up their delivery to distinguish themselves from their competitors and retain their customers. To achieve this goal, they have set their sights on Agile development and modern development practices. However, scaling up single-team Agile brings a lot of challenges. In this section, we look at these challenges and practices while keeping a constant eye on our goal – keeping the customer satisfied.

I. Challenges to delivering software in larger organizations

I.1 Speeding up quality delivery

Customer needs drive our product vision and impact our software development. We develop different services and systems than we used to and include new technologies like AI, face recognition and location-based solutions. These new technologies bring technical challenges, but they also require us to collaborate more with the business and keep a keen eye on the user experience and customer journey.

The pace of development has gone up and will continue to do so. Working toward a quarterly release seems old-fashioned when other organizations deploy every minute. Of course, it depends on the branch you're in and the system you're working on – I agree that there's probably no need to frequently update the software of your nuclear power plant or submarine. But overall, organizations aim to speed up their delivery.

This has two main advantages:

- Delivered solutions can become profitable. New services yield revenue, contribute to a better user experience or enable a more effective processing/delivery.
- Feedback is obtained. By releasing a solution, preferably in small batch sizes, the organization learns how it's employed, perceived and what its quality is. These lessons can then be used to fine-tune the business solution and development process of the next releases.

No wonder that many organizations embrace Agile and, more specifically, Scrum. Agile is designed for that purpose. The State of Agile report [State of Agile, 2024] lists the benefits of Agile adoption. The ability to manage changing priorities, business IT alignment and delivery speed/time-to-market rank high. Better quality is mentioned as a potential benefit not achieved by everyone. Scrum is by far the most adopted framework, so many of the experiences I share are based on Scrum.

I.2 A Scrum safari

Many people initially looked at Scrum as a single-team solution. The first success stories originated from teams that were relatively autonomous and that worked on front-end solutions. I remember being on a 'Scrum safari' where a company proudly showed how it was succeeding in developing a mobile app from scratch in an agile way. The app had limited dependencies with the back-

end and everything they built was highly visible on GUI level. This made it relatively easy to involve stakeholders, think in small releases that introduced new features and plan future iterations. I don't want to deny the company its success, as it was doing great at the time, but since then, I've learned that many teams are working in a more complex setting. This makes it hard to have continuous value delivery and puts the agile way of working to the challenge.

1.3 Single-team setting

LeadingAgile's CEO Mike Gottmeyer explains the essence of Agile [Gottmeyer, 2016]. He states that initially, it was about putting 3-9 people around the table to solve a problem. Multi-disciplinary collaboration is key as the team combines forces to develop the best solution. Having someone from the business available in the room creates a fast feedback loop to assure the right solution is built. According to Gottmeyer, there are three key elements in this process: a product backlog, a development team and a working solution.

The *product backlog* should clearly define what needs to be built. It should be sufficiently detailed and prioritized. The items should be sized so that the team can predict how many they can accomplish.

The *team* itself should be multi-disciplinary and capable of building and releasing an end-to-end solution. It should be stable so its members can grow as a team and become more effective. Stable teams have a predictable output.

The output is a *working solution*, a product increment that's tested, integrated and potentially shippable. It's key that at the end of the iteration, the increment is done. This eliminates the situations where the coding is done, but testing is still on the to-do list, where testing is done, but some bugs still need to be resolved, where deployment is having issues or where the business didn't have a look at it yet. Done means that the solution can be used without there being remaining work. The team from the Scrum safari checked all of the boxes. They had all the skills and knowledge, had a lively involvement of stakeholders and since there was a limited connection with the back-end, they could autonomously deliver end-to-end solutions.

"When you know the size of the items on the backlog, and you know the velocity of your team, you can predict when items will be finished," Gottmeyer says in his talk. He continues to explain the antipatterns from the perspective of this predictability. "When the backlog is not well defined, the team won't be able to estimate or deliver an end-solution. When the team isn't stable and undergoes changes, the velocity will change. Finally, when the team doesn't deliver done items or has an incomplete definition of done, this leads to technical debt."

Technical debt undermines the predictability

The term “technical debt,” introduced by Ward Cunningham in 1992, refers to, eg, unfixed bugs, low code quality, code that hasn’t been cleaned up but also incomplete or outdated documentation [Forsgren et al, 2019]. From a planning perspective, it becomes unclear when a solution is ready to be launched. Apparently, work needs to be done to perform the tests, solve the bugs, make the deployment work or get approval from the stakeholders. But how much time does it cost, who’s responsible for it and when will it be done? Failing to clearly define this ‘extra’ work undermines the predictability of delivery and the organization’s trust in the team’s output.

1.4 Developing solutions in medium and large organizations

Medium and large organizations are far more complex than single-team settings. The State of Agile survey asked respondents what type of organization they were part of. 50 percent worked in organizations bigger than 5,000 employees. You can add another 20 percent for organizations with over 1,000 employees [State of Agile, 2024]. These large organizations, enterprises if you like, are characterized by many people, projects, processes, rules, strategies and divisions, making them complex. How do these factors impact the way we develop our solutions?

In this book, we’re going to find out. With good reason, because, and I quote from the State of Agile report, “small, nimble organizations continue to report that Agile is a powerful productivity and organizational framework showing obvious benefits, including increased collaboration, improved software quality and better alignment with the business. Medium-sized and larger companies, however, are less satisfied with what Agile can do for them, see substantive barriers to organization-wide adoption.”

1.4.1 No ownership of the end-to-end solution

In large organizations, company strategies are defined at other layers than where the solutions are developed. Big programs and projects span multiple business lines and possibly involve different countries. Although teams might be working on the same customer journey, they have their own backlog. This results in misalignment and often the backlog items of one team are

unclear for other teams, departments or layers in the organization. The work done by the individual teams is determined by large programs and strategic themes. As a result, they can't take ownership of the end-to-end solution.

Large structures are created to control and govern the work. In regulated environments, solutions can't be released by teams independently and formal approvals are required by a manager or a change approval board. This is in great contrast to a single team that can relatively independently push new features to production. In large organizations, teams can hardly be held accountable for delivery since they have dependencies outside their control.

1.4.2 Dealing with different technologies

In enterprise organizations, single-team settings don't apply. Systems have grown into system-of-systems, relying on a wide range of different technologies. Think custom-made systems, different databases, mobile and web technology, on-premises and cloud solutions, SAP, OutSystems, Pega, and so on. A big consequence of these large systems is that it's impossible to have a single group of nine people possessing all the necessary knowledge. Many organizations, therefore, choose to have system or component teams. These are experts in their domain but lack an overview of the whole system chain. We also see the teams working in different departments. Organizational boundaries need to be overcome to create an end-to-end solution.

1.4.3 No insight into the overall customer journey

A single agile team can determine what it should work on and what items yield the most business impact. In large organizations, there's much more distance between the user/customer and development, which is much more challenging. Meet a product owner who sadly has no overview over the end-to-end process customers go through to get their server. She lacks insight into the customer journey.

Server provisioning

The IT department of a large enterprise offers servers to the rest of the organization. Windows, Linux, cloud, database servers, you name it. Service requests are handled by focused component teams. Unfortunately, completion of a new server requires a lot of handovers and the throughput time of the service requests is unnecessarily long.