





# **SERVICE DESIGN**

insights from nine case studies

HU University of Applied Sciences Utrecht  
Research Centre Technology & Innovation  
© 2013 HU University of Applied Sciences Utrecht and the authors  
ISBN/EAN: 978-90-815602-6-9



# **SERVICE DESIGN**

**insights from nine case studies**

Tanja Enninga  
Menno Manschot  
Christa van Gessel  
Jens Gijbels  
Remko van der Lugt  
Froukje Sleswijk Visser  
Fenne Verhoeven  
Berit Godfroij





## Table of contents

**6** Foreword

**S** Introduction  
The Innovation in Service programme and  
the relationships between the projects

**12** Introduction to service design



**18** **project 1** *What motivates passengers  
on the platform*  
Method explained: Ethnographic research for service design

**30** **project 2** *Finding your way around the platforms*  
Method explained: Creative workshop

**42** Insights: Preliminary phase

**48** **project 3** *Improving boarding and alighting*  
 Method explained: Prototypes of service solutions

**62** Interview with Niels van Hal of ProRail

**66** **project 4** *Extreme Users*  
Method explained: From data to building blocks

**78** Insights: Designing for Users



**88** **project 5** *Customer plan*  
Method explained: The role of visualization in involving the  
stakeholders



**100** Interview with Mirjam Meier of NS

**104** **project 6** *Bureau Spoorbouwmeester's Railway Workshop*  
Method explained: User research based on a scenario



**116** Insights: Designing for Organizations

**124** **project 7** *Museum district*  
Method explained: Using probes for fieldwork

**136** Interview with Linda Streefkerk of UMC Utrecht

**140** **project 8** *Hospitality in the hospital*  
Method explained: Context mapping

**152** Insights: Results, Effects, and Side Effects



**164** **project 9** *HU square*  
Method explained: Personas

**176** Conclusions & project finalization

**178** Atlas: Collaboration in a service design project

**187** Explanation of the keywords

**190** Participating organizations

**193** Illustration credits  
Want to read more?



# FOREWORD

**This is the definitive version of the report entitled 'Innovation in Services – Service Design in Practice', a collaborative programme between eleven partners representing the business community and knowledge institutes. This book describes the working methods, the projects and the results of the programme. It contains a number of beautiful examples of the creative and innovative services presently available in the North Wing of the Randstad conurbation.**

Some of the successes: during the three years of the 'Innovation in Services' programme, some 20 meetings were organized, ranging from 'Service Design Thinks and Talks' to presentations during the Dutch Design Week in Eindhoven and the 2012 Innovation Day. The LinkedIn group of the *Service Design Netwerk Nederland* has grown to 870 members. Nine projects were developed and many concepts were considered. Researchers from HU University of Applied Sciences Utrecht and Delft University of Technology distilled many insights from the projects, external and internal meetings, interviews and observations. We have compiled the most important of these for you in this book. A number of articles have been published in international journals. These are all achievements we can be proud of. The 'Innovation in Services' pro-

gramme has been concluded, but this does not mean that it has ended. The insights gained from the programme are currently being followed up at various sites. For example, NS and ProRail are currently conducting an exciting trial at Den Bosch station whereby a digital information board displays how busy it is in the various train compartments. Service design principles and insights have been incorporated into education programmes offered by HU University of Applied Sciences Utrecht and Delft University of Technology and three researchers will obtain their doctorates on the basis of the data from this project.

I hope that this book will give you a better understanding of the concept of service design, but more importantly that it will inspire you to learn even more about this fascinating field and think about what service design could mean for you. I would like to thank all those involved for their inspiration and dedication in recent years.

Christel van Grinsven  
*Programme manager Task Force Innovation  
Utrecht region*



# SERVICE DESIGN

insights from nine case studies

**For products and services to be successful, they need to harmonize seamlessly with the customers' needs and perceptions. Service design is an instrument for achieving this harmony. It is an integrated approach that enables organizations to develop effective and distinctive services together with the customers. Service design is a relatively new innovative tool in the service sector. Little research has been performed into how creative agencies and service providers work together in a service design project, or what the practical added value of this instrument is. This was the motivation for initializing the Innovation in Services programme in 2010.**

Various design agencies collaborated with service providers on the programme, on projects for Utrecht Central Station, University Medical Center Utrecht and HU University of Applied Sciences Utrecht. These projects were followed by researchers of HU University of Applied Sciences Utrecht and Delft University of Technology with the aim of learning how service design is applied and what the benefits are for service providers. The projects were carried out between 2011 and December 2012.

This programme was made possible thanks to a subsidy that was allocated within the framework of the *Pieken in de Delta* incentive programme of the Ministry of Economic Affairs, Utrecht city council and the province of Utrecht.

The programme was carried out by the following project partners: 31Volts, bureau H<sub>2</sub>O, Design Thinkers, Edenspiekermann, STBY, Movares, ProRail, HU University of Applied Sciences Utrecht and Delft University of Technology, in collaboration with NS, Spoorbouwmeester, University Medical Center Utrecht and the Utrecht Museums.

### **For whom is this book intended?**

Although this book was written by researchers, the target group are those involved in the everyday practice of the service provision sector, in the broadest possible sense. This book is intended for all those who want to know more about how service design works in practice:

- organizations in various sectors that provide services to users, whether these be consumers or other businesses;
- consultants in the creative industry and business service provision who advise these organizations;
- students of marketing, business administration and design.

### **Guide for readers**

Following a short introduction on the origins of service design, we will go on to discuss the various projects and how these were carried out. You can find these projects described on pages 18, 24, 48, 66, 88, 104, 124, 140 and 164. Three of the clients review their own projects and explain what their organizations learned from these projects (pages 62, 100 and 162). The authors of this book took a cross-project approach and compiled the insights thus gathered in four insight chapters: 'Preliminary phase' (page 42), 'Designing for users' (page 78), 'Designing for organizations' (page 116) and 'Results, effects and side effects' (page 152). In the back of this book you will find an atlas, a graphical depiction of the process, with practical tips for applying these insights in your own work.

Finally, in the last section of the book we will explain a number of terms and provide a short literature list of books and websites on service design.

### **Is service design the field for you?**

You are the best judge of this.

Read and view the practical examples in this book, and if your curiosity is aroused then go and talk to a service designer.

### **Aims and programme design**

*The Innovation in Services programme has three aims:*

1. To raise awareness in the Netherlands of service design as a part of the business services and creative industries. To this end, projects were initiated to reveal the potential and value of service design. Each project involved knowledge institutes, design agencies and service providers cooperating on the innovation of services within the context of Utrecht Central Station (services in the station, on the platform and for travel to and from the station).
2. To stimulate the creation of networks in the field of service design. To this end, the *Service Design Netwerk Nederland*, which had only just been established when this programme was launched, was developed further into an inspiring network in which businesses and knowledge institutes share inspiration, innovations and knowledge, not only within the service design sector, but also outside of this sector.
3. To unhide the potential of service design. The various projects resulted in a vast amount of knowledge and insights on service design. The knowledge and insights are described in the present book, but even as the programme was underway they were being shared with the world through publications in trade magazines and scientific journals and during symposiums, showcases, lectures, etc.

By achieving these aims, we hope to be able to stimulate the application of service design

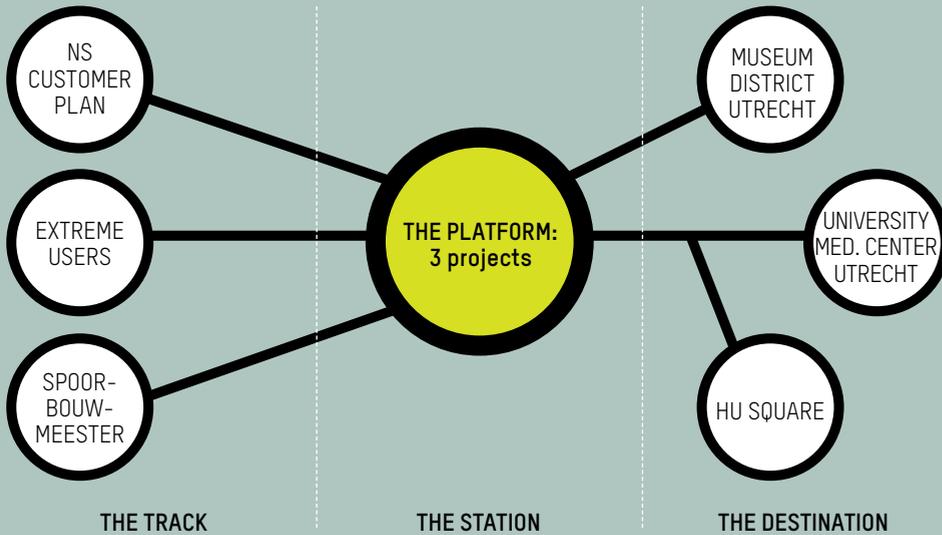
in the North Wing of the Randstad conurbation. This will support the existing businesses in their further growth. The result should be the 'ideal scenario' with improved service provision in the region. Regrettably, the programme was too short in duration to be able to measure such improvements.

The Innovation in Services programme was made possible thanks to a subsidy that was allocated within the framework of the *Pieken in de Delta* incentive programme of the Ministry of Economic Affairs, Utrecht city council and the province of Utrecht.

### **Project backgrounds**

'Utrecht Central Station under construction.' This was the project environment we described in our project proposal. It was a centrally located and inspirational project that the service designers could really get their teeth into. The idea was that ProRail would function as the principal client and that specific assignments would be formulated during the course of the project, which would then be divided among the participating design agencies. Bureau H<sub>2</sub>O was given the task of liaising with ProRail on appropriate assignments and finding suitable agencies to perform these assignments. This turned out to be somewhat difficult in practice. ProRail's management saw opportunities in a service design approach and appreciated the chance to gain experience of this approach without having to make any serious commitments. However, this non-committal stance proved to be a challenge in itself.

It was quite a job to find projects within the ProRail organization where there was sufficient management commitment to invest in the project (both in time and in the budget required to set up experiments and tests) as well as the necessary commitment



Overview of the cases

to actually implement the solutions found. This finally resulted in a central project that focused on improving the passengers' experience on the platform, surrounded by a cloud of sub-projects focused on the situation on the track on the one hand, and on the journey between the station and the destination, including the arrival at the destination, on the other.

**The platform:** the world of trains and platforms is a world of concrete and steel. The perceptions of an individual passenger are often far removed from those of the people who manage the flow of passengers and the station itself. In the three central projects, various agencies collaborated to find solutions with as their starting point the passenger experience.

**The track:** three projects focused on the railway network as a whole, but not specifically within the station zone. The motives and needs of Extreme Users were mapped for ProRail. Extreme Users are passengers who display non-standard behaviour, and thus have the potential to cause disruptions. Like the boy who wants to take his surfboard onto the train with him... The second project

concerned the creation of an instrument that ProRail and NS staff could use in the development of a customer plan. The role of the Railway Workshop programme was examined in a separate project for Spoorbouwmeester.

**The destination:** three projects focused on the route from the station to the destination. University Medical Center Utrecht (UMC Utrecht) commissioned the programme to assess their level of hospitality and to find ways of reducing stress upon arrival at the hospital. Utrecht's museum district had ambitions of growth and wanted to improve the museum experience outside the walls of the museums. The last project was commissioned by HU University of Applied Sciences Utrecht and focused completely on their operation at Utrecht Science Park. They wanted the programme to investigate how a 'central reception zone' could be created for the wide variety of students and employees of the university.

The sum of these commissions was a nice range of projects that were all related in some way to Utrecht Central Station.

# SERVICE DESIGN IN THE NETHER- LANDS

**It is difficult to formulate a single definition of the term 'service design' that would satisfactorily cover the concept in the opinions of all the people who contributed to this book. Google returns more than four million hits for the term 'service design' and a multiple of that number for the words 'service' and 'design' separately. Although this book was written by researchers, it is emphatically intended to be a practical manual. In this chapter we will explain the concept of service design and describe a number of important building blocks that underpin the concept. The main purpose of the chapter is to provide the reader with a framework in which to place the projects. Rather than provide a definition, we will suffice with a summary of the various elements that make up service design.**

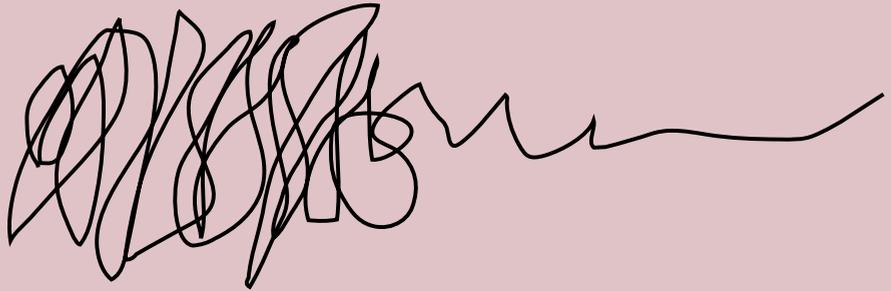
### **The increasing importance of services**

Services are becoming an increasingly important part of our lives as consumers. These services differ widely in nature and can be both commercial (banks, transport) and public (healthcare, culture). Or they might be combinations of products and services, such as online book sales. So services, and the provision of services, are becoming more and more important. The number of points (touchpoints) where

users come into contact with a service are increasing too. Whereas in the past, a user of banking services would primarily communicate with a teller, and receive a monthly bank statement by post, today consumers can organize and customize their banking services via various channels. As consumers grow more critical, and competition in the public sector services increases, it becomes more important to design these services more effectively. The better the service meets the needs and requirements of the users and the more consistent the various aspects of the service are as part of the whole, the higher the value of the service will be, both for the user and the service provider.

### **Design thinking**

Service designers are literally the designers of services. Service designers improve existing services or design completely new ones. Nothing new so far. Services have been around for centuries, and every service was conceived by someone. However, service design takes a different angle, a different perspective as its starting point: it is a process of creative inquiry aimed at the experiences of the individual user.



Non-linear

### **Human-centred design**

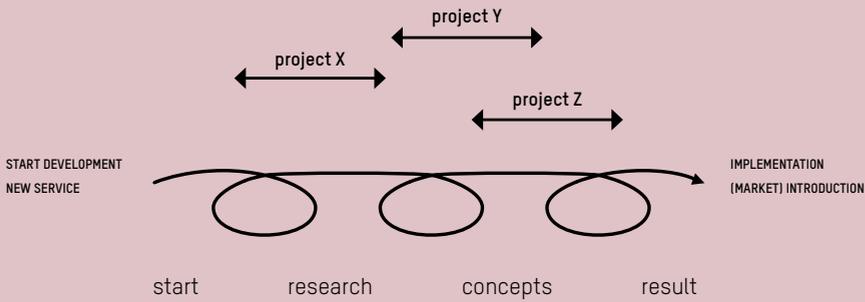
Products and services are designed by people to be used by people, to achieve interaction between products and people, or between people and other people. In their search for good designs, designers are thus focused on people - the users. In industrial design, this human aspect became more prominent in the integration with the field of ergonomics: knowledge of human requirements in the design of products for mass production. Meanwhile, other sectors also came up with ideas for supporting the human aspect of design: the social disciplines carried out research on experience and behaviour, such as lifestyle surveys, trend analyses and the study of the design aspects of products. The arrival of digital products launched a whole new arsenal of design ideas oriented towards humans: usability and cognitive science (how people operate products with buttons). This led to a new range of disciplines such as interaction design and participatory design (when the first computers found their way into the work environment, designers sat down with the people who used the computers to discover the optimum design of the computer and the workspace). During the last twenty years, designers have taken a more human-centred approach to the

design of new products, instead of basing their designs on materials, technologies or production methods. Terms such as experience design and empathic design are examples of this; design approaches that focus on the users and the users' total experience within the context of their daily lives. In short, the focus on people and their individual experiences, needs and daily habits has become commonplace and forms the basis of practically every design process.

Service design continues this development in the design of services and the holistic view of humankind in design projects. A holistic design must take this entire context into account and make human experience the foundation of the design. Over the last 20 years, many user research methods have been developed with the aim of gaining a better understanding of the user's perspective.

### **Iterative process**

The development processes that we are familiar with in the industrial setting are generally linear processes: you start at A and work your way to Z. Similarly, the solutions to the problems involved in travel can also be described in such an A to Z system.



### Iterative process

However, designing is a creative process and much less linear. It is an iterative process, whereby some of the elements are repetitive. However, various phases are recognizable in all these iterations.

The *start phase* is the preliminary process in which the client explains the framework for the assignment as they perceive it.

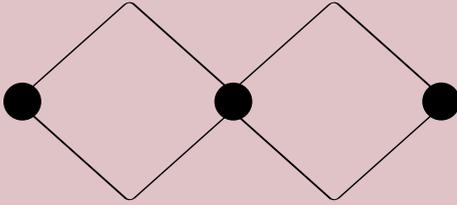
The actual design process starts with *research*. The designers need to get to the bottom of the problem that the client wants solving. This problem can often be clearly described with 'A to Z' logic: what is needed is 'knowledge' and the solution is 'a book'. In a design-oriented process, the designers try to discover if 'knowledge' is really the problem and if the 'book' is really the solution. The problem might involve more than just factual knowledge, but also the inability to apply this knowledge. The solution might be a book, but it could also be a website, a series of lectures, a workshop or a personal coach. If the problem is particularly difficult to describe, then we call it a wicked problem. This is why designers will explain at the start of the process that they do not know precisely what the result will be. At the end of the research phase, the insights from the

research are ordered and the designers determine how best to define the problem.

During the *concept phase*, potential solutions are conceived, if applicable together with the users. This phase may also involve the creation of prototypes which are presented to users to test whether this concept might be able to solve the problem and whether any aspects are lacking or need changing. The *result* should be a designed solution that can be further developed so that it can be introduced and used.

### Divergent and convergent

Divergent and convergent thinking is a characteristic of all these four phases. During the research phase, which primarily involves open research, the designers follow a divergent and broad research approach. They investigate all manner of routes and side roads. The same applies to the concept phase where possible solutions are sought. The number of possible solutions is increased without any preconceived ideas about which might be a good choice. The result phase is convergent, whereby all the potential problems are ranked and choices are made. The options are narrowed down and a choice is made. The same thing



Double diamond diagram

happens after the creative process of finding solutions (divergent). After this process the solutions are ranked and the solutions with the best potential are selected and developed further. To illustrate divergent and convergent thinking, a design process (or in fact a service design process) can be described with the double diamond diagram.

### **Visual thinking**

Visual thinking is an inseparable part of the design practice. Visual thinking is more than just using pictures to illustrate a text. It is a way of using pictures to aid thought and discovery.

It can best be described as a creative way of thinking, rather than analytical or logical.

Many designers use sketching as an instrument to help them think, using a block note pad, a notebook or a tablet.

### **The best solution? Or a practicable solution?**

With regard to ranking the possible causes of the problems during the convergent process, and ranking the possible solutions during the second convergent process, analytically inclined people tend to pose the following question: 'How do you know if you have found the best solution?' The answer is: you don't. Nor is that the right measure of

success. The designer of a book does not know if he designed the best book. The only thing that counts is that this book does what it is supposed to do: provide information and inspiration on the subject of 'service design in practice'. Only the user can judge if this is so.



Client: ProRail

Design agency: STBY





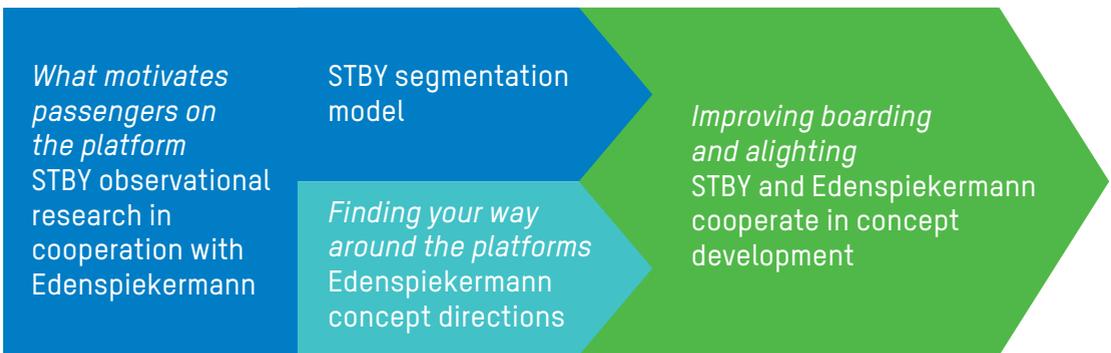
# WHAT MOTIVATES PASSENGERS ON THE PLATFORM?

## The passengers' perspective

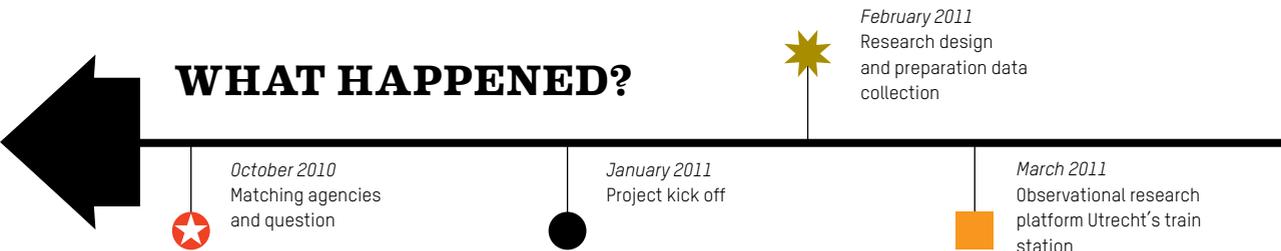
*One of ProRail's key objectives is to ensure that the stations and platforms are safe and comfortable for the passengers, all the more now that more and more people are travelling by train every year. The increasing numbers of passengers intensifies the pressure on the available space for these passengers at the station. Early on in this project, ProRail's station division sketched a number of themes that they wanted resolving. Important keywords mentioned were monitoring and managing the 'movement patterns' on the platform. There are regularly large amounts of people on the platforms of major stations during rush hours.*

*If renovation work is underway on a platform then there may be even less space available for the passengers. All the major stations in the Netherlands are earmarked for renovation during the coming years. The stations will all remain open during these activities. ProRail places high priority on a safe and comfortable environment for the passengers during the renovation operations. But there is often only limited space available during renovations and ProRail is looking for new ways to use this limited space as efficiently as possible. The organization indicated that they lacked information on the experiences of the passengers themselves while they were using the platforms. Some research has been performed, but these aspects are insufficiently highlighted in the standard customer satisfaction surveys.*

CONNECTION OF 3 CASES FROM STBY AND EDENSPIEKERMANN



**WHAT HAPPENED?**



October 2010  
Matching agencies and question

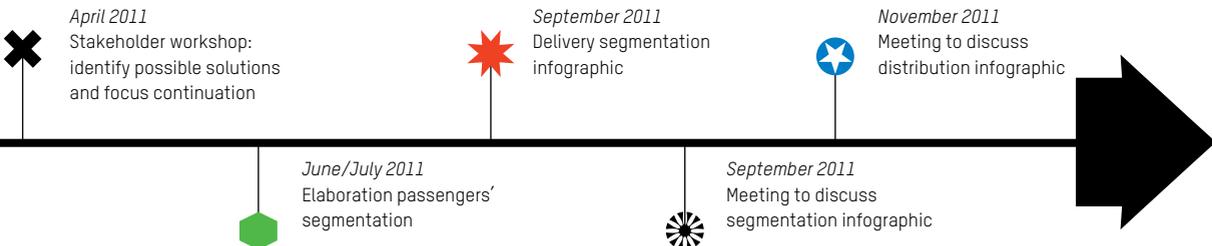
January 2011  
Project kick off

February 2011  
Research design and preparation data collection

March 2011  
Observational research platform Utrecht's train station

## Assignment and aim

ProRail's station division wished to gain a better understanding of the individual motives of passengers during their time on the platform: when and where are the platforms perceived as being busy and what are the reasons for passengers moving about the platforms in specific patterns? The project entitled 'What motivates passengers on the platform?' was intended to provide the agency STBY with insight into how passengers use the platforms and in particular their movement patterns. The aim of the project was 'to gain a better understanding of the behaviour of passengers on the platforms.' This understanding was to assist ProRail in developing a policy aimed at helping to ensure that passengers have safe and comfortable journeys. This project was closely related to the project entitled 'Finding your way around the platform' that was conducted at the same time by the Edenspiekermann agency, as well as the subsequent project that was jointly conducted by STBY and Edenspiekermann in 2012 entitled 'Boarding and alighting from trains'. The findings of this project were to underpin the research out of which the concepts for the subsequent projects would be developed.



# Structure and approach

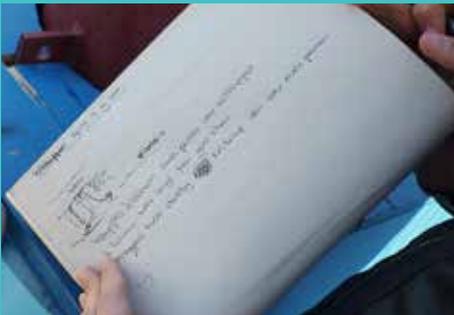
The project lasted nine months. Most of the research was performed in the first half of this period.



Selecting research techniques: a mix of photo and video techniques and note taking



The research team is ready



Notes taken while observing the behaviour of passengers supplement the photo material

## *Using observations to chart movement patterns*

During the preparatory interviews it quickly became clear that this project could provide important groundwork for a number of other projects in the programme. There was a certain amount of pressure to come with results quickly so that these could be used to help start the other projects. The first part of this project focused on a series of observations made on the platforms. The behaviour of the passengers on the platforms was studied using various observation techniques during four periods of three hours, both during and outside of rush hours. Static cameras at strategic locations on the platform charted the passenger flows in relation to time, while portable cameras were used to record the perspectives of the individual passengers. Photographs were taken periodically of the entire platform (from an opposite platform) to provide an idea of the distribution of passengers across the platform. Shadowing techniques were used to chart the movement patterns of a number of typical passenger categories.

It was no simple task to spend two days walking around a busy platform with eight researchers and a battery of photo and video cameras. A tight schedule, a clear division of responsibilities and clear agreements with ProRail were absolute conditions for the success of the enterprise. STBY analysed the material collected in the weeks that followed the observation period. From this material they distilled the characteristic behaviours and movement patterns of passengers on the platform at certain key moments.

### *In-depth interviews to determine motives*

The observations provide insight into what happens on the platform at various key moments, but the why remains unanswered. Why does one passenger walk right up to the end of the platform while the other remains standing at the bottom of the escalator? Why do only a small group of passengers alighting from a train make their way to a more distant stairway while the rest wait in line for the escalator?

Six passengers were interviewed at Utrecht Central Station in order to discover their motives. During these interviews, the passengers were provided with floor plans and asked to trace their movements on the platform when boarding and alighting from trains. Then these movements were discussed with them in order to determine their underlying perceptions and their motives.

The interviews also covered the period leading up to the train journey – preparing for the journey (if applicable) and travelling to the station - and the arrival at the destination. The series of interviews highlights the motives passengers have in common as well as the differences between passengers, providing an initial impression of the segmentation of passenger categories. A useful distinction can be made between ‘a routine journey’ and an ‘incidental journey’.

Passengers on a routine journey behave differently than during an incidental journey, and have specific information requirements. A third situation applies if a journey is disrupted, whether it be an incidental or a routine journey. These insights from the observations and

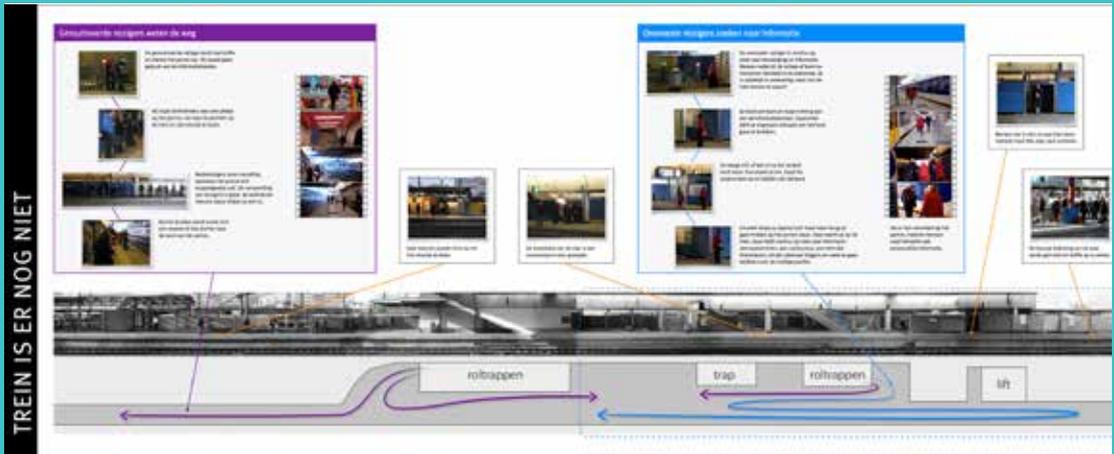


Static cameras follow passengers' movements in time

in-depth interviews were subsequently visualized in order to present them to a broad group of interested parties in the ProRail organization. The analysis of the passenger observations forms the starting point, both for the design agencies (who are involved in the development of the platforms in various ways) and the relevant staff of ProRail, in defining opportunities for new service concepts.

### *Workshop: Fostering stakeholder commitment and defining the focus*

The workshop with the stakeholders in the ProRail organization was planned in advance and was a critical part of the project. The people that could come to play a role in later phases of the project had to be familiarized with the preceding phases, most importantly in order to foster their commitment as stakeholders. During the workshop, ProRail was able to confirm the importance to them of a deeper understanding of passengers' movement patterns. The further exploration of the differences between frequent and incidental passengers helped to refine the focus for the follow-up project.



Visualization of passenger movements on the platform

The bottlenecks and the possible solutions for these bottlenecks were ranked together with the stakeholders. This was an important interim result. For many in the ProRail organization, this workshop formed the first acquaintance with this type of research material (based on qualitative user research) and with the analysis method as used by the research institute (STBY). The analysis method proved particularly important, because ProRail has an organizational culture that is based primarily on quantitative reporting. These were all reasons for the design agencies to take a very thorough approach to the structure of the workshop and the manner in which the findings were visualized: the movements patterns were depicted with coloured arrows on elongated posters displaying various views of the platforms. Observations and the remarks of passengers were linked to each of the patterns, which were also illustrated with video fragments.

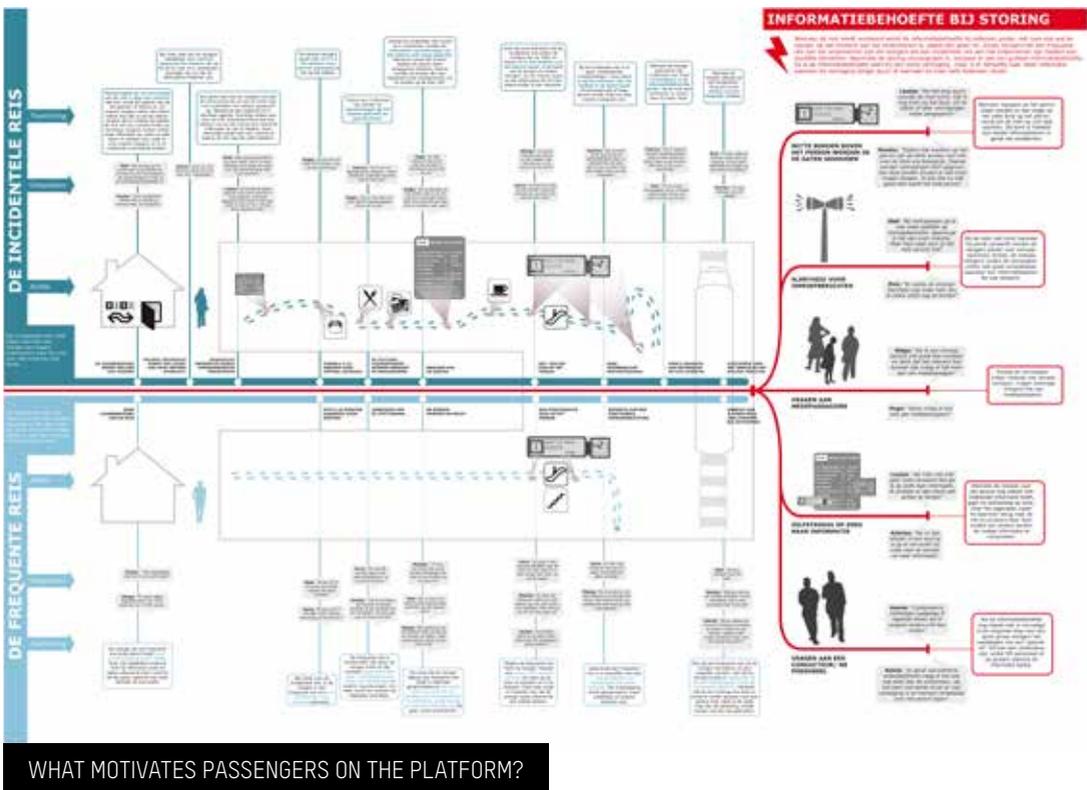
### *Follow-up interviews go in-depth*

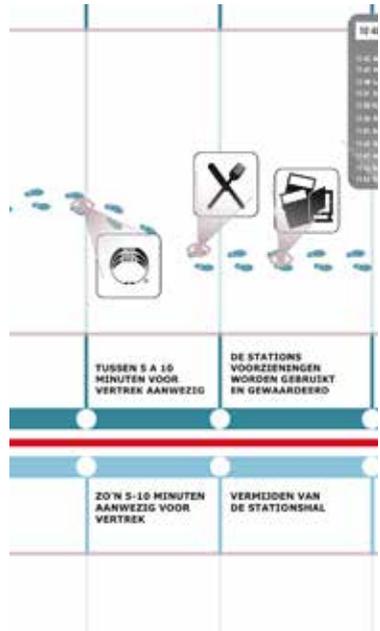
The feedback on the research results provided by the ProRail organization during the workshop formed the guideline for the second phase of STBY's project, as well as for the development of concepts by Edenspiekermann (see project 2: 'Finding your way around the platforms'). For STBY, this meant a more in-depth study into the differences noted between passengers depending on the type of journey: incidental or frequent. To this end, another round of in-depth interviews with passengers was held. This resulted in a model for passenger categorization, based on recurrent typical customer journeys (passengers' movement patterns). These were visualized in a diagram that demonstrates how different passengers display different behaviour and have different information requirements depending on the type of journey they are making. The further definition of the priorities during the workshop helped Edenspiekermann to sharpen their focus on the development of the concepts: static and dynamic orientation and information provision on the platforms.

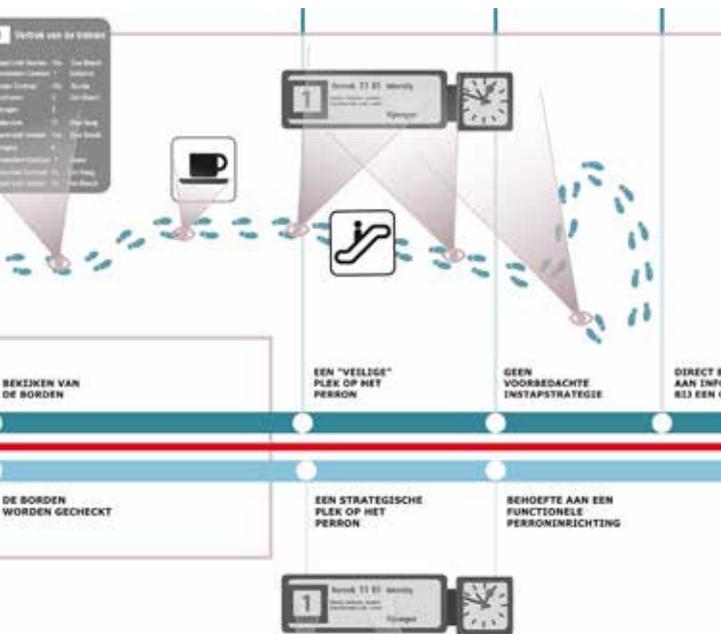
# Results

## Segmentation model

This model demonstrates that there are three general states that a passenger may be in during travelling: they are involved in routine travel, in incidental travel, or their travel experience has been disrupted. Passengers display specific behaviour and they have specific information requirements in each of these states. ProRail needs to tailor its service to this behaviour and these information requirements. This model took the form of a two-sided poster. The front of the poster contained an infographic that depicted the three different customer journeys. The rear of the poster depicted an overview of the bottlenecks in these journeys and the opportunities for improving the service.







Components of the working method: user research, workshops and workshop materials such as post-its and visualizations working method

# \$\$\$-o-ictl



***Why does one passenger walk right up to the end of the platform while the other remains standing at the bottom of the escalator?***

## **FOLLOW-UP: A DELIVERABLE, BUT WHAT NEXT?**

Five months after the start of this project, an infographic has been produced that reveals to ProRail, for the first time, which questions and motives influence the movements of passengers passing through the stations. This poster reveals a multitude of pointers that ProRail can use to improve comfort and safety for the passengers. But how can you ensure that this information is disseminated throughout ProRail, a huge organization with an abundance of parallel focus areas? This proved to be a difficult task.

Between July and November 2011, the design agencies and other involved parties looked for ways to call attention to the results of the research. Was widespread dissemination needed, with internal presentations and massive circulation of the posters? Or would it be more effective to link up with other projects currently underway and in the hands of a few experts who understood the material through and through? It proved very difficult to turn these insights into actions within ProRail.



## Tight schedule

It was no simple task to spend two days walking around a busy platform with eight researchers and a battery of photo and video cameras. A tight schedule, a clear division of responsibilities and clear agreements were absolute conditions for the success of the enterprise.

## Method explained

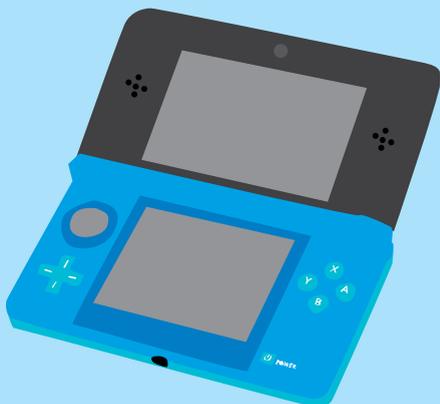
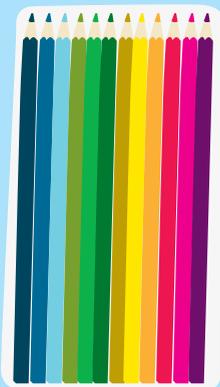
Ethnographic research  
for (service) design

This project revolved largely around ethnographic research methods. The experiences of the users were revealed in qualitative terms in order to determine the routines, interests and associations that were related to the design assignment. A variety of ethnographic observational and participatory research provided a rich picture of the role of the subject under consideration – in this case train journeys – in people’s lives. This picture was used as a source of inspiration for the design teams to be able to identify with the experiences of their users. Moreover, it was a valuable communications resource in the dialogue with other disciplines that played a role in the development of a new product or service, such as marketing and technical departments, management, etc. This project revealed once more that in a design process, it is important that the stakeholders share a joint vision of the experiences of users, as these experiences define the design problem. This enables a team to work together to find solutions to improve the user experience as a whole.

Client: ProRail

Design agency:

Edenspiekermann



# 2.

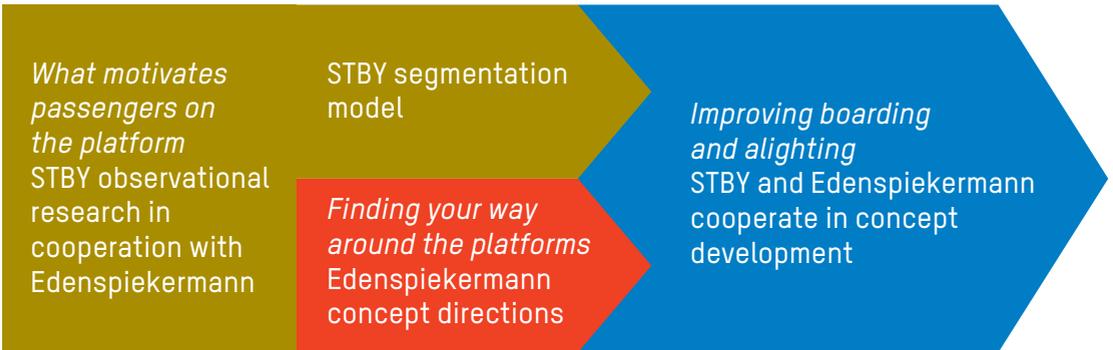
## FINDING YOUR WAY AROUND THE PLATFORMS

### Orientation and communication

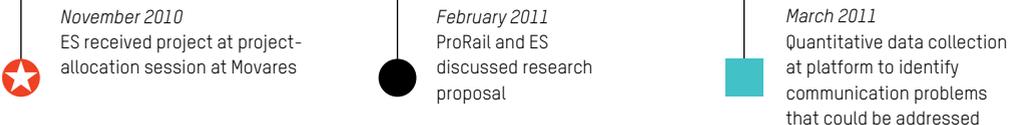
*ProRail wishes to make and keep its platforms as safe and comfortable as possible, even during the renovations that all stations in the Netherlands will be undergoing during the coming years. The stations will all remain open during the renovation activities. During such renovations, it is more essential than ever that passengers are able to find their way around the platform easily and efficiently. Communication plays an important role here: is the supply of information sufficient? And what role could online media play in route marking on a platform under renovation?*

*The Edenspiekermann agency was asked to delve into this issue and design a number of communication concepts aimed at helping passengers to make their way around the platforms under renovation as efficiently as possible. This project was closely related to the project entitled ‘What motivates passengers on the platform?’ that was conducted at the same time by the agency STBY, as well as the subsequent project that was jointly conducted by STBY and Edenspiekermann entitled ‘Improving boarding and alighting’.*

CONNECTION OF 3 CASES FROM STBY AND EDENSPIEKERMANN



**WHAT HAPPENED?**





13:10 Intercity   
Den Helder  
via Amstel, Amsterdam C., Sloterdijk, Zaandam  
Stopt ook in Heiloo

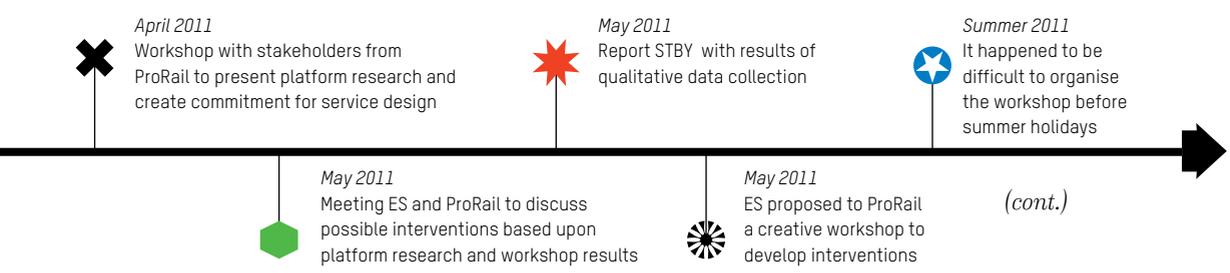
13:18 Sprinter   
Breukelen

13:25 IC Alkmaar rijdt niet  
Volgende trein: 13:28 IC Schiphol

## Assignment and aim

The aim of this project was to develop communication solutions that contribute to improved safety and comfort on platforms under renovation. The communication problem proved to apply not only to platforms under renovation, but in fact called for attention throughout the organization. The aim of providing concrete proposals for improving communication on platforms under renovation was abandoned on the basis of new insights.

The new insights were that organizational factors required more attention, and the new aim became to bring together all the stakeholders, both inside and outside ProRail, to work together on improving the communication with the passengers on the platform. As such, this became an example project in which the service design approach is disseminated throughout the organizations.



# Structure and approach

## Cooperating on communication solutions

The start-up phase took several months. The reason was that this project initially appeared to be about a clearly defined communication problem. However, during the exploratory talks between STBY, Edenspiekermann and ProRail, the parties realized that the problem was much too great to be dealt with by the communications department alone. More and more stakeholders from inside and outside ProRail joined the project as it progressed. This slowed things down on the one hand, but on the other it was a prerequisite for fostering support for service design within ProRail. Much time was also required for the agencies and the client to learn each others' languages and build a joint vision on the manner in which passengers experience the communication on the platform. ProRail wished to make the boarding and alighting process faster, safer and more pleasant for passengers. However, this was rarely described in terms of 'customer satisfaction', the term that the agencies were most comfortable with for assessing the experiences of end users.



Addressing the problem as a team

Edenspiekermann and STBY both wrote a plan of action, whereby Edenspiekermann's communication solutions would build on the insights provided by STBY's research. The agencies also cooperated on certain parts of their projects. Edenspiekermann participated in the qualitative observation research.

## WHAT HAPPENED?

(cont.)



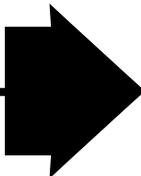
*September 2011*  
Creative workshop at Movares with NS, ProRail, Mijksenaar, ES and STBY, to jointly identify promising communication solutions

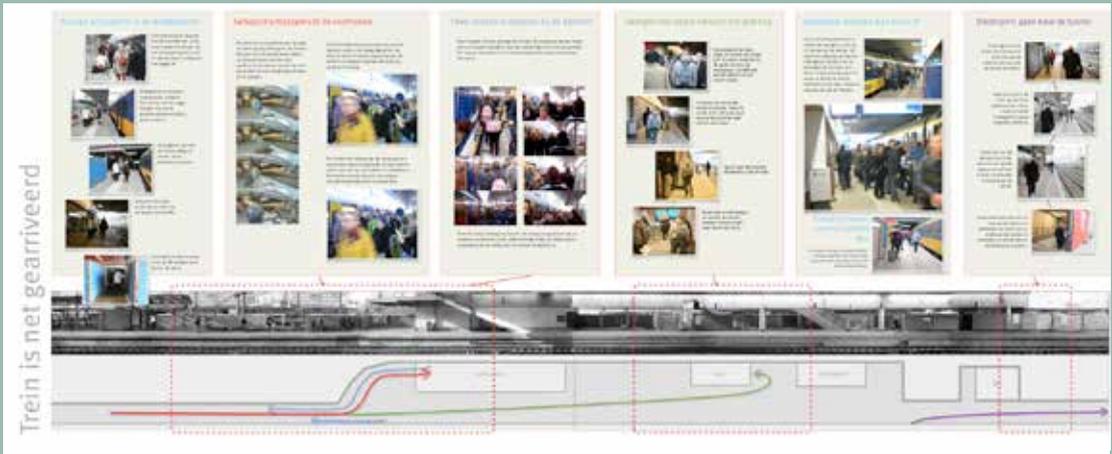


*October 2011*  
Evaluation with ProRail about creative workshop



*November 2011*  
Final discussion of ES and ProRail and brainstorming about next steps





Overview poster of passenger movements on the platform

The series of posters of the different situations on the platform, including the passenger movements, were based on this research.

*Workshop: Fostering stakeholder commitment and defining the focus*

Edenspiekermann and STBY shared their insights with stakeholders within ProRail during the first workshop in April 2011. On the basis of these insights, the problems experienced by the various types of passengers were explored together with the stakeholders. The result of the workshop was a list of communication problems on the platform that needed resolving. The project was to continue with a creative session in September in which communication solutions would be conceived in multi-disciplinary teams. However, the creative workshop had a different result than anticipated. A number of the participants were insufficiently aware of the results of the passenger research and the method by which the insights had been obtained. There was insufficient time during the workshop to bring these people up to date

due to the pressure to formulate potential solutions. Although solutions were conceived during this day, it later became clear that they did not have the full support of all the stakeholders. An important conclusion drawn during the workshop was that ProRail and NS see many obstacles to changing the present situation. It was clear that more emphasis would need to be placed on explaining the added value of the solutions in order to foster the requisite support within the organizations.

# Results

## Interim results

The project resulted in several reports.

A number of communication problems on the platform were identified.

These communication problems are centred around three problem areas that passengers most often cited during the parallel project entitled ‘What motivates the passenger on the platform?’. These bottlenecks were visualized to be able to demonstrate their influence on passenger behaviour.

### *The three bottlenecks were:*

1. Confusion and dissatisfaction among passengers concerning the ‘A’ and ‘B’ zones of the platform. The result is that passengers wait for the train on the wrong part of the platform and, when the train arrives, they all head for the right boarding zone en masse. This results in large amounts of passengers hurrying across the platform.
2. Confusion concerning the location of the different carriages and compartments in combined trains. This leads to passenger uncertainty about the right place to board the train, long searches for information about the carriage layout on the platform, and in extreme cases to passengers boarding the wrong trains.
3. The information panels are not located at the places where passengers look for them when they need information. This leads to passengers regularly walking up and down the platform searching for information or them failing to find existing or new information.

## BOTTLENECKS ON THE PLATFORMS



Bottleneck 1: Division of platforms in A and B zones



Bottleneck 2: Confusion concerning the location of the different carriages and compartments in combined trains.



Bottleneck 3: The information panels are not located at the places where passengers look for them when they need information.

## End results

Potential communication solutions and concepts to resolve these bottlenecks were formulated on the basis of these conclusions. The stakeholders selected which of the solutions had the most chance of success, taking into account the technical and organizational complexity of modifications to the platform.

*The three solutions with the most chances of success were formulated as follows:*

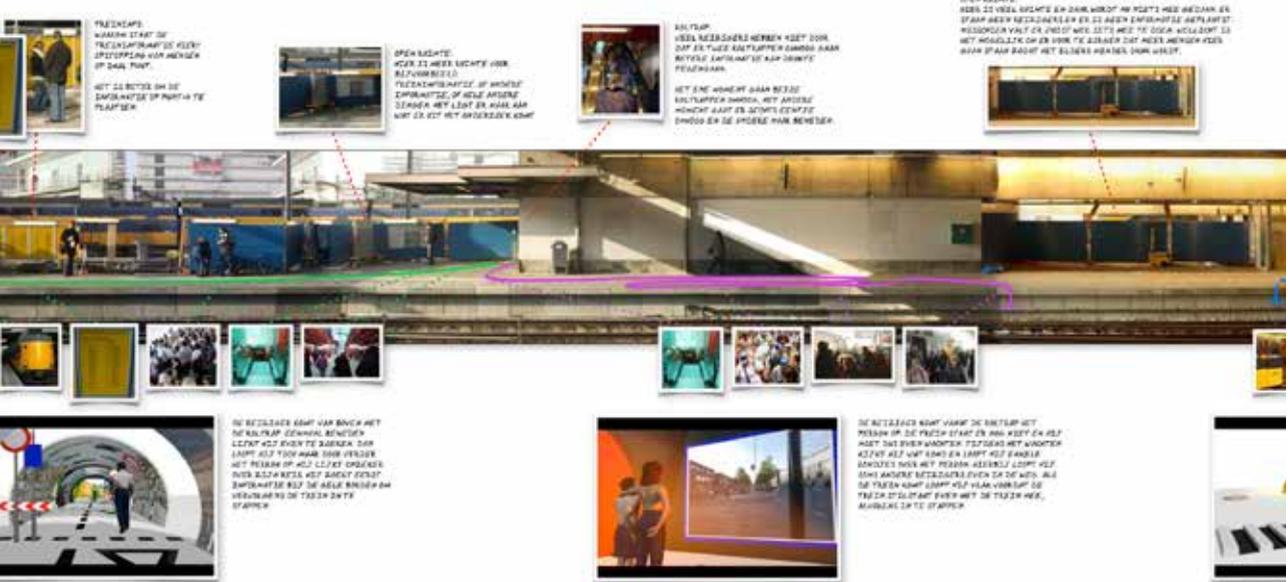
1. Dynamic information about the location on the platform of the next train to arrive.
2. Improved communication of changes to the timetable.
3. Improved delineation of the A and B zones on the platform.

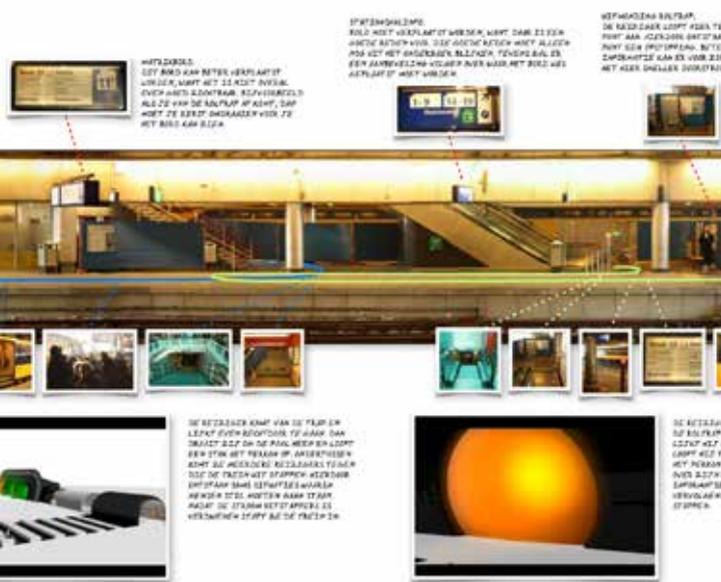
For each of the three solutions, an inventory was made of the possible means of actually realizing the solution and the technical and organizational preconditions for the solution were estimated.

Although the original intention was to design and test these communication solutions as part of this project, the concepts were not actually implemented. During the course of the project it became more and more clear that the responsibility for and management of the bottlenecks that required resolving were in the hands of other departments and organizations than those directly involved in the project. As a result, the attention shifted from the rapid development of suitable concepts to identifying the relevant departments and winning their support for the project. In fact, these new insights into the research actually changed the nature of the problem itself and, consequently, the problem owner changed too. This happens regularly during design processes such as this one, whereby integral methods are used to find solutions. This effect makes it all the more important to involve the new stakeholders in the problem (the new problem owners) and foster their commitment as early as possible.

The most important result now was to bring together the parties who were required to be able to solve the problem: these were parties from inside and outside ProRail who were not yet acquainted with each other. These parties sat down to brainstorm about the opportunities for improving the passenger experience.

The follow-up to this project, entitled 'Improving boarding and alighting', was launched only after a thorough inventory had been made of all stakeholders and there was a joint vision with these stakeholders on the potential solutions to the bottlenecks.





Workshops are held, during which insights are shared and new ideas are developed.

# SSO-IC1



Creative workshops were held during several of the projects in this book

## Method explained

---

### Creative workshop

As with many other projects, a number of creative workshops were organized within the framework of this project. A creative workshop is a meeting whereby the participants work together using various creative techniques in order to be able to take the next step in the process. Creative workshops typically serve multiple purposes: they are also a means of keeping the stakeholders up to date with the latest insights produced by the research or the latest results of the design process. By discussing the insights or the results during the workshop, the group's collective intelligence can be applied to verify or expand on these insights or find connections with other research. This also helps the stakeholders to build a shared language and vision of the project. This shared language often recurs as a theme later on in the process. The experiences gained during such workshops are often referred to later on in the project, be it consciously or unconsciously. Typically, the continued search for possible solutions will often be a creative process based on the information presented during the creative workshop. By using creative tech-



**Show me  
what you mean.  
How would that  
work?**



niques such as brainstorming, sketches, collages, scale models (e.g. using Lego and Playmobil toys), or visual and non-visual stories and scenarios, the team works to achieve divergence (increasing the available options) or convergence (selecting a limited number of options). The two keywords during such a creative workshop are 'creative' and 'cooperation'.

**INSIGHTS**

# *Preliminary phase*

This book has been entitled ‘Service design: Insights from nine case studies’. Each of the nine case studies has been described. If we were to stand back from these nine projects and look at them through eyes half closed, what would we see? What insights would we draw from them? What are the recurrent themes? And what plays only a minor role, though we may have expected it to be more important? Each project described in this book was preceded by a lengthy preliminary phase. This was despite the diversity of clients and design agencies. This generates the following question: is such a preliminary phase a fundamental part of the service design process? The agencies remark that the project only really starts when the official go-ahead is given. But this is not a starting point for any process; it is always preceded by a long period of probing, fine tuning, adaptation and decision-making. The events in the preliminary phase turn out to have a major influence on the course of the project and on the results.

## ➔ welcome

---

### IN SERVICE DESIGN

**One outcome of this diversity of clients is that not all of them are equally familiar with the term service design. Although the awareness of service design is increasing, many clients do require some explanation in order to fully understand its significance. This is all the more relevant when the clients go to explain the project to their own colleagues and managers.**

So an almost inevitable part of the process is that the design agencies need to introduce the stakeholders to the service design approach and their own method in the service design context. Why is it relevant? What can we contribute? Why and how is our way of thinking and working different? What results can we produce?

Some agencies make this a gradual process, organizing various network meetings and seminars over the years. Others are faced with a client who has to be convinced of the worth of service design within a very short time frame. This acquisition process incorporates the fostering of a joint vision on service design and the right approach to the project.

As this joint vision was lacking at the start of a number of the projects, there was a period of preliminary probing that lead to some serious project delays.

## ➔ urgency

---

### FIND OR STIR IT UP

The success of a service design process is dependent on the commitment of the



The organization's perspective: transporting passengers by train

stakeholders. This commitment helps to open doors, procure resources, or connect with the client's clients. The actual implementation within the organization is also more likely to be a success if the organization is committed to the project.

A certain degree of urgency can help to stimulate commitment. During the preliminary phase, much time and energy was devoted to finding this urgency. Attention was drawn to the nature of this urgency, or it was more specifically described, in order to ensure commitment during the rest of the project. In some cases, this led to a completely different formulation of the initial problem that the agency and the client had originally confronted. A good example is the Customer Plan that Design-Thinkers drew up. The design agency was originally going to focus on installing works of art at Utrecht Central Station. However, the organizations involved displayed little enthusiasm for this plan. This was not a widely supported assignment. Eventually, the original assignment was transformed

into a completely different project that was received with much more energy and enthusiasm.

## ➔ **fine tuning**

### **PERSPECTIVES OF THE DESIGNERS AND THE ORGANIZATION**

Design processes are often iterative and the service design process is no exception. However, because this process is applied to service development, some contradictory values occur. Service provision is a commercial sector that normally provides measurable and clear assignments. The results (in whatever form) are what counts; a measurable output. User research focuses on effectiveness from the user's perspective: it concerns a product or service that suits the user's world; a value that is often difficult to measure. The service design process also demands an organization that has a different perspective on the results. It demands a more explorative attitude and a different type of commitment on behalf of



The user's perspective: the train as part of my journey

the client with regard to information processing and developing insights and concepts. Alongside a joint vision, this also fosters commitment. The design agencies needed to be tolerant towards the more rigid approach followed by the organizations.

The designers informed the clients that they did not know the precise outcome of a project at the start of that project. The organizations sometimes found this difficult to stomach. The design agencies attempted to alleviate this by providing more explanation about the process and the steps in the process, rather than focusing on measurable results.

## ➔ starting position

.....  
The preliminary phase results in the starting position, the current situation when the project gets the go-ahead. In this situation, not only the assignment, timeline and intermediate and final results have been discussed, but also the mutual expectations

and the roles of all the parties involved. The points of contact, representing the client as well as any other stakeholders, need to be involved from day one. In a number of cases, the points of contact representing the client changed during the preliminary phase. During some projects, new points of contact were included part way through the process. For example, during the University Medical Center Utrecht project, an econometrist was added to the project team in order to be able to convince physicians of the validity of the profiles based on the quantitative data.

It was difficult to determine who was the right point of contact. However, certain characteristics were mentioned, such as commitment to the project and influence within the organization as described above (these characteristics included a mandate, access to budgets and resources, the ability to bring together the right players for a workshop, support for the realization of the prototype, persuasiveness, etc.) The right point of contact can help to move the project along

and increases the potency of the organization.

At the same time, there is a certain contradiction here. A strongly committed client will want to steer the process in a certain direction, while at the same time the design agencies will need a certain amount of creative freedom. However, the close commitment of the clients in the design process can also provide the right climate for deviations from the pre-agreed starting position – as long as the arguments for this are sound.

attention to finding agreement with the client in this first phase, while the client needs to use this phase to clearly define their requirements and their questions. The events in the preliminary phase turn out to have a major influence on the course of the project and on the results.

## **➔ conclusion**

---

### **PRELIMINARY PHASE AN OFFICIAL PART OF THE PROJECT?**

Whether the preliminary phase is part of the service design project is open to argument. This phase takes place before the project has received an official go-ahead. It has an explorative character and there is no financial reimbursement in this phase. Nevertheless, the preliminary phase involves a number of critical steps that have a strong influence on the success of the project and the results. For example, it is in this phase that the assignment will be fine tuned or even substituted, people at various levels in the organization become involved and the stakeholders profess the urgency behind the project. The preliminary phase cannot simply be dismissed as a no-obligations round of probing. Often, agreements are made in this phase that provide a degree of assurance about the project. The go-ahead following this phase appears to be a starting point, but in reality it is more of an interim result. For the agencies, this means that they need to pay a lot of

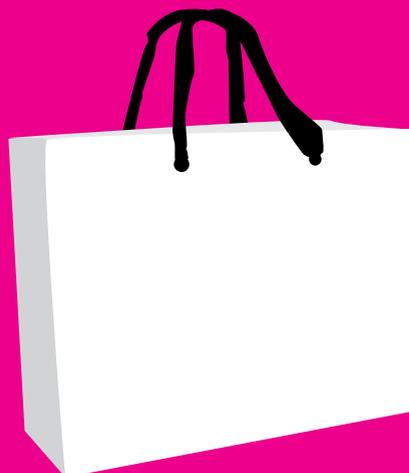
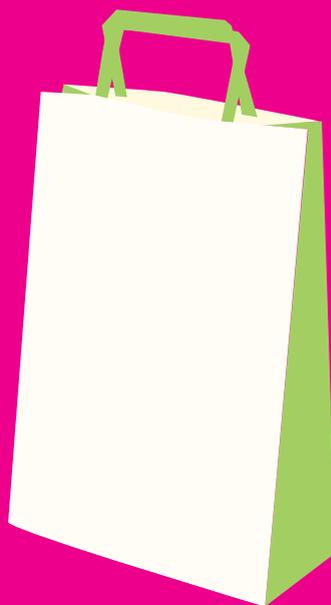


***What happens during the preliminary phase seems to have an impact on the course of the project and its results.***

Client: ProRail

Design agency: STBY,

Edenspiekermann



# 3.

## **IMPROVING BOARDING AND ALIGHTING**

### **Communication solutions on the platform**

*This project was a direct follow-up to the outcomes of project 1, 'What motivates passengers on the platform?' and project 2, 'Finding your way around the platforms', in which ProRail's station division commissioned research into the main causes of passenger movements on the platform.*

*The preliminary studies brought a number of bottlenecks to light that passengers experience during the complete customer journey. This project focused on the moment of boarding and alighting from the train. Relevant bottlenecks found earlier were studied more in-depth during this project and they served as a starting point for the development of ten new service-provision concepts related to the station platform.*

#### CONNECTION OF 3 CASES FROM STBY AND EDENSPIEKERMANN



## WHAT HAPPENED?

This project developed intermittently between December 2011 and March 2013. The focus of the research and concept development was during May and June 2012, while the test setup followed in the beginning of 2013.

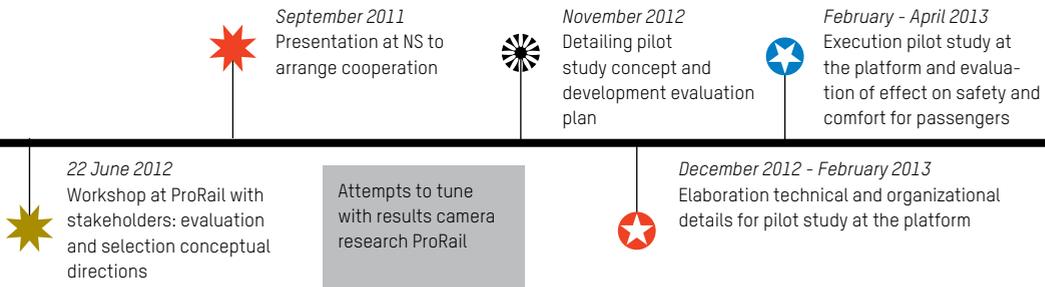
Break; attempt to match the renovation schedule of Amsterdam Central Station





A visualization of an alternative zoning plan for the platform

*This project was a close collaboration between STBY and Edenspiekermann, whereby STBY led the research activities and Edenspiekermann directed the concept development. Alongside ProRail, NS Reizigers (NS's customer service arm) was also involved as a stakeholder throughout the project. This was recognized as a requirement during the previous project and acted on right at the start of this new project.*





Boarding and alighting

## Assignment and aim

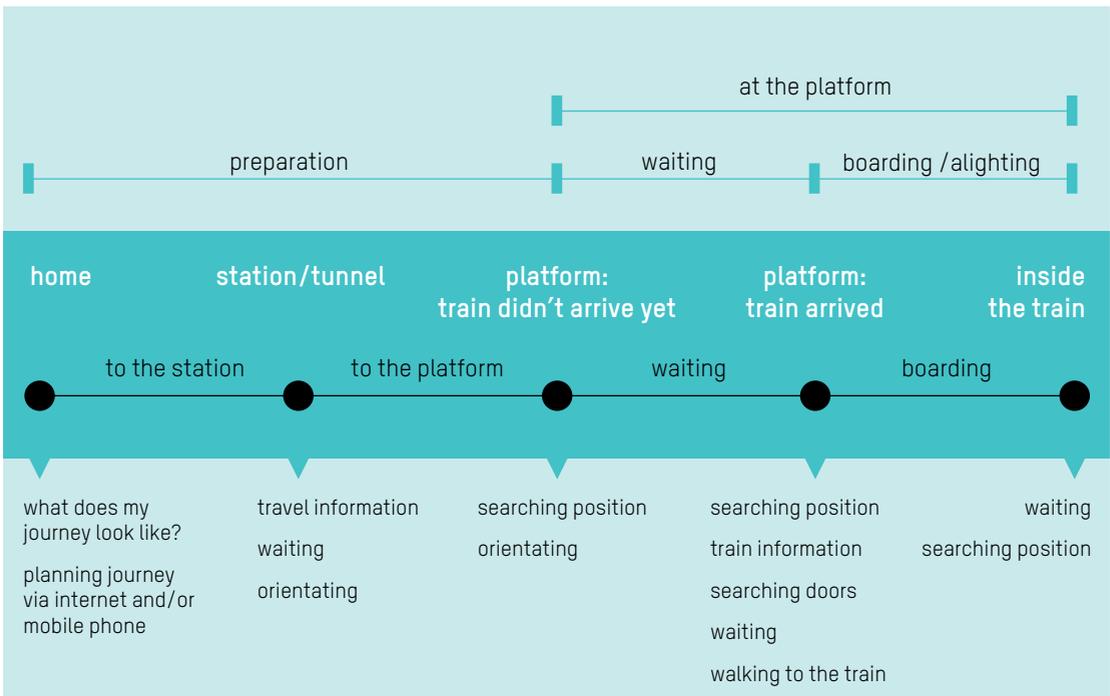
The aim of this project was to develop concepts that would result in a faster, safer and more comfortable boarding and alighting procedure. The aim was formulated on the basis of the insights gained during the previous projects: the moment of boarding or alighting from a train is a brief juncture during which a lot happens at once and which can be improved. ProRail saw opportunities to improve safety during boarding and alighting as well as increasing the turnover of passengers on the platform.

The concepts had to benefit both the passengers and the organizations involved, ProRail and NS. These benefits include less congestion when the train doors open; less dangerous situations; shorter waiting times; a better passenger experience with regard to comfort and information provision; the capacity to process more passengers per hour; and, finally, the capacity to

schedule more trains due to less time needed at the platform.

The boarding and alighting process entails more than just the step between the train and the platform. This project explicitly took account of options for interventions at an earlier stage in the passenger's journey (e.g. in the station building itself) in order to improve the situation on the platform. The project studied a range of possibilities, with the promise that the resultant concepts would be concrete and feasible. Alongside the explorative research, it was also the intention to test one or more of the solutions offered in the form of practical prototypes.

### SCOPE BOARDING AND ALIGHTING PROCESS

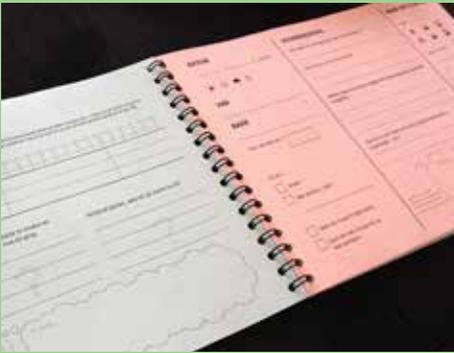


Schematic diagram of the stages of a passenger's journey. Although this project focused on the moment of boarding and alighting, the solutions were sought throughout the entire passenger journey (see the blue line).

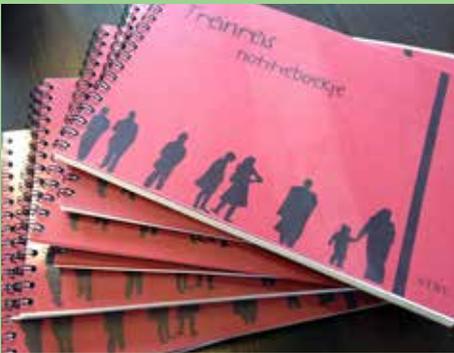
# Structure and approach



The project started with a research phase led by STBY. To be able to understand the bottlenecks and design opportunities during the moment of boarding and alighting, it was necessary to study the behaviour and motives of the passengers. The insights gained earlier (see the project 'What motivates passengers on the platform?', STBY) offered a basis that could be developed further using a range of research techniques.



To this end, a 'diary study' was first performed. Using a specially developed 'train journey diary', the participants in the research (a selection of ten frequent and incidental passengers) recorded their train journeys during a period of three to four weeks.

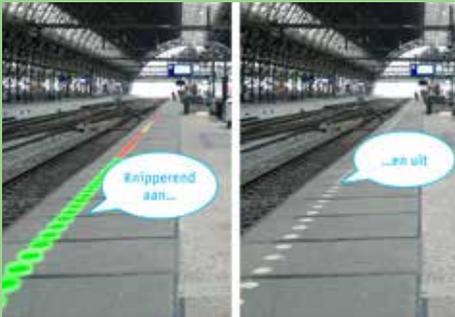


The passengers could use these diaries to describe their journeys step by step (Where on the platform did you wait? What route did you walk? Which information did you look up?) and evaluate each step of the journey (How do you rate this step of the journey?). The key moments and bottlenecks that were revealed during the previous project were thus researched using a method that was much more pleasant for the participants than the standard drawn-out questionnaires.

## *Diary study from the passengers' perspective*

To gain a better idea of the passenger and their travel experience, the diaries were discussed together with the participant during contextual interviews. This allowed the researchers to ask specific questions and clear up any ambiguities. During this interview, one of the journeys described in the diary was selected and acted out in real life while being captured on video. An analysis of the diaries and interviews led to a visualization of the passenger's evaluation of each step of the journey, which was coupled to their explanations for each evaluation. The video recordings were edited

Diaries used for passenger research



A concept proposal

into short films and served to support the visualizations.

The combination of their own observations (over three weeks) of the passengers' behaviour and the results of the interviews provided the researchers with a detailed picture of the key problems experienced by passengers related to boarding and alighting from trains.

During a workshop with the passengers, the designers, ProRail and NS, the next step was to consider possible solutions to the bottlenecks thus revealed.

The outcome of the research was that passengers most want to see improvements in information provision on the position of the train on the platform, the configuration of the carriages and the locations of unoccupied seats.

Between April and June 2012, Edenspiekermann took these results and used them to develop a visual display of the situation, on the basis of which they then drew up twelve different service concepts. The concepts were highly diverse, varying from a graphical display in the platform floor to an application for mobile phones and to interactive technology on and in the platform. In a following workshop with stakeholders representing ProRail and NS, the twelve concepts were discussed and evaluated for their added value (What are the advantages for ProRail, NS and the passenger?) and innovativeness, as well as organizational and technical feasibility. During this workshop, parties who had not yet been involved but who would probably play a role in the implementation of the proposed concept directions were



The LED display being tested in Den Bosch Station

informed and asked to provide feedback on the ideas. Were the problems familiar? Were they hearing new ideas? Or did these ideas in fact dovetail neatly with their own projects? Particularly popular were the solutions related to the provision of real-time information on the configuration and position of the train on the platform.

Some of the concept directions involved tasks and responsibilities shared by both ProRail and NS. The participants who were representing NS grew more and more interested in the research and the concepts during the course of the workshop. They now wanted the same results presented in a wider context to the NS organization. To this end, an extra presentation was organized for NS's stakeholders, both to present the results and to inform these stakeholders and involve them in the further developments. This proved to be an important step: the ideas presented proved to dovetail neatly with a number of projects currently underway at NS. This generated a new momentum to develop one of the concepts and test it on location. This momentum became extremely important, because this was the phase in which various business units had to cooperate and investments were required to turn the concept into a real working solution.

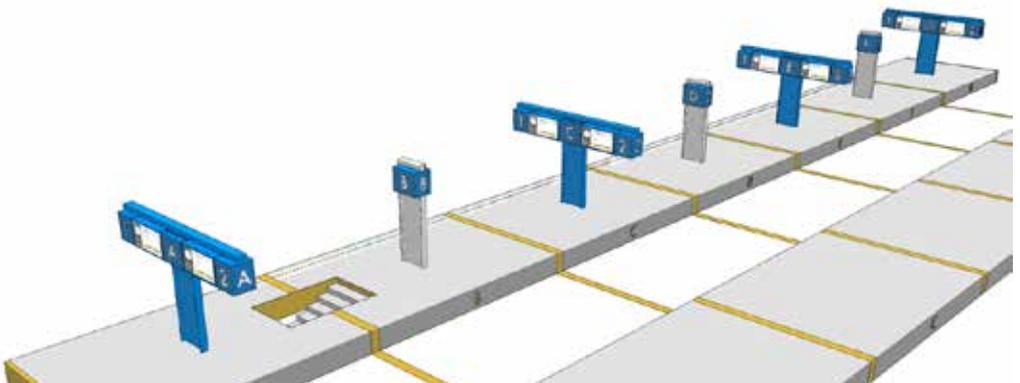
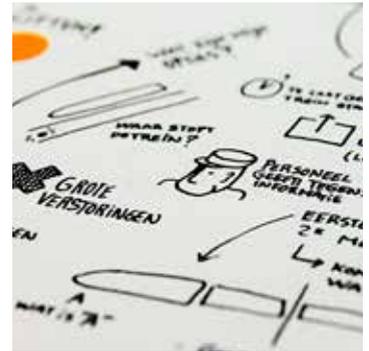
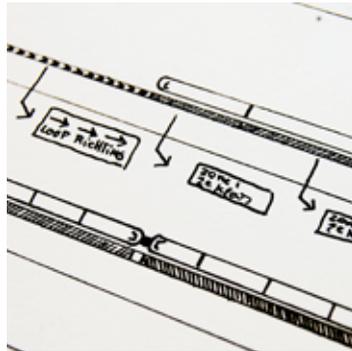
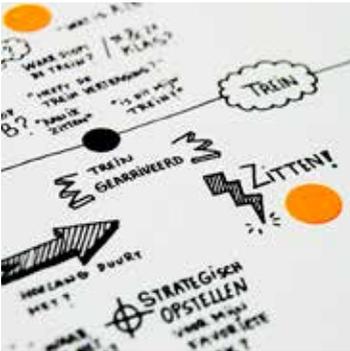


### *From paper to pilot*

In the autumn of 2012, Edenspiekermann developed the concept into a mock-up which visualized the potential outcome. That November, a series of talks was held with NS and ProRail to get their backing for a pilot of the concept to be implemented at Den Bosch Station. This concept was closely related to a project currently underway at NS concerning the development of a new app displaying detailed information on the configuration of the trains. Both of the projects had the same aim: to provide passengers with better information on certain details (congestion and the location of quiet zones, first class compartments and bicycle entrances) about their specific train. Both projects use the same underlying technology: eleven trains fitted with sensors that register the amount of people on board as well as their locations. The information provided by the sensors is passed on to the passengers on the platform by means of full-length LED displays above the platform, which indicate exactly where the next train will stop, how it is configured and how congested the carriages are.

### *Evaluation together with the passengers*

NS commissioned STBY to perform evaluative research among the passengers during a three-month trial of the new app. This research was combined with the evaluation of the new LED displays above the platform. A number of problematic details were revealed during the technical development of this new signage. Now that the concept pilot phase had been given the go ahead, an aspect that had seemed to be quite simple – displaying the train carriages on a screen – turned out to be somewhat more complicated in reality. For example, there are currently twelve different types of passenger trains using the present network. These all proved to be configured differently; the doors and facilities are in different locations on each of the trains. To be able to accurately depict the configurations, each of the trains would have to be displayed separately. There now followed a lengthy search amongst the various ProRail and NS departments to determine the precise configurations of each of the trains.





SSGOOL

# Results

The research in the first phase produced a detailed description of the current experiences of passengers with regard to incidental and frequent journeys. When and why do passengers have negative experiences related to train travel? This was enough material for Edenspiekermann to start on the concept development. Moreover, the workshop with the passengers provided more in-depth information on their perception of the term 'safety', which could be used as a basis for an evaluation of the platforms more tailored to these passenger perceptions. This in-depth study was especially requested by ProRail, who wanted more information on the passengers' perception of safety on the platform.

The pilot on the platform was the primary result of this project. At the same time that the pilot was being developed, insights were being gathered on the effects of such real-time information provision on the behaviour of passengers on the platform, and the contribution such information can make to improving comfort and safety during boarding and alighting from trains. These insights were used to draw up a business case for the rollout of such a system. Alongside the effect on passenger behaviour, this pilot set-up could also be used to find out what the stakeholders would need to organize in order to get such a system to function properly. It made it possible to produce a reliable estimate of the organizational complexity of such a system.



*From 'pretending' with paper prototypes, to role playing and temporary mock-ups in public spaces, to fully technically functional prototypes incorporating all attributes*

# Method explained

## Prototypes of service solutions

*'The proof of the pudding is in the eating.'* The same is true for solutions for improved service provision. In order to gather the maximum of information when developing service concepts, it is very useful to test possible solutions early on in the process. There are several ways of doing this, varying from 'pretending' with paper prototypes, to role playing and temporary mock-ups in public spaces, to fully technically functional prototypes incorporating all attributes - as was the case in this project. The aim of such trials is to ascertain the consequences of a certain solution at an early stage in order to provide adequate technical and organizational support, as well as to determine whether the intended effect is actually achieved. Moreover, prototypes help to communicate plans to outsiders and decision-makers. By acting out scenarios in such trials, the team gains insights that will lead to improvements in the next phase of the concept. Unexpected effects elsewhere in the organization, implementation issues or unpredicted changes in user behaviour can also be revealed before the concept is implemented.

It is not always easy to develop service concepts into prototypes that can be experienced by users, staff and management. What certainly applies to prototypes in a real world situation (such as a busy platform), is that many different parties need to be kept informed and that the success of the prototype depends on the cooperation of a large group of people. This is an important difference with other design disciplines, such as web design, the printing industry or industrial design, where prototypes can be tested in a controlled laboratory environment.



# SOMETIMES, EVERYTHING IS IN THE RIGHT PLACE AT THE RIGHT TIME

INTERVIEW WITH NIELS VAN HAL OF PRORAIL,  
6 MARCH 2013

He grabs his iPad and shows some photos of the prototype that is soon to be tested at Den Bosch station. A LED display, hung above the platform a full length of a train long, will tell passengers which parts of the next train to arrive at the platform are full or empty, where the doors of the first and second class carriages will come to stop and where they can find the quiet zones. 'About five minutes before the intercity enters the station, the LED display will switch on and the passengers waiting on the platform will be able to see where the doors will stop and how busy it is in the train. Of course we don't know how the passengers will react to this new system, but it's still inspiring to see how we as a sector are continuing to improve the service for our passengers with pilots like this.'

Niels van Hal, Stations Programme Manager with ProRail, has been involved in a number of service design projects over the past three years. He says he is impressed with the research performed by the agencies as part of these service design processes. 'The manner in which service design focuses on the experiences of the end users – in our case train passengers – provided ProRail with a number of tangible and usable insights. Our task is then to translate these insights into improvements to our service provision process. I believe that such research can help us to speed up this process.'

'Sometimes, everything is in the right place at the right time,' continues Van Hal. 'In October 2012 I was inspired by one of the prototypes that was displayed during a service design session. The research that had preceded this prototype had quickly revealed that passengers wanted such

information about the train presented in this manner. When, shortly afterwards, I heard about NS Reizigers' initiative to provide passengers with boarding information, the idea of course quickly took shape.'

'It turned out that we were able to respond to NS Reizigers' ambitions to offer passengers a new system of boarding information. An idea is one thing; the biggest challenge was to get everything ready in time,' continues Van Hal. 'Of course it was a stressful process. However, the colleagues were enthusiastic about the plan pretty much from day one. That made things a lot easier. If you then make sure to take account of all the safety aspects, you can get a lot done in a short amount of time. I get a lot of energy from projects like this.'

### **What added value did the service design projects have for your organization?**

'The way the service design method focused on the experiences of the end user – in this case the passenger – provided ProRail with many new insights into its own products and working methods.' Van Hal continues, 'During the service design projects, we continuously concentrated on the experience of the passengers and how they used our products and services. This approach revealed a lot of new information to us about how the passenger really values our product and how logical they consider our system.'

Van Hal explains the infographic in which passengers are divided into 'frequent' and 'incidental' travellers. The infographic displays, among other things, how their behaviour changes if their journey is disrupted. 'The distinction between



Niels van Hal, ProRail

frequent and incidental passengers proved to be very useful. Such segmentation is useful of itself, but when it turned out that this particular distinction applied across the board, then the effect became very tangible.'

### **What surprises did you encounter on the way?**

'It's good to see how much research on the experiences of passengers can contribute to ProRail's knowledge and applications with regard to stations, platforms and the transfer system. If you can translate the



Platform Den Bosch

opinions of individual passengers into the experience of a larger group of passengers, then you have information you can use to improve your organization's service provision.'

Of course, he is also aware of the reactions of some of his colleagues during the projects and workshops. 'It goes without saying that it can be difficult to explain the added value of service design to them, a problem which I experienced myself. Nevertheless, I am convinced that service design can help us to better understand how ProRail's assets – the transfer system at the stations, including all the stairways, platforms and other facilities such as bicycle parking - function in the eyes of individual passengers.'

### **What have you learnt from the process?**

'For me, the challenge was to integrate a relatively new field such as service design into an existing organization,' explains Van Hal. 'I noticed that in the early stages of the project it was important to clearly define which processes were to be started. Not only did this make it easier for the agencies with whom we were cooperating, it also provided a stronger foundation when we, as a large organization, approached the other stakeholders to foster their support and cooperation.' It was precisely because he believes in the service design philosophy that it was important to have this clear from the start. 'This is useful if you need to convince people who are used to working hard on tangible products "of concrete and steel".'



In this project, the importance of this was only realized later on, while such opportunities to put your agency in the limelight are rare.'

**What would you do differently next time, with the benefit of hindsight?**

Continuing this line of thought, Van Hal believes that he would formulate a clearer starting point and roadmap for a next service design project. He believes this would make it much easier to win support for the project within an organization, certainly if it is a complex and multi-layered organization. This would have another positive effect as well; he guesses that designers would also get a better feel for the organization earlier on, which in its turn is essential for getting the

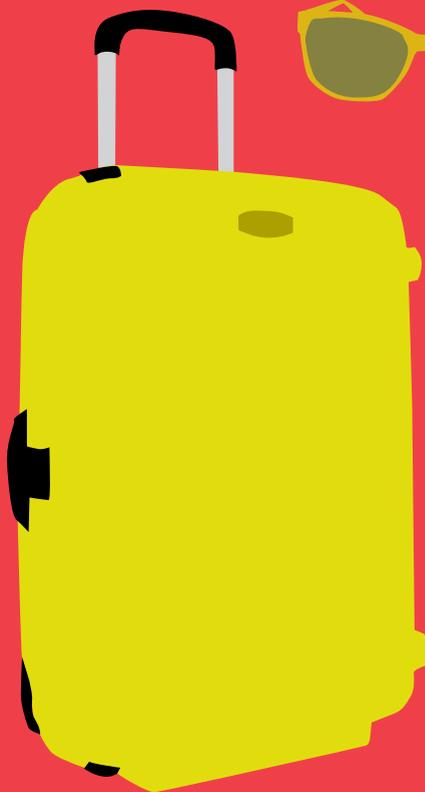
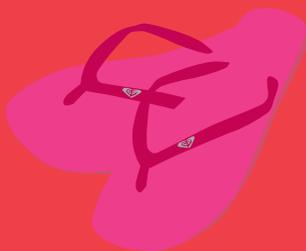
support of all the stakeholders. In fact, its really a question of the chicken and the egg.

**What would you explain about this approach to someone who has never heard of service design?**

Van Hal concludes, 'Make sure the project has a clear beginning and end, formulate a clear starting point and an effective roadmap, and profit from the unique approach and point of view offered by the service design method.'

Client: ProRail

Design agency: 31 Volts





# EXTREME USERS

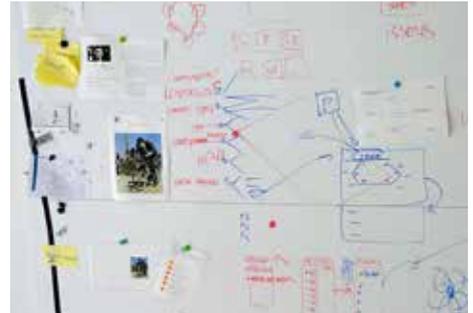
## Obstructive passengers on the platform

*ProRail Asset Management is responsible for the safety and comfort of all passengers using the Dutch stations and platforms. The platforms are meant to offer sufficient space to allow all passengers to safely and comfortably board and alight from the trains. However, congestion can still suddenly and unexpectedly occur if a single passenger displays movement behaviour that is totally contradictory to that of the rest of the passengers. In this project, 31Volts studied the effect of the extreme behaviour and requirements of such passengers.*

# Assignment and aim

ProRail wants more information on the behaviour of specific groups of users, known as 'extreme users'. Extreme users are passengers that display obviously abnormal behaviour on the platform and in so doing disrupt other passengers. The design agency 31Volts was commissioned to conduct a study into means of gaining more control over this group of passengers.

The agency then produced a number of proposals and scenarios that offered a framework for improving the management of extreme users.



## WHAT HAPPENED?



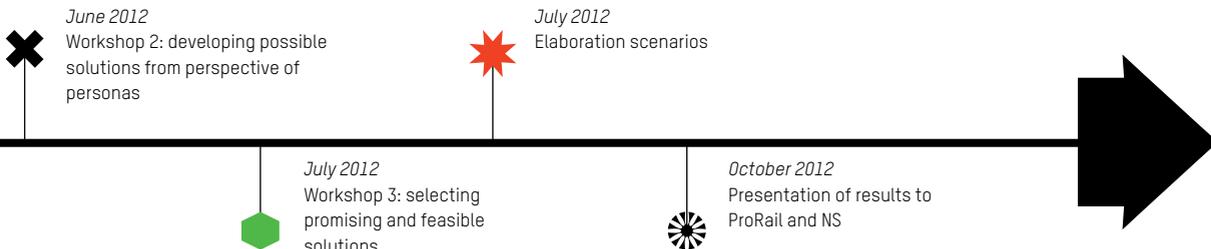
# Structure and approach

In this project, 31Volts was asked to answer the following questions: What do extreme users actually look like and how do they behave? What makes someone an extreme user? And what options might be available to influence the behaviour of extreme users so that they cause less disruptions or maybe even make a positive contribution to the boarding and alighting process?

To answer these questions, 31Volts started by conducting exploratory field observations of the behaviour of passengers on platforms and in the station. The agency wanted to gain a better understanding of the behaviour of extreme users and their effects on the boarding and alighting process of other passengers. This behaviour was recorded by means of photos, videos and written descriptions of significant incidents. In addition, 31Volts designers met with other professionals who were confronted with their own groups of extreme users outside the context of the railway station. Among others, they talked with professionals from KLM and Schiphol Airport, but also with staff members of a school canteen, a supermarket and a media library.



No disruptions

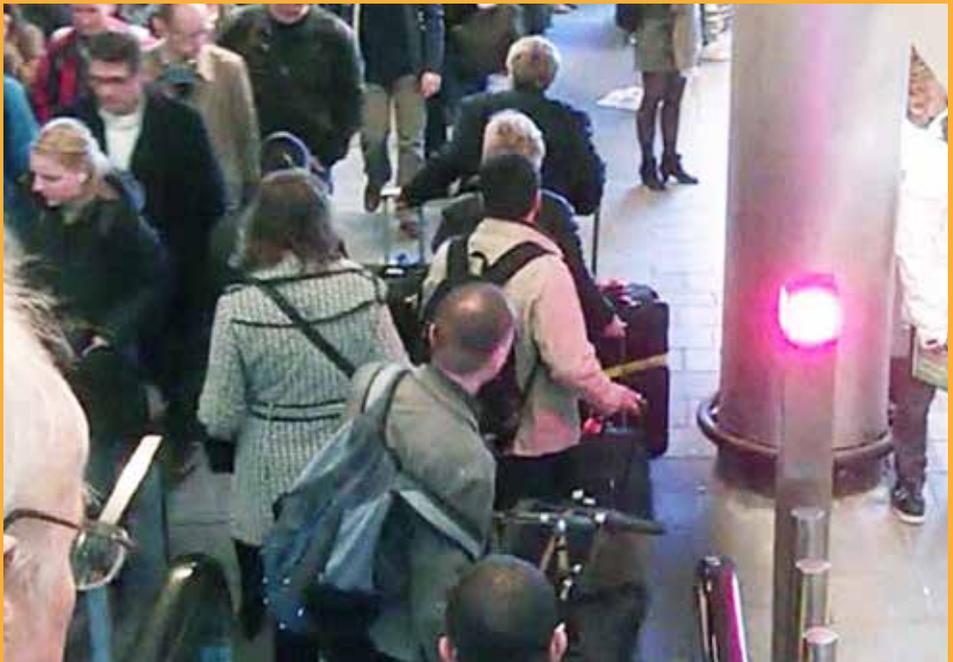


On the basis of the findings of their fieldwork and the interviews, 31Volts was able to divide the extreme users into separate categories and profiles. They gave the profiles jaunty names like ‘Normal Norman’, ‘Oh Oh Overload’, ‘The Caretaker’, ‘Terrible Tailgater’ and ‘Sheep Squared’. Designers call such profiles ‘personas’.

The conclusion derived from this first phase was that extreme users do indeed exist, but that these cannot be categorized as a certain type of user, but rather as people displaying a certain kind of behaviour, while the behaviour is defined by a certain context. There is a reason for this extreme user behaviour on the platform. ‘Oh Oh Overload’ is an extreme user because he or she carries a large amount of baggage. This causes more of

a disruption on a railway platform than it would at Schiphol Airport, for example. Many passengers move through an airport with lots of baggage and, moreover, the departures building is not used by large groups of other passengers who have to ‘rush to catch their plane’. Moreover, travelling with many suitcases on an escalator at Utrecht Central Station is a different experience to using a travelator at Schiphol Airport.

The second part of the project involved three workshops with stakeholders and professionals (including NS, STBY, KLM, Yabber, an environmental psychologist, HU University of Applied Sciences Utrecht and others). The aim was to work together closely to find promising interventions to influence the behaviour of passengers, and in particular the



Always a challenge: travelling with large suitcases during rush hour



Extreme User personas

extreme users. To this end, 31Volts used the first workshop to inform all the involved parties of the results of the fieldwork and the interviews. They asked the participants if they agreed with the resultant insights. Did they recognize the profiles? Had specific types of extreme users been overlooked? Could these insights be further enriched?

During the second workshop, the participants got together in smaller groups to find potential solutions by putting themselves in the personas shoes. They then regrouped and selected nine solutions to develop further. During the third workshop, the participants chose three of these nine solutions on the basis of feasibility and chance of success. 31Volts then developed these three solutions into scenarios that could potentially be implemented.

### *Scenario 1: Elephant paths*

As hard as the spatial designer tries to carefully delineate a public space, as soon as the users of this space see an opportunity to cut a corner they will do so. Metaphorically and literally. This is where intuition takes over from rational action. The concept in this project is based on this behaviour. As the photo clearly reveals, elephant paths are often considered to be inappropriate. Carefully designed and delineated lawns, borders and parks are 'misused' by people who want to get from A to B as quickly as possible. Once a new elephant path has become well-used and visible as a short cut, it becomes very difficult for people to avoid using it. An elephant path could well be the ultimate human-centred and co-designed outcome. These paths are made by people for people. The concept in this project is based on this empirical knowledge. It serves as an instrument in the management of the way people use public spaces, such as railway platforms. By paving the platform in various colours, you can create a suggestion of well-used routes and so control the paths that people follow: 'walk there' and 'wait here'.



***As hard as the spatial designer tries to carefully delineate a public space, as soon as the users of this space see an opportunity to cut a corner they will do so. Metaphorically and literally.***



Insights are enriched and elaborated during a workshop

### *Scenario 2: Self-reflection*

This concept focuses on raising extreme users' awareness of how they monopolize the space on the platform and the effect that their behaviour can have on other passengers on the platform. By having them reflect on their own behaviour they may be influenced to modify it in a positive sense.

### *Scenario 3: Event from A to Z*

This is the management of certain events with the aim of relocating extreme behaviour away from the platforms and stations to other locations. To this end, the workshop was used to draw up a business case. A link was made between managing certain types of users and more effective deployment of small stations: passengers with a shared destination, such as when visiting trade fairs and cultural and other events, could be received at the smaller 'satellite' stations.





Working together to find the most promising solutions

# \$\$\$ocial

# Results

The fieldwork made it clear that extreme users actually exist and have an influence of the boarding and alighting process. Anybody can fall under the extreme user category at one time or another. These insights were interesting for ProRail, NS and other service providers in that they became aware that there are various reasons for this extreme behaviour.

The scenarios developed by the agency were interventions tailored to the needs and requirements of extreme users. The outcome of the intervention is that the boarding and alighting process is also made easier for other large groups of passengers.

It is also interesting that this research on extreme users revealed two different perspectives on the behaviour on the platform: in various situations, the extreme users are hardly, if at all, aware of their extreme behaviour, while other passengers may experience this same behaviour as disruptive. Moreover, according to 31Volts, extreme users can also have a positive effect on others, precisely because their behaviour is abnormal. Extreme users can bring an area to life. This aspect was not taken into account in the rest of the project, but such 'reverse perspective' does have the potential to lead to new insights and new concepts.

***According to 31Volts, extreme users can also have a positive effect on others, precisely because their behaviour is abnormal. They can bring an area to life.***



Large amounts of data were gathered during the fieldwork: written notes, photos, interviews, etc. But how can you combine this huge amount of varying data into useful insights? 31Volts started by printing all the information they had gathered. This may seem somewhat illogical in these times of computers and paperless offices, but still they preferred to use printed information. This is because when all the information is present in physical form, you have the option of literally cutting, pasting and grouping it.

## Method explained

From data to building blocks

31Volts placed all the information on a wall-to-wall notice board. The project participants faced the board together and arranged the information in different patterns. Which data intuitively belonged together and how would you label such a cluster of data? By rearranging the clusters once or several times, you eventually get groups of corresponding observations: homogeneous clusters that differ sufficiently from each other to be able to make a clear separation between them.



These clusters were then grouped in 'building block cards'. The data building blocks are recorded on these cards. The cards start with a short description of the relevant insight and a photo to illustrate it. Some insights may also be depicted graphically, which makes it easy to recognize them at a glance. The building block cards were used in the next phase to 'build' the personas and to tell the story of these personas' behaviour. The building block cards were also used as input for the scenarios that were developed later.

**INSIGHTS**

*Designing  
for users*

This book has been entitled ‘Service design: Insights from nine case studies’. Each of the nine case studies has been described. If we were to stand back from these nine projects and look at them through eyes half closed, what would we see? What insights would we draw from them?

What are the recurrent themes? And what plays only a minor role, though we may have expected it to be more important? In this insights chapter we will examine the idea of ‘designing for users’, one of the keywords used in service design. We will demonstrate how the various user research methods were applied and how the data were used to form insights, such as a customer journey and personas (user profiles), and how these were translated into solutions. Once all this information about the users was revealed, it also became clear that the designers and the clients had different perspectives on user research and user profiles. A few of the projects made the link between the designers’ insights from the user research and the existing segmentation in the organization. A service design project does not simply gather and analyse information about users; typically the users are involved in the project themselves (co-creation). How did that work in practice in these cases?

## ➔ **empathizing**

---

### **WITH THE USERS**

During the Innovation in Services projects, the design agencies applied all kind of methods to gain more insight into the experiences of the users. These methods included ethnographic research, observations of and interviews with passengers, passenger diaries (probes), customer journey maps, creative sessions, the development of personas and visualizations.

These terms are often used in service design projects. It is not easy to describe how each method is used in practice, because this depends on the aim of each individual case. For example, creative sessions were used to collect information, but also to share insights, inform the participants and generate new ideas as a team.



Observing passengers on the platform, project portrait 1

### Collecting rich data

Most of the projects started by gathering useful insights on the passengers and their behaviour. For example, the three projects that focused on the platforms (projects 1, 2 and 3) started with extensive ethnographic research, whereby passenger movements across the platform were observed at several different times during the day. These passengers were unaware that they were being observed, and hence they behaved completely naturally. Additional interviews were held with a number of passengers at the research location, in this case the station. This resulted in rich data: data that is much more telling than simple bare facts due to the extra contextual information. These rich data were recorded as written notes, photos and video recordings.

During the projects the users were also asked to participate in the collection of user data. To this end the designers designed special tools for each project, which they called 'probes'. Participants were asked to collect information that was

of immediate use in the research. For example, staff of the museum were asked to keep a diary. They also used specially created 'homework kits', such as the box with associative thinking cards that were used in Spoorbouwmeester's Railway Workshop programme. The homework kits were primarily intended to prepare the participants for the creative sessions.

## ➔ users

### THE USERS, OR THE USERS IN THEIR CONTEXT?

The participating organizations were generally able to provide user data, such as the numbers of users, how often they used the service, etc. Or how long did visitors stay in the museum and how many people visit the hospital each day? The designers' research focused mainly on the context of this user behaviour.

The passenger who normally commutes to and from their work every day has very different needs and displays very different



Railway Workshop homework kit, project portrait 6

behaviour when he takes the train from Utrecht Central Station to visit his mother in Maastricht with two small children in tow. The seasoned traveller may, in a different context, abruptly become an extreme user, and with their behaviour cause disruptions for other passengers on the platform. And a seasoned commuter may also start to behave differently if their routine is abruptly disturbed. When a patient travels to University Medical Center Utrecht to visit the outpatient clinic, their experience of their visit to the hospital does not only concern the five minutes they spend in the surgery, but also the preparation for the trip, the trip itself, finding their way in the hospital, the time spent in the waiting room, and the trip back home. But the context of such visits is always different. The patient who visits the hospital for an important check-up has a different context to the same person when they are visiting their mother-in-law.

### **The big common denominator or the extremes**

During their user research, the designers also examined abnormal behaviour among the users, as well as abnormal types of users. So they did not limit their study to the average, typical user. The designers noted that more extreme behaviour was more common among non-average users, and that this behaviour was a 'magnification' of the – less visible – behaviour of average users. This could inspire the designers during their research into the underlying problems and the appropriate solutions. However, an example that appeared illustrative to a designer, could be seen by the organization to be merely an incident.

### **Individuals or a group of individuals**

The organizations involved in the projects tended to focus on groups of users (or non-users). All passengers, for example, or all the passengers on a certain route, or all commuters, or all senior citizens. The designers initially focused on individuals. As described above, these individuals



HU square insights session, project portrait 9

sometimes displayed abnormal behaviour. During the projects, we found that this individual approach was questioned by the staff of the service provider. They pointed out that you cannot design services for each individual train passenger, for each individual patient, or for each individual museum visitor.

The designers' philosophy was that a better understanding of the individual users would provide the projects with direction and inspiration, and provide more insight into the causes and consequences of their behaviour. If you deliberately take account of limited numbers of highly diverse users then this can provide inspiration for innovative solutions. Conversely, if you focus solely on average data, then your solutions are more likely to be 'more of the same'. But organizations nevertheless use user profiles and segments to justify their choices. This is because it is logical to take account of groups of sufficient size and substance. These are two different objectives, and they are not always compatible.

**'Not everything that can be counted counts, and not everything that counts can be counted.'** (Einstein)

A number of the clients that commissioned these projects are large organizations where much 'standardized production' takes place: 1.2 million passengers per year travel with NS, up to 30 thousand people pass through University Medical Center Utrecht's doors every day, and more than 35 thousand students are enrolled at HU University of Applied Sciences Utrecht.

These numbers are part of the reason why these organizations are focused on numbers and typically commission quantitative user research. Service design research, however, is much more qualitative in nature. The research focuses on individual users; an entire research project may involve only a few tens of users. In some of the projects, this qualitative method of research led to resistance and lack of understanding. The discussion on the value of qualitative research versus the importance of quantitative research can be a very fundamental one. Most of the projects described in this book chose a pragmatic approach, which



# Oh oh Overload



- Betreffen**
  - Betreft de eigenaar van de spullen
  - Betreft de eigenaar van de spullen
  - Betreft de eigenaar van de spullen
- Staging**
  - Looft eigenaarschap
  - Hetzelfde zijn de spullen van de eigenaar
  - Hetzelfde zijn de spullen van de eigenaar
  - Hetzelfde zijn de spullen van de eigenaar
- Omgang met anderen**
  - Hetzelfde zijn de spullen van de eigenaar
  - Hetzelfde zijn de spullen van de eigenaar
  - Hetzelfde zijn de spullen van de eigenaar

Groot  
Gericht op spullen  
Chaotisch  
Eigen tempo  
Neemt veel ruimte in

Persona Extreme User, project 4

**EEN LANGE REISTIJD**

Wat is de reistijd van de trein naar de stad?

Reistijd: 15 minuten

**DE UITHOF = EEN ONTDEKKING**

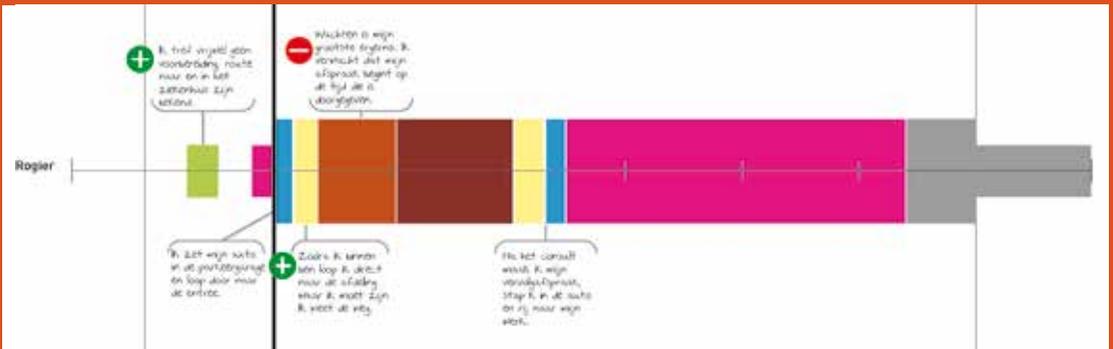
DE FORENS WIL VERLEID WORDEN

Wat is de reistijd van de trein naar de stad?

**DE FORENS: ZOEKEND VANUIT HET VERTROUWDE**

Wat is de reistijd van de trein naar de stad?

Persona HU-square, project 9



Customer Journey, project 8

profiles alongside each other, there was a risk of confusion as to which types of profiles were the most valid. During the University Medical Center Utrecht project, the researchers tried to find ways of integrating and enriching the existing knowledge on users with new insights based on the designer's research. This is described in more detail in the 'Hospitality in the hospital' project.

### **The full journey context**

A customer journey can be plotted by following users during their entire route, for example for a visit to the hospital. The University Medical Center Utrecht project plotted customer journeys for each of the four personas. This broader perspective on hospital visits is not only useful for designers, it also helps other stakeholders to see the users and the way they use the services in a broader perspective. The platform project (project 1) focused primarily on behaviour on the platform. The motives of the various types of passengers were charted by means of in-depth interviews. How do passengers move around the platform and why? What information is viewed and where? This results in passengers portraits that provide insight into their behaviour and the causes of this behaviour. Both University Medical Center Utrecht's customer journey and the passenger portraits provide 'insights at a glance' that can be used as a means of sharing information.

### **Defining the design problem together with stakeholders**

In each of the projects, the experiences and insights from the user research were shared with the stakeholders during a workshop. These workshops actively used the material from the user research.

Various things happened during these workshops:

- the participants were informed of the research results to date;
- the participants used their own knowledge and experience to test and enrich the insights;
- on the basis of these insights and their own knowledge, the participants determined what the underlying problems were that required resolving in order to achieve the objective;
- by working together to enrich the insights and define the problem area, a joint vision of the project was built up. This in turn provided a starting point for the next steps in the process.

## ➔ **conclusion**

---

The practical examples described in this book entailed a large amount of user research.

This was typical of a service design approach not so much because user research was performed, but because of what was done and how it was done. The practical examples clearly illustrated that the organizations and the designers had different definitions of 'the user'. The research on and with users and their experiences was very much based on individual users, such that their rich descriptions provided the designers with inspiration and information. These insights - and the visualizations produced using these insights - were used to define problems, to share the research insights with others and to keep an image of the user 'alive' during the further design process. In short, research on and with users results in both information (insights) and inspiration.

***Users' behaviour and needs are in part determined by the context: a seasoned commuter behaves differently when he takes the train with his children to visit their grandmother in Maastricht.***

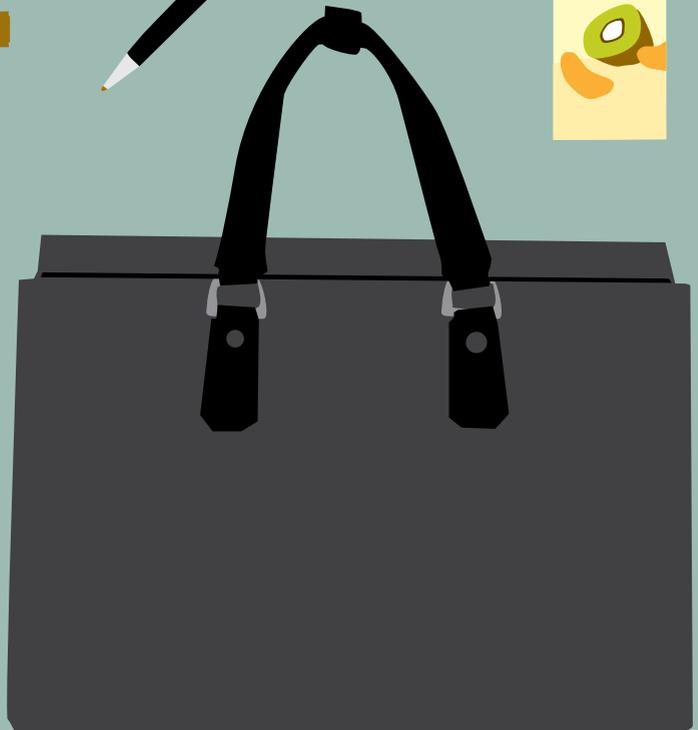
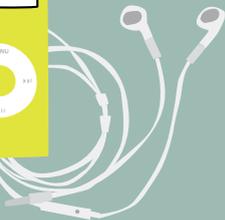
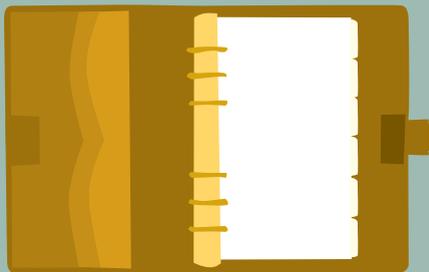


Is this person cycling to catch a train or on their way to a date in a café in town?

Client: NS en ProRail

Design agency:

Design Thinkers



# 5.

## CUSTOMER PLAN

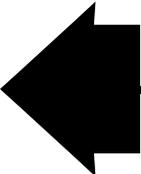
### Collaboration between two organizations to reduce disruptions to passengers caused by renovation work

*NS and ProRail both wish renovation work on the platform and in the station to proceed with as little as possible disruptions for the passengers. Utrecht Central Station is undergoing major renovation, even while tens of thousands of passengers pass through it every day. The two organizations needed to join forces, because some parts of the station are managed by NS (such as the shops) and others by ProRail (the platforms). They were looking for means of keeping the station attractive despite the renovation work that was going on. It quickly became clear that a joint approach would be more effective here. In this project, DesignThinkers was commissioned to improve the cooperation between NS and ProRail.*

# Assignment and aim

Initially (in 2010), DesignThinkers was asked to decrease the hindrance the passengers experienced due to the renovations. However, it soon became clear that the complex cooperation between the organizations was going to make it difficult to achieve a joint goal. For example, both organizations collect all sorts of information about their passengers, but independently of each other. This data is insufficiently shared and combined by the two organizations to provide a basis for a clear joint policy for limiting the hindrance to the passengers caused by renovations. For this reason, the original aim and assignment as communicated to DesignThinkers was reformulated in mutual consultation. The aim of this project was to improve the cooperation between NS and ProRail in the area of customer experience. For the purposes of this project, customer experience is defined as a reasonably satisfactory experience primarily oriented on the transfer: the passenger can travel freely from A to B without being hindered by the renovation work at the station.

## WHAT HAPPENED?



*January - September 2011*  
Exploration and interviews stakeholders



*October 2011*  
Pre-meeting (meeting with small selection of stakeholders to discuss process)



*October 2011*  
1. 1. Workshop Process Customer Plan (process to develop Customer Plan)



*November 2011*  
2. Workshop Building plans (jointly exploration of building plans)



# Structure and approach

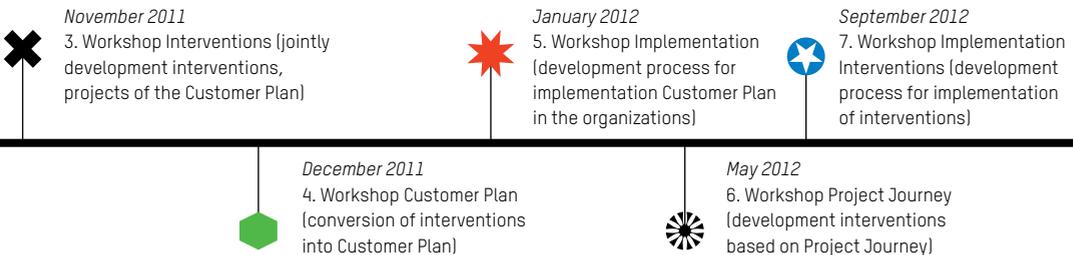
Bringing people together

An existing joint project was chosen as the focus of this collaborative improvement process: the 'Customer Plan'. In practical terms this Customer Plan is a document in which plans are described that are aimed at keeping the disruptions to a minimum, relative to the type of renovations underway. For example, the Customer Plan describes how passengers are to move past renovation activities, what kind of barriers are to be used, how noise pollution can be minimized and if there are enough seats left on the platform. Such a plan must have the support of both NS and ProRail, because they will also need to cooperate in the implementation of the plan.

DesignThinkers held a number of interviews within the two organizations and attempted to contact and involve higher and higher management levels in the project. During this period of internal interviews, the interviewers gained a lot of insight into how and why things worked as they did in the organizations. NS and ProRail were once a single organization, but were divided along artificial lines when the organization was privatized, so that now you have two organizations with sometimes contradictory interests. Furthermore, these are both rather huge organizations with many different



Workshop Customer Plan



departments and intermediaries, so that it becomes difficult to set up direct contacts both within and between the organizations.

Design Thinkers decided to organize a series of workshops outside the office buildings. Each workshop was held with a different group of participants, although the organizers ensured that the communication departments and project managers were always represented. For example, the two project directors attended the intervention workshop in November 2011. Other participating stakeholders included construction managers, customer experience consultants and project and planning staff. The aim of these workshops was to give the parties the space they needed – in a fresh and neutral environment – to be

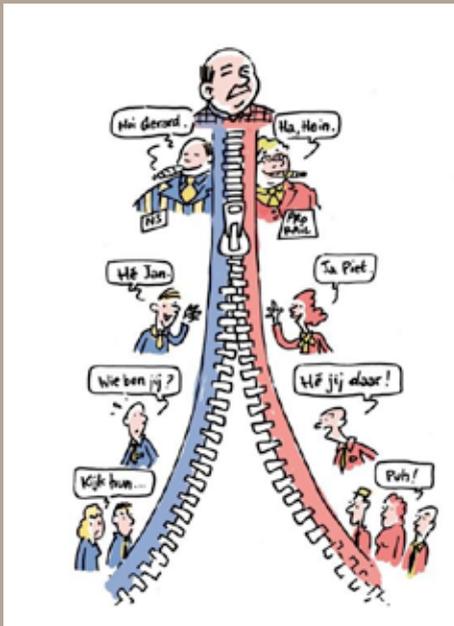
able to discuss the where and how of their further cooperation. The renovation plans are part of a wider and more extensive long-term plan, of which customer experience in the station forms a small part. The main challenge is thus to raise awareness of the importance of customer experience and make this a permanent part of all discussions and evaluations related to the renovation plans in each renovation phase (i.e. every three months). The purpose behind these workshops was to ensure successful cooperation in the long term between people representing various departments of both organizations by building commitment and sharing responsibility.

#### *Resources and methods used*

Design Thinkers facilitated the talks between a range of different key players. The talks focused on the resources and opportunities that were already recognized within the organizations.

Design Thinkers also created visualizations of their findings from the interviews held during the preliminary phase, so that these findings were rendered both tangible and open for discussion.

An example of this is the sketch entitled 'Rejoining the previously separated organizations'. The designers also used large sheets of paper and post-its to make the discussions in the workshops more tangible. The participants found the visualizations to be very helpful in making the plans more concrete and tangible. As one NS manager said: 'It was clear that the creative methods used helped to bring together people



Fostering constructive cooperation across all layers of the organization

***‘It was clear that the creative methods used helped to bring together people who otherwise wouldn’t have been able to understand each other’s language or terminology.’***



Using post-its on a map of the station makes it possible to visualize all the stakeholders’ queries on a single sheet of paper

who otherwise wouldn’t have been able to understand each other’s language or terminology.’

It was at first difficult to find the right people within the organizations to get involved in the project. To be able to cooperate effectively, the stakeholders must feel a sense of commitment to the project, they must be motivated to work on the project, they must have sufficient influence within their organization to be able to facilitate change and, most importantly, they must all support the project goal as a team. After a fairly exhaustive series of interviews and talks, it appeared that this latter condition in particular could form a bottleneck. Initially, a number of key players thought the project goal of ‘customer experience’ was unimportant.

During the summer of 2011, Design-Thinkers began to lose hope that this would change. By accident, however, the designers discovered that there was

some confusion as to the definition of the term ‘customer experience’. Some people consider customer experience to involve actions such as handing out free coffee, i.e. some form of crisis management to improve the experience of passengers whose journey has been disrupted. Others, with DesignThinkers among them, describe customer experience as a structural and proactive approach to prevent disruptions and so improve the service to the customer. Once this confusion was resolved, the resistance to the project passed and finally the commitment of the last two key players was confirmed.



## Results

This project concerned rather intangible concepts such as cooperation, commitment and ownership. DesignThinkers played an explicitly non-directive role; any action that they facilitated would need to be feasible using the organizations' own resources. They did collect a variety of documents from both organizations in order to ascertain where such a Customer Plan would fit best and what format would be the most ideal. These documents formed the basis for various workshops (e.g. a PDF with areas of the station coloured in, etc.). The Customer Plan was introduced during the last workshop and NS and ProRail officially took over the project from DesignThinkers to develop it further.

NS and ProRail considered this a successful project because, by late 2012, they had a feasible Customer Plan that had the commitment of all the parties involved. This Customer Plan was used in October 2012 for the inspections. The project teams and project directors recognized that the Customer Plan could contribute to improving cooperation and the external results. The Customer Plan is not currently being implemented at other stations, but this is the ambition.

# CUSTOMER PLAN: A SERIES OF PROJECTS

As such, the Customer Plan becomes an umbrella term for a series of projects which are established as part of a wider renovation plan and which ensure that, during the renovation of a station, the service to and the experience of the passengers are maintained at the highest possible level.

## CHECKLIST: CUSTOMER EXPERIENCE IN STATIONS UNDER RENOVATION

One of the results was a checklist that was used to monitor customer experience during the renovations. It was, roughly speaking, a list with customer experience issues that could be checked off one by one.

## STRUCTURAL DISCUSSION

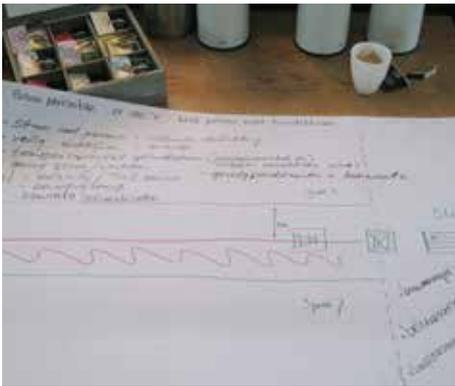
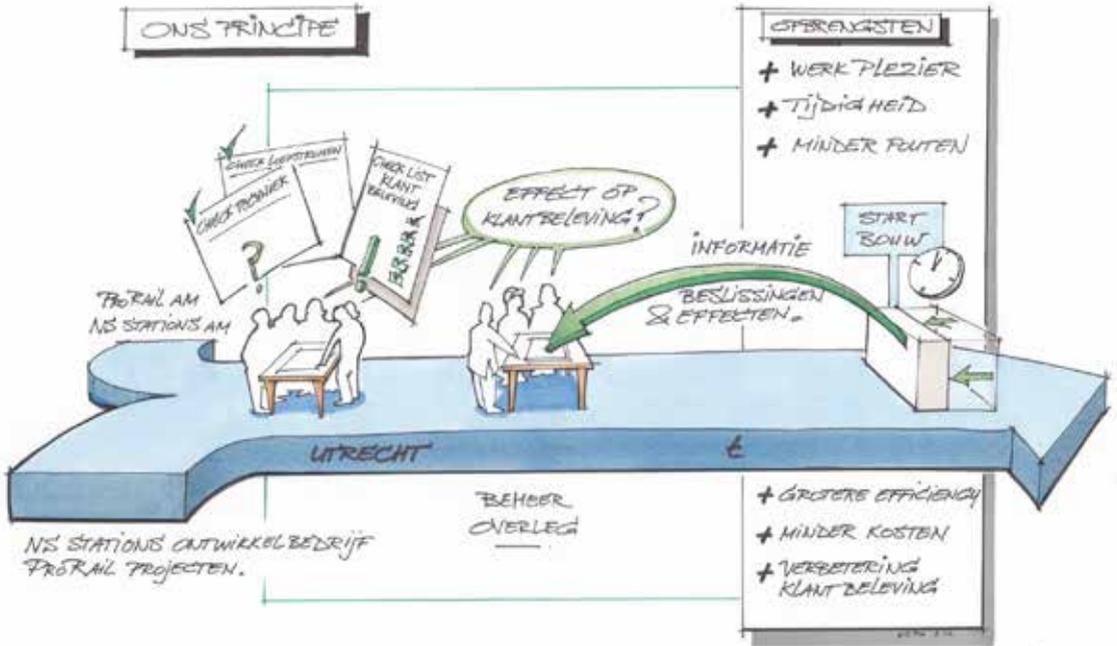
The process towards the Customer Plan resulted in a more structural discussion on renovation projects in station environments. Several interventions were developed during a number of workshops to ensure the right focus on customer experience during a renovation project.

## PLENARY MEETING

Another result was the plenary meeting as part of the renovation plan. This is a meeting between all the relevant stakeholders a number of months prior to the start of the renovation activities. The 'customer experience in stations under renovation checklist' is a permanent item of this meeting. If issues with regard to customer experience are brought to light during this meeting then projects are developed to resolve the relevant bottlenecks. These projects are then described in the Customer Plan.

## INSPECTION

Another intervention is an inspection that is carried out by a joint team of NS and ProRail staff before a project is released. This prevents surprises for the organization and generates a support base for any applicable last-minute modifications.





During the workshops, the various participants make sketches in order to formulate joint plans that everybody can understand.

# SS2009-101

# Method explained

---

## The role of visualization in involving the direct stakeholders

*A picture is worth a thousand words.*

This saying is of course as old as the hills, but it is still as true as ever. It highlights how images and picturization can bring across a richness of information that is hard to capture in a text or during a meeting. Designers have been trained to use the technique of visualization right from the start of a design process in order to help themselves - and more importantly others - to visualize the concept and so come up with ideas for modifications and enhancements until a detailed concept has been achieved. Visualizations can also be very useful in collaborative processes. The power of visualizations in collaborative processes is that the subject under discussion becomes tangible. In the first place, because all the participants can literally point to the subject on a visual medium. In the second place, it is easier to avoid specific jargon that could lead to confusion, because a drawing or map is represented in a language that everyone understands. In other words, it helps to build a joint vision.



***The power of visualizations  
in collaborative processes is  
that the subject under discussion  
becomes tangible.***



# SPECIFYING CUSTOMER EXPERIENCE

INTERVIEW WITH MIRJAM MEIER OF NS REIZIGERS,  
4 MARCH 2013

**‘Service design helps me in my work at NS to communicate the importance of customer experience in policy-making in every project. The results, achieved by interviewing – and sometimes literally following – the passengers, almost getting under their skin as it were, clearly illustrate the things that matter if you wish to make customer experience a focal point.’**

Mirjam Meier is a project leader within NS Reizigers’ Customer and Innovation department and involved in various service design projects concerning the behaviour of passengers in the stations and on the platforms. ‘At NS, just as at many other organizations, it is very difficult to give the customer first priority. One of NS’s key mottos is: “The customer always comes first”. Furthermore, it is our ambition to be efficient and cost effective in everything we do. However, these are sometimes contradictory goals. Sometimes, day-to-day operational problems or cost effectiveness will simply have priority in the everyday reality of the railway business.’

Meier is very happy with the user-oriented approach that is standard in service design. ‘By following individual passengers, by having them keep logbooks, and by holding intensive interviews with them, you get a better insight into their real needs and

desires.’ This allows NS to meet these needs to the best of its capacity without the costs of the relevant improvements becoming exorbitant.

### **What added value did the service design projects have for your organization?**

First of all, the methodology and the tangible results provided Meier with instruments that enabled her to bring a stronger case, both within her own organization and to ProRail, for the customer-centred approach and the importance of giving priority to customer service. ‘During the project on boarding and alighting, ProRail was focused on safety and optimizing passenger flows. Another advantage of service design customer research is that it can be used to focus on how the passenger can board and alight from the train easily and comfortably and how the passenger can find a suitable place to sit in the train. This focus on customer service is important.’

Meier believes that passenger observation is useful because passengers often behave differently to what you would expect based on what they say. Her own experiences and a host of studies performed by NS Reizigers confirm that there can be quite a difference between what they say and what they actually do. She gives as an example a previous NS research project, where the subjects, when asked about toilets on the train, stated that hygiene was the most important factor. When these passengers were observed, it proved that less than half of them washed their hands after using the toilet, even when they were aware that they were being observed.



Mirjam Meier, NS Reizigers

Researchers get much closer to their subjects during service design research and, in their own way, make many qualitative observations of their subjects’ behaviour. Meier believes this is the added value of service design. She adds that the service design approach should be seen as an enhancement to the quantitative research on passengers. ‘It plays an innovative role in the process from the conception of an idea to the implementation of a feasibility study.’ The project leader explains how NS works with the Maslow pyramid, whereby the priority of (in this case) the NS customer is

ranked according to importance (safety, reliability, speed, ease of use, comfort and well-being).

‘Service design helps us to clarify the needs of passengers.’

Meier refers to a comprehensive infographic of passenger movements on the platform that was made during the project.

The graph illustrates that not only the incidental passenger, but even the seasoned passenger may panic if their journey is disrupted. This insightful graph helps Meier and the Journey Information department to define more sharply ‘how we can improve our customer service, with which information, where and at which moment. I have been trying to draw attention to this matter for two years. And now this graph appears with relevant information that I can use to demonstrate my point!’ This is another example of the added value of service design, thinks Meier.

‘As passengers’ organizations, NS and ProRail obviously acknowledge the importance of adequate information in case of disruptions. But the fact that even frequent passengers can display entirely different behaviour in such cases is critical information.’

She adds that a number of matters revealed by the service design research were not surprising at all: ‘We often got a feeling of “Oh yes, we kind of knew something like that was going on...”’

But the research served as a basis for more well-founded and simpler communication of the data within NS and the “oh yes” matters were naturally included in this. These things may have been a matter of course for us; they were often of critical importance to our passengers.’

### **What surprises did you encounter on the way?**

Meier: ‘I was really impressed with the impact of the visualizations. This is a very powerful way of explaining the key facts of a given project. Really amazing.’

### **What have you learnt from the process?**

‘The importance of specifying ‘customer experience’: what are the customer’s needs and desires? If you can sharply define and interpret this question then you can help your company to deal adequately with these critical points.’

This is not the first time the NS has studied its passengers’ behaviour and needs.

Meier: ‘We are continuously involved in quantitative – and sometimes qualitative – research on our customers’ well-being. There’s nothing new about this. What is important in the case of qualitative research is that the aim and the research questions are defined as clearly as possible, partly to prevent the two most dominant participants in a group from taking over the meeting.’ She mentions a major research project during which NS studied the needs of their passengers.

‘The needs were first determined qualitatively, after which they were quantitatively measured.’ The result was various categories of ‘passenger needs’ such as the ‘sociable person’ and the ‘functional planner’.

In the service design project on extreme users, groups of passengers were defined along other lines: ‘Normal Norman’, ‘Oh Oh Overload’, or ‘Sheep Squared’, depending on the manner in which their behaviour differed from that of mainstream individual passen-



Mirjam Meier at 31Volts



gers. These typecasts add other insights to the knowledge on passengers. Meier explains how she is already studying how this 'new' knowledge can be incorporated in NS projects.

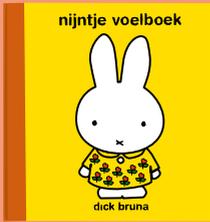
### **What would you do differently next time, with the benefit of hindsight?**

Meier does not know how the early phase of the platforms project went, but she wishes she had been involved from the start, particularly because NS is responsible for the trains and the passengers that depart from the platforms. However, what actually happened was that she had to, in her own words, 'jump on a moving train', by which time the project stations had already been designated. 'I'm really enthusiastic about how these service design studies were approached and how they turned out, but it could just as easily gone astray if NS had not been recognized as a stakeholder.' In her eyes, it is of critical importance that all stakeholders are actively involved in a project from the earliest possible moment. 'This is the only way to really ensure that the results will be backed up by the organizations involved.'

### **What would you explain about this approach to someone who has never heard of service design?**

'It's quite spectacular to see how effective visualizations are. It really helps to get to the core of a matter in a project. Furthermore, the service design way of researching the needs and desires of customers (in our case passengers) is an excellent way to get a really good feeling for their perceptions. It reveals a lot more about their emotions and sensitivities. This is critical information if you want to be a service-oriented organization.'

Client: Bureau  
Spoorbouwmeester  
Design agency: 31Volts



# 6.

## **BUREAU SPOORBOUW- MEESTER'S RAILWAY WORKSHOP**

The road to an accessible and human 'Railway Experience'

*Bureau Spoorbouwmeester was established by NS and ProRail. This agency is an independent body tasked with advising, inspiring, monitoring and evaluating with regard to design matters within the railway industry. In this role, Bureau Spoorbouwmeester collaborates with NS and ProRail, but also with government bodies, transport operators and other relevant organizations.*

*The issues in which Bureau Spoorbouwmeester is involved range from graphic design to complex development projects or the restructuring of railway stations. Their design policies are recorded in Spoorbeeld (roughly translatable as 'Railway Experience'). The starting point of this policy is that passengers experience every facet of the railway (the station, the train, the station environment, the tracks, etc.) as accessible, human, familiar and characteristic.*

*This Railway Experience is also a guideline for small and large renovation projects in and around the stations. The parties involved in this Railway Experience meet each other to make agreements in the Railway Workshop programme. This is a new project method with the aim of optimizing and defining the cooperation between the direct stakeholders as early as possible.*

*Bureau Spoorbouwmeester commissioned the service design agency 31Volts to help them find the most ideal design and structure for the Railway Workshop.*

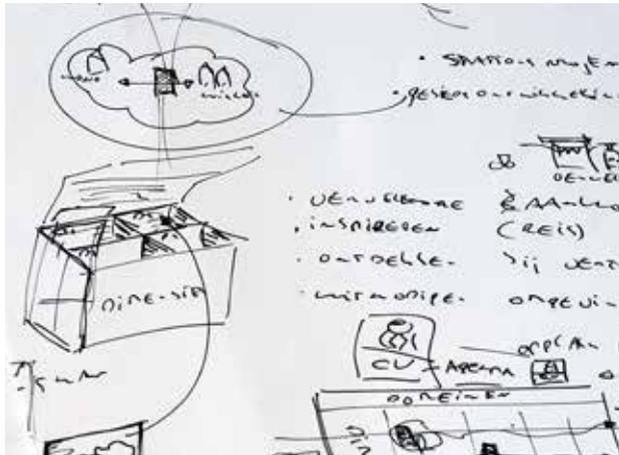
## WHAT HAPPENED?



# Assignment and aim

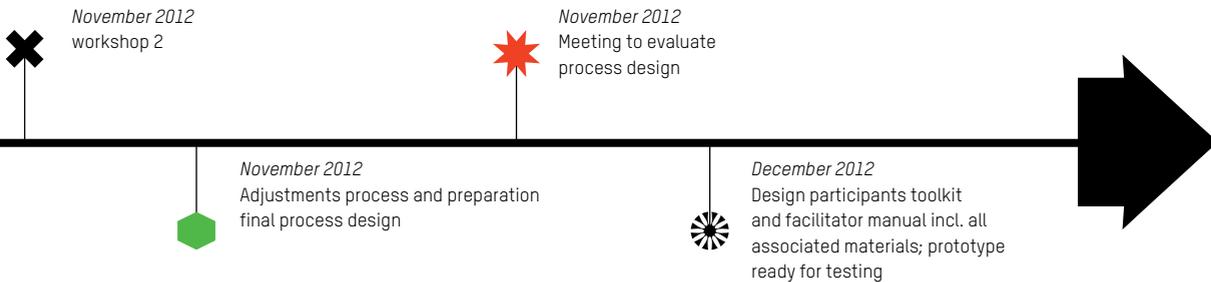
In 2011, ProRail, NS and Bureau Spoorbouwmeester started working with a new method that they entitled the 'Railway Workshop' programme. The aim of the Railway Workshop programme was to bring together the parties involved as early as possible to develop concrete 'products' in line with the Railway Experience policies. These 'products' could involve a station analysis, a briefing for an architect, or a vision of a station and its environment.

By cooperating on a joint vision or underlying principle at an early stage, the parties could develop a joint vision, prevent ambiguity and simply make things easier for each other. Moreover, this would also help to push the pace of the project.



A workshop element comes to life in a sketch as part of a 'homework kit' exercise

Bureau Spoorbouwmeester asked 31Volts to propose a design for the Railway Workshop programme. This did not concern a physical design of a location, but rather the design of a process: how can you cooperate during a Railway Workshop process in order to arrive at a joint vision? What resources might you need to this end?



# Structure and approach

The design chosen by 31Volts was made up of three phases: in the first phase (*Learn*), research was performed among others by holding interviews with various representatives of Bureau Spoorbouwmeester, NS and ProRail. In the second phase (*Create*), the research results were used to build potential solutions in collaboration with the involved parties. In the third phase (*Deliver*) these results were developed into prototypes.

***It is surprising how the associative-thinking cards used in the homework assignment make it so much easier to discuss how the different stakeholders perceive the four keywords.***



Associative-thinking cards used during workshop 1

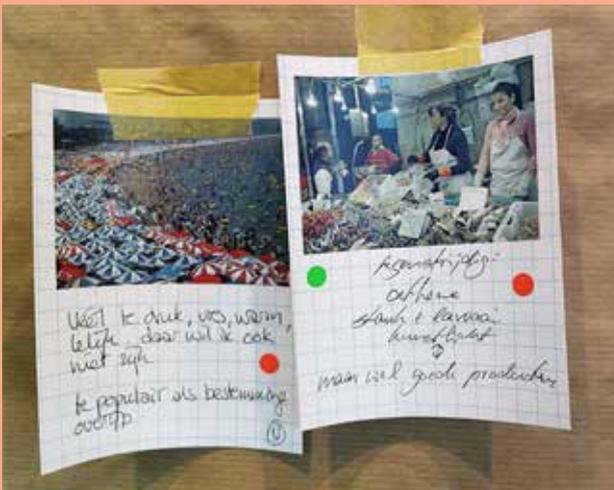
During the first phase it became clear that there were practical objections to holding interviews within NS and ProRail. Instead, it was decided that 31Volts would draw up a proposal for a Railway Workshop process, including the requisite resources, and that the staff of Bureau Spoorbouwmeester would do a 'dry run' together with 31Volts. This was to take place before the proposal was to be discussed and tested by the other participants in the Railway Workshop programme. 31Volts designed a process and created prototypes using Railway Workshop materials. The process was tested at two meetings. The workshop participants were all staff of Bureau Spoorbouwmeester and 31Volts.

*Working together on a renovation process assignment*

A Railway Workshop programme entails three workshops. Preparatory homework is assigned before the first workshop and homework is also assigned after the second workshop. The Railway Workshop programme participants all had different

session). Participants also spent time observing how passengers behave while using this specific station and this behaviour was tested on the basis of various scenarios. Imagine, for example, that you are a mother with a pram and a bag full of shopping and your train is late. Where can you wait for the train?

Where can your child go to the toilet? How do you get to another platform with your pram? During the last meeting of the Railway Workshop programme, all these insights were combined with the renovation requirements in order to reach a joint renovation assignment for each specific project.



backgrounds, points of view and roles in the renovation of a certain station or station environment. During the Railway Workshop programme, the participants were invited to step into the shoes of a train passenger, because these are the users who most expect to profit from the renovations. Using the Railway Experience as a guideline, the Railway Workshop participants explored what their individual perceptions of 'accessible', 'human', 'reliable' and 'characteristic' were (for example in an associative thinking

# Results

The result was a 'blueprint' for a Railway Workshop programme: a description of the various steps in the programme, what each step entailed and what kinds of materials were required. For example, materials were developed for a participant to prepare for the first Railway Workshop meeting. They received a homework kit with associative thinking cards and the homework assignment.

A booklet entitled 'Once there was a...' was used for noting down the observations. A toolkit was also developed with a manual and materials for the facilitator. The toolkit contained example material for homework and the workshops as well as a complete description of the entire process from the invitations to the final evaluation. It also included recommendations for suitable places for holding the workshops.

The results can be used to hold a first Railway Workshop programme with the stakeholders in a station project. This first experiment can be used to improve and further define the Railway Workshop programme.



The resources used were visualized on paper in the test phase as well



A 'homework kit' for a participant and the 'Once there was a...' booklet used for the fieldwork (see 'Method explained')





Although the original plan was to use a permanent location for the Railway Workshop programme, in the course of the programme the idea grew to hold it at the station under scrutiny

### **On location at the station**

The service design approach is more successful if it involves the insights and input of the users. The participants in the Railway Workshop programme were the participants in this process. In this case these were the architects, the contractors, the council staff and the railway and station staff. Initially, the requirements and expectations with regard to this process were described on the basis of assumptions rather than the information provided by and the behaviour of the users themselves. This was also the most pragmatic solution in light of the practical objections. Moreover, a pragmatic approach is fitting for a designing method of working: working with what you have rather than to an ideal.

But the consequence of this choice was that the programme and the resources developed within it would need to be tested on real users anyway at a later stage. There was also the risk that the unspoken needs of the participants would be insufficiently illuminated because the material already designed could steer the process in a different direction.

Another aspect that would need to be tested in practice was the role of the facilitator. No two groups of participants or station environments will be the same. The facilitator will be faced with the challenge of working with this prescribed process and the available creative materials, while at the same time keeping sight of the daily practice of hard facts, work planning agreements and commercial interests.



**1. Er was eens...**

Een moeder met haar dochtertje van 6 maanden op weg naar een goede vriendin, die zekerst verhuisd is naar ..... Ze heeft drie grote tassen bij zich, met verzorgingspullen voor haar dochter en tas vol met cadeautjes voor haar vriendin. Jouw hoofdpersoon reist niet zo vaak met de trein en moet één keer overstappen op ..... Ze ziet dit station dan ook voor de eerste keer.





Materials for the assignments in the various workshops

# \$\$\$-work

# Method explained

---

## User research based on a scenario

The second workshop involved the participants performing explorative research in the station themselves. How do passengers experience this station? How do they behave? The aim was for the participants to become even more aware of the passengers' perceptions. This awareness building was to ensure that the passengers' perceptions would be more clearly incorporated in the assignment that the participants were to formulate for this station. The participants had only a limited amount of time for this part of the research. They did not aim to observe the full range of passenger types during all possible travel moments.

During the trial Railway Workshop programme, the staff of Bureau Spoorbouwmeester started to worry that this part of the research would become too focused on a single scenario in the middle of the day. This meant that the type of passenger you were likely to encounter was all down to chance, and this would not necessarily reflect all the various types of passengers. As this part of the user research only used a small part of the time available for the workshop, it was more controlled than may have been desirable.

As an alternative, a combination of explorative fieldwork and the use of a scenario was offered. Imagine that your mother has to travel by train via this station with a pram and a few full bags. How would she get into the station if there are steps in the way? Is there somewhere for her to wait fifteen minutes for her next train with her pram and bags? What will happen if she has to rush for her train? How will she experience this? The participants were given this fieldwork booklet as a homework assignment. If you look at the waiting room on the platform through the eyes of a mother with a child and a pram you will see it from a completely different perspective.



*From the perspective of the mother with a child in the pram you see the waiting room on the platform with different eyes.*

**INSIGHTS**

# *Designing for Organizations*

This book has been entitled ‘Service design: Insights from nine case studies’. Each of the nine case studies has been described. If we were to stand back from these nine projects and look at them through eyes half closed, what would we see? What insights would we draw from them? What are the recurrent themes? And what plays only a minor role, though we may have expected it to be more important? A service design project typically starts with two parties: the client, whose users have a problem with the operation of a system which they want to see resolved, and the service designer, who is commissioned to resolve it. They have a mutual relationship whereby the client decides they need to call in external help. Instead of focusing on the problem, the service designer often instead concentrates on research into customer experience. The chapter entitled ‘Designing for users’ describes how reasoning from the users’ point of view in service design projects can result in effective solutions. However, it is also crystal clear that a degree of empathy with the client is also important – if not indispensable – for a project to be successful.

A good end result depends on the client and the agency understanding each other and both being highly committed to the project.

This chapter sheds light on those aspects that are required for effective cooperation:

- how can you ensure that the client and the designers understand how your organization works and what your requirements are?
- how can you – as the service designer – foster understanding and empathy for the client?
- how can the client be involved in the project?
- how is a joint vision formed?
- how do these aspects influence the final result?

### WITH THE CLIENT

**A successful service design project starts by exploring the client's question and the aim of the project. The agency and the client must get to know each other. Mutual empathy plays an important role here, and the result is that both parties become committed to the project and develop a joint vision.**

#### Introducing service design

The client will not always know what service design entails and often finds it difficult to explain the concept within their own organization. It is, after all, a field that encompasses several disciplines.

Moreover, each project has its own focus. Service designers find it difficult to explain their methods in a way that is understandable for the relevant organization. A number of different aspects play a role here.

- In the first place, we find that the organization starts by posing a question and then expects the service designer to find the solution: 'This is the problem that I want solved. How are we going to solve it, what will it cost and when will it be ready?' However, the organization's question is not always concrete. The service designer assumes that most questions will need to be reformulated in order for a real solution to be found. He or she invests considerable time and energy in discovering the organization's underlying needs, among other things by studying the users' perceptions of the service. In this manner, the service designer tries to answer 'the question within the question'. For example, in the projects involving ProRail, the initial

question was how to improve the safety and comfort of the passenger on a platform under renovation. However, after exploratory research by the service designer, the real question turned out to focus more on how passengers behave on the platform.

- Secondly, we see that service design agencies, in their search for the question within the question, are more focused on people than on problems. This worried the client, because they were used to focusing on the problem.
- Thirdly, the client often assumed that the project plan and focus were clearly defined. But, although typical service design tools were used in all the projects, there is no one single way of carrying out a service design project. The most suitable tools are selected only after the problem has been defined. Because the client is used to focusing on a final result (e.g. '10% more passengers on the Utrecht-Den Bosch route within one year'), they do not consider intermediate steps such as discovering 'the question within the question' as real results, whereas a service designer in fact sees this as an important interim result. The question within the question is more likely to point towards other commercial opportunities or reveal how customer service in general can be improved. See also the chapter 'Results, effects and side effects'.



Working together to develop a joint vision

### Getting to know the organization

Service designers say they prefer to start each project with a clean slate and that they wish to view the commissioning organization with fresh eyes. Service designers will not always be aware that, alongside their own specific project, a host of other parallel developments are taking place within the organization. The client is often busy with other projects, has other interests, sees other matters as more urgent, has other expectations and also has to conform to the structure and culture of their own organization, which may accept some changes but reject others. These aspects can all have an influence on the project, but the service designer will not always be aware of them. In project 2 for example, the service designer was considering installing alternative signs on the platform, while ProRail could have told them that these signs were not its responsibility, but that of NS. So it is important to take the time to get to know each other during the preliminary phase of a service design project (see also the chapter 'Preliminary phase').

## ➔ stakeholder

### COMMITMENT

With regard to communication, making agreements, mutual trust and willingness to learn from each other, we find various forms of commitment within the projects and within the client organizations. Often, it is difficult to determine the most effective means of cooperation and the most effective type of relationship between the service design agency and the client. Sometimes, the relationship between the organization and the service designer most resembles a traditional seller-buyer relationship. In this relationship, the client is primarily an informer, present only at the start and end of the project, while the service designer otherwise works independently. This makes it more difficult to fine-tune the results to the organization's requirements. More often, however, we see a high level of client involvement. The service designer and the client will be in close contact and the client functions more as the project expert: the service designer carries out the project,

while the client critically follows the results. We find that the results that best meet the organization's requirements are often produced in projects where the client and the designer work together intensively and as equals. For example, during the 'Customer Plan' project, there was a truly shared responsibility: the service designer facilitated a workshop and NS worked out the results. NS was responsible for the project in between the workshops and ensured that the workshop participants took their 'homework' seriously.

The ownership of a project may change during the course of project. This could be due to a new focus or the involvement of a different paying client. For example, insights from the research phase may suggest that the project is more suited one of the client's other business units. This changing ownership can sometimes lead to the organization becoming less involved in a project.

But it can also lead to more involvement if the most suitable actor within the organization is linked to the project, so that in the end the optimum project owner is found. We also noted that changing ownership could also lead to more people within the organization becoming involved in the project. In the University Medical Center Utrecht project, for example, all the hospital departments were approached during the extensive search for project participants, and so all the departments became involved in the project.

### **Joint vision**

If the client and the service designer were equally involved in the project, this led to a joint vision of the project. This in turn led to more clarity concerning the assignment, the

process, the method of cooperation and the desired final result. But the language spoken by the parties and the communication within the organization is also important.

## **common**

---

### **LANGUAGE**

The different stakeholders do not always speak and use the same language. Sometimes they may use the same terminology, but these terms will have different meanings for different parties. For example, the term 'customer experience': the organizations see this as 'a simple, one-off and temporary solution for the individual customer'. However, the service designer defines customer experience as 'the total sum of customer experiences created by the client'.

There is also a difference between the communication methods used. Service design agencies often prefer to work with visualizations, while clients are more text-oriented. Posters, video fragments and models or prototypes can considerably and tangibly improve the communication of the problem. Although the clients indicated that they were not very familiar with this working method, they nevertheless greatly appreciated the visualizations: 'Oh, now I get it! Those people on the platform are really getting in each other's way!' Visualizations also help in decision-making processes.

### **Internal communication**

The participants in the workshops were enthusiastic about the progress and results of the projects and they forged a joint vision. However, because it had been developed by the stakeholders during the

course of the project, it was more difficult for outsiders to share in this joint vision. The service designer can sometimes contribute to achieving this joint vision within an organization. For example, a client asked a service designer to present the ideas developed in the project to the Board, because it would have more impact than if they did it themselves. A part of the visual material from the projects was also used for internal communication, such as the poster produced by STBY with an infographic on the incidental passenger and the frequent passenger and the photo storyboard of the situation at University Medical Center Utrecht.

to clarify the expectations and the desired solution. The client was often more satisfied if the final result dovetailed with the results of other projects within the organization. In the University Medical Center Utrecht project, for example, new patient profiles were created on the basis of existing patient research that was combined and expanded with the results of the new user research. University Medical Center Utrecht has reported that they find the new patient profiles very useful.

## ➔ **evaluation**

---

### **OF THE RESULTS**

The degree of empathy with the client, the level of involvement and the resultant joint vision ultimately influence the degree of satisfaction with the final result and the cooperation in the various projects. It is always difficult to make sound agreements, for example on the process and the sharing of responsibility. How many workshops will be held? What is whose responsibility? Who is responsible for the final product? Interim results were not always seen as such by the client. However, some service designers clearly saw the interim results as evaluation moments. They would not proceed with the next phase unless the client was satisfied. In one of the projects, each phase had a completion date and required a sign-off from the client: 'This is the document on which we wish to base the rest of the project. Do you concur with it?' The service designer indicated how important they think it is to come to a joint decision. This helped

## ➔ **conclusion**

---

A good, efficient and effective cooperative process between a service design agency and a client depends on mutual empathy, the right level of involvement and the resultant joint vision. We wonder what would happen if the service designers took the tools that they use in user research, such as ethnographic methods and interviews, and used them to find empathy with the client and involve the client more in the project. Both parties would then be able to voice their expectations, come to a joint working definition of service design and jointly evaluate the interim and final results. This would lead to agreements on responsibilities (who is responsible for which part of the results and the process?), the number of meetings in each phase of the design process, and the interim and final results and the possible manifestations of these. Designers need to have a thorough understanding of the client's situation if a service design project is to be successful.

***The understanding by designers  
of the provider's organization is essential for the success  
of a service design project.***



Zuilenstraat.  
Wolvensteeg

← Sterrenwacht  
Sonnenborgh

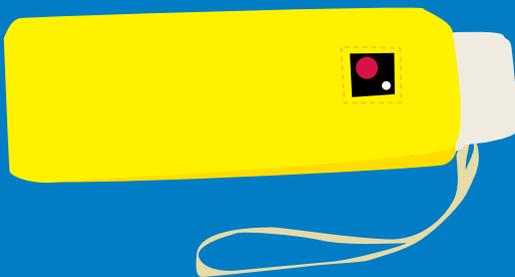
← Spoorwegmuseum

Uitgang + C.S. →  
Universiteits-  
museum →  
Catharijneconvent →

Client:

Musea Utrecht

Design agency: 31Volts





## MUSEUM DISTRICT

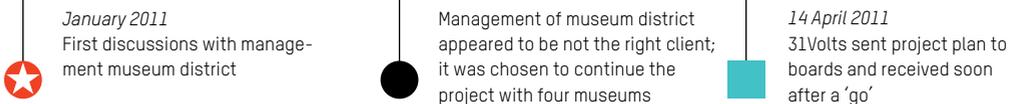
*The museum district in Utrecht is famous for the Dom church tower, the network of canals and the many museums in the area. The museums have a joint ambition to see visitor numbers increase from 800,000 to 1 million per year. They asked the agency 31Volts to find out how more visitors could be attracted to the museums. This question is all the more relevant now that the new railway station nearby the museum district is nearing completion. The district could potentially be made more recognizable and the connections with the existing tourist and other routes in the city could be improved.*

# Assignment and aim

Following the preliminary meetings between the museums and 31Volts, the research question was reformulated: can we gain insight into how visitors spend a visit to a museum and how they experience it, so that we can use this information to better meet their needs? The rationale was that you need to have insight into visitors' motivations for visiting a museum and that you need to understand the dynamics and context if you want to ask these visitors the right questions. 31Volts commenced their research on the basis of these factors.



## WHAT HAPPENED?



# Structure and approach

31Volts decided to transform the museums' question into a project plan describing several research techniques:

- *Interviews* - Interviews with visitors to the museum to find out what motivated their visit.
- *Stalking* - Following visitors to their next destination in order to ascertain what role the museum visit played in visitor's day.
- *Mobile interviews* - 'Chaperon research' to gain insight into the journey to and from the museum.
- *Cultural probes* - Staff of the museum kept diaries of their visits to other museums in order to find out how they experienced these visits.



This collection of research methods resulted in a complete picture. The research not only provided insight into the current visitors and their motivations, it also provided a clearer picture of the visitor to the city of Utrecht and the opportunities for tempting them to visit a specific museum or museums.

Pick-up places: Miffy square in Utrecht



(cont.)



Hotspots; for instance, where visitors to Utrecht take photos of Dom tower

### Insights

31Volts then drew up clusters based on the great diversity and large amount of information and presented these to the museums. During this presentation, the agency informed the museums of how it had gained insights into the opportunities for attracting more visitors to the museums. Their research and the clusters based on the information revealed the motivations and movements of museum visitors during a day in the city. The museums would be able to use this information to attract more visitors and, for example, draw up scenarios for a new approach.

### Summary of the findings:

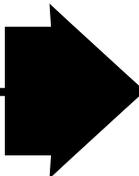
- Pick-up places were identified. These are places where tourists are likely to be found (such as 'Miffy square' that is described in every tourist brochure).
- Hotspots were described, where large amounts of people gather for predictable reasons (e.g. Domplein, to take pictures of Dom tower).
- A Customer Journey Map was made. This is a museum visitor's journey, in which the visit to the museum is placed within the context of a full day's activity.
- During a tour of the district it was observed that the museums in the district are difficult to recognize as such.

## WHAT HAPPENED?

(cont.)

1 November 2011  
31Volts presented insights and concepts to Central Museum, Museum Catharijneconvent and Het Utrechts Archief

22 February 2012  
31Volts sent report and it is decided to end the project



# Results

31Volts designed a number of concepts for the follow-up.

## 1. Decentralized Museum

This concept suggests approaching potential visitors at the hotspots in the city centre. Both tourists and day visitors can be found in these spots, so they are the ideal place for tempting people to visit a museum.

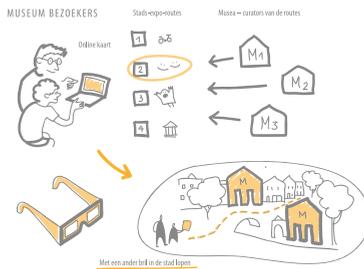
## 2. Recognizable museum district

The current district is a beautiful area in the heart of Utrecht. However, it offers few clues that it also houses a great many museums. By creating a stronger presence as a museum collective and creating a livelier atmosphere in the street, the recognizability and popularity of the district can be improved.

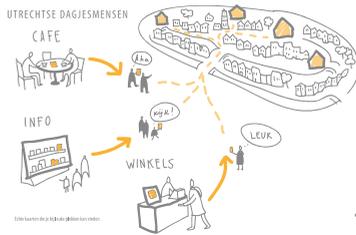
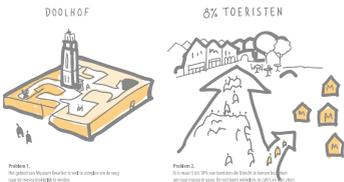
# HERKENBAARHEID



Herkenbaarheid zit in de hoofd!



## ONDERZOEK:



## Recognizable museum district



**The five personas conceived by 31Volts were ‘the academic’, ‘the artist’, ‘the museum visitor’, ‘the bon vivant’ and ‘the potential’**

Personas: ‘the artist’, ‘the bon vivant’ and ‘the academic’

### 3. Personal Trip Assistant

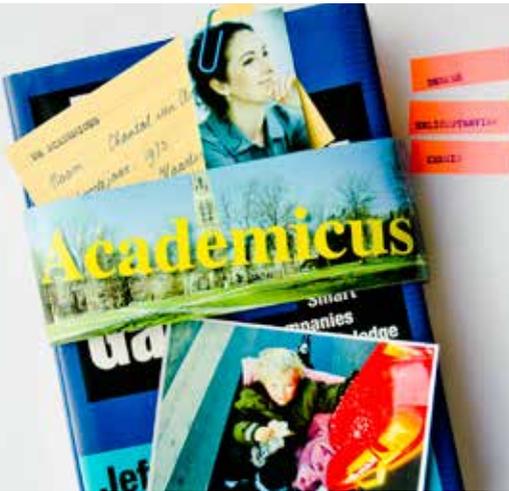
This concept takes account of the other activities that a visitor to one of the museums may undertake. For example, a visitor might drink a cup of coffee before visiting the museum and go shopping afterwards. The Personal Trip Assistant provides the visitor with recommendations for travel, lunch, coffee and shopping in the museum district, so that they can have a total experience.

### 4. Cultuur.Utrecht.nl

The council’s main website does not offer differentiated information. For example, an inhabitant of the city who wants to know when their rubbish will be collected uses the same portal as the tourist who wants to know what cultural events are going on. Other cities have resolved this by dividing the homepage into themes. 31Volts advised Utrecht city council to do the same.

In addition to the concepts, the agency also made the somewhat vague definition of ‘the museum visitor’ more tangible by splitting it into five personas. A persona is an archetype of a customer, user or visitor that captures certain characteristics and qualities. The ability to empathize with a persona can help the museum staff to better understand their visitors. Each of the five personas needs to be approached differently and requires other ‘persuasion tactics’. The five personas conceived by 31Volts were ‘the academic’, ‘the artist’, ‘the museum visitor’, ‘the bon vivant’ and ‘the potential’.

Alongside the insights, concepts and personas 31Volts also described a number of ‘quick-wins’. These were minor interventions that could be carried out straight away, so to speak. 31Volts pointed to the potential of a combination ticket for



## The academic

'A visit to a museum has really become a matter of planning. All my friends now have children, which can make it difficult to find a suitable date.'

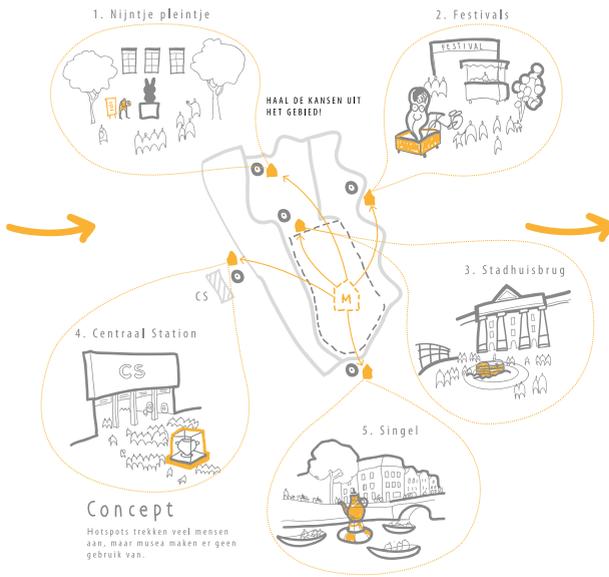
several museums, improved signposting in the street, the Miffy square rent-a-bike or a café for non-museum visitors. This would help the museums to get the tourists and shoppers in Utrecht 'over the threshold'.

### Cooperation

Looking back at the process, we can see that the cooperation evolved differently at certain points than was described in 31Volts initial project proposal. During the preliminary phase, 31Volts and the museums discussed the aims of the project at length. The initial question was reformulated to encompass a wider ambition: to gain insight into the dynamics, motivations and context of the museum visitor. In this preliminary phase, the parties also opted to select four of the museums in the district for the project, rather than all ten. But despite the favourable starting conditions, in the course of the project the parties started to lose sight of each other. When the final versions of the concepts were presented, which concepts had been developed without the further involvement of the museums, the clients appeared to be only mildly enthusiastic.

In service design processes, intensive cooperation is critical for a good and fully embedded result, and all the more if the real value of the project is measured in terms of the project's relevance to the client. Designers take it as a matter of course that the process is gradual and based on growing understanding, so that the project proposal will not always necessarily remain the key guideline. Organizations, however, see the project proposal as a definitive plan with measurable benchmarks.





From the physical context of the museum, via data and insights, to concept directions

# SSGOJCI

# Method explained

---

## Using diaries (probes) for fieldwork

How do museum staff experience a visit to a museum themselves? To find out, five staff members of each museum participated in the research by sharing their experiences as a visitor to another museum. The staff members were given a 'diary' in which to answer questions before, during and after their visit. This method of obtaining information is known as probing. It provides the designers with insight into the experiences of the participants during a certain time-scale, without having to actually physically follow these participants. The diary not only describes the museum visit itself, but also the journey to and from the museum, the staff member's expectations and their impression of the visit in retrospect when they return home. The staff members can be expected to view the museums through a professional eye, but the questions are intended to stimulate them to see things from another perspective and be more aware of their own experiences as a visitor. A number of staff members completed the diaries, which provided useful information on how these staff members experienced their visit. What was most important? The museum collection? Or the quality of the coffee in the café?

Another aim of the diaries was that by completing them the staff members would become more involved in the project and obtain a better understanding of what the visitors wanted. Hence this was also a way of increasing the staff members' contribution in the co-creation phase. The use of probes to prepare participants for a co-creation session is also called 'sensitizing': making the participants more sensitive to the subject matter. In practice, probes are made-to-measure for each new project. The questions are not only aimed at the subject of the project ('museum visits'), but also at the specific project sub-questions (What do visitors do before they go to a museum? Why do they choose a particular museum? Who do they travel with? Did this have an influence?).



# HOSPITALITY IN THE HOSPITAL AT A GLANCE USING A POSTER

INTERVIEW WITH LINDA STREEFKERK, UNIVERSITY MEDICAL CENTER UTRECHT

28 FEBRUARY 2013

**‘I’m really enthusiastic about the service design project and the research that was performed at University Medical Center Utrecht and how it helped us to increase our level of hospitality. We were particularly helped by the visual demonstrations that literally helped to make various aspects visible.’**

Linda Streefkerk is responsible, among other things, for the way in which patients are welcomed and assisted at University Medical Center Utrecht. She was involved in the project in this capacity right from the start. She was approached a few years ago with the question of whether a service design project could be carried out in the medical centre. She had heard about service design as a working method, but was in two minds about this particular request. She was mainly concerned about the extra work it would entail, primarily because the plan was to station a student in the hospital who would be able to graduate on the basis of this service design project. ‘Initially, I wasn’t very happy with idea of supervising a student for a full year.’

Because the project fitted in neatly with a wider ambition and programme of change aimed at improving hospitality in the medical centre, the offer was accepted

despite her doubts. Later on in the project, it was decided to focus the research on the reception the patients received upon their arrival in the medical centre. 'There was such an enormous amount of information on the patients, that it was decided to focus the research on the entrance hall and the signposting that led from there into the rest of the hospital.' (To provide an idea of the numbers, between 16 and 30 thousand people – patients, students, doctors and staff – walk through the main entrance every day.) The service design project turned out to be a great success.

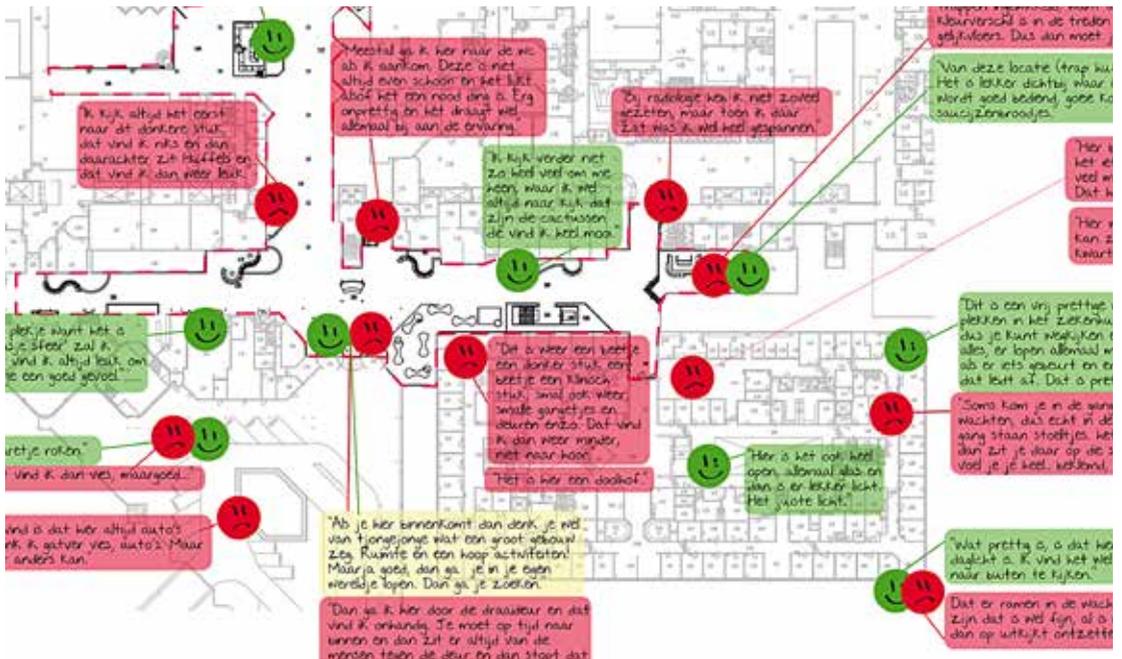
**What added value did the service design project have for your organization?**

Streefkerk sums up a number of points. In the first place, it provided a great deal of first-hand information on the needs and desires of the patients. 'We already have a lot of information about the patients and their behaviour, but this research really succeeded in fleshing out this information, particularly by means of the intensive interviews with the patients about their needs and desires and their experience of the hospital. These insights were combined with the information we already had on the patients to produce four personas that illustrated certain patient categories. For the first time, we combined the information provided by the patients with these personas and used this as the basis for the further research. Another unique result was that we were able to chart the patients' experiences throughout the whole cycle of the journey from their home to the hospital and back again.'



Linda Streefkerk , UMC Utrecht

University Medical Center Utrecht now works with the four patient personas (which were literally visualized during the research) which help predict how these patients may react and conduct themselves in the hospital. Secondly, there was the standard service design technique of visualization and the use of images to illustrate the research results. 'Images explain everything at a glance. They really have a different effect on you than a written report would. A lot of what you see is familiar, but there are also aspects that make you as a doctor or staff



Detail of the poster with smileys

member think to yourself: "I hadn't thought of that!" As an example, she mentions the use of the colour purple on the reception desk in the entrance hall. 'It turns out that visitors do not associate the colour purple with the idea of information. This is something we had never considered.'

To illustrate her point, Streefkerk produces the final report on the service design project. 'By virtually walking through the main entrance with the help of a photo storyboard, you can see what is wrong at a glance. Some areas are too dark, important contact points appear uninviting, or the signposting to certain departments is too difficult to find.'

Thirdly, there were the results of the stress research, performed for the first time on patients using a heart-rate meter: 'This test revealed that patients, even though they

may appear to be calmly waiting for their appointment, actually suffer from increased stress levels. Even though this test was only performed on a small group of patients, it still tells us a lot about how they experience stress. And reducing patient stress is one of the key objectives of a wider project on improving hospitality at University Medical Center Utrecht.'

Part way through the project, the intern reported on the findings of her multi-level research within the medical centre. The Executive Board was also impressed with the typical service design approach to getting the message across using visualizations. Streefkerk: 'The results of the research and the relevant visual material were presented during the annual spring conference that the Executive Board held together with the medical centre's managers.' The necessary improvements,

visualized in a poster that illustrates the barriers between the patients and the hospital, are now being discussed throughout the hospital. 'We use the poster with smileys frequently. Everybody who sees it understands immediately what we are talking about.'

### **What have you learnt from the process?**

'Before the project, I wasn't sure what service design would entail with regard to research on hospitality in the medical centre. Now I know that context mapping, as it was applied in this project, and the use of images produce many more reactions than when you use a standard questionnaire. I will certainly use this method again in new research projects. I have learnt about things that are important to the patients, things that we never could have thought of ourselves. A simple example: the semi-circular information desk proved to be uninviting to the visitors. On the basis of a range of insights, a semicircular desk design was proposed with the opening at the front, so that people would be drawn in, as it were. This would be combined with an inviting sign with the text: 'Can I help you?'. The combination will be more welcoming for our visitors than the current situation.

The manner in which the student shared the information with the stakeholders in the organization also produced good results. This helped to win the support of the people in the organization and keep them involved and enthusiastic.'

### **What surprises did you encounter on the way?**

'I was particularly surprised by how different the patient's perceptions of their interpersonal conduct in the hospital can be. Thanks to the in-depth research, the interviews with the patients themselves and the categorization of this information in the four new personas, we now have a stronger foundation for implementing improvements in our hospitality policy.'

### **What would you do differently next time, with the benefit of hindsight?**

'Not a lot. The project was a great success.'

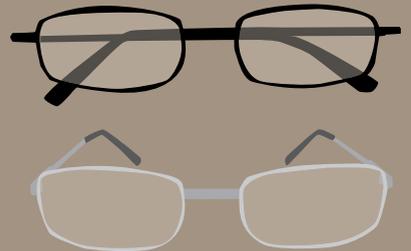
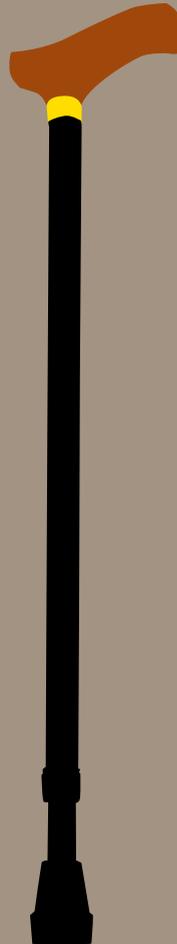
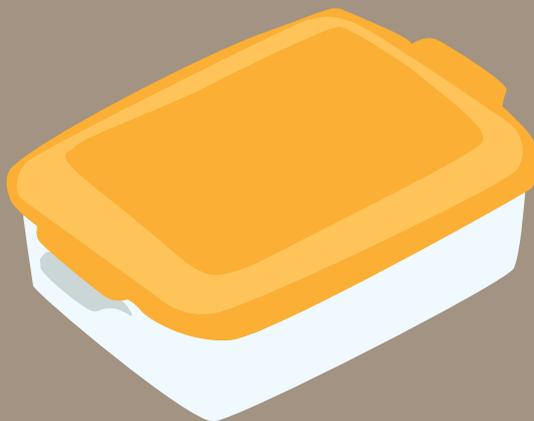
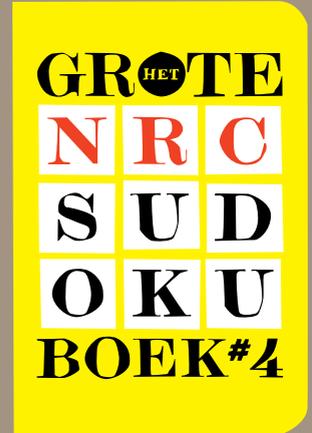
### **What would you explain about this project to someone who has never heard of service design?**

'Just do it! The visualization of all the outcomes of the research provides a much more comprehensive and diversified result. Moreover, service designers introduce a new perspective on your organization. This also results in you learning new and important things about your own organization.'

Client: UMC Utrecht

Design agency: Bureau

Scope Design & Strategy





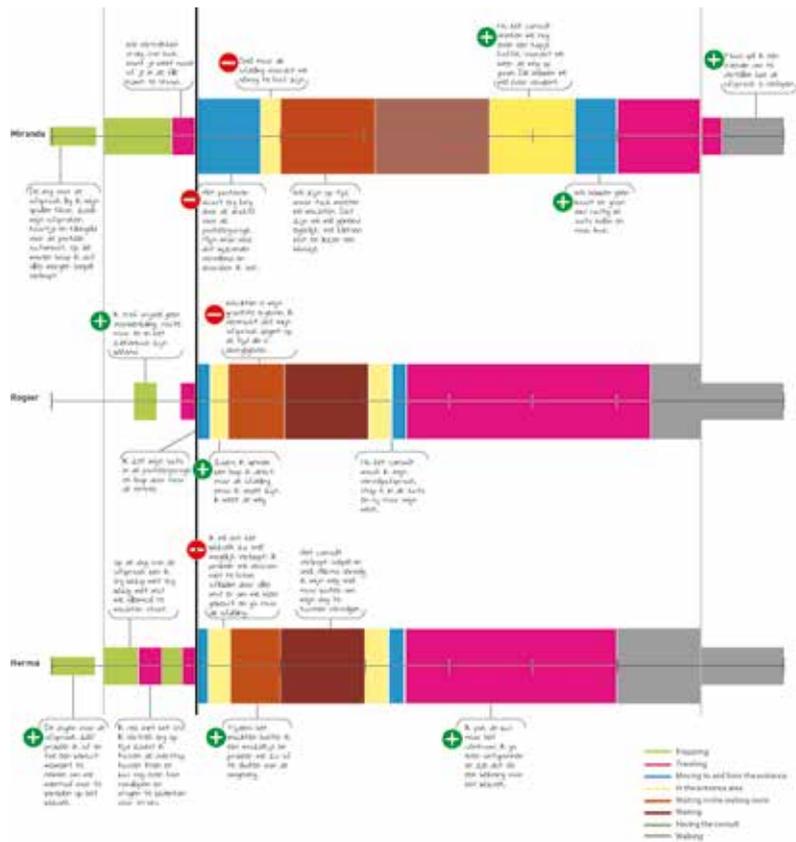
# HOSPITALITY IN THE HOSPITAL

## Reducing stress for patients of University Medical Center Utrecht

*University Medical Center Utrecht wishes to improve the level of hospitality and service it provides to its patients. Alongside the medical treatment itself, the environment and the manner in which patients experience a visit to the hospital also have an influence on the effectiveness of the treatment. This is one of the reasons why the hospital wishes to improve its level of hospitality for its patients. Bureau Scope was commissioned to investigate where and how improvements could be made.*

# Assignment and aim

The aim of this assignment was to study how the service to the patient in University Medical Center Utrecht could be improved. During a lengthy preliminary phase, the agency and the client sought to formulate a fitting framework for the assignment. In a later stage the hospital and the agency opted to focus the assignment on improving the reception of and assistance to patients in the hospital's entrance hall.



Research

## WHAT HAPPENED?

January 2011  
Preliminary phase

2 March 2011  
Project plan

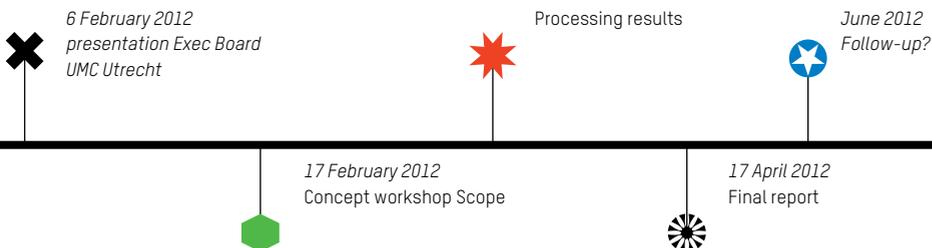
10 January 2012  
Workshop UMC Utrecht  
- presentation insights context mapping  
- decision focus next phase

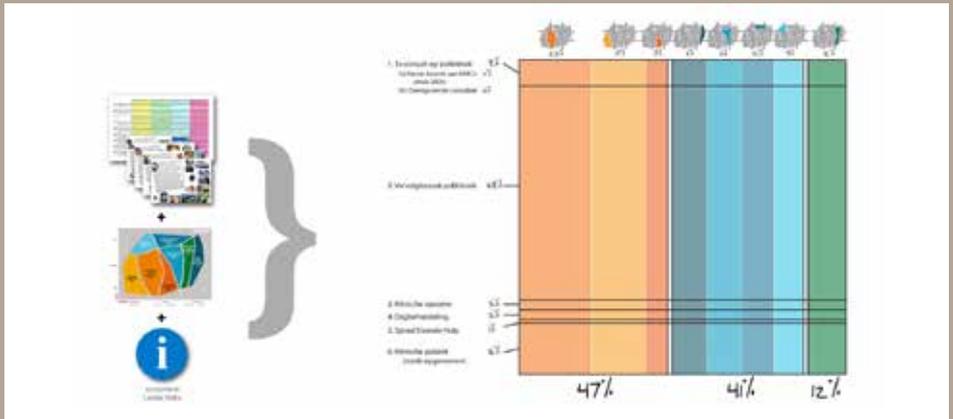
# Structure and approach

It is important to understand the needs and desires of the patients of University Medical Center Utrecht so that the service and hospitality provided by the hospital can be improved in the future. But who are the patients exactly? Who visits University Medical Center Utrecht and what is a representative cross section of the variety of patients?

An important element in this is the protection of the privacy of the hospital's patients under all circumstances. This was an extra precondition for the research: the researchers were not permitted to contact patients without prior permission. The upshot was that a relatively high number of the hospital's staff members were involved in the project so as to ensure that the privacy of the patients involved was properly protected.

The foundation of the project was formed by the hospital's quantitative models. The hospital works with patient profiles and uses the Motivaction Mentality model for the healthcare sector. There were also numerical data available on the reasons for visiting the hospital.





Combining three lines of research results in clear, representative user groups

These three resources were combined in one complete model: a matrix in which various categories of patients were placed alongside various reasons for a patient visiting the hospital.

This information on the patients was then expanded with data from qualitative research.

The resulting material was used to develop the new approach to hospitality at University Medical Center Utrecht. In order to ensure a focus on the patients' experience, it was decided to use a generative method: context mapping (see 'Method explained'). The insights were rendered complete by not only taking the patient in the entrance hall into consideration, but also taking the complete experience of a visit to the hospital as a starting point.

### *Observation and interviews in the entrance hall: activities and functionalities*

The research process started with the observation of the use of the entrance hall: which activities and functionalities were important? How many users were there? What do the users do in the entrance hall? How do they do it? The focus included both the patients and the other users.

The patients' walking routes from the entrance hall to the rest of the hospital were recorded in photographs which were used later on in the design process. Interviews were also held with the patients in the entrance hall, so that they could tell their own personal stories and explain what their needs were.

Various patients were followed closely during their entire visit to the hospital, from the moment they started preparing for the visit at home, via the trip to the hospital, finding their way around the hospital, the appointment for which they came, up to the moment that they finally arrived home again. Special research tools were also developed for this re-

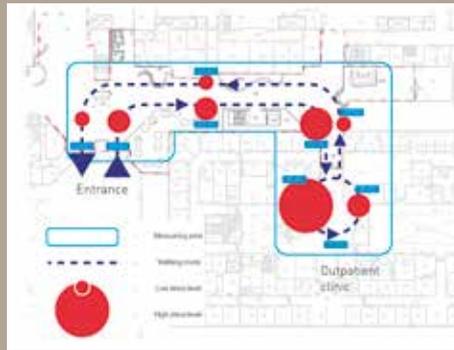
search to be able to find out as much as possible about the patients' needs.

### *Physiological research: patient stress*

To be able to find links with the medical, technical and quantitative experience within the hospital, a physiological study was also performed on the degree of stress experienced by the patients and the influence of the hospital environment on this. It was a deliberate choice to validate the qualitative research with hard data, as well as to allow for new insights to be discovered.

The physiological research focused on the moment of stress and the level of this stress. To this end, the participating patients wore heart-rate meters and accelerometers during their visit to the hospital. These devices produced instant and continuous stress measurements. (The devices used were provided especially for this research by the microsystems lectorate of HU University of Applied Sciences Utrecht). The data were visualized on a map that displayed the walking routes and the stress levels of the patients. University Medical Center Utrecht was surprised by the discovery that the stress levels of the visitors even increased when they appeared to be quite relaxed in the waiting room.

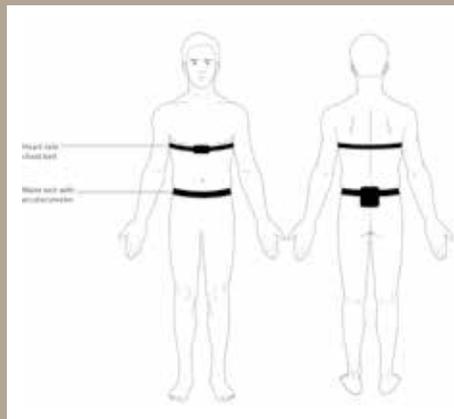
Four personas were drawn up on the basis of the matrix, the stress research and observations and interviews. The personas are used to tell the patient's personal story. Based on their various needs, the hospital patients were divided



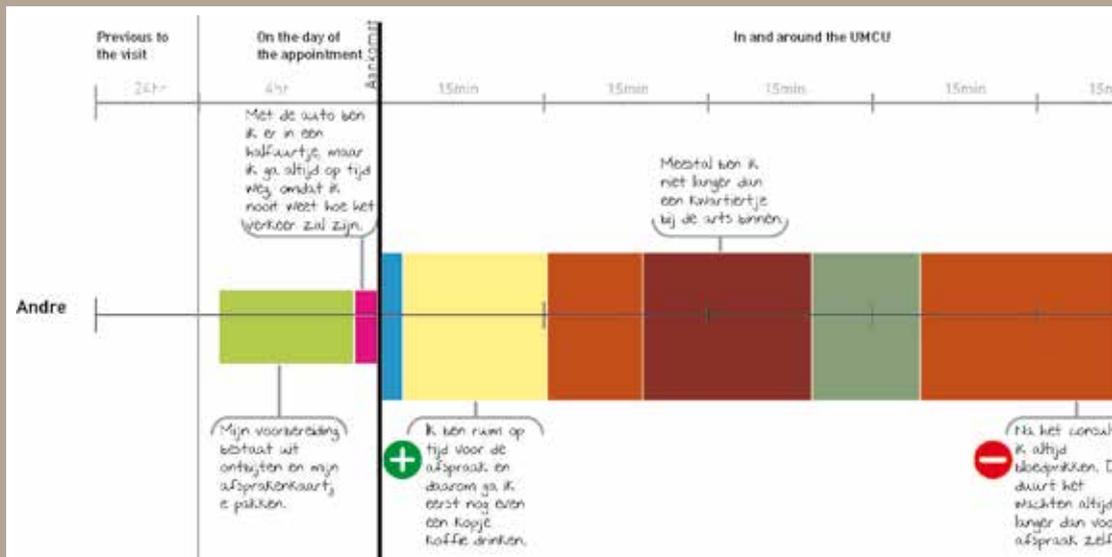
Moments of greatest stress during a passenger journey



Stress meter



Wearing the stress meter



A part of such a customer journey

into four categories: ‘the docile patient’, ‘the dependent patient’, ‘the pragmatic patient’ and ‘the assertive patient’. Each of the four categories of patient requires a different approach by the hospital. What they all have in common is that they have a need to stay in control, they need to experience a clear structure during their visit to the hospital and they need to be treated as individuals.

The visits to the hospital of each of the four categories of patients were then depicted in a customer journey.

### Process

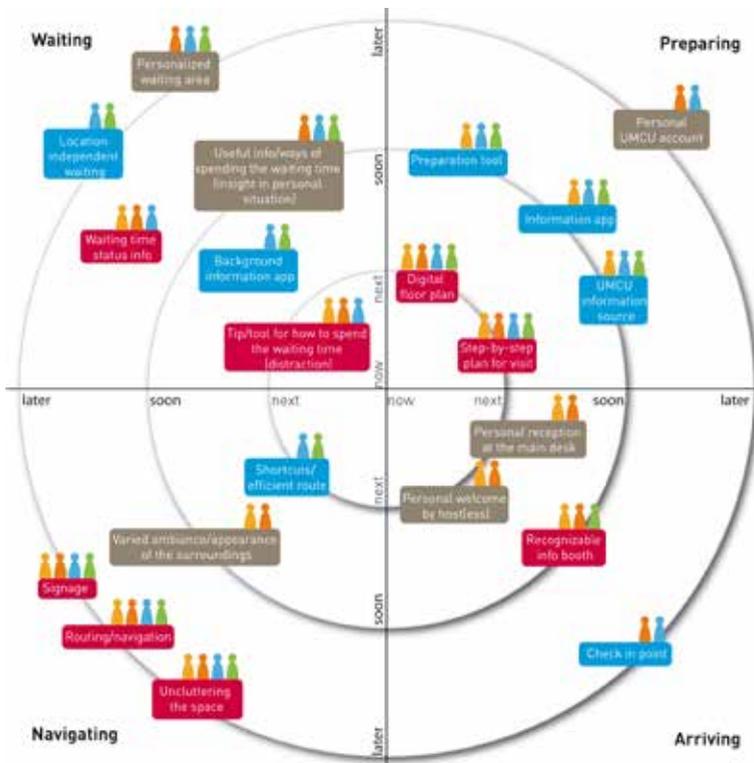
Workshops were held, both in the hospital with the hospital staff and with external stakeholders such as Movares and Delft University of Technology, in order to present the insights, use them and develop them into ideas.

# Results

The project produced several results.

The creation of the personas provided insight into the four categories of patients that visited the hospital. Furthermore, as part of the research the entire hospital experience of the patients was also mapped. This provided insight into the diversity of patient needs during the various phases of their visit. These needs were then translated into guidelines for improving the service to the patient and the other visitors. These different concepts together formed a roadmap for change and a way to discover its effect on the patients' valuation of their visit.

University Medical Center Utrecht is presently developing a number of the suggestions formulated during the project into practical changes to their hos-



Roadmap: possible service solutions per patient group



Different solutions for different people, project portrait 8, University Medical Center Utrecht

pitality policy. For example, they have developed a new concept for the reception of the patients in the entrance hall. Among other things, by depicting the possible changes visually with the help of a storyboard and by suggesting tangible product designs to support the various services, the stakeholders in the hospital were shown how the hospitality in the entrance hall could easily be improved.

The detailed ideas took account of a number of findings from the qualitative patient research. For example, this revealed that some visitors were hesitant to approach the reception desk. An idea was that a hostess stationed nearby would be much more inviting for them. Another suggestion was to vary the way the information is presented in order to be able to meet the needs of various categories of patients. University Medical Center Utrecht plans to develop other suggestions produced by the project as well and to integrate these in the wider project on improving hospitality.

# Methode uitgelicht

---

## Contextmapping

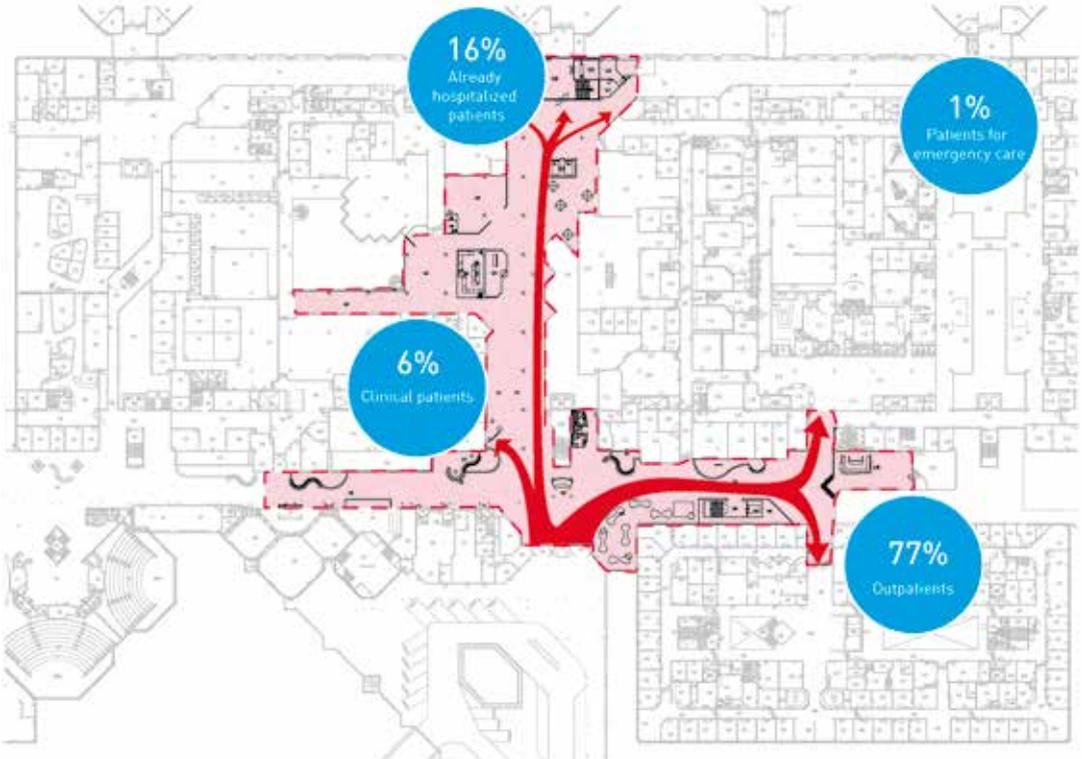
***The search for patterns and insights was conducted according to a very flexible method, which cost a lot of work and a lot of post-its.***

The search for patterns and insights was conducted according to a very flexible method, which cost a lot of work and a lot of post-its. Context mapping is a method of performing contextual research with users, whereby implicit knowledge is gained of the context of the use of products. 'Everybody is an expert on their own experience' is the basic principle behind the research techniques of context mapping. The aim is to inform and inspire design teams, whereby users and stakeholders actively participate in the design process in order to guarantee the harmony between the design and the use of the product.

Context mapping involves several research techniques. These techniques are used to invite and stimulate people to document certain parts of their lives and so share their experiences. A context mapping study was made of the patients' experiences during their visit to the hospital, including the experience of stress in the hospital.

The latent needs and desires of the patient were mapped as well. The patients first received a sensitizing (warming-up) booklet: 'My hospital visit'. This booklet served as the basis for a generative in-depth interview. The booklet has the user make something, such as a timeline or a collage, and later explain why they made it the way they did. Using 'talking pictures', the participant could express themselves visually as well as verbally. This is especially useful for expressing their latent needs.

It is important to analyse the rich and varied data including many stories, quotes and photos. The search for patterns and insights was conducted according to a very flexible method, which cost a lot of work and a lot of post-its.



Which corridor do I need to take? 77% of the visitors visit one of the outpatient clinics.

TODAY I HAVE COME TO THE UMCU FOR A CONSULT AT THE OUTPATIENT CLINICS. I CAME HERE BY BUS AND THIS IS WHERE I GET OUT. NOW ON TO THE ENTRANCE...

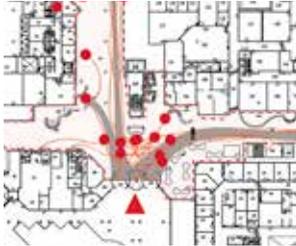


SHOULD I TAKE THE ELEVATOR OR THE STAIRS?

LET'S TAKE THE STAIRS...



...WELL THEN, I'M UPSTAIRS



# SSO-IC1

**INSIGHTS**

*Results, effects  
and side effects*

One of the most frequently asked questions at the start of all these projects was ‘what exactly is this going to achieve?’ A good question, but also a question to which there was no straightforward answer. Now, with the results of all the projects available to us, we have found a clear answer to this question: the projects offer valuable opportunities to implement the organization’s strategy more effectively. However, there are no immediate cost savings, new customers or improved business results to be seen... In this chapter, we explain the results of the projects and how the clients valued these. We zoom in on the outcomes of the nine projects. What was the final outcome, what did this outcome achieve and what else could you achieve with it? We also pay special attention to the effects that the project outcomes had. These, after all, were what the clients valued most of all. The outcomes have led to positive changes to the plans and working methods of the service providers. In many cases, the participation in the project was in itself a useful and educational exercise.

## ➔ what

### **DID THE CLIENTS VALUE MOST?**

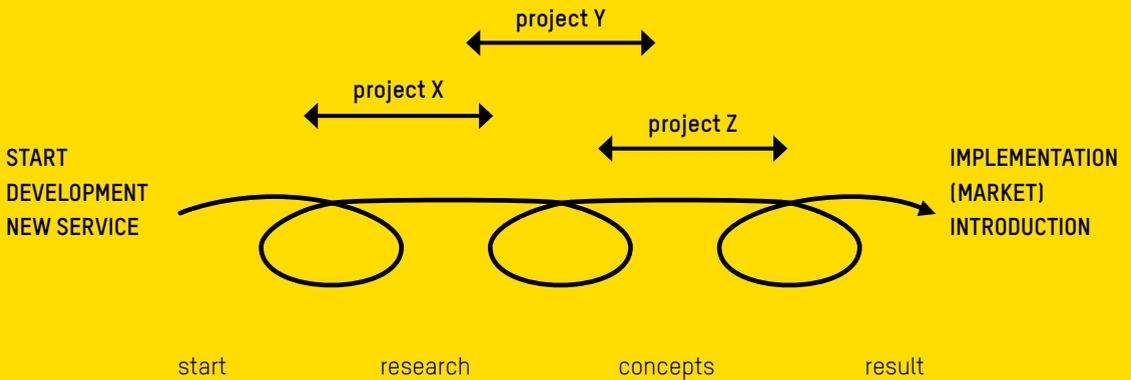
Upon completion of all the projects, the clients said that they most valued their influence on the decision-making process with regard to continuation of the innovation project. Alongside the question whether the organization ought to continue a project, or invest more in it, most of the projects were valuable in their own right because they played a key role in decision-making on the further elaboration of the solution. Another valuable effect was the growing network of people who were informed about the project (if the project had been successful). The working method, whereby open workshops were held where

the sub-results, interim results and research lines were discussed, ensured that a large group of people were informed of the plans and the lines of reasoning. The advantage of this was that it was easy to find these people and secure their commitment if they were needed in later stages of the project.

## ➔ why is it

### **DIFFICULT TO MEASURE THE RESULTS?**

Discussions about the objectives and results of these projects generally focused on their contribution to the service pro-



Projects cover only part of the process of service development

vider’s strategic objectives. Any new services were meant to contribute to achieving these objectives. For example, the clients’ aspirations might involve a reduction in the amount of errors or customer complaints (Customer Plan project 5), or cost savings elsewhere in the organization (HU square, project 9) or facilitating a better ‘customer experience’ by ensuring that users suffer less disruptions (caused by other users) (Extreme Users, project 4). These changes could result in an improved service for the customer and the user.

**The objectives transcend the project scope and result**

However, the development of services in such projects involves several phases. Normally, a project involves only one or a few phases in the total process of developing a new solution. This was the case in all of these nine projects. This meant that it was usually impossible to evaluate what the contribution of an individual project was to the original objectives upon project completion. The effects of the solution on

the users and the organization was only actually tested in one of the nine projects. This was the project for ProRail in which a working prototype was installed on an operational platform. None of the other projects reached this stage. Generally, the projects had a narrower scope. The aim was the presentation of a given number of concepts or research lines. The client and the agency are presently evaluating these concepts and discussing the conditions for their further development in a follow-up project.

The evaluation of insights and concepts were always important moments in all the projects. At present the parties are deciding on whether and how the team should develop the solution further. However, it was impossible, or nearly impossible, to assess whether the concept met the conditions in the objectives, because no impact assessments had been performed as yet. For this reason, in most projects the assessment and selection of the concepts took place on the basis of estimates of success made by the design



Evaluation of insights

team, the client and, in some cases, with the help of parties identified as stakeholders. These estimates determine whether a design project will be followed up, and if so, in which direction the service concept will be developed.

This is why the evaluation of the projects focuses more on ranking the projects in this phase on the basis of their likelihood of success. Will this project help us as the client to innovate faster? Are the stakeholders keen to continue the project? Can I estimate what the risks are in the next phase? Does the result have consequences for other projects? Does it help me to make more balanced decisions? These are examples of questions that can be asked in order to determine how valuable the project results are for the clients. Seen from this perspective, it is clear that a thorough understanding of the users' needs and priorities can help to make a more reliable assessment of the alternative solutions. In most of the projects we saw that the complex concepts and research conclusions dovetailed with the service

provider's own research, or in fact questioned their earlier conclusions. As such, the project results often corroborated existing ideas in the organization and defined these more clearly, on the basis of the users' experiences.

#### **The evolution of the aim and the solution**

A characteristic of these projects is that the service providers have not defined explicit strategic goals with regard to the experience they wish to offer their customers. Many clients have only abstract descriptions of the experience they wish to offer their customers, such as 'the customer gives us eight out of ten for customer experience' or 'hospitality is one of our core values'. Service design projects are different in that they focus on service innovations specifically aimed at improving customer experience. The consequence for these projects is that a lot of energy is invested, particularly in the earliest phases, in finding the interfaces between these projects and the service providers' strategic agendas.



Evolving descriptions of objectives: the ProRail project between January 2011 and August 2012

In some cases the project aims are derived from examining the organizational consequences of improvements to the services: less disruptions for the passengers leads to less complaints and thus lower costs (of rectifying the complaints), or a more attractive reception area results in more visitors and thus a higher rental value per square metre. In other cases, the project focuses on the advantages for the passenger, with the expectation that the added value for the client will become clear as the project evolves. In those cases where the relationship between the project and the strategic agenda was unclear, this led to results that the client considered less profitable or urgent and which were not developed further for this reason.

The evaluation of the results and effects of the project – and therefore also the success – depends on the aims and expectations of all the involved parties. These aims and expectations evolved during the course of almost all of our projects.

This can be seen as a characteristic of service design: the open approach at the start of the project initially forces the parties to formulate a broad goal. During the course of the project, this broad goal is reformulated into a more concrete goal on the basis of a growing understanding of the context, the user and the possible solutions to the problem. The open question formulated at the start ('How can the service provided to passengers in stations under renovation be improved?') develops into a formulation of a measure ('The right information in the right place in order to keep passengers in one place on the platform.').



A concept direction in project 8 - hospitality in the hospital

## ➤ the outcomes

### OF THE NINE PROJECTS

#### Direct project results – what was gained?

##### *Recommendations for improving the service*

Practically all the projects concluded with a set of recommendations for the improvement of services, with the users' experience of these services as the starting point. Some of these recommendations were developed into concepts, in other cases they resulted in a more schematic overview of the opportunities for improvement, without pointing towards a given conceptual form for the improvements.

##### *Service concepts and service scenarios*

Five of the nine projects presented concepts of possible new services that the client could develop. These concepts took several forms, but had in common that they were closely linked to insights from the explorative research on the behaviour of the users and their experience of the services. They varied in the degree to

which they were elaborated and the level of concreteness.

For example, in the University Medical Center Utrecht project, it was found that the stress levels of the patients observed increased dramatically in the waiting area and that this stress could be reduced by introducing certain facilities. Some people needed more insight into the waiting time, while others benefited more if they perceived less barriers to approaching the staff. Both solutions were rendered in a graphic illustration.

The project on boarding and alighting at the platform resulted in highly elaborate concept directions. Different variants of solutions were suggested that made use of various media to answer a specific question by providing real-time information about the next train to arrive on the platform. Finally, the project on HU square suggested two strategic directions for the development of the desired mix of facilities in a building. The illustrations used here served merely as sketches of these potential strategic



directions. The proposals concerned two potential operational policies for the building.

Usually, the concepts are not intended as a final recommendation, but rather to illustrate or provide suggestions for a recommendation. For example, the recommendation could be to pay more attention to a particular element of customer experience. Agencies often speak of concept directions rather than concepts, because their suggestions concern the way the client could address important customer needs, but do not (yet) define the precise implementation of the solution. At this stage there are still too many variables as yet unresolved for the suggested solutions to be realized. By concentrating on integrated solutions, the development of the solution is not guided by specific technical and organizational aspects of potential solutions. In following project stages, these aspects will need to be looked into in greater detail in order to make the concepts concrete.



Some of the concept directions in project 3 - boarding and alighting from the platform. The concept direction displayed in the top photo was developed into the prototype with the LED display which was tested at Den Bosch Station.

### *Describing the users*

Service design is based largely on extensive research into how the users experience a service. The research phase, which was preceded by the development of service concepts in practically all the projects, provided information that determined how the problem was defined. This information, however, is much more widely applicable for the client than just the one project. In all projects, the insights gained from customer research – initially intended to inform the project team – were delivered in a form that could be also used elsewhere. In three of the nine projects, the clients indicated that the insights into their users were the most

valuable element produced by the project. What had been simply a means in the project became a result in itself. This was typically information about which the clients were unsure of the possible applications.

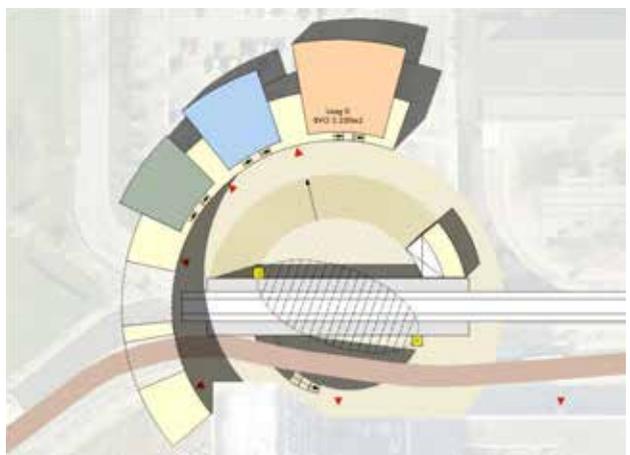
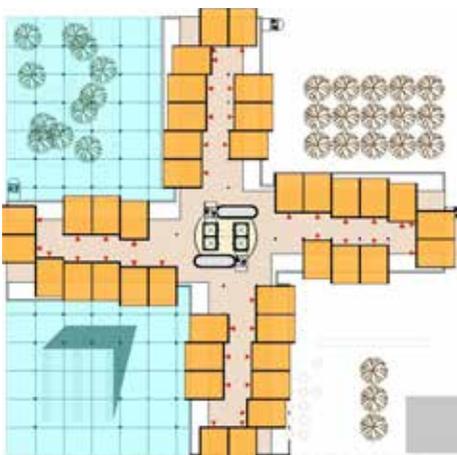
### **Workshops**

The workshop was an important and frequently used working method in all projects. In most projects, the workshops formed key moments in the project's progress and the decision-making process. As described earlier in this book, the workshops with users, clients and other current or potential stakeholders served different goals, such as involving new people in the project, sharing insights, obtaining specialist help and involving decision-makers in the evolving concepts. In a few of the projects, the role of the workshops was so important that the cooperation between the workshop participants and the innovative working method were seen as the most significant results of the project. In the Customer Plan project, the goal was more effective

cooperation between NS and ProRail with regard to organizing the renovation sites so as to limit disruptions for passengers. This result was so important that the working method followed in the workshops was seen as the most valuable outcome of the project.

### ***Instruments for internal use by client, outside the confines of the project***

Several instruments were developed that had roles in the projects, particularly in the workshops. Examples are the personas, the customer segmentation models, the visualizations of the customers travel patterns (customer journeys), card sets with insights, homework kits and decision aids. These instruments were initially developed to be used in the project, but were often also included in the final result. Many of these instruments are also applicable in other innovation projects.



The concept directions in project 9 - HU square, a new village square for HU University of Applied Sciences Utrecht. On the left an organizational solution using existing components, on the right, the design of a new building development.

**The result:**  
*innovation-driven change based on customer experiences*

Although these projects were important for the conception of new ideas, they were even more important as a way of managing the changes in service provision.

*More complete picture of the involved parties*

An important effect of four of the projects was that the client and the project team had a more complete picture of which individuals and groups could play a role in the further development of the potential solution. As described above, none of the nine projects resulted in the rollout of a new service. In all cases, the projects could be described as phases in the development of new or improved services. In these four projects, it is clear that the 'identification of the stakeholders' was an important factor for the successful elaboration of the service in subsequent phases. In the Customer Plan and HU square projects, the clients even described this as one of the most important outcomes.

*More communication between those involved in a solution*

The manner of working (in the form of workshops involving many people from outside the project team whereby sub-results and working documents were shared) had the effect of fostering the support of a large group of people at an early stage. Not only did they see the necessity of finding solutions to the issues at hand, they also supported the direction the project took to find these solutions. Early on in the process, the team involved experts who assessed the possibilities and impossibilities of the plans on the basis of their own specialist knowledge, so that the subsequent steps in the projects were based on better information. In later stages of the project this commitment paid for itself in the form of improved cooperation with these people in the development of the solution. The outcomes led to important changes to the plans and working methods of the service providers. This was most clearly visible in the ProRail project, where much energy was invested in reaching and involving people who could potentially play



***For service providers,  
the results have led  
to some valuable  
revision of their plans  
and processes.***

a role in the implementation, such as certain NS staff members and colleagues from other ProRail departments. This helped ensure the smooth running of the phase whereby a chosen concept was developed into a prototype - a complex technical step. Managers and decision-makers also proved easier to convince if they were kept up to date and were invited to contribute their ideas from an early stage (for example over continuation of the project, cooperation between the involved parties or the provision of resources). It should be noted that managers are not always used to evaluating sub-results on which no decisions are required as yet. They must be well informed about what is expected of them in those workshops, and how that helps the project. Otherwise they will simply not free up any time for the project. Several projects suffered delays because of this problem, sometimes leading to a dip in enthusiasm for the project.

### **More focus on the perspective of the user of the service**

Taking user experience as a starting point is a new way of working for most service providers. Normally they would start with management objectives and technical or organizational issues.

Most organizations have a 'customer-centric' mission and vision, but this approach is rarely a starting point for innovation. By approaching the services from the users' perspective, the question of how the users could benefit from solution x or y becomes more important. This 'customer-centric thinking' in the project team – and to some extent throughout the organization as a whole – is supported with working documents, such as the persona illustrations, which make it

easier for non-designers to communicate on this perspective with more empathy for the user.

### **Learning to innovate with 'user-centred' methods**

Several clients indicate that an important impact of the project is that the team and a part of the organization has learned to use these new resources. Almost all clients highly valued being able to learn this new approach and the associated methods, resources and processes. They also appreciated the supervision provided to this end. As a result, their organizations gradually developed a greater awareness of the importance of customer experience and the opportunities for the organization to improve this experience. For example, University Medical Center Utrecht has started a programme in which users participate in innovation processes.

# THE EFFECT OF VISUALS AND ANECDOTES

All projects adopted a strong focus on the way in which information was presented. Patterns, insights and ideas were presented using highly visual methods and plenty of supporting visual material, such as the ProRail project, where the passenger waiting experience was illustrated by video fragments. Three minutes is a very long time when waiting in a crowd and viewers of the videos were able empathize directly with the travellers' experience. This presentation method, involving both results and working materials, played an important role in the communication and cooperation with people from outside the project. People who saw the material identified with the information presented more quickly. The visual presentation method (scenarios, audiovisual impressions) engaged people at an emotional (experience) level. This is a different level of persuasiveness than a spreadsheet or business plan, which often fail to describe the way users experience a solution. The same is true for the role

of anecdotes in the projects. In several of the projects, anecdotes told as part of the research phase came to play an important role. During successive discussions, the same research detail was referred to again and again, and this detail became a symbol for an aspect of the problem or the solution. For example, in the HU square project, there was a recurring remark about a trainee teacher, who talked about wanting to apply his knowledge directly. There was an opportunity to do so in a nearby primary school or a centre for remedial teaching. This anecdote served as an example of how functions could be mixed. At those moments when decisions had to be made or the management had to be convinced, we found that these anecdotes became an important part of the discussion, the reason being that the decision-makers were familiar with the story from previous workshops. As such, those anecdotes were pivotal in the decision-making process.



**Client:** HU University of Applied Sciences Utrecht  
– Optimization of Operational Management

**Designers:** HU Knowledge Centre for Technology  
& Innovation, H<sub>2</sub>O, Movares





## HU SQUARE

### Research on a design for the new 'central reception zone' at HU University of Applied Sciences Utrecht

*HU University of Applied Sciences Utrecht is one of the largest universities of applied sciences in the Netherlands, and the second largest educational institution in Utrecht after Utrecht University. The 37 thousand students in more than ninety different study programmes are currently spread around various locations in the city. These numbers will continue to grow in the coming years, which means there is an acute demand for more space for education and research. Moreover, the University of Applied Sciences also has the ambition to concentrate its activities and programmes at Utrecht Science Park, located in the de Uithof neighbourhood, in the near future. This would enable the University*

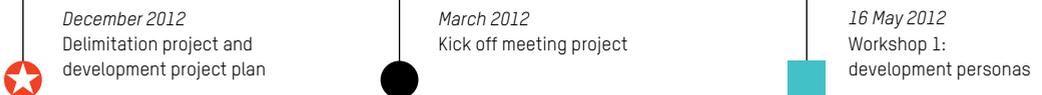
*of Applied Sciences to profit from common facilities and organizational cooperation with Utrecht University.*

*HU University of Applied Sciences Utrecht has some 40,000m<sup>2</sup> of new building development planned at Utrecht Science Park, of which some 10,000m<sup>2</sup> are reserved for 'HU square'. This projected relocation resulted in the following dilemma: what characteristics does the new HU square need to have so that its users can use the space with optimum flexibility and effectiveness, where partners in knowledge and other industries can also have their own place and where visitors are made to feel welcome and, moreover, inspired by the environment? Two important considerations in this dilemma are the accessibility of HU University of Applied Sciences Utrecht to its users and the sustainability of the project as a whole.*

*HU University of Applied Sciences Utrecht indicated that the solution would need to include the following two elements: the demand for more capacity and a solid and feasible financial foundation, with as primary delimiting factor the university population's requirements of the location. The Board commissioned service design experts to develop a concept.*



## WHAT HAPPENED?



# Assignment and aim

The aim of this project was to develop solutions. In addition, HU University of Applied Sciences Utrecht required far-reaching insight into the explicit and latent needs of the users of Utrecht Science Park, leading to possible improvements in the working environment.

The project team's commission covered the following remit: develop two innovative and feasible concepts for the design of HU square, within the framework of the above-described limitations and using service design methodologies, most notably active involvement of the users and other stakeholders (e.g. the Board, private parties). Integrate the principles and key policy aims of the University of Applied Sciences as described above. Develop far-reaching insights into the explicit and latent needs of the users of Utrecht Science Park, leading to possible improvements in the working environment. Visualize the concepts and justify the choice of concepts (including the financial foundation). Prepare an inspiring presentation for the Supervisory Board which will convince them of the value of the developed concepts. One project precondition was a hard deadline: the project must be completed by 1 July 2012 in order to ensure that the results could be taken into account in the planning of the total accommodation programme. This meant that the project team had a total of three months to complete the project. This relatively short project period would require a tight schedule and, if necessary, concessions with regard to the detailing of certain steps in the project. Delay was not an option.



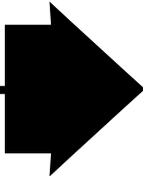
**X**  
23 May 2012  
Workshop 2: analysing research results towards inspiring insights

**★**  
6 June 2012  
Development related concepts

**★**  
July 2012  
Presentation concepts HU Supervisory Board

**■**  
29 May 2012  
Workshop 3: development of concept directions and functional elements HU-square

**☼**  
June 2012  
Development two thematic conceptual directions and elaboration corresponding concept proposals



# Structure and approach

In order to be able to meet the deadline, the team decided to draw up a detailed roadmap, in which the three design partners (Remko/Christa, H<sub>2</sub>O and Movares) each had a clearly defined role. The roadmap consisted of a mix of research methods. A key part of the roadmap was a series of four full day workshops, in which stakeholders and experts would work together using the research data and sub-results produced by the project. The results of each workshop would be processed so that they could be included in the next workshop. The dates of these workshops were set early in the process, ensuring that the project would stick to the tight schedule. These effectively became the deadlines for the interim phases of the project, to be met by all parties.

The three design partners were thus able to work relatively independently of each other and the results of their work came together in these workshops.



An impression of how the project plan took form

*What requirements must HU square meet?*

The project was set up in three phases. The first phase consisted of gathering information and finding inspiration with regard to the use of a future HU square and the requirements and habits of its users (staff, students and knowledge partners of HU University of Applied Sciences Utrecht). This was followed by the series of workshops, the second phase. In the third phase, the stakeholders involved agreed on two clearly defined concept proposals. During the first two phases, the design researchers of the knowledge centre and H<sub>2</sub>O had the leadership while Movares had a supporting role; in the final phase these roles were reversed.

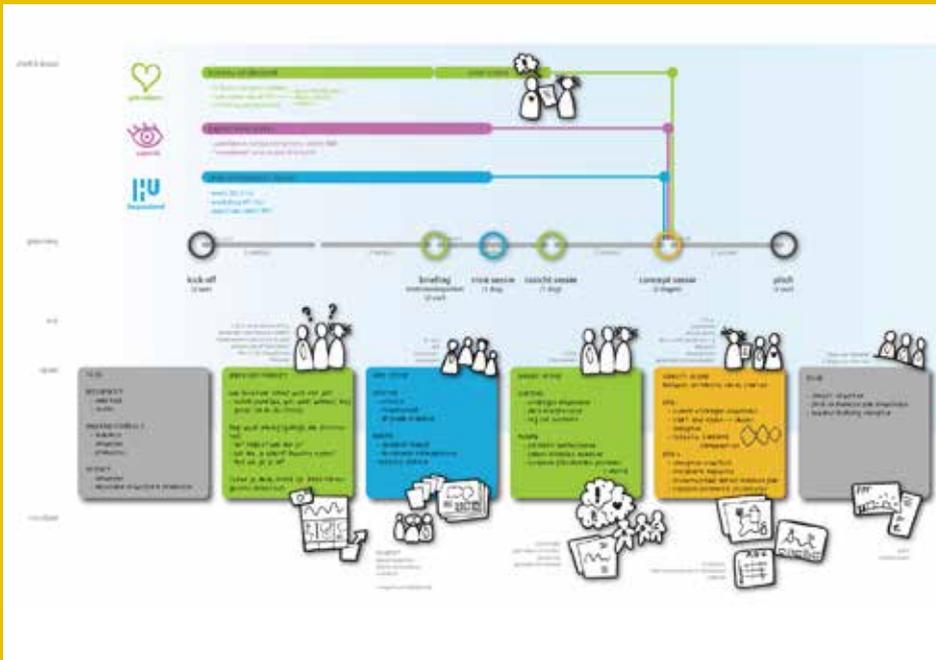


Chart used in the project plan including the plenary workshops and dates

In the first phase – the research phase – contextual interviews were held with the relevant stakeholders. At the same time, a number of experts were consulted who were able, for various reasons, to provide additional insights into the development of HU square. These were the project developers of creative hubs, architects and entrepreneurs.

The second phase consisted of the aforementioned series of workshops. The above-mentioned interviewees were invited to these workshops, as well as Board members and the client’s representative. A number of Movares’ architects, who were to play a role in the further development, were also present. The workshops were held during three consecutive weeks, during which the research data were interpreted and

merged. First, six personas were drawn up (later reduced to four) providing a thought-provoking description of the population of the University of Applied Sciences and their desires and likely habits with regard to the new HU square. In addition to these personas, graphic descriptions were made of the characteristics, attributes and image that HU square was expected to have.

### *Creative process*

An important and useful effect of these workshops is that they attuned the project clients and architects to the research material (the expert interviews and the ideas and anecdotes about the users). This material formed the basis for the creative process in which the designers prepared the first sketches of HU square.



Conceiving insights and personas during the workshops by discussing the research material from phase 1

***How do you choose the most important functions for a building from among a pile of insight cards?***

The cooperation between the stakeholders on the elaboration of these first sketches provided extra added value.

The third phase in this project concerned the interpretation of the personas, the concept sketches and the insights into the users' routines in two interrelated concepts for HU square. This was primarily a phase of merging, combining and selecting ideas, which ideas were critically examined for financial and technical feasibility.

*Fuzzy process step*

Movares took over the leadership in this phase of the project and the design researchers assumed a more supporting role. Movares' architects were asked to translate the results of the workshops into decisions on a built environment. This proved to be a difficult task for the team. How do you choose the most important functions for a building from among a pile of insight cards? How can you use four personas to create a spatial design for a given area? There is no existing method for making this transition, and so it became a fuzzy process step, in which the multitude of research information and ideas were to be formed into a cohesive whole. In practice, the team required quite some time to allow the visual interpretations to mature and to discuss these. It required more time than the one-day meeting that was originally planned. Eventually, Movares distilled two thematic routes for a spatial design from the research material:





## Difficult moment:

Architectural designers have to translate the workshop results into decisions for the built environment

- In the first theme, the focus is a significant building that combines a wide range of functions;
- The second theme is not about buildings, but rather about organization. This theme focuses on the re-use of existing buildings, in which the various activities and functions can be reorganized to meet the new needs.



These two thematic routes were accepted and further developed into several different versions. The designers' research material proved again to be a powerful instrument in the further development of the two thematic routes. Which functions did the built area need to fulfil? Which functions could be combined and which could not? How many people would be using function x? These were just a handful of the questions generated.



Creative workshops



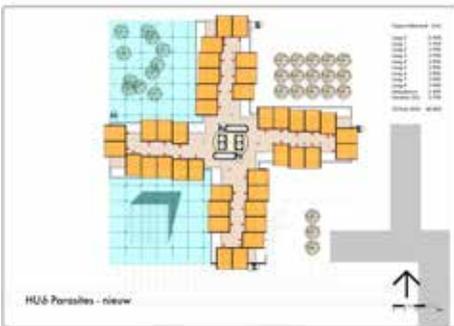
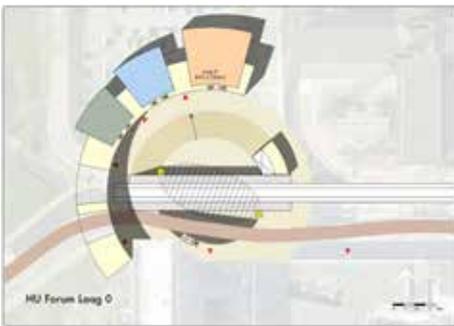
SSOOO-IC1

# Results

This project produced several results.

First, two thematic routes were set out for the design of HU square: the construction of a new central reception building versus reorganization of the existing buildings to achieve the same aim. Both thematic routes included a financial paragraph with an analysis of the costs and benefits and a response to the financial questions raised about spatial planning issues. Both routes took account of the consequences for the use of the space, how the users of the space would move around it, and how this dovetailed with the users' requirements. The organizational consequences for the accommodation plans of the University of Applied Sciences were also described for both routes.

These results now required a decision by the Board and the Accommodation Office. The route involving re-use of the existing buildings had been considered briefly earlier on, but quickly discarded. On the basis of this report, however, re-use was revealed to be a promising alternative, both practically and financially. Brainstorming about the desired mix of functions was thus accorded a much more important role in the development of the HU square plans than the original, 'single-minded' focus on the financial issue of running so many square metres of property.



Slides of the two thematic routes

In addition, the client indicated that, alongside the advice they received from the team, the introduction of the personas also proved to be a useful instrument for taking more account of user needs in the design of HU square. They saw potential in the use of the personas for the further development of the new accommodation. They also thought they could use these personas to communicate the plans to the staff and students.

In fact, HU University of Applied Sciences Utrecht now plans to use the personas – and the description they provide of the university population's requirements – as a means of assessing all future issues in the new development. As such, the personas have advanced from being solely a means to actually becoming a fully fledged result of the project, with an inherent value for the client. The personas could now be developed further to fulfil this new role.

# Method explained

## Personas

The use of personas has been previously described in various method books (e.g. Stickdorn & Schneider, 2010 and Sanders and Stappers, 2012). Personas are life-like descriptions of fictional persons who represent the target group of a design or strategy. They are portraits of people, compiled from detailed research data, enlivened with quotes, with a face and typical real-life details, such that they could be actual persons. Personas are intended to serve as an inspiration in design projects and they help those involved in the project to build a shared conception of the user population. In this case, the personas were developed on the basis of a large database of user interviews. Besides drawing a picture of the user groups at the University of Applied Sciences they were also intended to reflect the variety within these groups. To this end, they deliberately aimed to collect a highly diverse range of descriptions. The focus was not on the average user, but rather the personas were intended to reveal the extremes in the spectrum of needs and habits. This resulted in persons with the nicknames ‘the brief stayer’, ‘the commuter’, ‘the hard worker’, ‘the professional’, ‘the companionable pet’ and ‘the science park tiger’.

This set of widely different personas allowed the team to brainstorm right across the spectrum. The underlying conviction was that the requirements of the majority were all represented somewhere in this combination of six different usage patterns.



‘The brief stayer’, a persona used in the HU square project, and how this persona perceives HU square

# CONCLUSIONS & CLOSING REMARKS

Services play a major role in all of our lives. By the end of this book it has become clear that this role can be deliberately formed.

**This book has devoted much attention to the users of services. These users sometimes have different perspectives on services than one would expect, and different needs and requirements too. Service organizations, however, have their own perspective, which follows from the goals of their organization. This is not a financial goal, but rather a goal to ‘provide good customer service’ or ‘a safe and comfortable platform’. Designers play their role in between these two perspectives. By providing insights into the perceptions of the users, they try to help the organization to realize its goals, so that the users ultimately get better service that more adequately meets their needs and requirements. But this is no easy task.**

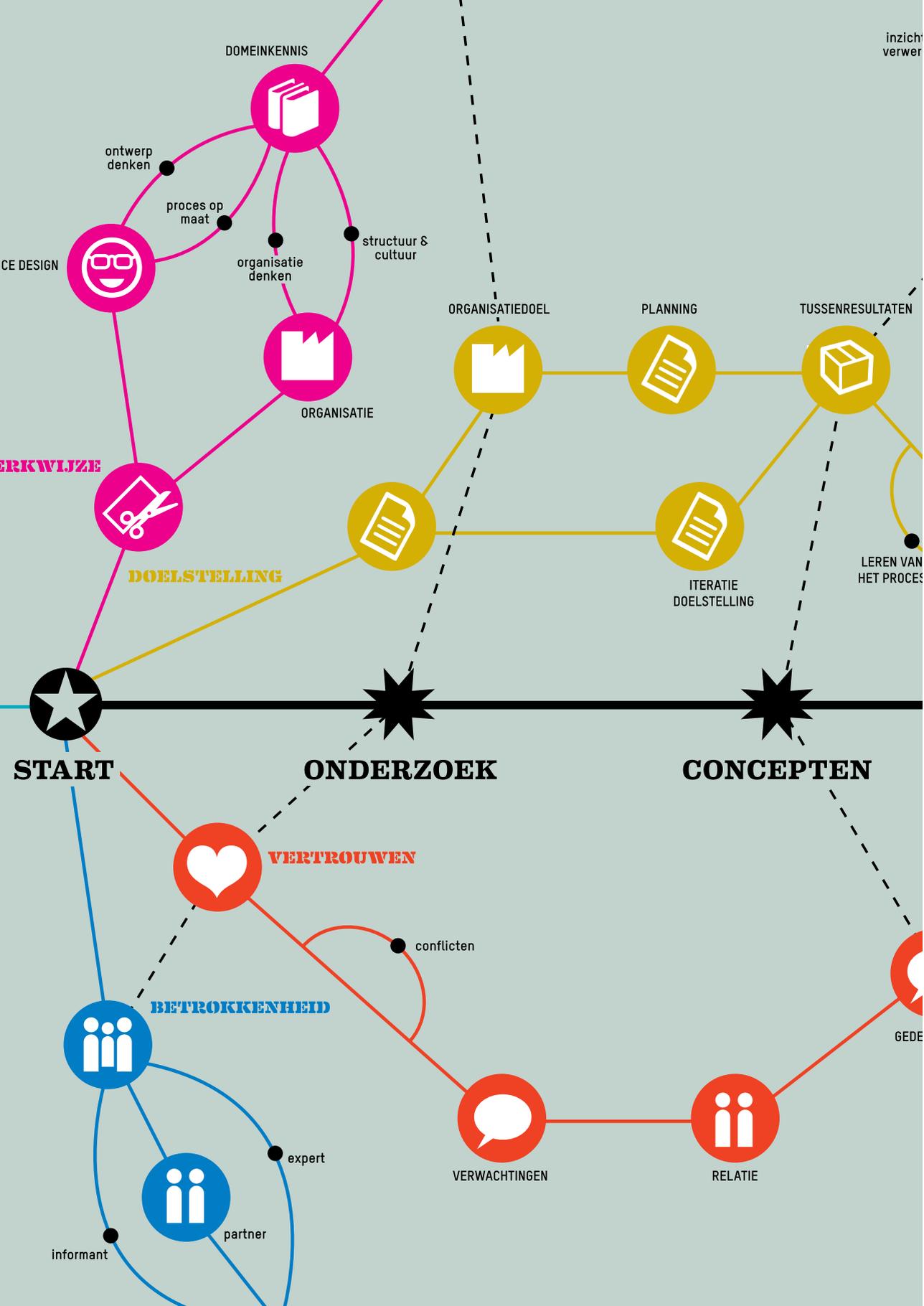
In the early phases of the service design process, the different perspectives sometimes led to confusion about the scope of the assignment. To repeat the example in the first chapter on service design in the Netherlands: is the assignment to write a book, or to pass on knowledge and inspiration? In many of the cases, the user had a very different experience of the service and other priorities than the service provider expected. As a conference organizer once said: ‘You might have organized fantastic speakers for your conference, but the participants’ first recollection will be that the coffee was cold.’

Users focus on their own individual experience, while organizations try to manage and control the sub-processes that make up this experience. Designers expose these differences in perception, and that can sometimes feel uncomfortable, but it is

also very valuable. The solutions that look promising from the users’ perspective may well be contrary to the organizational structure and processes of an organization. Service designers are thus not only engaged in the design of services for users, they are also faced with sometimes far-reaching organizational issues, with all the consequences thereof. This can affect the introduction of the new service and the time that is required to be able to move forward in the development process.

The added value of the nine case studies in this book is therefore not only limited to the resultant concepts, but also encompasses the degree to which the designers and their contacts succeeded in getting across the different perspectives convincingly to the service providers and embedding these perspectives in the organization. Conceiving ideas is one thing, but creating a support base for these ideas within an organization and developing them into a new working practice is often a more complex process altogether. And the proof of the pudding is in the eating. This is where service design can be effective.

We combined the various aspects of the content and the processes of service design on a map; an atlas showing several possible routes. Designers and service providers who collaborate on the design of new services will probably not visit all the stations on each route, but it can help them to know that these aspects play a role.

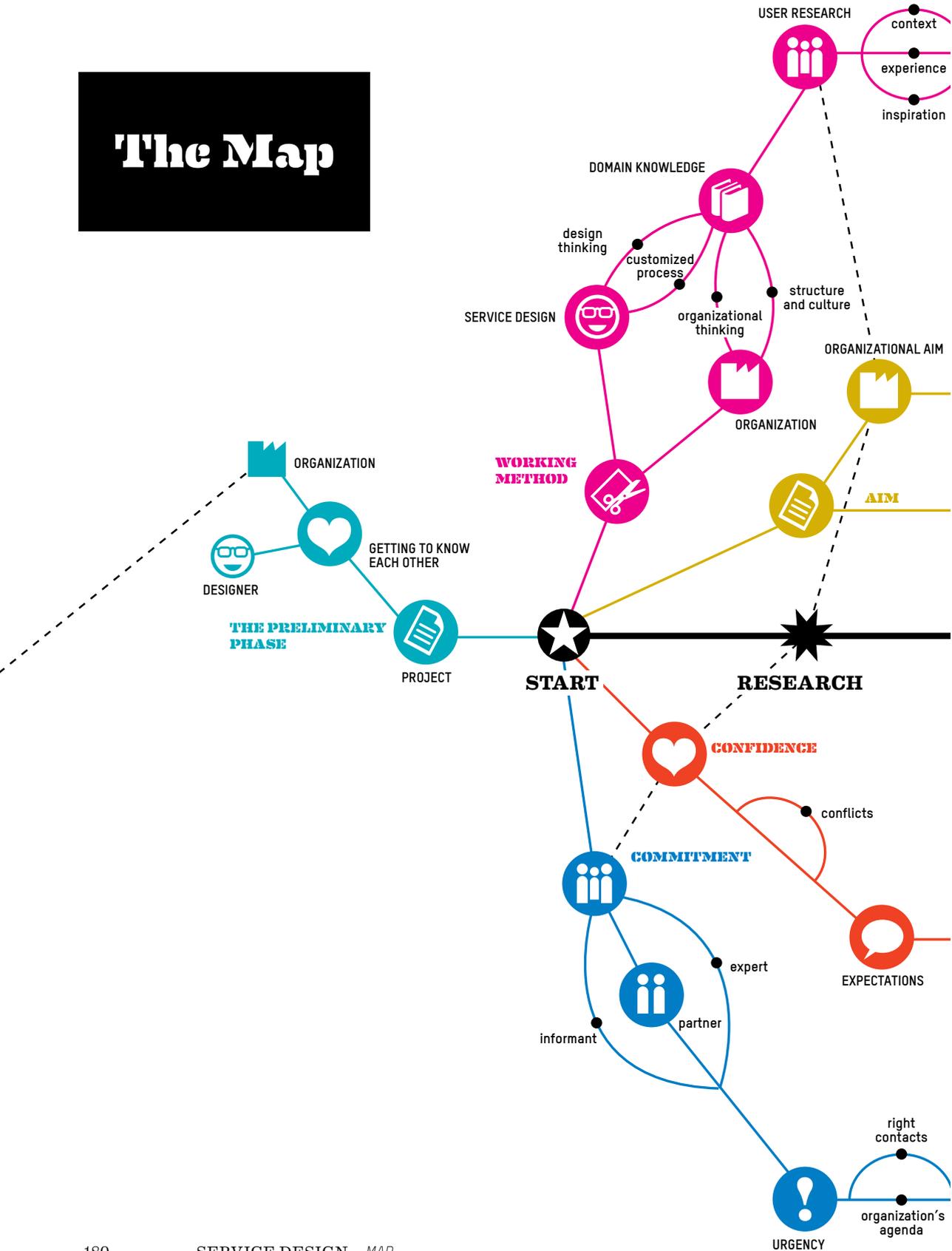


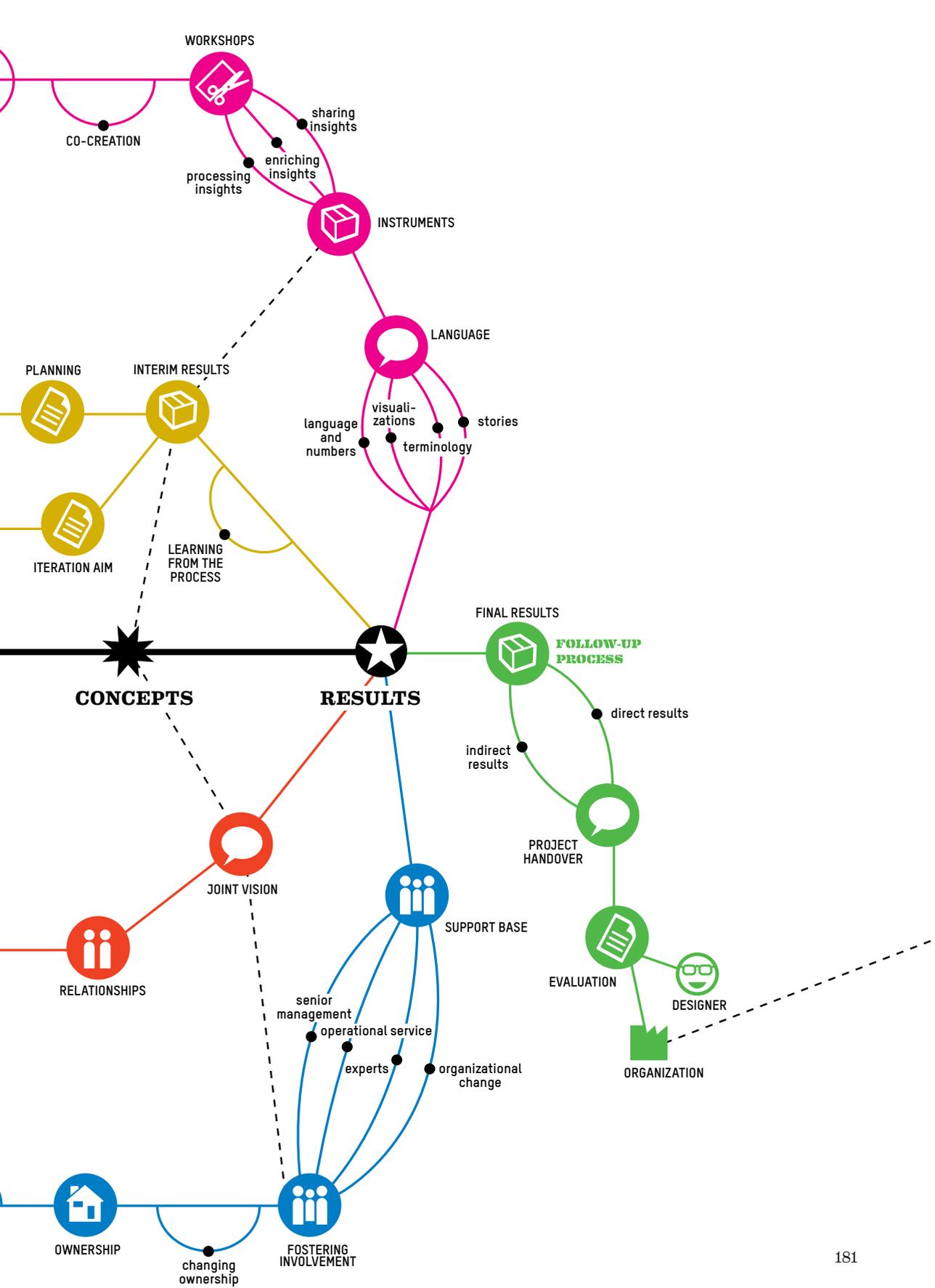
# SERVICE DESIGN IN PRACTICE

Clients and design agencies work together as partners in order to design successful services. During the projects described in this book, we encountered aspects that can both obstruct or support the success of service design projects. The map provides a visual overview of these aspects, which are explained in the separate insight chapters.

The project timeline is key – start-research-concepts-result – but there are many other lines to discover on this subway map that can help explain service design projects. This map is intended for designers and clients so that they can preview such a timeline and refer back to it during the rest of the project. Note that the daily practice of the project will not be as organized and clear-cut as the map, but it will be exciting and full of opportunity! Find out for yourself!

# The Map





## PRELIMINARY PHASE

The preliminary phase is where the service provider and the design agency search each other out. A lot has already happened before the official go-ahead is given and this has an influence on the project and its completion.

►► Get to know each other, make sure that everyone is on the same wavelength and then define the question together. *page 43*

## WORKING METHOD

There are many different ways of working, and an organization is used to a different way of working than a design agency.

►► Explain your own working methods to each other and determine together what is different about your methods and why that is relevant.

►► Be flexible, work together and experiment.

Decide on the project process and methods.

### Service Design

Design thinking is, among other things, 'searching for the question within the question', explorative, iterative, visual and pictorial. Designers think and search for opportunities based on the users' perspective. They view the world with an open mind, aiming to solve the problem in the right context. The process and the method are flexible and are determined per assignment and per organization. *pages 43 and 118*

### Organization

Organizational thinking is analytical, focused on control and measurable, for example with the help of KPIs. An organization is typically made up of various departments and there are often several projects running side by side. Usually, an organization will start with management goals and technical or organizational issues, and then work towards a clearly defined method with a clear goal. *pages 44 and 119*

### Domain knowledge

Designers want to view the world with an open mind, as

an unbiased outsider. This enables them to see beyond the organizational limitations and question the assumptions. At the same time, there is a great deal of knowledge present within the organization, knowledge gained from experts and during previous projects.

►► Share existing knowledge, research and user profiles and link the insights gained from the user research to the organization's other current research. *page 119*

### User research

Organizations often have quantitative data available about their users. Qualitative user research provides the context for this quantitative data and also adds the user experience factor, including individual and exceptional experiences, to provide inspiration for the innovation process. The choice of research method depends on the project and the research question. *page 80*

### Co-creation

The designer, service provider (from the operational staff up to senior management), end user and other stakeholders can also collaborate on the innovation of a service. They are asked to participate by gathering information about their own experiences, to which end designers create special tools. *page 80*

### Workshops

The designer's user research yields rich data: insights with contextual information recorded in notes, photos and videos. During the workshops, the rich data produced by the user research is shared, evaluated, further enriched and processed together with the stakeholders, so that they can contribute their own knowledge and experience to the process. This stimulates the communication with and commitment of all the parties involved. The parties understand each other better and the goal of the project continues to be defined more clearly. *pages 85 and 158*

### Instruments

There are various techniques for sharing insights: for example, customer journey maps, personas, scenarios, sets of cards or visualizations. This allows the user

insights to be kept at hand throughout the project and subsequently.

►► Ensure that new insights are shared. *pages 83 and 158*

### Language

An organization often has a preference for, or is used to, using language and numbers. Designers, on the other hand, are accustomed to creating all manner of visual presentations. Visualizations can make a recommendation tangible, concrete and clearer. They can facilitate a discussion, make insights come alive, build bridges between various disciplines and draw a picture of the possibilities. People can use the same terminology, while they mean something very different by it. Who is 'the customer'? What is a 'concept'? Anecdotes that are told during the research can play an important role within a project. An anecdote that catches on can become a symbol of an aspect of the problem or the solution.

*page 120*

## AIM

The aims are discussed at the beginning of a service design project. There are often several aims. The process usually ensures a broad focus which will also evolve during the course of the project.

►► Find out what the organization's true requirements are, what the value for the user is and what the opportunities for the organization are.

### Iteration aim

The project team went looking for the underlying problems, opportunities and possible solutions, so that the aim could be iterated and reformulated (in consultation between the designer and the client).

►► Discuss the aims during the course of the project and adjust them if the insights from first project phases dictate that this is necessary. *page 155*

### Organizational aim

Organizations often focus on the operation of their services ('How do I keep it running?') and designers are often focused on exploring the possibilities

('What would the best design be in this situation?').

►► Find a solution that is feasible for the service provider without detriment to the user experience. *page 119*

### Planning

Good planning makes things clear for all concerned.

A schedule can be flexible and guided by results; if appointments need to be made then they can always be squeezed into the schedule. If a lot of people or specific individuals are required to attend, then it is advisable to schedule the meeting in good time. *page 120*

### Interim results

Interim progress reports are important to be able to share interim results, exchange feedback on the project so far and discuss the overall progress of the project.

*pages 121 and 159*

### Learning from the process

Learning to use the new service design approach, and the supervision required, including the necessary methods, resources and processes, can become a project goal in itself. *page 161*

## CONFIDENCE

The design process calls for confidence: confidence in this way of working and in the parties concerned and the persons who participate.

►► Explicitly formulating expectations at the start of the project and in later stages helps to keep the stakeholders happy and helps ensure a satisfactory project result.

### Expectations

►► Help each other to express expectations and experiences, for example during workshops. *pages 45, 119 and 156*

### Relationships

If the designer and the organization have a good relationship then the cooperation will be more flexible.

*page 119*

### Joint vision

It is important to understand each other. A joint vision is built through intensive cooperation and by working on the direction and the substance of the project together. Check regularly that you all still share the same vision and understand each other. *pages 43 and 120*

## COMMITMENT

The design process requires a relatively high level of commitment from all parties, so as to ensure that they continue to understand each other and maintain the support base.

►► Work together as much as possible as partners and as co-creators, both in the project and in the organization, to ensure a good result.

### Urgency

A certain degree of urgency can help to stimulate commitment.

►► Focus on finding the reasons for urgency, in line with the organization's agenda.

►► Find the right contacts within the organization: people who are committed to the project and have an influence within the organization.

*page 43*

### Ownership

The owner of project provides support and convinces where necessary. The ownership can change, because the focus of the project changes, or due to other conditions, for example a project contact who leaves the organization. Changing ownership can result in less commitment, but it can sometimes also lead to more people from different departments becoming involved in the project.

►► It is important to be clear and transparent with regard to the ownership of project. *page 120*

### Fostering involvement

The open approach to these types of projects can have consequences for people and departments who were not directly involved in the project at the start. You need

their support to make the project a success, to open doors, obtain access to resources, obtain the support of stakeholders, implement the service, and carry through the organizational changes necessary for the implementation of the service.

►► Identify who plays a role in the project and consider how they can best be involved at an early stage. Consider the senior management, operational experts and organizational experts. Look for people both inside and outside the organization.

►► Get people intensively involved in the research, workshops and presentations at an early stage. Explain the project to colleagues and superiors in the organization. Give the presentations as a team (designers and the organization's contact person together). *pages 43, 119 and 159*

### Support base

If time and attention are continuously devoted to involving the right people, the network of people who understand the project will grow, and normally the support base for the project will steadily grow as well. This will ensure that the final result is much better tailored to the organization. *pages 45 and 159*

## FOLLOW-UP PROCESS

A service is developed in phases. Often, a project will only involve one phase of this development. This means that the final goal often lies beyond the realm of the project; in some cases only the problem definition is explored.

►► Be aware that, due to the open approach, it will not be completely clear to start with how the results contribute to the strategic goals of the clients.

### Final results

The projects offer valuable opportunities to implement the organization's strategy more effectively. Some projects produced immediate results connected to the insights from the user research. These included concepts for services and instruments for further service development, such as personas and decision aids.

Concepts can be tangible or virtual and lead to behavioural change among users or staff, or even an organizational change. There are also indirect effects, which are good for the further development of the service, such as the creation of a support base, well-founded decision-making and widespread attention for the user's perspective. The manner of working and learning from the method can also be a result in itself. *page 157*

### Project handover

Often the project will be handed over to another party or to colleagues for further development. It is then important that the results are transferable. The results of the project will be different to what some people will expect: they answer many hidden questions that were not initially asked and they sometimes leave questions open, questions that experts want answered right away.

►► Involve the partners responsible for the follow-up early on in the project. Collaborate on translating the results into a workable form for the next step.

►► In addition to presenting the concepts, also include plans for the implementation or follow-up steps. How is change actually going to take place? *page 159*

### Evaluation

The results of these design projects were often difficult to measure. The projects were often not yet ready to be implemented and they had an integral character. Often, the result was important for the decision on continuation of the project, or for its influence on other developments in the organization.

►► Test whether solutions work the way you want them to and if they meet the expectations of both parties; how do the users benefit?

►► Determine the consequences for the current projects and the follow-up projects and whether the stakeholders are motivated to continue. *page 153*

## STARTING POINT

A good starting document helps to make a project and the relationships between the involved parties explicit. Agree on a starting position together and give the project the go-ahead. Continue to consider these points throughout the project. *page 43*

### Discuss:

*Method* The essence of service design and the working method and manner of communicating.

*Aim* The assignment and the objectives, interests, urgency and relevance.

*Parties involved* Key contact persons, relationship with other ongoing projects, method of cooperation, mutual expectations, relationship and trust, time/tasks/commitment of those involved.

*Planning* Duration of the project, the process and contact and evaluation moments.

*Results* Desired interim and final results, and possible manifestations of these. When can the project be described as successful?

## INTERIM PROGRESS

Interim progress reports are important to be able to share interim results, exchange feedback on the project so far and discuss the overall progress of the project. Do not lose the focus on aspects of the starting point during the rest of the project. Both the designer and the client ask the stakeholders for their input, stimulate the discussion and decide what is expected of the interim results.

Continue only if all parties satisfied, make iterations and agree on a joint vision. See 'Starting point' for relevant points for concern. *pages 121 and 159*

## FINISHING POINT

Discussing the progress throughout the project, including at the start and finish, contributes to more efficient and effective cooperation, and these benefits continue to apply in the longer term. Discuss the points of concern; see 'Starting point'. *page 153*

# BASIC FACTS

# Explanation of the keywords

Every discipline has its own dialect: terms that you and your colleagues are so used to using that you no longer realize that they are in fact jargon. While writing this book we became aware that we had fallen into that same trap. Or, to be more honest, the editors and others who proofread the book pointed this out to us. Where possible, these terms were replaced or explained in the book. Here we provide a – non-exhaustive – overview of the most common terms in this discipline.



- **artefact** – physical object that was made by someone. Examples are posters, photos, cards, books, reports, leaflets, mock-ups, etc.
- **business case** – description of the investments, costs and benefits of a current or future project, product, or service.
- **co-creation (session)** – a session or other joint activity in which new knowledge or ideas are created. Usually refers to a joint exercise involving people who play different roles in the project, such as the client, users, designers, staff members and external experts.
- **(design) concept** – depiction of a future product or service, in which the technical and organizational aspects of the implementation are described in some detail.
- **conceptual direction** – the manner in which important customer requirements can be addressed and presented in the form of a new product or service. The emphasis

lies on the functionality of the solution; the precise implementation is not described.

- **context mapping** – research approach for design analysis in which the contextual facets of a situation or action related to the design problem are described. The approach focuses on involving users in research by using generative techniques, and on inspiring the design team by enriching the way data is communicated.
- **customer insights** – insights into the behaviour and motivations of customers (users) in relation to the design problem.
- **customer journey** – a visual or written description of a customer's (user's) 'journey' through the service provider's service. Usually describes the user's actual actions alongside their emotional experience of aspects of the service at that particular time.

- **design thinking** – a designerly attitude; thinking like a designer. Sometimes used as a synonym for creative thinking.
  - **facilitator** – supervisor of sessions such as idea generation sessions, co-creation sessions, insight workshops or expert meetings, during which a group of people work together as a team on the project.
  - **generative session** – a session (workshop) aimed at producing new insights, ideas or concepts (*see also 'co-creation'*).
  - **qualitative research** – research focused on gaining a deeper understanding of the situational behaviour of people and their underlying motivations. Often has an explorative nature, based on a relatively small group of subjects who are intensively observed and involved. Often, the emphasis is on discovering and exposing all facets of a situation (context), with the aim of gaining a better understanding of the situational background (*see also 'context mapping', 'customer insights' and 'customer journey'*).
  - **quantitative research** – numerical research aimed at testing specific theories about human behaviour and motivations. Often starts with a specific hypothesis and a strictly defined problem description. Often, the emphasis lies on proving or disproving a theory in general, abstract terms. Variations in the context of the subjects are balanced by using a sufficiently large sample population.
  - **persona** – description of a fictional character which represents the characteristics of a certain target group. Often, a persona is made up of elements derived from qualitative research on the target group (*see also 'context mapping' and 'customer insights'*).
  - **probing** – a method used to elicit a personal response from the test subjects on a particular problem area on the basis of ambiguous questioning.
- A probe often involves specially designed instruments that are sent to the subjects, so that they can report on how they experience a particular aspect of the research over a certain period of time. The response is often discussed and elaborated together with the subjects during a subsequent session. The result can be used by the designers to help them empathize with the subjects' experiences and so provide them with inspiration (*see also 'qualitative research'*).
- **prototype** – artefact that depicts a design direction or concept, with the aim of enabling the designers to experience and evaluate this with users, staff members and other stakeholders.
  - **scenario** – a story (often in pictures) that describes how people experience an existing situation (or will experience a new situation), often in relation to a specific issue, product or service, and with special attention for the various roles and inter-

actions of the human actors and technical systems.

- **service blueprint** – detailed schematic overview of all technical, logistical and human aspects and their relationships to the implementation of a service. Often, a distinction is made between the ‘front facing’ aspects, aspects that the users physically come into contact with, and the ‘back facing’ aspects, which work behind the scenes to enable the operation of the service.

- **service prototyping** – a simulation of a service, whereby the experience is created for the users in a temporary mock-up, with the aim of evaluating the feasibility of the service together with the users, staff members, technicians and other involved parties (*see also ‘prototype’*).

- **touchpoints** – the moments that users actually come into contact with a service or a service provider during a particular activity or situation. Touchpoints are

moments in the users’ ‘customer journeys’ that the service providers have a certain degree of influence over (*see also ‘customer journey’ and ‘scenario’*).

- **user-centred design** – a design philosophy that uses the individual experiences, needs, and daily habits of people as a starting point for developing new products and services.

- **workshop** – a session during which various stakeholders involved in a problem or project work together on a particular sub-question or phase, usually under the guidance of a facilitator (*see also ‘facilitator’, ‘generative session’ and ‘co-creation’*).

A more extensive description of the terms and concepts used in service design can also be found in: *Convivial Toolbox*, LIZ SANDERS AND PIETER JAN STAPPERS, and *This Is Service Design Thinking: Basics – Tools – Cases*, MARC STICKDORN, JAKOB SCHNEIDER (eds). See also the reading list.



# Participating organizations



## SERVICE DESIGN BUREAUS

### **DesignThinkers (Amsterdam):**

A strategic design agency that focuses on service design and customer journey lab projects, whereby customer experience is key. Alongside innovative services, this approach also results in media concepts.

[www.designthinkers.nl](http://www.designthinkers.nl)

–

### **Edenspiekermann (Amsterdam, Berlin, Stuttgart, San Francisco):**

A strategic design and communication agency that helps brands and organizations to become more accessible to their clients and sharpening their competitive edge. This is achieved by strengthening and increasing the value of the organization's relationship with its clients. Service development plays a key role here.

[www.edenspiekermann.com/nl](http://www.edenspiekermann.com/nl)

–

### **STBY (abbreviation for 'Standby'; Amsterdam, London):**

A research agency specializing in creative research in the early stages of innovation processes. STBY helps organizations to innovate their

services by introducing them to the lives and experiences of their customers and showing them how the resultant insights and ideas can be used in innovation processes.

[www.stby.eu](http://www.stby.eu)

–

### **31Volts (Utrecht):**

A service design agency that applies the principles of design thinking and design methods to facilitate an integral and creative perspective of the service provision from the customer's point of view, in every stage of the service innovation process. The customer is always key in terms of their needs, emotions and actions, interaction and contact moments.

[www.31v.nl](http://www.31v.nl)

–

### **Scope Design Strategy (Amersfoort):**

A product design agency that advises companies about strategic issues concerning the experience of brand identity, products and related services. The result is the embodiment of visual identities in both product designs and contexts.

[www.scopedesignstrategy.nl](http://www.scopedesignstrategy.nl)

### **Bureau H<sub>2</sub>O (Utrecht):**

Bureau H<sub>2</sub>O helps its customers to improve their service, whether it involves designing a strategy or the concrete development and implementation of new services.

[www.bureauh2o.nl](http://www.bureauh2o.nl)

–

### **Movares (Amsterdam, Rotterdam, Utrecht, Zwolle, Arnhem, Eindhoven):**

A consulting and engineering firm that generates solutions for issues of mobility, infrastructure, spatial planning and transport systems.

As all projects were concentrated around Utrecht Central Station, Movares' expertise and network was a welcome contribution to some of the projects.

[www.movares.nl](http://www.movares.nl)

## SERVICE ORGANIZATIONS

### **ProRail:**

Is responsible for the construction, maintenance, management and safety of the Dutch railway network. ProRail, as owner of the railway network, was a logical choice of service provider for the project. ProRail had previously worked

together with HU University of Applied Sciences Utrecht in a 'service design lab', spending three days developing a concept for a new service entitled 'A Pleasant Platform' (Aangenaam Perron).

–

**NS:**

ProRail is responsible for the railway, but the stations belong to NS. The most important and most well known activity of NS is, of course, passenger transport on the Dutch railway network. But NS also operates some 400 railway stations in the Netherlands.

–

**Bureau Spoorbouwmeester:**

An independent advisory body for design and design issues within the railway sector, established at the initiative of the Boards of NS and ProRail. Bureau Spoorbouwmeester creates designs for on and around the railway with recognizable and uniform conditions for the experience of the railway sector as a cohesive system.

–

**Utrecht museums:**

Utrecht museums is an initiative of Stichting Utrechts Museumkwartier, a foundation of eleven museums including Centraal Museum, Het Spoorwegmuseum, Het Utrechts Archief and Het Universiteitsmuseum. The foundation aims to facilitate the joint marketing of the Utrecht museums and promote cooperation between them.

–

**University Medical Center Utrecht**

A large, university teaching hospital with more than 1000 beds. The various buildings of University Medical Center Utrecht are all located at Utrecht Science Park. Some 16 to 30 thousand visitors pass through the hospital every day: patients for the outpatient clinic or other departments, visitors, staff and students.

–

**HU University of Applied Sciences**

**Utrecht:**

Institute of higher education with over 36,000 students and about 3500 staff members. All faculties will be relocated to Utrecht Science Park in 2015.

**KNOWLEDGE INSTITUTES**

**HU University of Applied Sciences**

**Utrecht:**

Trains professionals for the creative industry and conducts research within the creative sector. This project provided the University of Applied Sciences (Co-design lectorate) with the opportunity to work together with business service providers and the creative industry, so that the knowledge of service design can be further developed and disseminated among the new generation of professionals.

–

**Delft University of Technology:**

The Faculty of Industrial Design Engineering of the Delft University of Technology is the largest university design programme in the world.

Their research and education focuses on the development of knowledge and methods for user-oriented designs.

Delft University of Technology is involved as a knowledge institute in promoting service design as a useful tool with added value.

## PROGRAMME MANAGEMENT

### Task Force Innovation

#### Utrecht region (TFI):

TFI was responsible for programme management. This task force stimulates and facilitates innovative businesses in the Utrecht region, for business service providers such as the creative industry, among others. TFI functioned as the project coordinator and monitored the finances, planning and results.

## FUNDING

This programme was made possible due to support of

**Dutch Ministry of Economic Affairs**

**Province of Utrecht, NL**

**City of Utrecht, NL**



..STBY..

scope

Movares

31VOLTS



ProRail



HU HOGESCHOOL UTRECHT



Spoorbeeld

TU Delft



## Illustration credits



### 31Volts

page 47, 68-77, 80, 81, 84, 87, 103, 107-115, 123, 126-133, 135, 163

### Design Thinkers

page 91-93, 96-99

### Peter Quirijnen/Design Thinkers

page 92

### Edenspiekermann

page 24, 34-39, 41, 51-59, 61, 64, 65, 158

### HU

page 40, 41, 44, 45, 82, 83, 84, 119, 155, 159, 166-175

### Mammarazzi Photography

page 63, 101, 137

### Scope design

page 138, 142- 151, 157

### STBY

page 22-29, 54, 58, 60

### Studio Vrijdag

page 18, 30, 33, 48, 66, 88, 94, 104, 124, 140, 164

## Want to read more?

**Do you want to read more about service design and how it can be used in practice? We limit ourselves to a few suggestions here.**

*Design Thinking: Understanding*

*How Designers Think and Work*

NIGEL CROSS

–

*This Is Service Design Thinking:*

*Basics – Tools – Cases*

MARC STICKDORN, JAKOB SCHNEIDER

(eds.)

*Convivial Toolbox*

LIZ SANDERS AND PIETER JAN STAPPERS

–

*Change by Design*

TIM BROWN

–

*Design of Business:*

*Why Design Thinking is the*

*Next Competitive Advantage*

ROGER MARTIN

–

*Design Thinking: Integrating*

*Innovation, Customer Experience,*

*and Brand Value*

THOMAS LOCKWOOD (eds.)

–

*Practices and Principles*

*in Service Design:*

*Stakeholder, Knowledge*

*and Community of Service*

QIN HAN

–

*Service Design by Industrial*

*Designers*

FROUKJE SLEESWIJK VISSER

–

and more books on

[www.servicedesignbooks.org](http://www.servicedesignbooks.org)

# Colophon

## PEOPLE INVOLVED IN THE BOOK

### authors

Tanja Enninga  
Menno Manschot  
Christa van Gessel  
Jens Gijbels  
Remko van der Lugt  
Froukje Sleeswijk Visser  
Fenne Verhoeven  
Berit Godfroj

–  
**editor** Tanja Enninga

**final editing and editorial**

**assistance** Leonoor Meijer

**design** studiovrijdag.nl

**translation** taalcentrum VU

**photography portraits**

mammarazzi-photography.nl

**printed by** Lecturis, Eindhoven

–

## PEOPLE INVOLVED IN THE PROJECTS

### Service providers/clients

ProRail

Niels van Hal

–

NS

Mirjam Meier

Elsbeth Boes

–

*Bureau Spoorbouwmeester*

Geertje Ponjée

Evelien de Munck Mortier

Miguel Loos

–

*Utrecht Museums*

Marco Grob, Centraal Museum

Marieke van Schijndel,  
Museum Catharijneconvent

Saskia van Dockum,  
Het Utrechts Archief

Monique Mourits,  
Universiteits Museum

–

*University Medical Center Utrecht*

Linda Streefkerk

–

*HU University of Applied  
Sciences (HU Square)*

Ron Voortman

### Service designers

*Edenspiekermann*

Joost Holthuis

Thomson Dubé

Jan-Dirk Porsius

Esther Overmars

Arnold Aukema

–

*STBY*

Geke van Dijk

Marie de Vos

–

*31Volts*

Marcel Zwiers

Marc Fonteijn

Cecile Reijnders

Auke Smit

Candide van der Hout

Janneke van der Poel

–

*Design Thinkers*

Arne van Oosterom

Tim Schuurman

–

*Scope Design & Strategy*

Pim Jonkman

Carlijn Brinkman

–

*Bureau H<sub>2</sub>O* Harm Geels

–

*Movares* Bart Slavenburg

### Knowledge Institutes

*Delft University of Technology*

Pieter Jan Stappers

Froukje Sleeswijk Visser

Menno Manschot

–

*HU University of Applied Sciences*

Remko van der Lugt

Fenne Verhoeven

Tanja Enninga

Berit Godfroj

Jens Gijbels

Marieke Zielhuis

Christa van Gessel

Thijs Kremers

Hugo Ward

Roos Tigchelaar

Max Unger

### Programme management

*Task Force Innovatie Utrecht region*

Christel van Grinsven

Karlijn Spoor

Wendy van de Lagemaat



# SERVICE DESIGN

insights from nine  
case studies

Service design is literally the design of services. Service designers improve existing services or design completely new ones. Nothing new so far. Services have been around for centuries, and every service was conceived and designed by someone. However, service design takes a different angle; a different perspective as its starting point: it is a process of creative inquiry aimed at the experiences of the individual user.

'Service design, insights from 9 case studies' is the final publication of the Innovation in Services programme. During this programme, creative design agencies applied the methods of service design in nine different projects. They collaborated on the programme with service providers on projects around Utrecht Central Station, University Medical Center Utrecht and HU University of Applied Sciences Utrecht. These projects were monitored by HU University of Applied Sciences Utrecht and Delft University of Technology with the aim of learning how service design is applied and what the benefits are for service providers.

In this book you can read more about the nine individual projects, the methodologies and the results. In addition, we describe the lessons learned from these nine projects. This book is intended for all those who want to know more about how service design works in practice: interested parties representing all manner of service providers, their advisers in the creative and business services industries, and for all those who would like to learn more about this practice, such as students of marketing, business administration and design.

We hope that this book will give you a better understanding of the concept of service design, but more importantly that it will inspire you to learn even more about this fascinating field and think about what service design could mean for your organization.