

SERVICE SYSTEMS DESIGN  
2ND SEMESTER, SPRING 2016  
AAU CPH

GROUP 4  
PROCESS REPORT

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A USER JOURNEY FOR  
INTEGRATION OF REFUGEES





**AALBORG UNIVERSITY**  
DENMARK

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## ABSTRACT

This report outlines the service concept developed in course of the main project of the 2nd Semester in the Service Systems Design Master at Aalborg University. The concept created is focused around the topic migration, refugees and open data.

The result is the creation of Refujourney, a service that provides guidance and support in the different steps every individual refugee arriving in Denmark has to go through. Refujourney offers a mobile app that helps refugees get an overview of the steps that await them when arriving in Denmark. By providing useful information about rights and opportunities in their individual situations, Refujourney provides the best possible support and makes processes more transparent and understandable for refugees. Refujourney draws on open data for the app content and creates big data as it allows the service provider to generate up-to-date statistics based on user data.

Using a human centered design approach, refugees and asylum seekers currently living in Denmark, have been participating in co-creation sessions as well as end-user prototype testing. The research conducted has been based on desktop research, qualitative interviews and expert interviews. A wide range of Service Design tools and methods have been used to shape the service concept.

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# INTRODUCTION

## Project Context

Migration has happened for centuries and the human curiosity and belief in achieving better living standards by moving towards better conditions, has been occurring for centuries. However, the forced migration and the migration due to humanitarian crises has been very significant for the beginning of the 21st century and the migration pattern has been changing vastly during the last decades (theguardian.com, 2012).

This has forced countries to rethink their political decisions involving refugees and the traditional thinking of borders and integration processes demands the development of new systems. Due to the internet, connectivity of people worldwide increases - we now see a complete new way of interaction between civil societies, countries and official government systems. Organizations such as UNHCR (UN Agency for Refugees) and IOM (International Organisation of Migration) are now in the beginning phases of adjusting their organisational systems to better understand the new complexities of migration. (theguardian.com, 2012)

Another aspect of the 21st century migration is the amount of refugees migrating from specific countries in crisis. Here the use of new technology has become an addition to their journey. Especially the use of smartphones have been one of the main impacts in dealing with the European refugee crisis. (cnbc.com, 2016) Furthermore, several services and functions have proved to be very important in their journey, such as the German website "Refugees Welcome", as well as the messaging services and intranet group systems provided by Facebook. (cnbc.com, 2016)

This vast amount of services used by refugees to either locate or relocate themselves has been an important role in making refugees help themselves and each other. However, questions have to be posed: does it help them in the long term? Do these internet services contribute to create a better society? The use of mobile technology, ultimately in the refugee crisis, state how effective digital services can be for refugees.

## Problem area

The project group will research and investigate into how a service can be beneficial for refugees in Denmark. Throughout the research, a problem area which is synthesized in the following problem statement could be defined by the project group:

***How can a service support and advise refugees arriving in Denmark, focusing on their individual identities and goals?***

As service designers, the project group aims to provide the refugees with a system that will help them understand their situation while also easing the burden on the bureaucratic asylum processes in Denmark. Furthermore, the project group will take into account the national rights and regulations in order to present a plausible service solution.

## Introduction of Group

The project group consist of the following five members, all with different academic backgrounds and representing four nationalities.

These differences enable the group to apply a range of different professional, cultural and personal viewpoints to the design process. “The term interdisciplinary refers to problem-solving activities that involve interactively, and to some extent integrate, at least two different disciplinary perspectives to the problem at hand” (Klein 2010; 17).

The advantages of tackling complex challenges in an interdisciplinary collaboration are many. Not only is there a possibility of a theoretical and methodological interdisciplinary collaboration. Also an instrumental and critical interdisciplinarity is in the scope of this project. These different forms of interdisciplinarity can be described as enablers to mix disciplines and an attempt to challenge the dominating structures, habits or norms in the disciplines (Klein 2010). Hereby the project group aims to reach a higher degree of social creativity.



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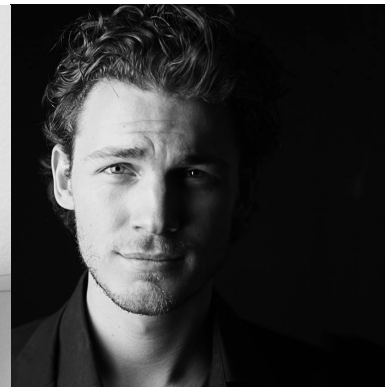
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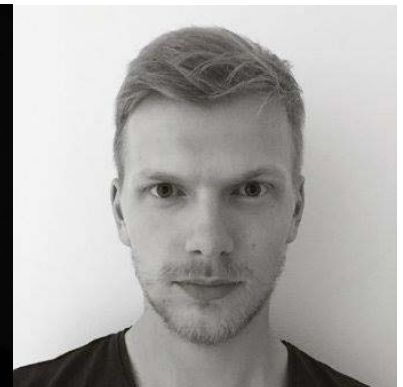
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# METHODOLOGY

## The Design Thinking Approach

To structure the design process in this project, the IDEO design thinking approach has been applied. Methodologies of co-design, social innovation and service design have dramatically broadened the application of “design thinking”, creating a new social design movement (Stickdorn et. al 2011: 89). The focus on the social design is to think about what, why and how design can or does address the ever-changing needs of society.

Design thinking is a deeply human centered process that taps into abilities all human beings have. It is a mindset and a methodology.

It relies on the ability to be intuitive, to recognize patterns, to construct ideas that are emotionally meaningful as well as functional, and to express oneself through means beyond words or symbols (IDEO.com). It will be chaotic to guide a design process on feeling, intuition, and inspiration only, however an over-reliance on the rational and the analytical can be just as risky. Design thinking provides an integrated third way.

The design thinking process is best thought of as a system of overlapping spaces rather than a sequence of orderly steps, however it is structured around five phases.



III. 1: Process Model

The five phase process is a close cousin to many other human-centered design methodologies. Design literature and practice offer multiple other frameworks made up of three to seven or more phases, however fundamentally they all share the same mindset (Stickdorn et al 2011). Basically they are used to structure the design process, make sure that it is iterative and enable a great degree of reflection upon the influence the designer has on the result.

### *The five phases*

The following short introduction to the five phases of Design Thinking is based on Stanford's process guide: An introduction to Design Thinking (2010).

**Empathise** is the essence of human centered design. The goal of this phase is to explore the individual needs associated with the challenge and uncover insights to guide the design process. It happens through ethnographic methods and tools including interviews, observations and in-depth investigations into the realm of the involved stakeholders.

**Define** is the phase, which involves synthesizing findings in order to identify and define an approach to the challenge. Design thinking is more focusing on problem-framing rather than problem-solving. "Synthesis indicates a push toward organization, reduction, and clarity" (Kolko, 2011). This synthesis is an opportunity for the design team to define their own unique approach to a complex challenge by mapping, discussing, categorizing and reflecting on the gathered data.

**Ideate** is the the phase in which the team members start to focus on generating possible solutions for the challenge. The goal is to explore, quantify and diversify the ideas. Generating

a wide variety of ideas is essential to ensure a creative solution is reached. In this phase brainstorming is essential and the team applies tools like personas, scenarios, empathy mapping etc.

**Prototyping & Testing** presents the collection of two phases. It evolves around the making of fast, low-fidelity representations of ideas, usually with the goal of communicating the ideas to users and getting feedback. Quick prototypes mean quick feedback and enable much more human-centered solutions. Some prototypes may not even resemble workable solutions, yet still play an important role in guiding solution development via co-design with the users (see more about co-design below). Since it is not always possible to test the service in its real environment, service designers often construct a kind of scenery or roleplay to simulate the experience (Stickdorn et al 2011: 132). The more testing, the more possible service errors are detected, the better the result. The insights gathered by testing can immediately be implemented to the solution and tested again.

**Refine** is a phase which was added by the project group in order to present changes made to the service concept. This phase includes many iterations and is focused on applying the changes discovered by the testing. It makes use of a number of service design tools in order to clarify the service outcome.

In this process report each phase will be presented after the other in the above presented order. However, it is important to stress, that the process has been iterative and the direction has not been necessarily linear. It has consistently moved back and forth between the phases.

## Co-design

Achieving co-creativity among interdisciplinary teams is a key feature of a good service designer (Stickdorn et al 2011). The members of this project group all share a vision to apply co-design as early in the design process as possible; ideally during all phases of the design process. Sanders & Stappers (2008) refer to co-design as “the creativity of designers and people not trained in design working together in the design development process.” This project aims to include as many stakeholders as possible in the creation of the design solution, the user in particular.

Users can easily become part of the design team as ‘expert of their experiences’ (Sleeswijk Visser et al. 2005), however in order for them to take on a co-designing role, they must be given appropriate tools for expressing themselves. Over the past decade, research groups within multiple academic institutions, practitioners in design research consultancies and design research groups have all explored co-designing tools and techniques and the processes by which they can be applied (Sanders & Stappers 2008). As aspiring service designers the project group share this growing interest in tools and techniques for co-designing which will be applied in this project.

In a traditional design process, the researcher serves as a translator between the users and the designer. In co-designing, the researcher takes on the role of a facilitator. This means leading, guiding, and providing scaffolds, as well as clean slates to encourage the users and other stakeholders at all levels of creativity. In this report the authors will take on all these roles simultaneously; a combined researcher/translator/facilitator/designer.

## Project Management

### *The Log*

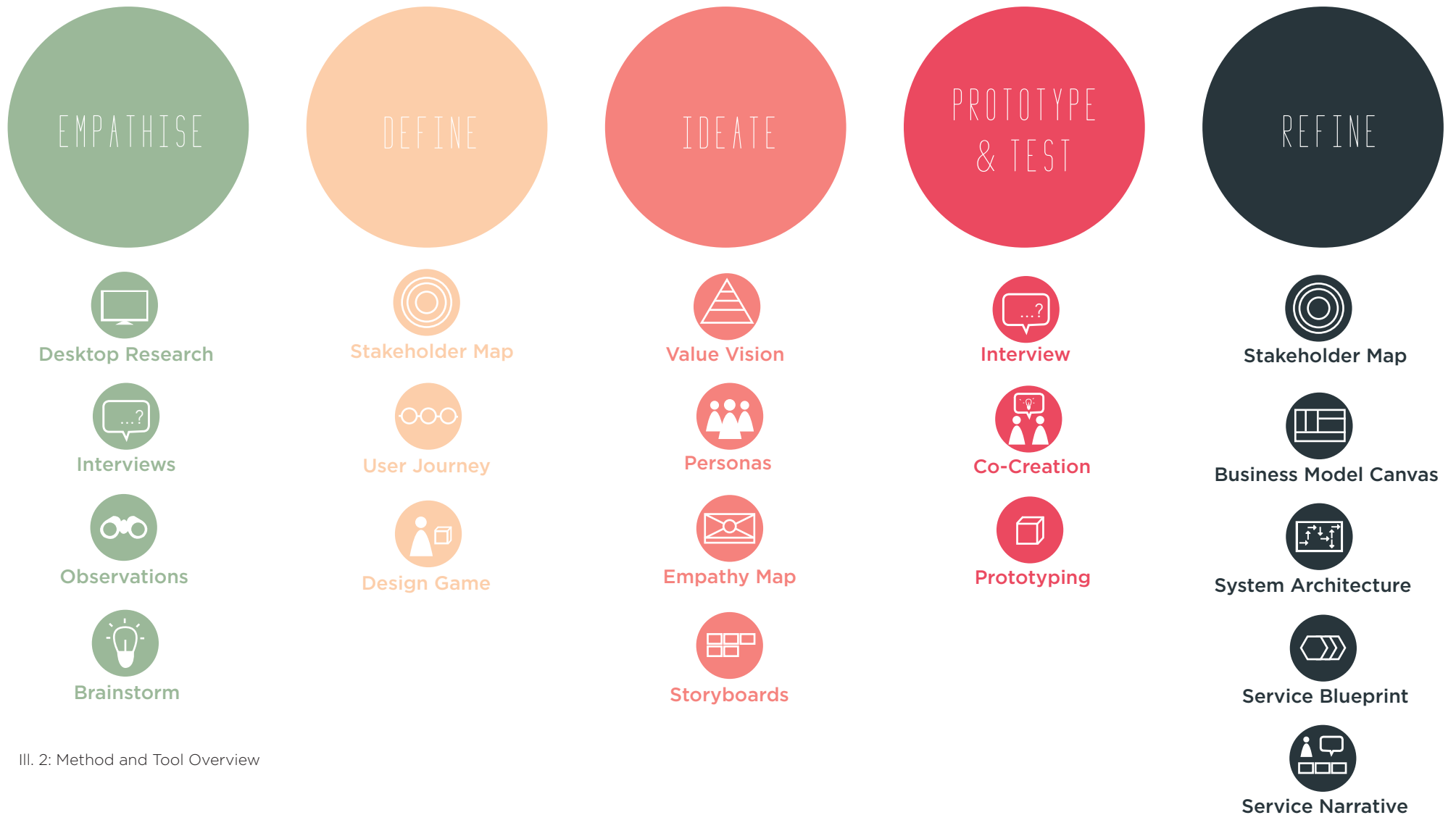
From the very beginning of the project a log document on Google Drive (Google 2012) was used as a digital diary to keep track of the key findings of each workday; which decisions were made, homework and the agenda for the next meeting. Additionally, general reflections and ideas for the reports were noted. This way, a clear chronological overview of the whole design process was documented, which made it easier to continuously look back on the process and include the process details in further development.

### *Scrum & Kanban*

The project group made use of Trello, a digital platform that enables project collaboration building on both Scrum and Kanban project management frameworks. In Trello, projects are represented by boards, which contain lists (corresponding to task lists). Lists contain cards (corresponding to tasks). Cards are supposed to progress from one list to the next (via drag-and-drop), for instance mirroring the flow of a feature from idea to implementation. Users can be assigned to cards and users or boards can be grouped into organizations. The use of Trello made it easy for the project group to define and list tasks, delegate them to the group members and drag-and-drop the tasks through the different categories of the design development. The journey for each task followed six steps: 1. Backlog, 2. Delegated work, 3. In process, 4. Review, 5. Second iteration, 6. Finalized. When reaching the last step the text and graphics could be added to the final document for the final review. Trello proved to provide a great visual overview of the complex process the group was working on plus a great communication tool ensuring each member could follow all changes made.

# METHOD AND TOOL OVERVIEW

The following overview shows which tools will be used in this report and in what phase they are applied. Each tool will be introduced with references to its theoretical origin.



III. 2: Method and Tool Overview

# METHOD AND TOOL OVERVIEW



## Desktop Research

This approach is used to seek information about the project topic on websites, books, articles, etc. (Vianna, M. et. al 2012).



## Interviews

Interviews are used to clarify questions that the designer must have answered to understand the needs of the users (Kvale & Brinkmann 2009).



## Observations

Observation is a useful method to map the user's behavior in certain situations. The researcher can both be participating in an observer role or be completely observant (Blomberg, J., Burrell, M. & Guest, G. 2003).



## Brainstorm

Brainstorming is used to create many ideas early in the design phase, but also to identify challenges and create inspiration in general.



## Stakeholder Map

A stakeholder map is used to get an overview of the stakeholders and actors who are affected by the proposed service (Segelström, 2013).



## User Journey

A user journey provides the visualization of a service user's experience. It often includes the different touchpoint used in order to interact with the service (Schneider and Stickdorn, 2009).



## Design Game

A Design Game provides a framework for Co-Creation, hence a framework in which creativity can spark within the boundaries of the desired field. It often includes the use of props. (Brandt, 2006)



## Value Vision

The Value Vision model illustrates core values, mission and vision of a service concept. This model connects the more abstract characteristics of the service with the more concrete ones (Lerdahl, 2001).



## Personas

The purpose of using personas is to show the different perspectives of the service, and understand how the different actors perceive it (Dijk, Raijmakers and Kelly, L. 2011).



## Empathy Map

Empathy maps attempt to empathise with the users. The strength of the empathy map is that it is quick to create and easy to iterate as it offers assumptions based on real data (Gray, 2009).





### **Storyboards:**

Storyboards are illustrated by a series of pictures or drawings that describe a sequence of action in the service. (Dijk, Raijmakers and Kelly, 2011).



### **Co-Creation**

Co-Creation allows designers to involve a wide variety of users and stakeholders into the design process in order to examine and innovate a service experience (Schneider and Stickdorn, 2009).



### **Prototyping**

A prototype is a simulation of a produced service. The prototype can be anything from role-playing to a detailed service interface which the users can physically test (Dijk, Raijmakers and Kelly, 2011).



### **Business Model Canvas**

The Business Model Canvas involves the strategic side of a design project. It allows to create or refine the business model of a service systems (Osterwalder and Pigneur, 2009).



### **System Architecture**

The Systems Architecture display the main flows of information as well as material within the Service system with a strong focus on the IT infrastructure (Patricio, 2011).



### **Service Blueprint**

A service blueprint specifies each individual aspect of the service by incorporating perspectives from users and other relevant actors as well behind-the-scenes processes. (Dijk, Raijmakers and Kelly, 2011).



### **Service Narrative**

The Service Narrative can be described through a number of tools, such as storyboards, personas, moodboards or the like, through which it displays a collection of events that tell a story. (Tassi, 2009).

## Desktop Research

By conducting desktop research the project group explored the fundamental issues of the refugee crisis and what challenges the Danish government is facing in terms of successfully integrating the refugees. The project group also investigated what services the refugees can access on their journey through Europe and when in Denmark.

### *Overview*

In 2015 more than 18.000 refugees that mainly came from Syria, Eritrea, Afghanistan, Iraq and Somalia were seeking asylum in Denmark (Bendixen, 2015). This is 4000 more compared to 2014. With the increase of refugees on the move Denmark naturally experiences a bigger pressure on the social system. Two out of three Danes see refugees and integration as the biggest challenge for the politicians, bigger than health, elderly and tax (ugebreveta4.dk January 2016) Problems are linked to lack of civic support, culture clashes (threatening local norms and culture), lack of integration of the refugees, long stays in asylum camps with limited rights and entertainment etc. There's as well a growing concern for how to allocate housing, occupation and social benefits for the refugees. All these new challenges invite for many smart service solutions to be developed and help organise it in the best way possible.

New technologies have proved to be an advantage when helping disadvantaged groups and addressing social problems. Policy makers are beginning to explore new technologies like smartphones and tablets and their potential to address social challenges from disaster response to public health (Benton 2016). These developments offer promising opportunities for immigrant integration. Already there is a great amount of smartphone based services for immigrant integration. Ac-

cording to Benton (2016) these services fall into three main categories: reducing barriers to accessing services, improving information for newly arrived residents, and encouraging civic engagement. However, there is minimal evidence of their ability to really change the lives of the immigrants and they seem to not cater for the diversity within the group of immigrants (ibid.). Also, a big barrier from using the applications is the fear of leaving a data trail, especially amongst unauthorised migrants.

Only a small part of the desktop research is presented above as an introduction to the refugee situation in Denmark. However, the project group uncovered many issues throughout the research phase from which the main learnings were that asylum seeking and integration processes are complex and intransparent. Also, the refugees as a group is very diverse in terms of nationality, culture, aspirations etc., however this is not taken into account in the communication targeted them. These main findings set the foundation for the later service development.

## Interviews

### *First Observations and Interviews*

The first observation was made in Trampolinehouse, “an independent community center in Copenhagen that provides refugees and asylum seekers in Denmark with a place of support, community and purpose” (trampolinehouse.dk). In course of this observation, two interviews were conducted. The first of the interviewees was a former intern of the Trampolinehouse and student of Global Refugee Studies at AAU, Bekka, who provided the group with some important insights into the work and structure of Trampolinehouse as well as shared some personal impressions from interactions with re-



fugees. The interview was semi-structured (Kvale et. al, 2008) through the use of an interview guide with open-ended questions. The content of this guide was based on questions that occurred during the first group brainstorm. The most relevant findings from the interview with Bekka are summarized in the following categories:

#### Camps

- in the asylum process, refugees first get to reception camps, where they have to wait for their case to be processed. In the second phase they get to the “normal” camps where they wait for their asylum to be granted
- refugees can take Danish classes during the stay in camps
- one of the biggest issues for the refugees is the stay in the camps. They are being pushed to the edge of society and this “freeze” state causes psychological illness. It’s a chain reaction: no social life, no possibility of finding a job and hence no integration is possible. Integration starts after asylum is granted, and even then the integration is still uncertain, because of government regulations that limit the stay to a couple of years.

#### Integration

- another big issue is finding a job. During the stay in camps people get passive and eventually are forced into welfare support even though they would normally not need it
- after they are granted asylum they are assigned to a certain Municipality in Denmark
- the Municipality and their social workers then support them in finding accommodation and work
- often refugees have to take their education again
- most refugees are willing to take almost any job
- the government makes no good use of the human resources in form of refugees

The second interview that took place in the Trampolinehouse was conducted with two refugees. This interview was unstructured and took place in form of an open conversation. Both of the young men have been in Denmark between five and six years. The conversation was opened by asking for ideas about how refugees in Denmark could be supported better. In the following the most relevant quotes were taken out from the interview:

„A service could help me finding a job. The kommune offers a contact person, but that’s not enough”. // “It took me five years to find a job”. // “The Trampolinehouse is my family” // “It is important to have a Danish friend”. // “I can not visit the Trampolinehouse as much as I would want to, because transportation is so expensive”. // “In the streets it is hard to get in touch with people, they are more distant”. // “I was on my way to Sweden and got caught by the police, so I had to stay in Denmark”.

#### *Individual Interviews*

The individual interviews were conducted with refugees in the social network of the project group members as well as refugees that were met at the Red Cross Open House event and were willing to participate in this project. In most of the interviews the semi-structured interview technique (Bjørner, 2015) was used as the purpose was to have more of an informal talk, where questions previously formulated were asked, but allowing for new questions to come up as the conversation went on. In the semi-structured interview, the researcher creates a guideline to be followed but the order of the themes is not fixed, so if the participant brings up a theme that was meant to be discussed later, the researcher is able to address the question (Bjørner, 2015).



### *Interview with Zaki*

The first individual interview in the emphasizing process was held with a young man from Syria, Zaki, who had been in Denmark for two years and eight months at the moment of the interview. He gave the group an outline of his integration phase into the Danish society and could provide many interesting aspects about possible improvements, which are presented in the following quotes:

“People talk about us but not with us, our input is not asked a lot” // “What is needed is a guidance when people come to the country. We need to know how it works here, the whole system” // “We are also people” // “Refugees in camps are in a “freeze” state, and it’s hard to get back to a normal life afterwards” // “We are used to working hard, and we just want the chance for a normal life” // “Social workers need to be trained to know how to handle the situations, a lot depends on a good social worker” // “Social and psychological support are also important because of all the horrible things the refugees experienced”

### *Interview with Noura*

The second individual interview was with Noura, a young woman from Syria who had been in Denmark for around four and a half years. She came to Denmark due to the situation in Syria and for joining her Danish husband. She is engaged in fighting for women’s rights and runs an organisation that focuses on women who have been subject to violence, in Denmark and other countries. Noura brought some insights to the group regarding the situation of refugees in the camps, presented in the following quotes:

„The crisis centers only provide a shelter but do not support you psychologically - nothing that helps you to go back to

the system“ // „Everyday life is different from camp to camp - Red Cross offer more activities, others are more passive“. // “The rules [asylum system red.] are getting stricter and the refugees are not able to understand it“. // „The law in Syria says that if a man rapes you, he will not be convicted if he accepts to marry you afterwards; in Denmark this would never happen but women who come from Syria still bring this fear as they don’t know their rights in Denmark“. // „You carry a lot of psychological stress from your journey up here and the government and society don’t make you feel welcomed and appreciated. People lose their motivation, because the possibilities are limited. So you miss the respect for the country (Denmark) and you don’t feel part of it, don’t feel the need to give something back (work, taxes etc.)“. // „[my education] wasn’t recognized at all. I had to fight hard for five months to get the education accepted“. „There is lack of information in the camps: nobody tells you about the opportunity to get your education evaluated in the Education Ministry“.



III. 4: Interview Situation



### Interview with Zakaria and Houda

„We should be given some opportunities and not just waste our time waiting“ // „We are cut off from the society: no freetime offerings, not even TV, nothing to connect to Danes“ // “I didn’t know my chances in the process and that I could defend my case - now I missed the deadline” // “I really miss studying”.

## Sum Up

project group a broader insight of their impression towards the asylum seeking process and general circumstances for living in Denmark. Having conducted interviews was crucial for the progress of the project as it gave insights about the difficulties, needs, aspirations and desires of those for whom the project group is designing the service for.



## Analysis of Interview Data



own personal impressions. In order to create a connection in between them and organise the information in a visual manner the data was clustered in categories and labeled.

The information was then analysed and interpreted together with the findings from the desktop research. This led to a better understanding of the challenges that the refugees have to deal with when arriving in Denmark that are common to all, or common to a majority, and not limited to singular experiences. This procedure helped synthesizing the amount of information gathered from the interviews into more digestible material.

### *Findings*

The most important insights from these interviews were put in four themes: 1) Poor guidance, 2) Missing information & overview, 3) Need for social and mental support, and 4) Understanding rights and regulations. These categories can overlap each other as one might be connected to another. For example, for the fact that they receive poor guidance from the authorities responsible to handle refugee cases, they end up missing important information about their process. One might wonder if the authorities are not interested in making all the information needed available for political reasons or if this might happen due to a lack of infrastructure of the public system and the Red Cross. However, this will not be taken into account at this moment, as the focus here is on how the refugees perceive the situation rather on understanding the reasons behind it. Having clustered the findings in themes gave the project group a better overview of the many problems that could be tackled and highlighted which topics were more relevant than others, giving the group rich opportunities to be designed.

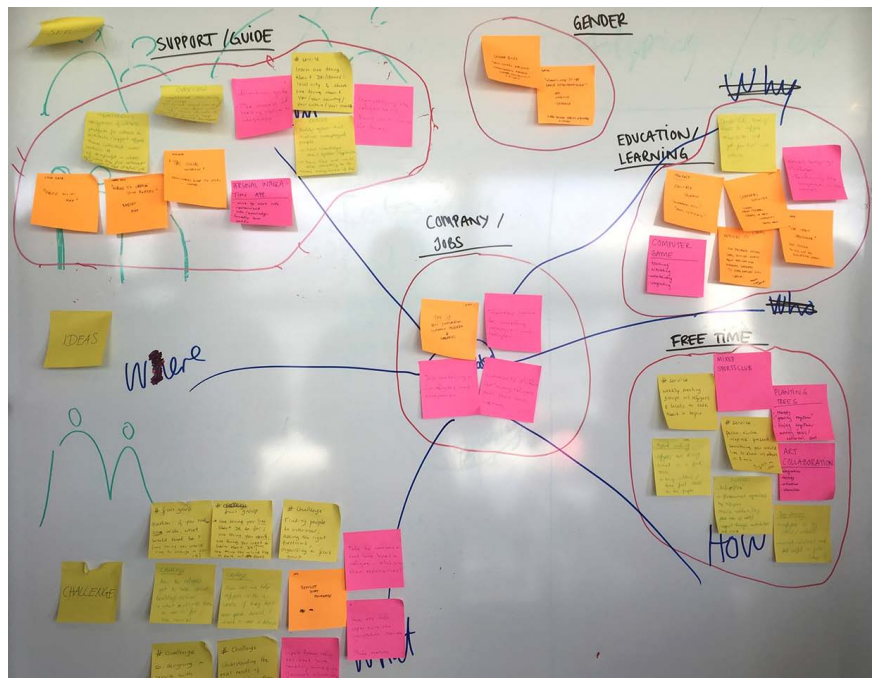
### *Reflections*

The group conducted five interviews with people in approximately the same age, due to the easy access to them. If interviewing more people and in different age range, the findings could possibly have been different, what could have influenced the outcome of the project. Taking in consideration the timeframe of the project and in order to accomplish the project on time, the group decided to work with the material collected, that was nevertheless rich and valid for our research problem.





After developing the spider web model presented before to get a holistic overview of the findings and their interrelation, the project group started generating ideas of a potential service concept. In a brainstorming session in which the group chose to use the Top 5 method by Ideo (The Field Guide to Human-Centered Design, 2015), each group member was asked to generate as many ideas as possible and present the five favourite ones to the group. This turned out to be a very valuable exercise since it opened up for discussions about what problems were most important to address.



### III. 6: Top 5 Result Clustering

Afterwards, the ideas were clustered into themes such as; education, occupation, spare time and support. However, a general agreement on which idea had the most potential could not be found and therefore each group member was asked to favor five ideas through individual voting. Eventually, five ideas, that represented different themes, were agreed upon and carefully examined in terms of negative and positive aspects. The final idea, which was named Refujourney, is based on a personal integration service but was combined with the most important features and values from the Top 5 ideas.

## Refujourney Timeline

The initial idea behind Refujourney, which is aimed at being a mobile application, is to provide an overview of the different steps that await refugees when arriving in Denmark. Inspired by the User Journey (Stickdorn and Schneider, 2010, pp.158-159) often used in Service Design processes, the Refujourney aims at being a personalised User Journey for integration.

To further stress the support of the individual user of Refu-journey, personal recommendations that are tailored to his or her goals and interests are supposed to appear in the appropriate phase. In order to clarify these different steps the project group created a timeline with the main phases the refugees go through, adding possible questions they could have in the specific phase, and writing down some assumed answers. The group further decided to focus on only one profile for this project, so the journey can be explored in more detail through investigating one specific use case. However, the idea remains to allow for the creation of an individual profile which leads to different journeys.



III. 7: Refujourney Timeline

As illustrated in the the graphic above, the assumed major steps of a journey for refugees arriving in Denmark are Arriving in Denmark, Getting to the Camp, Living in the Camp, Granted Asylum, Find a Home, Create Social Network, Find Occupation and Find Freetime Activities.

In order to provide the appropriate information material along the way questions such as “how and where can refugees access information about their personal case in the asylum process?” needed to be addressed by the project group. First assumption and initial answers to some of the question, such as “the communication about asylum happens through the Red Cross, who are totally overwhelmed with the amount of requests and need support in order to provide information to the refugees”, were stated based on former research and interviews.

### Problem Statement

Starting to define the service allowed the project group to further specify the problem statement. Up until this point, the problem statement had been very broad focusing on the semester theme. However, all the new knowledge about the users as well as the process of identifying and defining shared areas of interest, enabled the project group to define a problem statement with such clear guidance and direction for the design process that there was no need to make changes to it at any later stage.



III. 8: Refujourney Timeline Creation





The problem statement sounds as follows:

## ***How can a service support and advise refugees arriving in Denmark, focusing on their individual identities and goals?***

### **The Target Group**

From the findings of the desktop research and the interviews that were conducted, the project group learned that the refugees that come to Denmark are a broad group of people, represented by different nationalities, genders and age. As designing for a specific target group demands specific requirements, such as appropriate language and content, the project group decided that the service would be designed for a broad group of refugees aged between 18 up to 59 years old. Variables such as gender, country, level of education (as long as literate) and work background are not so relevant in this case, as the problems that the refugees face once arriving in Denmark are shared by a variety of people. Keeping the target group broad also allows the service to be adjustable to different user needs and purposes, which adds a major value to the service. This way the service may be provided differently, according to the profile of the user, but its mission will still be the same, meaning that the service will still be solving problems of the same nature. The service will also only focus on refugees in Denmark, as it would not only be impracticable to conduct research in other countries due to time limitations, as it is not a requirement of the assignment to create a service for refugees in other countries. Since the project group

will be delivering a service prototype, upscaling will only be advised after first implementation.

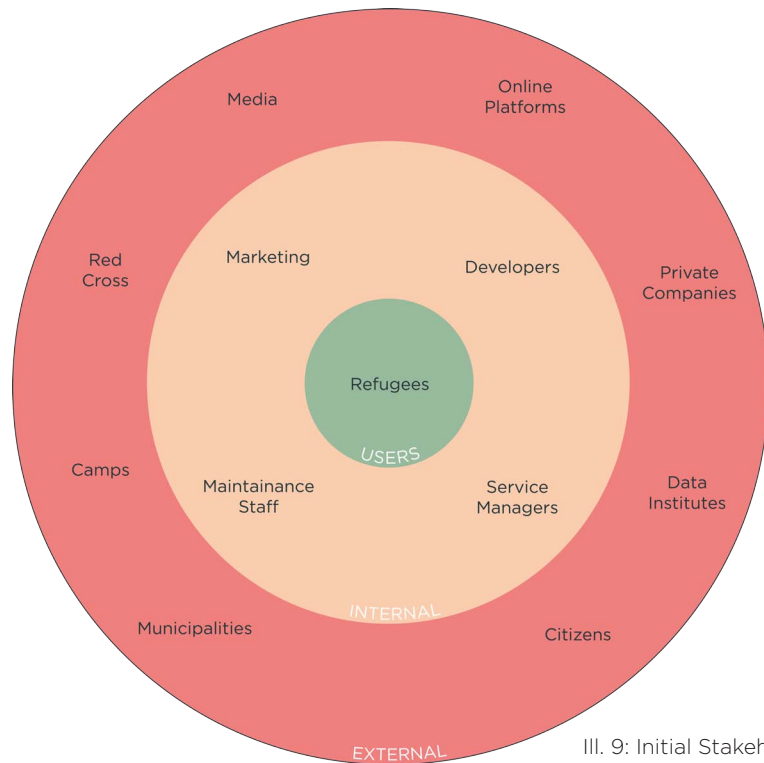
It also became clear that a great percentage of the refugees that are asking for asylum nowadays have smartphones and a certain level of technological skills. Smartphones have become an essential item for a refugee that travels long distances to reach safer places, as they are the source of information that are crucial to complete their journey (NY Times, 2015). The group also took that into consideration, therefore the target group for this project are refugees that have access to a smartphone and are used, in a minimal level, to interact with mobile applications.

### **Initial Stakeholder Map**

An important aspect of the service that the project group started at this point discussing was to consider who the main stakeholders of the service are. In particular, it is important to have a clear idea of who will take ownership of the project, as the benefits for this stakeholder should be clearly communicated. In other words the service should be tailored to attract the attention of potential owners and/or funders already during the early stages of the design process.

When starting the brainstorming on potential stakeholders, a big challenge was met. Who should be in the center of the stakeholder map: the service or the users? Both solutions brought interesting insights. The final choice would in the end be based on who we target the stakeholder map to and how the project group wish to frame the service. The users (refugees) were in the end placed in the middle as the group wanted to highlight the focus on user experience as the main one throughout the whole design process.





III. 9: Initial Stakeholder Map

Around the users a circle containing internal stakeholders was sketched. It included service managers, developers, maintenance staff and marketing. Another circle was added showing the external stakeholders. These included Red Cross, camp staff, citizens, municipalities, data institutes private companies, media and online platforms. Choosing these as the main stakeholders was based on several discussions about the service's content, funding potentials etc. It was concluded, that a revised stakeholder map would be needed on a later stage when there would be clarity on more service details.

## Analysis of Existing Services

In order to get inspiration from and knowledge about the existing services for refugees, the project group researched some services that aim into a similar direction as the idea of Refujourney.

### *Refugermany*

Refugermany is a mobile application available on iOS and Android devices that contains practical information about the asylum procedure and about day-to-day life in Germany after being granted asylum. The app is very user friendly because of the logical information architecture and the friendly tone-of-voice that is being used. Moreover, icons are made for each category which makes it easy to get a quick overview of where to find specific information. The content in the app is grouped in these categories:

- Asylum procedure
- Housing
- Opening a bank account
- Transportation
- Learning German
- Working in Germany
- Health
- School and kindergarten
- Culture
- Collection of important documents

However, the main drawback with this app is that the information given is not personalized. Therefore all refugees in Germany receive the same kind of information regardless of their demographic differences.



### *Welcome to Germany*

The Welcome app is also available in most mobile platforms but contains a lot more information compared to Refugermany. The app offers refugees a comprehensive overview of the asylum system, the daily life in Germany and how to get in contact with relevant public authorities. In addition, there are a couple of personalised elements in the app such as choosing language and location, which enhances the overall user experience. Another feature that is particularly interesting, is the video tutorials which are accessible from the main menu. Here the user is not forced to read a manual on how to complete a specific task, but can instead get a different learning experience. The main focus in the app is: Information about life in Germany, Rules and procedures applying within the asylum system, and Addresses and descriptions of important authorities. However, even though the app contains a lot of information, some functions do not work properly. The balance between the amount of features/information and maintenance resources does therefore not match.

### *Ankommen*

The Ankommen application, launched by the German government, helps asylum seekers to integrate in their new country and is available on most mobile platforms. Ankommen is a service developed by the Federal Office for Migration and Refugees, The Federal Employment Agency, the Goethe Institute and Bayerischer Rundfunk. This can be a great advantage in terms of providing correct information and having available resources for maintenance of the app since it is funded by the state. On the other hand, it can be a problem if the government intentionally wants to hide information related for instance to legal and human rights. The app is available in multiple languages such as; Arabic, English, Farsi, French and

German and can be accessed without any internet connection. It includes a beginners level German language course, information on the asylum process and how to look for jobs and vocational training.

### *Refugee Aid*

Refugee aid is a different application from the ones mentioned above, since it focuses on vulnerable migrants that are still on their journey and have not found a camp. It provides a one-stop for refugees to find information, connection and support and a platform for NGOs and charities to share their resources with refugees, based on geographical location. The content in the app is categorized by type and includes: Legal/Admin/Info; Food; Shelter; Water; particular aid for Parents and Children, Unaccompanied Children, Women and Men; Health; Education; and Toilets and Showers. However, the problem with this application is that it can only be accessed in three countries in Europe which to some extent counteracts its main purpose.

The apps mentioned in this analysis serve the same overall purpose, to assist refugees in different phases on their journey to a new country. Overall they manage to structure and present the content in a logical way which makes it easy for the user to find relevant information. However, one of the apps did not perform sufficiently and had several errors when exploring the listed categories. It is therefore important that the project group carefully considers the balance between available resources and the amount of features and information the service should include. Another important learning from this analysis is to prioritise simplicity and personalisation for creating a positive experience for potential users, which these apps in general do very well. However, taking personalisation a step further by researching the needs of the target group and technological possibilities, could be a valuable



## Design Game

The project group's next goal was to clarify which content should be emphasised in the different steps or milestones. For this reason the assumed milestones which were collected in the former Refujourney timeline creation were, as recommended during the Supervision meeting, going to be taken into a Co-Creation session with the refugees. The aim of this session was to test if the milestones chosen by the group are the actual milestones that are of importance for the refugees, as well as what kind of information would be useful along the way.

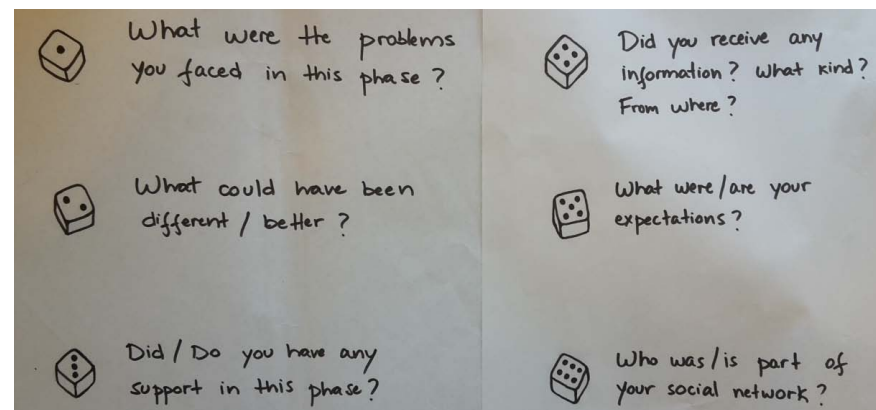
### Preparation

With inspiration from the semester emphasis on "User Participation and Social Innovation" the project group members decided to investigate the creation of a Design Game for the Co-Creation session. The creation of a Design Game was chosen by the project group for a number of reasons. The main goal of a Design Game is to give a framework for Co-Creation, hence a framework in which creativity can spark but within the boundaries of the desired field. Furthermore, the interactive character and the often physical involvement of the participants helps break the ice and broad the horizon (Brandt, 2006).

With this in mind the group started to think about the structure of the game as well as the setup of the space and the necessary material. The idea behind the game was to go through the different steps of a Refujourney (described earlier in the timeline creation), and uncover what the needs, issues and biggest wishes connected to these phases are, in order to learn which themes to emphasize in the app creation. For co-creation purposes the project group decided to have the milestones prepared on Post-its but create the journey together

with the refugees, hereby allowing for a discussion about the appropriate milestones as the game is being played. This was also done because the group could not be sure if the right milestones were chosen beforehand and wanted to investigate this as well. For this matter the project group prepared Post-its with the appropriate milestones on them, as well a big sheet of paper on which the journey could later be assembled together. To note down the answers and insights given in the different step, more Post-its were ready to be added to the Game board.

To bring in the gamification factor, the project group decided to use dices as playing device since dices have a well known functionality and are easy to handle. Furthermore, the project group thought it would be a nice addition as dices are also a very common playing device in Denmark. With the equipment at hand, the project group then collected a number of questions to create a conversation starter for the different topics. The questions were supposed to be formulated in a general way in order to be used in each of the different steps. Keeping this in mind the project group came up with the six following questions:



III. 10: Design Game Questions

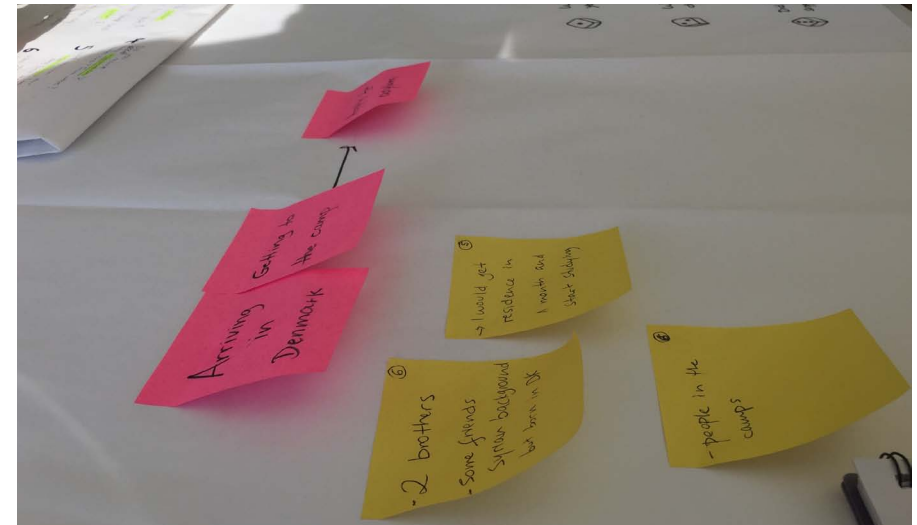
The amount of questions was chosen to suit the number of sides on the dice, which should be played with.

### Setup and Playing

The Red Cross offered their facilities to host the Design Game. This way the project group and the invited refugees could meet in a familiar environment. The foundation for the game was set up in the following way: the prepared playing board was placed on a long table in the middle of the participants and facilitators. The participants and the facilitators sat around the table in a way that it was convenient for the players to read the written questions on the board themselves. After a first introduction of all the team members as well as the study purpose, and an introduction of the refugees including their origin and background information, the design game could start.



III. 11: Design Game Situation



III. 12: Design Game - Journey Co-Creation

The project group consciously did not yet introduce the Refujourney idea at this point for the purpose of keeping it an open and co-creative session without any restrictions or boundaries for creativity. The game rules were that every participant should roll the dice and answer the question according to the number on the dice. After the question was answered the dice was given to the next participant and he or she rolled the dice again to answer another question. This was done for each of the different stages of the journey. The idea behind this was that the participants would feel more actively involved by rolling the dice instead of just being asked plain questions. Furthermore, each of the questions was supposed to be a conversation starter for a discussion round including everyone. This way, through the discussions raised in the game playing, the project group gathered important information and insights for the different steps in the timeline, as well as adding new ones.





## Findings

When reflecting on the design game, the project group discovered a couple of main findings through scanning the different steps and the individual input of the refugees concerning the milestones. Some of the biggest issues for the refugees, which could be identified throughout the game was the lack of transparency when trying to start a new life in Denmark. For example, it was captured that the participants did not know about their possibilities such as doing an internship while waiting for their asylum answer in the camp. Neither did they know about their rights like the ability to change their translator when they feel mistreated or the option to defend their case if their asylum gets rejected. These and more findings proved to be very critical as the awareness of possibilities and rights immediately influence the life quality of the refugees. Furthermore, one of the Refugees stated that “If your contact person is really good, you will have a perfect life”. The finding strengthened the Refujourney idea (which had not yet been revealed to the refugees) and allowed for some clarification on the content it should distribute, as well as the way it should be communicated. A list of the accumulated findings from the game is provided below:

- No transparency in the process, refugees are not aware of many regulations and rights and for this reason often miss important opportunities that could improve their life quality
- Refugees do not feel appreciated, their skills are not recognized and they often feel mistreated
- Refugees are facing some issues in the camps, such as that the possibilities in the camps vary a lot and they are also facing some safety issues
- The general attitude of the refugees is negative and they are frustrated about their situation

With regard to the lack of transparency, trust and recognition,

the Refujourney app has the potential to provide valuable content to address and avoid certain issues in the form of notifications. Here are some examples on how they could look like:

### *Just arrived phase*

For Syrians, on average it takes five months to get clarity on asylum, however for some it takes weeks for others it takes years, so prepare to be patient.

Public transport in Denmark is safe and flexible. If you get a [rejsekort](#) you can make use of all busses, trains and metro in the country.

Check out your refugee camp facebook group [here](#).

You can ask for a new translator if you are not satisfied.

You can bring a friend to the interviews. It's often nice to have an extra pair of ears.

The TDC Sim card is the preferred one for people who are unsure how long they will stay in Denmark. See more [here](#).

Check the regulations on submissions of asylum [here](#). They were recently changed.

### *Waiting phase*

Your biggest task in the camp is to stay patient. Don't go check your asylum status every day - you will be notified on changes.

There's often a black market in the camps. Think twice before buying things inside the camp, as it can be illegal.

You can get an internship while waiting in the camp. Look up your opportunities [here](#).

Don't take it personal if you feel you are not treated nice by the camp staff. The staff is very busy and will do their best to help.

Many nationalities arrive in your camp, maybe even in the middle of the night. Remember you are all in same situation



and can help each other to feel welcome.

Four kilometers from your camp is a football club. They often arrange games where you are welcome to join. Check their facebook group [here](#).

There is a nice cinema 8 km from your camp. See what is playing [tonight](#).

If you catch a cold, there is great advice on how you recover on this [page](#).

It's part of Danish culture to minimize the usage of medicine so it's very limited what you can get at the pharmacy without a doctor's prescription. Check out the options [here](#)

Check out credit transfer process for immigrants [here](#). It is a time consuming process. Better look into it as soon as possible.

### *Last phase in camp*

When leaving the camp you will get help from the municipality to find housing. As it's not easy in Denmark, you are welcome to start looking for it yourself. [Here](#) are two webpages where you can start looking, the sooner the better.

By linking the presented content to external websites (signaled by the blue marked words in the example notifications), the project group could assure that the content is always up to date. Furthermore the amount of data that has to be processed and included into the app can be limited. This way valuable external information sources, such as Red Cross, Udlændingestyrelsen, Dsb.dk, Asylum camp Facebook page, Internshipsforrefugees, Local sport club web pages and the like could be included into the content. Here the project group also sees a good opportunity to make use of open data to feed the Refujourney app with valuable information. Furthermore from the lack of trust and the general scepticism of the refugees, the project group learned that the wording of the

notifications (displayed above) in the App should be in a very friendly and recommendable tone in order to lower pressure and instead offer support.

Additionally, the general categories that arose throughout the conversations during the design game, which should be investigated for a possible inclusion into the app content are:

- HEALTH & FOOD
- ASYLUM
- CAMP LIFE
- RULES & REGULATIONS
- DENMARK
- WORK
- STUDYING
- RESIDENCE
- LOCAL EVENTS
- STATISTICS
- REMINDERS



## Initial Description of the App

The Refujourney service will be executed through a mobile application and thereby enable refugees to access relevant information regardless of time and location. In the following sections, the design aspects in terms of functionality and content will be presented.

### *Personalization and Open Data*

One of the key features in the application is the ability to provide information that is tailored for each individual refugee. This information is based on demographic information from the user during registration and an integrated survey functionality where questions regarding the experience of being in a particular stage are asked.

By processing the data provided by all the users, the application becomes intelligent in terms of knowing what a specific user might need in a particular situation and can therefore automatically generate helpful advice through a digital buddy.

### *Digital buddy and gamification*

The digital buddy will function as personal assistant that is always available to the user when using the application. This feature does not only seek to realize the core values of the service but also to make the application fun to use. During a co-creation workshop with refugees at Red Cross, the project group learned that the user experience should be designed in a way that would make the application fun and interesting to use for all age groups.

The digital buddy, which will appear on the screen as a little owl, will give advice but also ask questions in a gamification context for motivating the user to share information. The digi-

tal buddy was an idea that was taken up to reconsideration and cancelled later in the project process. The reasons behind this choice will be elaborated later in the report.

### *Language and iconography*

The service will be available in multiple languages. This is an important element for creating a personalized experience, which was also confirmed in the co-creation workshop. To further tackle possible language barriers, the group decided to develop icons for different categories as an additional communication component.

The tone-of-voice throughout the application will be based on comfort, security and encouragement in order to ensure consistency in terms of communicating the core values.

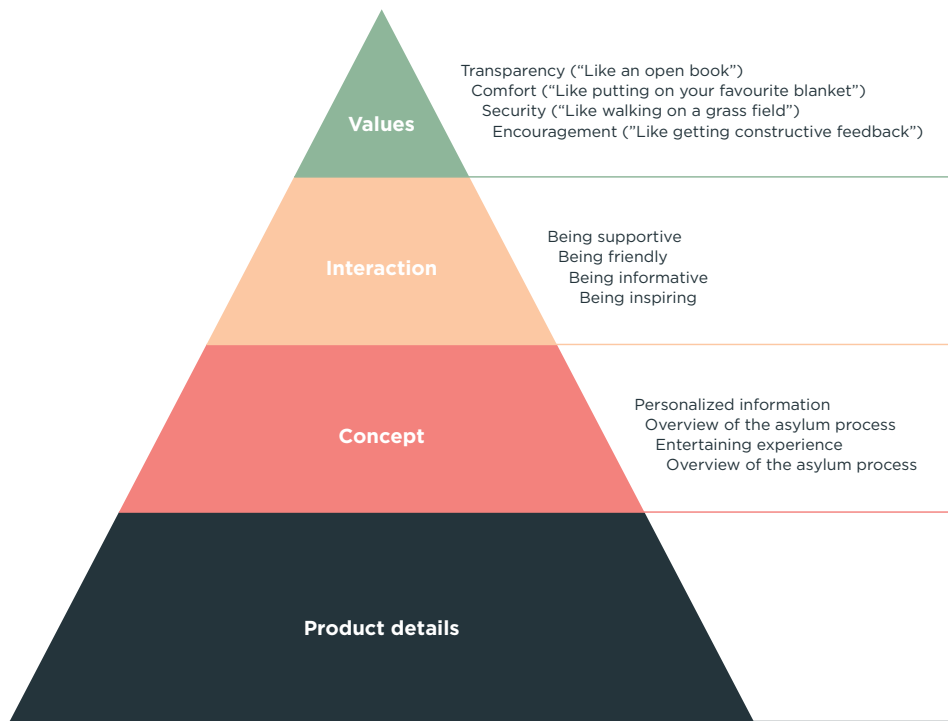
## The Value Vision Model

The project group used the Value Vision methodology from Erik Lerdahl (2001) in order to develop the concept and define Refujourney's core values, mission and vision. This model connects the more abstract characteristics of the service with the more concrete ones, meaning that the values the service wants to cover will be represented in its actions and final form.

As Tollestrup (2004) states, inspired by Franke and Lippardt: „The shift in the level of abstraction is supposed to support the creative process and create a larger solution space“, meaning that this methodology not only helped the team in identifying what wants to be achieved through the service and how this would be accomplished in a practical matter, but also opened the space for new solutions on how to solve the researched problem.







III. 13: Initial Value Vision Model

### *The Spiritual level - the values*

The project group started working on the top level of the pyramid model, the Spiritual level, where Refujourney's values were identified, meaning the intention underlying the service. This level is quite abstract and philosophical, and it helps understand the reasons behind developing a concept.

The values identified for Refujourney were responding to the motivations and needs that were uncovered in the research phase of the project: Transparency, Comfort, Security and Encouragement. As an aimed goal, the service should provide those values to the refugees coming to Denmark.

### *The Contextual level - the vision*

As Tollestrup (2004) explains, „a way of making the goal and values tangible and relevant is by using a vision“. In the level below, the Contextual level, the group worked on deciding how the user interaction with the service would happen, creating a vision that would make the previous described values tangible. This way the interaction of the service with the user would happen by: Being Supportive, Friendly, Informative, Inspiring, Clear and Simple. As Lerdahl (2001) states: „... the visions are guiding principles and a basis for evaluating the concepts“. In that sense, having these interactions defined helped in shaping the service and giving directions for the further development.

The group made use of quotes for describing the value mission and the interaction vision, as these levels are more abstract and may offer higher chance of misunderstandings. By using quotes, these philosophical terms become more tangible, limiting the space for personal interpretation among the group members and bringing more coherence to the discussions. According to Lerdahl (2001), „...the goal vision should consist of qualitative keywords, poetic and visual images, metaphors and scenario plays. It may also be fruitful to create a short video film and scenario that express in different ways (form, movement, expression, sounds and tactility) the intended experience.“.

While this project was in process, the group participated in a workshop where techniques for creating video sketching were taught. As Lerdahl points out, videos are a great way to support the exploration of ideas, behaviours, needs, future scenarios as well as for explaining concepts and abstract thoughts. Throughout the workshop the group created a sequence of



videos that explain Refujourney's concept and how the experience of the user with the app is imagined to happen. The videos were a helpful tool to make the idea of Refujourney more tangible, especially when explaining it to potential stakeholders. The video sketching workshop is presented on page 37.

### *The Principal level - the concept*

The third level of the pyramid is the Principal level, where the group aimed for the creation of a general concept for the service, in a more material way, like how its structure would work and how the service's vision would function in practice. Here the group discussed that the service would give a clear overview of the asylum seeking process, assisting the refugee as if they had someone by their side, giving personalised information as well as an entertaining experience.

## **Personas**

### *Development and Presentation*

Personas are fictional characters that are developed in order to represent a group who share the same interests and characteristics. They work as a tool to understand how the user thinks and behaves, what their problems and needs are, and to uncover their motivation for using the service. Personas are also helpful for reminding the designers who they are designing for, as they are also important for everyone involved in offering the service. Personas are a good instrument to measure if the design solution works properly by eg. making the persona go through a user journey. They also stimulate the designer to think less self-centered and more in the mindset of the user (The Interaction Design Foundation). In order to create Personas for the further investigation of the Refujourney development, the project group decided on the method introduced by Health Service Co-Design. Following this method, Personas are

created based on Scenarios that are formulated in a framework of extremes (Health Service Co-Design).

For this matter critical points, that determine the service quality, have to be detected and placed in a scenario matrix. Within this matrix four scenarios that are determined by two critical points each, arise and build the basis for the following creation of Personas. Aiming at using this method, the project group accumulated the following list of critical points for the Refujourney Service:

- lack of information /transparency
- social network
- language
- personality: introvert / extrovert - stress resistance -
- trust in the system / feeling of safety
- education / ambition
- long-term / short-term inhabitants of the camps

The project group started several approaches to decide on two critical points that determine the service but, at the same time, are independent from each other. However, the group was unsuccessful with the choice of critical points that were able to build a useful foundation for the service because necessary critical points were either in a too strong relation to each other or were simply not important enough to be able to qualitatively determine the service quality. For this reason the project group decided to use another method for the Personas creation.

In the second attempt the group decided to create Personas based on Lene Nielsen's 10 Steps to Personas (Snitker & Co, 2007). After scanning the 10 steps, this method was found appropriate, hence the group started to approach the diffe-



rent steps.

The following list displays the creation process and collected bulletpoints for the first five step of Lene Nielsen's Persona creation process. Since after the fifth step the creation description went too much into detail, the group decided to close the process after this step and created four different Personas for the Refujourney service based on the analysis and accumulated insights.

### *1. Finding the Users*

Who are the users? How many users?

- Adults: 18-59 years f/m

(a value of the service is that it is very individual and can be tailored for different users)

How many users are there?

- All refugees in that age group since the app is scalable
- Since the app can be entered in different phases: people who arrived in 2015 and who arrive now should be considered possible users

What do they do with the system?

- Receive information and support to go through the asylum process and start a new life in Denmark. Generate information through the use of the app

### *2. Building a Hypothesis*

What are the differences amongst the users?

- Gender, age, family, education, mental state, social abilities, goals/ambitions, nationalities, religion, hobbies ect.
- The people we observed and interviewed were 20-28 years old and mostly came from Syria

### *3. Verifications*

Likes/Dislikes

- Dislike treatment (police, authorities)
- Dislike limitation of opportunities (nothing to do in camp)
- Dislike the lack of information (do not know about their case)
- Dislike level of privacy (in the camps)
- Like the security (in denmark)
- Like the support from locals

Inner needs

- Perspective
- Moral support
- Social contact
- Information
- Occupation
- Recognition
- Human rights

Values

- Family oriented / community oriented
- Care for others

Work / Education

- No appropriate job (in their field)
- Internships

Goals (for life in Denmark)

- Find occupation according to their field or interest (work/study)
- Family reunion

### *4. Finding Patterns*

- Other important groups
- Non syrian nationalities
- +30 age
- People with kids

Diversity in occupation



## 5. Constructing personas

After collecting useful insights in a lively group discussion along the first four of Lene Nielsen's Personas steps, the project group created a description of four Personas with different ages, gender, occupation and background. This way Yasmine the 22 year old syrian student, Ali the 26 year old afghan hairdresser, Mariam the 35 year old somalian mother and Hussein the 47 year old syrian professor were created based on interview insights and desktop research impressions.



„I am waiting to get my asylum so I can work and start a new life in Denmark“

**ALI**  
AFGHAN - 26 YEARS

Ali is a 26 year old unmarried man from Afghanistan. He has been in Denmark since 18 months and is waiting for his asylum answer in the camp in Roskilde together with his brother who is underage (17). Ali has to take care of him and hopes for a positive answer so he can work and provide for him and his brother. He has a kind of sceptical attitude, because everything takes so long and he doesn't know when he gets an answer to his case. Back in Afghanistan he had a barber shop, which unfortunately was destroyed in a bombing event. Ali is a social person and makes friends easily, he is very dependent on his smartphone to stay in touch with them.

### BACKGROUND

Barber / Hair Dresser  
Entrepreneur

### ATTITUDE

Social, became sceptical

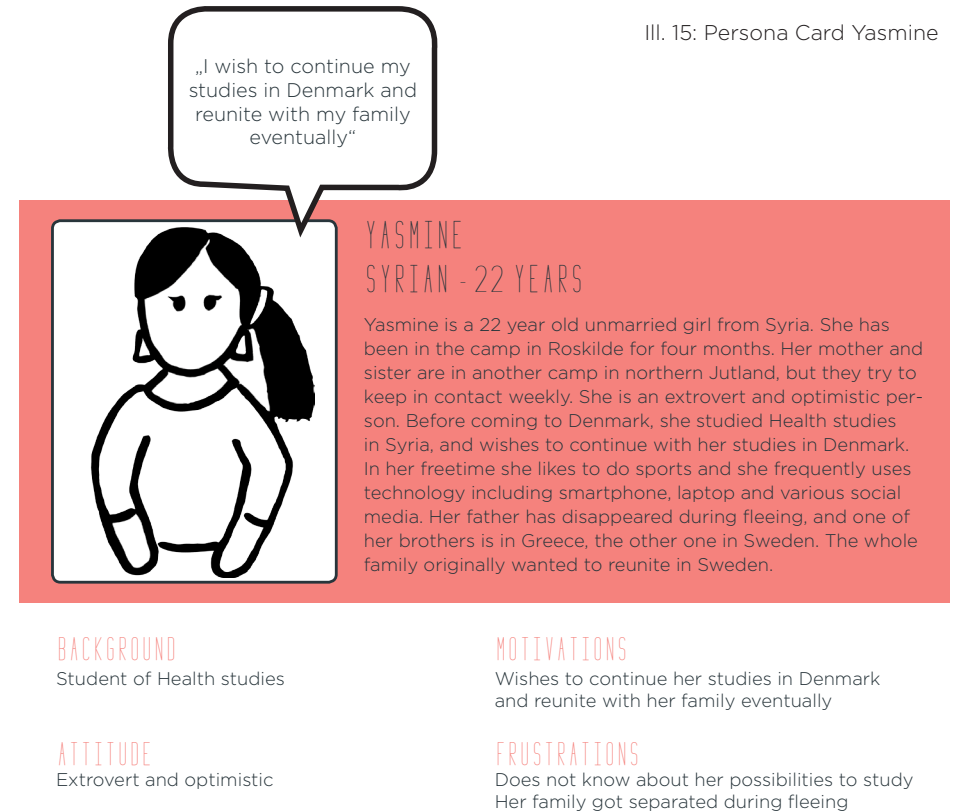
### MOTIVATIONS

Work as Hair Dresser in Denmark,  
provide for his brother

### FRUSTRATIONS

Waits for asylum and does not his chances

III. 14: Persona Card Ali



„I wish to continue my studies in Denmark and reunite with my family eventually“

**YASMINE**  
SYRIAN - 22 YEARS

Yasmine is a 22 year old unmarried girl from Syria. She has been in the camp in Roskilde for four months. Her mother and sister are in another camp in northern Jutland, but they try to keep in contact weekly. She is an extrovert and optimistic person. Before coming to Denmark, she studied Health studies in Syria, and wishes to continue with her studies in Denmark. In her freetime she likes to do sports and she frequently uses technology including smartphone, laptop and various social media. Her father has disappeared during fleeing, and one of her brothers is in Greece, the other one in Sweden. The whole family originally wanted to reunite in Sweden.

**BACKGROUND**  
Student of Health studies

**MOTIVATIONS**  
Wishes to continue her studies in Denmark and reunite with her family eventually

**ATTITUDE**  
Extrovert and optimistic

**FRUSTRATIONS**  
Does not know about her possibilities to study  
Her family got separated during fleeing

III. 15: Persona Card Yasmine

The project group decided to illustrate the Personas in form of sketches to keep the fictional character of these user segments. Additionally, the project group decided to display certain characteristics by clustering them into Background, Attitude, Motivations and Frustrations since these factors give an idea of the individual user group's motivation for using the Refujourney Service. To add a personal note to the presentations of each individual Persona, a representative quote for each of them was chosen. By collecting all these elements, these easily comprehensible Persona cards were created.

„I wish for my family to be reunited and I want my kids to have a good future in Denmark“



### MARIAM SOMALI - 22 YEARS

Mariam is a 35 years old married woman from Somalia. She has three kids (7, 10 and 12 years old). She has been in Denmark for six months and is living in an asylum centre with her 12 year old son. She is scared and unsure about the future and misses her family being together. Mariam is a stay-at-home mother and a really good cook. She doesn't use computers but talks on Skype with her husband and uses her smartphone for basic things. She hopes to have family reunification after she will be granted asylum (if so) and bring her husband and the two other kids to Denmark.

#### BACKGROUND

Stay-at-home mother  
Good cook

#### ATTITUDE

Insecure, but hopeful

#### MOTIVATIONS

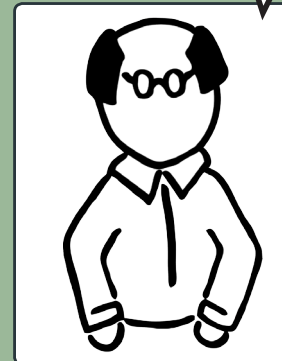
Biggest motivation is the thought of being reunited with all her family again

#### FRUSTRATIONS

Lack of understanding the rules of the asylum process leads to uncertainty about the future

III. 16: Persona Card Mariam

„I hope to find a job in my field and teach at a University again, so I can provide for and reunite with my family“



### HUSSEIN SYRIAN - 47 YEARS

Hussein is a 47 years old married man from Syria. He has two daughters (22 and 24 years old). The daughters and his wife are granted asylum and live in Aalborg. He has been living in the camp for 11 month, and has granted asylum since 4 months, but his education has not been recognized so he has been working as a dishwasher. Hussein has been a business professor at a University in Syria, and in Turkey, where he lived with his family the last two years before fleeing. He has some technological skills, and uses a smartphone once in a while. In his free time he likes to play the Oud, which is a traditional syrian instrument. His goal for his life in Denmark is to teach again.

#### BACKGROUND

Business Professor  
Musician

#### ATTITUDE

Calm and patient

#### MOTIVATIONS

Wants to find a teaching job and provide a home for his wife and daughters

#### FRUSTRATIONS

Works as a dish washer at the moment, because his education has not been recognized

III. 17: Persona Card Hussein

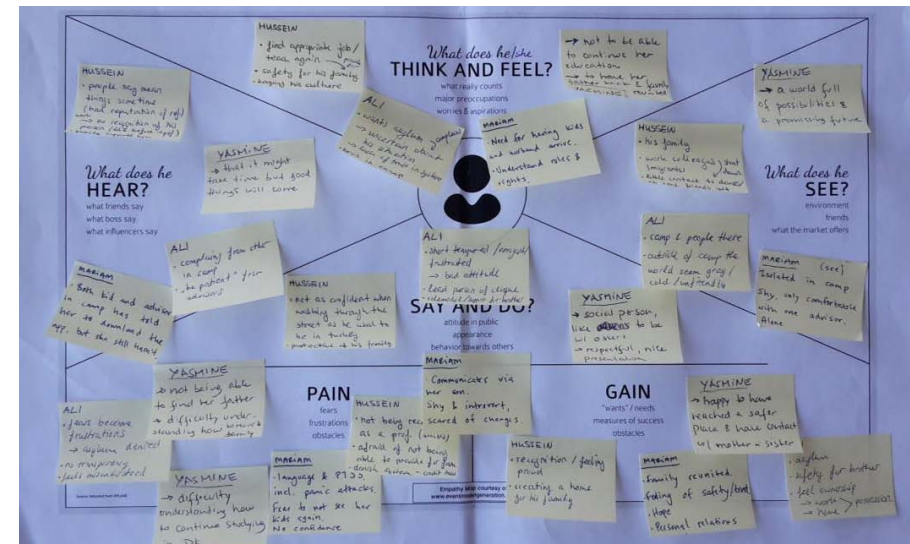


## Empathy Map

To get a better understanding of the personas and their intrinsic thoughts and motivations the project group decided to do an exercise focusing on empathy. Jesse Prinz (2008), Professor of Philosophy at the City University of New York has stated that: “[...] sympathy is a third-person emotional response, whereas empathy involves putting oneself in another person’s shoes.”. In the group’s approach to the personas the goal was to put oneself in their shoes and reflect on how they feel in relation to their specific context.

Empathy maps were initially developed out of the web design and user experience field in its attempt to empathize with the users. The strength of the empathy map is that it is quick to create and easy to iterate as it offers assumptions based on real data. David Gray, author of The Connected Company and Gamestorming, is the man behind the empathy map and he states that it was originally developed during a project for the global design consultancy Xplane (copyblogger.com). The empathy map chosen by the project group is a further developed version found on Business Model Toolbox (bmttoolbox.net).

The project group members divided roles and chose a persona each and went through the four main quadrants focusing on “thinking”, “seeing”, “doing” and “feeling”. Afterwards the personas’ pains and gains were identified. The answers were written on sticky notes as advised by the creator of the tool. Reason being is that they can easily be removed or changed (bmttoolbox.net).



III. 18: Empathy Map

The answers were based on insights from interviews, research and observations, however it is impossible to not include own assumptions. The group members attempted to verify these assumptions when presenting them for each other by explaining them in detail. The discussions deriving from this process were beneficial for the shared understanding of the Refujourney personas. In addition it helped to identify some core elements that should be included into the final service. This information would become the basis of the next step, the creation of service scenarios including the personas.



## Scenarios

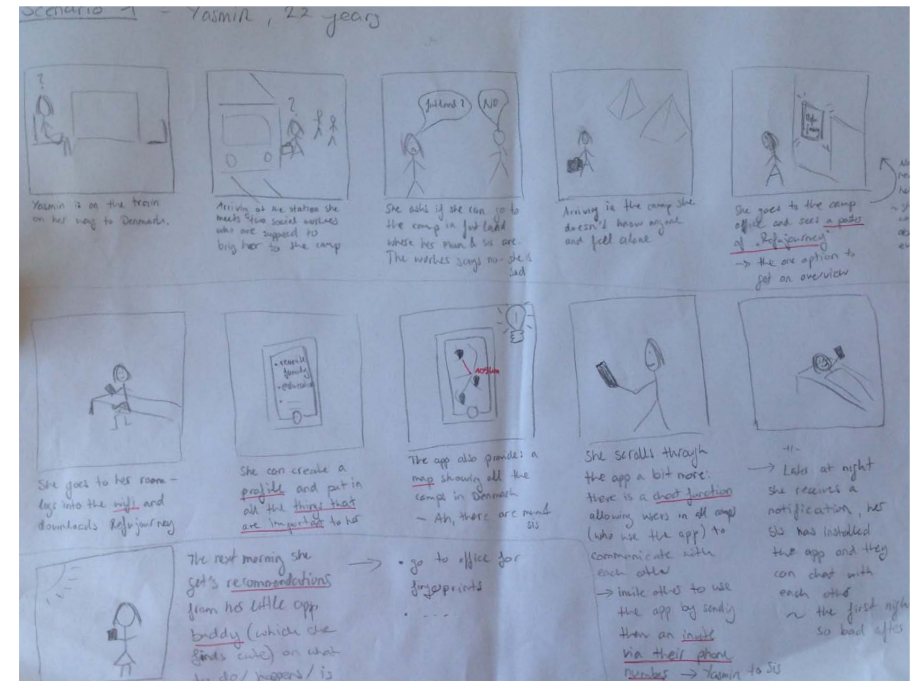
After reaching a deeper shared understanding of the personas, the next step was to create design scenarios. This exercise would help clarify what challenges the newly developed personas face and it would allow the project group to reflect on how the service could solve these issues. Stickdorn & Schneider's (2011) definition of design scenarios is the following:

Design scenarios are essentially hypothetical stories, created with sufficient detail to meaningfully explore a particular aspect of a service" (Stickdorn & Schneider's 2011: 184)

According to Stickdorn & Schneider, scenarios are able to help review, analyse and understand the driving factors that ultimately define a service experience (ibid.). The project group used research data to construct hypothetical stories and eventually they were visualised using simple storyboards.

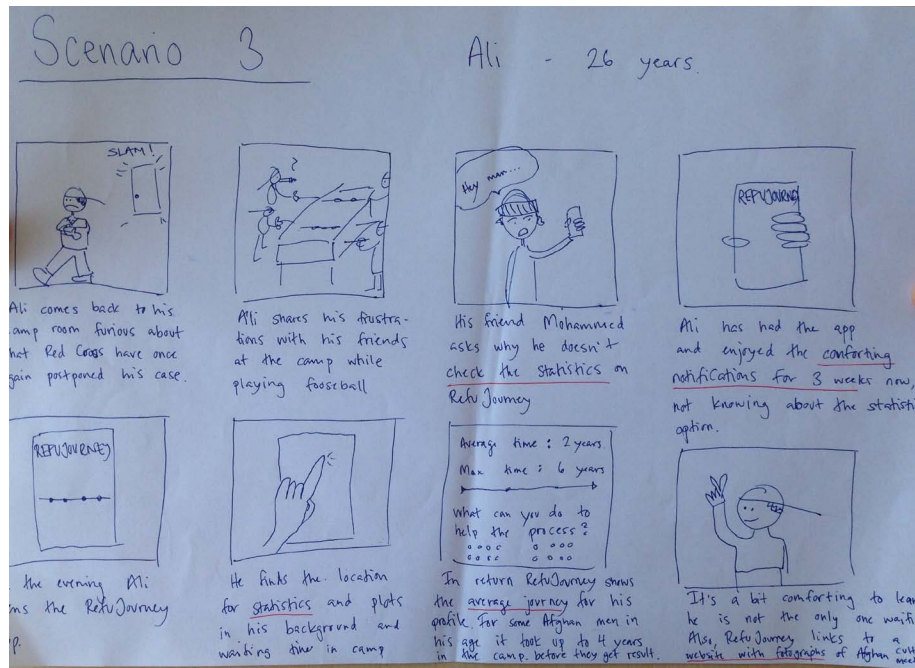


III. 19: Scenario Sketching



III. 20: Scenario Sketch 1

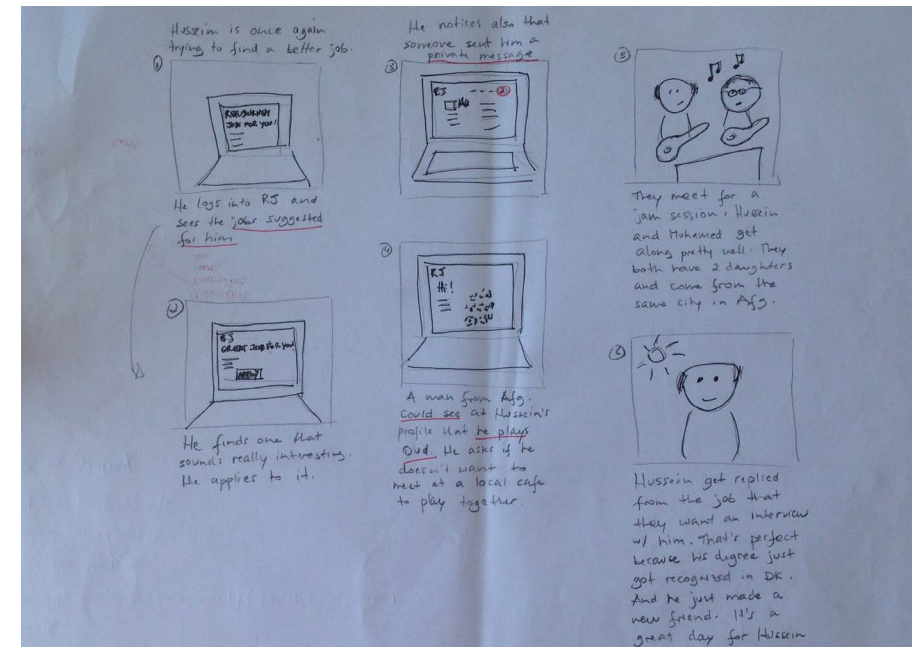
It was decided that each member should draw a storyboard where a realistic scenario of the Refujourney service is shown. The criteria was that all scenarios should focus on a different persona and their specific problems and it should show how the Refujourney service could potentially solve these challenges. The benefit of splitting up was that it allowed each group member to emotionally put themselves into the shoes of the persona and tell the story with their own perception of the service concept. At this time of the process all group members still had differing perceptions of the app service and it was important to discuss these differences and eventually define the best possible shared perception.



Ill. 21: Scenario Sketch 2

The scenarios all played on the values that was identified earlier for the value vision. E.g. the scenario focusing on Ali emphasized the values transparency and comfort. In the storyboard Ali faces frustration over not getting any answers from the asylum administration, however the RefuJourney show statistics on average waiting time for receiving a final asylum answer for refugees with similar nationality and background. This comforts Ali, as he has not waited that long yet. In the service interaction the service hereby aims to be supportive and informative, just like it was decided when creating the value vision pyramid.

The scenarios started a discussion on which functionalities should be emphasized in the app. Up until this point there had been a wide range of great ideas for the functionalities, however it became clear that a distinct focus should be made by choosing the essential ones.



Ill. 22: Scenario Sketch 3

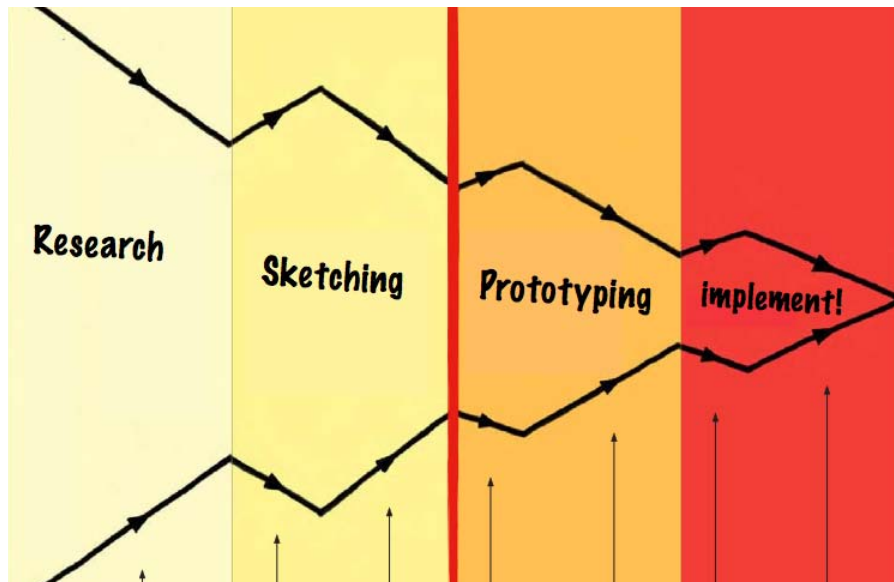


## Workshops

At this time of the project process two practical workshops from the Service Systems Design Masters took place. In course of these, the project group had the chance to investigate the service idea further through the use of Video sketching methods as well as the Arduino technology.

### Video Sketching

The introduction to the Video Sketching Workshop gave an overview of the project phases from Research to Sketching, Prototyping and Implementing and showed the possible approaches of Video Sketching as a development tool. Due to the ongoing work of the semester project, the project group was in the state between sketching and prototyping at the beginning of the workshop.



III. 23: Graph of Process Phases

Hence, the workshop could be seen as a good preparation for the prototyping phase of Refujourney. Since “sketching is concerned with the explorative generation of new information, and thus reduces the uncertainty of the process” (Vistisen and Rosenstand, 2015) the sketching activity allowed to discover different tracks of a concept and through this helped clarify the concept of Refujourney. Throughout the workshop the project group got introduced to methodology such as Design Fiction, which allows for an even more creative approach to discover concept paths and communicate the arising ideas to stakeholders. A Design Fiction approach to Video Sketching can, by creating vision videos that do not show the actual product but rather a design fiction vision, help sell the idea and support to actually develop the product.

Inspired by the Design Fiction approach, one of the teams aimed for a combination of real world and comic illustration. The idea was to use the green screen technology to integrate the real life actor and through Adobe Premiere effects make this person disappear and become the illustrated Persona which was supposed to walk through the journey in a Stop Motion production. This way the functionality of the Refujourney should be presented and clarified by the metaphor of actually walking along your own journey.



III. 24: Stop Motion Production



The other half of the project group focused more heavily on green screen production and editing. Capturing a number of movement in front of the green screen and editing these in Premiere by the use of different effects, the actor could then jump through space and time. This way another version to represent Refujourney with a stronger focus on data flow and the inclusion of different location the Refugee passes on his or her journey, was produced.



III. 25: Green Screen Production

The first of the final Video Sketches displays the combination of Stop Motion Technique and Green Screen scenes. By making the user jump between two worlds, the value of the personalized Refujourney Service could be represented. The second of the final Video Sketches investigates the confusion of Refugees arriving in Denmark by illustration different locations and station they go through. In this version, the possibility of data distribution and hence support in the different steps through Refujourney is stressed.



III. 26: Video Sketches



### Arduino

Aiming for a useful prototype to illustrate the Service concept of Refujourney, the group wanted to include several aspects learned in the tutorials, hence the idea for the development of the prototype was developed with focus on using different Arduino function. The group decided on creating a 'game board' which allows to physically walk through the Refujourney with a playing figure. For this matter the prototype is a



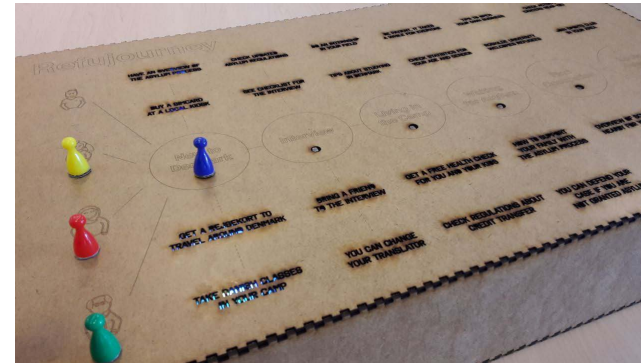
laser cut board which illustrated the different steps of the Journey according to the different user groups based on the personas developed further in the main project process. Using light sensors at the different step of the Journey, notifications (which are an important part of the application) are supposed to light up once the figure reaches certain steps and covers the light sensor. The notifications are color coded and will be suitable to illustrate the different user or general and of importance for all users. This game board is aiming to illustrate the Refujourney and physically allow a walkthrough, it furthermore could possibly be used for testing matters or the like.



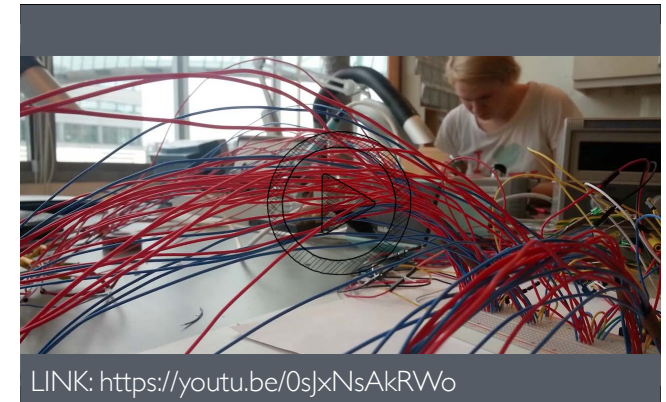
III. 27: RefujourneyBoard Assembly

Using Playing Figures, the Refujourney could then be tested by walking through it on the board. The prototyping was done successfully and the various individual recommendations lid up in the different steps accordingly to the color of the particular player or in a colorful light to signalize a common notification. The result was captured in a short video. By clicking the picture on the right the video of the final proto-

type as well as the documentation of the whole process from the beginning, can be accessed.



III. 28: Refujourney BoardFinal Prototype



LINK: <https://youtu.be/0sJxNsAkRWo>

## *Learnings and Reflections*

Even though the results of the two workshops could not immediately be included in the project development, the different approaches taught in the workshops and the new skills achieved offered a new angle on the Refujourney development, as well as clarified some parts of the service concept throughout the workshop tasks. This way for example the journey milestones as well as the necessary content had to be



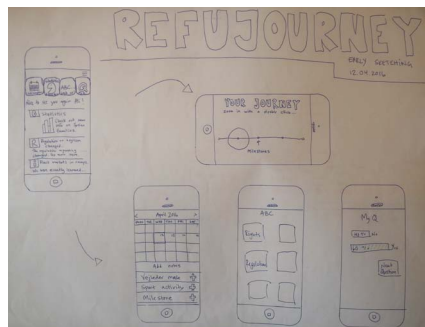


clarified by the project group in order to present a coherent product in the video sketching.

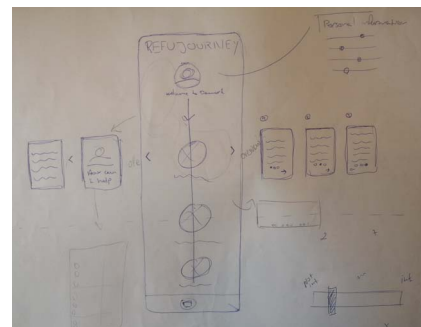
In same way the illustrations of the Refujourney example journey had to be very much thought through before laser cutting them into the board and coding the Arduino in the appropriate way. The result of the two workshop were a clearer picture of the service idea as well as different versions of illustrations of the concept itself. For future purposes these artefacts could be useful for the introduction of the service idea to stakeholders and users and could be valuable props for co-creation purposes.

## UI Sketching

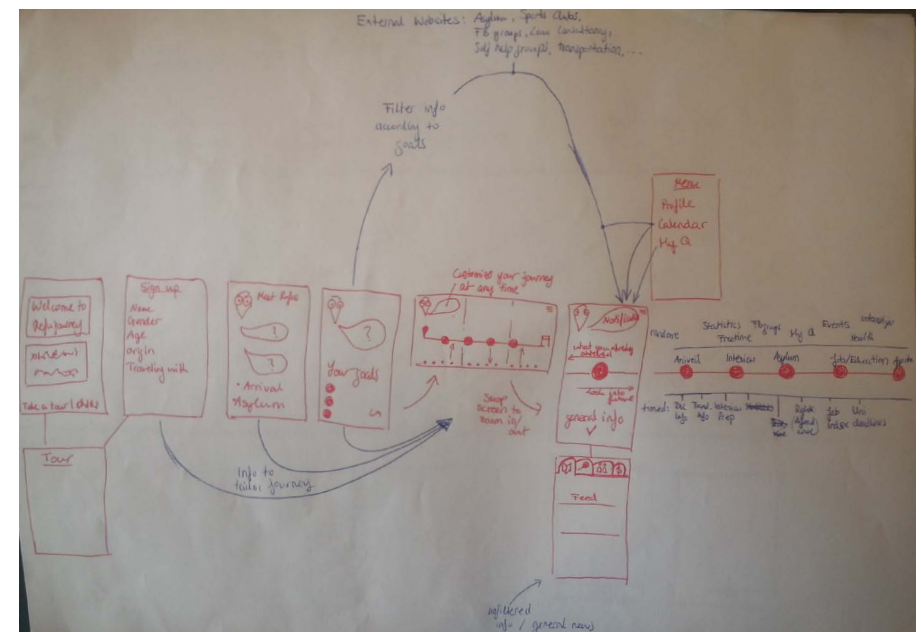
Based on the theoretical framework provided by Bill Buxton (2007) and his approach of thinking through sketching, the group began to sketch out the initial functionality of the app based on the key findings from the interviews and desktop research. Each group member sketched out their initial thoughts by creating individual screens of how the app could look like. It initiated some valuable discussions and hereby the project group reached a common understanding of the design of the application.



### III. 29: Initial UI Screen Sketches



The main screen was agreed to show an interactive timeline with the journey of the asylum seeker. Furthermore the usability of using specific pictograms or high use of visualization to prevent language barriers, became an important aspect when developing the initial UI. After debating the initial user experience of interaction with the app and the initial levelings of information, the group chose the strongest yet simplest functions within the UI. This ensured that the user experience was maintained based on the empirical data previously collected. Based on the simplicity mentioned in Interaction design: beyond human-computer interaction by Preece, Rogers & Sharp, the group chose to simplify the interface so it contains very few, but specific functionalities.



### III. 30: Second UI Screen Sketch



The initial categories within the app were divided into specific sections. Some sections push information, others would pull information from the user.

- Timeline (journey): The main interface from which information is pushed at the user.
- Calendar: An interface from which the user can provide inputs of specific events, making the timeline even more customised by using this information in the timeline.
- News: An interface providing information to the user from specific channels to make sure tailored information was given the user.
- My Q: An interface from which the user could provide information about themselves in a entertaining and fun way, by using gamification as the main element to make sure the user provided information about themselves.
- ABC Look up: An interface that would be a glossary of all the information provided by the app, meaning you could search for information and specific words that could have specific interest for the user.
- The buddy: a function within the app is a buddy. This personal guide will provide information as well as ask the user for information to customize and make sure the user get the right tailored journey. It was discussed in the group to use the avatar of a friendly owl as a symbol of knowledge, this buddy (or avatar) would then be a static part of the journey of using the app.

## Co-Creation / Testing Session

The group conducted a usability test, using the paper sketches from the sketching sessions as the initial UI. For this matter the same refugees who were involved in the co-creation of the journey timeline earlier in the process, were invited. The

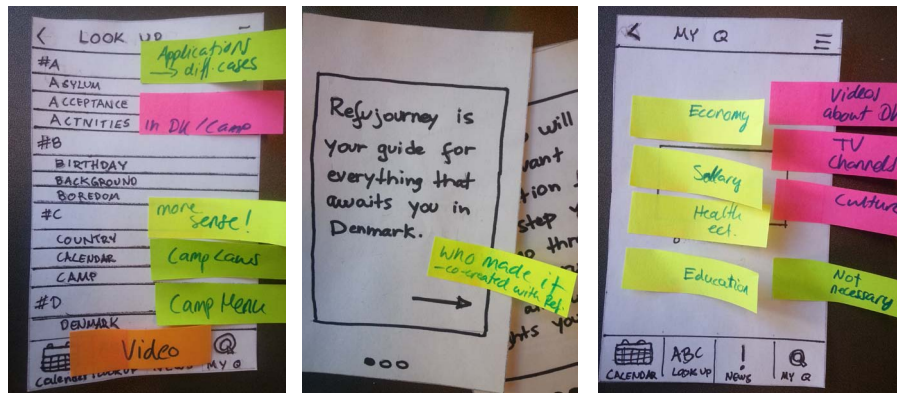
testing was conducted at a public space (Copenhagen Central Library), where the project group divided the invited focus group into individual testings. The group then ran through the usability of the paper prototype with each test person individually.



III. 31: UI Testing

During each test session the feedback was documented in pictures as well as in notes. In each session, testing a given function, every step was followed up with a series of questions, which gave the participant a chance to elaborate immediate questions they had during the run-through. After ending the test session, each participant was also able to add further questions about the app idea and presented content in the screens.





III. 32: UI Testing Screen with Notes

During the run-trough, the participants mentioned the possible problems occurring in the signup process by asking for full names. The participants made it very clear that, if they were using the app as refugees and asylum seekers, they would like to be aware of who the provider of the service would be. If it would be the government or the municipality, the refugees would most likely not insert their full names, but rather make up 'fake profiles', providing misleading information. If the app was provided by an NGO such as Refugees Welcome, the participants' concern for specific information provided by them would be a little less concerned about their privacy and fear of surveillance. The participants suggested instead the use of nicknames, especially since specific names in Syria and the middle east have been affiliated with a lot of surveillance or prosecution. Therefore the participants would be concerned who would be interested in such information and potentially misuse it for their benefit.

Another aspect of the signup process was the participant's suggestion of a more friendly use of words, making the app less interrogating, as the possible use of softer communica-

tion would make it more convenient for people to provide information and less chance for people to add fake information to the app in fear of it being misused.

### *The personal assistant*

After the signup process the participants were introduced to the personal assistant "Ole, the owl", the avatar developed in the UI sketching session. The participants provided the project group with cultural insights, telling that the owl in arabic culture often is affiliated with bad luck. If a personal assistant was needed in the next prototype session a possible change of avatar would be beneficial if the app should be targeted to middle eastern societies.

In this chapter the test findings about each sub category, mentioned earlier in the chapter about sketching, will be elaborated:

### *Look up*

The sub interface using the working title "ABC Look up" was, according to the participants, too confusing. Many thought it was a traditional dictionary rather than a glossary of all words necessary to know or look up in case of curiosity. The focus group suggested to use more explanatory terms, such as "political refugee" so that the vocabulary of the sub interface, is more specialized in the specific terminology used in asylum camps and asylum processes. An interesting suggestion made by one of the participants was the possibility of finding translation from Danish to Arabic/English of typical grocery products, as this would make it easier for refugees to shop at Danish supermarkets.

### *Calendar*

The interface using the working title "Calendar" was also com-



mented by the focus group. Discussing the use of the calendar function, convenience was the most given problem occurring, as they already use the calendar in their smartphones. It was discussed if the calendar should be able to synchronize with the smartphone's own calendar.

### *My Q*

The participants was at first confused about this subinterface, referring to it as perhaps an explanation of the app. However after conducting the usability test and run-through with the participant, the aspect of gamification was well received. The participants wanted the 'My Q' section to become more informative, meaning that specific topics of interest (ex. Danish culture), could be made available and placed within the gamification frame first presented.

### *News*

When presenting the subinterface concerning a newsfeed, the participants made it clear that a newsfeed with updates about change of rules and regulations might potentially stress and put unnecessary pressure on the asylum seekers. The participants discussed how they get information in their daily routine. Some of the participants used Google translate to read the Danish news articles online and didn't see any use in having a News feed in the app.

### *Test reflections*

After conducting the UI test the group worked out the data and results, as referred to in the previous chapter. The usability and simplicity of using the app were discussed and prioritized. The use of the personal assistant was considered unnecessarily and confusing and with a risk of being too childish, when taking the age group and broad segmentation of the users into consideration. It was decided to focus more on the

main usability using the interface of the timeline and providing a more simple framework from which the user should find information from one place before being introduced to the other tabs. The issue of pulling information from the user into the app was being reconsidered and how it could happen in practice, since the personal assistant was the main functionality which provided the app with user generated information. The calendar as well as the news feed was considered unnecessary, especially if the aim was to make the app simple to use and with few functionalities.

### **Expert interview (Testing of Concept)**

To test the Refujourney concept it was decided to reach out to an expert in the field. Someone who could provide the project group with critical reflections and insights on what content would be appropriate to include in the service. The project group reached out to Michala Clante Bendixen who agreed to meet and participate. Michala is chairman of Refugees Welcome, a non-profit organisation offering legal advice to asylum seekers living in Danish refugee camps. She has been working with refugees in Denmark for 9+ years and she received the Human Rights Award 2014 from The Danish Council of Human Rights for her voluntary work for refugees (refugees.dk). Recently, Michala has also been advising the team behind [refugeetext.org](http://refugeetext.org), who are developing an app that provides relevant information for refugees arriving in Europe. Her insights about similar services and her broad knowledge on the needs of refugees arriving in Denmark and living in the Danish refugee camps would be of great value at this stage of our design process.

The interview took place in a public cafe in Valby suggested by Michala Bendixen herself and two group members were



present. The interview style was semi-structured (Kvale et. al, 2008) using an interview guide with open-ended questions. The main interests were Michala's perspective on the challenges refugees in Denmark face and if they match the content and advice Refujourney aims to provide. Hereafter the Refujourney service would be presented and Michala's opinion and reflections would be explored.

This testing took place as a heuristic evaluation: "a method of inspection of the service usability based on a predefined set of criteria that the evaluators (experts) follow during the analysis." (servicedesigntools.org). This method gave a quick feedback and a lot of good suggestions for the improvement of the whole project. Refujourney was presented via an oral service introduction followed by two of the sketching videos that the project group produced during the sketching workshop. The criteria that the evaluator (Michala Bendixen) was asked to follow in her analysis was app content and challenges.



III. 33: Michala Clante Bendixen

## Findings

### Refugees lack support & information

- Most refugees don't know there are any information/support services available for them.
- They don't know where to go to get advice.
- The feeling of being forgotten in the asylum process is the worst thing.
- Asylum camps are designed to isolate people away from society and make them passive.
- During integration an active approach is expected, however here they don't get any help from the municipality or other public authorities. Basic issues such as finding grocery stores etc. – they don't get any assistance.
- People in the tent camps get wrong information from staff and are being threatened in many ways.
- The support needed for refugees is very different depending on if they are waiting for asylum or if they have gotten granted asylum. And could potentially be two very different apps.
- Finding occupation while in the camps does not work, due to bureaucracy and requirements that no one can live up to.
- People in the tent camps get wrong information from staff and are being threatened in many ways.
- The cases are being processed one at the time, but immigration service are doing what they can and are not trying to scare the refugees. However, like patients, doctors won't always explain the process which results in the patient being insecure.

### Challenge 1: Building trust

- Trust issue will be big challenge. It is important to communicate that the service has nothing to do with public authorities.



- Personal trust is the most important element when looking for information.
- Refugees lose trust in the system when another refugee that has spent less in the camps get granted asylum.
- Demystifying the service is very important through word of mouth, make the app transparent. The users will wonder: Why do they want my personal information?
- Refugees come from a very suspicious culture which is important to consider when creating a feeling of trust.

#### Challenge 2: Funding/ownership

- Funding is very difficult to get in this field. That's been a major challenge since day one she started working with refugees.
- Municipalities have a budget that could be a potential partnership with the Refujourney.
- The government is deregulating the integration process in municipalities
- New website from KK.DK for refugees. A potential collaboration partner. Both for refugees and volunteers.

#### Challenge 3: Language barrier

- Having the service in Arabic, Farsi etc. is a good idea, however:
- Professional translation is unreliable and expensive
- Nothing in terms of information on legal advice etc. is translated into Arabic.
- Challenge in terms of structure of the content (The layout on all the platforms needs to be modified).

#### *Critical points deriving from the testing*

After the testing the group analysed and reflected on the insights. As seen above, the insights were sorted and categorised in themes. Based on this, six new critical points for the

Refujourney service derived:

1. How will we build a trust relation to our users?
2. How do we fund Refujourney?
3. What information should we prioritize?
4. How will we communicate in a language our users understand (Arabic, Farsi...)?
5. How do we align with the municipality differences/conditions?
6. How do we make Refujourney relevant/appealing for very different types of users?

In the further development of Refujourney, these will be some of the key questions to reflect upon.

#### *Reflections*

Michala Bendixen proved to provide valuable insights and reflections for further improvement of Refujourney. In general, she seemed very supportive of the service concept and she immediately recognised the value for the users. She especially liked that Refujourney aims to customise the information for the user, as all journeys are very different regarding timeline and content. According to Michala, refugees get very confused about these differences so it is important to highlight this from the beginning and decrease the amount of information focusing on one case.

Michala also agreed with the group's choice to make the style and tone very light and friendly. She explained that the asylum seekers often meet critical caseworkers so they lose trust in the system and need that friendly support to continue. Michala also recognised the potential of the MyQ feature, where the app collects information and statistics about the users. Many organisations requests this kind of research,



however she highlighted the challenge of building trust to the service. There need to be a good and clear incentive to provide personal information. The users will automatically be very suspicious when providing information about themselves. “What will they use it for?”, “Why do they want to help me?”, “There must be a secret agenda”. Michala identified trust as being Refujourney’s main challenge.

When talking about the main challenges of the Refujourney service, it was important to explore potential solutions with Michala Bendixen. Some ideas that derived from our discussions were that the trustworthy sender of the information could be Venligboerne or Danish Refugee Council. Michala confirmed that these are two organisations that the refugees trust and are open to collaborate with. On the contrary, Red Cross should be avoided or any other institution linked to the government.

The potential of using ambassadors from e.g. Venligboerne as a communication channel to spread awareness and trust to Refujourney was discussed with Michala who showed great enthusiasm and belief in the idea. Linked to each asylum camp in Denmark there could be an ambassador from Venligboerne who frequently visits and guides the refugees in how to use the service. The Venligboerne organisation structure is based on Danish volunteers who are eager to support and help the refugees voluntarily. Civil interest in helping refugees is so big in Denmark that there are more volunteers subscribing than demanded, spread all over the country (Kristeligt Dagblad May 2016). With a simple communication toolbox targeted to the volunteers, it would be possible to create a word of mouth awareness about Refujourney. It is on the agenda to explore this idea further.

## Digital and interactive UI Prototype

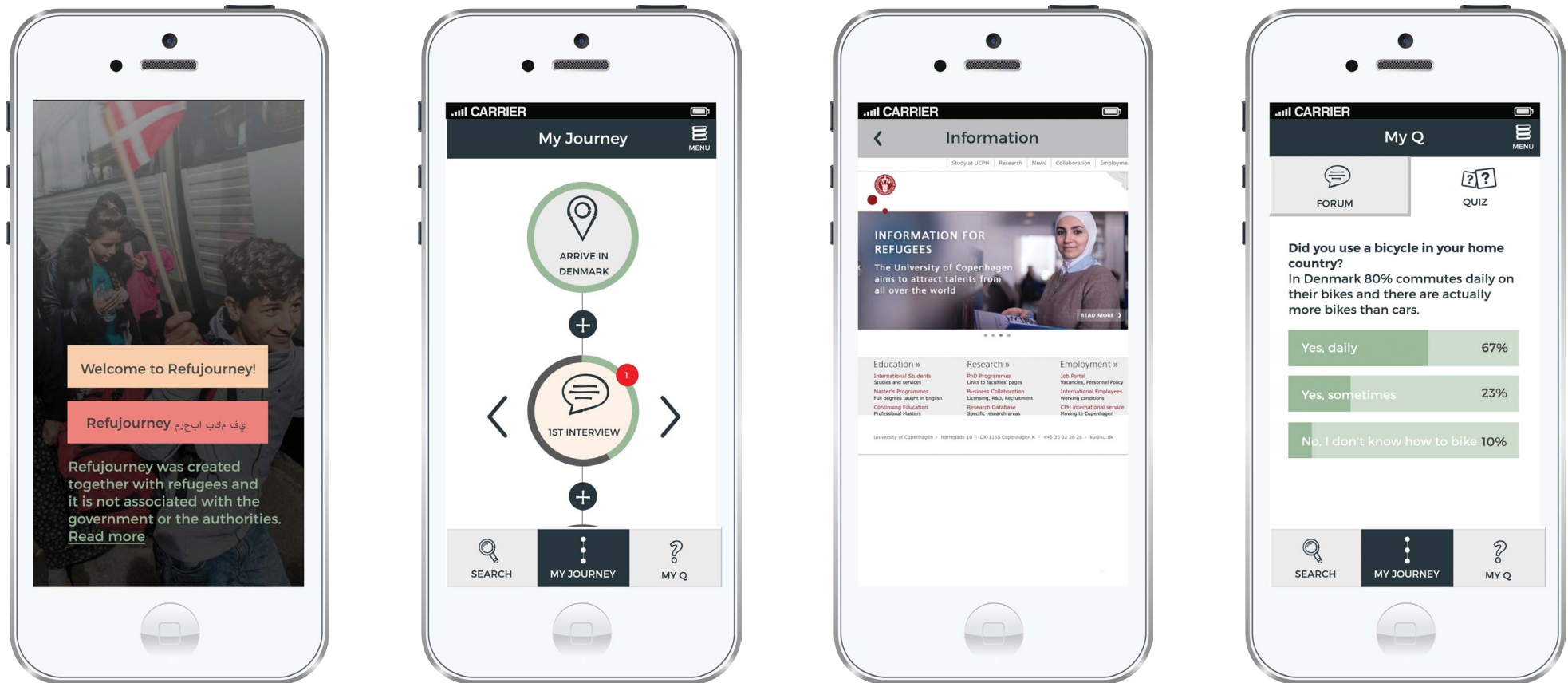
After having the testing session with the refugees and the interview with the expert in refugee issues, the project group analysed the feedback that was given, in order to implement some changes in the new prototype. As Refujourney is mainly a digital service, the project group considered it important to develop a digital prototype, that would give a more similar experience to what is intended in the final version. The plan was to make an interactive and high fidelity prototype, that could be used for testing as well as to be presented to stakeholders. The screens were designed in Photoshop and the interaction flow was created using InVision.

In the digital version, the following changes were implemented:

- Removal of the personal assistance (Ole, the owl)
- Added information text in the first screen emphasising the independence from government
- Name field optional, with possibility to write a nickname instead of real name
- Personal information and professional background as fields to fill in, instead of having the buddy asking for these informations
- Calendar and News feed were removed
- Look Up function became Search
- My Q was split into two sections: a forum, as a place for refugees to ask questions to others refugees; and a Quiz, where questions are being asked from the app to the user



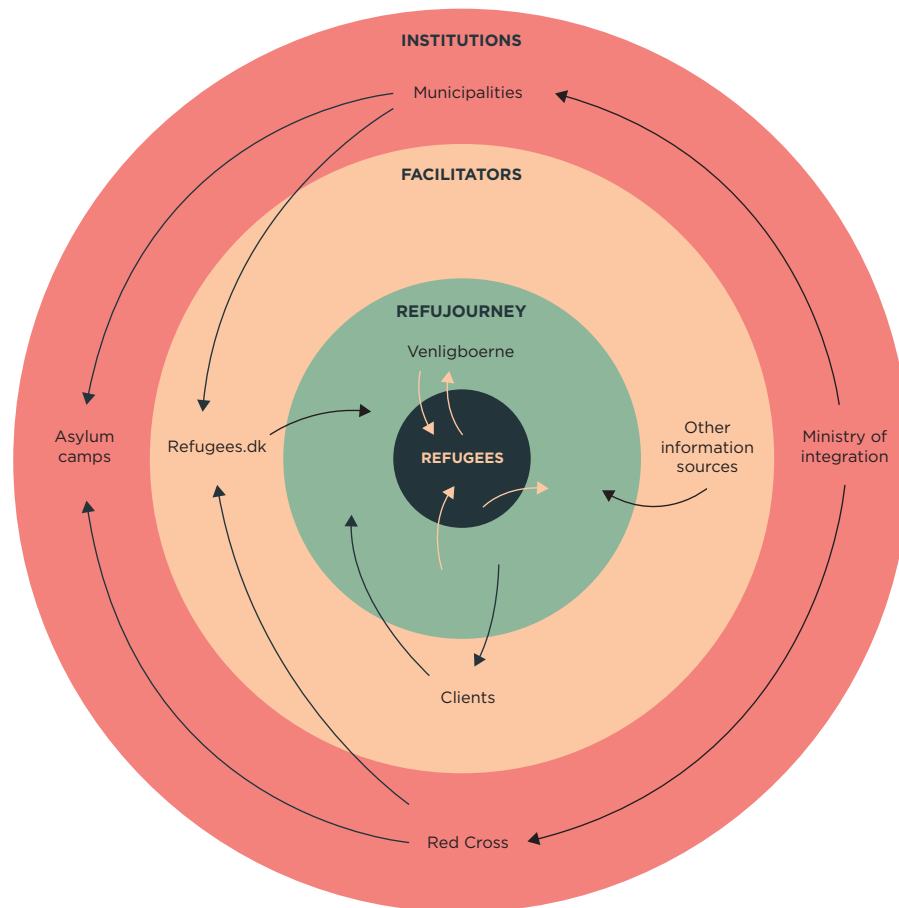
Invision link to interactive Refujourney prototype:  
<https://projects.invisionapp.com/share/927C490YJ#/screens>



III. 34: Refujourney UI Prototype



## Refined Stakeholder Map



III. 35: Final Stakeholder Map

As the project group agreed earlier in the process, the Stakeholders map got revised. Instead of defining all possible internal and external stakeholders, it was decided that the map would show 4 layers of interaction: users, service provider, facilitators and institutions. In the center, the users

(refugees) will be placed. Around them, the service provider (Refujourney) is placed, followed by the facilitators (those who Refujourney depend on to exist, as they provide content for the service and function as intermediaries between the government and the refugees). In the last layer, the institutions are placed (those who have some interest in the service or are affected by it, by creating political strategy in relation to the refugee crisis, the asylum seeking process, regulations in the camps etc but don't have any direct interaction with Refujourney).

It can be argued that this last group has the most significant power since the Refujourney service is based on political transparency in the asylum seeking process. That means that they provide, in the as extent, the information needed to be forwarded to the users. Having defined these actors, the project group examined their relationship in order to get an overview of the information flow.

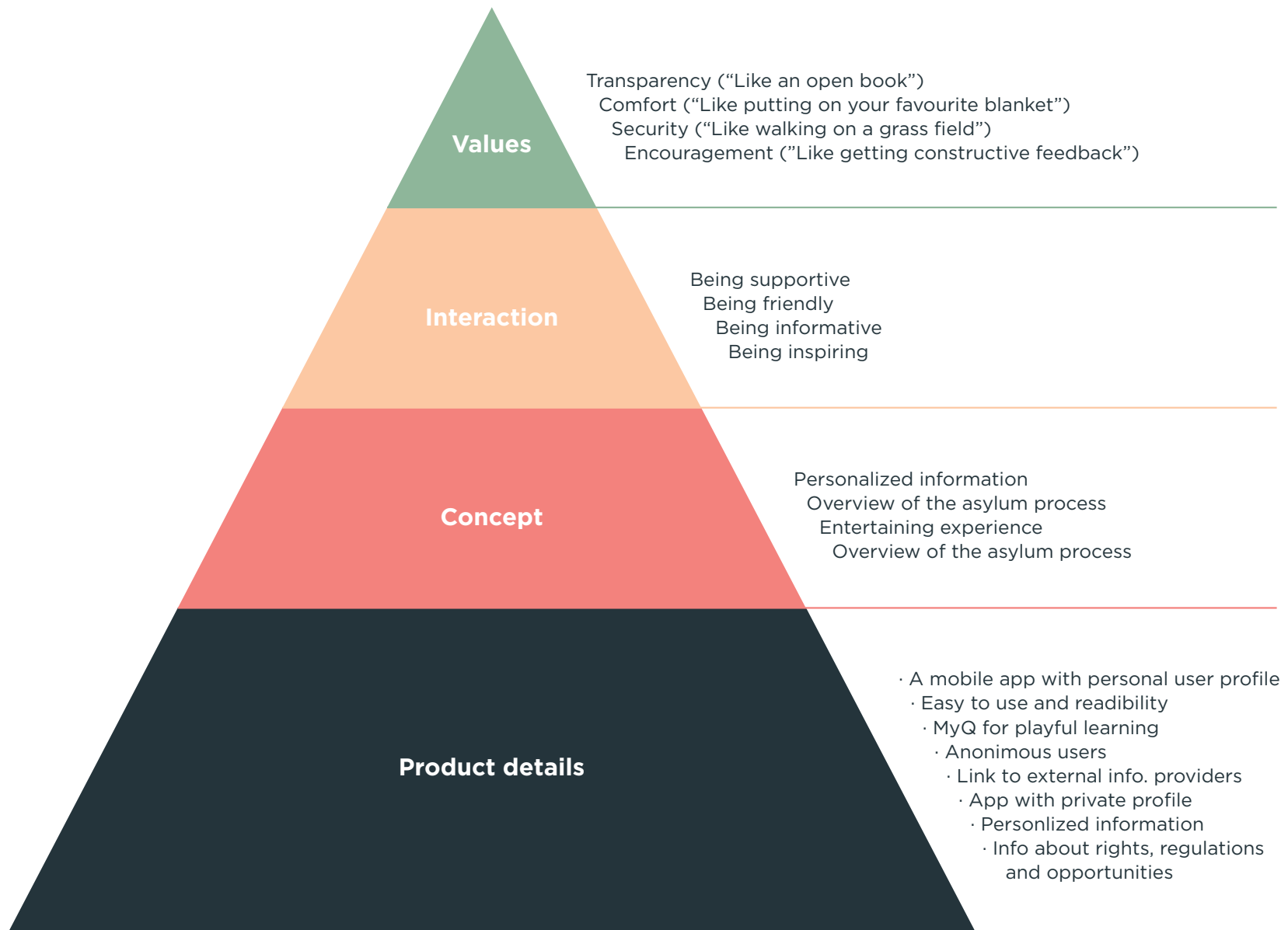
## Completion of the Value Vision Model

### *The Material level - the product*

When refining the concept of the service, the project group also completed the Value Vision model by adding the material level in the bottom of the pyramid, where the product details are formed. This is the level where the details of how the product will be implemented in reality are described. The service was here detailed as a mobile application that would provide the refugees with rights, regulations and opportunities, presenting appropriate information for the user in each stage of the asylum process. The app will link to external services, whenever it is necessary. The service will be free of charge for the refugees and it will be promoted by volunteers.







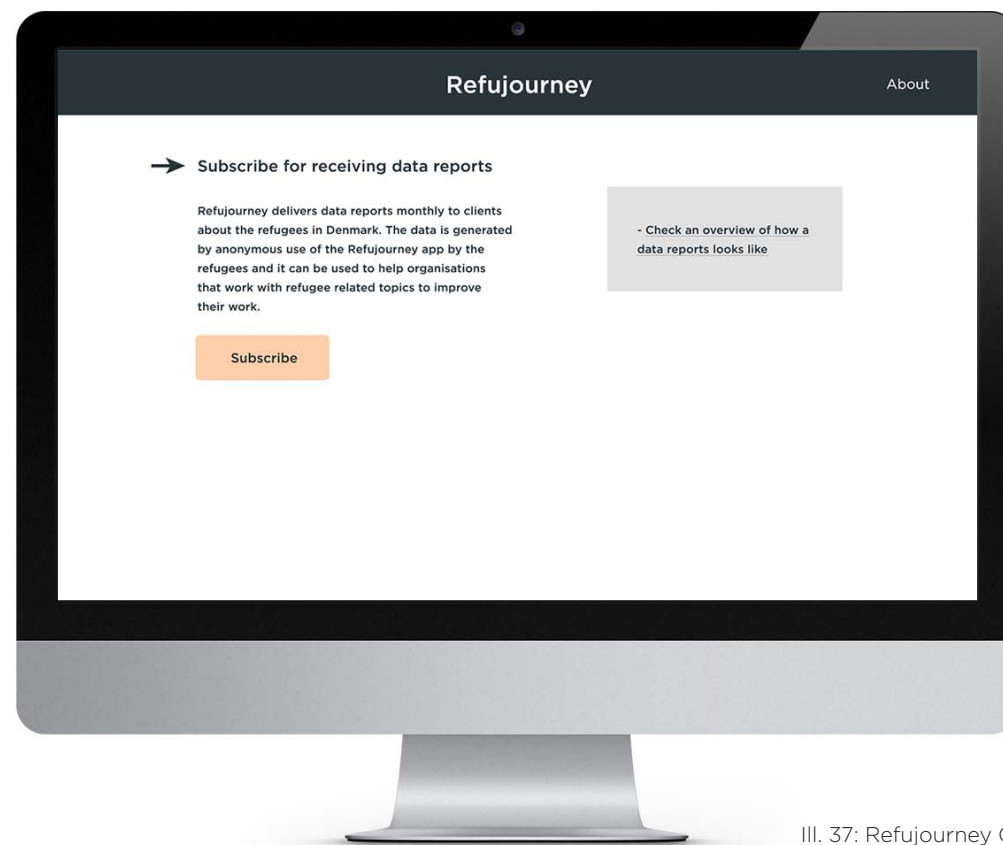
III. 36: Final Value Vision Model



## Defining the Business Opportunity

The project group found it important to refine the business aspects of Refujourney in order to ensure sustainability. Even though the main purpose with the service is not to generate revenue, having a steady cash flow will make it possible to allocate resources for maintenance and development of the app that is not purely based on volunteers. The My Q feature in the app works as an ongoing questionnaire for the user,

collecting data about them, as well as a forum, where the users discuss different topics. However, the project group wanted to further refine the business opportunity within this concept. The idea is that the data stored about the users (through the use of the questionnaire and the forum) will every month be translated into an infographic showing relevant statistics about the refugees. The report will be send by email to interested stakeholders that subscribe on the website.



III. 37: Refujourney Client Landing Page



### *Benefits of the MyQ monthly report*

First of all, the report will provide funding for the Refujourney service as the receivers of it are paying a monthly subscription fee. This gives a steady revenue stream to Refujourney, ensuring that the service can run without additional funding from other parties. However, the MyQ feature is valuable on multiple levels. A quick reflection of individual, organizational and societal benefits are presented below.

On an individual level the statistics will inform the users of Refujourney service about other refugees in Denmark and how they fit into the group. Every time they provide an answer they receive an overview of how all other users answered same question.

Being placed in a category of majority creates a feeling of support and unity. They are not alone in this situation, as many others share their views and feelings. Being placed in a category of minority will urge for reflection. „Why did I answer this way and can I benefit from this diversion from the others?“

On an organizational level it will provide organizations in related fields with key insights on refugees. The information are trends and quick instant diagnoses. They should invite for further research and point to interesting facts and research questions. If for example the report shows a big trend on refugees who miss their pets, a new service that connects animal shelters and asylum centers could arise.

In a last extend, it will affect the society through implementation of the data in companies and organizations. On a societal level it will create a deeper understanding of the refugees for Danish citizens. The information will help when stepping bey-

ond the myths and painting a more realistic picture based on firsthand knowledge. Potentially it can increase the identification and support for the refugees, which will be a huge benefit when the refugees need to integrate with local societies.

Example of potential subjects and categories in monthly report / infographic.

1. Top 5 topics in forum

2. Background facts

Work hours per week

I consumed unprocessed foods

I lived in a city vs. nature

I had a pet

3. Main goals and dreams

I eventually wish to go back

I want a green planet

I want many kids

Preferred work life balance

4. Main concerns and pains

I fear racism in Denmark

My parents will not integrate

Family members will not be able to leave

I fear terror in Denmark

5. Consumer behaviour

I look for the same brand every time

I often shop online

I prefer shopping at markets

Other camp provided shopping advice



## 6. Use of social media

I often instagram

My preferred news sources

I get info on local activities via Facebook

## 7. Asylum process

Feeling of time

Nationality differences

Activities

## 8. Camp differences

Safety issues

Transportation

Hygiene

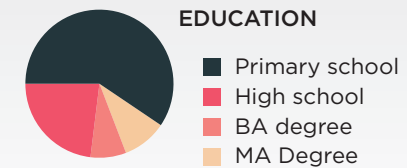
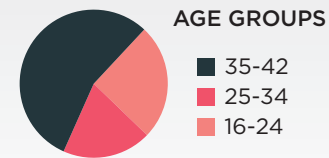
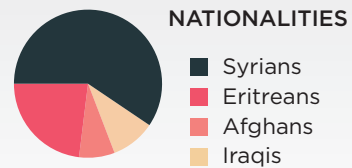
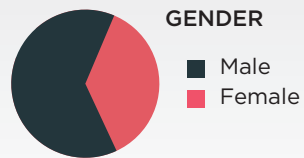
Family reunion

On the follofing page an infographic is displayed, which shows an example of how statistics will be presented in the Refujourney data report.



Refujourney report **Denmark, June 2017**

## HARD FACTS



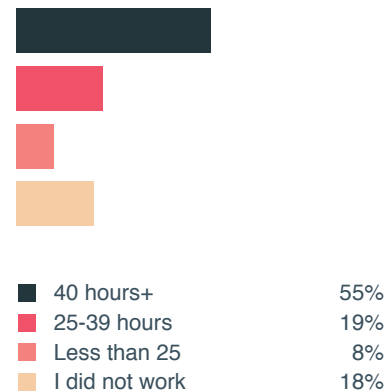
## SOFT FACTS

## Top 5 forum topics

1. Waiting time in camps
2. Music meetings
3. Sharing Danish network
4. Loneliness
5. English lessons

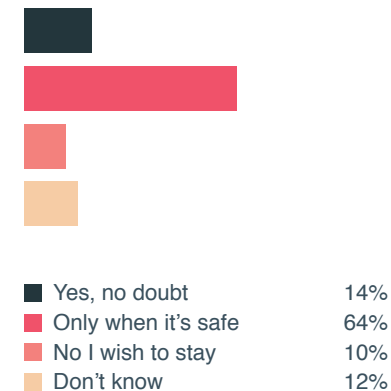
## Background facts

Work hours per week in home country



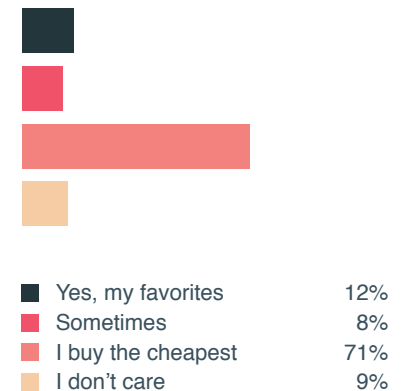
## Main goals and dreams

I eventually wish to go back to home country



## Consumer behaviour

I look for the same brands every time



III. 38: Refujourney Data Report

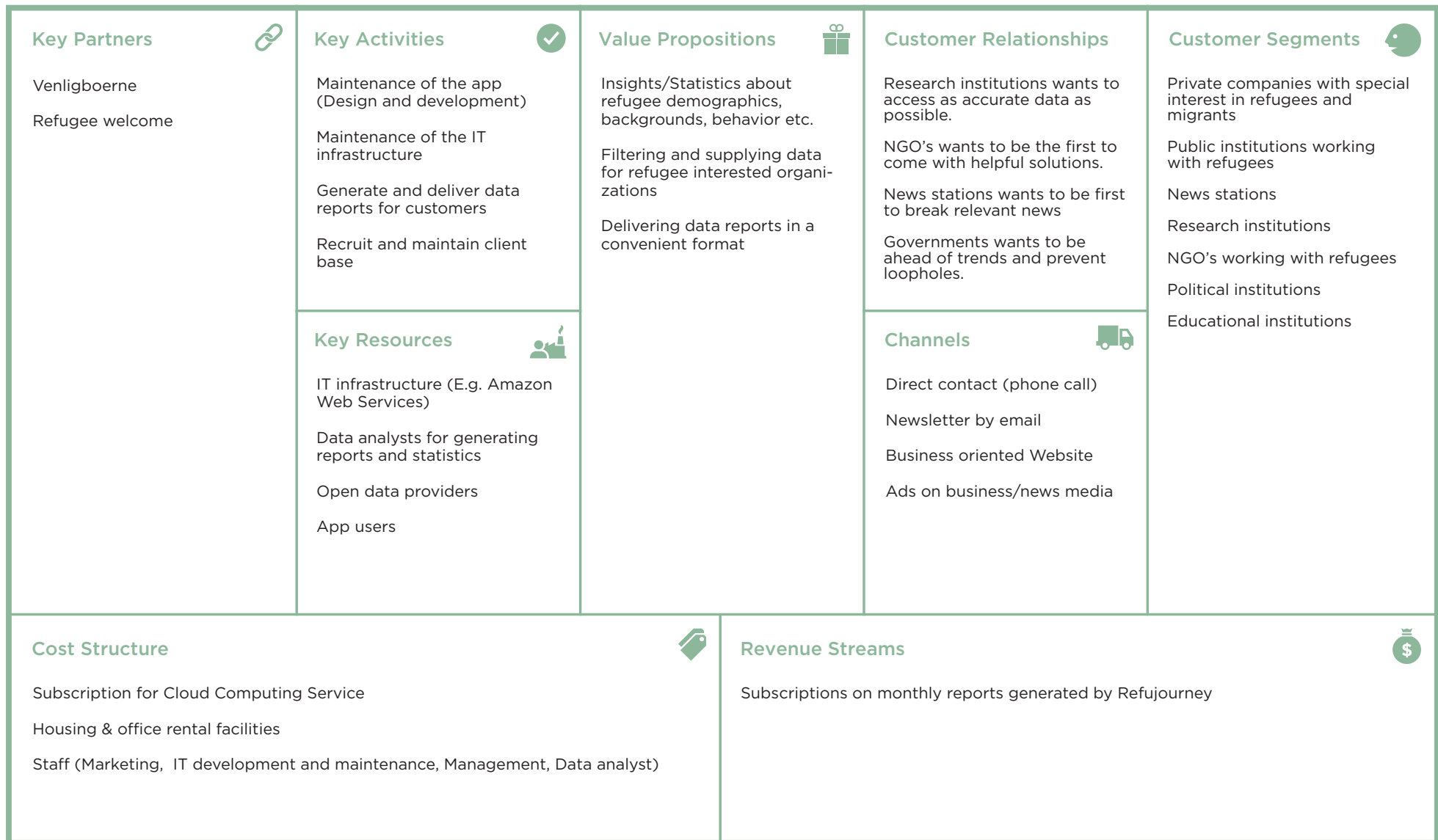
## Business Model Canvas

The group decided to use the Business Model Canvas, developed by Alexander Osterwalder, which outlines several prescriptions to form the different building blocks and enables both new and existing businesses to focus on operational as well as strategic management and marketing plan (Osterwalder & Pigneur 2009).

During the process of working with this model, the group had challenges when defining the content for each section. For instance, one challenge was to decide from which point of view the model should be based on, namely the Refujourney users or the potential customers that would be interested in acquiring statistical data. Since this model is based on business opportunities it became clear that all the sections, such as value proposition and channels, should be designed with the customers in mind and not the users of the Refujourney.







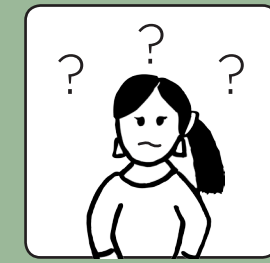
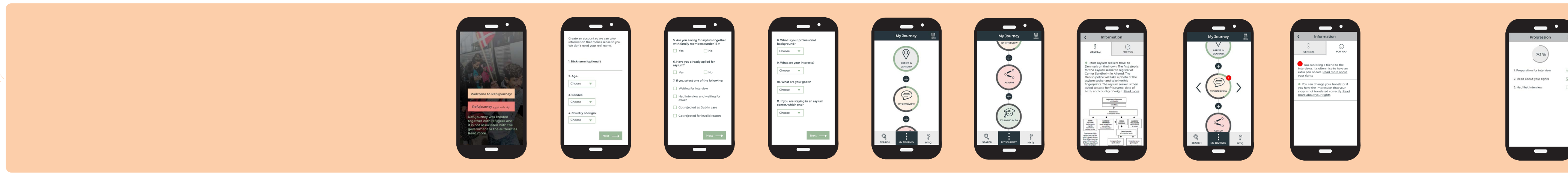
III. 39: Business Model Canvas



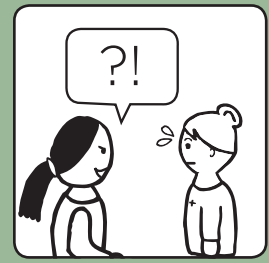
## Service narrative

The Service Narrative can be described through a number of Service Design tools, such as storyboards, personas, moodboards or the like. “The narrative is a collection of events that tells a story, which may be true or not, placed in particular order and recounted through either telling, representing or writing.” (Tassi, 2009). With

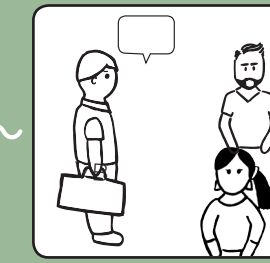
this in mind, the project group decided to represent the service by telling a narrative in form of a storyboard, including a certain persona and using evidence in form of UI screens. This way, a comprehensive illustration of the service functionality was made. Furthermore, the inclusion of and transformation between both the storyboard sketches and UI screens placed along the timeline, supports and clarifies the guiding function of Refujourney in everyday life.



After a couple weeks in the camp in Roskilde, Yasmine would like to know about her future in Denmark.



The camp office is overwhelmed with inquiries and can not help her. Yasmine is frustrated and bored.

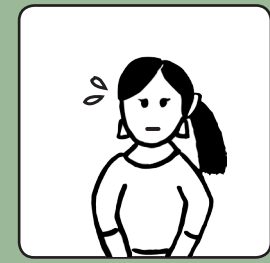


Some days later a VB Volunteer comes to the camp. Yasmine has heard about their good work and listen to what he has to say.

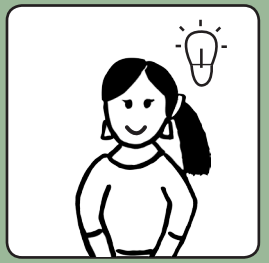


The VB Volunteer introduces the support tool Refujourney - maybe this can help in her situation. She reads the info on the flyer.

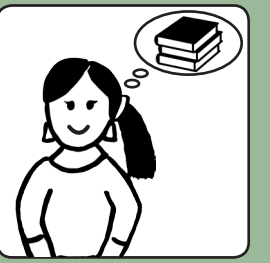
She downloads the App to her phone and sees that Refujourney was created in collaboration with other refugees - this increases her trust and she thinks that the app can be helpful for her since they understand her tricky situation. So she decides to sign up for the service.



The app asks for personal information. She is uncertain if she should do it because of her asylum case.



But then she sees the option to only provide a nickname - this way she can stay anonymous and still receive relevant information.



She provides information about her current situation as well as her interests and goals, for example that she wants to continue her studies.

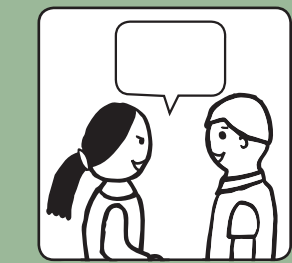
According to her sign up information, her personal journey has been automatically generated and she sees where she is in the journey - the loading bar around the touchpoint signalises that she is right before the first interview.

When scrolling down she get's a nice overview of her next steps in the journey, such as asylum and studying in Denmark. She is curious and clicks on the asylum button. This way she receives information about this phase in a different screen.



A couple of days later she receives a notification on Refujourney.

The app provides more tailored information for the awaiting interview accordingly to the current phase she is in.

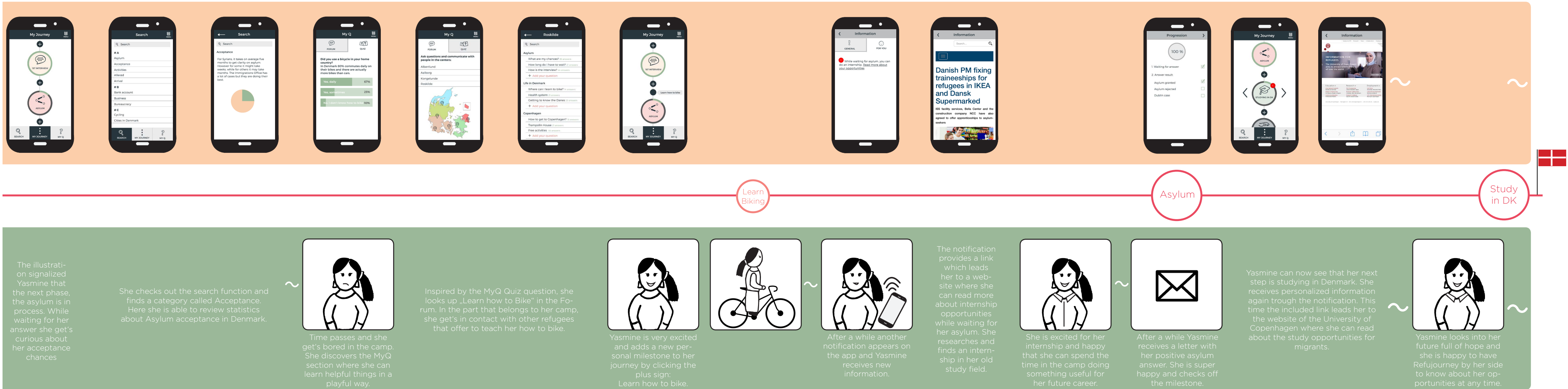


On her interview day she feels well prepared and knows about her rights, such as being able to change the translator.

After the interview she checks off her first finished milestone. By checking the boxes she receives 100% for the 1st interview and hence moves on in the journey.

In order to present the functionality of the Refujourney app in detail, it was chosen to present it on the example of one particular persona. For this matter, Yasmine was chosen. The project group picked her for several reasons. While the most striking one was that this persona represents the biggest part of the users the project group could get insights from during the development of the service concept and therefore allowed for the most coherent representa-

tion of the Refujourney service. The following illustrations displays the Service Narrative of Refujourney by splitting Yasmine's journey into two parts. Above the Refujourney timeline with the different milestones, the UI screens are displayed along with the content she receives through the app throughout her journey. Below the timeline, her physical actions and the real life experience she makes along the way can be viewed.





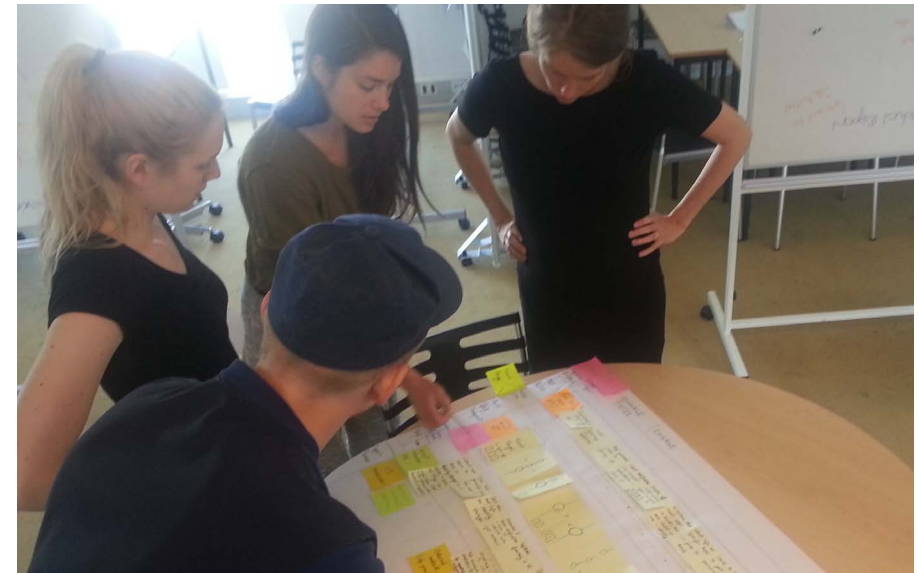
## Service Blueprint

In order to show an overview of the service and identify its main components, the project group developed a service blueprint. This tool not only helps to spot crucial areas, as it reveals areas of overlap or duplication throughout the user journey. It also helps organise what is needed in order for the service delivery (Schneider and Stickdorn, 2009). Used in professional contexts, this tool works to bring together different departments of an organisation, in order to provide a better understanding of individual responsibility in delivering the service. When used for this project, this tool highlighted important issues, starting discussions in the project group related to what happens when and which actor is responsible for what.



III. 41: Service Blueprint Sketch

The project group started sketching a first version of the blueprint, focusing on the app user's screens in each step. The project group reflected on this version, as it seemed to be too similar to the user narrative and hereby it would give limited new insights. In addition, it was lacking the interaction of other crucial actors involved in Refujourney. It was missing the connection of the input data from the refugee with the data report that is produced as an outcome. In that sense, the project group recreated this model, having the following blueprint as a result (see next page).



III. 42: Service Blueprint Creation

This blueprint shows the interaction between the service provider (Refujourney), the app user (the refugees) and the clients (those subscribing to the data report). The model is separated in three phases:

„Aware“ is when the volunteers, the clients and the app user get to know about the service; „Use“ is when the client receives their first stats report (of the previous month) and the app user makes use of the app; and „Result“ is when the clients receive the data report and the refugee completes their last milestone, not needing to use the app any longer. The „Result“ phase is not related to time, as the client receives the data report once a month, while the refugee might make use of the app for days, months or even years. The arrows indicate the flow throughout the blueprint.

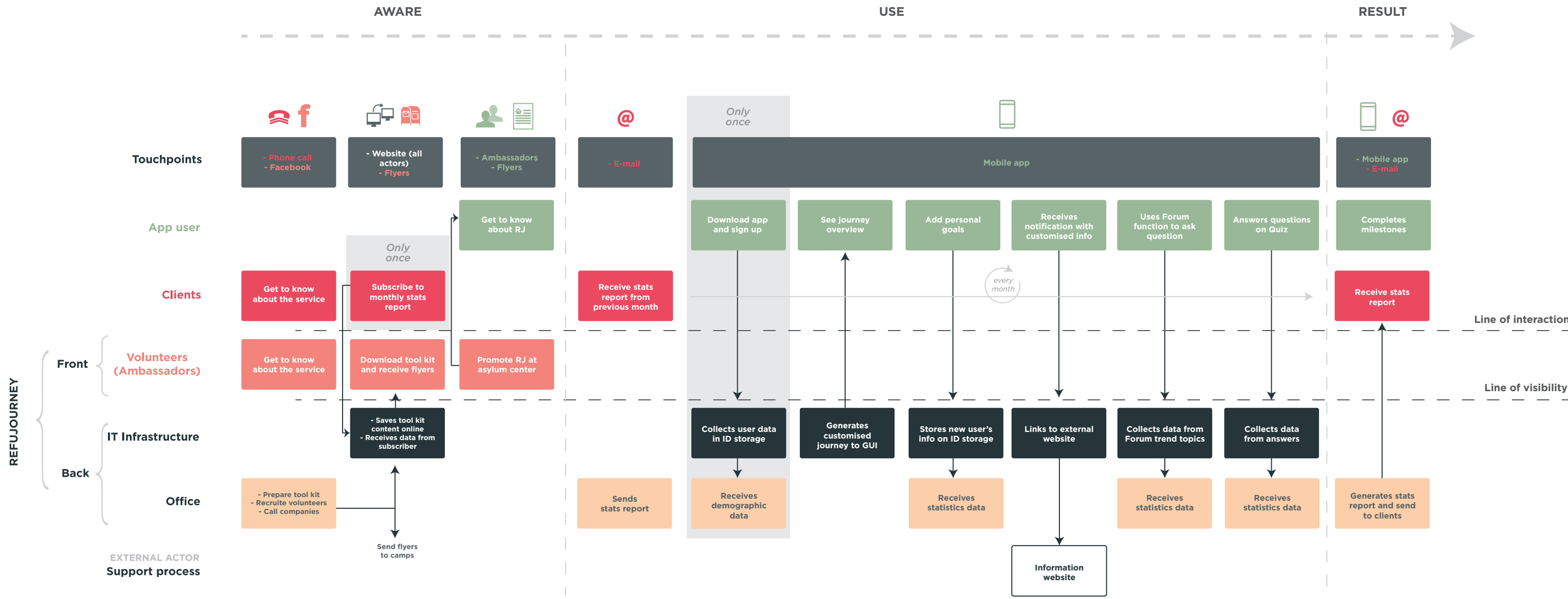
The touchpoints (the point of encounter between service provider and actor) is shown in the first row, color coded in accordance with the actor. The volunteers (or ambassadors) are shown as part of the front stage of Refujourney, even though they started with being outside in a first instance. They should be recruited by Refujourney in order to become part of the organisation, therefore the touchpoint for recruitment is shown.

The volunteers represent Refujourney, once they are recruited, and they then become a touchpoint, as their job is to explain the app for the refugee face-to-face. The idea is that the ambassadors travel to the asylum camps and introduce the concept for the refugees in the camp. This is indicated in the blueprint by the line of visibility. In the back office are the IT infrastructure and the office staff.

The database gathers all the system infrastructure events. The support process represents the websites that provide data content for the app and are considered external actors. They are linked to Refujourney whenever their website content is needed.





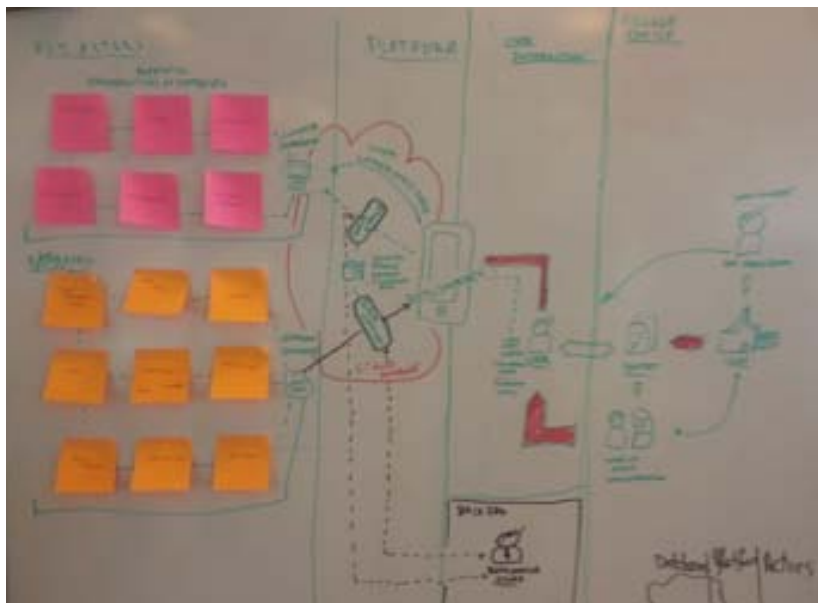




## System Architecture

After conducting the sketching sessions, developing the user experience and the user interface for the Refujourney app, the group worked on the initial steps in developing an explanation of the overall system architecture and distributed system map. Here the database and the external information were discussed and sketched out.

In the initial sketches for the system map, each step towards using the service from a user level as well as the functionality of the backend, were explained. However, the importance of the backend system and developers was soon realized, to provide and filter useful information and dynamic maintenance of the app. Therefore the system was further developed using the whiteboard to collaborate and share ideas.



III. 44: System Architecture Draft

With an aim to develop the distributive system as a dynamic cloud computing system, and distinguish it from a classical distributive computing service (with one or two physical servers), the group began to focus on who the potential clients for the data report were. It was also the aim of the discussion to understand how the project group would be handling all the input data from external service systems.

The project group considered the use of a cloud system, meaning having dynamic access to a cloud database, to prevent maintenance on a main system. It would also decentralise the capacity and thereby prevent the bottleneck effect (when the data traffic is entirely stopped). Cloud computing would benefit the service reliability and prevent server breakdowns (ZDnet.com, 2016). However, it was discussed that the matter of security would be an important aspect, considering the privacy of the user data. A hybrid-cloud with a local storage system for user identity could become a reliable solution, minimising the risk of intellectual property theft by hackers. Since the service will be linking to multiple external databases, it relies upon other services and their distributive functionality at some point or another, making the service somehow vulnerable in regards to external server maintenance. Furthermore, the system map showed the potential clients that would have interest in the input data provided from the user.

The group discussed how the service actually would be functioning as an aggregator of data that would generate quantised and anonymised data (also referred to as big data). In order to avoid intellectual property rights claims, Refujourney will only connect to open datasets that are accessible, discoverable and without jurisdiction. Furthermore, operation management was discussed and elaborated upon, since the project group would need a good awareness about the po-

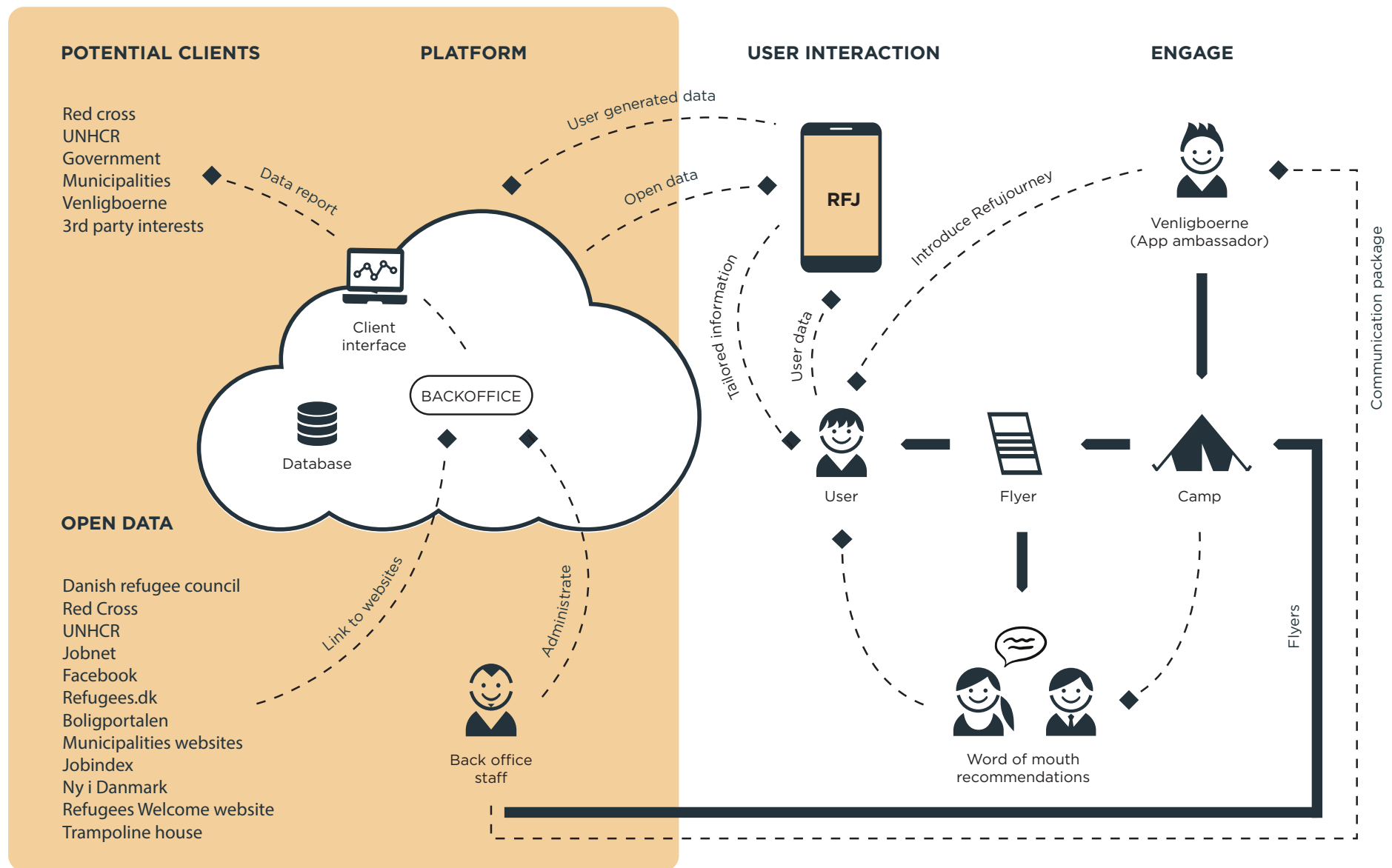
tential flow of information and material, thereby also creating an overview of the value chains, lastly to explain the overall service flow. This approach of creating a service which responds immediately, almost alive service, there will be a need of a steady data flow which will be provided by the vast amount of open data systems.

In the scheme on the following page, it is shown how the backend infrastructure interacts with the physical side of the service. The flow can be read starting from any component. If, for example, it starts from the back office staff, they are connected to the cloud as they are responsible for administrating the database. At the same time, they are the ones creating and sending the promotional material to the asylum centers and the volunteers (or ambassadors). The latter receives also the toolkit (communication package), by downloading it from the website. The app user (refugees) get to know about Refujourney through the ambassadors, through the flyers at the asylum center or by word of mouth. The users receive the app content to their user interface, while the data generated by the users through the interaction with the app is sent to the database. The users are also linked to external websites, whenever it is the case. The data gathered from all the users is transformed into a monthly data report, that is then sent to the clients.



## Technical system infrastructure

## Physical infrastructure



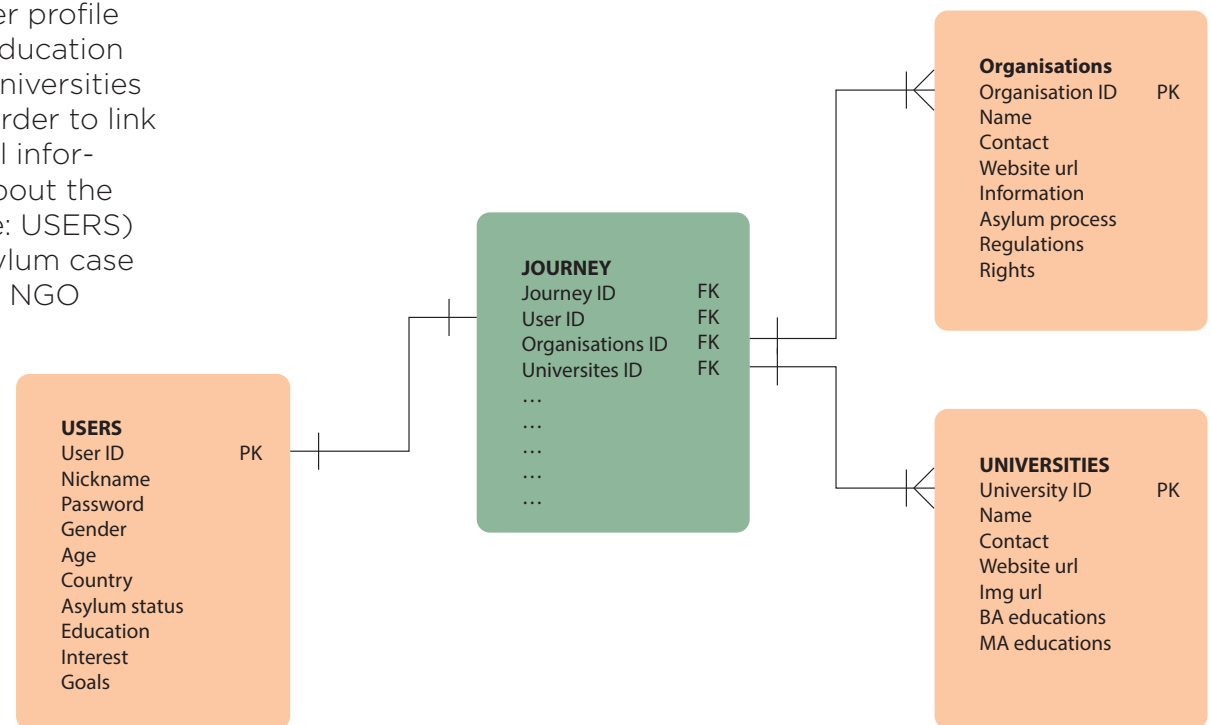
III. 45: Refujourney System Architecture

## Database

In order to get an idea of how the database structure should be designed, the group outlined a scenario where the user receives tailored information according to the different milestones in the journey. In the displayed section of the database, the functionality of how the information about the asylum process (journey milestone: Asylum) as well as about educational opportunities (journey milestone: Studying in DK) are provided to the user, are illustrated.

This functionality requires retrieving information from two different information sources at a time. For the case of displaying information about Studying in Denmark, the user profile (table: USERS) for accessing data about previous education and experiences, as well as educations offered by universities in Denmark (table: UNIVERSITIES) are required in order to link the user to the appropriate website to access useful information. In the same way, the tailored information about the asylum process required the user profile data (table: USERS) with information about the current status of the asylum case to connect it with appropriate information from the NGO websites (table: ORGANIZATIONS), or respectively link to helpful subcategories of the websites.

The data is stored in these three separate tables in a relational database which the Refujourney app can pull information from at any time. But what is a relational database and why is it necessary? “A relational database is a collection of data items organized as a set of formally-described tables from which data can be accessed or reassembled in many different ways without having to reorganize the database tables” (Harkins, 2003). Instead of having all the data in one single table, a relational database makes it possible to combine different tables for different users based on their personal profile. In the model described below, this connection is made through the “Journey” table and represent a small section of the overall database structure of Refujourney.



III. 46: Refujourney Database Section

## Reflections on Open Data

In the service concept introduced in this project, Open Data plays an important role in terms of providing relevant information to the user from multiple external services, such as Refugees Welcome, The Refugees Council, University websites, Job banks and others. But the service also stores data from the integrated survey functionality (My Q) which enables every user to exchange information. However, this kind of data is not available for the public and can therefore not be called “open”. According to Laura James, CEO of the Open Knowledge Foundation; “Open data is data that can be freely used, shared and built-on by anyone, anywhere, for any purpose” (James, 2013). In this section, a reflection is introduced on the positive and negative aspects of making the content generated by the users available for the public and what impact it might have on the service.

In a co-creation session with Syrian refugees held at Red Cross, the group learned that refugees do not trust the Danish authorities due to the lack of transparency in the asylum process. This fact was confirmed in the expert interview with Michala Bendixen, where she further explained that many refugees have been misguided several times by people and authorities that were supposed to help them during their journey to Europe. But what does that mean for the Refujourney service in regards to Open Data? One concern is that refugees will simply not use it because the application is built upon the idea of trust, transparency and personal information. If the data provided by the user is open for everyone, it is not clear what it will be used for and how. That being said, the Refujourney application does not require the user to register by official name, which makes it nearly impossible for third parties to identify the person behind a username. That made

the project group reflect on how this really solves this issue. Even though the full name is not required, data about current location, demographic and other personal information can be used to identify a specific group of refugees. It is a fact that many applications and online services make their revenue on selling information about their users to third parties; “Customers’ personal data is a treasure trove for companies looking to delve into consumers’ online habits—and a moneymaker if they sell that information to third parties” („Should Companies Profit by Selling Customers’ Data?”, 2016). By having the data from Refujourney application open, it creates a risk that companies will take advantage of this opportunity to target refugees in their marketing efforts.

But what are the positive aspects of opening up for data generated by the users in the Refujourney application? Potentially, this could lead to a more convenient integration process by making connections with other services that refugees will need to interact with later in integration process. Moreover, the Refujourney can play an important role for providing knowledge in benefit for social innovation initiatives and thereby function as platform accessible by everyone who wants to contribute to a better integration process for refugees. However, the question of making the data available for everyone can not be simplified. The challenge is to find the perfect balance between user privacy, organisational trust and public interest and needs to be further investigated before final implementation of the service.





## CONCLUSION & FINAL REFLECTIONS

The question of whether Refujourney creates a better society was posed in the introduction of this report. Several benefits of the service have been discovered throughout the design process which has been gathered in an overview that can be found in the product report. It highlights benefits on an individual, organisational and societal level. The interesting question to ask is whether society requests services like Refujourney - is it in line with the political agenda?

An important discovery was made towards the end of this project indicates that this change in society is actually of high priority. While completing the development of Refujourney, Digitaliseringsstyrelsen, the inter-ministerial agency responsible for digitizing services in Denmark, published a report with the title: "More coherent digital user journeys" [translated from Danish: Mere sammenhængende digitale brugerrejser] (May 2016). It is a report stating a need for increased data sharing between policy makers and citizens. It documents a demand for government-citizen communication that are both easier to understand, smarter in its distribution and leading to more proactive services (ibid.).

The concept of Refujourney is exactly in line with this demand, as it creates a simple and understandable overview of the asylum process using easy understandable language, that can be accessed at any moment through a smartphone. What makes it smart as well is the automatic generation of tailored information to the user. This function filters out irrelevant information for that specific user, enabling them to spend more time on what is pertinent. Continuously in line with Digitaliseringsstyrelsens recommendations, Refujourney enables a more proactive service flow, as the user gets information about the future steps in settling down in Denmark. This increases the chance of the user being well prepared for

the process ahead and more proactive regarding their rights and possibilities. This is useful for the user, who will feel more in control during the process. However, it is valuable for policymakers as well, as it decreases their work burden related to constantly informing and updating the refugees.

Through reflecting on the values and benefits Refujourney brings on various levels, it is safe to say that the final service product answers the phrased problem statement:

### ***How can a service support and advice refugees arriving in Denmark, focusing on their individual identities and goals?***

Refujourney as personal support tool for different phases of the integration process of a refugee, addresses individual identities and provides valuable information, in order to allow the users to reach their goals. The inclusion as well as generation of (open) data through the use of the application meets the semester theme of the 2nd semester. Furthermore, through a higher degree of transparency in the asylum and settling processes it will decrease migration challenges and integration barriers in the Danish society.

#### ***Reflections on tools and methods***

The project group got to know a number of new tools throughout the process. The brainstorming tool Top 5 for example, which proved to be very valuable when generating a large amount of creative ideas quickly. Even though the ideas were partly unrealistic or very far away from the initial directions

## FUTURE CONSIDERATIONS

they still proved to have a value in that they opened up for discussions about how to incorporate creative elements in the final service. The foundation of Refujourney was created in the Top 5 session as a combination of three favored ideas.

Another tool worth highlighting is the Empathy map. All project group members had different experiences of working with personas prior to this project and therefore wanted to apply different approaches. The empathy map however, gave the project group a common understanding of the personas and a closer relation to them, so they became an integrated part of how project challenges were approached in many different categories.

The stakeholders map was one of the most challenging tools for the project group during this process. As mentioned earlier in this project, two versions were created as in the first version it was not so clear to the group who was the owner behind the service, who the stakeholders were and in which level they interacted. It could be argued that the tool was possibly used too early in the process. On another note, trying to point out the stakeholders, made the project group define the service concept further.

In terms of future considerations, the project group discussed the possibilities of upscaling the service and what considerations were needed before such scaling could take place. Initially the project group discussed the necessity of researching the specific country that was intended to scale up towards, here the asylum processes as well as the mechanisms of refugee camps would need to be researched in detail. Furthermore it would be suggested to collect another focus group with refugees within that specific country, who could provide information about the typical frustrations occurring in that specific country and their asylum processes.

It was also suggested that there could be a second version of the app for when the refugees are granted asylum. Instead of continuing with milestones outside the asylum camp, and potentially having an overload of data in the app, the app could recommend a sister service based on the same framework of the Refujourney app. All user data should then be automatically transferred to the sister app so the information keeps on being tailored.

As the current state of the Refujourney application, for practical reasons, focuses on the refugee's journey until receiving asylum answer, the second app could be focusing on the integration into society and here new milestones should then be defined. This could be done by conducting qualitative interviews refugees who have been granted asylum and now face the challenges of integration into the society. Milestones could then as an example be, "find a job" or "join a sports club". Hereby the app could be divided and get more focused into the specific processes which would ease the usage of the application, making it perhaps less overwhelming for the user, facing long journeys and countless milestones ahead.

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# ILLUSTRATIONS LIST

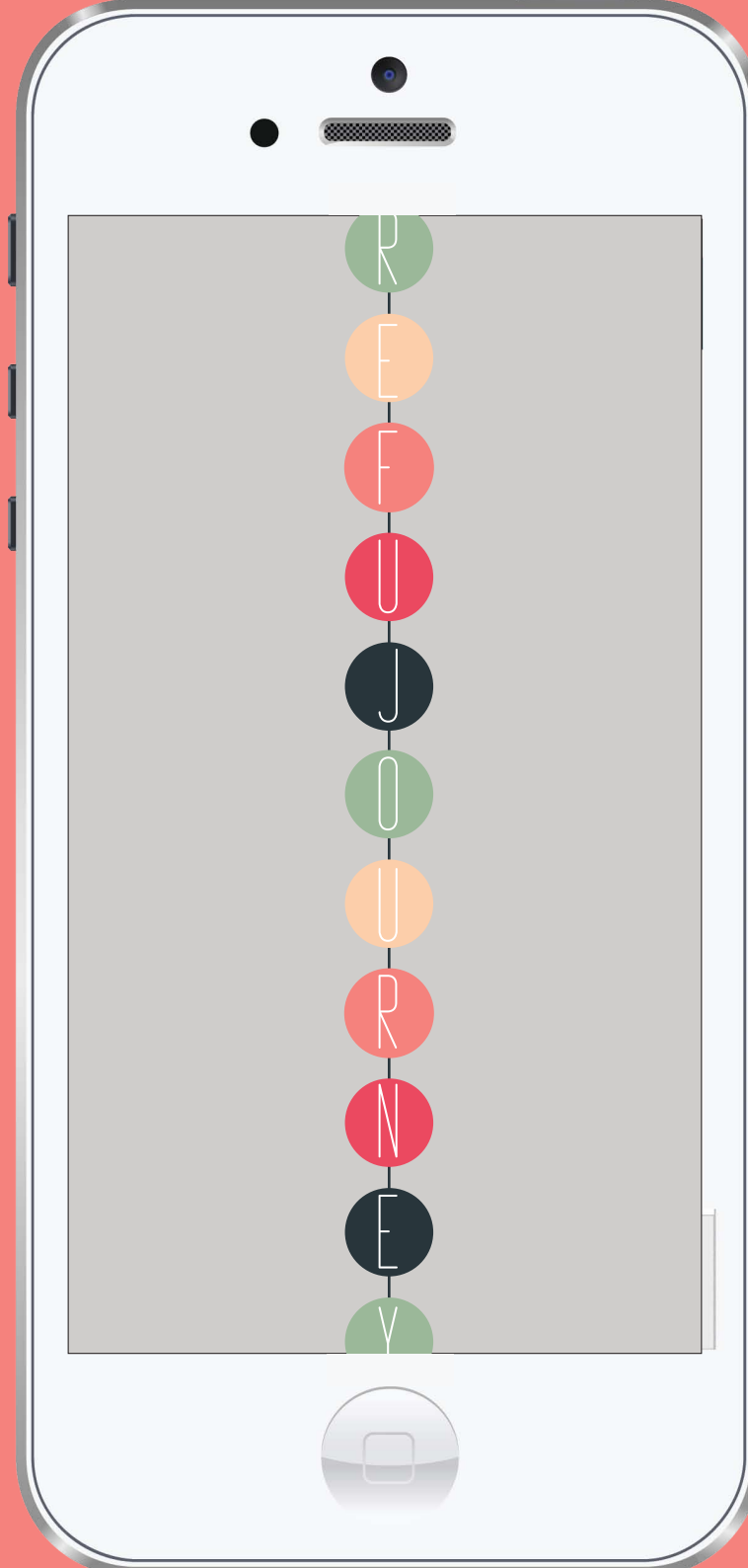
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SERVICE SYSTEMS DESIGN  
2ND SEMESTER, SPRING 2016  
AAU CPH



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A USER JOURNEY FOR  
INTEGRATION OF REFUGEES

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GROUP 4  
PRODUCT REPORT



**AALBORG UNIVERSITY**  
DENMARK

Programme: Service Systems Design  
Semester: 2nd Semester

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## ABSTRACT

This report outlines the service concept developed in course of the main project of the 2nd Semester in the Service Systems Design Master at Aalborg University. The concept created is focused around the topic migration, refugees and open data.

The result is the creation of Refujourney, a service that provides guidance and support in the different steps every individual refugee arriving in Denmark has to go through. Refujourney offers a mobile app that helps refugees get an overview of the steps that await them when arriving in Denmark. By providing useful information about rights and opportunities in their individual situations, Refujourney provides the best possible support and makes processes more transparent and understandable for refugees. Refujourney draws on open data for the app content and creates big data as it allows the service provider to generate up-to-date statistics based on user data.

Using a human centered design approach, refugees and asylum seekers currently living in Denmark, have been participating in co-creation sessions as well as end-user prototype testing. The research conducted has been based on desktop research, qualitative interviews and expert interviews. A wide range of Service Design tools and methods have been used to shape the service concept.

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# INTRODUCTION

Refujourney is a service system developed during second semester by students from the Service System Design master at Aalborg University Copenhagen. This report was written with the aim of explaining the concept of Refujourney to institutions that could potentially be interested in supporting the implementation or administration of the service.

Refujourney is developed to support refugees in Denmark, by giving an overview of the journey (meaning a progress from one stage to another) and providing guidance throughout the several steps of the asylum seeking process. By providing useful information about regulations, rights and opportunities in their individual situations, Refujourney provides helpful support and makes complex processes more transparent and understandable for refugees.

The service is digital, in the form of a mobile app, where the user creates an anonymous profile with personal information, such as their country of origin, age, gender, professional background, interests, goals and in which asylum center they are staying (if they are staying in one). In addition, the app will ask in which phase of the asylum seeking process the refugee is in (if they just arrived in Denmark, if they are waiting for the first interview, if they are waiting for the asylum answer, if they have been rejected or if they have been granted asylum). The app will generate a timeline with milestones and place the user at the journey milestone which is appropriate for their current situation, depending on their previous answers. Relevant information for the user with that specific profile, in that particular stage in the journey, will then start to be provided, and this interaction will continue to happen on a frequent basis, until the user reaches the final milestone in their personal journey.

The user has the opportunity to continuously add goals (eg. find a job; learn Danish; start a new education) to the timeline, as well as to provide personal views on topics such as dreams and fears, through questions that are asked in the MyQ section of the app. They are also able to participate in a forum and communicate with other refugees, having the possibility to learn from other's experiences in Denmark. This functionality allows Refujourney to provide customised information to the user, at the same that it collects up-to-date statistics on refugees in Denmark. The data collected generates a monthly report, that is accessible to interested parties via paid subscription on the Refujourney website.

A Service Design approach including in-depth user research in the form of desktop research, interviews and co-creation has been carried out to understand the challenges faced by the refugees in Denmark. The result is a concept that supports refugees, while reducing workloads for organisations that help refugees (eg. by receiving information through Refujourney, the refugee might avoid asking the same questions about the asylum process to these organisations). Refujourney has as well the ambition to improve the integration process in Denmark, by giving information about eg. Danish culture, job search, housing (early on), while they are still in the asylum center, while also empowering the refugees by giving them guidance and support.

The service has so far been developed to focus on refugees that are in the phases previous to being granted asylum, but it is Refujourney's future mission to provide continuous support to the refugees after they have been granted asylum as well.







During the development of the Refujourney service, research into the environment of refugees showed many challenges that complicates the asylum and integration process in Denmark. The following findings are the key challenges that Refujourney aims to tackle:

The target group experiences a huge lack of transparency in the system they are in. They do not know where to seek information and they have no opportunity to structure their process in a timeline, as the answers they get from supporting organizations are inconsistent and confusing.

***“What is needed is a guidance when people come to the country. We need to know how it works here, the whole system” - Zaki, Syrian Refugee***

The target group experiences a great lack of support. Due to the refugee status they are often without support network like family and friends. In addition they feel like their skills and knowledge is not appreciated and the asylum administration organisations are treating them with mistrust and disrespect.

***„You carry a lot of psychological stress from your journey up here and the government and society don’t make you feel welcomed and appreciated” - Noura, Syrian Refugee***

Due to the Syrian war and the general increase of refugees in Denmark the immigration service are dealing with much bigger workloads than normal. This prolongs the individual cases and increases the gap of waiting time for the refugees. Some asylum seekers has to wait for a very short time other cases

take years to solve.

***“The cases are being processed one at the time, but immigration service are doing what they can and are not trying to scare the refugees. However, like patients, doctors won’t always explain the process which results in the patient being confused and insecure.” - Michala Bendixen, chairman of Refugees Welcome***

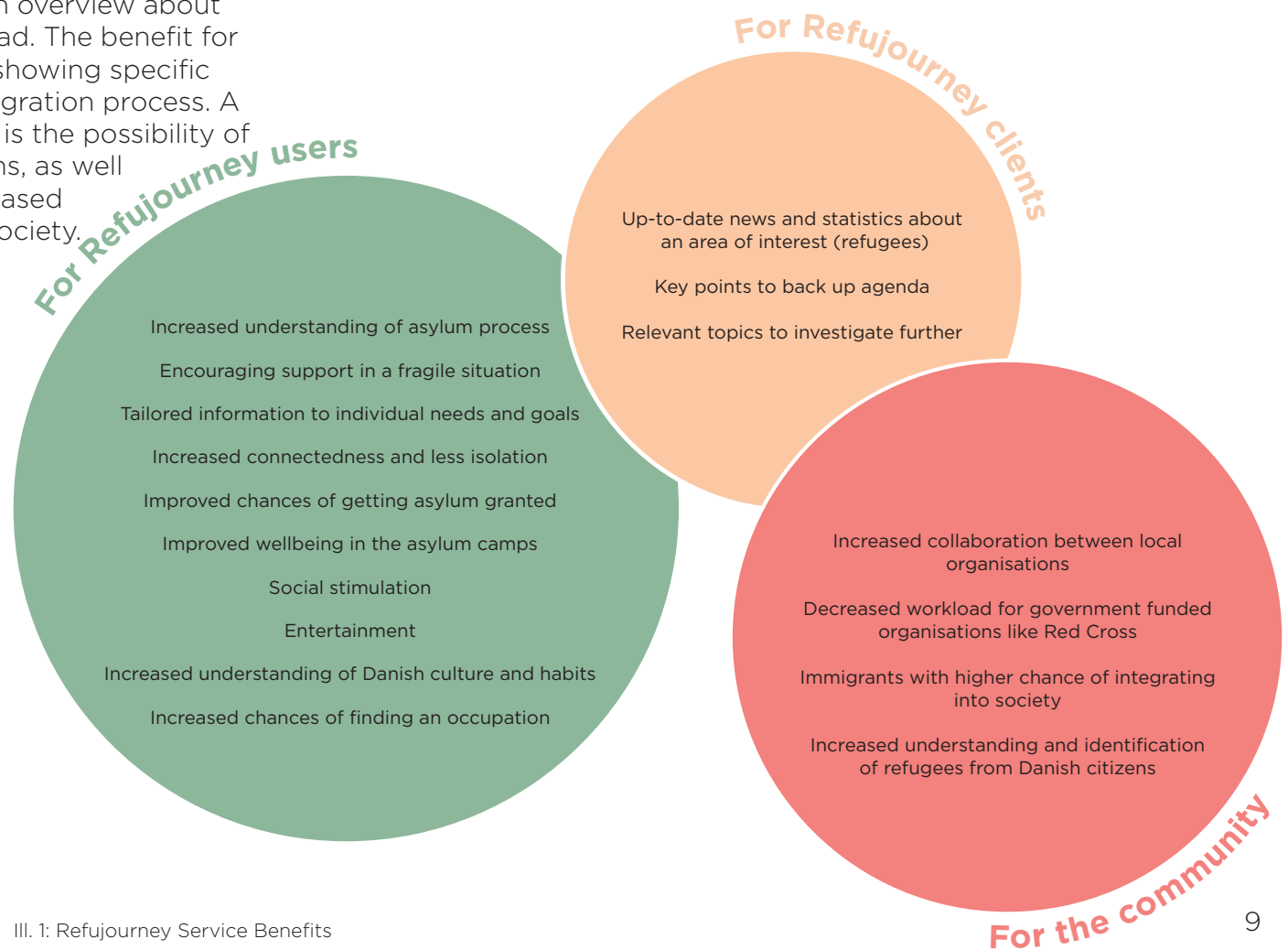
The research findings documented a need for creating increased awareness about the refugees’ individual rights and opportunities. There were cases of refugees who did not know their basic human rights like for example the right to divorce your husband, or cases of refugees who only after two years got to know about the opportunity of doing an internship while waiting in the camp.

***“I didn’t know my chances in the process [asylum application] and that I could defend my case - now I missed the deadline” - Houda, Palestinian asylum seeker***

Scholars and policy makers are increasingly exploring the potentials of using smartphones to reach disadvantaged groups and address social challenges like immigrant integration (Benton 2014). The potentials have been proved and policymakers are urging the development of additional services within this category.

## Service Benefits

The potential in focusing on the refugees' individual identities and goals enables the service to embrace multiple benefits for different user groups. The service benefits is represented in three different categories in the overview below. One of the main benefits for the user is to get an overview about their journey and know what is coming ahead. The benefit for clients is the exclusiveness of data reports showing specific trends and behavioural data during the integration process. A key benefit for the surrounding community is the possibility of a better collaboration between organisations, as well as a better chance of immigrants with increased possibilities of integrating into the Danish society.



III. 1: Refujourney Service Benefits



A photograph of two people standing on a rocky shore, looking out at the sea. They are wearing orange survival blankets. The image is overlaid with a semi-transparent orange filter. The text "WHO IS REFUJOURNEY FOR ?" is centered over the image.

WHO IS REFUJOURNEY FOR ?



The target group has been defined based on in-depth user research which was aimed at including user needs and challenges throughout the whole design process. Via co-creation sessions and focus group interviews, the project group empathized with the users, what brought attention to the need of focusing on their individual journeys within the immigration system. The research stated a big need for having a friendly helper throughout the phases in the asylum camps as well as for starting a new life in Denmark.

As Refujourney is a digital service in the form of a mobile app, the users are refugees that have access to a smartphone and are used, on a minimum level, to interact with mobile applications.



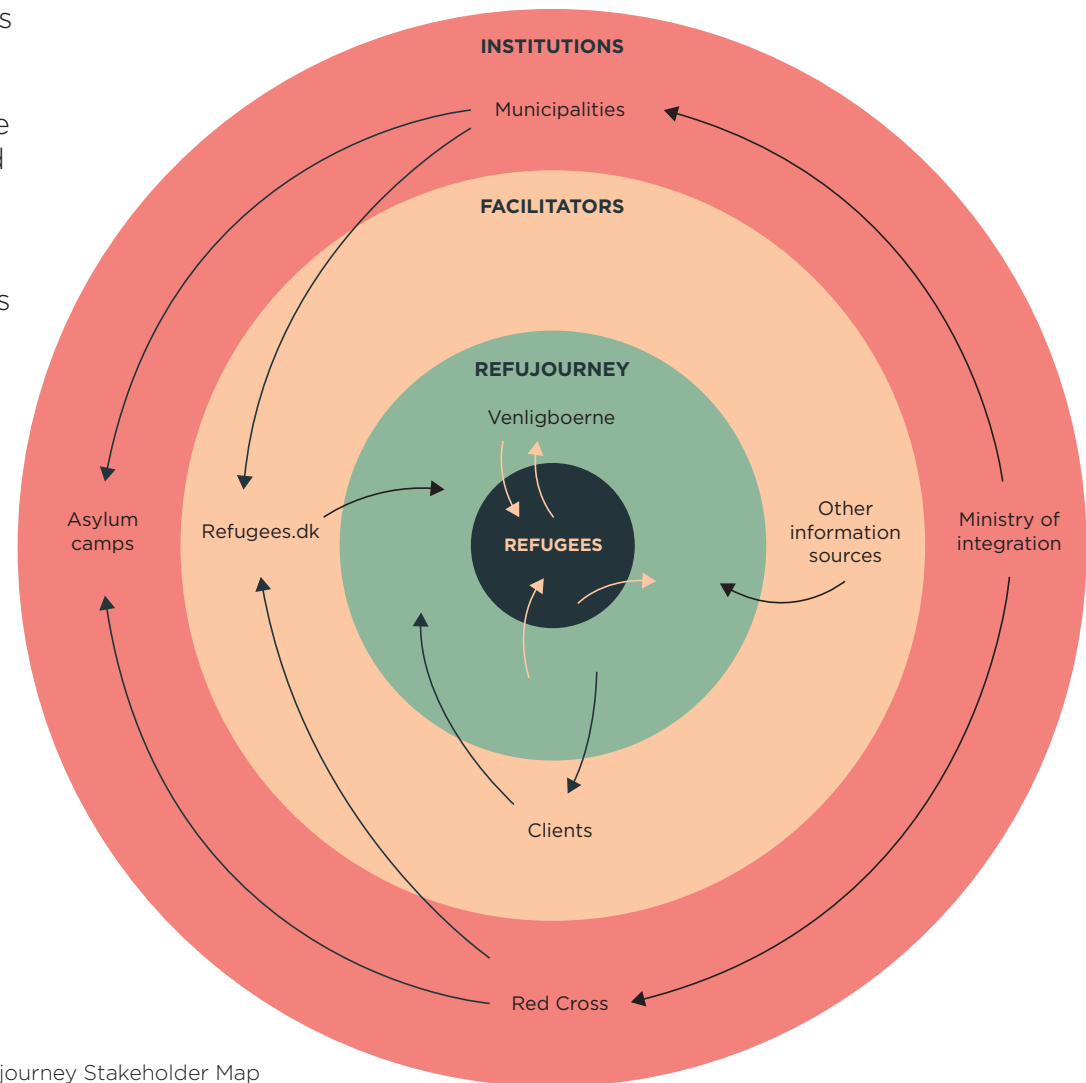
III. 2: Target Group Metaphor

## Target group

The service targets asylum seekers that are arriving in Denmark but also those who are in the asylum centers. The service is designed for adults from 18 up to 59 years old from any gender, country, level of education and work background.

## Stakeholder Map

Several actors are involved in this service: refugees, volunteers, organisations involved with refugees and online sources of information for refugees. These actors can be identified in the Stakeholders map below, which displays who the main actors, facilitators and institutions are, as well as how they are related. In the center, the users (refugees) are placed. Around them is the service provider (Refujourney) including Venligboerne as ambassadors of the service, followed by the facilitators (those who Refujourney depend on to exist, as they provide content for the service and function as intermediaries between the government and the refugees). In the last layer, the institutions are placed. They are indirectly related to the refugees (in this service context) by creating the environment and rights for the refugees, through creation of political strategy in relation to the refugee crisis, creation of regulations for the asylum seeking process, regulations in the camps etc.



III. 3: Refujourney Stakeholder Map



## Persona

The following personas are examples of Refujourney's potential users. They are four personas with different ages, gender, occupation and background, that were created based on interview insights and desktop research findings. They represent the target groups' motivations, frustrations and goals, since these factors give an idea of the user's attitude and hence their motivation for using the Refujourney service. The personas have been an important addition to the design process since their role has been testing the ideas with their perspectives and goals in mind.



„I am waiting to get my asylum so I can work and start a new life in Denmark“

**ALI**  
AFGHAN - 26 YEARS

Ali is a 26 year old unmarried man from Afghanistan. He has been in Denmark since 18 months and is waiting for his asylum answer in the camp in Roskilde together with his brother who is underage (17). Ali has to take care of him and hopes for a positive answer so he can work and provide for him and his brother. He has a kind of sceptical attitude, because everything takes so long and he doesn't know when he gets an answer to his case. Back in Afghanistan he had a barber shop, which unfortunately was destroyed in a bombing event. Ali is a social person and makes friends easily, he is very dependent on his smartphone to stay in touch with them.

### BACKGROUND

Barber / Hair Dresser  
Entrepreneur

### ATTITUDE

Social, became sceptical

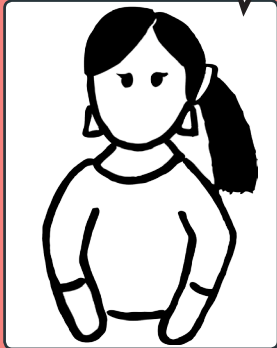
### MOTIVATIONS

Work as Hair Dresser in Denmark,  
provide for his brother

### FRUSTRATIONS

Waits for asylum and does not his chances

III. 4: Persona Card Ali



„I wish to continue my studies in Denmark and reunite with my family eventually“

**YASMINE**  
SYRIAN - 22 YEARS

Yasmine is a 22 year old unmarried girl from Syria. She has been in the camp in Roskilde for four months. Her mother and sister are in another camp in northern Jutland, but they try to keep in contact weekly. She is an extrovert and optimistic person. Before coming to Denmark, she studied Health studies in Syria, and wishes to continue with her studies in Denmark. In her freetime she likes to do sports and she frequently uses technology including smartphone, laptop and various social media. Her father has disappeared during fleeing, and one of her brothers is in Greece, the other one in Sweden. The whole family originally wanted to reunite in Sweden.

**BACKGROUND**  
Student of Health studies

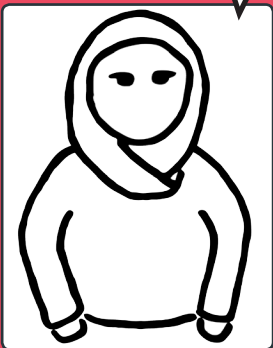
**MOTIVATIONS**  
Wishes to continue her studies in Denmark and reunite with her family eventually

**ATTITUDE**  
Extrovert and optimistic

**FRUSTRATIONS**  
Does not know about her possibilities to study  
Her family got separated during fleeing

III. 5: Persona Card Yasmine

„I wish for my family to be reunited and I want my kids to have a good future in Denmark“



### MARIAM SOMALI - 22 YEARS

Mariam is a 35 years old married woman from Somalia. She has three kids (7, 10 and 12 years old). She has been in Denmark for six months and is living in an asylum centre with her 12 year old son. She is scared and unsure about the future and misses her family being together. Mariam is a stay-at-home mother and a really good cook. She doesn't use computers but talks on Skype with her husband and uses her smartphone for basic things. She hopes to have family reunification after she will be granted asylum (if so) and bring her husband and the two other kids to Denmark.

#### BACKGROUND

Stay-at-home mother  
Good cook

#### ATTITUDE

Insecure, but hopeful

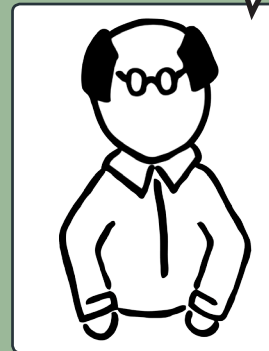
#### MOTIVATIONS

Biggest motivation is the thought of being reunited with all her family again

#### FRUSTRATIONS

Lack of understanding the rules of the asylum process leads to uncertainty about the future

„I hope to find a job in my field and teach at a University again, so I can provide for and reunite with my family“



### HUSSEIN SYRIAN - 47 YEARS

Hussein is a 47 years old married man from Syria. He has two daughters (22 and 24 years old). The daughters and his wife are granted asylum and live in Aalborg. He has been living in the camp for 11 month, and has granted asylum since 4 months, but his education has not been recognized so he has been working as a dishwasher. Hussein has been a business professor at a University in Syria, and in Turkey, where he lived with his family the last two years before fleeing. He has some technological skills, and uses a smartphone once in a while. In his free time he likes to play the Oud, which is a traditional syrian instrument. His goal for his life in Denmark is to teach again.

#### BACKGROUND

Business Professor  
Musician

#### ATTITUDE

Calm and patient

#### MOTIVATIONS

Wants to find a teaching job and provide a home for his wife and daughters

#### FRUSTRATIONS

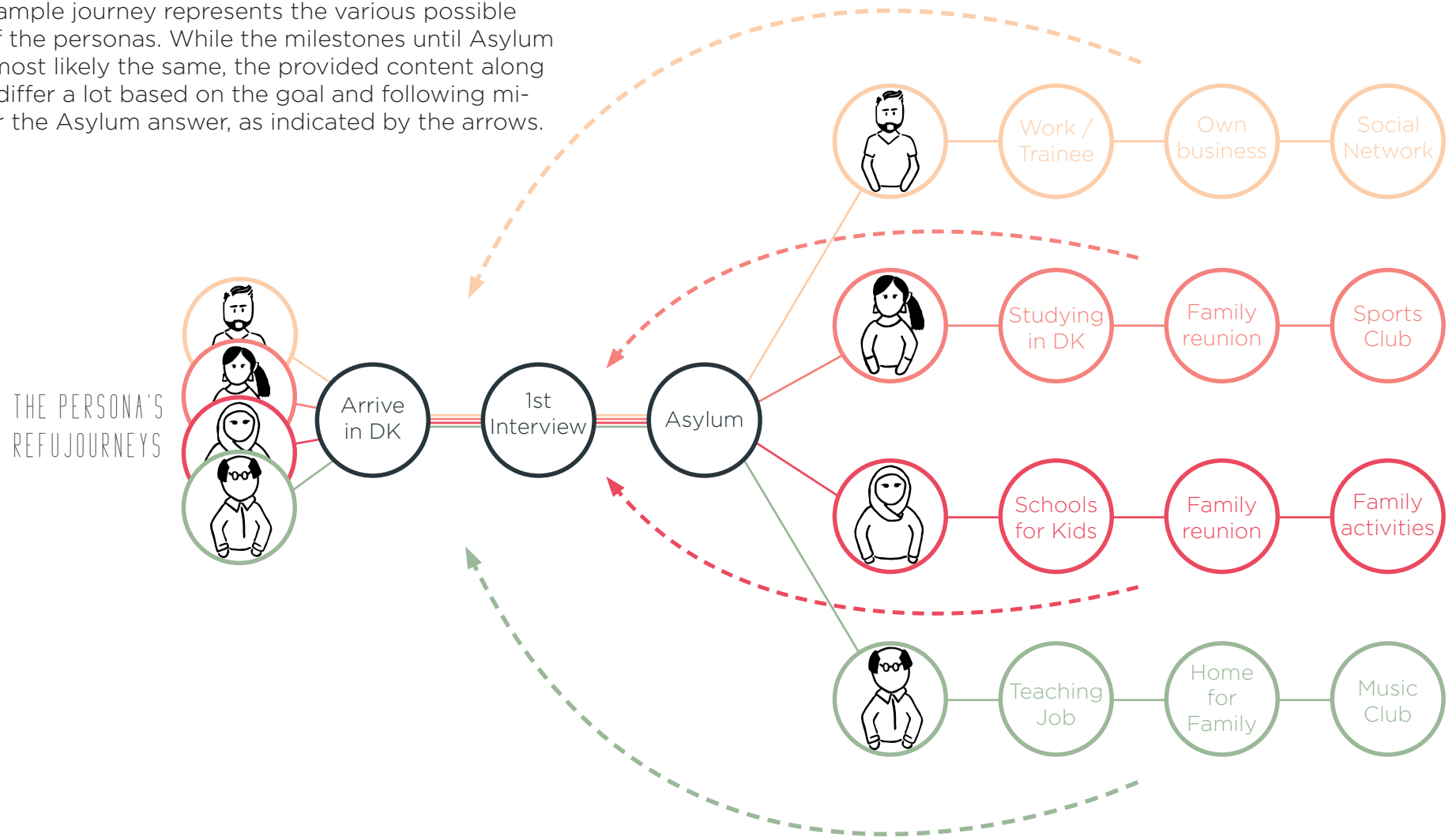
Works as a dish washer at the moment, because his education has not been recognized

III. 7: Persona Card Hussein

III. 6: Persona Card Mariam

## Persona Journey Overview

The Journey Network provides an overview of how the use of the Refujourney application can differ based on the user. The illustrated example journey represents the various possible milestones of the personas. While the milestones until Asylum granted are most likely the same, the provided content along the way can differ a lot based on the goal and following milestones after the Asylum answer, as indicated by the arrows.



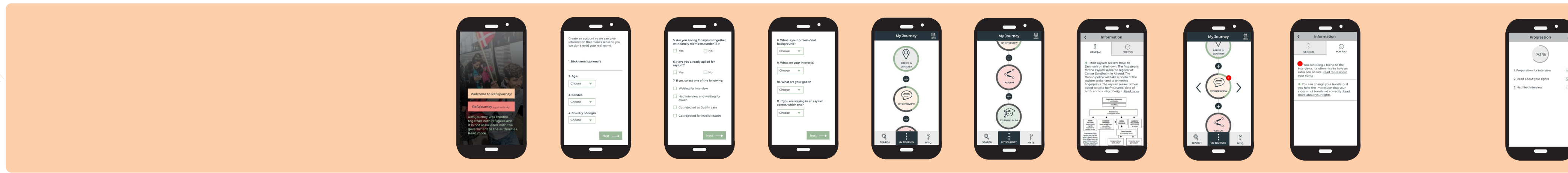
A red-tinted photograph of a protest. In the foreground, a large banner with the words "REFUGEES WELCOME" in bold, white, sans-serif capital letters is held by several people. The banner is slightly wrinkled and has some small holes or tears. In the background, a crowd of people is visible, some looking towards the camera and others looking away. A man with a white beard and glasses is prominent on the left side of the banner. On the right, a person wearing a cap and a plaid shirt is holding the banner. The overall atmosphere is one of solidarity and activism.

WHAT IS REFUJOURNEY ?

## Service Narrative

The use of the Refujourney application is clarified in the following service narrative. Within this a user journey is described through the eyes of one chosen persona in order to be able to highlight details and show the customization aspects

of Refujourney. Furthermore, the Refujourney timeline with appropriate milestones explains the functionality of the timeline within the service and the inclusion of UI screens creates a clearer picture of the provided content in the different steps of usage.

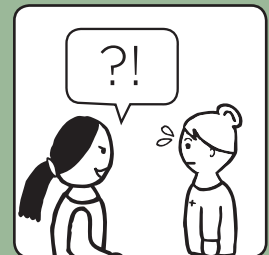


Arrive  
in DK

1st  
Interview



After a couple weeks in the camp in Roskilde, Yasmine would like to know about her future in Denmark.



The camp office is overwhelmed with inquiries and can not help her. Yasmine is frustrated and bored.

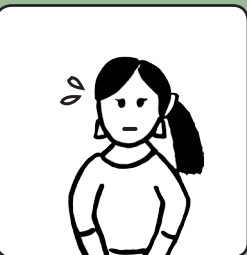


Some days later a VB Volunteer comes to the camp. Yasmine has heard about their good work and listen to what he has to say.

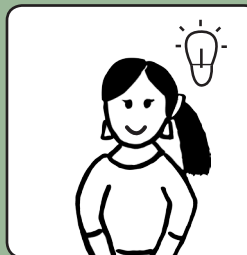


The VB Volunteer introduces the support tool Refujourney - maybe this can help in her situation. She reads the info on the flyer.

She downloads the App to her phone and sees that Refujourney was created in collaboration with other refugees - this increases her trust and she thinks that the app can be helpful for her since they understand her tricky situation. So she decides to sign up for the service.



The app asks for personal information. She is uncertain if she should do it because of her asylum case.



But then she sees the option to only provide a nickname - this way she can stay anonymous and still receive relevant information.



She provides information about her current situation as well as her interests and goals, for example that she wants to continue her studies.

According to her sign up information, her personal journey has been automatically generated and she sees where she is in the journey - the loading bar around the touchpoint signalises that she is right before the first interview.

When scrolling down she get's a nice overview of her next steps in the journey, such as asylum and studying in Denmark. She is curious and clicks on the asylum button. This way she receives information about this phase in a different screen.



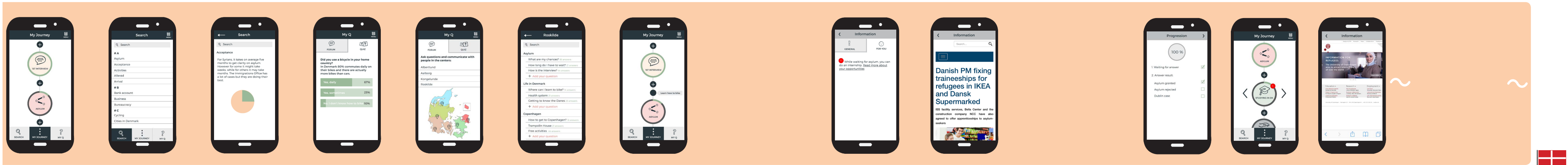
A couple of days later she receives a notification on Refujourney.

The app provides more tailored information for the awaiting interview accordingly to the current phase she is in.



On her interview day she feels well prepared and knows about her rights, such as being able to change the translator.

After the interview she checks off her first finished milestone. By checking the boxes she receives 100% for the 1st interview and hence moves on in the journey.

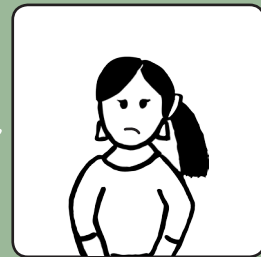
Learn  
Biking

Asylum

Study  
in DK

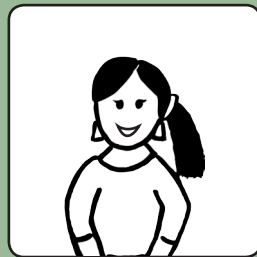
The illustration signaled Yasmine that the next phase, the asylum is in process. While waiting for her answer she get's curious about her acceptance chances

She checks out the search function and finds a category called Acceptance. Here she is able to review statistics about Asylum acceptance in Denmark.

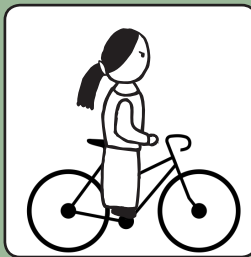


Time passes and she get's bored in the camp. She discovers the MyQ section where she can learn helpful things in a playful way.

Inspired by the MyQ Quiz question, she looks up „Learn how to Bike“ in the Forum. In the part that belongs to her camp, she get's in contact with other refugees that offer to teach her how to bike.

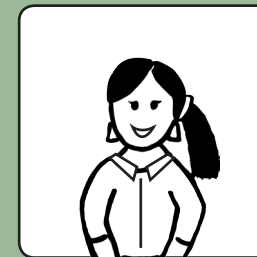


Yasmine is very excited and adds a new personal milestone to her journey by clicking the plus sign: Learn how to bike.

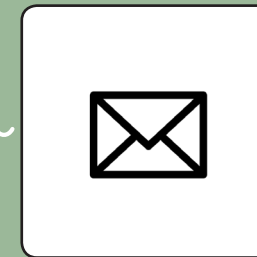


After a while another notification appears on the app and Yasmine receives new information.

The notification provides a link which leads her to a website where she can read more about internship opportunities while waiting for her asylum. She researches and finds an internship in her old study field.

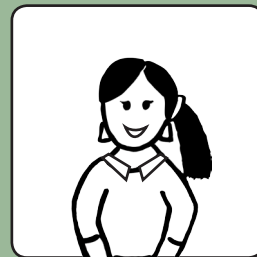


She is excited for her internship and happy that she can spend the time in the camp doing something useful for her future career.



After a while Yasmine receives a letter with her positive asylum answer. She is super happy and checks off the milestone.

Yasmine can now see that her next step is studying in Denmark. She receives personalized information again through the notification. This time the included link leads her to the website of the University of Copenhagen where she can read about the study opportunities for migrants.

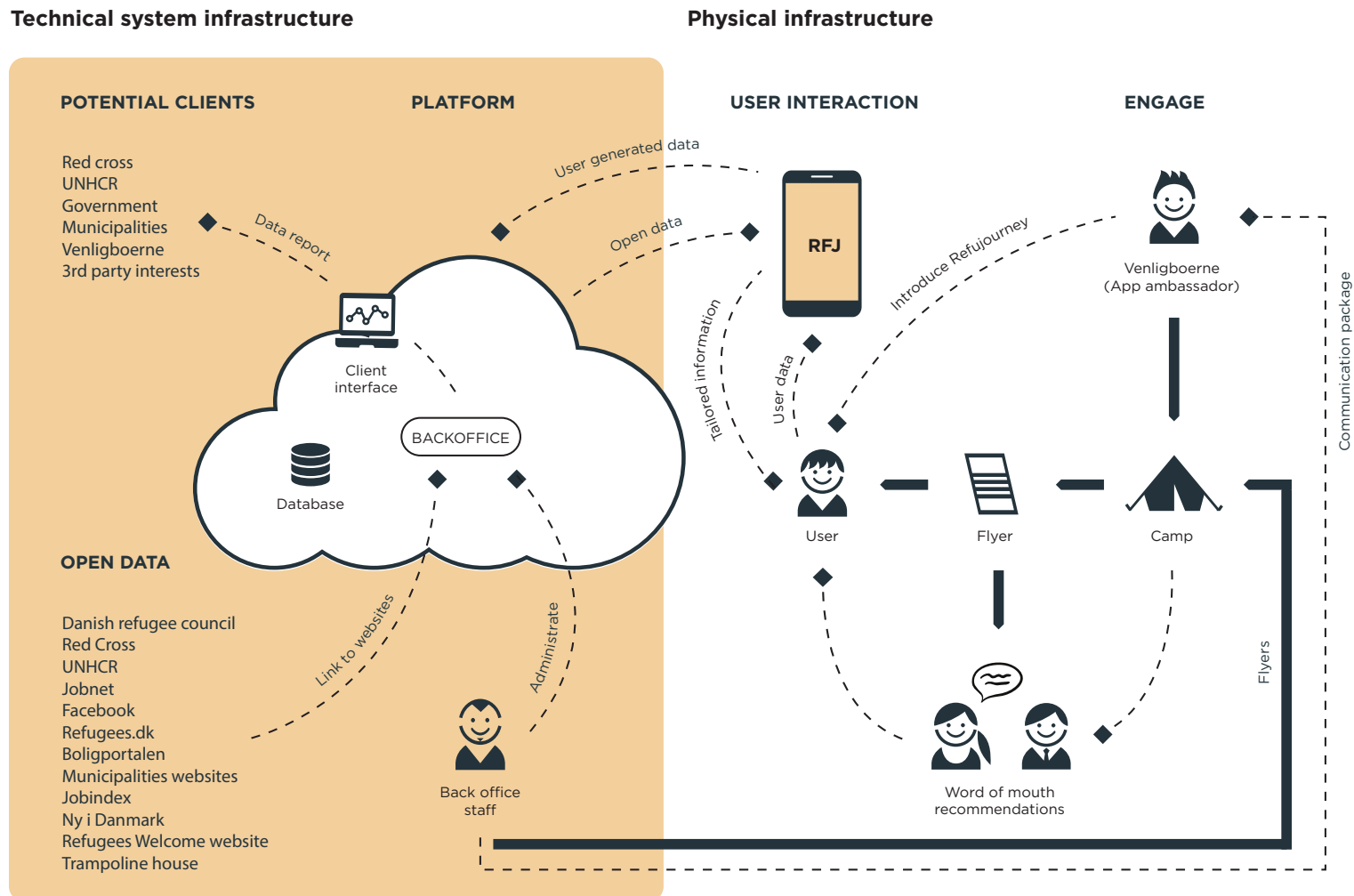


Yasmine looks into her future full of hope and she is happy to have Refujourney by her side to know about her opportunities at any time.

## System Architecture

The System Architecture shows the technical and material flow of information within the service system of Refujourney. In order to emphasise the use and flow of data, the System

Architecture is split into two areas - the IT infrastructure and the physical infrastructure of the service. This way, the connections of the digital platform with the physical actions within the service systems can be shown.

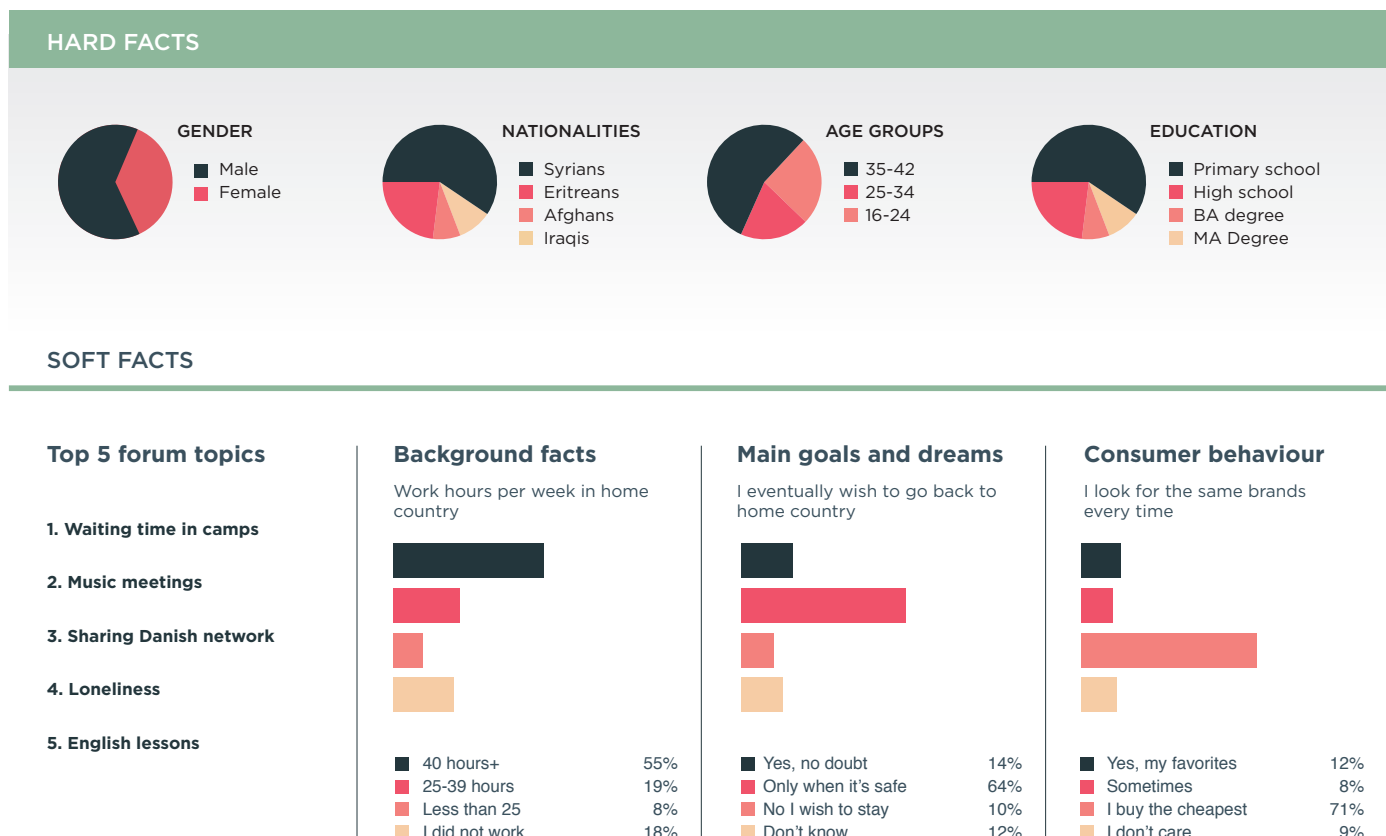




## Data Report for Clients

The data report shown in the Systems Architecture as the stream of information going from the database to the clients is user data statistics generated via the My Q feature in the app. This feature offer two options for the user: 1) a forum where the users can interact and communicate with each other and 2) an ongoing questionnaire where the users can answer questions within topics like background facts, personal goals and frustrations, consumer behaviour, social media patterns etc.

Every time the user answers a question, they receive an overview of how all other users answered same question. The data stored about the users will every month be translated into a report with selected data presented in a easily understandable way, like this example shown below via an infographic. The data report will generate a revenue stream for Refujourney as it will only be available via a subscription fee. A business model for this part of the service can be found later in this product report, including key partners, value proposition, customer segments etc.





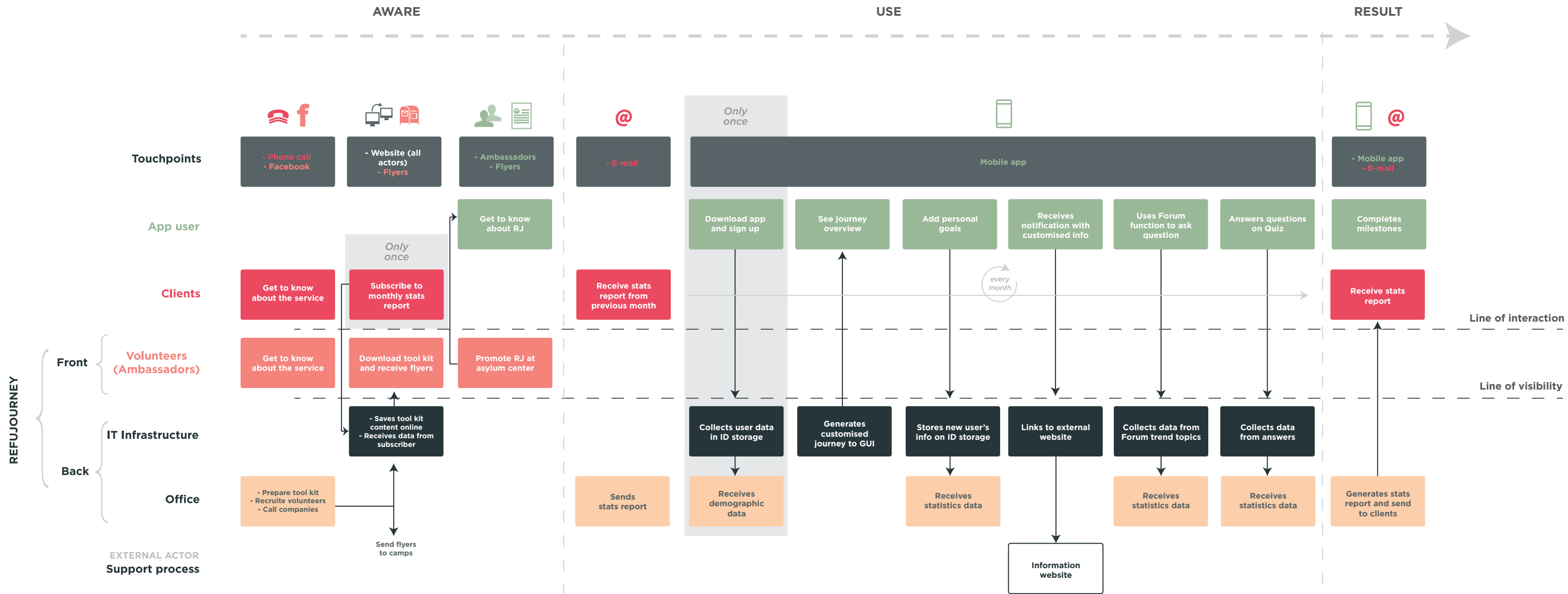


Like most systems, Refujourney is the result of many planned actions. All these processes and their interrelations are thought through and shaped to fit into the holistic service result.

## **Blueprint**

The elements that are crucial for Refujourney to run smoothly, are visualized in the following blueprint. The blueprint shows the interaction between the service provider (Refujourney), the app user (the refugees) and the clients (organisations subscribing to the data report). Furthermore, the blueprint shows the whole service experience from first time till end-usage where the result is generated. The result is when the clients receive the data report and the app user completes their last milestone, not needing to use the app any more. This phase is not related to time, as the client receives the data report once a month, while the refugee might make use of the app for days, months or even years.

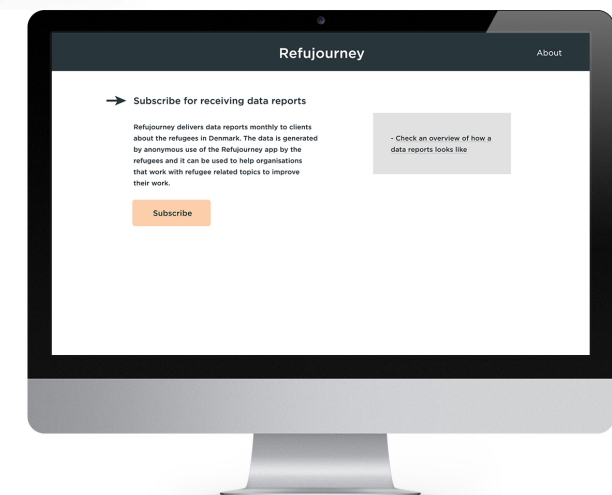
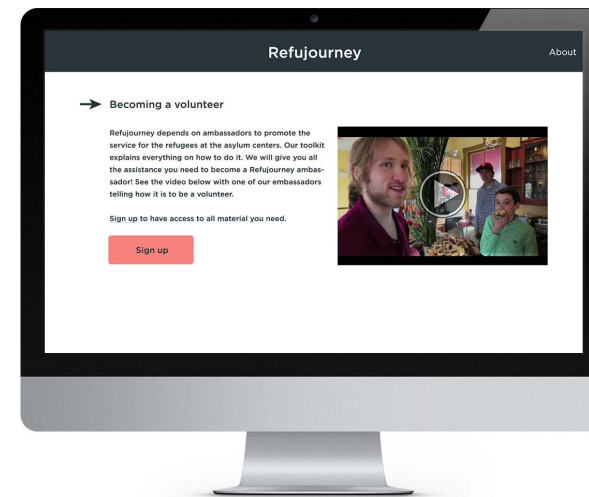
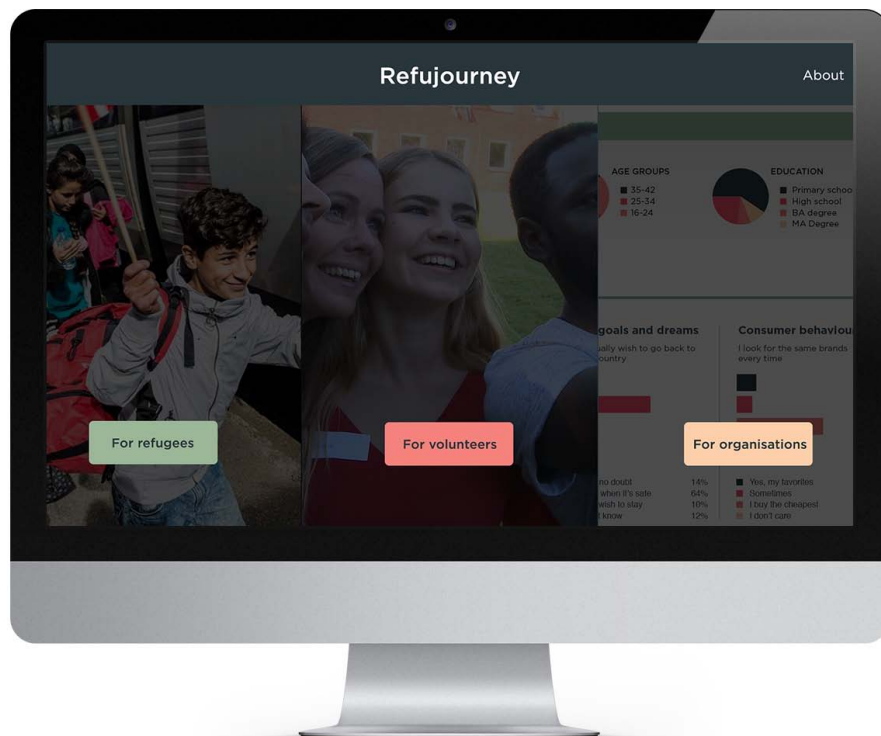
The touchpoints are shown in the first row, color coded in relation to the actor. The arrows indicate the flow and the order that the events happen throughout the blueprint. In the back office are the IT infrastructure and the office staff. The internal processes within the backstage is shown in detail in the System Architecture.





## Touchpoints

The Refujourney website targets three different stakeholder groups. In order for the volunteers to become ambassadors, they need to sign up at Refujourney's website. There they have access to the tool kit, that explains how to communicate the service for potential users. The website also contains information for refugees, who can read about the Refujourney app and the benefits of using it. A third group of stakeholders that will be directed to the website is the clients of Refujourney. There will therefore be a section for them focused on the benefits of receiving the monthly report, where they can subscribe to it.



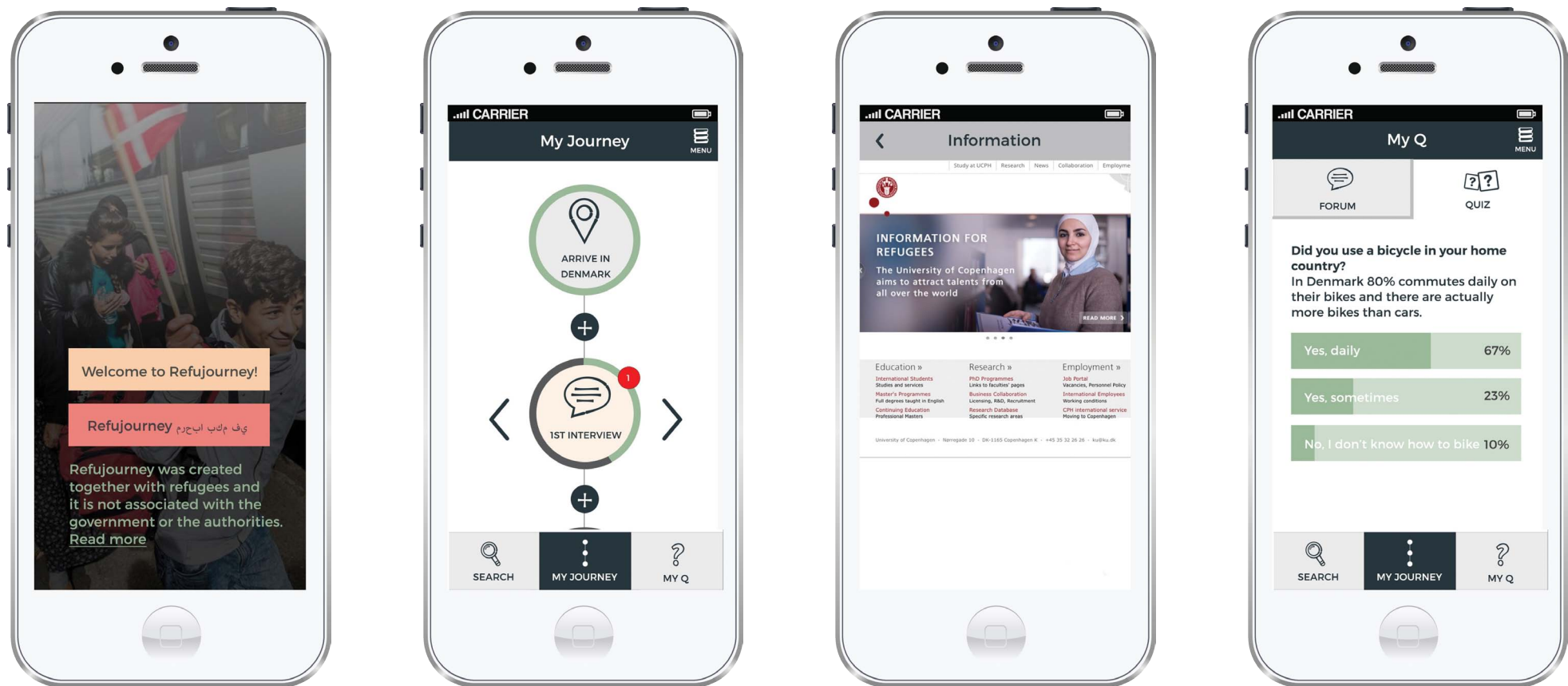
III. 13: Refujourney Touchpoints



## Digital Prototype

In the main screen of the app the journey timeline is displayed with the milestones and goals. Completing a milestone on the timeline makes it shift the circular loading bar surrounding the step, to show that the step has been completed. The final mockups show a swipe function using the left/right wings of the screen as well.

Swiping to the left gives you information backed up by external websites, while swiping to the right makes you able to provide information to the app, checking off tasks and achieving the given milestone. The Search tool and the MyQ sections can be found in the bottom of the app. An interactive version of the prototype, that shows the experience in high fidelity can be accessed through the link: [https://projects.invisionapp.com/share/927C490YJ#/screens/160670111\\_\\_1](https://projects.invisionapp.com/share/927C490YJ#/screens/160670111__1)

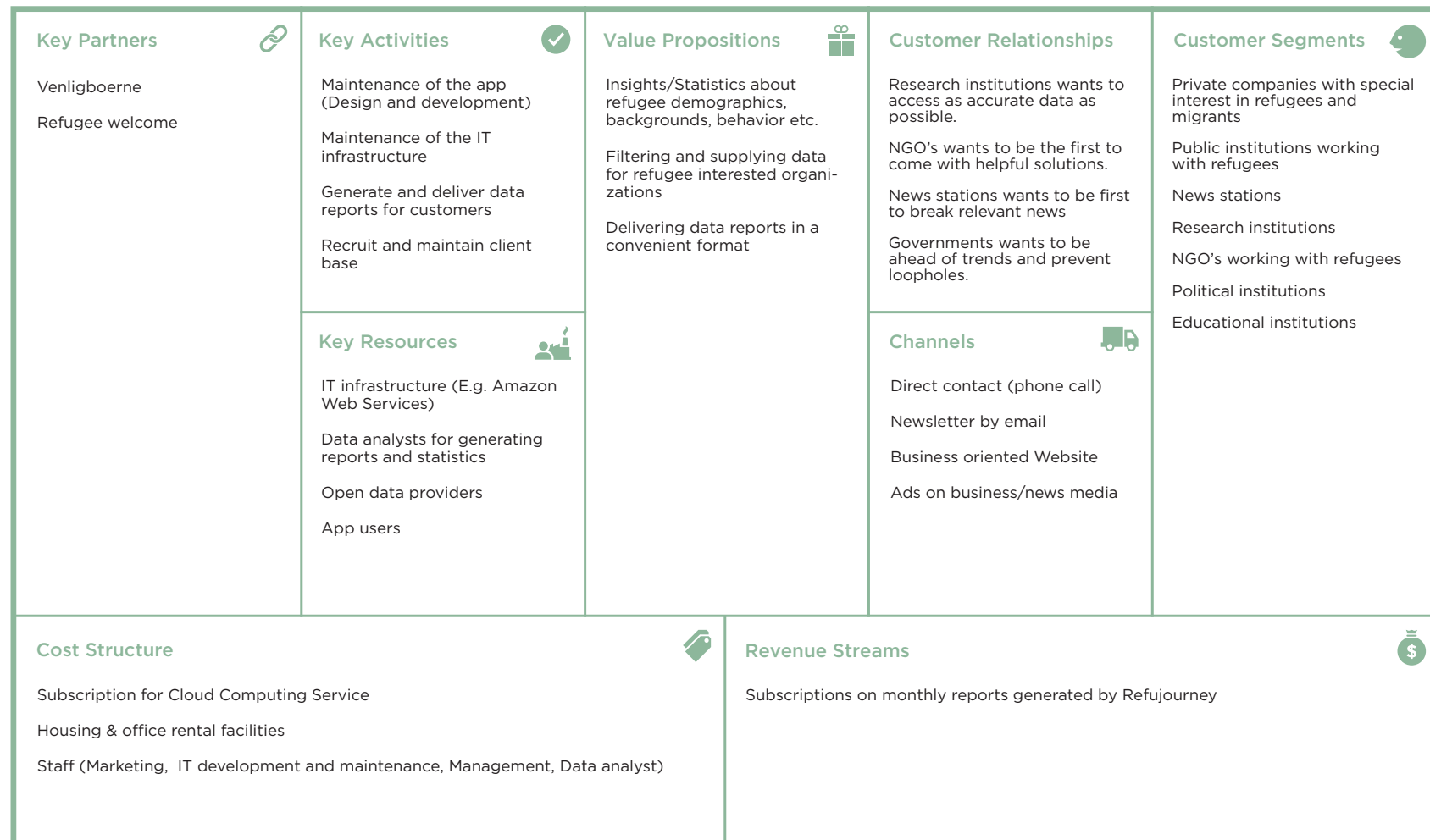


III. 14: Refujourney UI Prototype

## Business Model Canvas

Even though the main values with the Refujourney service is not to generate revenue, having a steady cash flow will make

it possible to allocate resources for maintenance and development of the app, assuring that the service is not purely based on fundraising and volunteers. An overview of what the different building blocks in the canvas contain is displayed below.



III. 15: Business Model Canvas

## IMPLEMENTATION

In order to realise Refujourney, it is crucial to identify potential funding partners and build strong collaborations. This report addresses potential partners and supporters, who will contribute through initial funding and enable Refujourney to reach an economically sustainable level. Refujourney has high potential of growing into a service solution that is desirable by people, feasible by technology and viable through a sustainable business model.

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