

SCALING AGILE

in 5 minutes



THREE AGILE COMPANIES

Basement Apps Ltd

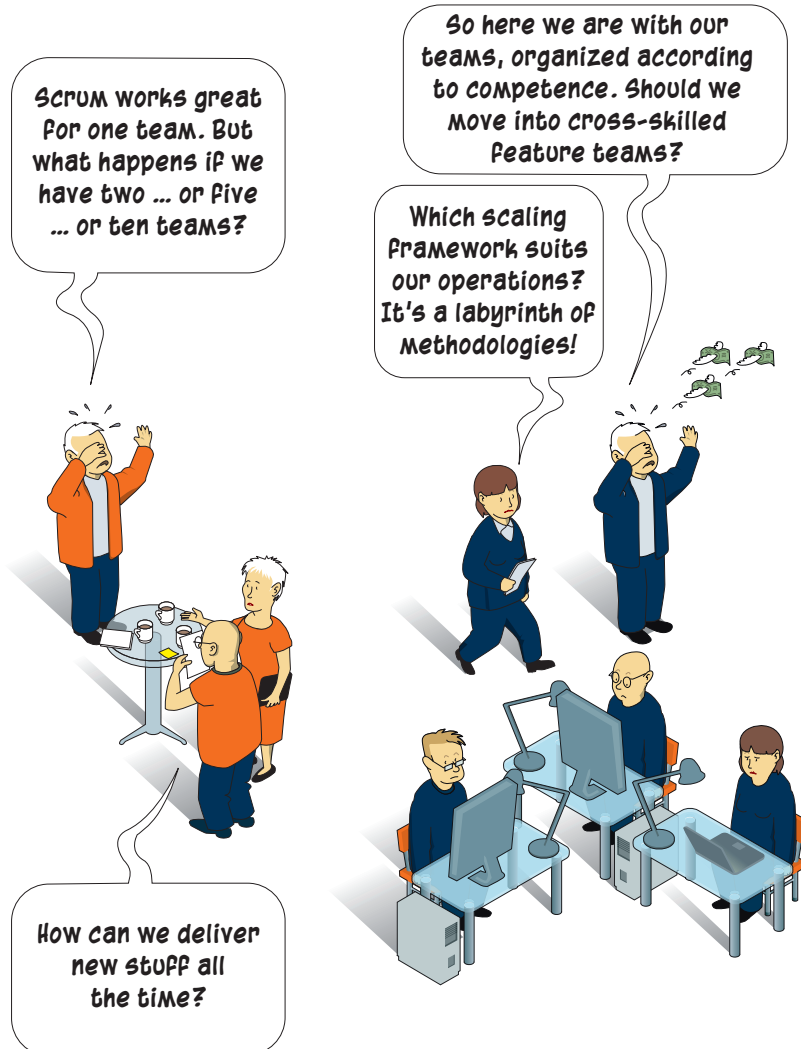
is having unexpected success with a social media app for musicians.

Software Supply Ltd

needs more diverse development teams as the company enters the IoT market.

GigaMeg Corporation

has introduced a breakthrough technology for mobile antennas and intend to make huge profit before the competition catches up.



We must deliver more and quicker and we cannot work agile only in development. How do we involve the rest?



With success in business, growing pains arrive. Organizations running Lean & Agile are no exception.

The nature of the growing pains can be very different, depending on the kind of company and the nature of the growth. For some enterprises, it's about expanding ambitions, e.g. business visions or product scopes. For others, it's about expanding operations, e.g. volumes of sales or staff. In any of these instances, the organization and methods must be adapted and scaled.

As challenging as this may seem, situations like the ones described above are actually great opportunities for agile transformation—to implement new methodology and to extend the culture within the organization!

THE BASIC CONCEPTS OF SCALING AGILE

Scaling = doing things more agile than before

In this text, we use a very broad definition of the concept Scaling Agile. It includes all the processes where an organization is "doing things more agile than before". In addition, we don't consider this as a process which takes place as the company slowly evolves. Instead, Scaling Agile is about getting started here and now, according to the present conditions and limitations. Sometimes it means radical changes of how things are being done. During its first phase, it only engages a minor part of the company. But as more staff is included and the culture matures, the scaling speeds up.

All scaling challenges are different

The scaling challenge may be very different for various types of companies. Here are some typical cases.

The small, innovation-driven company ...

... has run Scrum or Kanban in a handful of teams, but now needs to increase their number. This may be due to an increased demand for their product, or the introduction of a new product.

The mature mid-size company offering many services ...

... builds apps or customized software solutions adapted to a system platform. There is an increasing need to simplify the testing and release process of these additions.

The big, global corporation with many people involved ...

... deals with hundreds of developers and many stakeholders who need to be productive together and have full overview of the release plans and commitments.

The starting point of scaling: a good look in the mirror

Successful scaling is based on structured analysis, which in turn is based on careful and open-minded observation. To get an overview of the current state, factors like these may be considered:

Your current state (examples)

What is the size of the company?

What kind of organization and leadership?

What is your product or service?

How is it delivered?

How does the software architecture and the infrastructure look?

What's the level of agile maturity?

How big is your budget?

The use of a tool, like a Scaling Canvas (see page 12), not only makes it easier to think—it also makes it harder to deny that there are problems present. The first step of all change processes is insight. All insights don't have to be pleasant to lead to fruitful results—quite the opposite!

The guiding lights for change: Business Drivers

The guiding lights of the scaling process should be the prioritized business drivers. In the Softhouse model we have defined seven, but your mileage may vary. We recommend that the organization picks three. It is not always easy to let go of the other five so this part may trigger a discussion about the mission and business strategies of the entire organization.



Value

Focusing on delivered value.



Cost

Being managed by cost-limitations.



Effectiveness

Doing the right things at the right moment.



Efficiency

Striving for new ideas and possibilities.



Innovation

Doing things in a rapid and correct way.



Predictability

Being able to foresee the future.



Quality

Valuing quality and its consequences.

Size

is the number of people and teams involved within a value stream.

Scaling challenge

example: In Company Alfa, the demand for new functionality increases for a product or service. An opportunity arises to increase the market share, either by increasing the number of staff within a team or the number of teams.

It is a great challenge to apply lean & agile frameworks like Kanban and Scrum in new configurations and across several teams. The theory behind the different frameworks have often been described and developed from the perspective of individual teams. The communication has been based on informal contacts and short distances between the co-workers.

To deal with these challenges, a multitude of methodologies for scaling Agile has been suggested: SAFe, DAD, LeSS (see page 14). In order to handle and understand these methodologies, we have introduced the Softhouse Scaling Agile Model. It is based upon three dimensions:

Offerings

are the products and services marketed by the organization. The tool handles each offering as an individual value stream, producing a self-contained product or service (including enabler and consumer) that can be released independently of others.

Scaling challenge example:

Company Beta1 develops new products and defines new business segments. There is a transition going on from being a product-focused enterprise to being a service-focused business.

Scaling challenge example: Company Beta2 has a big monolithic product that has grown over the years. Every new release takes longer time and involves more people to manage dependencies. A new architecture is defined to allow more independent development and releases.

Value stream

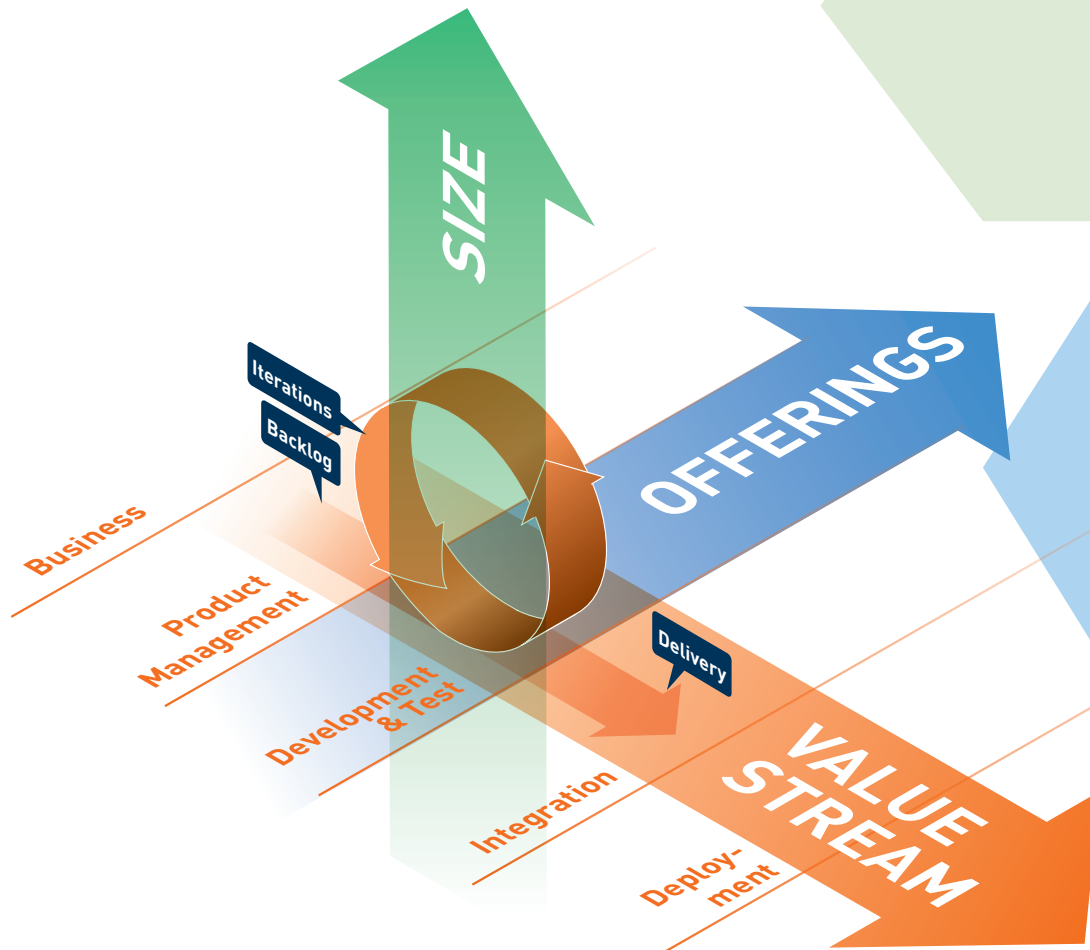
is the concept-to-cash value stream flow. This represents all activities and steps from an identified business need until we have the revenue in our hand.

Scaling challenge example: Company Gamma wants to transform the entire value stream according to Agile methodology. This includes not only the developer teams but also marketing, integration and operations.

THE SOTHOUSE SCALING AGILE MODEL, OVERVIEW

THE SOFTHOUSE SCALING AGILE MODEL, DETAILS

MORE ABOUT THE THREE DIMENSIONS



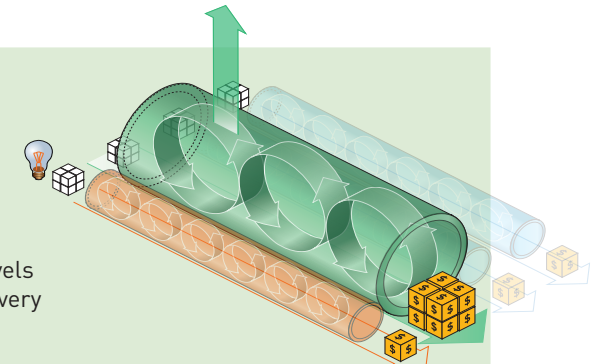
SIZE

Definition

- Huge product with several dependencies
- Planning, visualization and collaboration on several levels
- Go-live is considered to be very complicated and expensive

Challenges

- Continuous Delivery
- Governance
- Legacy
- Lots of people, often vendors



OFFERINGS

Definition

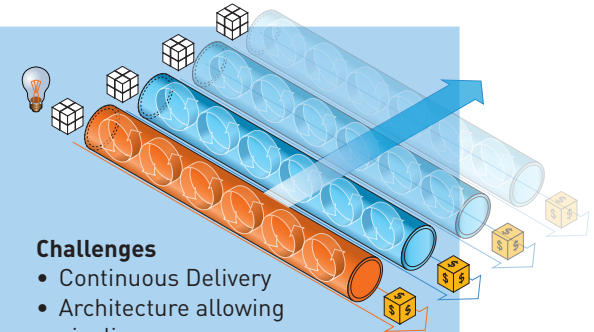
- Separated value streams with independent deliveries
- Distributed governance
- Lightweight Portfolio management

Homebase

- (Small and) medium sized
- Product leadership

Challenges

- Continuous Delivery
- Architecture allowing pipelines
- Governance/funding
- KPIs—Value rather than Cost



VALUE STREAM

Definition

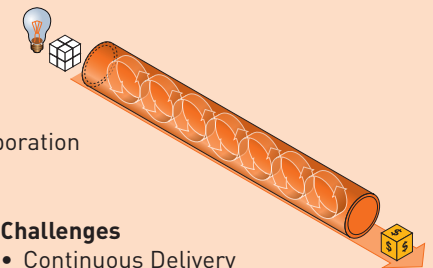
- Continuous delivery of value
- End-to-end value stream collaboration
- Minimum viable product (MVP)

Homebase

- Small (and medium) sized
- Co-located
- Product leadership

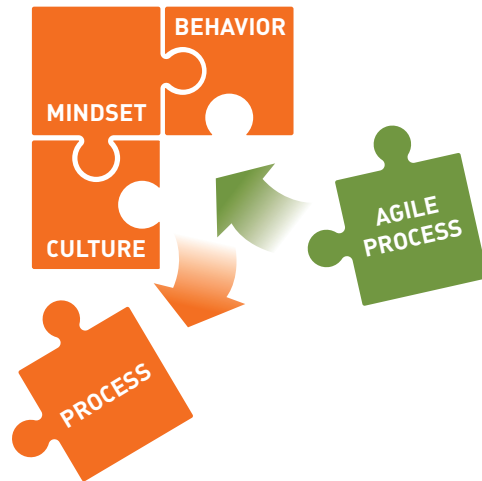
Challenges

- Continuous Delivery
- Get Business/POs in the flow
- Get instant feedback from Customer/Market



AGILE CULTURE AND BEHAVIOURS

Agile scaling is not only about how things are organized. In addition, it requires that all staff—developers, project leaders, managers etc.—embrace agile culture and agile behaviours.



Process and management is just one of four pieces in the jigsaw puzzle. Agile processes will not work without the right mindset, the right culture and the right behaviour, all of which promote and encourage cooperation and openness. Here are some examples of principles that should shape the mindset:

Cooperation over individual performance

Agile is based upon professional cooperation and a holistic approach to the outcome. This is a contrast to older philosophies which are more focused on individual performance and split responsibility. A conflict between the old and the new may arise; this must be resolved in some way.

Continuous improvement and growth

Agile challenges the teams and their members to become a little better at what they do every day—a culture based on “inspect & adapt”.

"The information is not in the house"

The world is changing—fast and unpredictably—and there is little time for individuals to build expert skills. By keeping up a dialogue with stakeholders and end users the developers get the knowledge and insights they need to keep up the pace.

The process brings about changes

A scaling agile process always introduces new roles, processes and ways-of-working, even for organizations that are not new to agile methodology.

Cross-functional teams

Forming cross-functional teams represents a big change. New Line Managers need coaching skills to build and grow these teams, instead of just being experts on the subject matter.

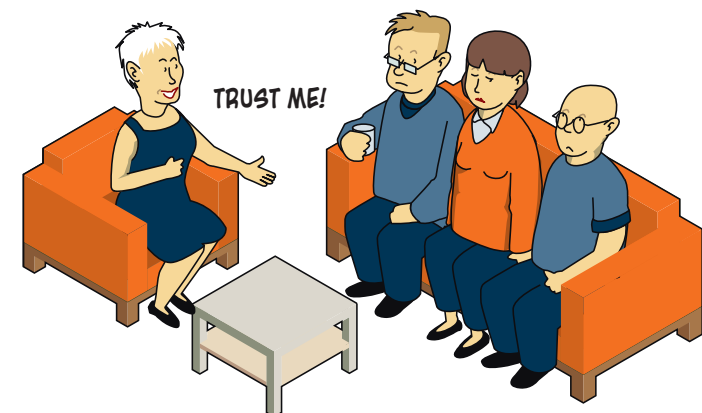
Professional roles

The creation and modification of professional roles requires attention and discussion. Roles like Product Owners will be formed. The roles of Line Managers and Project Managers will be filled with new content.

A steady flow

Continuous integration and delivery will be a necessary capability in order to get prompt feedback on content and quality as well as getting a steady flow of delivered value.

One of the biggest challenges is to change the mindset of leadership and governance. Firstly, to go from command & control to trust. Secondly to put the focus on getting things done, not just getting them started. All governance processes must be based on a basic Lean understanding of queueing theory and theory of constraints. Important principles are “pull is better than push” and the limitation of work-in-progress in order to increase throughput.

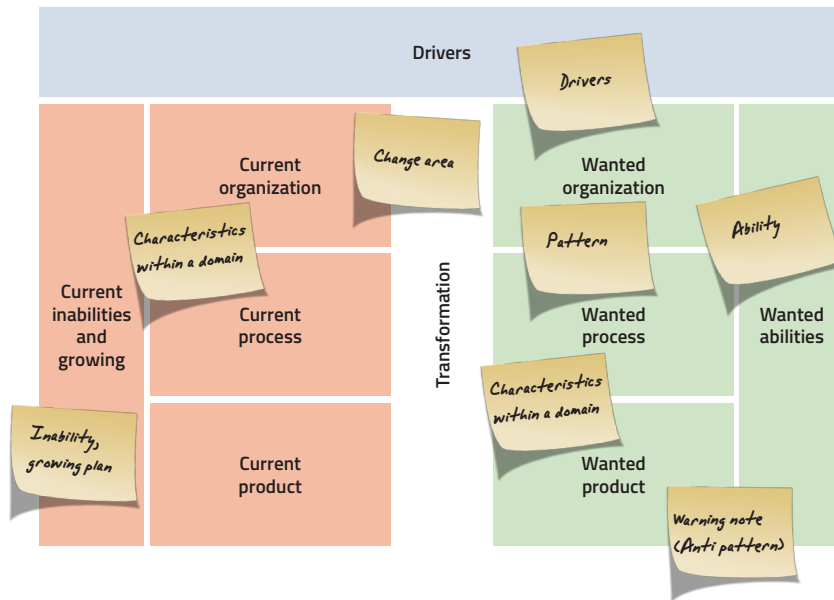


TWO TOOLS TO HELP YOU GETTING STARTED

To get started with the scaling process, the organization needs to agree on three things:

- **Drivers:** What is the desired outcome?
- **Current:** Where are you now?
- **Wanted:** Where you want to go?

Here we present two recommended tools: one for finding out what changes have to be done and one for executing these changes.



Scaling Canvas

The Scaling Canvas supports the analysis, gives overview and lays the foundation for the scaling process. Here we use a type developed by the Scalare project (see last page).

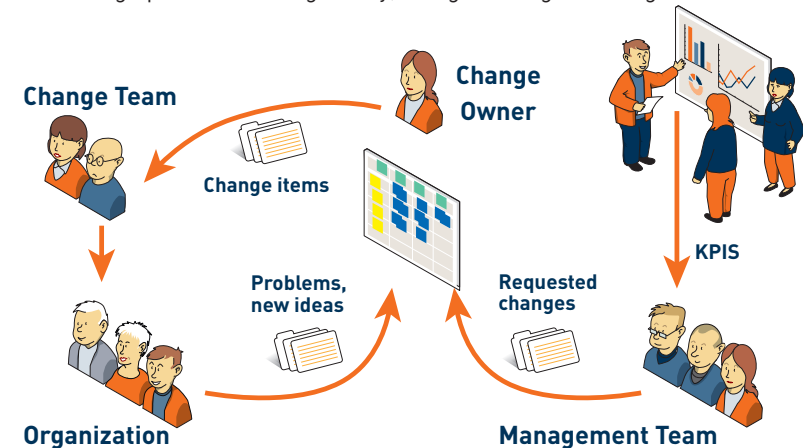
The Scaling Canvas, based on a whiteboard and post-it notes, can be used to build the first version of a Change Backlog. In this way, we prepare for a more effective communication and an alignment process during which the organization forms a common understanding of where we are going and what approach we are taking.

Typical things that might end up in the Change Backlog could be:

- A training program which helps the participants understand what is expected from them and what their role is in the bigger picture.
- Initiatives for making sure that the architecture will enable the product to perform what is needed
- Automated testing improvements
- Collaboration between different departments within the company
- Market research for a new product
- Going from traditional business models selling HW products to providing subscriptions on software features

Agile Change Center

The Agile Change Center, developed by Softhouse, is a structure to manage the change process in an agile way, using a Change Backlog.



The Agile Change Center uses the outcome from the Scaling Canvas (or a similar analysis) as a road map for change. On the initiative of a Change Owner, and with the help of a Change Team, the items from the canvas are broken down into activities. During the execution of an item, the change team will request input from the organization. They will then roll it out in order to receive new feedback on how it is working. By having this Scaling Canvas visual in the office, both management and the organization will be able to see the current status of the change at any time.

The Agile Change Center is based on

- Short change iterations
- Visualization of progress
- Elimination of impediments
- Focus on value
- Engaged staff, open for change

SOME POPULAR FRAMEWORKS

“Wherever you're starting from, realize that your effort to scale agile needs to be agile itself.”

Dan Radigan, Atlassian

The Scaling Agile Model presented in this brochure is a useful tool for understanding and handling different frameworks for agile scaling. Here we present some well-known examples.

Scrum of Scrums (not recommended)

The Scrum of Scrums scaling process comes very naturally: one Scrum team becomes two, becomes three and so on and early in the process, the need to coordinate the teams arises. This is achieved in the simplest way possible by having a multi-team stand-up daily meeting which is attended by one member from each individual Scrum team. Scrum of scrums is much of an improvisation; it is severely limited, includes no documentation and the multi-team stand-up has a tendency to become a status meeting.

LeSS (Large-scale Scrum)

Large-Scale Scrum (LeSS) is Scrum—It is not “new and improved Scrum.” Rather, LeSS is about figuring out how to apply the principles, elements, and purpose of Scrum in a large-scale context. Large-Scale Scrum has two frameworks:

- LeSS (basic) framework is for 2–‘8’ teams with one overall Product Owner (PO) who truly “owns the product” for one real shippable product worked on by all the teams in one Sprint.
- LeSS Huge for ‘8+’ teams, up to a few thousand people per product. With this size you don’t divide by function or architecture; you divide around major areas of customer concerns called requirement areas.

LeSS emphasizes continuous learning, inspection, and adaptation about both product and processes, there are no “one size fits all” organization and process recipes. History, terminology and mindset for LeSS comes from complex R&D development.

Disciplined Agile Delivery (DAD)

The Disciplined Agile Delivery (DAD) process decision framework is a people-first, learning-oriented hybrid agile approach to IT solution delivery. The DAD framework is not as end-state-focused as SAFe can be seen as, hence the idea is that you will not know what end-state you want to reach before you are actually in the environment and phasing the issues and problems that you discover.

DAD is a hybrid approach, which extends Scrum with other proven agile strategies and concepts. DAD extends the construction-focused lifecycle of Scrum to address the full, end-to-end delivery lifecycle from project initiation all the way to delivering the solution to its end users. DAD includes advice about different practices. But, instead of the prescriptive approach seen in other agile methods, the DAD framework takes a goals-driven approach. Historically, DAD has its origin in large scale IT-development supporting a business.

Scaled Agile Framework (SAFe)

SAFe introduces a layered governance structure. This includes development teams using Scrum or Kanban on the lowest level, pulling Stories from a hierarchy of backlogs managed on Program (Features) and Portfolio (Epics) level. The Program level introduces the concept of Agile Release Trains (ARTs) that is a number of dev teams (max 100+ people) that together pull and plan work from the Program Backlog. ARTs plan and deliver Program Increments (PIs) with a time box of 10–12 weeks. Planning is done as Big-Room-Planning events. During these, all stakeholders (business, product owners, architects, developers, testers etc.) spend two full days to come up with a Program Board. This shows all dependencies and what can be expected to be demoed every second week by each team, and by all teams together in system demos.

Scaling Agile is a very different challenge for different organizations. In this brochure, we introduce an universal model which may be used together with well-known frameworks like LeSS, DAD and SAFe.

Pre-release

Made in cooperation with



Scalare is a European ITEA2 (Information Technology for European Advancement) project in which a network of companies, organizations and universities cooperate to assist European industries scaling their software capability. The expected outcome from Scalare is a Scaling Management Framework that provides guidance for different approaches for scaling.
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