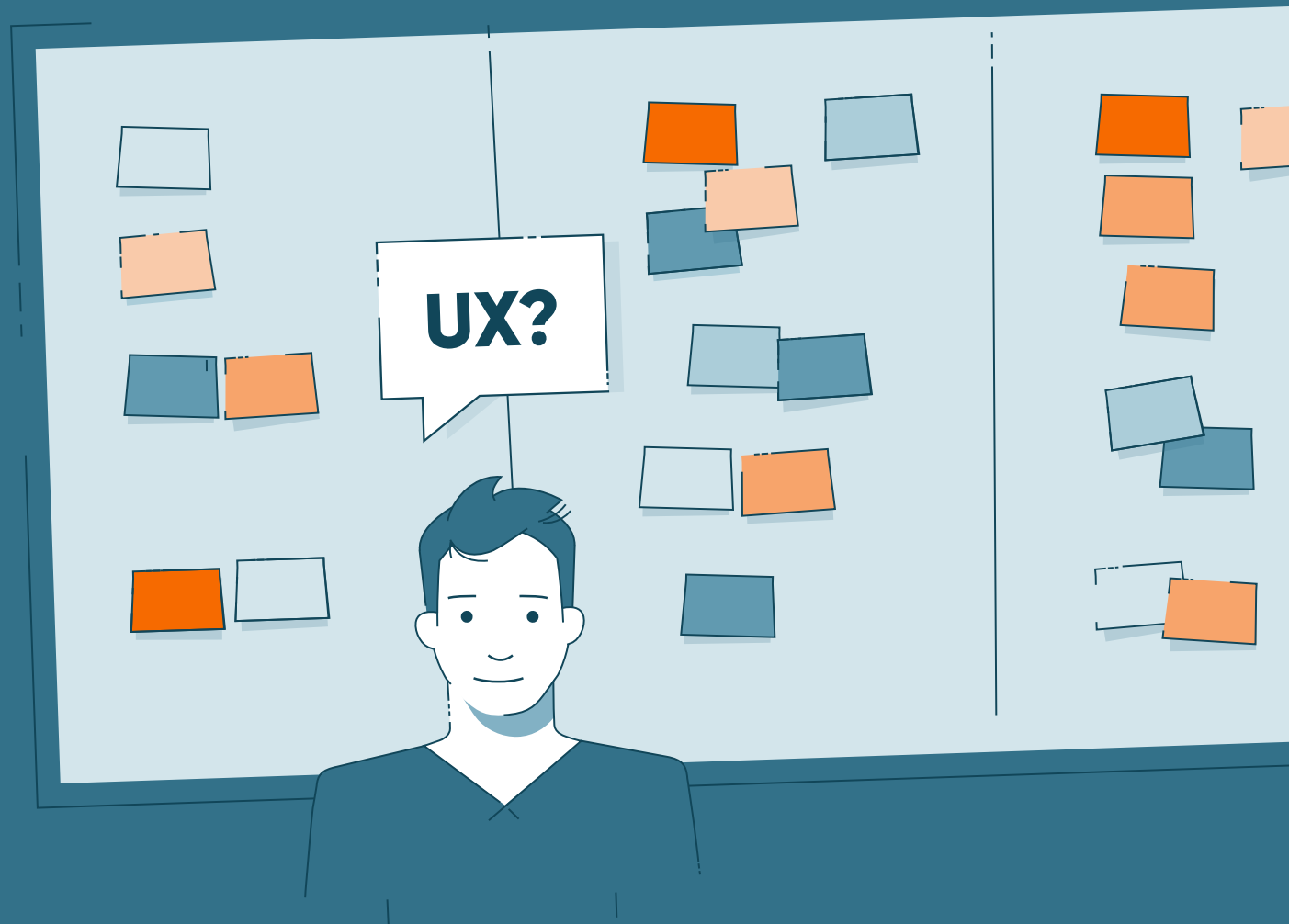


# UX design in an Agile context

From hurdling to sprint



**Informaat**

Creative. Systematic. Sustainable.

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## Introduction

Agile is the most recent of three major developments that have a determining influence on the position of design within organizations. The first of those developments was the transition from physical to digital services.

The rapid development of user interface design to user experience (UX) design followed in the 90s, with the experience of the user increasingly central to the design of digital products and services. UX design is about achieving an optimal, consistent user experience through design. In recent years, more and more companies and organizations have discovered and embraced the value of the UX design approach. They use external UX capacity and are now increasingly moving to set up their own UX departments.

The rise of agile came in 2001, in response to the waterfall method that dealt with the rapid changes in the market and technology slowly and with little flexibility. All this has led to the following state of affairs: 75 percent of the companies in the Netherlands and Belgium work agile<sup>1</sup>, 17 percent of the agile team members are UX professionals and 22 percent of the teams work not purely agile but hybrid.<sup>2</sup>

Informaat is a design consultancy that specializes in experience design and design organization. Our designers therefore increasingly work in an agile setting. As a result, we see that they save a lot of time in practice by using appropriate methods and tools and that they develop organizational formats to coordinate disciplines.

## OUR EXPERIENCES

In our practice, we have good experiences with the combination of agile working and UX design. In each of the organizations we have implemented solutions that work and that have made the organizations more agile and customer-oriented.

In a study into improving our working methods, an inventory was made of the experiences and needs of our UX professionals when working in an agile setting. This research among 16 designers, deployed at 13 organizations, showed that all of these organizations are agile in theory, but not yet very agile in practice. Proper implementation of agile work at all levels in the organization appears to be difficult. The emphasis is often on the speed of code development, but cooperation with the other disciplines has not changed. As a result, the agility of the organizations as a whole lags behind.

Our UX management circle - a group of UX managers from 25 organizations that meets four times a year on the initiative of Informaat - also regularly pays attention to embedding UX design in an agile working method. Questions from practice are discussed here: How do you deal with concepting and user research? How can the UX designer help you make decisions based on customer value instead of 'what delivers the fastest results'?

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<sup>1</sup> KPMG. 'Bedrijven hebben "agile" projecten onvoldoende onder controle' (2017)

<sup>2</sup> Nielsen Norman Group. 'The State of UX Agile Development' (2017)



## UX DESIGN AND AGILE COMMON GROUND

Formally, the agile way of working does not provide a role for a UX designer - all team members are developers. But there certainly is common ground.

### Interest of the customer

One of the guiding principles of agile is 'Customer collaboration over contract negotiation.' Collaboration, not only with the team members, but also with the 'customer'. In this, UX professionals, who always put the user first, and agile practitioners can often find each other well.

### Iterative

One of the agile core concepts is iterative work. UX designers also work from an iterative point of view. Asking for and receiving user feedback before, during and after the design process is essential for UX design. Design decisions are adjusted or refined based on that feedback. Methods such as A/B testing, surveys or interviews, or paper prototyping are used for these purposes.

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## AGILE MANIFESTO

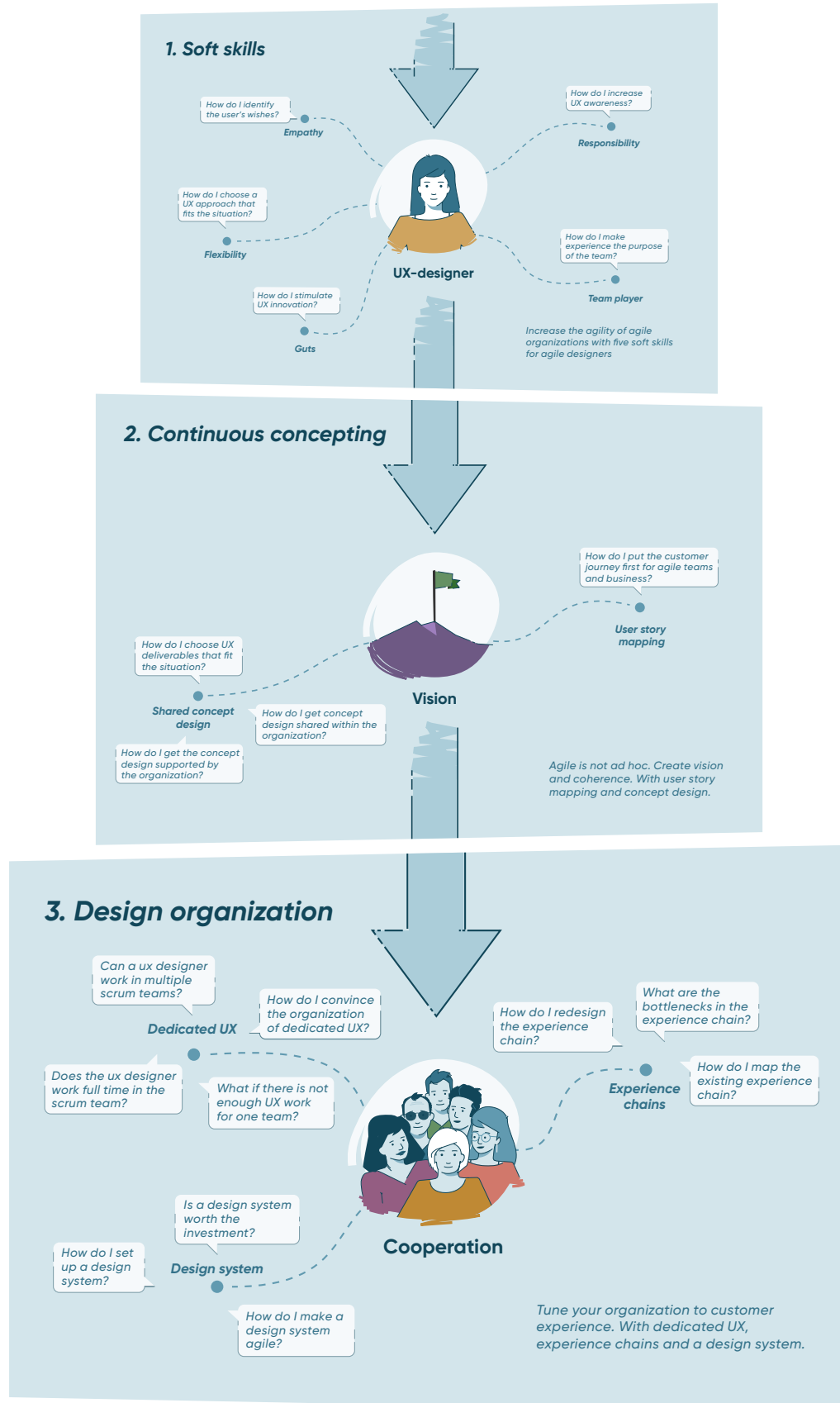
*In 2001 The Agile Manifesto was published, in which a group of seventeen software developers announced their twelve principles for a new way of working.*

*Agile focuses on collaboration in self-organizing teams, working in time boxes (sprints of two or three weeks) and delivering increments. Agile assumes adaptive planning and continuous improvement. In this way, an organization is better able to respond to changes - and therefore agile. Scrum is a popular method that fits under the agile umbrella. At scrum, the product owner divides the features of a product or service into user stories that together form a product backlog. User stories describe how the piece of functionality works from the user's perspective.*



## Summary

In this white paper, we discuss three design solutions for an agile organization: Soft skills, continuous conceiving and design organization.



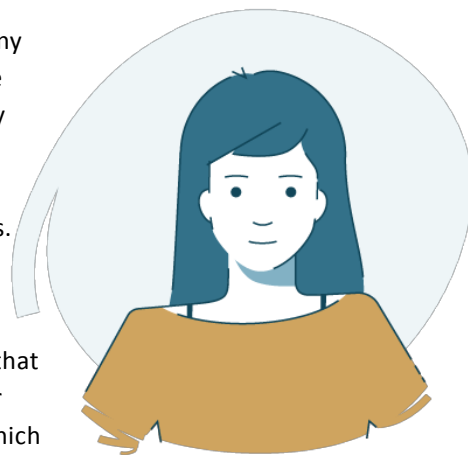


## 1. Soft skills

### 'Increase the agility of agile organizations with soft skills'

An organization is agile if its employees are. Many companies have all disciplines to realize sublime customer experiences. However, in practice they have difficulty realizing this. The result of this is frustration among designers, developers and stakeholders, and inevitably also with customers.

As a UX manager it is important to put your team(s) together in such a way that five specific skills are well represented. These are soft skills that enable UX designers to get the most out of their contributions. They make the environment in which they work aware of UX, which results in a much better customer experience.



These soft skills are:

1. **Empathy** for the users of the application that you develop.
2. **Responsibility** for the quality of UX.
3. **Flexibility** for choosing an optimal UX approach.
4. **Team player** for connecting interests.
5. **Guts** for realizing innovation.



#### SKILL 1: EMPATHY

Under time pressure, empathy quickly seems like a luxury. Is real contact with users necessary? 'Work out the screens'. 'Interviews, usability tests? Hasn't the business already done that?' 'We must continue!'

Even under such circumstances it is crucial for designers to take the time to get to know the user.

#### HOW DOES THE UX DESIGNER IDENTIFY THE USER'S NEEDS?

An agile UX designer wants to understand users. How do they think, live and work? What are they feeling? What are their unspoken dreams, desires and expectations?

To find out, the UX designer organizes user research, lets users keep diaries and perform creative assignments, creates empathy maps and context maps. All to determine whether the user manages a task, but also to know why he had started that task.



## SKILL 2: RESPONSIBLE FOR QUALITY OF UX

The UX designer wants the best UX. This is challenging in companies with a low UX maturity, where UX designers are sometimes still seen as improved image makers. UX awareness solves this mismatch between the mission of the UX designer and that of the organization.

### HOW DO YOU INCREASE UX AWARENESS?

By showing examples of good UX design. By organizing design meetings, creating design walls and giving presentations. By visualizing solutions, but also processes, concepts and methods. By sharing this 'on the board' and by making the dependencies between UX design and other disciplines transparent. In short, by showing the added value of UX design.



## SKILL 3: FLEXIBILITY

Organizations in agile transformations are often looking for how to apply the agile theory. This is often accompanied by resistance to solutions that may not be purely agile, but are necessary, valuable and practicable. The actual purpose of working agile, creating value for users, is then temporarily overlooked.

In these situations, be pragmatic instead of perfectionist.

### WHAT APPROACH DO YOU CHOOSE? SEE WHAT IS NEEDED

Ask yourself the following question: *Which UX approach do you currently need to make a good design?*

Is this a fully detailed persona, or a short profile description? Is it a paper or a high-fidelity prototype? Are user insights needed? And if so, is a light-weight or heavy-weight approach sufficient?

You can always scale up a lightweight UX approach. If you now have little room or urgency, perhaps a workshop to describe the target group is an appropriate lightweight approach. Does urgency arise later for gaining or verifying deeper insights? Expand your approach with interviews and creating personas.

The agile UX professional does not unnecessarily stick to his own design. He can throw away ideas and start over. He can switch between UX approaches and still make a good design. He has the urge to look for improvements, but knows that optimal is different from perfect.



## SKILL 4: TEAMPLAYER

If there is little experience with design thinking within an organization, or knowledge of the work of the UX designer, it is soon thought that the designer can provide an excellent user experience on his own. The wish of the UX designer to work with the entire team to improve the experience is not understood and the UX professional is alone in his feeling.





#### HOW DO YOU MAKE EXPERIENCE THE PURPOSE OF THE TEAM?

The agile UX designer primarily acts in the interest of the user, but has an eye for other interests as well. He respects the input and expertise of others and maintains personal relationships within and outside the scrum team. He is easily approachable, listens to the perspectives of others and always explains design decisions in clear language.

He always pays attention to what colleagues have done well in meetings and regularly compliments on this. In this way, he builds trust and builds a bridge between his UX goals, interests of stakeholders and challenges of other members in his scrum team.

He works with his team members by sitting with the team in the workplace, taking part in the scrum rituals and making UX tasks visible on the scrum board.



#### SKILL 5: GUTS

In politically sensitive situations with many stakeholders, with a lot of financial impact and with a lot of time pressure, it can sometimes be difficult to break out of the group and propose a different course. It is then tempting to follow the familiar road.

Even in an environment where the UX designer is 'judged' by the results of a usability test, he might become too careful and does not dare to propose new things.

#### HOW DO YOU STIMULATE UX INNOVATION?

The agile UX designer does not always go for the well-known standards from the style guide. He also proposes design solutions that are not yet common practice, solutions that require more realization time or decisions that call into question certain principles. He dares to make mistakes, learn and ask for feedback. He thinks in possibilities and not in problems and with his enthusiasm he convinces others of new solutions.

He does not see usability testing as a necessary stage gate, but as an opportunity to arrive at a better design.

#### Want to know more about soft skills in an agile setting?



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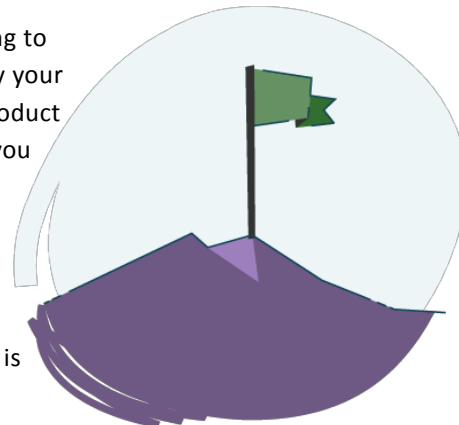


## 2. Continuous conceiving

***'Agile is not ad hoc. Visualize vision and coherence. With user story mapping and concept design.'***

The Agile Manifesto states: 'We prefer responding to change over following a plan.'<sup>3</sup> Don't throw away your plan! Agile does not know ad hoc. You need a product vision to prioritize your user stories. Otherwise you will only see one until later two sprints ahead.

Without a guiding vision, long and ineffective discussions arise with the business. The agile team becomes demotivated if it does not fully understand why decisions have been made. This is at the expense of the velocity and the user experience.



You can prevent this by drawing up a product vision and a visually detailed concept. A concept that shows in broad terms what your product or service will look like in the longer term and in which you continue to elaborate the formulation of the product vision and give it concrete form in sketches and visual representations. A basis to work towards and against which you test decisions for the short and longer term.

We use two solutions for the development of a widely supported concept in an agile environment:

1. User story mapping.
2. Concept design

### 1. USER STORY MAPPING

All 'user stories' are placed underneath each other on a 'classic' backlog. As a result, the cohesion between the stories and the product vision is not clearly visible to the team. To which Minimal Viable Product (MVP) do these stories contribute? To which releases? What are logical groupings of user stories? The agile UX designer answers these questions with user story mapping.

#### **What is user story mapping?**

With user story mapping<sup>4</sup>, the product owner works with the team on a 'grid'. In this grid you place the customer journey on the horizontal axis with the user activities and user tasks below. In these sections you 'map' the user stories. For instance:

1. **Customer journey:** Booking a hotel.
2. **User activities:** Selecting hotel, Booking hotel, and Paying hotel.

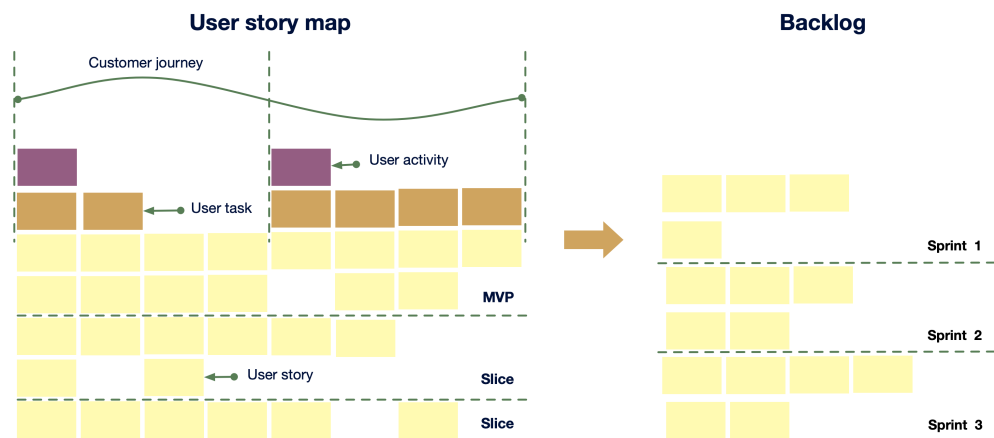
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<sup>3</sup> 'Agile manifesto', 2001

<sup>4</sup> 'User Story Mapping, Discover the Whole Story, Build the right Product', 2014. Jeff Patton, Peter Economy



3. **User tasks in Selecting hotel:** Selecting date, Submitting number of persons.
4. **User stories** distributed in slices<sup>5</sup>.



The top slice contains the minimum set of user stories that is needed to complete the entire customer journey. This is the MVP. Slices below add more and more functionality to this MVP.

#### HOW DO YOU PUT THE CUSTOMER JOURNEY CENTRAL FOR AGILE TEAMS AND BUSINESS?

With the slices from the user story map. Slices enhance the communication with the business and the teams because they are tailored to the customer journey. In addition, the slices are the milestones in the UX roadmap. Slices thus create the coherence needed for a coherent design and code. As the project progresses, further insight can be incorporated into it, with the top slice always being worked out further than the bottom.

## 2. CONCEPT DESIGN

In an agile environment, there is sometimes resistance to a concept design, because people do not see it as agile but as waterfall: design first, then build. At the same time, the development of a concept is a prerequisite for UX designers for the incremental and iterative development of an MVP.

#### HOW DO YOU CREATE TIME AND ATTENTION FOR CONCEPT DESIGN?

By explaining how you can remove the ambiguities and differences in opinions and images with the scrum team, product owner and stakeholders with a concept design. Consider in advance how you perform the work required for the concept design in relation to the sprints. To get this clear for yourself (before you share it with the product owner and team) you can use the agile concept design canvas.

<sup>5</sup> A slice is a logical grouping of user stories across the entire customer journey. Slices have a subject, such as 'Bookings of large travel groups' and no fixed time span, such as the sprint.



In the agile concept design canvas you describe the integration of the concept design in the sprint. Do you reserve a timebox per sprint? Reserve your time in refinements?

### Agile concept design canvas

Create attention and time for concept design

Step 1: **Elaborate your concept**

Necessity	Motives	Short-term results
User goals	Customer and business goals	Long-term results

Step 2: **Select your agile approach**

Starting points	Choice
-----------------	--------

Step 3: **Determine the approach**

Approach	Approach deliverables
Requirements	Timebox

Do you include UX stories as spikes? The decision tree in the canvas offers support with this choice. In the canvas you can also describe what the purpose of the concept design is, what deliverables are available, what is needed for it and how much time it will take.

#### WHICH UX DELIVERABLES MATCH THE SITUATION?

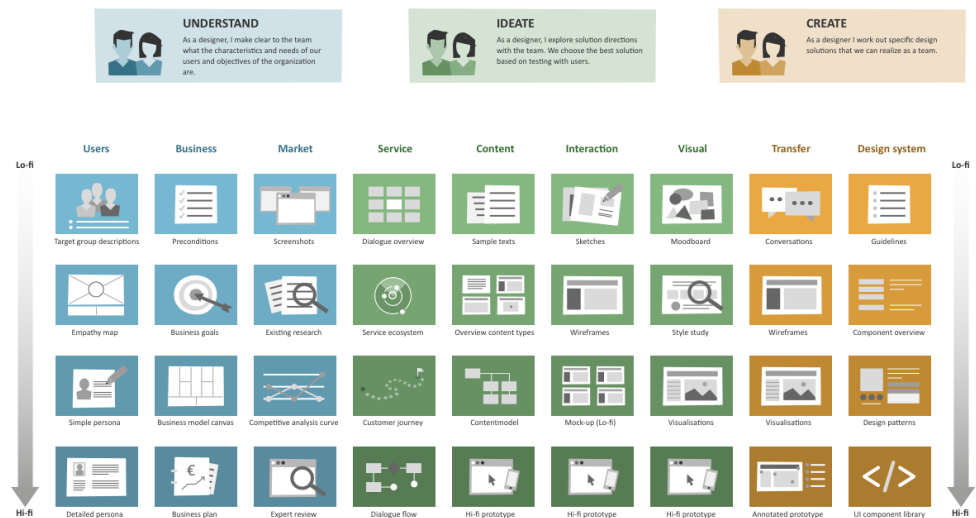
When determining the concept design approach, the challenge is to choose the depth of deliverables that fit the situation each time: What do we really need to know? How can that best be mapped? Our design deliverables menu provides overview and inspiration.

We have mapped out multiple levels of deliverables for each of the three main steps of concept design (Understand, Ideate, and Create): from low-fidelity (fast and with assumptions) to high-fidelity (extensive and well founded). The UX designer is therefore flexible in selecting a deliverable that fits the situation.



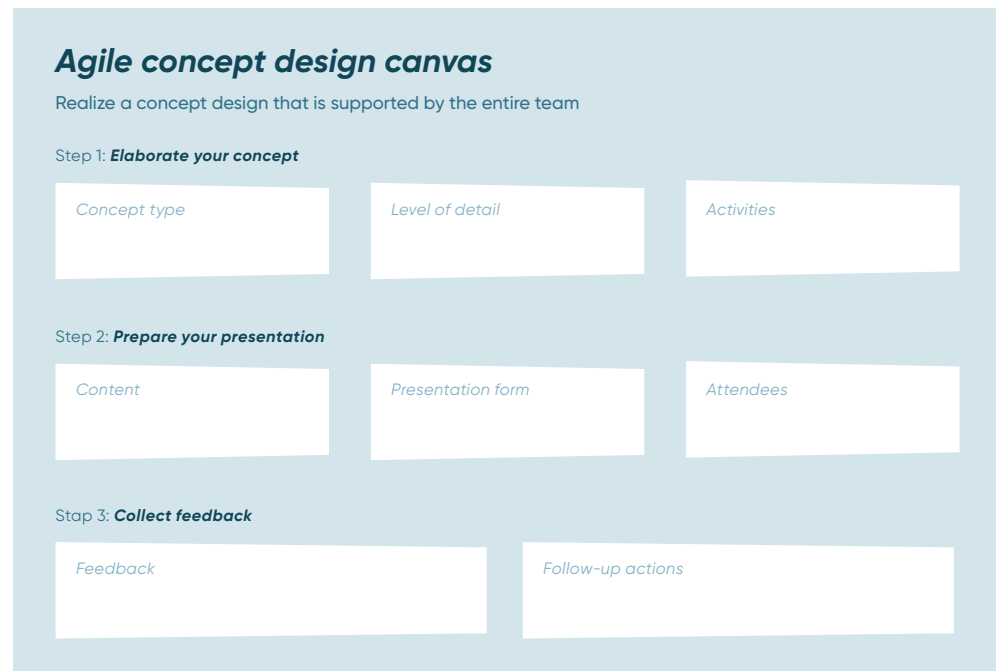
## Design deliverables

Design your concept with the right deliverables



### HOW DO YOU GET SUPPORT FOR THE CONCEPT DESIGN?

In an agile setting, the UX designer visualizes the product vision of the product owner in a concept. This concept design plays the leading role in discussions with stakeholders and during refinement sessions with the team.



Coordination with the product owner is crucial for the concept design and product vision to reinforce each other. Conducting user research with the concept also



provides more support or a change of course in the chosen solution. Our canvas supports the UX designer preparing these activities.

**Want to know more about user story mapping and concept design?**



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### 3. Design organization

#### ***‘Tune your organization to customer experience. With dedicated UX, experience chains and a design system’***

How a company is organized determines whether or not designers are involved in product design. In our experience, managers often facilitate this inefficiently or insufficiently: designers' involvement often remains local, ad hoc and on a personal basis.

A consequence may be that the customer experience gives an inconsistent impression and that customers drop out. We see the following solutions:



1. Dedicated UX.
2. Experience chains.
3. Design systems.

#### **1. DEDICATED UX**

In many organizations there is a perception that dedicated UX design is not necessary in scrum teams. After all, the team is not constantly working on the front-end. But is this picture justified?

Does half support to two teams outweigh dedicated help to one team? Is it effective? And if not, how do you change the situation? And what do you do when there is not enough work for a dedicated designer? What works in practice?

#### **CAN A UX DESIGNER WORK IN MULTIPLE SCRUM TEAMS?**

Not in most cases. In the longer term, the benefits do not outweigh the disadvantages.

Advantages of dedicated UX:

1. Independence: Design capacity is not outside the team.
2. Quality: Focus on working software instead of 'design only'.
3. Higher velocity: No delay due to direct design input.
4. Less work load for UX manager: No longer the question 'Who gets when how much time?'
5. Clarity: Team and designer do not always have to 'catch up' with each other.

We therefore recommend, where possible, 'dedicated UX'. This brings a few challenges to the UX manager.



## HOW DO YOU CONVINCE THE ORGANIZATION OF DEDICATED UX?

Easy said? By demonstrating its value. For example, start a pilot in which several UX designers will work in dedicated scrum teams. Choose product teams with which you can achieve the most UX value the fastest. This way you immediately focus attention on UX design and you prove that investing in UX pays off. Both are crucial to speed up the expansion of UX capacity.

## DOES THE UX DESIGNER WORK ONLY IN THE SCRUM TEAM?

No. In addition to the sprints, the UX designer also needs time for design consultations, usability tests and ensuring the consistency of the UX. He spends around 20% of his time on these cross-team activities. He does this work together with other designers in a UX Guild.

Are there more than four scrum teams? Then the UX Guild needs coordination to monitor the quality of the UX over the scrum teams and to communicate decisions. This is done by a UX lead that operates across the scrum teams.

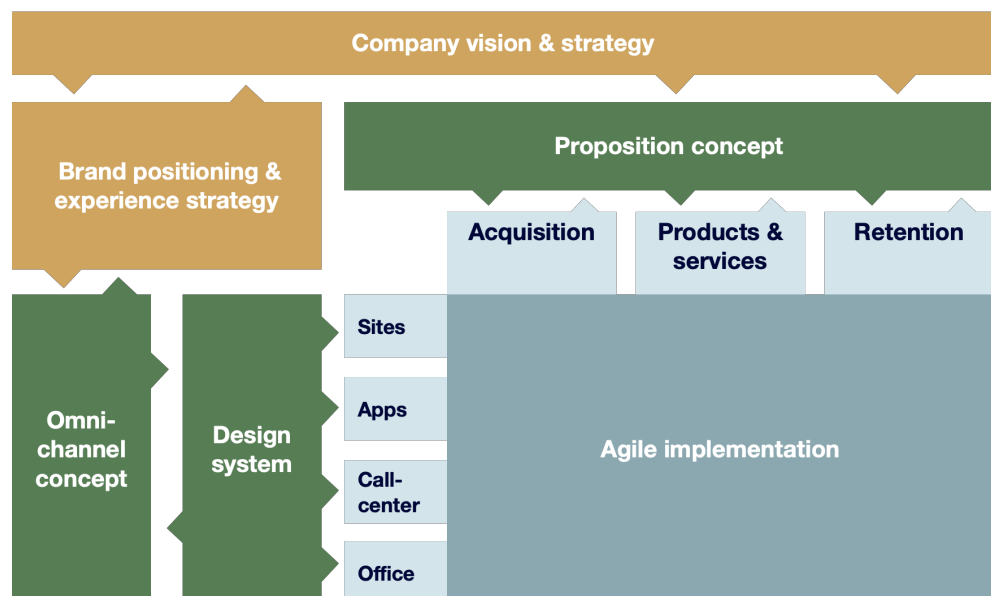
## WHAT IF THERE IS TOO LITTLE UX WORK FOR A TEAM?

Agile UX designers are T-shaped. He can therefore take on other tasks within the team, such as scrum master tasks, working out user stories with the product owner, testing or coding CSS. It varies per person.

Is there structurally too little work? The designer can then assist another team for one or more sprints.

## 2. EXPERIENCE CHAINS

Customer experience consists of all contact between customer and organization in all channels. Website, mobile app, call center or campaign: the transition between different channels must be seamless. Our experience shows that a good UX of digital channels does not lead to a good experience if not all channels (online and offline) receive attention and respond to each other. UX is part of a wider CX.





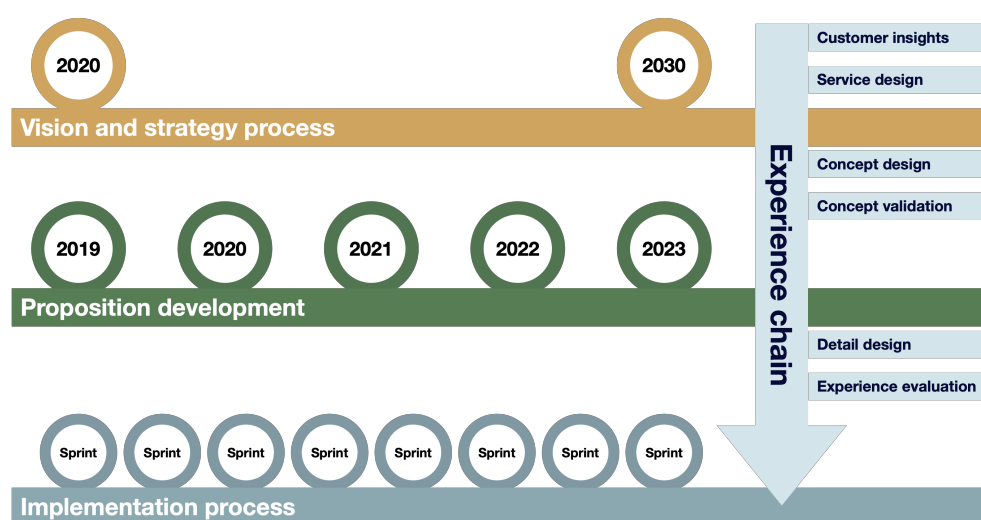


In many organizations, the intentions of the CX strategy are not translated or worked out in the channels with which the customer interacts. The result is that customers have no authentic and credible experiences and quit. How come?

Departments that are involved in delivering customer experience are often not well coordinated with each other or operate as separate silos. Even in smaller companies. Consistent customer experience is created when these silos are forged into a collaborative chain: The experience chain.

#### HOW DO YOU MAP THE EXISTING EXPERIENCE CHAIN?

With the above model you map the departments that are active in the chain from strategy to customer experience. The model shows similar components that make up a typical experience-driven organization.



By placing these departments in this model and indicating how they work together, you get a first picture of the current chain from business strategy to customer experience. Now you can optimize this chain.

#### WHAT BOTTLENECKS ARE IN THE EXPERIENCE CHAIN?

Problems that you often see are interrupted chains, no feedback on customer behavior, inefficiency due to duplication of work or lack of reuse and missing teams and processes.

#### HOW DO YOU RESTORE THE EXPERIENCE CHAIN?

The optimization starts with ownership. Appoint an owner of the experience chain and take initiatives to remove the bottlenecks.

When redesigning the experience chain, pay particular attention to customer experience that is inconsistent and damaging to the brand. Investigate the channels, products, services and the relationship between customer and company for these inconsistencies. Describe the problem with the customer experience, identify which teams in the chain are needed for the solution and determine whether these teams are already sufficiently aligned to be able to contribute to the experience chain.



This creates an optimization backlog. The starting point for the experience chain owner for orchestrating all activities in the chain. From customer to customer experience excellence.

### 3. DESIGN SYSTEMS

A design system is the only source for the brand, customer and user experience within an organization. This contributes to consistency in the customer experience. In addition to components (code), it also contains the backgrounds, design principles, guidelines, application criteria and a description of the experience chain.

#### IS A DESIGN SYSTEM WORTH THE INVESTMENT?

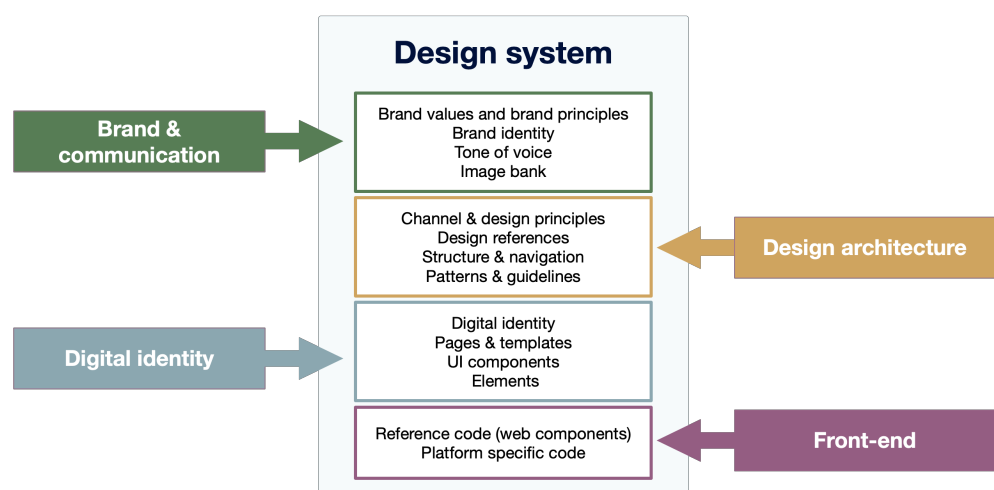
Setting up a design system often means an additional investment in addition to the investment in agile teams. However, the investment pays for itself quickly in efficient processes, more reuse, consistent solutions and easier innovation. Designers do not always have to reinvent the wheel and the code is generic. This allows changes to be made quickly across all expressions, leaving time for innovative design.

#### HOW DO YOU MAKE A DESIGN SYSTEM AGILE?

You extend a design system iteratively and incrementally to the level required in an organization. You often start with the design principles, a color palette, the code for some interactive components and guidelines that add value. You develop this into solutions that ideally can be applied immediately. The designer therefore only includes components that agile teams need and want to build.

#### WHO COLLABORATES ON A DESIGN SYSTEM?

The development and maintenance of a design system is part of the experience chain. Several teams in this chain take care of parts of the system. These are teams such as the brand and communication team, the design architecture team, the digital identity team and the front-end team.





Want to know more about design systems and experience chains?



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## Conclusion

Agile is the standard in software development and now also in many other companies. It increases the agility of the organization, which increases the speed with which more valuable software can be realized.

We see great opportunities for improved UX integration in agile. This allows users and customers to have much more positive experiences, with fewer errors, more WOW and loyalty to the organization that offers those experiences. To remain successful in the long term, it is essential to integrate UX design into the agile organization at all levels. We call this agile design.

In this white paper we have described solutions that make this integration possible: from the necessary soft skills for agile team members (including the UX designer), through tools to design a coherent whole in a concept, to the optimal governance of the organization around agile and design.

Is a successful integration assured with the implementation of these solutions? No. The starting point for making organizations more agile is the ever-changing environment to which they must be able to respond. Internally and externally.

The integration of agile and design is therefore also an iterative and incremental process in which people act, measure and learn. The organization is evolving into a blueprint that is unique to its situation. A situation where no standard model can be given in advance. The methodologies as described in this white paper, however, lead you to a more agile organization with increasingly positive customer experiences. And with that to a successful organization.



## About Informaat

Informaat is a design consultancy for digital products and services. We support organizations in the development and implementation of their digital strategy. We work for organizations that want to take their customer experience to a higher level.

Our approach is to demonstrate, participate and do it yourself. Demonstrate with the execution of design work for clients with (still) insufficient internal UX competences. Participate in joint design projects. Do it yourself by helping organizations to be successful with their own digital services with their own UX expertise.

Our team consists of various disciplines such as interaction designers, content strategists, service designers, content architects, visual designers, web editors, front-end developers, coaches, project leaders and strategic advisors.

The UX professionals of Informaat often work at large and medium-sized companies, but also at start-ups and scale-ups. A large number of them is certified product owner or scrum master. In the past ten years we have increasingly been working in agile environments. We have worked with dozens of our clients on, in or after agile transformations. Based on that, we learned how agile and UX design can work well together and how that leads to real experiences.

**Want to know more about the combination of agile working and UX design? We are happy to help you further.**



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