# When the Journey Becomes the Destination

Proposing a mindset-based vision to rethink and create multi-modal mobility solutions.



Master Thesis by **Júlia Fort Muñoz** *August 2019* 

TUDelft FREENOW

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Master Thesis: When the journey becomes the destination: Proposing a mindset-based vision to rethink and create multi-modal mobility solutions.

Colophon

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# **Executive summary**

The mobility industry is facing a disruptive transformation. A large number of social, economic and technological trends are shaping the way we will move in the future. In this fast-changing environment, mytaxi becomes FREE NOW due to the joint venture in 2019 between its mother company Daimler together with BMW. While joining forces to become a stronger mobility player, FREE NOW's product portfolio is undergoing a major change. Moving from offering only taxi rides to becoming a multi-modal mobility provider. This holistic approach to mobility brings lots of new challenges for the company.

This project is born from the knowledge gap identified within the company, regarding the city dweller's behaviours and attitudes. With an open and explorative approach, this project focuses on providing the company with a human-centred upgrade to mobility.

Based on a user and trend research, this project identifies how the essence of mobility – of covering a physical distance – will evolve towards a multi-purpose-driven activity: shifting from a compromising experience towards a fulfilling experience.

The project, 'When the journey becomes the destination', identifies four mindsets that describe the interactions city dwellers will have while travelling in the future context. For FREE NOW, the identified potential is to enable people to act according to their state of mind and facilitating them to recognise the mindset they are at that moment. This will allow providing a fulfilling service experience by matching them with the right mobility service.

This mindset-based approach proposed aims to help FREE NOW rethink and create multi-modal mobility solutions. While leaving apart the purely functional connotations of mobility, the designed mindsets focus on the meaningful nuances of mobility. From the service experience resulting from the human interactions with the space, four design directions are created to stimulate the designers from FREE NOW to question the status quo, as well as the future context.

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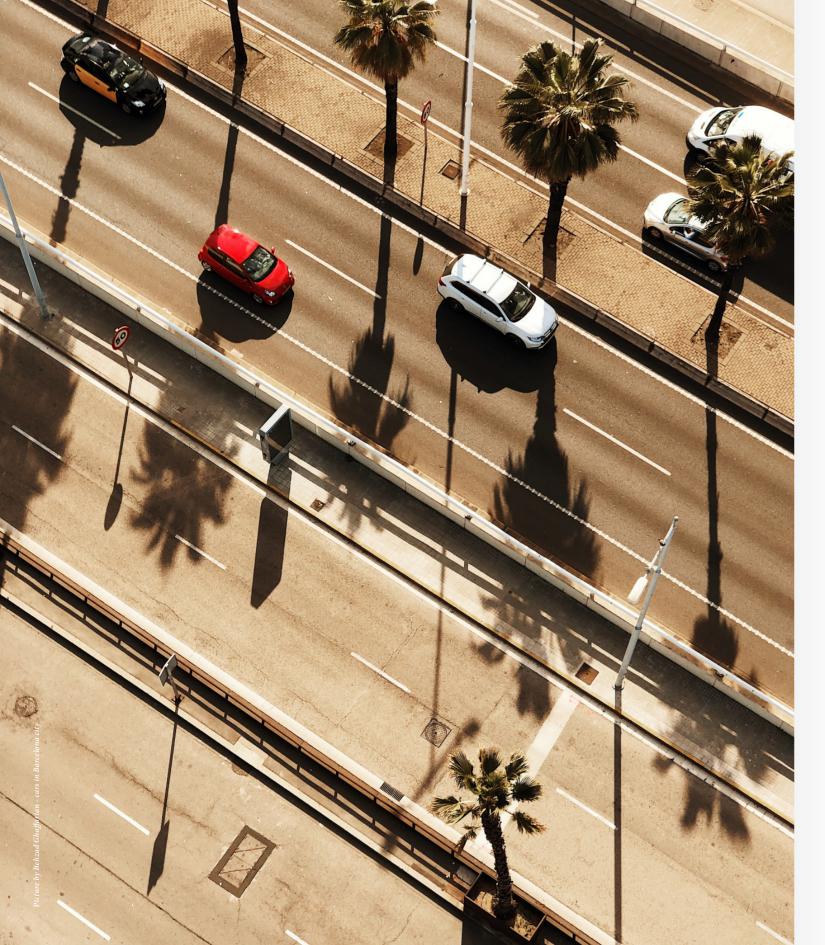
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hapter 1

## **Project**

This chapter provides an overview of the project 'When the journey becomes the destination: Proposing a mindset-based vision to rethink and create multi-modal mobility solutions'. It describes the challenge defined by the company together with an explanation of the need and relevance of this project in the FREE NOW (formerly mytaxi) context. Finally, the overall structure of the project is illustrated together with the explanation of each step.

## 1.1. Introduction

The transportation industry is facing a disruptive transformation. Many social, economic and technological trends are changing the way people move around urban areas. Together with the growing demand for transportation systems due to urbanisation, mobility providers are competing in offering the best services for city passengers.

While becoming one of the most competitive landscapes, the mobility market forces players to open up to new opportunities. The recent joint venture between BMW and Daimler is an example: two direct competitors who joined forces to become a stronger player. This big move aims to combine both companies' mobility services to create a stronger rival to Uber and China's Didi Chuxing.

As a result, the joint venture combines all service offerings in 5 new verticals (Figure 1): SHARE NOW, FREE NOW, PARK NOW, CHARGE NOW and REACH NOW.

In this massive mobility change, mytaxi, Daimler's e-hailing app, became FREE NOW in July 2019. A move that brought new services to the company's portfolio: from offering taxi rides to extending their service types and providing pooling services, electric scooters, as well as, private hire vehicles. In conclusion, the ultimate goal of the joint venture is to offer one seamless mobility experience to their customers by becoming a multimodal











Figure 1. Verticals from the NOW group

mobility provider. Thus, the vision is to provide almost every urban mobility solution under one same family brand.

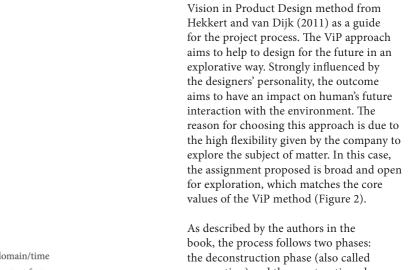
FREE NOW's offering grows, and the types of customers and their needs change too. Under that vision and to integrate all modes of transportation under the brand FREE NOW, an understanding of people's mobility motives is required. This project is born from that knowledge gap: its goal is to bring knowledge on how people will move in the coming future and to help to design for that future.

As shown in the following pages, the project 'When the journey becomes the destination' brings an outside human perspective to the way urban travellers will

move around the city. Through in-depth human research and by bringing domain experts' views together, this project gathers the possible needs, desires and concerns that might emerge in the future domain of urban mobility.

Finally, after understanding the domain's future context and the plans of FREE NOW, a vision is created. A vision that focuses on the idea of becoming a multimodal mobility provider and triggers the company to expand its horizons. By creating a mindset-based approach, this project envisions the future of the in-trip experience and provides FREE NOW with a tool to spot strategic and design opportunities for that future.

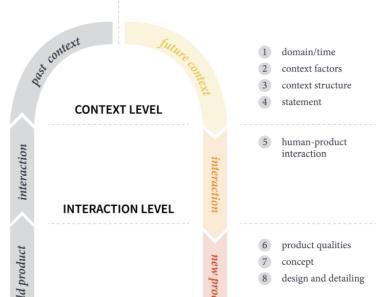
## 1.2. Approach



As described by the authors in the book, the process follows two phases: the deconstruction phase (also called preparation) and the construction phase (also called designing). In the first phase, the goal is to understand why the product is the way it is and aims to understand how do people experience and interact with it. In the second phase, there are eight steps for starting to design: domain definition, generation of context factors, creation of context structure, statement definition, designing the interaction, defining the product qualities, designing a concept and, finally, detailing.

This graduation project will follow the

In the way this project was conducted, the ViP approach was used as a guidance to understand the current product, to generate context factors, to create a future context and to design an interaction vision. However, other methods and techniques were used in different stages to generate, facilitate or ideate throughout the process.



deconstruction | designing

Figure 2. Visual from the ViP process

**PRODUCT LEVEL** 

## Deconstructing

The deconstruction phase starts with preliminary research. The goal of this phase is to gain an understanding of the company's history, the product and the knowledge within the company. It first starts by understanding the beginnings of mytaxi and follows with using the product; by ordering a taxi and jumping into it. Then, the informal interviews start, the goal is to understand how people within the company perceive the product and which projects are being carried on at the moment. More concretely, to meet the data analysts and the researchers, the ones looking into the end-user's behaviour. Finally, the business goals and the company vision are analysed, with a particular focus on understanding the new brand values and strategy (see Deconstruction chapter on page 7).

## Defining the domain

The objective of this phase is to delimit the scope of the project and frame the research topic. Considering that the domain should fit the strategic goals of the company, a definition of the domain is created by delimiting the social phenomenon with the company's context (see Domain defined in chapter 15).

## Generating context understanding

To generate knowledge on the future domain, this phase is structured in two parts: user research and trend research.

The user research conducted has a significant weight in this project, since it is used as one of the primary sources to generate insights. With a principal focus on understanding people's needs, motives and values, the research analysis provides an in-depth understanding of city dweller's behaviour. To make sense out of the large amount of data generated, the data is synthesised in different ways: from the creation of a very abstract model to the spotting of very concrete insights. The ultimate goal of this research was to generate context factors, more concretely, to bring a particular topology of them: 'principles' and 'states' (see page 21 for the results generated from the User Research).

The second phase of this chapter is to gain comprehension from those experts who have a great deal of knowledge in the domain. In order to guide and steer the experts through the domain, the outcomes from the user research were used. The goal was to spot a particular type of context factors: 'trends' and 'developments', those considered to play an essential role in the future domain (see page 49 for the results generated from the Trend Research).

## Creating the future context

Here comes the moment where the previous findings are combined and clustered in a way that shows the future context where the company can have an impact on. The desired outcome is defined in the 'statement' which indicates the effect

the designer wants to have on people (see page 62 for Statement).

Subsequently, as a result of combining the context clusters with the company's future situation, a 'context structure' is created. This framework illustrates the main patterns spotted in the context and provides insight on how the designed vision opens up for new opportunities (see page 64 for Context Structure).

Finally, once having the company's vision created, the relationship between the user and the product is designed. The goal at this stage was to show the implications of this vision (statement) in the world of tomorrow through an interaction vision. The interaction vision considers all important user needs, desires and concerns and defines the future relationship between the user and the service (see page 68 for Interaction Vision).

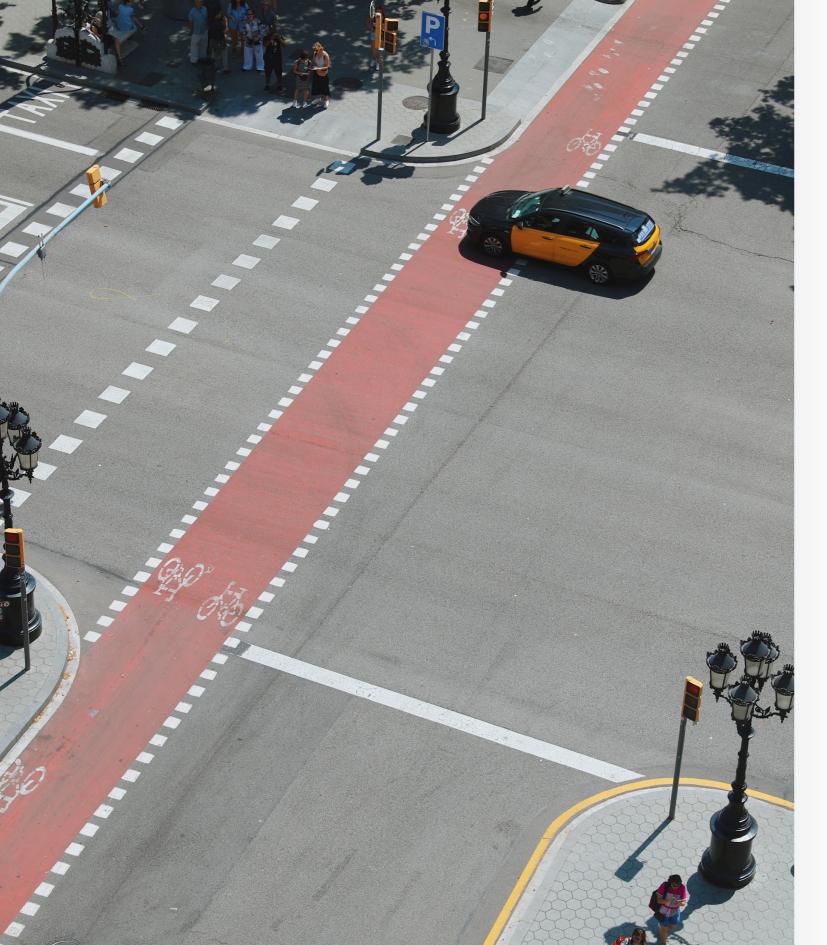
## Implementation

In order to understand how the designed vision can be implemented within the company, an evaluation of the current FREE NOW portfolio is conducted, as well as an assessment of the end-user perception. The goal of this final phase is to identify design opportunities that can help FREE NOW to design based on the conceptualised mindsets. Finally, some further steps are defined for the company to adapt the vision properly.

As represented in figure 3, the project follows these steps:

| domain definition | definition | definition | trend research | creating context understanding | statement | creating future context | trend research | context | context | structure | context | structure | context | context | context | structure | context | conte

Figure 3. Project approach



Chapter 2

## **Deconstruction**

The deconstruction phase started as a preparatory activity to understand where this project was fitting within the context of FREE NOW. To get familiar with the product, the service and the company, a careful analysis of the past and the present situation was conducted.

As a starting point, the history of the company and the product are investigated. The goal is to understand why the existing product is the way it is, through its evolution until the current date. Following to that activity, the current state is analysed by interviewing the company's employees. At this point, the goal is to get to know the product itself and all its variations (service types). Moreover, to comprehend the current (taxi) users, previous user researches and data analysis are looked into.

Finally, to complement the knowledge about the company, the brand values, the market positioning and the company strategy are evaluated. This step intends to understand the role of the brand in such a competitive market — leading to analysing the new brand FREE NOW and its future vision.

## 2.1. FREE NOW

FREE NOW (formerly mytaxi) is a mobile-based application that allows users to search, find and book taxis. The ride-hailing app is present in more than 52 countries in Europe by matching taxi drivers with passengers. It was founded to modernise the conventional taxi market and to bring new opportunities to the sector.

# Daimler mobility services Intec 50% 50% Intelligent Apps GmbH Hive FREE NOW (formerly mytaxi) Clever Kapten Beat Scooter sharing-service Ride hailing services

## Figure 4. Group structure

## **2.1.1.** History

Mytaxi was founded in 2009 in Hamburg by Jan-Niclaus Mewes, Johannes Mewes and Sven Külper, being the world's first taxi app. The startup was created to facilitate the taxi-hailing, and it started with a trial error approach with the cooperation of a hundred taxi drivers using the app.

It was in 2014 when Intelligent Apps GmbH (mytaxi's group legal name) started being part of Daimler Mobility Services GmbH. By acquiring the e-hailing app, Daimler Group adds a new product in their mobility offering, to become one of the leading mobility producers and providers. In 2016, mytaxi merged with Hailo, the leading taxi app in the UK and Ireland. After that move, the Intelligent Apps group's strategy shifted towards investing in international expansion. That lead to acquiring other taxi apps in Europe: Beat, Clever and Kapten, which brought new markets such as Greece, South America, Romania, France and others. Through these strategic acquisitions, mytaxi starts to compete closely with Uber and becoming one of the leading taxi booking apps in Europe.

At the moment, mytaxi is part of the growing Intelligent Apps group which, in 2018, also launched Hive: a scooter-

sharing service present in Austria, France, Greece, Poland and Portugal. Finally, as a last step, mytaxi introduced Private Hiring Vehicles service within the app as a step towards becoming a multimodal mobility provider.

It was at the beginning of 2019 when Daimler and BMW created the joint venture which aims for pooling their mobility services into one same brand. At this point, mytaxi and all the other Intelligent Apps services were combined into one same brand called FREE NOW. The first company to rebrand into FREE NOW was mytaxi, done in July 2019.



Figure 5. Timeline of FREE NOW history

## 2.1.2. Market positioning

FREE NOW operates in an ever-expanding amount of markets all growing at a fast pace. At the same time, each market is different in culture, legal regulations, competition, etc. Under the mentality of: "Think global, act locally", FREE NOW provides a localised product for each market. In each of the markets, FREE NOW adapts to regulations and, in most of the cities, it has a close relationship with the governments which aims to closely collaborate and properly integrate their service offerings in the city.

Therefore, the taxi service is different in every city, due to regulations. As a general description, it is a type of vehicle, usually premium class vehicles, with a licensed driver. This taxi license assures that the taxi driver meets the professional requirements. Thus, this implies that the driver has a great understanding of the city streets and essential locations, bringing well-informed trip decisions. Moreover, the vehicle also has to meet a predetermined level of quality. By law in most countries, the taxi has to have different items located inside the car: taximeter, illuminated indicator, a visible ID card and ID plate and a card reader.

As described above, the taxi industry has a somewhat regulated framework. It is framed by regulations that come from decades ago, without considering the technologies available nowadays. Compared to other hailing services, such as Private Hire Vehicles services (PHV) which fall under other regulations, the taxi industry lacks on different aspects: no-flexibility on prices, poor number of licenses and higher barriers for driver entry. Consequently, this situation puts the taxi industry in a very unfair position compared to direct competition.

As a general description, PHV is a service that offers a similar performance than a taxi driver. Howev,er the difference lays in the regulations behind the product, PHV has a rather flexible framework. Some companies providing PHV services are Uber and Lyft. However, in most of the countries, this service requires fewer regulations than the taxi industry, such as no licenses, no in-vehicle special devices, etc. Moreover, considering the flexible pricing the PHV business model brings and the lower quality standards the service needs to meet, the ride price becomes cheaper than a taxi ride. Consequently,

from a customer perspective, the PHV service is very similar to the taxi service for a lower price; therefore, in most of the cases perceived as a better option.

Currently, in a fair amount of cities, deregulation is happening. There are several markets, such as London with a strong Black Cab sector, where the PHV service (Uber) was made legal and in less than three years, it quadrupled the number of taxis vehicles. Despite the fact that this meant a high loss for mytaxi, deregulations are suitable for the long-term career of the business. By looking at the mission of mytaxi: "We want to make mobility available for everyone independent of age, income & location", to make mobility available for everyone, the company needs to grow big. For growing big enough to compete with direct and indirect mobility providers, FREE NOW decided to jump the wave of offering PHV.

In conclusion, the incorporation of the PHV service in the application aims to add a more competitive service in the FREE NOW portfolio and to start becoming a multi-service platform, see FREE NOW's strategy on page 12.

## **2.1.3. Product**

FREE NOW's current application provides passengers with the possibility to order a taxi through their smartphone. The usability is rather straightforward (see App, Figure 6), the passenger can either: 1) enter a destination and directly order a taxi. 2) skip entering the destination and order a taxi 3) book a taxi for later. Among the different options depending on the country, the passenger can choose between a standard taxi, a taxi XL, an Eco taxi or a match. In each service type the number of seats, the time it will take to reach the passenger and the price, are is displayed.

Each service type has its characteristics based on car details, driver details, pricing and additional driver services to fulfil the individual needs better:

## Service types in app

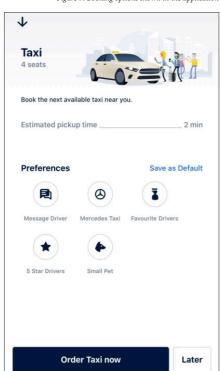
Figure 6. Service types shown in the application



On a second level of the application, in almost all service types, the passenger can add these booking options:

## **Booking options**

Figure 7. Booking options shown in the application





## Hive

As mentioned previously, FREE NOW is part of Intelligent Apps group which combines taxi companies and a scootersharing service. Hive is the brand that offers electric scooters for short-term rentals within the city area. Hive scooters have no fixed locations; they are placed around the city and users can unlock them through the app and use them for as much as they want within the established area.

## 2.1.4. Services usage

## Ride-hailing

Previous research has explored the situations and reasons for taking a taxi in the urban context. In most of the cases, a taxi is used for special occasions and, more concretely, used as connections from/to events ("Kundenzufriedenheit mit Taxi Unternehmen in Deutschland", 2014). Due to its higher price compared to other means of transportation, the taxi service becomes an exceptional mode. Some of the most common reasons why a taxi service is booked are: travelling to/ from a night out socialising, travelling to/from the airport, travelling due to sickness, if public transport is not working, travelling for work and transporting something unusual (Figure 8).

The findings of this study suggest that, in most of the cases, the interaction people have with the taxi service is either negative or positive. Emergencies or temporary illnesses are a clear example of a negative and common circumstance for people using a taxi. On the other side, socialising activities are also a very common reason which relates to a positive experience.

### Scooter

However, the scooter-sharing service, Hive, is used in very different situations, and it fulfils different needs than the taxi service. Most of the rides performed to connect to or from public transportation, facilitating that last mile of commuting trips (Portland Bureau of Transportation, 2018). As well as travelling from or to socialising activities during the evening

- travelling to/from a night out socialising
- travelling to/from the airport
- travelling due to sickness
- if public transport is not working
- visit of friends and acquaintances

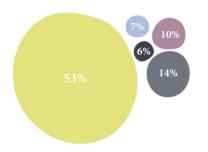


Figure 8. Results from survey ("Kundenzufriedenheit mit TaxiUnternehmen in Deutschland", 2014) p=488, reasons for travelling by taxi



Figure 7. Hive (FREE NOW scooter-sharing service)

## 2.2. FREE NOW strategy

FREE NOW is the result of the merger of mytaxi's mother company, Daimler, and BMW to board the business strategy. The rebrand of the company took place on July 2019 as well as the announcement of the PHV launch in Germany. This two-statement event aimed to show how the application is going under a new purpose: becoming a multimodal mobility provider.

To bring this holistic approach to the business, FREE NOW will start with a robust ride-hailing business core and with additional services, such as Hive.

The brand aims to bring a new concept of "Freedom of Mind": the freedom of not needing to think about how to get to the destination because FREE NOW is the best in finding the most comfortable, straightforward and easy-going way for everybody. The core idea of this new brand is to make mobility available for everyone independent of age, income and location and to change the focus of pure transportation towards a "lifestyle" option.



## 2.3. Conclusion

After understanding FREE NOW's product, service and company's goals, some conclusions were made that helped to frame the project purpose:

After the launch of Hive and PHV services which put the company out of their comfort zone, it is clear that FREE NOW is ready to meet their promise of offering a multimodal service/application. More concretely, to think further than offering a quality taxi service. However, by looking at the current mobility market, the PHV and scooter services are very much explored by other companies. By critically observing this fact, it concludes that FREE NOW's attitude has been reactive (against a proactive approach) towards changes in the mobility sector. However, in such a competitive market as mobility, where there are constantly emerging mobility solutions and features coming from both big and small players, FREE NOW kept a very strong focus on catching up with these competitor's solutions and little effort on innovating themselves.

A key observation, which initiated this project, was the fact that there is a little understanding of taxi users and in general city dwellers. While FREE NOW is becoming a multimodal mobility provider and shifting from an occasionally used mean of transportation to everyday transportation, there is a lack of knowledge on their user's motivations, needs and values while moving in the city. Moreover, decisions are pushed from a business perspective instead of a user perspective. A clear example, which comes from an observation made during interviewing employees, is that from within the company price is perceived as the main factor for users to choose a mobility mode. An observation that triggered further research and became the basis of the start of the research phase.

In conclusion, by looking at the company's mission of making mobility available for everyone, there is a need for envisioning and creating a future vision where the user is put first. Where the needs of the passengers shape the way they move and the mode exclusively enables the desired activities.



## Chapter 3

## **Domain**

Any design project following the ViP process (Hekkert & van Dijk, 2011), starts the construction phase with defining the domain. This section sets the domain with a broad framework to allow wider exploration into the topic and leave room for unexpected and surprising insights.

As a starting point, it looks into the current situation of urban mobility through diving into the large amount of 'Urban Mobility' reports generated by research companies during these last years. Further, the domain is evaluated in the context, the strategic goals and the mission of the company to provide a vision that is aligned with the future company plans.

## 3.1. Urban mobility

Cities are becoming the primary living environment for citizens; the United Nations predicts that 68% of the world population will live in urban areas by 2050 (United Nations, 2018). With such a large number of urban population which needs to move in, out and around the city, urban mobility becomes a big challenge for both citizens and governments.

The urban mobility context is a complex panorama since it is under a constant change due to technological, economic, and social changes. These changes are driven by a large number of trends and developments that make the mobility ecosystem a sophisticated but yet innovative industry. Moreover, this domain comes with lots of uncertainties attached to technological developments which directly influence social transformations.

The current and most significant technological developments influencing the urban mobility landscape are Big Data and the Internet of Things. Bringing connectivity to the mobility ecosystem, Big Data and the Internet of things are changing the way city dwellers move. Intelligent connectivity brings accurate

and on-time information, resulting in systems that optimise and facilitate individual choice. For instance, the data provider, Google Maps, is getting smarter with every trip is made, bringing well-educated route-planning by using real-time traffic data.

Due to the success of connectivity systems, solutions such as car-sharing, Mobility as a Service (MaaS), micro-mobility-sharing, etc. were raised by small and big mobility companies. Those solutions generated an emerging business concept: multi-modal mobility. Resulting from the combination of multiple mobility solutions, multimodality is an all-in-one formula that combines all types of mobility modes and brings simplicity, affordability and easy usability for the city dwellers. Some of the first providers of multimodality transportations, but still exploring the domain are Whim, Uber and Moovit.

On the other hand, a significant and important technological development that is not on place yet but has been mentioned for many years is autonomous driving. Autonomous vehicles promise to reduce traffic, prevent accidents, reduce pollution and offer very innovative in-trip experiences (Calvin, 2018). Even though

Pag.16

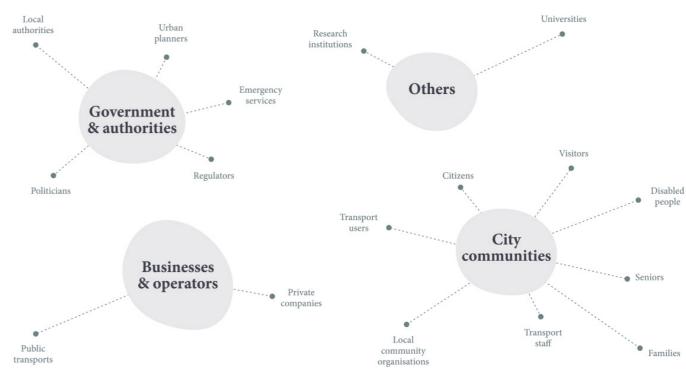
autonomous driving was a few years ago only in science fiction movies, it is still now very uncertain when the first fully autonomous ride will come into reality (Dixon et al., 2019).

Finally, likewise, societal trends are shaping the mobility landscape. With urbanisation being the most relevant in this context, it influences and leads to other consequential trends. An important finding described in the report 'The Future of Mobility 3.0' from Arthur D. Little consultancy (2018), shows that the number of journeys is increasing, the purpose of these trips are changing, and the frequencies are shifting. Due to technological developments, mobility options are raising concerns about sustainability and people's health. More and more mobility behaviours are emerging due to the growing number of mobility solutions that bring more diverse mobility experiences to city dwellers. A prominent shift in urban behaviour, is the decreasing number of vehicle ownership, resulting in a constant increase in sharedmobility usage (Baltic et al., 2019).

## The stakeholders

In the mobility landscape, several relevant stakeholders influence the way the future city is shaped, which can help to understand the actual domain:

Figure 9. Stakeholders influencing Urban Mobility



# 3.2. Urban mobility x FREE NOW

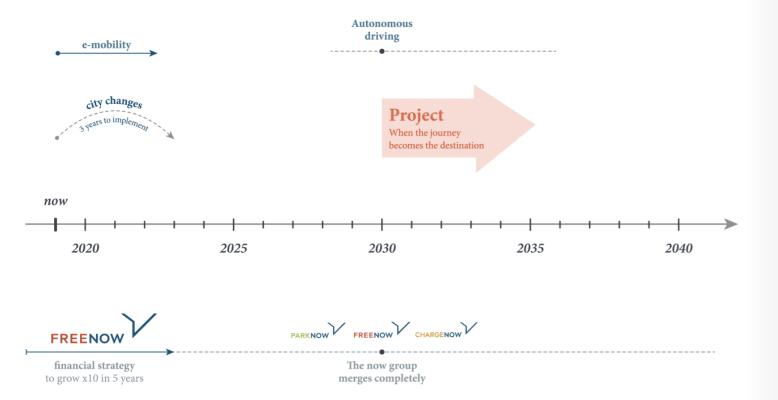


Figure 10. Timeline of events & trends showing the time scope for this project

The ultimate goal of this project is to provide FREE NOW with a new mobility approach that fits the company's goals and mission. Therefore, this section aims to frame the domain by looking into the company's plans and the current domain situation. Subsequently, the main qualities are identified:

## Individual mobility

For this project, the focus is on understanding how individual humans move rather than conducting a sociodemographic study. In the previously mentioned report from Arthur D. Little (2018), it is stated that there is a growing behaviour polarisation in mobility wants and needs. In the report, it is presented the example of how customers with little brand loyalty are looking for the cheapest option, and how the experiential consumers are valuing more the quality of the journey. This statement, together with FREE NOW's knowledge gap regarding travel attitudes, lead to thinking further on travel purposes. Moreover, as mentioned in previous chapters, FREE NOW is currently ruled by a business-driven

vision, which demands of a more humancentred touch and so, the potential of understanding urban mobility behaviours is clear.

### Multimodality

As a result of the given technological developments that gather real-time data and enable high connected systems, the combination of multi mobility solutions is currently possible. Since FREE NOW is investing in shifting towards a multimodal transportation provider and this change will last the few coming years, the solution should be aligned with this statement.

### 2030 onwards

FREE NOW's financial strategy for 2025 is to grow ten times bigger. This short-term plan aims to expand the company to a size that makes it possible to influence the market, and eventually, achieve its purpose of creating limitless urban mobility for everyone. Simultaneously to this growth on company size, this short-term plan implies the big move of becoming a multimodal mobility provider.

Nonetheless, the real change will come

once autonomous driving becomes a reality, by bringing a whole new passenger experience. It is not sure when it will happen; however, a safe estimation for full automation in the urban environment is for 2030. At this stage, the whole NOW group will be combined and will work together as one: the electric charging infrastructures (CHARGE NOW), the parking system (PARK NOW) and the passenger & data platform (FREE NOW). That will be the moment when, due to all the improvements that autonomous driving will bring, the in-trip experience will change dramatically.

Therefore, the time scope for this project is defined for 2030, based on the arrival of self-driving vehicles and the future long-term plan of FREE NOW (and NOW group) (Figure 10).



Chapter 4

## User Research

As described by Hekkert & van Dijk (2011), factors are observations, theories, laws or considerations that describe specific elements from the phenomena that influence the future domain. Thus, this chapter aims to gain an understanding of the domain of urban mobility.

The user research conducted, which was given significant weight in this project, aims to generate psychological and social factors. With a principal focus on understanding city dweller's needs, motives and values, this research track provides with an in-depth understanding of human behaviour.

## City dwellers

When one thinks of urban mobility, one usually pictures a city with lots of people walking, driving and riding in different directions creating a constant movement. However, that flow of people is composed of individual actions and behaviours. Each person is driven by individual motivations that go further than going from A to B.

In this chapter, the urban mobility context will be explored through its citizens. A two-phase research will look into the broad topic of mobility from the user perspective by contemplating a wide range of mobility situations to unveil the different travel behaviours. In this chapter, the participant will be considered as the expert of his/her own experiences and will be empowered to express his/her thoughts and feelings through thought-provoking activities.

# 4.1. User Research Approach

This section outlines the methodology used to collect and generate insights. The previously defined domain of Urban Mobility comes together with a significant complexity of social and behavioural aspects. Thus, to gain a complete understanding of the domain and explore the different relevant paths for this project, a qualitative approach was chosen. A significant advantage of this approach is that its exploratory by nature and it allows the researcher to explore the phenomena freely.

Based on the principles of context mapping (Visser et al., 2005), this research used generative techniques to map the participants' context. The goal is to help participants to recall past experiences and future dreams to access user's tacit knowledge reveal their latent needs. This research generated rich and detailed data that helped to understand the core concepts of the domain.

The research was set up in two phases: an explorative study in Barcelona and indepth research in Berlin. By dividing the data collection phase into two, the social phenomena were first widely explored and analysed, to afterwards dive deep in more concrete topics (Figure 11). It also allowed considering two different European cities in the framework, to gain a more extensive knowledge of the domain in the European context.

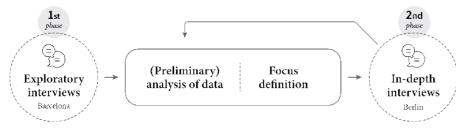


Figure 11. User research process: Two-phased qualitative research.

## Phase 1 - Barcelona

The first step consisted of seven semistructured interviews with Barcelona citizens, using a generative technique with a duration of 45 minutes. Intended for mapping out the different elements that constitute the context of urban mobility through the participant's experiences.

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## Phase 2 - Berlin

The second phase included a smaller sample, with four participants living in Berlin, gathered in individual sessions that lasted two hours. The goal was to obtain further in-depth information on the previously defined elements from the urban mobility context.

# 4.2. Phase 1 Barcelona: The context of urban mobility

With a very broad topic as a start, the main goal in this phase is to get an overview of what is entitled as well as to gain inspiration for further exploration. For this, the qualitative interviewing approach is chosen since it offers the flexibility needed to investigate the phenomena. Moreover, to immerse the participant in the topic and facilitate the expression of previous experiences and feelings, a generative activity is used.

## 4.2.1. Research Goal & Questions

Although this research is following an exploratory approach, there is the leading question to answer: "Why do people move (around the city)?". More concretely, and by breaking through the research question, two parts are identified:

## 1. Activity aiming to conduct

Based on the principle that transportation it's only a mean to go from A to B, the reasons behind that mobility decision is critical to understand. Thus, the three main questions aimed to answer regarding this topic are the following:

"Which activities are required to move from A to B?"

"What do they want to achieve?"

"How is it planned?"

## **2. Mode of transportation choice** It is thought to be interesting to look

into transportation's mode of choice due to the big amount of possible factors that influence it. Thus, to understand this decision-making process and, consequently, the different options assessed, these questions are formulated:

"How do they move around the city?"
"Why do they choose a specific mode to move?"

## 4.2.2. Generative tool

As mentioned before, the approach used in this research aims to make the participant reflect and discuss their mobility experiences and needs. Hence, to sensitise the participant and facilitate the discussion, it is chosen to conduct an activity during the interview. Visual support of the city is thought to be helpful for the participants to express the activities they perform. Thus, maps from the city are printed out, as well as blank papers for those participants willing to create their maps. The goal is to help participants express their activities in the city and plot the different mobility trips and modes. In conclusion, the purpose of this artefact is to both stimulate discussion. as well as to understand their context better. (See all maps from participants in appendix B).



Figure 12. Picture of the interview setting

## 4.2.3. Interview guideline

Each one of the sessions follow the designed structure, which is composed of six parts:

## 1. Introduction [5 min]

Introduce the researcher and the interview structure.

## 2. Personal and professional background [5 min]

Get to know the participant, understand his/her background and context.

## 3. Mobility rituals (Map exercise) [20 min]

Make part: Encourage the participant to draw a map of the city, illustrating his/her main visited locations or highlighting them on the printed maps.

Say part: The participant presents the outcome of the activity, the goal is to understand which activities the participant does that require to move from A to B

Discussion part: Look into which are the modes of transportation chosen in each situation.

## 4. Specific experiences [10 min]

Select one experience that the participant finds relevant, pleasant or interesting. Analyse that experience step-by-step together with the user. Try to emphasise on the emotional responses at each stage.

## 5. Wrap up and greetings [5 min]

Sign the consent form, give participants the incentives, and thank them for their time.

## 4.2.4. Participants

The target group needed to represent the population of city dwellers in European cities, as it is the most active market where FREE NOW operates. A first concern that emerged was how the sample could reflect the European population and how to avoid facing results that are too city-specific. To solve that, it is decided to conduct the two studies in two different cities in

Europe where FREE NOW operates and, more concretely, cities unlike in nature and form. Thus, Barcelona and Berlin are chosen to be the best candidates. With a big difference in culture, city dimensions, population number, different mobility offers, etc.

These are some relevant differences between the two cities:

## phase of the research, with a sample size of seven individuals living in Barcelona. The criteria for the sample of participants is the following:

To start, an opportunistic sample (within

the criteria) is found adequately for the first

-People living in the city of Barcelona or visiting it more than one time a month. Limiting it to only people that experience the city mobility, either daily or monthly basis.

-People older than 18 years old, for legal reasons.

To find the participants matching the established profile, a survey is created. This survey states the designed criteria and communicates the possible future participants of an incentive of 25€ Amazon voucher. It is decided to incentivise the participants to engage participation and have a big amount of participants to choose from. Moreover, this survey aims to make the registration process as easy as possible and to allow the participant to select a date, hour and location for the interview. Finally, the survey is spread through the researcher's network of people: friends, colleagues and relatives that send it out to other people.

### Barcelona

1,620,000 inhabitants

The average annual temperature is 21.2 °C.

55 precipitation days a year.

GDP per capita amounting to €28,400

Most used transport types: car, underground, bus, intercity train, motorbike, city train.

\*The average amount of time people spend commuting with public transit on a weekday is 50 min.

## Berlin

3,750,000 inhabitants

The average annual temperature is 9.1°C.

113 precipitation days a year.

GDP per capita amounting to €38,032

Most used transport types: car, S-Bahn (city train), U-Bahn (subway), tram, bus.

\*The average amount of time people spend commuting with public transit on a weekday is 62 min.

## 4.2.5. Selected participants

After one week of having the survey spread out, 38 people registered for the interview. The screening of the participants is based on availability, age and sex. The goal is to have the most diverse sample of participants.



Participant 1 Female, 22



Participant 5 Male, 41



Participant 2 Female, 36



Participant 6
Female, 53



Participant 3
Female, 58



Participant 7 Male, 24

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## 4.2.6. Interview procedure

First, a location to conduct the interviews is chosen, FREE NOW offices in Barcelona offer a neutral and calm setting and all the different material for the interview. Once the participant arrived in the room, he/she is asked to sign a consent form to obtain permission for recording the session. Thus, all participants are recorded both video and audio, as well as some pictures are taken while doing the activity.

## 4.2.6. Methodological conclusion

As mentioned previously, this user research study is formed of two parts. Therefore, after conducting this first part, a reflection on the methodology and techniques used is concluded. The goal is to learn and refine the set up for the following phase.

A first clear observation on the interview procedure was the length of the sessions, the 'mobility rituals' part in the interview took more time than expected, thus, in some cases, they were kindly asked to stay 15 minutes more. Some participants engaged a lot with the activity and felt very comfortable with reflecting on their mobility habits; consequently, the time scheduled should be reconsidered.

Secondly, it is observed that some necessary information about the

participants was lacking before conducting the interviews. Information such as: home geographic location, profession, nationality and more accurate age range. Such information could have helped the interviewer to have a first idea of the participant and to smooth the interview stage of 'Personal and professional background'. In conclusion, the survey created to screen and recruit participants such questions should be added. Besides, only after the 'personal and professional background' stage in the interview, the researcher became conscious of the level of education of the participants. In all cases, the participants had a high level of education. Therefore, the sample was only representing a category of the population composition. Thus, this observation should be considered in the overall study and, especially in the

Moreover, income was not considered in the screening of participants and brought a diverse range of incomes: from non-

Pag. 27

secondary research.

working students to employed people to seniors.

Finally, another aspect worth mentioning was that only the first two participants did not feel comfortable with drawing or visualising their mental map of the city. A solution for that kind of situations was already thought of; bringing printed maps of the city. However, the rest of the participants engaged very much with the activity and the level of detail in the drawn maps was rich and insightful. Thus, in further research, the researcher should try to empower the participants more to engage with the activity.

In conclusion, the methodology used in this first round of interviews was appropriate for its purpose. Besides, there are few elements to be considered in the second round of interviews; the research setup and structure successfully facilitated the sessions. Thus, in the following research, the same methodology will be used and adapted to its purpose.

necessary information about the a diverse i

Participant 4

Male, 38

# 4.3. Phase 2Berlin: The mobility choices

As mentioned previously, the research is structured in two parts. This second phase was meant to provide deeper insights into several aspects of the different mobility behaviours. After conducting a preliminary analysis of the data gathered in the first phase, the factors influencing the mobility choice are defined as of high relevance to be further investigated in this second phase.

In an attempt to design this research structure and after having noticed the success of the previous interview set up, some elements are reproduced in this interview. Since the goal of this interview is to dive deeper into the aspects influencing each choice, the generative tool is also adopted for this phase. Therefore, the in-depth interviews are designed with a special focus on the exercise and the duration is established in two hours.

A more accurate description of the objectives of this second research is determined in the following section, together with a complete explanation of the research procedure.

## 4.3.1. Research Goal & Ouestions

After conducting a preliminary analysis on research results, in this second round of interviews, it was thought to be interesting to look deeper on the reasons of each mobility choice and to explore which are the underlying factors that influence that behaviour. The evidence for that decision and the results of the preliminary analysis can be found in the following chapter (Analysis, page 33).

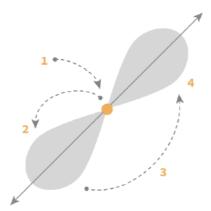
Therefore, the goal of this second phase is to understand the individual motives of dwellers better when moving around the city. A special focus is given to the reasons why each mean of transportation is chosen and the activities conducted while moving.

## Mode of choice

Why is the mean of transportation chosen over another one?

Which needs are fulfilled by the mode's choice?

Which mobility attributes are considered in the choice?



- 1 Immerse the participant in the current experience
- 2 Connect to past experiences through memories & feelings
- 3 Dream about future experiences
- 4 Imagine ideal future experiences

Figure 12. Paths of expression by Sanders (2001)

## 1. Introduction [5 min]

Introduce the researcher and the interview structure.

## 2. The person and his/her context [20 min]

Get to know the participant and understand his/her background. Understand his/her goals and ambitions in life

Goal: to connect to a personal level with the participant and reach an emotional alignment

## 3. Warm-up exercise [5 min]

Explain the participant how to conduct the activity. Present him/her with the paper and markers. If necessary draw an example of a possible map to empower the participant to use his/her visualising skills.

## 4. Current mobility activities (Map exercise) [45 min] - PRESENT

Make part: Encourage the participant to draw a map of the city, illustrating his/her main visited locations or highlighting them on the printed maps.

Say part: The participant presents the outcome of the activity, the goal is to understand which activities the participant does that require to move from A to B.

Discussion part: Look into which are the modes of transportation chosen in each situation. Reflect on the attributes that made the participant chose each mean of transportation.

## 5. Past specific experiences [15 min] - PAST

Help the participant to recall in which scenarios the mobility choice was different in the past. Reflect why that was different and which elements influenced the change to a new behaviour.

## 6. Future scenarios & ideal experience [15 min] - FUTURE

Select one experience that the participant mentioned in the previous phase and help him imagine how that can be in the future. The objective is to understand which attributes make that solution good and which needs is it fulfilling.

## 7. Wrap up and greetings [5 min]

Sign the consent form, give participants the incentives, and thank them for

## 4.3.2. Interview guideline

For the design of this interview structure, the four levels of knowledge about experience distinguished by Sanders (2001) are used (Figure 12). If these levels of knowledge are explored through 'the path of expression' process: present, past and future experiences can be gathered.

In this interview, the goal is to access the latent knowledge, in other words, to reveal future needs. As Sanders explains, only by understanding how people feel and by empathising with them, we can access that knowledge.

Thus, the structure of the interview aims to guide and walk the participant through the four different levels and, ultimately, reach future experiences.

As illustrated in the interview guideline, it is designed based on 'the paths of expression' process: current experiences, past experiences and future experiences.

## 4.3.3. Participants

As mentioned before, to have a sample that more accurately represents the population composition of European city dwellers, the required criteria for this new participants are more specific:

## -Home geographic location

The location of the participant's home is found of crucial importance to provide results that represent citizens from the different areas of the city of Berlin. Consequently, the aim is to cover the different boroughs and quarters from the city of Berlin.

### -Nationality

The population of Berlin consists of a vast diversity of nationalities. Approximately 1 person out of 5 has an immigrant background; thus, the nationality of the participants had to be carefully considered in the sample.

### -Age range

The age groups used in the previous survey provided five age bands, however, in this second phase a more granular sample is defined: Under 18 years old, 18-24 years old, 25-34 years old, 35-44 years old, 45-54 years old, 55-64 years old, 65-74 years old and 75 years or older. The goal is to assess better the participant's experience or knowledge based on their age.

## -Educational level

As mentioned in the previous research, the educational level was biased by the type of people that the survey was sent to, with all participants having a highly educated background. Thus, to take into account this characteristic before selecting the participants, four different education levels are defined in the survey. Based on the highest degree completed by the participant: Less than high school degree, High school degree, Bachelor degree, Higher.

Finally, to recruit the participants complying with the stated criteria, a survey is created with new questions about the participant's home geographic location, the participant's nationality and a more accurate age range groups.

## 4.3.4. Selected participants

Due to the time assigned for this research phase and the level of depth aimed in these interviews, a small sample of 4 participants is chosen.

## 4.3.5. Interview procedure

The interviews were conducted in different locations in the city of Berlin. The participants were asked to suggest a quiet cafe or other place in the city. Once the participant arrived, he/she was asked to sign a consent form to obtain permission for recording the session. All participants, except for one, were recorded both video and audio.



Figure 13. Interview with a participant

Pag.30



Participant 8 Dutch female, 23 Reinickendorf. Berlin Bachelor degree level



Participant 10 German male, 38 Tempelhof - Schöneberg. Berlin Bachelor degree level



The goal of this chapter is to describe the process followed to gather quality data. The approach, methods and techniques used are described in detail, providing insight on how the type of information gathered is relevant to the project.

4.4. Conclusion

The company's internal analysis conducted previously to this research provided with a set of high-level questions that needed to be answered. However, the behavioural phenomena of urban mobility possess a high level of complexity due to the high number of factors that influence individual actions. For his reason, it was decided to conduct a two-phased research with a first phase to explore the domain and narrow down the research scope.

In conclusion, the complexity of the topic is evident; it brought uncertainty and challenges along with the research. Nonetheless, this was well known from the early stages of the project. Therefore, a 'measurable' success indicator for the research outcome was defined: to bring inspirational and authentic insights for both the designer and the company.



Friedrichshain - Kreuzberg. Berlin



Participant 11 German/Mexican female, 55 Friedrichshain - Kreuzberg. Berlin High school degree level

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Participant 9

German female, 31

Higher level education



Chapter 5

## User Research analysis

This chapter highlights the path followed to analyse the findings of the user research, as well as the explanation of the actual results. A visual, at each stage of the analysis, represents how the different type of data is treated. Among the various stages of the analysis, the ultimate goal is to converge the information by using different design visualisations that focus on conveying the understanding generated on the domain.

# 4.2. User Research procedure

This section describes the different analysis methods used, which helped to understand better the domain and to identify relevant patterns and common themes.

After conducting the first research phase, all interviews are transcribed from audio files to word documents by arranging some verbal expression errors (see transcribed interviews in Appendix C). These transcripts are then printed to read them and discard non-relevant parts. This process helps to clean the raw data, which is also edited to have quotes that could 'stand-alone'. Finally, each cut piece is turned out into a statement card: the main quote with highlighted information and the name and age of the participant. These statement cards are used to: better interpret the content, connect them, compare them, group them and to better share the content with other researchers.

Moreover, to sensitise and immerse any person that aims to help in the research analysis, a poster is created with all the participants from the study. This visual contains a picture of the participant, age, nationality, a little story about their life and context, and a representative quote.

## On the wall

All printed cards, the maps created by the participants and the participants' poster are placed on a wall. The idea is to facilitate the observation of all the data and to ease the moving of those elements with lots of flexibility (Figure 14).

In some cases, designers and researchers are invited to observe the research wall and have a discussion on the data. The goal is to observe which themes emerged in the reviews and the relationships between them.

## Concrete evidence

First of all, the cards are grouped by the different attributes mentioned in the quotes. For instance, grouped by mode of choice: all car-related quotes together, all bike-related quotes together, etc. In combination with the drawings of the city, this grouping activity aims to look into what people 'say' they do, what they actually do and the why they say they do it. It is found to be an easy activity to start getting familiar with the data (see results of 'Reasons for choice' on page 38).



Figure 13. Modes of transportation & reasons for use

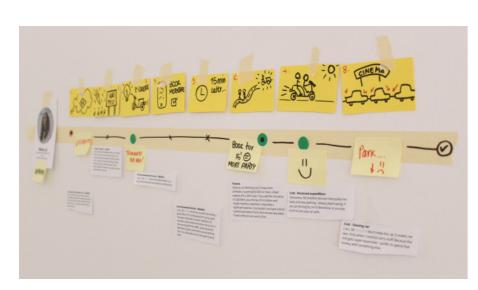


Figure 14. Participants & Maps

## Specific situations

Secondly, some specific experiences are analysed in detail. In several moments during the interview, the participant explained particular mobility-related experiences that made him/her change habits. For instance, using a new bus line, trying the shared motorbike service, etc.

The goal here is to understand which are the driving forces that elicited that change (Figure 15). This activity leads to the next section 'Driving forces' which shows the different factors influencing mobility behaviours.



Figure~15.~Journey~map~from~a~participant's~mobility~experience:~storyboard~&~quotes

## **Driving forces**

Once looking into specific situations where participants reflected and compared the different mobility options, some new friction appears. It reveals some underlaying needs and discomforts that the participant had while choosing a mobility option. Thus, those situations where the participants had experienced a conflict between their values and needs are looked into detail.

From those situations where participants experienced a conflict between their momentary needs and their life goals and ambitions, the different factors creating that friction are spotted. In some cases, it is a matter of time vs. sustainability; some other examples are about doing physical activity vs. having a comfortable ride. All those different groups of factors are mapped out in figure 16.



Figure 16. Clusters from user stories & quotes



Figure 17. Set of cards with different attitudes

To understand the factors better, the large volume of research studies regarding the phenomena are reviewed. The goal is to ground the knowledge that came from the user research with theory. Thus, the 'Mobility choice model' is created, which emerges from the user research and the literature review and shows an abstraction of each influence (see 'mobility choice influences' on page 40).

Moreover, the different attitudes towards each one of the situational needs and the lifestyle preferences are visualised in a set of cards (Figure 17). These cards describe the different attitudes spotted in the user research with a title, a simple description and a quote from the participants.

Finally, since the second in-depth research (Berlin) is conducted, simultaneously, while analysing the results of the first research (Barcelona), the data is included in this model and cards, bringing rich and concrete input on the needs fulfilled by each mean of transportation chosen. Consequently, providing more specific evidence.

## 5.2. User Research results

This section describes the results from the analysis and concludes with the leading research findings; it provides insights on:

- 1. Reasons for choice
- 2. Mobility choice model

## 5.2.1. Reasons for choice

In this section, all different attributes used by the participants to describe the various mobility options, are mapped out (Figure 18). It shows the different needs accommodated by each mobility mode, following the structure of:

"The [mobility type] allows me to...".

During the creation of this map, some of the relationships between the different needs started to emerge. Some are related to the qualities of the space, some about time, etc. Surprisingly, most of the reasons of choice are not directly related to the need of moving from A to B, but to how the mode is enabling them to do other activities or even to feel in a certain way. For instance, a participant mentioned:

"Usually, when I go to work by train I do private stuff in my cell phone because those 30 minutes that I have I like to use them to do some personal stuff, so I don't have to do it at home" (P8), another similar case was: "Maybe cycling is quicker, but if I need to do some work I go by bus. Then fewer changes with a longer trip might be better than a shorter trip by metro with lots of changes" (P6). In these cases, both choices were driven by other preferences than just covering a physical distance.

Another participant said: "And I like the

Another participant said: "And I like the subway more, it's a strange moment, you start looking and imagine the lives of other people. And it is your own time, I enjoy it" (P10), in this case, the participant mentioned several times how that mobility

time provides her with well-being and a mindfulness moment.

However, it is crucial to mention that people don't have only one reason why they choose a specific mean of transportation. There is always more than one factor influencing that choice. Thus, insights from this analysis can not be generalised, but they support the start of the 'Mobility choice influences' literature analysis.



 $Figure\ 18.\ Needs\ accommodated\ by\ each\ mobility\ mode$ 

## 5.2.2. Mobility choice influences

As any other everyday activity, the act of traveling entails a decision-making process. A decision based on either short-term needs, long-term lifestyle commitments

or a combination of both (Van Acker et al., 2010). First, to understand the decision-making process from the human perspective, the elements that influence it

are described. These elements can either be external from the person or internal; being controllable or uncontrollable by the individual.

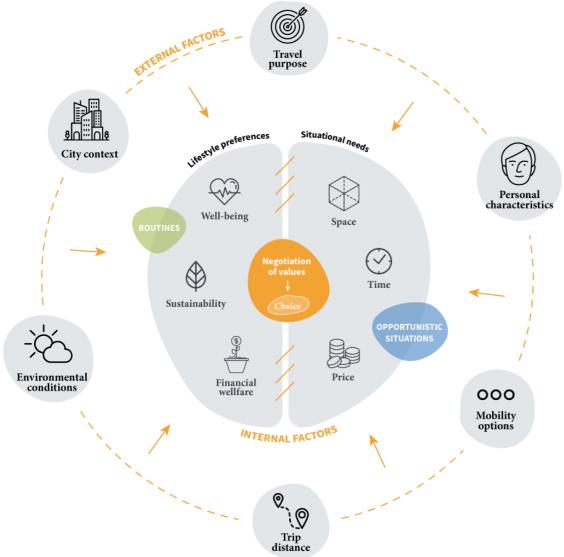


Figure 19. Visual of 'Mobility Choice model': choice influences from the human perspective

## **External factors**

Figure 20. External influences













These are those factors non-controllable by the individual, directly related to the person's context, nonetheless, also influencing the choice. The spatiotemporal component of travel, described in transport geography theories (Van Acker et al., 2010), the demographic characteristics of the individual and the travel purpose set a basis on the possible mobility choice. This choice context consists of the following elements:

## Travel purpose

In most of the cases, the goal for travelling is to cover a physical distance, to go from A to B, however, it should also be considered the case of travelling to experience the trip itself (Giesecke et al., 2016). By looking closer into the purpose of a journey, the types that can be defined are: personal or professional, and sometimes a combination of both. For instance, a person might use a business trip back home to stop by a shop to buy something personal.

## Personal characteristics

The individual's characteristics such as age, income, gender and educational level impact on the mode choice. A student might consider different options compared to a full-time employed person. Looking into this example, it might be that the person with higher income has access to private vehicles, for instance, if the person owns a bike, a car and/or any other mean of transportation.

On the other hand, possible physical limitations can as well influence mobility choice. For instance, a person can have the inability to walk due to an injury; thus, that fact reduces the person's options. This factor can also be less extreme; for example, a participant mentioned "I often have to take a lot of books. I've now bought a suitcase to walk with because I am starting to have problems with my shoulders. That is another reason that limits me with Bicing (bike sharing) sometimes" (P6). This person, due to her shoulder pain, might opt for a transport mode that does not require a lot of physical effort.

## **Mobility options**

The time of the day, the location and the destination, shape the variety of transportation modes. For instance, in most of the cities, public transport operates differently during the day and night. Moreover, it can be that the person is located in a place connected with an extensive range of transport options, as well as in a very remote location where options are reduced.

On the other hand, the number of options available for that person might not be the same as the ones the person is conscious of. It might be that there is no information available about specific mobility options. Consequently, the person is not aware of them and will not consider them.

### Trip distance

The length of the trip between the person's location and the destination can differ in kilometres and time. The modes available for a particular trip can influence the experience to a great extent. For instance, 2 km by taxi compared to 2 km walking are different, and time would be the most evident difference. However, the overall experience is entirely different, as well.

### **Environmental conditions**

Weather conditions play an essential role in everyday mobility. Despite that rain and wind are common in almost every region in Europe, they influence the type of transport chosen. For instance, a common reason for taking a taxi is due to rainy weather. Nonetheless, in other regions where extreme conditions appear, such as high temperatures or heavy snow, the choice is most likely limited and restricted.

### City context

There are different physical characteristics of a city that directly influence the mobility options: the size of the city, the distribution of the population, the diverse built environment, traffic, etc. These qualities are reflected on the individual's choice, for instance, if the route requires to walk long distances or cycle uphill.

## Internal influences

Figure 21. Internal influences

Compared to the external factors, the internal factors are those whose characteristics come from within the individual and that influence the decisionmaking process. There is a large amount of literature that looks into how sociodemographics influence travel behaviour (Scheiner, 2007), however, few look into the personal circumstances and reasons important for the individual in that mobility decision.

These personal factors, can be based on a specific situation (situational needs) or/ and can come from inner values, beliefs and motivations (lifestyle preferences). Usually, the weight of these two types of factors varies a lot depending on the person and the situation they are in. Moreover, psychological research shows that most of the times, there is friction between them (Black et al., 1985). For instance, if we imagine a situation where

there's an emergency, the lifestyle factors play a secondary role in the decision. Nevertheless, if it is routine related, it might be that the choice is highly influenced by one's lifestyle factors (for instance, a more sustainable commuting











lifestyle preferences



situational needs

The situational needs are those that emerge from a particular trip purpose and the specific context. These factors gain more value when an opportunistic situation takes place since they are more short-term considerations.

In the case when a set of circumstances requires to decide on a new mobility solution, the individual considers these different factors: space, time and price.

A lifestyle is based on an individual's attitudes, values and beliefs reflected on one's actions. In previous research, a strong link between mobility choices and lifestyle attitudes is demonstrated (Parkany, 2004). One's lifestyle preferences can be based on financial aspirations, environmental concerns, health attitudes, etc. These factors become more dominant when an individual decides for a mobility routine. A routine is a strategy one creates to simplify the decision-making process of something happening regularly. Thus, for instance, when a person decides on a commuting mode choice, he/she takes more into account these long-term values. Those long-term lifestyle values are well-being, sustainability, financial well-fare.



The spatial characteristics of a service are commonly evaluated by the comfort it provides during the trip ride. Being a very important mobility attribute (Beirao et al., 2007), comfort means a set of different things for people: soft seats, pleasant temperature, few people around, etc. Also, secure and protective qualities are perceived as an essential element in the current mobility offering (finding from user research).

On the other hand, other attributes mentioned by the participants that add value to the trip by transforming it into a pleasant journey are inspirational spaces and even entertaining contexts. For instance, a participant mentioned "I love seeing people, and in fact, I try to take the light rail, because there I can see and be outside, instead of inside" (P10), in this case, the mobility choice might be influenced by the 'spacing' attributes of the transportation mode, an engaging environment.

Additionally, several participants showed the need of having a more private or personal space. It was specially mentioned concerning circumstances such as: when having a conversation with others, when needing to carry big elements and when wanting to feel a bit more exclusive/ luxurious. For example, a participant

linked these attributes to owning a car: "I use the car of my parents. I do it once or twice a month. Just for the weekend or to move stuff from one place to another. Or for a long weekend, like going to Hamburg.

Finally, it is worth mentioning the increasing amount of business travels which result in completing work-related tasks while moving (Hislop et al., 2015). From business calls to computer working, the vehicle affordability is key in these type of trips. Therefore, vehicles which create different possibilities are perceived as good for having a multifunctional trip.



## Comfortable

### I want to be free from displeasure

"When I go to Frankfurt, I go by train because I can work, I know I have to be there 7 hours,I can't get out, therefore I work. I usually get first class so I can work and it's more comfortable





## Inspirational I want to feel encouraged

"I love seeing people and in fact, I try to take the light rail, because there I can see and be outside, instead of



## I want it to enable me to get things done

"Usually, when I go to work by train I do private stuff. I arrange meetings with my friends or I set up stuff for the hockey club. I use thos 30 minutes to do some tasks, so I don't have to do them at home."



### Secure I do not want to be harmed

"I have to run to the hospital, usually in the middle of the night, 15km away... In this occasion I use mytaxi. Being a woma in Berlin in the middle of the night with such an



## Protective I want to be protected from outside

"I have to be at 9 at the office. I go by bike, if it's raining very hard I go by public transport. Specially in winter."



## I want it to feel exclusive

"I see Uber like everything as a service. The chauffeur talks to you differently. It's like they want to simulat they are your private chauffeur and that that car was not used before."



### I want it to be adjusted to my preferences

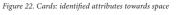
"I use the car of my parents I do it once or twice a month. Just for the weekend or to move stuff from one place to another. Or for a long weekend, like going to



### I want to be distracted and

\*I meet every morning with an ex-colleague of mine in the train, we both go to the same area of the city. So, we talk about life in the

charmed



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Travel time can be one of the most important factors considered when choosing a mobility mode. If there is the need to get to a destination as soon as possible, it can be fulfilled by a mean of transportation that moves at high speed. However, the expression of time is directly related to the way it is perceived; consequently, other time characteristics play an essential role in the time dimension. For instance, if the need is to make use of that time, a mean of transportation with few stops or changes might feel that the time is used more efficiently.

On the other side, when a person needs to get to a place on time, it does not imply he/she wants to go there fast, but he/she might want the time of departure and the

be related to time flexibility, work under one's terms. For instance, the fact that a motorbike gives a person time flexibility to use it whenever it is needed, it might be an essential reason for the choice.

time to the destination to be certain and

assured. In addition, the time certainty can

Finally, after considering all time characteristics that bring functionality to the ride, it should also be considered the possibility of wanting a ride to be enjoyable. For example, a participant that had to go to the hospital weekly used the trip back home (walking) to relax and enjoy the beauty along the route.



The travel cost is a crucial factor considered in the mode of choice, and most of the times have a big impact on the final decision. When making a short-term oriented decision, the price attributes considered are purely related to the context situation. Moreover, taking into account that people think of value in relative terms, the price to be paid is always compared with previous experiences and/or other alternatives. For instance, a person might want to be relieved from a negative situation, therefore might accept almost any price. The opposite case would be a person willing to pay the minimum possible, thus agreeing to 'downgrade' in other attributes of the trip.



Well-being

The idea of well-being is a set of visions and expectations that require continuous adaptation. The certainty of travelling affecting and/or contributing to the wellbeing of a person has already been explored in several studies (Sallis et al., 2004). From a health perspective, travelling can contribute to both doing physical activity and achieving a relaxing and mindful state of mind (psychological well-being).

On the other hand, the travelling moment can also play a part in improving one's skills. For instance, a participant mentioned: "Podcasts are great, I walk to work and listen to them. That is my time to learn new stuff" (P11). At the same time, travelling can also be used to embrace social activities and allow people to interact with others.



physical activity

"Since we work so much

and we want to do so mar things, and on top of that

walk to work! At the end of

I want to relax and

"While on the train you are

Usually, you are not alone. We spend all day with other

people. This moment on the

train gives me well-being and pleasure."

enjoy the moment

alone with yourself.

we need to do sports... 1

the day I can say I have

done some physical activity."

Mindful

## Healthly I want to do some

I want it to allow me to interact with others (physically and virtually)

Sociable

(4)

netimes I call or text friends while I am in the bus... you know I am Australian and I need to catch up with my family and friends that live there.



## Educational

I want to improve and develop my skills

You can find them about whatever you want! Podcasts are great, I walk to work and listen to them. That is my time to learn new stuff.



## **Eco-friendly**

I want to do the least possible damage to the environment

"I hate flying, it's very harmful for the environment. I take the train instead. I know it only takes an hour to fly to my parents, but I still choose the 7 hour train ride. I am not killing trees."



footprint

he hetter'

better" (P9).

Sustainability

More and more people know the future

unsustainable lifestyle. Therefore, people

friendly and socially responsible options

(Collins et al., 2005). Despite it being a

a pro-environmental behaviour, "I hate

am not killing trees" (P9).

flying, it's very bad for the environment, so

*I use the train. I know by plane it would be* 1h to see my parents in Frankfurt, but still, I

choose the 7 hours of train. It's nice because I

Moreover, there is a general uncertainty

about how eco-friendly a vehicle is

compared with another alternative,

therefore, there is a demand on having

more information about their impact on the environment: "You never really know if

that is really sustainable or they just sell it as it is... So I really don't know what can be

for travelling and especially for commuting

minor factor influencing the choice, during

the interviews participants claimed to have

are considering more transparent, eco-

consequences of continuing with an

## Transparent I want to be aware of my ecological

"You never really know if they just sell it as it is... So I really don't know what can I want it to be equal for everyone

kid you don't have the seat there..."

(1)

## Fast

I want to reduce the time it takes

"I decide if I am taking the scooter once I know which metro I am taking. For example, if I have to take the red line and walk up here, that's far, I take the scooter instead. It's faste and more pleasant.



## Eniovable

I want to savor time





"I go to that hospital walking and with subwa It's a nice mix of them. I would have to go by tran and then subway. But I walk and then take the subway. The way to the metro is beautiful."



## Certain I want to be on-time

(L)

"For important meetings... From home it's a 55 minutes walk. By public transport it takes 40 minutes, because of all the changes. Then 10 minutes more who cares? And then I know exactly when I will be

Figure 23. Cards: identified attributes towards time



## Efficient

I want to make use of

"Less changes with a longer trip by bus might be better than shorter trip by metro with lots of changes if I have work to do."



## Flexible

I want time to be on

"The motorhike itself is something that is very convenient, because voi don't have to depend on other transports I can use it at any timê, from door to

Pag.44



## Releasing

I want it to save me from a negative situation

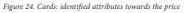
"At the end I know that in a bad case, I can pay a taxi and be taken there quick and fast."



## Cheap

I want to get the cheaper option now

" I use car-sharing a lot when a friend comes to visit. I would pick him up from the airport with it. It's metro ticket and his metro ticket!"





Pag. 45



Figure 26. Cards: identified attributes towards sustainability



Socially responsible

"In Manresa station you have just few steps... but there is no elevator. Same with the bike, if you have a



**Financial** wellfare

The financial well-being of an individual is measured by the comfort, security and freedom that the financial wealth brings to one's life. To achieve or maintain a certain financial status, long-term oriented decisions need to be made. Concerning transportation, the commuting choice becomes one of the elements that need to be considered since it is a daily expense.

Payment flexibility is one of the identified qualities that participants mentioned. Services that step away from conventional business models and allow to pay transportation under alternative terms and not only pay-per-use. For instance, the transportation cards that some cities'



I want it to adapt to my financial need or

"I use the transport card. If I were to pay for each trip, It would be unsustainable."

## Valuable

I want it to be worth paying for

"I realised I had a high commuting. So, I decided to get the 1st class pass."

## public transport offer: "I use the transport card. If I would have to pay for trip, it would

be so unsustainable" (P10).

Finally, since more mobility solutions are raising, other qualities are being considered in the choice. Thus, different prices are assigned for each mobility mode, and its characteristics. From the individual perspective, it is understood that the higher the quality, the higher the price. This participant's situation reflects a 'worth paying for' type of trip: "I realised I had a high-stress level when I was commuting. So, I decided to get the 1st class pass" (ref. expert interview).

## **Negotiation of values**

The different motives described in the choice model play different roles in the final decision. However, in general, the external factors set the initial mobility offer and are directly related to the person's context in that specific location in the city. Afterwards, from those mobility options, the person is aware of, there is a negotiation of values and finally, a decision made. Meaning that the person determines which attributes are more critical for that circumstance. However, in some cases, people are under a strong behavioural habit, and new mobility options are not explored at all (Verplanken et al., 1997).

## 5.3. Conclusion

Throughout this chapter, the data collected in the User Research is analysed by looking into patterns, themes, and stories that are significant for the project.

The primary research outcome is the 'Mobility Choice model' which represents a conceptual model for the mobility choice with the different influences. Supporting the finding from the 'Domain' definition, which revealed that "there is a growing behaviour polarisation in the mobility wants and needs", the 'Mobility Choice model' gives an approach to look into the different types of mobility behaviours. From the model's internal factors, more detailed information is collected in the 'Attitude' cards. These cards describe the current user needs identified during the interviews.

Finally, to conclude with tangible materials from the research, both outcomes were visualised and printed out. The goal is to facilitate its explanation and base the trend research on these findings.

Figure 27. Cards: identified attributes towards financial wellfare

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Chapter 6

## Trend Research

As mentioned previously, to generate context understanding and spot those elements from the phenomena that will influence the future domain, a trend research is conducted. This chapter aims to envision a future picture of the urban mobility domain by using experts' knowledge in different relevant fields, demographical, technological, biological, and sociological trends and developments are spotted.

## Future scanning

Trying to forecast how the future will look like is risky, even more, if that future is about mobility. We are witnessing how different enormous trends and front players' developments are significantly disrupting the mobility industry.

While this important transition is happening under a very high pace, players realised that by sharing knowledge and capabilities, they would evolve faster. For this reason, the main emphasis is on technology, which promises to optimise mobility at all levels by delivering faster services.

However, technology should empower people with value-driven solutions, rather than starting with technology and working the way back to the people. This should be the case in the mobility context as well. Therefore, this trend analysis is based on the city dweller's latent needs (from the User Research) and identifies future elements that might influence people's behaviour. Firs, looking into emerging practices, following with a reflection with experts and finally diving into other's perspectives. To end, the results are visualised and concluded in cluster themes.

## 6.1. Trend Research Procedure

This section provides an overview of the approach used for collecting future context insights. It starts by looking at the evidence, following with an in-depth exploration of the future and, finally, with an outside look at the industry.

## Looking at what is already happening...

Based on the internal factors from the choice model, a diagram (Figure 28) is created. The purpose of this diagram is to compare the importance people give to each factor when a mobility choice is made. The goal is to select several 'cases' where travellers have changed the transportation mode and compare the new mode used to the former one. The goal is to understand which new values are being given more importance by the individuals when choosing the new mobility option. Finally, in order to study the six different internal factors, several cases are selected which cover them all: space, time, price, wellbeing, sustainability and financial wellbeing. The diagram presents, from a user perspective, the factors considered in each choice.



Figure 29. Empty value diagram

# identifying emerging mobility behaviours domain experts creating future context kcy company stakchoklers

Figure 28. Visualisation of the trend research process

## Understanding expert perspectives...

Different type of experts were contacted to conduct a one-hour interview. In this section, the selection of experts is explained, as well as the main topics covered during the interviews.

## Domain expert selection

To cover most of the areas that influence the future of urban mobility, these fields are selected:

Regulations, Laws and Policies
As mobility is transforming, new regulations are being established by local, regional and national official bodies. To understand the purpose of these legislative developments and to comprehend how they are shaping the future of mobility, two public affairs and lobbying managers at FREE NOW are interviewed.

## Urban planing

Governments, together with urban planners, are the responsible bodies for providing public welfare in city developments. In current urban planning projects, the infrastructures (roads, railways, bicycle paths) that will enable the mobility of tomorrow are being designed. Therefore, since these plans have a key role in the urban future, two experts from

the Urban Planning department in the University of Hamburg are interviewed:

Jörg Knieling: Chair of Urban Planning and Regional Development at HafenCity University of Hamburg.

Jonas Fischer: Urban mobility expert from HafenCity University of Hamburg.

## **Technology**

Technology is changing the way people conduct their daily activities in countless ways. To understand how it will impact and empower humans in the future, a technology trend watcher is interviewed:

Deborah Nas: Professor of Strategic Design for Technology-Based Innovation.

### Topic

(See interview guidelines in Appendix D)

The interview starts with understanding the expert's role or influence in the domain of urban mobility. The current situation of their field is covered by discussing the most significant challenges being faced, as well as looking into the latest innovative transformations.

Following, a more in-depth discussion on more specific topics is conducted. Each interview is designed to cover the topics based on the Mobility Choice model: time, space, price, sustainability, well-being and financial well-fare.

Finally, their personal vision of how the future of urban mobility will be is explored. The goal is to uncover which are the driving forces that rule that pictured vision.

## Exploring other phenomena

Thirdly, an explorative research with no structured process, is conducted by looking into different reports, magazines, Ted talks, etc. The goal is to observe other domains, with the ultimate goal of finding relevant connections to the Urban Mobility field.

## 6.2. Trend **Research results**

This section displays the results from the trend analysis, from a behavioural analysis to the collection of future context insights. The goal is to evaluate how the different behaviours are changing and understand how they can influence the coming future.

## 6.2.1. Emerging mobility behaviours

By looking at different user case studies, several emerging behaviours are identified and, most importantly, the shift in values is analysed:



Figure 30. Uber ride. Picture by Dan Gold

### Uber vs. Bus

In San Francisco, it is estimated that Uber has reduced bus ridership 12.7% since they entered the market in 2010. (Graehler et al., 2018)



In this case, it is clear that in this mobility choice shift, one of the leading highly influencing factors is the time that the ride lasts. Most of the times, Uber rides are more accessible and faster than the bus offers. However, if we look at the price element, the Uber price becomes more expensive than the bus, but in spite of that, people are choosing Uber over the bus.

## Bike vs. Public transport or car

A network of cycle superhighways for commuter cyclists across municipality borders. "In only five months... there has been more than a 50% increase in the number of cyclists using the East-West and North-South Cycle Superhighways" (Transport for London, 2016).





This type of mobility solution offers faster bike rides compared to car or bus rides, which might be one of the main reasons why people changed. Nevertheless, in this case, other elements might support the decision: more sustainable solution, cheaper than any other mean of transportation and even healthier.





In Portland, a significant share of residents said they were using e-scooters to replace car trips: 34% of Portland riders and 48 per cent of visitors took an e-scooter instead of driving a personal car or using Uber, Lyft, or a tax (Portland Bureau of Transportation, 2018).

Lime vs. Uber, Lyft or taxi

Figure 31. Lime ride. Picture by Marek Rucinski

Sustainability

In this case, one apparent factor influencing that shift could be the perceived low price of a scooter ride, considering ride-hailing as more expensive. However, a more clear influence for this shift could be skipping traffic and bringing a more enjoyable trip.

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## Walking vs. motorised vehicle

"I've smashed my daily 10,000+ steps goal, and it's only 5pm! I walk to the office and back each workday (5 days a week)."



In this case, the health element (Fitbit) is the main reason for this mode of choice. However, other factors might complement and influence the decision too, for instance: being productive by doing two things at the same time (commuting and doing some physical activity), being sustainable and even not spending any money. Therefore, although it might take more time to go from A to B, other factors compensate for the choice.

## Moia vs. public transport

Electric shuttle service using dynamic pooling algorithms used for commuting. With comfortable seats, WLAN and USB connections.



By looking at this mobility solution, one visible element that could influence the Moia mobility choice could be the comfort of the ride. Thus, if chosen as a commuting mode, it can, to a great extent, affect the individual's well-being positively. Therefore, if Moia is taken as a routine, it would be more expensive than public transport. However, it could add value to the ride (comfortable space and well-being).



Figure 33. Health wearable. Picture by Björn Antonissen



Figure 34. Moia ride. Picture by Auto Motor und Sport

## Conclusion

In conclusion, people are shifting behaviours towards using modes of transportation that not only offer faster and cheaper rides but modes that enable them to fulfil other activities. It is clear that in most of the cases, one of the main reasons for shifting is speed. However, the benefits that the new modes provide are more valuable, for instance: a healthier commuting, a more comfortable ride, an efficient working trip, an enjoyable journey...

## **6.2.2.** Experts' vision of the future

At this stage of the project, the goal is to find insights and inspiration through the expert's knowledge. The objective is not to answer questions but to instead raise the right questions. In this section, the topics, illusions and visions shared by all the experts are described (see appendix D for key quotes from the experts):

Experts in regulations, laws and policies

As an overall observation, both experts interviewed share the same point: in Europe, regulations need to be deregulated and more flexible. Some laws for the mobility industry were created more than 60 years ago when the Internet was not yet in everyone's life. Currently, the ride-hailing sector is being restricted from regulations created when smartphones did not exist. Therefore, all organisations in the mobility industry are actively requesting governments and the EU parliament to adapt regulations to this century and be fair for everyone.

Nevertheless, the willingness from public organisations to facilitate the business from private companies is positive. The reason why there is interest in making those companies happy is because public organisations can not compete with private ones on the technological level. Governmental organisations, such as the public transport system, lack of data from their citizens. This data enables the improvement of these services, however, is owned by private companies that are willing to share it at a cost: having less or more flexible regulations.

Finally, the two lobbying experts share the same vision about the future of urban mobility: in 2025, all mobility will be connected. This vision is based on their belief and hopes that collaboration between public and private entities will settle. For private organisations, this will mean that regulations will be adjusted to be better aligned to their goals. However, the

European Commission will not provide with highly flexible regulations, as the situation in the United States wants to be avoided. In a context, where regulations are too flexible, private companies – such as Uber – are cannibalising the market by reducing the public transport usage, in some cases to a 13% from the total amount of trips. Therefore, The goal is to keep a balance between the use of public transportation and the use of e-hailing, vehicle sharing and last-mile mobility.

## Experts in urban planning and urban mobility

At the very start of the interview a clear point was made by the future urban mobility expert: "the focus should not be put on minimising travel time because it will not result in higher travel satisfaction. However, the goal is to adopt slower but more satisfying travel modes." This plan of action is seen in most of the city strategies that aim to achieve a more sustainable urban ecosystem. Another strong point made by the urban planner, aligned to the same sustainability topic, is the example of new settlements. When these new constructions are being designed from scratch, one of the first requirements is to be built near a train-oriented area or a mobility hub. The ultimate goal of this prerequisite is to reduce car mobility and densify those areas where public mobility is accessible.

While both experts discussed the German vision for urban mobility, the main pillar was emphasised: to have integrated urban mobility. It is working towards an ecosystem of mobility that is interconnected, and that meets the objectives of social cohesion and sustainable growth. In this vision, a considerable obstacle was pointed out; the strong influence from the German automotive industry. As mentioned by the experts, the strong push that comes from

Pag. 55

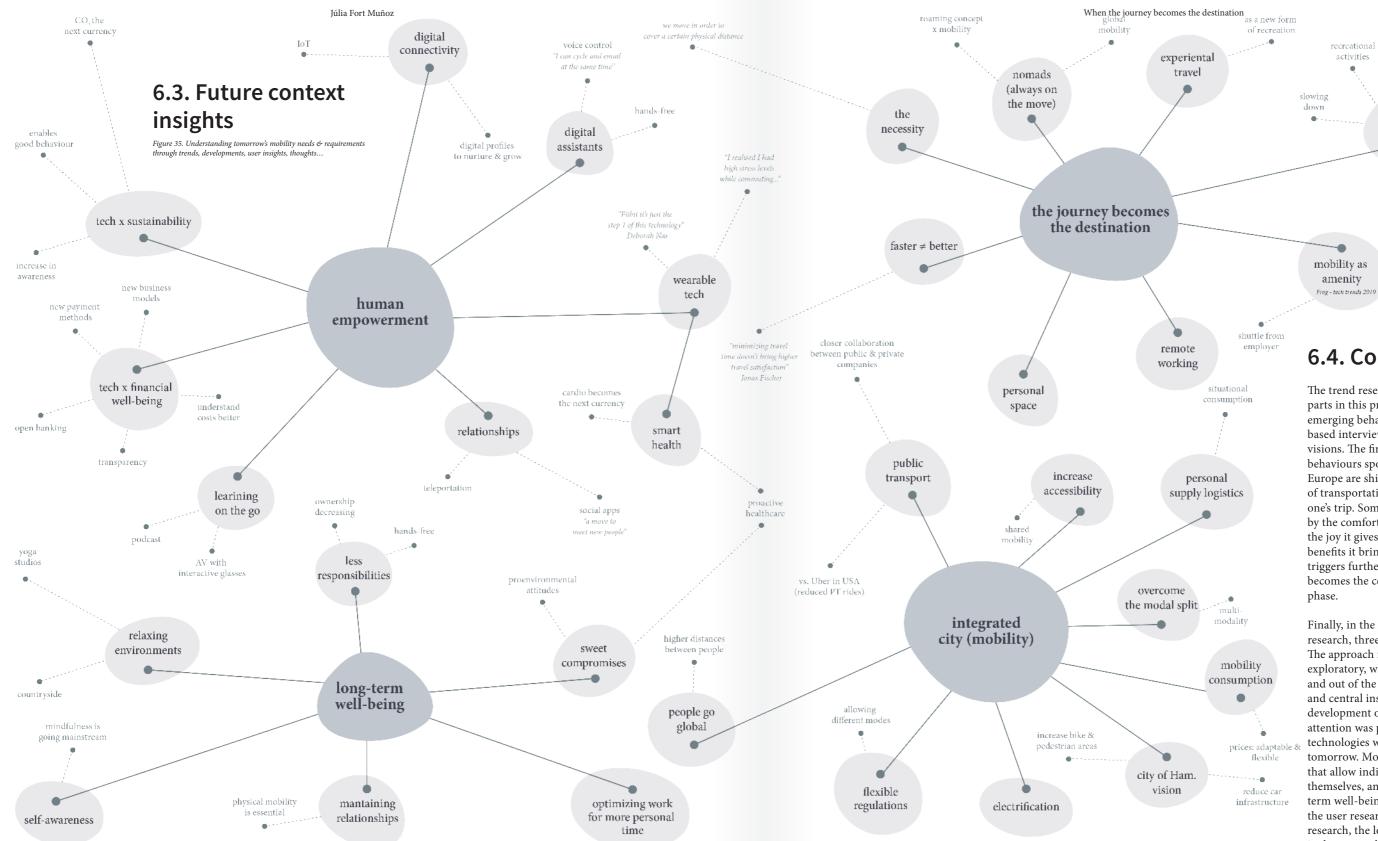
the automotive industry forces cities to focus on enabling e-mobility. However, it is questionable how sustainable are these type of solutions, as they still require car infrastructures, block streets and parking spaces that could be used for greener modes

## Expert in technology

Two significant and potential reflections shared throughout the tech expert interview were about how technology will enable people to be more aware of their well-being and how it will add more transparency to people's everyday life activities.

In order to show the potential of technology in the health industry, the expert explains a real and personal case. Only after having bought and used for two weeks a Fitbit bracelet, she realised, by looking at the Fitbit app, how the commuting train trips were generating her much stress. This simple solution that is worn at one's wrist can change one's instant and future well-being, in this case, by upgrading the train ticket to 1st class. Nevertheless, the potential of technology goes further than this simple example, and the expert perceives Fitbit as one of the first steps into a life where technology will help people understand better their health state and act upon it.

Finally, regarding transparency, solutions focused on helping urban citizens to have better environmental footprint are already in place. Gamification is applied in some mobility solutions where the environmental footprint is shown. Users get points for having a green behaviour, and those can be used as discounts for renting a Tesla. This is not the only organisation monetising good behaviour. Some are already imagining and empowering how CO2 can become the next currency.



## 6.4. Conclusion

nourishing

relationsips

recharging

time

self-development

"life can become as

everyday tourism

experience

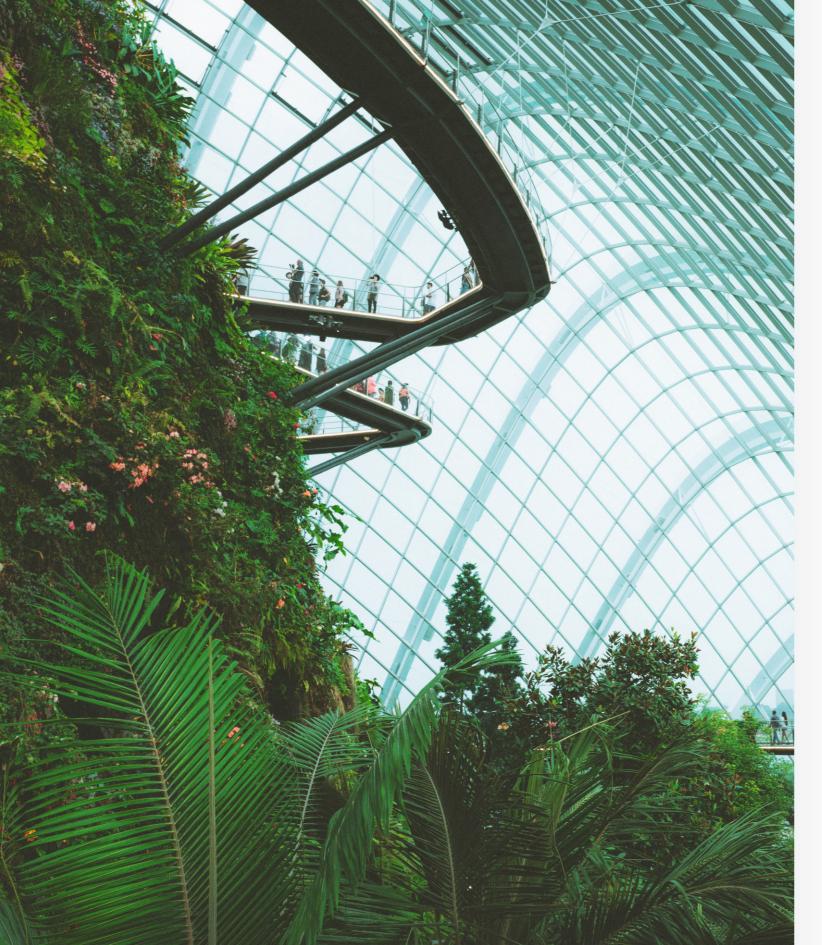
recreational

activities

The trend research analysis has two parts in this project: a study of current emerging behaviours and some futurebased interviews understanding expert's visions. The first shows how new behaviours spotted in different cities of Europe are shifting, considering modes of transportation that add more value to one's trip. Some decisions are influenced by the comfort of the ride, others by the joy it gives and even by the physical benefits it brings. This observation triggers further exploration, and it becomes the centre of the next design phase.

Finally, in the second part of the research, three experts were interviewed. The approach followed was somewhat exploratory, which helped to add value and out of the box ideas. A summarising and central insight gathered was the rapid development of new technologies. Special attention was put into the value new technologies will bring to the future of tomorrow. Mostly to those technologies that allow individuals to manage better themselves, and, especially, to their longterm well-being. Being a crucial topic in the user research as well as in the trend research, the long-term well-being topic is choosen to be a vital part of the future context.

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Chapter 7

## Future context

In this chapter, the goal is to create coherence through all the findings from the research phase. With all the knowledge generated regarding the future needs and requirements in the urban mobility domain, a mission statement is created.

First, a definition of the future context is elaborated through a careful reflection on the research findings. Three context clusters are created which help to define the mission statement for FREE NOW. The statement describes the future vision and focuses on the needs to be fulfilled for the city dwellers. Finally, to provide more insights on how this vision is structured, a framework is created. To construct this framework, a look back to the people is needed to properly understand the different dimensions from the structure (see Context structure on page 64).

Finally, the implications of the mission statement in the future context are shown through an interaction vision. This vision is explained through an analogy that describes a possible situation in the future.

## 7.1. Context clusters

After having interviewed 11 city dwellers, talked with domain experts, read about all type of trends and developments, and more, these clusters describe the way individual's mobility is changing. They are a combination of insights and factors that combined are believed to influence the coming future:

## **Individual life efficiency**

Self-time management is about deliberately making use of the time one has in order to do the most relevant or necessary activities. In the current society, self-time managing is about optimising the time assigned to work related activities, in order to give and maximise the personal time: "those 30 minutes that I have (commuting) I like to use them to do some personal stuff, so I don't have to do it at home" (P8).

Besides, new working cultures are becoming more flexible, where remote working and flexible hours are a standard. It is believed that this trend will be more prominent in the coming future. It will allow every individual to self-manage their time to achieve a more customised worklife mix.

However, the downside of this high flexibility is that it will not distress people. Ambitions will grow, and the number of things willing to be achieved will increase too. In an interview with a freelance worker, who could be seen as an example for this context, she reflected: "since we work so much and also want to do so many things, we do not have time for everything" (P3), showing her reflections on how she used her own time and how she struggles to manage it.

## **Everyday mindsets**

A prevalent psychological strategy, used to prepare oneself to achieve a particular activity, is by setting an internal positive state (Armor, 2003). This state of mind helps to focus the attention on a specific activity and facilitates its course of action. This mental state helps the individual to engage and remain focused on the task to be conducted. For instance, this participant's case shows how, while she is in the mindset of doing sports, she could run 10 kilometres. However, while commuting to work, she would get lazy to walk from the metro stop to the train stop. "I run 10k four times a week", "I don't want to walk from the metro to the train, it's too far" (P1). This demonstrates how mindsets are a momentary mood that emerges from a specific situation. Thus, it can change over time, depending on the hour of the day, the day of the week and the period of the year. One can be in a specific mindset in the morning - while going to work - and in another mindset during the evening while going to a romantic date-.

## Social decentralisation

The physical distance between relationships is growing. More and more companies look for international talent, which creates opportunities for people. However, this implies moving to foreign countries or other cities. For people in this situation, in order to maintain relationships, moving becomes crucial. Moreover, even if emerging virtual technologies are enabling people to video-call from remote locations, face-to-face physical interactions will not lose importance. Thus, mobility trips will become more meaningful and key in order to maintain connections.

## Journey becomes the destination

Due to the growing mobility offer and its technological developments, the essence of mobility (of covering a physical distance) will evolve towards a multi-purpose-driven activity. The act of moving will develop towards an enabler for conducting one's most important personal activities. Thus, the in-trip experience will become the real added value to the ride. Causing other common desired characteristics, such as speed or lower prices, secondary elements to the choice.

#### 7.2. Statement

The mission statement is the vision that results from the context clusters, and that considers the company's future goals. It is a definition of the effect the designer wants to have on people. Based on the user needs and requirements identified in the future domain, it leads to the following statement:

"I propose FREE NOW should enable people to act according to their state of mind by facilitating them to recognise the mindset they are currently in, and therefore, match them with the right mobility service to provide a fulfilling service experience."

According to FREE NOW's future goals of becoming a multimodal mobility provider, this statement supports the importance of providing different mobility solutions to city dwellers. It addresses the need of using mobility as an individual maximising tool and focuses on the relationship between the service and the person. Through the mode's

characteristics, the individual is brought back to take control of his/her time. By empowering the individual capabilities, urban citizens can engage with the activities that they find most relevant and important while moving.

Like the brand concept behind FREE NOW which aims to provide

"Freedom of Mind", this mission will enhance the individual attitudes and will empower the users to take the initiative and act in accordance to their mindset. This transformation will shift from a compromising experience where lower standards are accepted, towards a fulfilling experience that allows one's abilities to develop fully.

# 7.3. Identifying mindsets

To identify the relevant mindsets for the city dwellers and to understand the different roles they may identify with, this section explores the phenomena by going back to the people. First, it aims to generate mindsets through past experiences from participants in a workshop, and, subsequently, it looks back into the interviews conducted.

After trying to think of how a participant could explain a particular mindset, the complexity of it raised. By going back to the definition of a mindset: "In cognitive psychology, a mindset represents the cognitive processes activated in response to a given task" (French, 2016), the link to the cards created during the User Research analysis is made. The cards work as attributes for the mobility modes and by combining different cards mindsets can be created. Although with the 24 cards, the amount of possible mindsets is too large, the ultimate goal is to identify groups/ clusters of mindsets.

First, to sensitise the participant with the activity, he/she is told to think of a past mobility situation. After having picked up the situation, he/she is asked to pick 4 to 6 cards that best represented their needs before picking up a mode of transportation. The goal is to look into that specific situation and try to understand which needs were and were not fulfilled.



Figure 36. Participant selecting the attributes

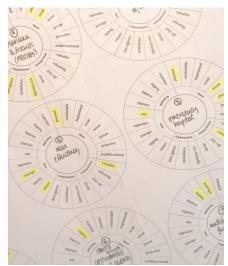


Figure 37. Map created to keep track of the different mindsets, formed by the 24 cards

Finally, to complement the mindsets created, the interviews conducted during the user research are scanned to bring more mindsets to the map (Figure 37).

# 7.4. Context structure

As described in the ViP method, the context structure aims to create a coherent basis that explains how the elements are associated with each other and how they work towards the statement defined. Therefore, this section focuses on finding a coherent framework for the mindsets generated in the previous section.

The framework designed groups the different mindsets in four categories based on the similar effect they create on people's behaviour (figure 38):



## Devoting time for self-development & self-care

This mood describes the need for having a personal space that facilitates activities that aim to take care of oneself. It focuses on achieving long-term wellbeing by contributing to one's health, improving one's skills and contributing to the environment.





Educational

I want to improve and develop my skills

Healthly
I want to do some physical activity

**(4)** 

**Eco-friendly** 

I want to do the least

possible damage to

the environment

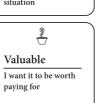


#### Seeking for high efficiency

This mindset focuses on achieving useful work, and it seeks for having a multifunctional space that enables those activities.







I want it to save me

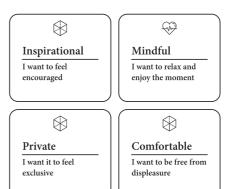
from a negative

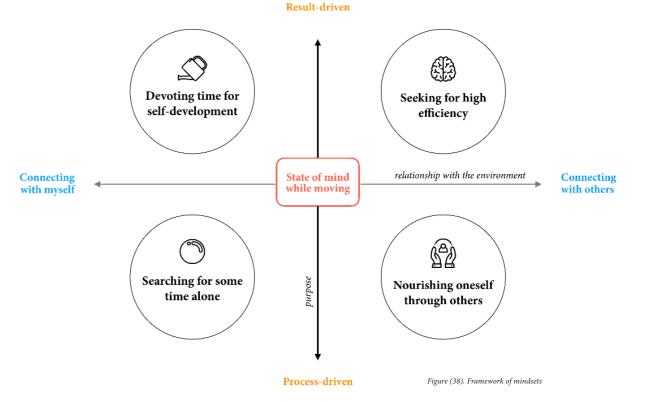
Releasing



#### Searching for some time alone

The necessity of connecting with oneself drives this mindset. It seeks for private space with a pleasant ambience that eases a mental state to focus on one's awareness and reflection.

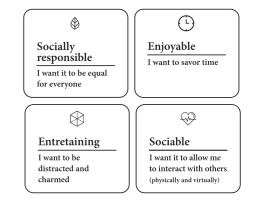




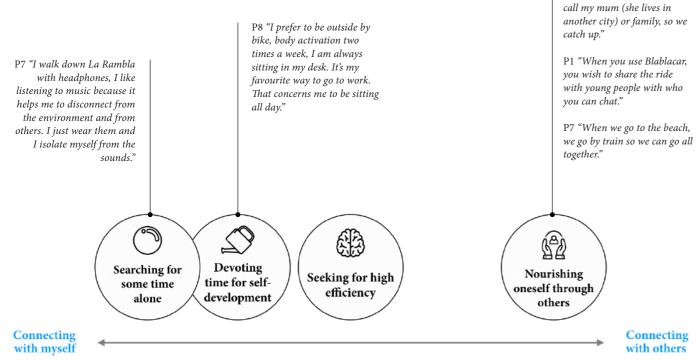


#### Nourishing oneself through others

This state of mind relates to the activities that aim to engage with others, and it includes interactions with acquaintances or strangers, both physically or virtually.



P1 "that is the time I use to



relationship with the environment

Figure 38. Framework of mindsets based on the relationship with the environment

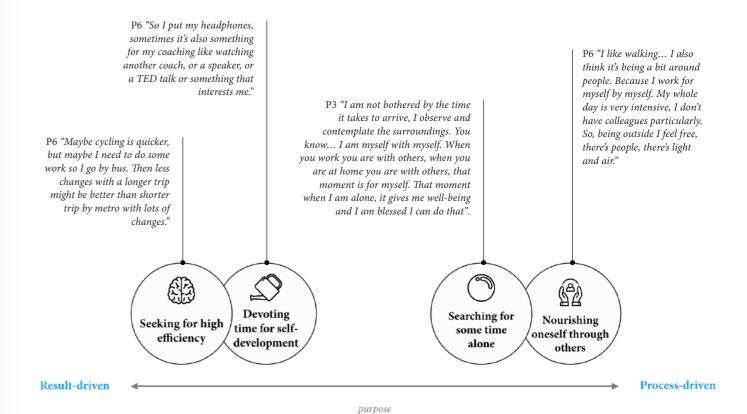


Figure 39. Framework of mindsets based on the individual purpose

In summary, four categories of mindsets are created which combine the 'attitude' cards generated in the User Research phase. Besides, it is relevant to mention that the price element has been set aside in the creation of these mindsets. The reason for this decision is that, in lots of situations, price is a subjective perception rather than

an objective evaluation. For instance, five friends going by bus, most likely, it is more expensive than hailing a taxi, however, in this situation, the taxi ride is still perceived as one of most expensive options. Thus, the consideration of price is out of scope for this project and the focus is put on the meaningful human interactions.

# 7.5. Interaction vision

As described in the ViP process (Hekkert & van Dijk, 2011), the vision reflects the relationship envisioned between the user and the service in a specific context. Therefore, this vision shows how FREE NOW will deliver a valuable multi-modal experience to future passengers. Thus, to innovate and stay relevant in this competitive market, this interactive vision aims to trigger the company to expand its horizons and, ultimately, to design for this future.

1



By considering the mission statement, three people in the same location willing to go to the same destination, each one of them should be able to get there in a mode that corresponds and enables the mindset they are currently in.

2



Person A aims to relax and give some time to himself by using a mode that enables a relaxed ambience.

(3)



Person B wants to feel the trip as an adventure where she uses her body and mind in an engaging activity, providing her with satisfaction and well-being.

**4** 



Person C uses that time for connecting and interacting with some acquaintances by sharing that moment.

7.6. Conclusion

As explained in the ViP process, after having described the future context and before starting the designing phase, the designer has to take a stance. This decidion frames the desired response to this future world.

The future world described in this project shows that city dweller's mindsets can be categorised in four groups. Therefore, the next logic step while using the ViP process would be choosing one group and designing for it. However, by looking into the goal of FREE NOW: "We want to make mobility available for everyone independent of age, income & location", it is deliberately decided to focus on enabling the four categories of mindsets. Thus, to stay in line with the company goal, the focus shifted towards exploring all the mindsets in depth. Moreover, as the mission statement presents, the categories of mindsets had to be made in a way to be recognisable by future users. It is important that the future users themselves can identify their mindset (wishes, needs, requirements).

Finally, an interaction vision is designed, which fits both the company and the specific future context. To present this relationship between the user and the service, an illustrated analogy is created.

Figure 40. Illustrated analogy which shows the implications of the mission statement in the future context.



hapter 8

# **Delivering**

This chapter describes the process followed to understand how the concept of mindsets can be applied in the context of FREE NOW. This chapter aims to define the relevance of adopting this mindset-based vision and explores the value it can add to the company. First, by understanding the current state of the portfolio: on the feature level and the user perception level. Second, by ideating on how these mindsets could be enabled by using the design lenses on a workshop setting. Third, by creating design directions, which are visualised in four posters aim to stimulate designers to adapt the current/future modes to fit the mindsets.

## 8.1. Mindsetbased vision

As previously mentioned, FREE NOW is undergoing a major change – becoming multimodal – which is shaping the company's portfolio. With an ambitious strategic vision to follow, employees from FREE NOW work towards that north star. This large amount of time and energy invested promises to be returned in more rides, and eventually, in a financially profitable business.

Additionally, on the service level, FREE NOWs main KPIs aim to reduce the price of the rides and achieve maximum time optimisation for each trip. The reason for this focus is that competitors are gaining market share due to their lower prices. However, by looking at the competitor's price and time, the difference is little, and while focusing on these functional aspects of the service, FREE NOW is leaving aside the service quality and those meaningful distinctions. The user experience - while using the service – is not a priority for FREE NOW, which results in a service experience that is unable to compete to other added values that competition offer.

This situation can be compared with similar circumstance in other industries, for instance, Apple products versus Android products. Regarding functional benefits, Android devices are known for their exceptional technical solutions and lower prices. On the other hand, Apple products are known for their seamless and excellent user experience across all their devices. In this example, the seamless user

experience outperforms the technically superior solutions by addressing the users' underlying needs. In the context of FREE NOW, these underlying needs are translated into the four mindsets designed, which put the focus on the user experience.

In summary, by proposing a mindset-based approach, this project envisions the future of vehicle-person pairing: by matching the set of needs attached to the user mindset, with a mode that provides a fulfilling service experience.



Figure 41. Participant answering the questionnaire in person

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# 8.2. Current state analysis

To understand how FREE NOW can adopt this new vision - where the service portfolio enables all mindsets – a look into the current status is needed. More specifically, the goal is to understand which mindsets are currently being facilitated by the different means of transportation from FREE NOW. For this, a questionnaire is conducted to identify which are the attributes (needs) perceived to be fulfilled by each mode of transportation. The five first participants are asked to answer the questionnaire next to the researcher and explain the reasons for each answer (Figure 41). The aim of this questionnaire is not to find significant results, but to have an understanding of how people perceive the different services and, therefore, to set the basis for creating the design directions.

To compare the results from the questionnaire with the mindsets' characteristics, the same attributes used to create the different mindsets are used for describing the modes within the questionnaire. The participants are asked to choose four qualities that describe each mode presented.

Finally, the results from 21 participants are compared with the different mindsets,

and an estimation of the diverse needs corresponded is done. The results are then visualised and shared with the relevant stakeholders within the company to create awareness and define further steps for the project.

FREE NOW's current service portfolio consists of five different modes of transportation (Figure 42):

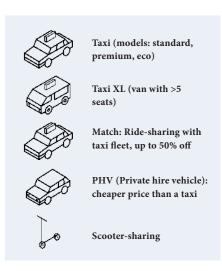


Figure 42. Visualisation of all service types and the characteristics.

## 8.2.1. Service portfolio perception

In the following visual, the results from the questionnaire are compared to the mindsets, spotting which modes are perceived as fulfilling a specific mindset (See Appendix E for the questionnaire format & results).

The results show that the modes do not match with the mindset attributes (Figure 43):

-The taxi service shares the attributes 'efficient' and 'releasing' with the mindset 'seeking for high efficiency' -The PHV (private hire vehicle) shares the attributes 'private' and 'comfortable' with the mindset 'searching for some time alone'

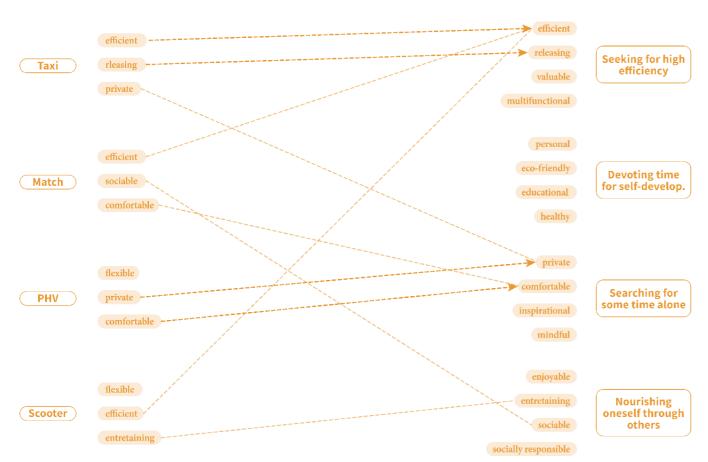


Figure 43. Attributes perceived by respondents related to the attributes of each mindset.

#### 8.2.2. Conclusion

After analysing the current services and exploring how people perceive each one of them, the main question raised:

Are the services offered by FREE

NOW different enough from the user perspective? Are the service types
perceived as various services or as a variation of the same service?

The question can be answered with this other question raised by a participant: "Why would I take a taxi if it's more expensive than a PHV? And it's exactly the same service?!"

As shown in section in figur 42 and in '2.1.3. Product', the fleet type used by taxi, match, PHV and taxi XL is the same vehicle: a car (with a driver). Additionally, on the feature level, each service enables the same principal functionalities.

On the other hand, the questionnaire results focused on identifying which mindsets are (semi)-enabled by the current services, reveal that there is no clear mindset enabled by specific modes. However, two possible opportunities are recognised if the services are adapted and shaped more towards the particular mindsets.

#### Taxi & Seeking for high efficiency

The taxi service shares the attributes 'efficient' and 'releasing' with the mindset 'seeking for high efficiency'. But, the taxi service is not perceived as 'multifunctional' which is a very significant attribute for the referred mindset. However, this observation could be turned into an opportunity: FREE NOW's larger customer type is business people who use the service to get around the city during working hours.

### Private hire vehicle & Searching for some time alone

The PHV (private hire vehicle) shares the attributes 'private' and 'comfortable' with the mindset 'searching for some time alone'. Even though the setting of this service type is the same as the taxi service, the results show that people perceive the PHV service more relaxing and private than the taxi type. As some participants mentioned, the PHV service offered by Uber differs from the traditional taxi service. The Uber driver plays a chauffeur role where he treats the passengers more exclusively.

On the other hand, the taxi service can be felt as if the driver was randomly passing by

and picking a passenger up. It is the driver behaviour, from these two same services, which makes an entirely different journey experience. In the context of FREE NOW, the company can profit from this user perception and exploit its potential since the PHV service is under-construction and can be adapted to the mindset pointed out.

In summary, after understanding the user perspective on the different services and concluded with two main insights, more emphasis on the service differentiation will be put for the next steps. For this reason, an ideation workshop is conducted which aims to create ideas on how to differentiate the services enough, based on the four mindsets.

# 8.3. Ideation workshop

At this stage of the project, the goal is to spot design opportunities based on the previous requirements: to differentiate the current services from each other and to enable the different mindsets. To generate quality ideas that could be further developed, it is decided to involve the designers and researchers from the company in an ideation workshop. The main reason for this co-creation session is to identify design directions, as well as to generate a feeling of ownership on the results. The design department is the one with the responsibility to create every aspect of the interaction between a person and the service; from every button in the app to the overall holistic service experience.

#### 8.3.1. Mindset-based tool

The mindsets created during this project can be perceived as a whole new concept for the designers involved in the workshop. The four mindsets are a unique combination of needs and attitudes that together describe a specific mood. This new approach can be complex to understand, remember and, ultimately, design for it. Thus, the main focus for the workshop preparation is to make a tool that facilitates the comprehension and the ideation process.

The following matrix shows where ideas need to be generated: the empty cells based on the mindsets (columns) and the modes (rows). This workshop aims to generate as many ideas as possible and to enable all mindsets by all modes, without focusing too much on viability but only on desirability.

|         | æ                                       | •   |  |   |
|---------|---|---|--|---|
|         | 63                                      | $\leq >$                                      |  | <b>L</b> 2                                |
|         | Seeking for high efficiency in a        | Devoting time for self-<br>development in a   | Searching for some time alone in a                 | Nourishing oneself<br>through others in a |
|         | (Efficient, Belessing, Multifunctions') | (Personal, Flerible, Educational,<br>Ecology) | (Private, Countertable, Inspirational,<br>Mindfal) | (Er(oyable, Extertaining, Sociable)       |
| Taxi    |   |   |  |   |
| Taxi XL |   |   |  |   |
| Match   |   |   |  |   |
| PHV     |   |   |  |   |
| Hive    |   |   |  |   |
| Lo      |   |   |  |   |
| Other?  |   |   |  |   |

Figure 44. Matrix structuring the ideas to generate

As a first objective, every mindset needed to be relatable and easy to understand for the participants. For this, a set of cards is created, which visually convey, every mindset. Some icons and images facilitate its comprehension since the language used is easy and familiar for everyone –that uses mobility in the city.

Secondly, cards with illustrations of each mode are generated (Figure 45). The goal is to add the current service types, the future service types, as well as blank cards for possible new modes. The cards should not restrict the ideas but should help to structure them.



Figure 45. The 'mindset' cards & 'mode' cards generated

Finally, and most importantly, this tool needed to help the designers to phrase the right questions and to cover every mindset and every mode. For this, a board is designed which aims to structure the 'mindset' cards, the 'mode' cards and the posters they will use to write their ideas.



Figure 46. Board generated to put the cards & post-its with ideas.

#### 8.3.2. Workshop procedure

The designed workshop was conducted in a session that happens monthly, where designers block a few hours in their calendars to discuss topics regarding product innovation. For this workshop, an hour was assigned where all designers and researchers were present. Before starting with the ideation session, a brief explanation of this project was presented together with the main findings of the user research. The goal was to sensitise the designers with the four mindsets by showing evidence from the participants: quotes, videos and images. Following, the designers made groups of two/three people using the tables provided. Every group had a set of mindset cards, a set of mode cards and yellow post-its.

#### 8.3.3. Workshop results

In the following visual, all ideas generated are illustrated and grouped per mindset. The ideas are based on specific modes, thus, each mode is assigned a colour.

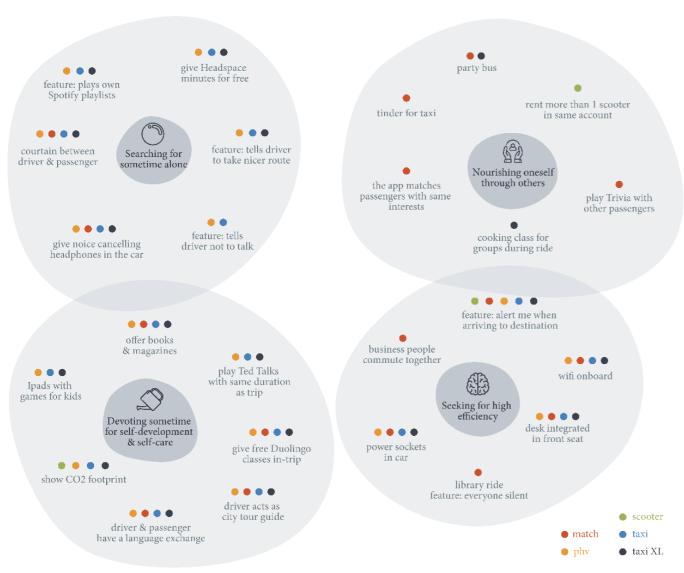


Figure 47. Ideas generated by the participants

#### 8.3.4. Conclusion

As an overall observation, most of the ideas generated throughout the workshop were simple details to add to the services. Since the services offered by FREE NOW are app-based, the interesting activity that emerged was: to add, remove and combine digital features. The dynamism and versatility from digital services, allow to rethink the current service types almost from scratch. The rearrangement, the rethinking and the redesigning of the service features showed its potential to the participants in the workshop.

On the other hand, an aspect from the tool that did not work as expected were the blank cards. These cards were meant to stimulate participants to generate means of transportation that are not currently offered by FREE NOW, or even to create completely new modes. However, most of the ideas generated were based on current service types. An added value of focusing on the existing services was that it made

the designers realise of the need for service differentiation, a participant added: "This makes me realise how similar our products are, we are designing as if taxis and PHVs were the same services!".

Finally, a fundamental motivation behind this workshop was to observe how the designers were feeling while designing based on the passengers' mindsets. As well as to stimulate discussion on how the future of the domain will evolve and how FREE NOW should progress. In the context of FREE NOW where the company is under a constant fast-changing environment, the designers must be triggered and stimulated to think further. These triggering thoughts sparked during the session and based on the four mindsets helped them to spot possible opportunities for this coming future.

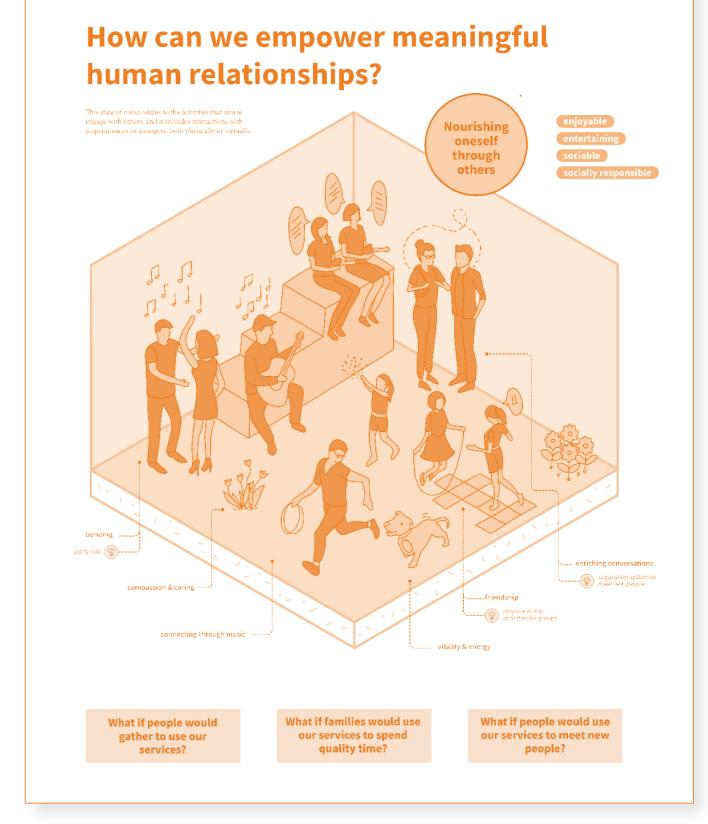
# 8.4. Inspirational design directions

In this section, the final deliverable is created: four design directions that combine all inspirational insights, ideas and concepts based on the four mindsets. These directions emerge from the analysis of the questionnaire results, the workshop results, as well as all other opportunities identified throughout the project.

The goal of these four visuals is to stimulate the designers from FREE NOW to design based on the different mindsets. As observed during the workshop conducted, the potential of the mindsets is in fostering discussion about the future needs of passengers. It can be used as an inspirational tool to observe and question the status quo, as well as the future context. It aims to help designers to raise the right questions, rather than helping answering questions.

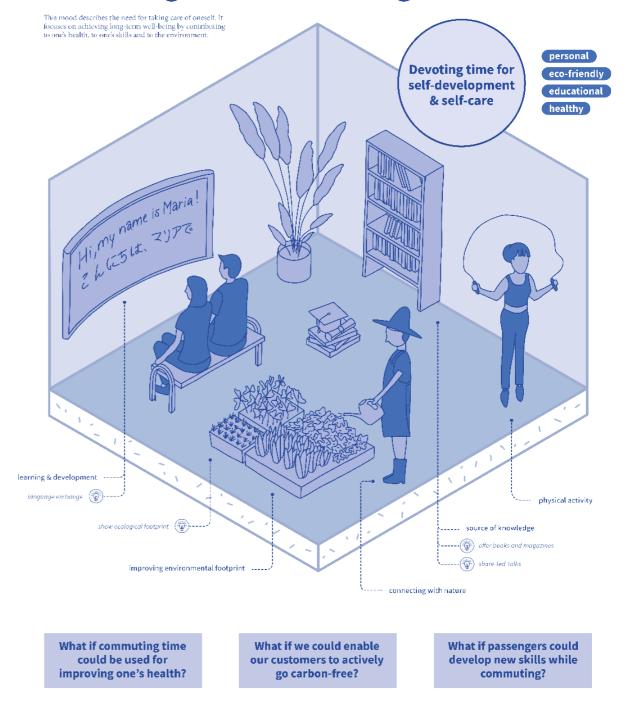
These inspirational design directions leave apart all the functional connotations of mobility and focuses rather in meaningful nuances that can be achieved. They illustrate the service experience resulting from the human interactions and the relationship with the space, supported by future modes of transportation.

Designed to stimulate ideation and trigger thinking about the future of FREE NOW, the space designated for these posters is the design department. The designers and researchers are the ones in charge of the passenger experience, as well as the ones with the decision-making power to advocate these directions.



## How can we enable self-recharging time? The necessity of connecting with oneself drives this mindset. It seeks for private space with a pleasant ambience to focus on one's mental peace and self-reflections. Searching for some time alone sleep and rest food & hydration noice concelling headphones music for relaxation ----own playlist is played 🐨-----. energies & feelings What if passengers could What if people would want What if we could help have more privacy using our to spend their Sunday people distress? services than in a hotel? using our services?

# How can we help people to improve their long-term well-being?



## How can we enable productivity? This mindset focuses on achieving useful work while moving, and it seeks for having a multifunctional space that enables those activities. **Seeking for** high efficiency multifunctional multifaceted space offer office supplies digital architecture --flexible environment What if we could enable What if evereyone would What if we could enable work remotely and there people to be informed people to collaborate?

about the world?

were no offices anyome?

## 8.5. Further steps

A fundamental requirement to ensure the use of the mindsets while design interactions, is the need for an advocate within the company. A person to evangelise the mindset-based approach in the design department. Since the practice from User Researchers is already to advocate for the user, they are considered to be the right ones to push for this new approach. During the final workshop, enthusiasm was already shown by them. However, in order to acquire their full collaboration, it would be recommended to involve them in a further study of the mindsets.

Thus, as a follow up on the topic of multimodality - which is currently pursued by the Researchers within the company-, further research could be conducted based on the identification of mindsets. This project would be focused on validating the already defined mindsets and, perhaps, to discover new ones. In order to validate these mindsets, an excellent method would be a diary study which could be done by a digital tool running on user's smartphones. The goal would be to tackle the decisionmaking process of the participants in their everyday mobility activities, and eventually, identify the mindsets they are currently in. In order to help the participant to identify in which mindset he/she is in, the attributes created in the user analysis could be used. In conclusion, this possible study could substantiate and bring more evidence to the defined mindsets, as well as to increase ownership from the User Researchers in the mindset approach.

Besides, the focus of this project was on the identification and conceptualisation of the mindsets. It elaborated on how the mindsets could potentially add value to the service. However, the implementation of this mindset-based approach to the app would bring a new challenge to the interaction designers. The different mindsets have to be chosen by the user in order to provide the right mobility solution. Thus, this choice should be designed by the product design team who would design the digital experience.

It can be concluded that the project 'When the journey becomes the destination' uncovered a new approach to designing mobility solutions where potential value can be derived from when implemented correctly. Thus, this project provides a starting point for future projects, which are a research to bringing deeper insight on the type of mindsets and secondly, a design project to develop the mindset choice in the app.



Figure 48. Design direction posters in the office

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Chapter 9

# **Evaluation & Discussion**

This chapter reflects on the outcome, the process and the personal progress of this project. It shares the personal and professional opinion about the value of this project, as well as the limitations of it.

## 9.1. Solution evaluation

The goal of this project was to help FREE NOW find new service opportunities and create meaningful experiences. The final outcome designed are four design directions which in four posters show the mindsets identified, with the aim to inspire the employees at FREE NOW to consider them during the design process.

Throughout my project, I focused a lot on the research part. I enjoy translating findings into insights and converting them in concepts. What I do not like is the design phase. Therefore, the majority of the thesis is put on research and less on the outcome. I feel very satisfied with the outcome of the project, especially with the concept of mindsets. Both, the Head of Design and Research, as well as the User Research I worked together closely with, showed great enthusiasm about my outcomes. The mindsets that I have come up with, group how people use space and the different activities they do in a particular mobility mode in a very simple, yet creative way.

Although I did a lot of research, and I could have continued doing much more research on the topic of the mindsets, as it was a design project, a tangible outcome was required. Thus, the four posters designed were an instead forced outcome of making the mindsets tangible. I believe the value of the mindsets could have been communicated better through other media and maybe not with posters. I did not spend enough time on the manifestation of the mindsets in a tangible outcome that fully conveys the findings from my research. Looking back, a video showing people's facial expressions while using a specific mode of transport would have been more appropriate. In general, a more sensorial way to communicate the outcome would have probably had a more significant

Nevertheless, I like that I could contribute something valuable to both the company and the academic world. I am happy that I will be able to continue the project with FREE NOW and look into other new mindsets, which I did not consider in my project. Further, I have realised that I have a real passion for research and can imagine continuing academic research on the topic of mindsets.

## 9.2. Process evaluation

The process followed throughout this project was the Vision in Product Design method from Hekkert and van Dijk. I have first come in contact with the ViP method in my last semester of my Master, where I became curious about it.

As a designer, I work in a very structured and methodological manner. I have a very analytical way of working by focusing on user research to spot the pain points that need to be solved to improve a user's experience. However, I would not consider myself a very creative person in the sense of coming up with entirely new out-of-the-box ideas

I wanted to grow as a designer and broaden my capabilities, which is why I chose to approach my master thesis using the ViP method. As the ViP method does not focus on solving a problem but rather on exploring a domain spotting possible design directions, it helped me become more creative as I was forced to step out of my comfort zone. However, i struggled to work this way as it involves much

uncertainty that comes with this method. Nevertheless, I managed to use the ViP approach in a useful way and came to an outcome, which I probably would not have, using my traditional design skills.

Further, I have realised that I do not enjoy the ideation phase in the design process and that I tend to avoid it in my projects. When I had to come up with ideas during this project, I organised workshops with employees from FREE NOW with the expectations that they will provide me with valuable ideas. However, I relied too much on the results of the workshop, which were not as useful as I thought they would be. Looking back, I would have ideated more myself. For the future, I will try to work on myself to overcome my barrier to ideation.

Looking back at the process, the transcription of the interviews was very time-consuming, which slowed down the process after the very dynamic interviewing phase in Barcelona. Though, I have to say that it was worth taking the time and carefully analysing the data as they revealed a lot of insights that built the basis for my project. I am happy I followed my intuition and found those key insights in the extensive data.

The analysis of the interviews, however, also posed some challenges. I struggled to explain my findings and discuss them with other people as I was really deep into the topic. At some point, I was so deep into behavioural psychology, understanding nuances in the terminology of feelings, attitudes, mindsets and moods, which made it impossible to have a fruitful

discussion with others to reflect on my findings. Even though I tried to get other people's opinion, sometimes I was too shy to involve people. I always felt that people might think that they perceive me as a student, doing something irrelevant. I was not confident enough to show my results. However, when I did, people were very enthusiastic about it. Therefore, I think I showed my results too late to my colleagues, and they could have given me valuable feedback, which would have helped me progress faster.

In the end, I managed to make sense of the significant amount of complex data, which reassures my capabilities as a researcher. I had a very broad topic with many shades, as there is a lot going on in the world of mobility at the moment. Nevertheless, following my gut feeling, I was able to find a focus that was new and interested me personally.

# 9.3. Personal evaluation

Throughout this project, I have learned a lot, both on a professional as well as on a personal level.

First of all, I realised that I am a very optimistic person, which also reflects in my work as a designer. As ViP is not a method for problem-solving, it allows a lot of freedom to bring in the personal position of the designer, which gives the outcome of a project a very personal touch. In my case, the positive mindsets that envision a

somewhat utopian future show my positive attitude towards the world and probably some naivety.

Further, it was hard for me to find the balance between using the outcome that ViP delivers, looking into the far future, and what FREE NOW wanted, to trigger thinking and spot opportunities for the near future. Although I wanted to use the ViP method, I didn't want to disappoint my company mentor, especially as I considered staying at FREE NOW and continue working with them. However, I am happy I followed my design intuition and process by giving the argumentations needed because it eventually gave me creative confidence.

I grew a lot in this project by stepping out of my comfort zone in various ways. Not only speaking from a project perspective, using a new approach, I was not comfortable with, but also moving to Hamburg, which meant a new environment, a new language and new people. Thus, the past six months helped me broaden my horizon and progress not only professionally, but also personally.

Finally, the project made me realise how much I enjoy doing user research. It uncovered that user research is where my true passion lies and that I want to focus on that fully. Moreover, I found that I especially like to work for tech companies as the user's happiness is the key to success. I am incredibly happy that I will be able to follow my passion, pursue my dream and start working for FREE NOW as user research after this project.

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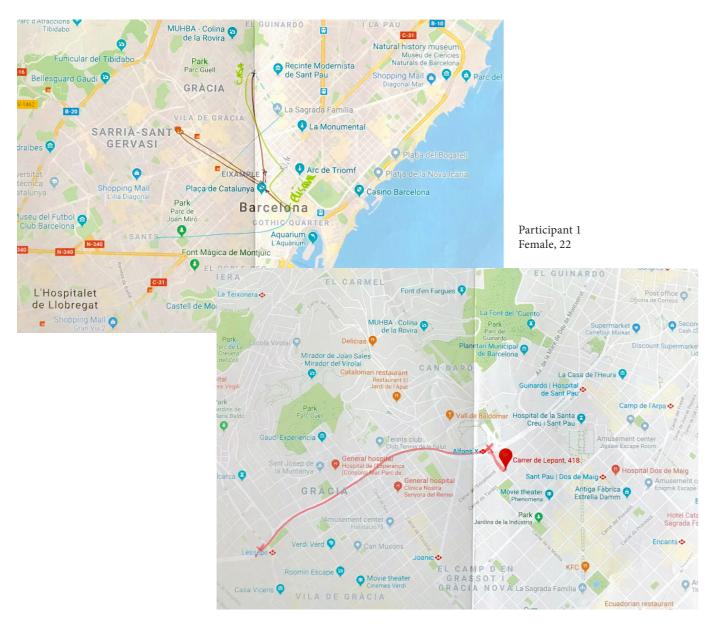
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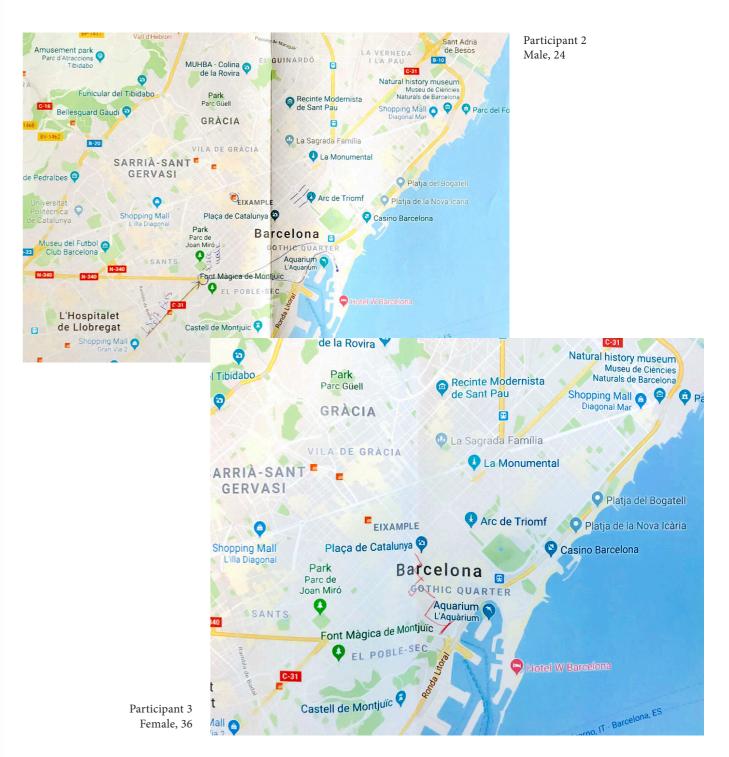
# **Appendix**

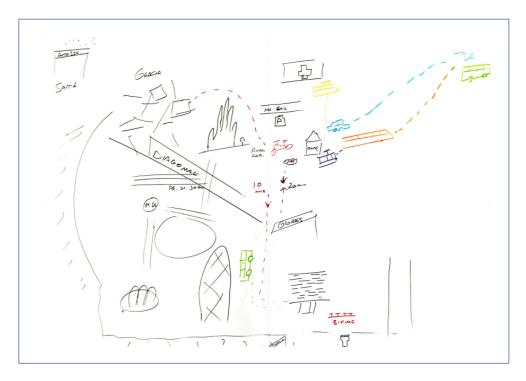
- A Project brief
- **B** Maps participants
- C Interview transcripts
- D Interviews experts
- E Questionnaire
- F Workshop results

Appendix B

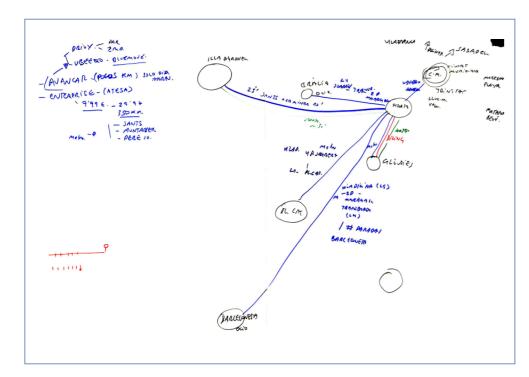
# Maps participants



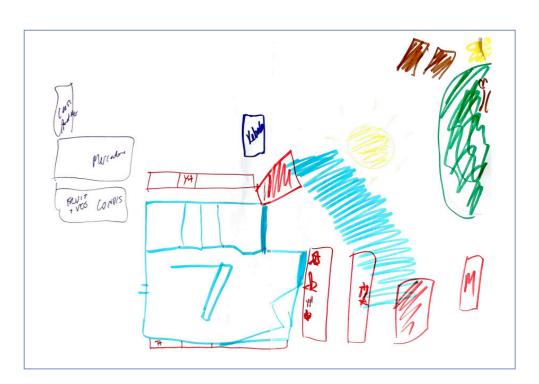


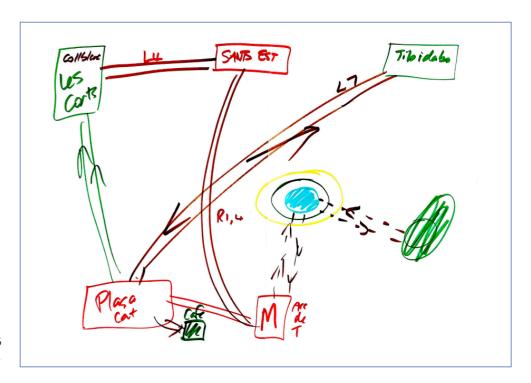


Participant 4 Male, 38

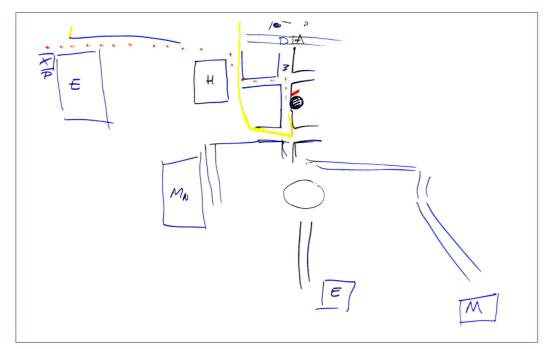


Participant 5 Female, 53

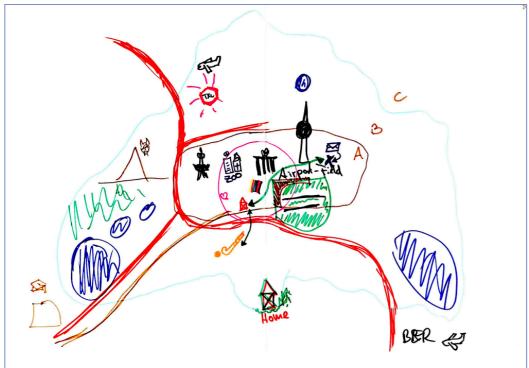




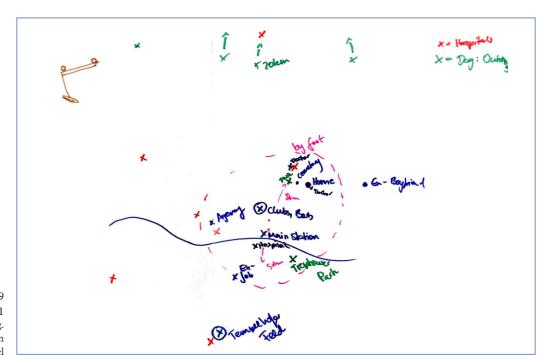
Participant 6 Male, 41



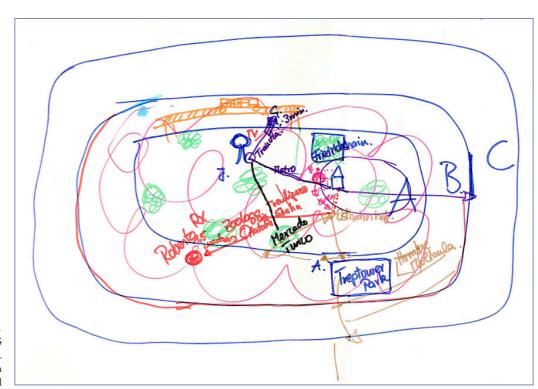
Participant 7 Female, 58



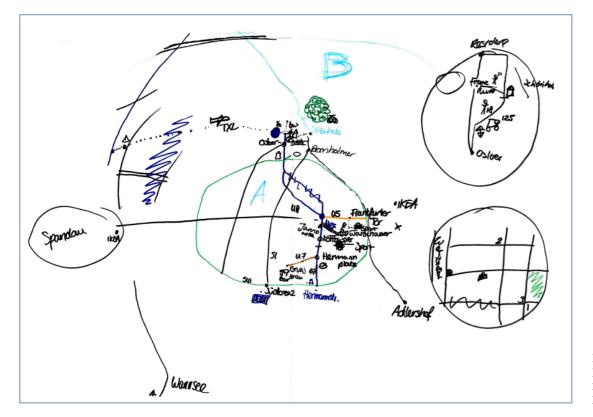
Participant 10 German male, 38 Tempelhof - Schöneberg. Berlin Bachelor degree level



Participant 9 German female, 31 Friedrichshain - Kreuzberg. Berlin Higher level



Participant 11 German/Mexican female, 55 Friedrichshain - Kreuzberg. Berlin High school degree level



Participant 8 Dutch female, 23 Reinickendorf. Berlin Bachelor degree level

Appendix (

# **Interview transcripts**

User research: participants' interview transcripts

### P1. Interview Mònica

#### Personal information

22 years old From Lleida and lives in Barcelona since 4 years ago Studies Design at the University

#### Personal background

Sóc de Lleida, vaig neixer a Lleida ciutat. I visc aqui per la carrera. Em vaig mudar aqui quan vaig començar priemer. Em vaig mudar a casa la meva germana, perque els meus pares van pensar que com que era novetat era millor. Pero l'any seguent la meva germana va tonar a Lleida i vaig canviar de pis. Cada any he cambiat de pis, estic al 4rt pis. He anat a pis per any. A zones totalment diferents. El primer any vaig viure a Hospital Clinic, el segon a Horta, el tercer any a Carrer Valencia I aquest any a Baix Guinardo. Osigui cada any different.

Sempre he compartit pis amb altre gent, eren pisos d'amistats no de lloguer. Molta gent de Lleida s'ha comprat un pis a Barcelona per comoditat. Sempre va bé tenir un pis aqui. A primer vaig viure amb la meva germana, a segon en un apartament d'un amic meu de Lleida, a tercer amb dos de la uni i a quart amb una noia que es el pis de la seva tieta.

#### Prefered area

Cada una te lo seu. Horta m'agradava molt, perque era com estar a Barcelona pero sense l'agobi. Era com un poblet dins la ciutat. Pero a vegades a la nit si tornaves sola si que em feia una mica de por. Però, hi ha molt verd i parcs.

M'agrada molt on estic ara, pero per la companya de pis. Es una noia, i abans sempre eren nois. El pis te mala combinació però, la linea mes propera es la groga. Per exemple per anar a plaça Catalunya he d'anar a passeig de gracia. I per anar a la uni he d'anar a Jaume I.

#### Map activity

#### Zoomed-in map (home)

Aqui viuen les meves millors amigues. Camino de casa a l'estació i agafo un bus que es directe. Para 4 vegades. Diumenge vaig anar a veure-les. Hi vaig un cop a la setmana minim.

Diumenge vaig anar-hi a les 9, a sopar.

#### How do you organize yourself to go there?

Se que hi ha un bus que passa sobint. Hi ha bastantes opcions perque hi ha dos busos, amb dos destinacions diferents pero passen per alla. Per aixo passa mes sobint. El problema es que sempre que hi vaig es tarda/nit i a la tornada he d'agafar bus nit i passa cada 15 minuts o aixi. I sempre torno caminant. Son 25 minuts o aixi. No miro si passa el Busnit ja. Ja va ser un cop que vaig esperarme. M'estava morint de fred i vaig dir vaig caminant que no em costa re.. son 25 minuts. M'agrada caminar, sempre que vaig a Gracia vaig caminant, sempre. No hi ha bona conexio a la majoria de casos, tambe m'agrada caminar pero es per la combinacio.

#### Journey to university & security

Agafo aquesta linea a casa i baixo a Jaume I. I despres camino fins la uni, son 10 minuts. I a la tornada igual.

Pero he de dir que pel mati vaig pels carrerons del Gotic. Pero quan es molt tard vaig per carrer Ferran.

Pel mati els carrerons hi ha ambient pero tranquil I el carrer Ferran esta atapait. Pero per la nit pels carreros no hi ha ningu i carrer Ferran hi ha gent. I hi ha llum, pero als carreros estan super foscos.

Pateixo per la meva seguretat. No he tingut

Pateixo per la meva seguretat. No he tingut mai cap mala experiencia pero si que sents coses. I no nomes per a mi, pero porto el ordinador de la uni i aquestes coses.

#### Back home (town)

Hi vaig un cap de setmana si, un no. Mes que re pel preu del bitllet, perque vaig amb Ave.... Ara porto uns quants findes sense anar, perque he estat d'entregues. Intento marxar divendres desde la uni perque hi ha millor comunicacio que desde casa. De la uni a sants es directe. Pero avegades surto de la uni tant tard que he de ferho el dia seguent.... I he d'anar fins Sagrada Familia caminant I porto normalment una motxilla i una maleta de rodes.

#### Jouney to dancing classes

Tinc mala convinació. I es la que menys m'agrada. Surto de la uni i he d'anar a Plaça Cat amb metro i despres agafar ferros fins a Sarrià.

Per tornar, he d'anar desde Sarria a Passeig de Gracia i despres camino fins a plaça cat. I clar surto a les 10, no hi ha ningu al carrer. Per tant aprofito per parlar amb la meva familia, els meus pares. I inclus et passa mes rapid.

#### **Ecooltra** journey

No faig trajectes en concret. L'ultima vegada que vaig agafar Ecooltra va ser desde la uni. Anavem a veure dança a un teatre. I jo conduia i la meva amiga em guiava. Primer vam organitzar-nos per anar-hi en metro. Pero a Elisava hi havia una festa i voliem quedar-nos mes estona. A mes erem dos, I no mes, per tant podiem agafar Ecooltra. Vaig conduir jo perque ella no tenia carnet. Pero jo Mai havia portat a ningu abans!

Primer de tot vaig mirar si hi havien motos aprop, perque sino ja no ens surt a compte. LLavors vaig reservarla. La reserva 15 minuts, que va ser l'estona que vam quedarnos de més. Perque puc anar mirant l'estona que queda i calcular quan hem de sortir. Va ser molt divertit portar-la a ella, pero vaig patir algunes vegades tambe, per exemple al semafor. Pero va ser una experiencia divertida. Ecooltra nomes la faig servir si tinc minuts gratis. Ella em guiava: pero em deia a la dreta, i la dreta ja havia passat. A la que comences a buscar aparcament els minuts van passant. Jo vaig començar a fer servir Ecooltra perque el meu ex-company

de pis ho feia servir. I una vegada vaig tenir carnet de cotxe vaig conduir jo. He fet gairebe tots els viatges per  $0 \in 0 1 \in 0$   $2 \in .$ 

## Mobility ecosystem perception

#### Bike

No agafo bici perque em fa por. No vas al mateix ritme que els cotxes I amb moto si. I els carrils bicis no estan molt ben fets. Pero pel simple fet de portar casc estic mes tranquila ja, i amb les Ecooltres et ve el casc. Si no has de carregar tu el casc, igual que amb els patinets.

#### Scooter

Es com que no esta clar on pots conduir. M'he descarregat la aplicacio pero no l'he fet servir encara. I com que hi ha tot aquest lio i no esta del tot clar. Pero tinc ganes de provarho. Em falta algu que ho hagi provat i m'expliqui la seva experiencia.

#### Taxi

Agafo taxis de l'aeroport a casa. L'ultim com va ser al febrer. I vaig tornar de l'aero a casa en taxi. Anava jo sola. Pero vaig cridar-lo, no tinc cap app per taxis.

Tambe si torno de festa utilitzava Uber. Pero per exemple amb la meva familia he utilitzat mytaxi (fa 2 anys). Jo tenia la app de mytaxi, teniem minuts gratis i per aixo la vam fer servir. I aixo va ser perque pots reservar el taxi per una hora i lloc en conctret. I apart tens la info del taxista abans d'agafar-lo. I els meus pares cionfien molt en aixo: matricula, cotxe que porta, si pots portar equipatge...

Per mi taxi I mytaxi es casi lo mateix, perque molts taxis tenen mytaxi.

Crec que he agafat mes cops Ecooltra que el taxi.

#### Ube

Pero en canvi Uber ho veig diferent. Perque tho venen tot com a servei. El xofer ja et parla diferent, van vestits diferent, porten un cotxe diferent (que el taxi normal). Es com que volen simular que son el teu xofer. Per mi es mes professional Uber que mytaxi, perque et fan viure l'experiencia que aquell cotxe no l'ha fet servir abans ningu. En cavi el taxi es com que es aleatori i va on va. Ho veig mes com que tothom pot utilitzar. I Uber et parlen de voste, que a mi no m'agrada pero es tota l'experiencia.

#### BlaBlaCar

L'he agafat 3 cops. De Lleida a Barcelona ciutat. Fa molt que no l'he agafat ja. Aquest any ja he fet tots els viatges amb Avan. Perque m'han tocat cotxes molt atapaits amb molta gent. No em va acabar de convencer l'experiencia. I gent gran... T'esperes que et toqui algu jove amb qui pots parlar, pero despres et toca una persona de 50 anys, no et sents tant comode.

La rao per la qual vaig agafar BlaBlaCar, era perque Estava farta de els preus de l'ave I volia provar algo diferent.

#### Ave/Avan (national train)

El Avan es el mateix pero mes barat, va per la mateixa via.

#### Bus

M'agrada el bus perque no es agobiant, normalment hi ha poca gent. I es com que respires l'aire de fora I veus el carrer. I em conec la convinacio desde Plaça Catalunya. Si busco una ruta sempre miro bus primer. Primer miro totes les convinacions primer, perque magrada saberles pero despres intento triar bus.

#### Metro

Pero ja et dic, crec que es perque vinc d'una ciutat que no te metro i avegades m'agobio molt al metro: diferentes calors, molta gent... Em costava molt al principi... Per aixo agafo mes el bus.

#### Tranvia

No l'he agafat mai.

#### P2. Interview Rachel

#### Personal information

36 years old Irish and has been living in Barcelona for 16 years

#### Personal background

I am from Ireland but I moved to Barcelona in 2003. I usually work from home, but then I travel to different business in Barcelona. So, I move a lot because I teach business people. They are very busy and they schedule and reschedule quite often.

I live in Viladecans, it takes about 20 minutes to Barcelona. I live there with my partner, he is from Barcelona!

I moved to Barcelona when I was 20. And I studied in a college here when I was 28. I mostly go to the area of Passeig de Gracia, I stick to this area and around park de la Ciutadella, Sants and Barceloneta.

I work with Agents and they offer me classes. So, I can choose (say YES/NO) depending on how easy is for me to get there. The I choose offices that are next to stations

#### 4:24 How do you asses it?

Since I come from outside the city (Viladecans) I prefer to come by train. So, even if I had a class in Gracia o Guinardo I would have to drive and parking is a pain. I hate driving in Barcelona, specially anything that goes along Gran Via is horrible!

Today I had a class from 12 to 15 in Pau Claris and I met a friend afterwards until now. I took the train from Viladecans to Passeig de Gracia and then I walked to Pau Claris to the office which is one street away. This one is a good one, that is why I have a regular class there.

#### Car

I own a car, but I don't like taking it to Barcelona. We share it with my partner. He is studying in Mollet so he combines it with a friend: one day our car, one day his car. And then I take ours when he is not using it.

#### To the city by car

I go where my friends are, which is usually park de triomf, cituatella, passeig de sant joan... I like going there because the parking is easier on a Saturdays and Sundays. That is in the weekends and I tend to come by car because it's easier. We usually go to Passeig Sant Joan because in one of these streets is easy to park and go to the restaurants. For me it's very important that it is an easy area to park. And my friends would come by metro or patinete, because they live around the city. Or as I leave it in a bicibox in the trains station in Viladecans. It's a secured bike locker.

#### Scooter

I have a patinete, since 1 year ago. I was stared a lot at the beginning. I shouldn't say this, but I take the patinete when I know I am gonna have a drink because then I don't bring the car. I come by train and I bring the patinete with me on the train. So, when I go with more people I can lease it there and I don't take it with me and forget it in a bar. It happened to me but I always went back for it, my partner would kill me.

#### Route by scooter

My house it's about 20 minute walk from home to the station, then I take the patinete. And then wherever I need it to get around Barcelona. And I also use it if I have a business class to teach around my area in Viladecans.

It has an electric lock that I don't use because you can still pick it up and take it away. You can put a chain, but I would never leave it like you would leave a bike where a lot of people see it. I have it now in the bikebox in the station. I lock it inside the bicibox so no one can see it's in there.

I think there are only biciboxes in the area of

Baix Llobregat at the moment. I don't know if it's in Barcelona yet. It's very good and free. You can leave it up to 24 hours and then they charge you.

## Mobility ecosystem perception

#### Bicing (bike-sharing Barcelona)

I used to have Bicing, but now with the patinete not any more.

#### Taxi

If I feel sick I would always try to get a lift, my partner to drive me. If I can't then I would take a taxi. I only take a taxi to go to the airport from Viladecans. And sometimes from Barcelona to go from the restaurant to the bar.

I tried sometime to book it through mytaxi, but they would accept and cancel, accept and cancel... Izzy told me no worries they will send you one at the end! But then I didn't feel secure anymore... I didn't know if it would come or not at the end.

#### Bu

Sometimes I take bus, because I work in la Barceloneta. I take a bus from Viladecans to Plaça Espanya (L86) and then I walk 30 seconds and take another bus to Barceloneta.

#### Planning

I give busses an error, I go to Google Maps and I always use the button of "arrive at" and it tells me when to take the bus. I do it few hours before. Usually I know the schedule one week before and then there must be maximum two changes. Sometimes I have an emergency to cover a class and I just check at the moment and see if I can get there on time. I try to get a few changes as possible, I don't like changing a lot.

I know the transport quite well in Barcelona now, I decide if to take the patinete after I know which metro I am going to take. For example if you take the train at Estacio de França, I have to take the red line and you have to walk up here and I am too lazy to walk that far, so then I take the patinete. But if I have to take the yellow line I have to walk up here (close) then I would not

take the patinete. Because the patinete is cyc

sometimes, and more pleasant!

I don't take it the days that rain because I had an accident... I was going too fast. It was before I realised that you can have accidents with a patinetes. A lady went to cross on a zebra crossing and I slipped on the pain and I broke a rib because I fell on the patinete. I learnt to slow down and be more careful, I did not get scared.

#### Private bike

I used to use it like I use the patinete. But now I just use it for exercise. I have actually two: a mountain bike and an old fashioned Dervi. I used to put it in the train and lock it around. Now I use it to go to the beach and go for a cycle on Sunday with my friends. Now that is getting warmer I usually use it every weekend. The mountain bike is better for exercise and has better breaks and the dervi is very pretty, I like it more.

# P3. Interview Genoveva

#### Personal information

Lives in Manresa 58 years old She worked in a non-profit social organisation, now she has decided to take a sabbatical year. She had to commute to Barcelona once a week.

#### Personal background

Aquests ultims tres anys, estava a una entitat de la generalitat. Un centre de joves menors, tutelats per la generalitat. Per tant jo havia de baixar a Barcelona per un tema d'administracio publica. Perque depeniem d'un departament de la generalitat, per tant tenia reunions amb els tutors legals dels nens. I aquests ultims anys feia el mateix pero baixava un cop cada dos setmanes. I era diferent, com avui! Dedicaves a baixar un dia a Barcelona, lo qual ho feies amb mes calma. I no lo del cotxe baixar i aparcar.

#### Comuting to Barcelona

Ara fa un mes he fet un paron professional a la meva vida. Com que ens diuen que haurem de treballar fins molt de temps, jo no en tinc gaires ganes, pero per si d'acas si, he pensat saps que? agafat-ho amb calma i agafa't-ho de relax.

I aquest mes, he anat baixant un cop a la setmana. Perque tinc a la Julia (filla) i quedem per dinar, o tens algun amic i quedes per fer coses. I baixo amb aquella calma que et vas fixant amb coses que dius ostres no m'havia adonat mai.

Quan venia a Barcelona anava amb cotxe fins a l'estacio de Manresa. Agafava el tren i arribava a Plaça Catalunya i anava caminant fins a Parallel anaba a DGAIA. Jo trobo que hi ha molta contradiccio perque ens diuen no baixeu amb cotxe a Barcelona, pero despres l'estacio de Manresa te un parking per a cotxes molt petit. 07:24 Dies com avui baixo caminant, pero son 20/25 minuts, quan estas treballant i has d'anar aqui o alla pues no.

Si que han fet un acord recentment, i veus que la bona voluntat hi es: a un parquing que hi ha molt aprop de l'estacio si ensenyes el teu bitllet de tren et cobren nomes 3 euros. S'ha de dir quan intenten fer algo be, pero es un problema... Es trist... Manresa te 80.000 habitants i he tardat avui 1,25 hores. Podria haver anat a Paris.

Sort n'he tingut del Google maps, tant quan he anat a peu com amb cotxe. Jo no tinc gens de memoria per recordar els carrers de Barcelona. A mi m'ha cambiat la vida el Google Maps.

Abans teniem aquest mapa amb columnes/ files, i el llegiem, era tremendo. Ara no em fa por anar enlloc.

A vegades havia d'anar a buscar nens a barris no gaire segurs, i amb google maps cap problema. Podia anar exactament al lloc gracies a aixo.

Si havia de portar a nens al consulat per papeleo, si podia el desplaçament era a peu, si no metro. Decidia si baixar amb cotxe o transport public depenent si hi dedicava tot el dia a estar a Barcelona o si despres tornava a la feina. Perque amb transport public es 1.30 i 1.30 hores. Amb cotxe podria haver sortit a les 9.30/10 i hagues arribat puntual (pero a una altre hora no).

#### Finding a parking spot in Barcelona

Una altre decisio que a mi em tirava molt enrrere era el parquing. Jo sempre feia la broma de dir: si baixes amb cotxe a Barcelona: o dines o aparques. Perque podies tranquilament pagar o 15-16-17 euros.

L'ultim cop que vaig anar a Barcelona amb cotxe va ser desde Sant Pol a buscar una amiga meva que s'esta morint. I va ser de nit que jo ho odio...

L'ultim com que vaig baixar a Barcelona amb tren va ser molt maco i relaxat. Vaig anar a dinar amb la meva filla i vaig quedar amb una amiga meva per a fer un cafe. Ella estava passant per un moment dificil lavoralment i volia compartirlo amb mi per veure si podia ajudarla.

No hi aniria amb bici a Barcelona, m'agobia. L'altre dia anava amb la Julia i em deia: ets tu la que t'has de controlar: cotxes, carril bici, taxis, ...

Per mourem prefereixo el metro, i sempre l'hagafo encara que hagi de caminar una mica mes. Tinc una app del TMB pero no m'acaba d'agradar i el que faig es el dia abans mirar-ho al ordinador em baixo el pdf, com ho feiem abans...

26:48 No se perque penso que l'estructura/ sistema del bus es mes complicada. Pero em passa de qualsevol ciutat. Pero acabo no dicidint pel bus perque sempre he pensat que no es tant puntual com el metro. <u>I a mi el metro m'agrada, no m'agobia. Es un moment extrany, vas mirant mirant i vas imaginan-te la vida de les altres persones.</u> I es tu sol amb tu, pero el disfrutu el moment del metro.

28:24 Pero moltes vegades caminant, perque et dire una cosa: no caminem! I ens obliguem a caminar d'alguna manera. I quan et fas gran et diuen que t'has de cuinar: has de caminar, has de menjar be, no fumar... Pero com que treballem tant i volem fer tantes coses, no tenim temps. I si d'aqui a aqui anem caminant, ja tens aquesta feina feta. Inconscientment, dius: Home si jo vaig a caminar i faig 30' o 45' ja tindre aixo fet.

30:41 Vam quedar amb unes amigues a Barcelona per sopar. Sempre tiren un lloc diferent on anar. I jo vaig mirar el dia abans com arribar-hi. I vaig mirar quanta estona era caminant. Havia d'agafar aquest tren i despres vaig pensar faras botigues... miraras, miraras tranquilament fins arribar-hi. Google Maps em va guiar i vaig arribar super dora i molt bé.

31:56 Quan faig aquesta operacio que es baixar caminant fins l'estacio de tren, agafar el tren, tu sol amb tu mateix. Treballes o no treballes pero estas tu amb desconeguts (positiu). Es una estona que estas sol, i normalment no estem sols. Estem tot el dia amb altre gent o fent coses i a mi em produeix benestar i plaer poder fer aixo.

33:17 El Jaume va venir a buscar-me amb la furgoneta. I ja vam fer el plan de anar a dormir a Sitjes. Perque vam quedar amb uns amics alla l'endema. Ens agradaria cambiarla i comprarnos una altre una mica mes gran i comfortable. I agafar-nos els dos un any sabatic i anar-nos els dos un temps.

35:39 Durant molts anys vaig fer aquest recorregut amb cotxe i ara ho faig amb tren.

37:25 Avegades quan em trobava que havia d'anar a zones de dificil acces o amb molts canvis, agafava un taxi. Pero ara no ho considero per la meva situacio, i l'economia. Pero quan treballava si que ho feia. Pero sempre amb la sensacio aquella de: bueno ho podria haver mirat abans.. i estalviar'm-ho. Pero agafes el taxi amb aquella consciencia.

38:25 Vam provar Uber a Madrid. Pero perque com que hi ha aquesta polemica, t'has de possicionar com a ciutada. Jo sempre he pensat que lo dels taxis es vergonyos, no hi ha cap professio que t'asseguren re. Ha sigut totalment fora de lloc i fora de l'actualitat. I et fa enfadar que a nivell de l'administracio publica recolsa aquest lobi.

39:44 A Madrid estavem a una zona poc ben comunicada, i vam decidir agafar cotxe. I va venir un cotxe molt guapo amb un noi molt guapo. Va ser bonisima l'experiencia per tant ens feia enfadar encara una mica mes amb els taxis.

40:15 Quan era mes jove el taxi em feia mes por, ens havien esenyat que no pujesim al cotxe dels altres, i el taxi era el cotxe d'algu altre. I aquests ultims anys no he tingut cap mala experiencia, nomes resaves perque no et diguesin res i no t'atavalessin. Si, molestava molt la radio aquella que portaven. Segurament ha anat cambiant, pero segueixo tenint la sensacio que el taxi ha quedat obsolet, perque no han sapigut modernitzarse. Per exemple jo mai anava amb diners a sobre, utilitzo tarjeta. I sempre havia de preguntar si acceptaven tarjeta, jo no tenia la seguretat que ho acceptaven.

41:42 Em va decepcionar una mica ara que s'ha parlat mes d'Uber el fet que es una empresa com qualsevol altre. Jo pensava que com tots aquests serveis d'economia colaborativa, m'ho imaginava diferent. Que el treballador de Uber gestionava sol tot.

42:48 L'administracio juga un paper massa proteccionista amb el taxi, i aixo m'enfada. Es com els musics, quan van sortir els primers disquets van deixar de fer tants bolos... pues lo mateix al taxista: oferiu algo mes... Hi ha massa autoestima. I l'actitud que tenen no ajuda a millorar la movilitat, la ciutat ni la convivencia.

#### P4. Interview Amro

#### **Personal information**

He is 38 years old His parents are from Sudan Lived in Ireland most of his life, studied there.

Moved to Barcelona 7 years ago, for a job. Still working in this same job. He lives in Hospital Sant Pau.

He is a scientific researcher, writes proposals.

#### Personal Background

I used to work in Terrasa and commute every day. Either by train or by car with a college form work.

Most of my friends live in the city center in Sant Antoni, so there is where we use to hang out.

I used to go a lot to Gracia, not a big fan anymore... it's too busy. And also, l'Eixample is like this (grid), but Gracia is like this (messy streets with curves). You have no idea where you are going, it's too busy. I don't like being lost and having no control.

08:58 But I need to know exactly where I am going and how to get there. I really need to know this things, even if I am going to a new city. I need to know exactly where I am going. If I go to a new city I need to know also how to get from the airport to the place I am going to.

09:19 I travel a lot for work as well and I need to plan and I do that days in advance. I don't like taking a taxi, I prefer public transport so I want to know exactly how I get to my destination from there.

10:21 To go to work before (Terrasa), a friend and colleague of mine, we used to share his car. I don't have a car because Barcelona it's impossible by car. If I would go by public transport, I would first take the metro and then the train, and then once in Terrasa a bus to work.

#### Map activity

12:07 Renfe is unreliable, so if it is late I miss the bus. Te bus is not very regular, so then I would take a taxi. I can't walk it's far. What I like about the train is that I can read, by car I can't.

13:53 I did like commuting with him, we are friends. The only problem was that there's a window of time when you can be fine or stuck in traffic. Now there's the carril VAO, it's okay you save 10 minutes.

14:43 To the new work, I take Bicing. It is easy, but there's a lot of work on the road here. The problem is that if I leave the house later, then there are no bikes. Then I would walk. And I never went back home by bike, because there are hills and the traffic is crazy. A lot of days the Bicing station is full, so then I have to find another empty.

18:02 Some times there's so many people panicking that you call them to ask if they can bring a truck and take some bikes. Then they tell us sorry and don't charge us for the extra. It's a nice thing from them.

19:03 I would take the bus to get back, but with the mess in Glories it might take the same time than walking. It takes for ever!

19:37 Now I have a motorbike and i take it for almost everything. And sometimes it takes me the same time as walking due to the road works and traffic.

20:27 I took Ecooltra several times. I like to go to Sant Joan to work and have brunch in the weekends. I could get there by bicing, but since I was gonna get the motorbike I wanted to try with the Ecooltras.

21:38 For work I took it two or three times, but no more. It would take me longer to find a motorbike around me... It would be easier by Bicing because then I know where it is. But yeah, it would depend on availability. 22:50 If I would go to the gym, then I would go walking from work. It's in a walking distance. And then back home I would walk too and listen to a Podcast.

23:20 Then I have here the blue line, which goes direction to where my friends live. But you have to change with it. And I don't like changing. Then I prefer Bicing for example. I try to find the fastest way but with no changes. For instance, if I take the yellow one, I need to walk but then it's just one metro. It is a bit longer, but then I don't have to change.

25:14 I never found the bus the most convenient. Only once I thought it was the most convenient way, but then it was a complete disaster because they closed the road for a strike or demonstration.

27:58 If I go to Parc Scientific then I take the bus but because it's direct and the metro options are very messy...

28:55 To the airport, I go by taxi if I go for work. They organises a taxi. But if I go for holidays then I take a train or the metro depending on the terminal. I take a lot of early flights so I leave from home.

30:39 Ferrocarrils are always on time, it's amazing!

33:36 I went to this Autoescuela because it's very famous among expats. It's in Sarrià, I also did there my drivers license.

34:12 Now that I have the motorbike, what I like is that I can drive to the outsides of Barcelona. I go to Collserola for example. I always choose the roads before, with google Maps. I plan it way in advance. For example, I have a weeding in June in Prades and I am now planing it! The initial plan was to goo

## P5. Interview Antonio

# by car, but then my friend said let's go by motorbike and now I am looking for nice roads to avoid the motorways etc. I do a lot of research about things you know, maybe it's the scientific background.

35:22 Anything I buy for myself I need to check and do research.

36:52 I never thought owning a car was a good idea, nice to have but a waste of money. I had Avancar and that was great! I rented a car by the hour. And now they closed, the last day was the 28th of February. I used it a lot when a friend was visiting I would pick him up from the airport first. It's easier, cheaper and faster. And there was a parking right down my house. I would also use it to go to Palamos all day also to go to Ikea to get some stuff. It was very convenient I loved it. With some friends we also rent it to go to Girona all day to the beach. Also, I helped a friend to move twice. So, I rented a van, because you can choose the car the one that is more convenient for you.

41:39 I don't like patinetes, I haven't used any also not planing to get one either. I don't like when people use them in the sidewalk next to you. I know Izzie has one, loves it.

42:07 I love walking a lot, sometimes I go all the way from the city center to my house walking. I would like to a podcast, I wouldn't talk on the phone I don't like it... it's annoying. Some of my friends do that but then you cannot hear them because of the wind.

I have a lot of friends that have cars and they don't like metro because they feel claustrophobic. But I have to say that now with the motorbike I am also getting a bit claustrophobic in the metro with so many people.

#### Personal information

He was born in Barcelona, his parens live still in Barcelona. He is 41 years old Works in Barcelona

#### Map activity

Locations placed in the map and reasons why:

- -Padres: casi a las afueras, casi en Sabadell -Mi casa está más hacia el centro. Zona de
- -He estado haciendo trabajos últimamente entre Plaza las Glorias
- -Barceloneta: me muevo bastante por ocio
- -Gracia: ocio, por bares, bares de tapas
- -Amigos de la infancia: en zona Trinidad
- -Hermano: Polinyà
- -Familia mujer: zona de Vilafranca
- -Mataró: voy bastante a Mataró, porque una amiga de toda la vida tiene una peluquería allí.
- -En verano vamos más a la zona del Maresme.

#### Modes of transportation

05:24 Voy mucho a trabajar en Bicing.
Tengo una estación de Bicing relativamente cerca, me gustaría que estuviera más cerca.
Son unos 4/5 minutos andando. Y de aquí (estación de Bicing) al trabajo hay 3/4 minutos andando. Me muevo bastante bien en Bicing. Incluso para ir a casa de algún amigo también lo cojo (zona Trinidad).
Solía encontrar bastante bien sitio para aparcar la bici, de hecho antes de salir miraba si había sitio. Si no alguna vez ya iba prevenido para buscar otra.
Lo que me había pasado alguna vez es que a

Lo que me había pasado alguna vez es que a la hora de coger bici en Horta no había. Y la alternativa era metro y alguna vez en moto.

06:42El metro esta mas cerca que lo de la bici, a 2/3 minutos. El trayecto eran 4 paradas en una linea, transbordo y 3 paradas. En total no llegaba a 20 minutos de trayecto. Unos 18/20 minutos, dependía del dia.

07:10 Iba más en metro que en bicicleta. Iba por temporadas, sobre todo en verano cojo más Bicing, y en invierno menos. Igual un 75% de veces iba en metro, y el 25% en bici. Más metro que Bicing. En el metro iba leyendo, esto es un dato. No hace frio si es invierno, a veces llovía. Y también por la comodidad, es mas cómodo ir sentado en el metro que ir en bici. Dependía del dia. De hecho el travecto en bici era más corto. El travecto en bici solía ser 13 minutos. También sobretodo influyo en el final las obras de la meridiana. Han hecho obras y no quería invadir la calzada y hacer según que ilegalidades de trafico. Pues había que bajar a calle Guipuzcoa casi y que hacer más vueltas que lo dificultaban un poco.

08:53 Mi trabajo ahora esta cerca de la Illa diagonal. Hace mes y poco que trabajo allí. Hace tiempo había trabajado en esta zona y entonces más o menos lo conozco. Aquí he ido pocos días, ahora estoy de baja por paternidad he sido padre hace poco. Entonces aquí la opción de metro, cuando estuve yendo bastante tiempo, iba mucho en metro. El metro era directo hasta Sants. Y después tenia que caminar unos 10 minutos, el metro era unos 25 minutos. Y a veces moto, si iba más justo de tiempo o porque iba al gimnasio, con la moto tardaba menos. Si iba al gimnasio, para desplazarme la moto era mucho mas cómoda y rápida. En moto debo tardar unos 30 minutos.

11:01 La ultima vez fui en moto, desde que me traslade he estado pocos días. Y como estaba empezando a ir, pues no cogí el metro. Y creo que quizás fui al gimnasio. Estos días antes de cogerme la baja he ido en moto, estos 5 días.

Y una vez fui en taxi y volví en metro. Fui en taxi porque me desplace des de el hospital, fue cuando tocaba hacer la revision. Y iba muy justo de tiempo y cogí un taxi. El

hospital estaba en Esplugas, estaba bastante lejos.

#### Reasons why he took a taxi

12:28 Lo miramos en Google Maps. Y claro des de allí, el Hospital Sant Joan de Deu que está bastante a las afueras y tocando a la montaña, el metro más cercano esta mas o menos andando a 15 minutos. Y la combinación con autobuses era bastante mala. Y a parte de todo esto, si la combinación hubiera sido buena el factor tiempo me importaba bastante porque el factor tiempo me importaba bastante ya. Y bueno necesitaba un transporte rápido de puerta a puerta. Creo que fue parado directamente.

13:34 Antes de ser padre íbamos siempre en metro, 99% de las veces. Alguna vez habíamos ido en coche, alquilado. Y en la época de Navidades habíamos ido fuera o algún otro motivo. Veces así más concretas en coche. Si no siempre en metro o en moto también antes de que mi mujer estuviera embarazada. Ahora en metro siempre, en aquella época que estaba embarazada era igual unos 60% en moto y un 40% en metro. Y el coche de manera esporádica.

14:36 Sí teníamos que irnos fuera, por ejemplo a casa de sus padres, alquilábamos un coche. Y teníamos dos opciones: Avancar (socio hace 6-8 años) o Enterprise.

- -Enterprise tiene una oferta muy buena para los fines de semana que sale a 9,99€ al dia. Osea que alquilas un coche por 29,87€ 3 días. Y podías hacer 350km al dia, si íbamos fuera cogíamos este.
- -Y para desplazamientos en Barcelona o cercanías, con pocos quilómetros, por ejemplo a Mataró cogíamos Avancar. Sale un poco más más caro.

16:47Hay varios sitios en Barcelona para recoger Enterprise. En Sants hay uno, la usábamos bastante. En calle Muntaner también. Y nos desplazamos hacia allí en metro. Normalmente hacíamos esto: íbamos con las maletas, recogíamos el coche y nos vamos. Y alguna vez si yo tenia mas flexibilidad horaria, voy a buscar el coche a una hora que me va bien y luego yo paso a buscar las maletas o a buscar a mi mujer donde haga falta.

#### Car-sharing

17:39 Drivy. No me convence. Por lo que he visto tiene dos opciones; coche de persona y coche de Drivy. Osea tu como particular, si dispones de un vehículo puedes alquilarlo por horas a gente que sea cliente de Drivy y tu te llevas algo de beneficio.

18:10 El que estoy usando ahora en substitución a Avancar es Ubeqoo, que antes era Bluemove. El servicio esta bastante bien. En cuestión de un mes lo he usado 3 veces. La ultima vez fue para ir a casa de mis padres. Fuimos a comer a casa de mis padres y cómo teníamos que coger coche pues unos días antes lo reserve, las horas aproximadas que creía que íbamos a usarlo.

20:47 Este trayecto en metro es mucho más lento: 2 paradas hasta Maragall, transbordo hasta Trinitat y coger otro metro, son 40 minutos tranquilamente. La ventaja de usar Ubeqoo es que no tienes que hacer check-in ni papeleo. Haces el contrato previamente y tu cuando vas al coche llegas y te lo llevas.

#### Pack in my parents' garage

21:28 Cerca de casa suele estar complicado el sitio, pero es algo habitual en estas zonas: mi padre tiene parking, durante la semana saca el coche del parking lo guarda en algún sitio y cuando llegamos, mi hermano o yo pues lo metemos en ese sitio y el aparca en el parking. Alguna vez hay sitio y no hace falta hacer todo esto.

#### The bus

Es que a mí el bus no me gusta nada. Esto es una discusión o tema de conversación con mi mujer. Porque a ella le encanta el bus, le gusta ver la calle... Y a mí de nunca me atrae el autobús. Porque se acumula mas gente, o el trafico... Incluso para leer tampoco es tan cómodo, supongo que con lo de las ventanas y tal, ves más movimiento.

#### Owning a car / motorbike

26:36 Coche no tenemos, nos sale mucho más a cuenta alquilar. No es tan cómodo, pero sí que sale más a cuenta. La moto sí que es algo que me va muy bien, porque cuando uno no quiere depender de otros transportes puedo utilizarla a la hora que quiera y es de puerta a puerta.

29:29 Yo tenia coche propio des de los 20 años hasta los 32. Al 2010 lo di de baja porque tenia una reparación grave, lo usaba poco y lo di de baja. Avancar llevaba más o menos 3 años, lo conocía, lo probé y me gusto bastante. Claro a la hora de hacer números, valoramos que según la zona que vivas en Barcelona necesitas un parking. Si no tienes un parking de propiedad, suele valerte un parking 90/100€ o más. Y ya partes de un gasto fijo de 1.200€ al año solo el parking. Si sumas el seguro del coche que es 200/300€, más el impuesto de circulación y, en principio no, pero a lo mejor gastos de taller. Todo sale a un gasto importante. Contrapartida, tienes mucha comodidad y al lado de casa. Pero bueno ahora llevamos 9 años sin coche y bien.

Ubeqoo tiene bastante disponibilidad, pero claro la comodidad de un coche propio... Y en cuanto a precio es que no hay discusión.

31:46 A lo mejor valoraría un renting. Ahora que somos padres, estamos valorando comprar un coche. Mi mujer es mas partidaria. Por los números no soy tan partidario. Ella lo dice por sí hay alguna urgencia y hay que coger el coche. Pero incluso en estos casos el taxi es mas rápido. Porque luego al sitio que tienes que ir tienes que aparcar el coche, etc.

33:07 Me bajé Cabify y no lo había a usado

# P6. Interview Sharlene

nunca cuando empezó la huelga de los taxis, que sé que mucha gente lo había hecho. Por la disnámica que tubo esta huelga y por ciertas situaciones de violencia. No estaba muy de acuerdo con la manera en la que hacían la huelga. Me baje Cabify, lo estuve usando un tiempo y cuando se fue, me quede huérfano. Era una aplicación muy útil y agradable de usar. Y entonces volví a buscar una que tenia hacia mucho tiempo que era Hailo. Y entonces vi que mytaxi había absolvido a Hailo. Como ventaja

veo el poder pagar por la aplicación, muy

muy buena. Lo he usado dos o tres veces.

colaborativa es el poder valorar a la otra

persona. Porque a veces ha pasado, gente

que "hostia había un taxista que iba de prisa

o era inseguro", claro aquí es fácil, le pones

una mala nota. Es más fácil que la gente se

esfuerce en dar un mejor servicio.

Otra cosa muy importante en la economía

#### Personal information

She is 53 years old
She has no kids
From Australia originally, has been living in
Barcelona for 9,5 years.
3 professions at the moment, because she is
transitioning from one to another.
She works mostly as an English teacher.
Piano teacher. Relationship and parenting

#### Personal background

02:51 English as a second language. I have private students as well as working for UAB. Where I do group classes. I am also a piano teacher, where I teach from home. I am now also a relationship and parenting coach. I becan a year and a half.

## Owning a car & good transport system in Barcelona

03:27 I move a lot in the city. I don't have a car, for several reasons. One, in Barcelona I don't need one, because is so good and there are so many options. And the weather is so good that I don't need the protection of a car to get anywhere. Second, the cost of having a car here is exorbitant. And I actually don't have the money for one. Parking.. and also for environmental reasons. I am so happy about this, because in Australia you have to have a car. It's just impossible by public transport doesn't work, it's slow, there's not enough of it and the distances are so big. In Barcelona, I love the fact that I don't have a car, and that I am not contributing to the pollution of the environment.

#### Map activity

#### Bicing (bike-sharing Barcelona)

04:16 I use a multitude of transports all day, every day. I walk a lot and it's grate because Barcelona is really walkable. I use Bicings at times depending on how lazy I am. In

summers I use it a bit more but I became a bit lazy. Just because I don't wear a helmet and there are a lot of bicycle lanes, and it's growing almost by the week and I love that. There are still some places that you ride on the road and I do get a bit... I am not a nervous person on the road, but you know when there are no bicycle lanes it's a little bit... you know, drivers in Barcelona are not known for being particularly careful. I have friends that had been knocked off by cars when crossing on a green light by taxis that spin around the corner or motorcycles that don't stop. That makes me a little bit nervous on the roads. And now that brought the law that you cannot ride on the footpath which i used to do, when there were no bicycle lanes.

#### Metro/bus & running around

05:25 I use a lot of metros and busses. I prefer the bus because I can see the roads. But the metro is often very convenient as well. I use City Transport, an app to help me find the quickest way, because I do most of my english classes 95% I do them either in people's homes, in businesses, at university or in a cafe/bar. Where is more convenient for my clients and I.

I do a lot of running to catch trains. Because I don't have a lot of time to get from place to place. It is amazing for me that I can do that here. Because in Australia I could not see half of the people that I see right now as a result of that.

06:29 I have considered getting a moto. Just really for cost as well as haven't done that, the cost of buying one. It's just to be prohibited and I also don't have a drivers license here yet, which I need to transfer across. I was supposed to have one by now...

#### Scooter

07:02 For the patinete, probably the reason why I don't have it is that often I have to take a lot of books with me. I've now bought a suit case to walk with because I am starting

to have problems with my shoulders of carrying the bags with heavy books. That is another reason that limits me with Bicing sometimes. If I have a lot of classes I can't fit my bag in the Bicing basket. Which means that I often take a bus or metro.

#### **Driving license**

07:50 Australia and Spain don't have an agreement. Even if I had been driving since I was 18y.o and I am 53y.o I have to start as if from zero. I have to get all the proof from Australia and take drivers lessons here which are very expensive they are. I think it's crazy. The schools don't offer you a couple of lessons they offer you a package of 10. It's gonna cost me something like 500€ just to take my license. For the moment I use my Australian drivers license with an international license, which I get for 30 dollars. But they have a limit on how many they give me. I had to have big gaps. You are not allowed to... Officially, I have to get my drivers license here, you can't just constantly get it sent form Australia. If I was in Australia would not be a problem, but have them sent to me they don't like doing that. So, there's a limit for how many I can have. It's only valid for a year. I don't ask it every year, because I don't drive every year. But if I know I am going on a trip somewhere, then I make sure... I had where I haven't really gone anywhere to drive. If I go on holidays I take public transport.

#### Motorbike

09:56 I live with my partner. He also doesn't have a car, he had a moto that died, Fiona. She had a sad death, he was very old. Maybe she was complaining about how heavy I was. He considered to get another moto, but in reality he doesn't need one and me neither. We live near Arc de Triomf and there's so much transport there. He has busses to work, he does to the gym in Barceloneta there's a bus to blocks from our house that drops him right outside there. It's not really worth

it and the moto that he had we couldn't go with it for a long distance anyway...

#### **Taxis**

10:56 So, we mostly take public transport if we go out somewhere, we take taxis home sometimes. That depends the time of the month, that depends on financial reasons. But I've used taxis a lot, for things like if I moved house. If I ad a few things, if I had to buy a table once. Buying second hand furniture... that is a bit of a challenge to find a taxi that will take your furniture but there are many of them that say "We are not allowed to do that..." Another's that say "that is absolutely garbage" throw it. I've standing on the side of the street sometimes for hours waiting for a taxi that would say yes. So, yeah I use it for this type of things.

Certainly when it's late at night. Or I also run workshops with my piano, I don't do that from home so I take my keyboard and stuff to somewhere so I use taxis a lot if I've got extra things that I need to carry. But mostly we use public transport even if we're going out at night or walk.

#### Weekends

12:50 I mean certainly I live near the center so if there's no transport I can walk in half an hour 45 minutes I can be home from almost anywhere. So as long as my shoes are hurting my feet my knees aren't giving way I can make it.

#### Going outside of the city

13:16 That is actually a really good question because I do. I don't get out of the city as much as I'd like to and if we have done weekends away we often rent a car but my boyfriend is also a little bit old fashioned in that way. He has a passion for buses and trains so he walks the camino de Santiago and when he does that he does a small part of it he prefers to take the train and get there quickly and walk for longer. So he's like that. So if we go for example we've gone up the

coast to the Costa Brava. He prefers to go by bus. I don't care to be honest mostly and as long as if we're going to one place it's fine but if we're driving around with we've rented cars before and that that's what we do.

#### Australians are close to the nature

14:16 It's true and I grew up on a farm and it's true and it's one of the things that I miss a lot getting out but we don't organise ourselves very well. So that's the only reason it doesn't happen. And also because my both of us... I work a lot and he works hard too so we have the weekends there's a he likes his routines, it's German, so he likes his routines to relax a bit yeah. So that's a little bit of a challenge sometimes to get his ass out of the sofa. I've been in and out of the house all week because I work from home I get out. He wants to stay at home. He works as a sales international person for one of the big paper companies here in Spain. And that's a reasonably new job for him.

## The reason why becoming a coach (professional transition) & family background

18:21 I think that I am contributing to people is one of the most important things for me to contribute in general is why I'm glad to be contributing to the environment by not using a car. My mother passed away seven years ago 13 years ago. But both of my parents are very much citizens of the world. They've always been people that my father was a farmer but his all his activities aside from that were always about contributing to the community. My mother as well they were very we were and grew up I grew up in a small town. They were huge people in the church that we were in back then until they got kicked out for doing other things that the church didn't like which was contributing to people in another way. They opened a body mind and spirit health retreat which was too out there for that traditional community service. But they were always

helping other people. My father my parents always employed the Aboriginal families in town back then. I grew up in a very racist very narrow minded very religious small Australian country town and my parents were the saviours of everybody who was outcast. So I grew up with that. You know that was and I think that's a strong that's always been a strong part of why contribution and making something of my life that's about contributing to others. And so I've always done and I've changed jobs a lot in my lifetime and all of my jobs have always been about doing something for others because that's what makes me feel like I'm here for a reason you know. So I've never done a job just for money I've left jobs that even though it was about health care and stuff like that, if I didn't feel I was making a big enough difference or if I didn't feel like I was doing the right thing for me to express that part of myself. I move on. I'm making life a lot less money here than I did when I was in Australia for example.

#### Next step in life

23:35 It's not exactly clear except it's very clear. So my partner and I have talked a lot because he is he wants to open an albergue in the Camino. The Camino it's his passion of his life. He wants to open and albergue and get into funnily enough for helping professions and healing people. He has a lot of allergies and asthma and he's been he's found something that's helped him a lot with that and he's really keen to look into how he might be able to use that in some way to help other people. I didn't know that he had that in him when we met so hopefully that's going to come out. I don't have a I don't have any interest in living permanently in this tiny small town. I'd like to get out of the city a little bit more often but my dream is to have more of an online job so that I can travel and to be making more money so that I can do that because I haven't visited Australia in over three and a half years just because I haven't been able to afford to go. That's not

easy, my nephews are all growing up I'm missing everybody I know I'm not very good at keeping in contact from a distance and as long as it is and the time differences.

## The ideal life: Transitioning to an online job to gain flexibility

26:27 So if that starts to happen they'll give me a bit more flexibility and I'd like to be able to live somewhere else in Europe for three months. I love the idea of taking my laptop and going I'm like I need a bass but only in Paris for three months or go and live in Vienna for three months or something. So and So where I I don't know how that's all going to work but I in my in my mind I can see my boyfriend opening his bed to get me going there from time to time maybe even having a base in Barcelona. I do love Barcelona but I'm just finding it's getting a bit crowded and polluted and so to be able to get out a little bit more would be great and to be able to move a little more which is not very good for the environment. Flying from place to place that you know to be able to go and spend some time with him go on and our relationship strong enough for that for sure that we win.

#### Pollution in Barcelona

27:01 I just feel. You can see it and my boyfriend experiences it. It hasn't rained. It's really terrible for him. He struggles to breathe. So yeah he can just you can see the pollution when it hasn't rained.

#### Barcelona it's not the same

28:07 You can really feel the Corofin tourism here. I felt at the nine years I've been here. It's just different. What used to be some of its good changes but some of it I can't mourn the loss of the uniqueness of Barcelona. Tacky stores on every corner and a 24 hour supermarkets on every corner. Yeah some somebody said to me that Barcelona has become a victim of its own success. It's true. It's just it's losing some of the charm.

#### Map activity

#### Green in Barcelona

32:26 I miss green green Barcelona. It's got a lot of trees green grass and there's a lot of walk for dogs.I just don't understand children's parks. Why don't they put nice dirt. Nobody uses dirt in children's parks anymore sand. You know you have something nice for the kids to jump on and roll on and it's filthy filthy dirt. The dogs get in there and it's just I just don't understand it.

#### China town & allergies

33:47 I go there often. Well I try not to eat too much because they all use MSG and it doesn't do what's not very well for me. But I'd like to say I'm strict with my diet it's not true but I'm very conscious about what I eat even though I badly often. I know it's bad and I know I'm going to suffer for it too. I get migraines from alcohol I get you know I don't do well gluten sugar and I don't have a great relationship but I did anyway. But mostly we have a very healthy diet.

35:37 I got really great walking distance, very close walking distance with my trolley. I've got all shops here that I want.

36:15 I used to live in a very local area, full of locals. They would know which coffee I took etc. I missed it when I moved here because it was quite unfriendly in the beginning but there's been a big shift in... what happened because we've only been there two years and there's been a really big shift in the Chinese people I think some of the younger people are starting to take over and they are so friendly they're just so nice and really helpful.

#### The trolley

38:42 I inherited that when I got my boyfriend because I didn't have one before and I used to always carry big bags of shopping. So, yes I take my little trolley and

do all the shopping I like it. I like shopping for food. I try to make my own stuff when possible, I make my own laundry detergent and I make my own face creams and body creams and stuff like that to myself when I can.

#### Getting to her clients

40:43 I love my clients. But getting to their places it's not my favourite thing. Just because I'm always rushing. I have limited time and I'm always running, running... I do like it on a Thursday morning if I get up early enough and I'm not rushing. Getting on the bus on a Thursday morning to go to UAB because it's close. And as the sun is now out. And I have to be there at 9.10. It's one of the few days that I am out of the house in the morning. Because I usually work from home in the morning. I walk two blocks to the bus stop, jump on the bus and I get off and walk two blocks. It's really easy, close...

#### Being outside

42:33 I know I like walking. I love the sun, being out in the air even though I know it's contaminated. I spend a lot of time inside. I also think it's being a bit around people. Because I work for myself by myself pretty much. My hole day is very intensive, I do one-to-one listening to people. I don't have colleagues particularly. So, being outside I free, there's people, there's light and air. And I am not rushing somewhere. I like when I am not rushing somewhere.

Thursdays... If I am on time... today, this morning was beautiful I rushed out the door because I wanted to have a coffee with Izzy but I realised I was not having enough time but then I was still gonna be early. So, I got out of the metro, I walked across the square I like that feeling of freedom. I was raised in a farm of 6.700 hectares. We had very few trees and you could see for milles and I have that expensiveness in me that I had to accept living in a city where I don't have that. But when I have that feeling it feels home.

#### Feeling the freedom

44:53 I get that feeling sometimes when I am cycling down Passeig de Sant Joan, because it's got that strip and riding fast and feeling the space. Being in a particular bike lane where you don't have to worry about traffic.

#### **Patinetes**

45:20 I am not bothered by them, except that they might be a bit dangerous sometimes, people I think they are less safe on one of those than on a bike. They don't seem to have a lot of awareness. I have to be honest that the main concern about those, and I've thought about getting one is that I get exercise by walking. And what concerns me about those, is that people are becoming less and less mobile. At least if you take the bus you walk from our home to the bus stop.

#### Lack of awareness

46:15 However, I think that they are environmentally better than certain motos and things like that. I wander sometimes, being Australian, the safety of kids on those: parent on the back kid on the front (in one same scooter). They even don't have helmets sometimes. It's good for the environment, but it's gonna make the bike lanes more crowded.

#### Car rental & transparency

47:26 We rented a car once to Delta for a weekend, through PepeCar (form PepePhone). They are very transparent about their costs. If you were PepePhone customer it use to be cheaper to rent a PepeCar. It used to be very convenient, you rent a car go to the airport walk 5' and get the car. You had to wait for a while but it was very economic. Booked it online. I heard about it though a friend, she is English and has a Catalan partner. He knew about it. But I had to become a PepePhone customer. Everything is about cost for me.

(From within the cheap options, you chose the one that is transparent upfront). I am Australian, I am very bold. For me clarity and transparency are very important. It's not very easy to find here, I think.

#### Sustainable products/services

50:31 I spend more money on stuff for being more sustainable too. I spend more money on garbage bags that are biodegradable. It costs a bit more, but I buy those. I prefer organic meat. I'd walk further or go further to get something that is more sustainable.

#### Sessions/payment policy

52:41 My piano and english students pay me monthly. You pay for that sessions that month, I keep that time for you, if you need to cancel I need at least 24h so I can consider getting someone else. But, finally, I don't work like this... I am overly generous with my students.

53:39 As a result, I spend my entire life rescheduling people. It's become ridiculous. I am even forgetting stuff... They say, this day and hour, but then I realise I can't get there on time. I am constantly changing things.

#### Planning my days

53:55 In essence I have a route. Mondays look like this: I go here, here, here. So, at the beginning, when I have my day I work out where to go using an app, how to get there or maybe I know the quickest way. Sometimes I do that when I walk to the metro for the first time. And then I am in the metro and think "getting a bus would had been better..." So, I am not really good at planning my routes in a lot of time in advance.

#### If work to do, longer trip but less changes

54:41 Sometimes I am at home and I work out where I am going. Look on the app, find what they recommend, it might depend on the weather. Maybe cycling is quicker, maybe I need to do some work so I go by bus.

Maybe less changes with a longer trip by bus might be better than shorter trip by metro with lots of changes if I have work to do.

of listening to YouTube American news

my guilty pleasure except it's not really a

pleasure. Makes me so frustrated.

comedy shows about Donald Trump. That's

That is a little guilty pleasure of mine actually

is to get on a train. If I've got lots of changes

it's not enough time to get everything out

and then you know so. So sometimes I do

phone calls that I need to make. Sometimes

I send messages to friends or I I get this real

buzz with oh I've got a moment to watch

something or listen to something and so

I put my headphones sometimes it's also

something for my coaching like watching

another coach or a speaker or something

Yeah that's I quite enjoy doing that. Now

watch something have a bit of a laugh.

a TED talk or something that interests me.

my scheduling stuff. Sometimes I make

55:18 But I often do my planning, let's say I had a change for Tuesday, I am on the bus on to the first appointment and I am quickly looking how I get from there to the next one. Often very last minute, I am also often late. That happens a lot, but my clients like me enough that they accept it. I don't like being late, but that's the price you pay of saying yes to everybody.

56:19 I use Google Calendar for everything because I find the colours very useful. My English clients are one colour, my piano another, office work another, my coaching another...

I like to see it at a glance, for example for the English classes I need to prepare each one ahead of time. I can see where I need to be for example. I can see okay today I have a busy day because it's all english classes.

59:18 I can see more students if they all come to my house and ask they'd change your agenda constantly.

#### **Mobility time**

59:32 Part of it it's my calendar actually. Because I've got a bit of a visual idea of the that if I see that much gap I know it's about half an hour and I know how long it takes me to get from one place to another. I've always had quite a strong visual memory that sort of thing. It's not as good as it used to be but so I look at my calendar.... and that that visual thing helps me so the colors of the diary so much because there's also I can see the gaps and then I know how much time I've got. Because I've been doing this for nine years travelling with it how long it takes to get from different parts of Barcelona.

1:01:27 To be honest I kind of like the buzz of the disorganization and I do it quite well. People actually think I'm a very organized person so that I seem to be good at that time of faking it a little bit. 1:02:50 I do most of the planning via

WhatsApp. I don't have a verbal memory

at all. I've double booked people, I do this constantly because I have a client for example and as they're leaving they say OK I can come back... Bye. And they walk out and running and start preparing for the next thing. Forget to write it down.

1:03:56 I'm very seriously considering staring finding a virtual assistant as I am finding it's just getting too much and it's it's not what I want to be spending my time doing. I've got so much more to be doing with my time than this stupid thing that I'm so not good at. Organizing my schedules so I'm thinking of employing these virtual assistants in India that are quite reasonably

1:08:50 I do an exercise. This is new. I found somebody to exchange a coaching class with an exercise class because otherwise I do no exercise. I just started that so to their grooming exercise walking running low know horrible things we'd like bands around your knees and doing squats.

1:14:27 I got better at organising the days. For example this was not how I did this. And then suddenly I realised that my my 15 year old student her, which I used to see her at five thirty and I was always running late, she finishes school at 2 o'clock. Well could we have a class at 3 and she said yeah. God that's so much easier. So I go from here to her place and then back here and here means I get every year on time.

A lot of that kind of adjusting things. And sometimes it takes me months to realise that I've got a better option.

1:17:29 I think I prefer the days when I take buses like a Thursday. But a day like this is less fun than that. Well... that's a Wednesday.

#### Mondays (long traveling day)

1:17:48 If I was to draw a Monday I go all the way to Vella Terra in the morning then I go from there to Hospitalet it takes me an hour and a half to get there. And then I go back home and I have 45 minutes to have lunch take a nap. So I'm usually knackered and then I walk to my next student across the park with loads of things because it's young. Young children 5 year olds that are learning to read and write in English so I have to take lots of games and toys. From there I've got to run to Sagrada Familia. And then I have to run home to another student, you know those days are long days for the travel. It takes me an hour to get to Vella Terra, an hour and a half to get to Hospitalet and another hour to get

#### Gaps in diary

1:19:18 I don't draw a map in my head of distances/space. The time, I see it as those gaps. I actually see it as a space in my diary. That's and that's probably why I've a problem actually. So I do see it in terms of that gap that I've got between classes.

(shows schedule in phone)

#### Efficiency in the Metro (exits)

1:20:29 How I see the transport, yes, I see in my head that map of I've to go from here to here. Yes, that is in my head as a picture. I go from here to here. I even work out which end of the train or Metro I need to get on. So that when I get off I'm at the right exit. So, sometimes I loose some minutes thinking about it. I try and make those decisions beforehand.

1:23:59 So I already know that I've to leave to get somewhere on time. And so I think for example with this student I need to leave the house at (x) in order to get there at (x). That is what's in my mind... And if I leave late, later than that, I'm done. I'm trying to work it out that I think in my mind to have to leave 10 minutes earlier so that if I'm running late I've got a 10 minute gap. Activities while commuting

1:24:33 I've gotten into a really bad habit

#### P7. Interview Marc

#### Personal information

He is 24 years old From Reus Studying at university in Barcelona

#### Personal background

01:41 Jo soc de reus. Hi vaig alla normalment un finde si un no amb tren. Aquest any estic treballant i estudiant, a la Elisava.

02:05 Es el primer any que tinc la moto a Barna. Sempre m'havia mogut amb metro i tren, i molt millor així.

08:09 El primer any de carrera vaig viure a casa del meu avi. Que llavors va entrar el meu germà, que nomes li trec un any. Despres va arribar la meva germana, i clar ja no hi caviem i vaig mudar-me a un pis d'estudiants. Bastant millor, he apres a fer tot. Tens molta més llibertat.

13:46 El problema ara mateix son els cuartos. M'ho estic pagant jo tot. I m'agradaria anar a Australia, Sud America... quan acabi la carrera. Pero bueno tinc un cosí a Austria. M'agradaria poder marxar.

20:48 M'agraden els esports individuals, perque et poses tu l'equip. Abans feia Basquet, pero vaig canviar a atletisme, i ara

21:56 Al principi anava a la piscina amb moto. Pero al cap d'uns dies vaig pensar... he de fer una volta! Caminant es mes rapid, i desde llavors es molt millor. Estic contaminant de mes, que tonto soc.

23:03 Si vaig a la uni vaig amb moto, baixo montaner (RECTE) i arribo a les Rambles (RECTE). Per anar a la feina, baixa Pau Claris, Via Laietana i arribo al Maremagnum.

Calculo per girades, rectes. Si he de portar coses a casa del meu avi vaig a peu. Si no

amb moto perque es pujar Casanoves, girar a Amigo i es tot recte cap amunt.

25:04 Agafo la moto bastant mes del que m'agradaria. Perque se com esta Barcelona i se tota la gent que hi ha, tota la sobrepoblacio que existeix i realment esta agafant la moto per anar a comprar el pa. I ho entenc, si ho puc fer amb moto perque ho he de fer a peu?

Pero m'intento convencer a mi mateix. A veure, llocs que estan lluny com la feina vale, pero coses que estan a una manzana pues caminant. Ara realment ja ho tinc mes assimilat. Al principi de la moto clar la vols fer servir per tot.

26:18 El dia que vaig adonar-me de la tonteria que estava fent va ser quan anava al gimnas i despres al supermercat. I havia de tornar a casa carregat amb la moto: una bossa a cada costat del manillar. Vaig plantejarme fer les coses com deu mana.

30:24 Si soc jo el que va cap a ells, jo vaig amb la moto. Pero si estem tots i anem per exemple a la platja, anem amb tren.

32:15 Jo obro la finestra i veus la contaminació. Em fa sentir impotent, perque saps que no pots fer re. Molt mal ja esta fet. Pero puc reduir-ho anant menys amb moto, no comprant carn d'animals que han estat cuidats a granges super poblades.

33:28 Reciclem gracies a un Mallorqui que vivia aqui al pis i era vegetarià i amb ell reciclavem. I clar si no ho feies, s'enfadava amb tu. Per tant quan va marxar et queda l'habit i vam continuar fent-ho.

35:10 Odio el tren i es algo que em posa molt nervios, perque son 2h de tren per anar a Reus. No es tant, pero posa les vegades que tens seient, les que vas de peu, les vegades que arriba tard... no m'agrada. Pero simplement pel fet que veus el mar en aquest trajecte, dius okay.

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El mar es molt important per mi, des de sempre.

44:45 Quan m'he de moure, sempre faig servir Google Maps. I miro les rutes, si he triar entre Metro i Bus, acabo triant bus. Normalment sempre es el mateix temps i pot ser son 3 min amunt o aball. Soc una mica claustrofobic, no a espais petits pero a grans multutuds. A mi quan el metro esta ple... no m'agrada, ho passo malament.

#### Map activity

#### Patinet

45:39 No em crida gaire l'atenccio perque no tinc moto. Pero el sistema m'agrada.

#### Bicing

46:07 Vaig tenir Bicing els primers dos anys. Vaig acabar una mica cansat: ara hi ha bici, ara no hi ha bici, ara em multan perque no he deixat be la bici... Pagaves 25€ al any despres van passar a ser 50€. I cada dos mesos m'arribava una multa de 50€ per deixar la bici tota la nit fora de lloc: perque tu la posaves alla pero s'enganxava malament. No et donaves conta, i multa.

#### Walking

46:49 Normalment tenia la T-jove d'una zona i combinava amb caminar. Un trimestre vaig perdre la T-Jove a la setmana de comprarla, i no volia comprar una altre. I vaig moure'm a peu tot un trimestre sencer. De la uni a casa: baixar Muntaner, agafar Catalunya i baixar per les Rambles. Pues ho feia apeu. Em vaig sentir bastant sa. Barcelona es xulo, tens botigues, es entretingut. El tros de les Rambles, cap a la tarda, era molt agobiant. Anava rapid, fent zic-zac i que s'hem passes el mes rapid possible. Normalment mentres camino vaig amb musica, vaig variant de tot tipus.

#### La Musica

49:00 Escolto musica per esbairme de tots els sorolls de la ciutat; tots els cotxes, la gent

cridant. I aixi estar al meu mon. La meva habitacio dona a un balco molt petit. I a vegades deixo les portes obertes aixi entre l'aire i el sol, pero just quan obres les portes entra tot el ranou dels cotxes, abmulancies... M'agrada pensar que m'he acostumat, pero just quan obres i entra tot el soroll de cop.. bff penso quina merda. A Reus vivia apartat, tenia granjes al costat i hi havia poc soroll. Sentia el mar des de casa. Per tant aqui a Barna, la musica m'ajuda a desviarme de tot aixo.

50:25 Amb la moto no escolto musica, tot i que ho he fet algun cop. Pero no em molesta, formo part del soroll de la ciutat.

#### Taxi

51:35 Quan sortim de festa agafem taxi, es molt mes comode. El bus l'has d'esperar i tarda molt, no arriba. Set passa tota la taja de cami. L'agafem amb mes gent, i intentem omplir cotxe.

52:19 El primer any anava mes amb metro, pero quan vaig descobrir que podies anar a casi tot arreu amb bus, que hi havia molt mes bus a Bcn de lo que em pensava. I em possava a Google Maps i em portava directe amb bus.

53:42 Arago m'ajuda a guiarme a Barcelona.

54:19 Amb la moto pots anar de porta a porta. La deixes a l'acera i es molt facil. Si em quedo mes rato tipo 1-2 dies, la deixo entre les lineas be. Pero si son tipo 4h la deixo a la cera de qualsevol forma. Sempre mirant si hi han motos al costat.

#### Coach surfing

55:32 N'hem tingut uns quants aquest any i com que jo estava molt a casa els portava a coneixer a Barcelona. M'agrada molt coneixer aquesta gent. Pujavem a la moto i els portava de ruta: Tibidabo, Montjuic, etc.

#### P8. Interview Jan

#### Personal information

Born, raised and still living in Berlin. He is 38 years old Works in an IT company in Berlin. Lives in Tempelhof - Schöneberg with his girlfriend.

Jan audio 1.mp3

02:15 I am an original Berliner, I am 38 years old, I live together with my girlfriend in Schöneberg, it's in the inner circle line of Berlin. I work for a sports association, we organise the TV games and we manage all the IT, life-scoring, website, relaunch... I just started, a year ago. Before I was working in a little IT company.

02:40 That means that you have the traffic ring, that splits the center of Berlin with the outside.

03:56 While I was working in the little IT company I was studying sports management and once I finished I moved to the next company.

04:16 I grow up in the outskirts of Berlin on the former border of Berlin, in the south. I grow up there and went to school there until I was 24. Then I moved to the inner circle. I moved out very late of my parent's house.

05:33 I started studying when I was 31, late.

06:25 I lived in 4 houses here in Berlin, counting the one of my parents. Once in a WG with some friends. I moved with her 6 years ago, in the same apartment. My neighbourhood is pretty famous in Berlin. The area is very famous if you live in the centre. Because it's quiet but it's very close to the places.

08:29 I play field hockey a lot. I am doing it 1 or 2. week. I played in the 1st league in Germany, but you did not get paid. Specially in my club, that it's like a family. You don't

go it to earn money. Many of my best friends play hockey as well. It is a bit more than a hobby, because most of my friends and myself we do work for the club. Without getting paid, and we have responsibilities. I have a part in the club management and we communicate with the national organisations for example.

11:50 In these last years, in Germany, it is common to do non-profit activities. For instance, an activity for kids that you manage and organise with your friends. Which is good for the kids, for the club, etc. And almost no one gets paid for it.

14:04 For me sports are important. I do hockey but also jogging, bouldering, etc

14:53 Where I used to live, where my parents live, it's very quiet. Because the former border was there and there's a small wood right in front of the wall. No traffic, anything that can disturb you. It's like the end of west Berlin.

15:32 I would like to still live in the city center (inner) of Berlin some more years. Maybe one day if we have kids we would move to the outskirts. But it's not my dream to own a house. I can live until the end of my life in a flat if it's nice.

17:42 The last job I had it became boring, that is the reason why I started studying. My dream was to have fun with what I am working with. Maybe it's 90% now, I don't look much on how much money I earn now. My goal is to earn as much that I can go on a long trip once a year to a far destination.

19:27 Now there are these jobs where you can do home-office. And now that is not an option in my company. But I would like it a lot. I might talk with the CEO about it. Me siting on the kitchen table working, then putting the computer away and doing some private stuff. That would be the next step.

Why? Sometimes we have a day or week that the work load is very low and then we also have times when we have to work like a crazy week. Sometimes you have nothing to do and you can spend time at home more effectively. Or maybe changing environment can be inspiring too. I think this could be a good point!

23:56 I am very perfectionistic. I might give a report a day later, because I want to be sure I have done my best. In sports I also feel like this. I take everything step by step, my girlfriend likes to do everything NOW.

#### Map activity

-28:24 Where my parents live, this is where I lived all my life almost.

-30:25 In Berlin you have the A B C area. And in public services

-30:23 In Berlin, this line borders the different areas in the city, specially when using public transport. There are 3 areas: A B C. This linea I draw delimits the A area, the center. We still have in mind the former border, because it delimits area C.

-35:47 I have 3 bikes. I have a tracking bike, a really shitty bike (that I can lock and leave it for 5 days) and my little classic bike which now we have it in the apartment as decoration.

-38:39 I don't have a car anymore, once I did. When I was 18 I bought my own car but it broke down when I was 22 and I never fixed or replaced it. I use the car of my parents. I do it once or twice a month. Just for the weekend or to move stuff from one place to another. Or for a long weekend, like going to Hamburg.

50:56 I have to be around 9 at the office. I go by bike, if it's raining very hard I go by public transport. Specially in winter. By bike it's 25 minutes, some streets and corners are too full in the morning with the traffic. Some streets the bike lane is good, some others you are with the cars. So, some parts are not very

good to go by bike.

52:55 I go the fastest way, which I know. Not the shortest probably. For me the best is to have long streets without traffic lights.

53:43 Now that better weather is out, you start feeling that people are switching from public transport to bikes. As a result, the streets are full.

54:15 If I go to work by public transport I walk to the station 5 minutes and then I take the S-Bahn, I do 6 stops. Then I am in Filschstrasse, it's a famous traffic point where many lines are going. Then I change to another S-bahn.

56:11 In winter... you don't have a seat in the train in the morning. It's like the Tokio metro, very close to that. That is between 8 and 9.

## Personal / Working tasks during commuting time

56:36 In that time I use my cell phone, writing some private emails or checking my working emails. <u>Usually, when I go to work by train I do private stuff in my cell phone because those 30 minutes that I have I like to use them to do some personal stuff, so I don't have to do it at home. I might arrange some meetings with my friends or I set up stuff for the hockey club. Online shopping, not that often though. And sometimes reading news. Always on my phone, there's no place to turn my tablet or computer on. It's really rear that I sit and look outside the window, I would then be texting someone or call or I listen to music.</u>

When I go by bike, sometimes I try to do some voice messaging on the bike, to make some notes... because those 30 minutes that I have I like to use them to do some personal stuff, so I don't have to do it at home.

1:00:11 When I go to the hockey club I go by bike it's 15 minutes. But if I have to carry

stuff I take car sharing (Car2go). The good thing about the hockey club is that it's right at the border of the "using" area. Then I can park there! That it's a good spot, and it's only 5 minutes by car.

1:00:41 Last time I used Car2go was because me and my GF had a birthday party. And it's not that much fun to go by train or bus back home, which is like 30/40 minutes. The way to the party we went by public transport. In the evening we wanted to go home faster. Also, if you wanna cross the center of Berlin in a Car2go on a Friday at 18, it's horrible you stay on the traffic and you pay for it. So, we went by public transport.

1:03:56 When I am in the public transport do some organisation stuff for myself. But I prefer to be outside by bike, body activation two times a week, I am always sitting in my desk. It's my favourite way to go to work. That concerns me to be sitting all day of the year.

1:09:46 Last time I borrowed my parents car was to have this little holidays with my friend. We went to the eastern coast of Germany. It was easier to go by car over there, well maybe not easier nor faster. But when you are around there it's easier to move around.

1:15:20 I don't miss the car, it makes me lazy. Only when I need to carry stuff. Because the rest gets super expensive. I prefer to spend that money with something else.

1:18:54 I sometimes use taxi to go to the airport. That depends on the hour of the day. I mean, I wouldn't go by taxi at rush hour.. makes no sense, would be spending money while being stopped.

#### Phone Apps:

Maps, car2go, DriveNow, RegenRadar, DB Navigator, Öffi Verbindung. I use this very accurate app to know the weather, the rain.

1:26:36 When I go to a new place, I like going by S-Bahn so I see where I am and I can step out when I want.

1:29:05 I used Blablacar when I went skiing with my friends in France. It was great, they picked me up at my door and leave me very close. Best option so far, I would do it again. I also did it when I had a girlfriend in Hamburg, like 10 times. It was good.

1:39:37 I one day had the idea to have a 4th bike. A cargo-bike, to carry stuff. But they are very expensive, 3.000 or 4.000 euros....

The Berlin government is doing some subventions to empower people to buy this kind of bikes instead of a car. They want to have a green city. They will help you up until 30%

#### P9. Interview Jasmin

#### Personal information

Journalist and author, novelist. Biologist, Illustrator, Copywriter, Photographer 31 years old Living in Berlin for the las 2 years Originally form Frankfurt

#### Map activity

05:34 I take pictures of babies that die in the pump. For that I have to run to the hospital, usually in the middle of the night, to meet the parents and take the picture. It's 3am in the morning and I have to go 15km away that is why i use mytaxi a lot. In the middle of the night, in Berlin as a woman... with a 500eur camera equipment..

21:54 I start to feel how Berlin is taking me. I see a lot of people that got depressed in this city. So, that is why the first think i will do when I get money from the books is to get the driving license! My dream is to get a car to get away of this city and go to the mountains with my dog. I hate cars and everything connected to cars, I really don't understand why people can have devotion for cars. For me a car it's just a tool. I have this dog which is getting old and it's huge. My stepfather is ill and I have to go to Frankfurt more often, and I need to change 4 times the train to get there... with the dog.

24:52 I got as my 18 birthday to get the driving license from my mum, but I never did it because I never needed it. So, most of the times I ask friends to drive me.

33:47 I use the bike to go to the supermarket because it has a basket in front. Or, I go with my dog I have a box and I pull her behind me, like children. When she is tired, or I have to bring her to the vet, because I don't have a car.

35:39 I walk a lot, of course I also have a

yearly ticket for the public transport. If I am in a hurry I use public transport.

40:53 I go a lot to green areas like 1 hour from Berlin with my dog. We go there with different means of transportation.

42:10 I have this... I walk everything under the range of 1 hour. Usually it's like 6 or 7 km. Public transport gets me so annoyed.

43:05 I really hate the bus. Everyone crowded inside, where you can't move. And it's too personal I don't like it. Then you have the driver, who sees you running and then says you NO! I use then the S-Bahn.

47:11 From home to the agency it's like 55 minutes walking." I always say If it's under an hour it's okay!" It's a psychological limit. I mean I am living in Berlin, even if I take the public transport it takes 40 minutes, because of all the changes. Okay, then 10 minutes more who cares? And then I know exactly when I will be there. If I am out of one and waiting for a tram and it doesn't come then I am fucked. If it is something very important I walk because then I know when I will arrive.

48:02 When I walk I think... I work! I think of new ideas for the books, for the plot.. I need motion to think.

50:07 I go to that hospital walking and with subway. It's a nice mix of them. I would have to go by tram and then subway. But I walk and then subway. The way to the metro is beautiful and then the metro ride it would be full of crosswalks if I would walk.

1:02:11 In Berlin you have the walls and the river, so every public transport stops there. So, I walk. I maybe go by S-Bahn until there and then I walk.

Because I also don't like at all changing means of transportation you never know if the second one will be there on time. In Google Maps what I do is I look at the map instead of the list, because then I know where to walk.

1:06:15 If I am I by public transport somewhere and I realise I am too early then I just get out before and walk.

1:07:03 I just realised that if you have to change mean of transportation you need to consider 20' for the in-between changing. I also realised that wherever you want to go in Berlin it's around 30 and 40 minutes. It's 10 minutes window between one and another one and then one cannot come and you would still be on time.

1:08:28 I started walking because last year I was sick, I had to stay in the hospital a lot of time and I gained weight. I used walking to be healthier. I also use walking for learning stuff, I realised at university that I can really walk. I have HTD and the movement makes space in my brain, it calms it down.

1:14:23 I hate flying, I think it's very bad for the environment and then I use train. I know by plane would be 1h to see my parents in Frankfurt but still I choose the 7 hours of train. It's nice because I can work and I am not killing trees.

1:18:11 It's also nice in the train because I can work, I know I have to be there 7 hours, can't get out, then I work. I usually get first class so I can work and it's more comfortable.

1:24:25 I just have this inner feeling... that I don't want a car. I have to get over this feeling, cars destroy the environment. So, I still have to convince myself. I don't care how it looks like and I want it as small as possible, just see all these streets full of empty cars. I would buy it electrical but there in the mountains there's no where you can charge it. A cheap car I will have to throw it away in few years.

1:31:25 I like how Berlin is evolving with the electric-sharing-schooters. It's super sustainable, small it doesn't occupy the space like a car. Super silent. A lot of my friends are using it. You drive with the cars, but you can park on the sidewalk.

#### P10. Interview Karin

#### **Personal information**

55 years old

She is half Mexican, half German. She has been living in Mexico for her entire life since 3 years ago, when she moved to Berlin with her two kids.

She teaches the Spanish language to German people, she is a freelancer.

Karin 1. mp3

11:20 Guardo una hora entre clase y clase. O media hora si esta cerca, pero tiene que estar cerca, cerca. A parte del tiempo que necesito para desplazarme, tengo que contar también algo que pueda suceder. A veces los trenes no van a la hora.

12:28 He aprendido a aprovechar dias como hoy, porque no hay muchos (sol). Por eso andas un poco más, en lugar de ir en metro, bajo unas paradas antes y camino. Aprovechar la temperatura, aunque no pueda estar mucho al sol por que me han quitado dos melanomas.

20:25 Para mi trabajo es muy importante la tarjeta del tren. Berlin tiene 3 anillos. Mi tarjeta llega hasta B, si voy a C me cuesta extra. Por lo tanto yo a mis alumnos les digo que no... porque me cuesta no solo dinero, pero tiempo.

01:29 Me encanta ver a la gente y de hecho, trato de tomar el tren ligero, porque allí puedo ver y estar fuera, en vez de dentro. Pero para mi primero lo más importante es que llegue a tiempo, y luego miro el clima. Ya hay muchos meses oscuros en Berlin como para estar en el metro mucho tiempo. Muchas veces no puedes evitarlo, pero si puedo coger el bus o el tranvía o tren ligero lo prefiero, antes que el metro. Y a parte sus estaciones son horrorosas. Me gusta poder ver, siempre hay algo nuevo y más en Berlin.

09:41 Mi hija vive en una calle de un solo sentido, de la parada del tren ligero a su casa,

tienes que tomar un autobús que te deja en casa de Andrea. Pero cuando quieres volver, al ser la calle de un sentido, no puedes coger ese mismo autobús. Y no hay alternativa... bueno, andar. Es precioso el camino, hay un rio y mucho verde.

21:36 El bus es muy impuntual. Siempre tienes que mirar a qué hora llega. Por eso me gusta el autobús cuando hay muchos seguidos. Si esta lloviendo lo que hago es, voy a la parada del bus me espero a ver si llega o llego a tiempo y sino voy andando. No me va muy bien porque andando iría por otro camino. He cogido el bus una vez, es que no tiene mucho sentido. Es que entraría en conflicto conmigo misma de no andar esos 15 minutos.

36:47 He aprendido que si tengo que ir al aeropuerto, me sale mas a cuenta ir a Alexanderplatz en tren ligero y luego entrar en el bus que sale desde allí. Porque entonces el bus esta vacío allí, y puedes entrar con las maletas. Y así es como lo hago, sino esta demasiado lleno, he tenido alguna situación de no poder entrar o estar pegada en la puerta.

39:48 En Google Maps, pongo solo el nombre del estudiante y directamente me manda allí. Por ejemplo, Roberto. Me sale directamente como llegar, yo lo que hago es "llegar a". Cada vez que me piden una clase miro al momento cuánto tardo "de", "a".

43:37 Siempre salgo un poco antes. Si sales a la hora que Google Maps te dice... a mi me gusta andar y mandar un mensaje ahora... Es que si sales a las 8.00 como dice Google Maps, vas a saco. Me gusta llegar antes, y si eso comprar un cafe. Pero bueno sí se me hizo tarde, claro que corro.

Appendix 1

# Interviews experts

### Interview guidelines

## Regulations, laws and policies experts

#### 1. Current situation

How do regulations affect the mobility we know right now?

Which stakeholder are involved in the policy making process?

Which is the role of the government? And town-halls? And EU?

#### 2. Vision (open-ended discussion)

How do you imagine the future of mobility? Which observations are the base for that vision?

Which other domains do you think that will play a key role in that vision?

Which cases did you see in the past that surprised you?

Which is the hidden agenda from regulators/policy makers? Which are their plans?

#### 3. Ending

Show user research findings: 'choice model' & visual insights

Discuss the elements from the 'choice model', specially, the external factors.

## Urban planing and urban mobility experts

#### 1. Current situation

When conducting a project, which aspects of a city do you look at?

Who are the main stakeholders involved? Which are the latest projects leading to a mobility transformation? Can you name an innovative development?

From past experiences, do mobility solutions have to adapt to the city structure? Or the city structure has to adapt to the mobility solutions?

How do trends and developments influence the design of a city? Which are these trends and developments?

#### 2. Vision (open-ended discussion)

How do you envision the city of the future? How do you imagine Hamburg in 2040? How will the city of the future be structured?

> About sustainability? About well-being? About space/environment? For which type of vehicles?

Which are the biggest challenges that urban and regional developments will face in the future?

Which problems do you see emerging in the context of urban mobility?

Smart city has become an increasingly popular term. How do you think urban planing enables this future concept? Which role does it play?

#### 3. Ending

Show user research findings: 'choice model' & visual insights

Discuss the elements from the 'choice model', specially, the external factors.

#### **Technology expert**

#### 1. Vision (open-ended discussion)

How do you imagine the future of mobility? Which observations are the base for that vision?

Which other domains do you think that will play a key role in that vision?
Which cases did you see in the past that surprised you?

Any example for new technology that changed people's behaviour in an unexpected way?

Which trends or developments do you think that will change the current mobility that we know?

## 2. How tech will empower us to...? (the impact of tech on people)

How tech will empower us to be more sustainable in the future?
How tech will empower us to have a better well-being / healthier in the future?
How tech will empower us to have more financial wellness in the future?
How tech will empower us to be faster in the future?

#### 3. Ending

Show user research findings: 'choice model' & visual insights

How to integrate the technological level in this model?

### Interview key quotes

## Technology brought new services, but regulations did not catch up yet

(Jenny W. - Public Affairs - mytaxi) Mobility regulations and laws need to be updated, specially the ones for taxis. Private companies are putting pressure for this to happen since their businesses depend on them. Technologies allow new types of services to exist. Some of this services are based on regulations that are too old.

#### Unbalanced market due to regulations

(Jenny W. - Public Affairs - mytaxi) Companies that have old regulations can not compete with companies that have new regulations. Because the level is unbalanced already from the beginning, the service itself it's not what creates the competence.

#### Trail and then over

(Jenny W. - Public Affairs - mytaxi) A lot of new mobility solutions work under a 'experimental clause', meaning that after 4 years they need to stop.

## Regulations are political parties, political parties are people, relationships.

(Elia F. - Public Affairs - mytaxi) Regulations and law are done by a political party which are just normal people. If you want a law to be approved you need the stakeholder engagement and be very persistent.

Mobility decisions are city-specific (high level of complexity, thus, EU regulation for all mobility platforms)

(Elia F. - Public Affairs - mytaxi) Brussels gave the authority to each EU members, they want to avoid the mess. Then, most of the times, the governments give to the local authorities the power to decide on mobility issues. Thus, mobility regulations are very city/town specific within the country.

## Collaboration between private and public organisations

(Elia F. - Public Affairs - mytaxi) In 5 years everything that can be digitalised it will be. Specially in the public sector, they will collaborate with private companies in order to get their data and be competitive in the market.

#### Flexible regulations, but not liberal

(Elia F. - Public Affairs - mytaxi) A price regulation will be done, a flexible one, it will not be a liberalised market like in the US. It will not be a general one in EU, but it will be in the different countries.

#### A new EU law to regulate mobility platforms

(Elia F. - Public Affairs - mytaxi) There will be a clarification, a regulation of the mobility platforms in the EU level. In US it's happening, called 'transport network company'. The goal is to regulate all this platforms that offer mobility: fares, licenses, minimum wage, etc.

## Tech to understand and be aware about own health & well-being

(Deborah N. - Tech expert) I think technology could hep in overall well-being in the level of "how you feel". It could help people understand which transport mode fits well with them.

For example, I wore a stress meter for a while and that measures your variable heart rates and that defines your stress level. And I found out that I have a lot of stress when I am in the public transport. Then I might consider buying the 1st class if I need to take the train more often.

#### Well-being on the go

(Deborah N. - Tech expert) I think technology will also help to increase well-being. We will see more and more warbles that will help you relax and de-stress. For example, with brain waves.

#### The Fitbit it's just step one.

(Deborah N. - Tech expert) We will be able to track everything.

#### Meeting & matching people

(Deborah N. - Tech expert) In the relationships domain, social apps are taking the moves towards finding people around you, in LinkedIn you can turn this setting on and see who is around you from your contacts. In Happen you can find the people you've crossed paths with. Technology can help us to find people we know and they are around, but also to find people to you don't know.

#### How kids will learn in the future

(Deborah N. - Tech expert) For inspiring spaces, there are concepts where let's say you are in a car and you use AR. You look outside of the window though your smartphone, you it helps you learn about the city.

#### Hands-free online duties

(Deborah N. - Tech expert) Virtual assistant. There are getting more and more digital. Voice control. I allows you to do emails while you are walking, cycling, etc

## Gamification would work for sustainability.

(Deborah N. - Tech expert) They give you points if you have enough green days and then you can get a discount or renting a Tesla or something like that. How to monazite good behaviour? CO2 will become the next currency.

#### Responsibility-free attitudes & behaviours

(Deborah N. - Tech expert) Growing trend specially among Millennials to not own things, they don't want the responsibility to take care of it. Not for a financial o sustainability reason.

## Online Profiles - algorithms to fit preferences

(Deborah N. - Tech expert) Travellers will always choose: what do I want to optimise on: is it cost? speed? comfort? In essence this could help travellers to make decisions, for how to travel, that fit their preference. If in my profile I put what I find more important and the system gives you two options, they ask it multiple times and this is how the systems learns about you (tinder feature). People are unable sometimes to express their preferences.

# Consuming transportation - Finance/Cost (Deborah N. - Tech expert) I don't think there is one direction that is heading, but more about flexibility and adapted to your needs.

#### Understanding prices better

(Deborah N. - Tech expert) What tech can help you do, is understand costs better. Because one of the problems that hardly any consumer knows how much their car is actually costing them. And that is one of the bigger hurdles to not taking a car right? Or getting rid of your car.

However, if they take a public transport subscription they understand: this is the price.

#### Open banking & categorising feature

(Deborah N. - Tech expert) Technology can give transparency, because if your payments in your bank accounts are automatically assigned to clusters you can understand what goes where: taxes, maintenance costs, gas... Then you can make better decisions.

#### Type of people related with price

(Deborah N. - Tech expert) You have 3 types of people:

- -I want the cheapest option now, for this trip -People that understand better in business cases, cheapest option for a month/year
- -People that include value on the price, they don't only look at cost but the value they get out of it

(Jonas Fischer - Mobility expert HCU) The goal shouldn't be to minimise travel time. Because it won't result in higher travel satisfaction. Slower, but more satisfying travel modes (i.e., walking and bicycling) are being evaluated more positively than faster, less satisfying (motorized) travel modes.

(Jörg Knieling - Mobility expert HCU) there is a strong connection between settlement and mobility. So that new settlements are built near to public transport lines and train-oriented public transport (track - railway oriented transport lines). To reduce car mobility and densify those areas

(Jörg Knieling - Mobility expert HCU) Integrated and urban mobility planing that is the german vision for planing.

(Jörg Knieling - Mobility expert HCU) High pressure from the housing market here in Hamburg, urban planers are looking everywhere where to put them.

(Jörg Knieling - Mobility expert HCU) The city of Hamburg has planned to build new metro and train lines. But this is a very long

going process. What they are planning now will be finished in 10/15 years.

(Jörg Knieling - Mobility expert HCU) E-mobility shouldn't be the focus, still a lot of cars in the street that need the infrastructure (Blocking streets and parking spaces).

Appendix E

## Questionnaire

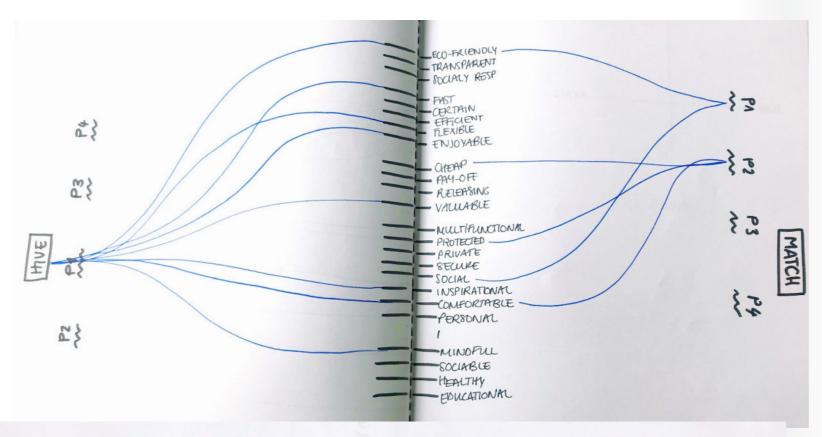
P=21, questionnaire to understand which are the attributes people relate to each mean of transportation FREE NOW offers.

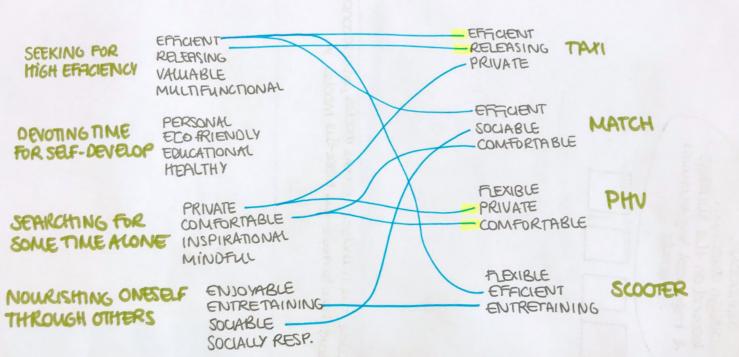
| if you have ever used a scooter (Hive, Lime, Her, vol)      |
|---|
| Which attributes do you relate to it? (Select 4 attributes) |
| Eco-friendly  |
| Transparent   |
| Socially responsible  |
| Fast  |
| Certain   |
| Efficient   |
| Flexible  |
| Enjoyable   |
| Cheap   |
| Releasing   |
| Payment flexibility   |
| Worth paying for  |
| Multifunctional   |
| Protective  |
| Private   |
| Secure  |
| Sociable  |
| Inspirational   |
| Comfortable   |
| Personal  |
| Mindful   |
| Entertaining  |
| Healthy   |
| Educational   |
|   |

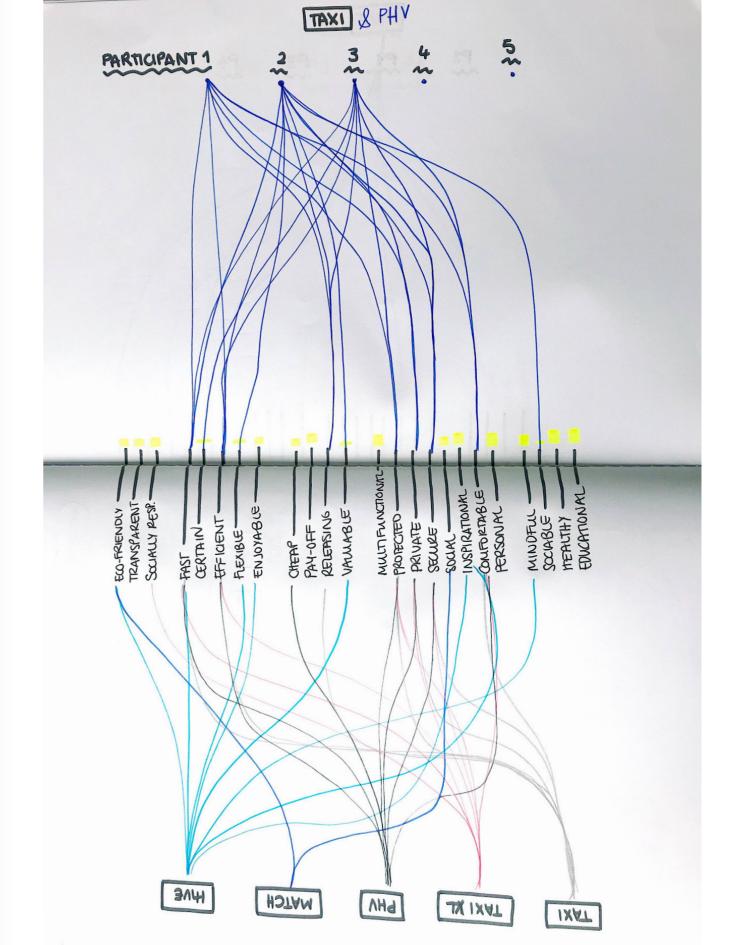
### Format & questions

| If you have ever used a taxi (mytaxi)  Which attributes do you relate to it? (Select 4 attributes)    Eco-friendly   |   |   |   |
|--|---|---|---|
| Eco-friendly   Eco-friendly   Eco-friendly   Eco-friendly     Transparent   Transparent   Transparent     Socially responsible   Socially responsible     Fast   Fast   Fast     Certain   Certain   Certain     Efficient   Efficient   Efficient     Flexible   Flexible   Flexible     Enjoyable   Enjoyable   Enjoyable     Cheap   Cheap   Cheap   Cheap     Releasing   Releasing   Releasing   Releasing   Releasing     Payment flexibility   Payment flexibility   Worth paying for     Multifunctional   Multifunctional   Multifunctional     Protective   Protective   Protective     Private   Secure   Secure     Secure   Secure     Sociable   Inspirational   Inspirational     Comfortable   Comfortable   Comfortable     Personal   Personal   Personal     Mindful   Insiditud   Insiditud     Entertaining   Entertaining     Healthy   Healthy   Healthy     Healthy   Healthy   Healthy   Healthy     Poscial   Personal   Personal     Personal   Personal   Personal     Personal   Personal   Personal     Personal   Personal   Personal   Personal     Personal   Personal   Personal     Personal   Personal   Personal     Personal   Personal   Personal     Personal   Personal   Personal     Personal   Personal   Personal     Personal   Personal   Personal     Personal   Personal   Personal     Personal   Personal   Personal   Personal     Personal   Personal   Personal   Personal     Personal   Personal   Personal   Personal     Personal   Personal   Personal   Personal     Personal   Personal   Personal   Personal     Personal   Personal   Personal   Personal     Personal     | If you have ever used a taxi (mytaxi)                       | If you have ever used an Uber, Cabify, Lyft                 | If you have ever used a car-pooling service                 |
| Transparent Transp | Which attributes do you relate to it? (Select 4 attributes) | Which attributes do you relate to it? (Select 4 attributes) | Which attributes do you relate to it? (Select 4 attributes) |
| Socially responsible   Socially responsible   Socially responsible   | Eco-friendly  | Eco-friendly  | Eco-friendly  |
| Fast   | Transparent   | Transparent   | Transparent   |
| Certain  Efficient  Efficient  Flexible  Flexible  Erjoyable  Erjoyable  Cheap  Cheap  Releasing  R | Socially responsible  | Socially responsible  | Socially responsible  |
| Efficient   Effici | Fast  | Fast  | Fast  |
| Flexible  Enjoyable  Enjoyable  Cheap  Cheap  Cheap  Releasing  Releasing  Payment flexibility  Worth paying for  Multifunctional  Protective  Private  Private  Secure  Secure  Sociable  Inspirational  Comfortable  Personal  Mindful  Entertaining  Healthy  Healthy  Entertaining  Entertaining  Healthy  Cheap  Cheap  Releasing  Payment flexibility  Payment  | Certain   | Certain   | Certain   |
| Enjoyable  | Efficient   | Efficient   | Efficient   |
| Cheap Releasing Payment flexibility Payment flexibility Worth paying for Worth paying for Multifunctional Multifunctional Protective Protective Private Private Secure Secure Sociable Inspirational Comfortable Personal Personal Mindful Entertaining Healthy Healthy Healthy  | Flexible  | Flexible  | Flexible  |
| Releasing Releas | Enjoyable   | Enjoyable   | Enjoyable   |
| Payment flexibility  Worth paying for  Multifunctional  Protective  Private  Secure  Sociable  Inspirational  Comfortable  Personal  Mindful  Entertaining  Healthy  Payment flexibility  Worth paying for  Worth paying for  Worth paying for  Worth paying for  Wutth pay | Cheap   | Cheap   | Cheap   |
| Worth paying for Worth paying for Worth paying for Multifunctional Multifunctional Protective Protective Private Private Secure Sociable Sociable Inspirational Inspirational Inspirational Comfortable Comfortable Personal Personal Personal Mindful Entertaining Entertaining Healthy Healthy   | Releasing   | Releasing   | Releasing   |
| Multifunctional Protective Protective Private Private Secure Sociable Inspirational Comfortable Personal Mindful Entertaining Healthy Multifunctional Multifunctional Multifunctional Multifunctional Multifunctional Multifunctional Protective P | Payment flexibility   | Payment flexibility   | Payment flexibility   |
| Protective Private Private Private Private Private Secure Secure Sociable Sociable Inspirational Inspirational Comfortable Comfortable Personal Personal Personal Mindful Mindful Entertaining Entertaining Healthy Healthy  | Worth paying for  | Worth paying for  | Worth paying for  |
| Private  Secure  Secure  Sociable  Inspirational  Comfortable  Personal  Mindful  Entertaining  Healthy  Private  Porivate  Sociable  Inspirational  Inspirational  Inspirational  Comfortable  Comfortable  Personal  Personal  Mindful  Entertaining  Healthy  Healthy   | Multifunctional   | Multifunctional   | Multifunctional   |
| Secure Secure Secure Secure Secure Secure Secure Sociable Sociable Sociable Inspirational Inspirational Inspirational Comfortable Comfortable Comfortable Personal Personal Personal Mindful Mindful Mindful Entertaining Entertaining Entertaining Healthy Healthy  | Protective  | Protective  | Protective  |
| Sociable Inspirational Inspirational Comfortable Personal Mindful Entertaining Healthy Sociable Sociable Sociable Sociable Inspirational Inspirational Comfortable Comfortable Personal Mindful Entertaining Healthy Mealthy   | Private   | Private   | Private   |
| Inspirational In | Secure  | Secure  | Secure  |
| Comfortable Comfortable Comfortable Personal Personal Personal Mindful Mindful Mindful Entertaining Entertaining Healthy Healthy   | Sociable  | Sociable  | Sociable  |
| Personal Personal Personal Personal Mindful Mindful Mindful Entertaining Entertaining Entertaining Healthy Healthy   | Inspirational   | Inspirational   | Inspirational   |
| Mindful   Mindful   Mindful   Mindful     Entertaining   Entertaining   Entertaining     Healthy   Healthy   Healthy   | Comfortable   | Comfortable   | Comfortable   |
| Entertaining Entertaining Entertaining Healthy Healthy   | Personal  | Personal  | Personal  |
| Healthy Healthy  | Mindful   | Mindful   | Mindful   |
|  | Entertaining  | Entertaining  | Entertaining  |
| Educational Educational  | Healthy   | Healthy   | Healthy   |
|  | Educational   | Educational   | Educational   |

# Visualisation of the first results

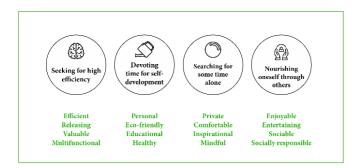




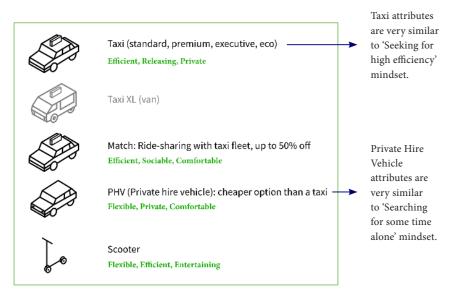


### Final results

#### Recap: Which attributes are related to which mindset?



#### Results: Main attributes related to each mode:



#### Results from questionnaire:

|                      | Taxi | Hive | Match | PHV |
|----------------------|------|------|-------|-----|
| Efficient            | 5    | 4    | 5     | 3   |
| Releasing            | 4    | 0    | 0     | 0   |
| Private              | 6    | 0    | 0     | 5   |
| Valuable             | 0    | 0    | 0     | 0   |
| Multifunctional      | 0    | 2    | 0     | 0   |
| Personal             | 1    | 0    | 0     | 1   |
| Flexible             | 2    | 7    | 1     | 4   |
| Educational          | 0    | 0    | 0     | 0   |
| Healthy              | 0    | 0    | 0     | 0   |
| Comfortable          | 2    | 0    | 3     | 5   |
| Inspirational        | 0    | 0    | 0     | 0   |
| Mindful              | 0    | 1    | 0     | 0   |
| Enjoyable            | 0    | 1    | 1     | 2   |
| Entretaining         | 0    | 4    | 2     | 0   |
| Sociable             | 1    | 0    | 6     | 1   |
| Socially responsible | 0    | 0    | 0     | 0   |
| Eco-friendly         | 0    | 2    | 0     | 0   |

Table showing the results from the questionnaire & the mindsets. It spots the attributes shared in each cell (green) and the different ones (red, blue).

|         |  |                                    |  | (2)  |
|---------|--|------------------------------------|--|--|
|         | Seeking for high<br>efficiency                       | Devoting time for self-development | Searching for some time alone                      | Nourishing<br>oneself through<br>others                                      |
| Taxi    | Efficient Releasing Valuable Multifunctional Private |                                    |  |  |
| Taxi XL |  |                                    |  |  |
| Match   |  |                                    |  | Sociable<br>Enjoyable<br>Entertaining<br>Socially responsible<br>Comfortable |
| PHV     |  |                                    | Private Comfortable Inspirational Mindful Flexible |  |
| Hive    |  |                                    |  | Entertaining Flexible Enjoyable Sociable Socially responsible                |

Mode & Mindset attributes' overlap
Mode attribute
Mindset attributes

Appendix I

## Workshop

Rethinking FREE NOWservice experiences. A workshop conducted with 10 designers & researchers from FREE NOW.

# Workshop: Rethinking FREE NOW service experiences

17/07/2019

@Charlie M @Alin M @Júlia F @Senana B @eric @björn @alba @vinicius @ronald

#### Context

As part of Julia's master thesis project about multimodality, this presentation aimed to share with the team the latests findings about the different 'mindsets' people have while travelling around the city. At this point of the project, after having understood which in-trip experiences people want to have while travelling, the goal is to think how FREE NOW can enable them.

#### Agenda

- Presentation (10 min): project summary and concrete information about travelling mindsets
- 2. Workshop (40 min): generate ideas for service improvements

#### Introduction

Presentation: https://www.dropbox.com/s/duoj2n131upji26/Design%20Stories.pdf? dl=0

The goal of this workshop was to look into the **current service types of FREE NOW** and think of which **features/new services** could be added in order to enable all different in-trip mindsets.

#### Workshop

The idea was to generate as many ideas a possible by trying to fill in these matrix gaps. Since 10 minutes were not enough to generate lots of ideas, each of us choose one column and tried to generate an idea for each service type. For instance, a possible question could be: How do you imagine 'seeking for high efficiency in a taxi'?

10 minutes

|         |  | $\triangle$  |  | <b>6</b> 2  |
|---------|--|--|--|---|
|         | Seeking for high efficiency<br>in a<br>(Efficient, Releasing, Multifunctional) | Devoting time for self-<br>development in a  (Personal, Flexible, Educational,<br>Healthy) | Searching for some time<br>alone in a  (Private, Comfortable, Inspirational,<br>Mindful) | Nourishing oneself<br>through others in a<br>(Enjoyable, Entertaining, Sociable |
| Taxi    |  |  |  |   |
| Taxi XL |  |  |  |   |
| Match   |  |  |  |   |
| PHV     |  |  |  |   |
| Hive    |  |  |  |   |
| Other?  |  |  |  |   |

### Results

#### Alin ideas:

| Aiii ideas.   |  |
|---|--|
| Nourishing oneself through others with a taxi/phv/taxi xl             | Ipads with games for kids  |
| Nourishing oneself through others with a taxi xl                      | Party bus  |
| Nourishing oneself through others with a taxi/phv/taxi xl             | Play Spotify   |
| Nourishing oneself through others with a match                        | Play trivia  |
| Searching for sometime alone with a taxi/phv                          | Headspace in ride or minutes for free                                  |
| Searching for sometime alone with a taxi/phv                          | Tell the driver (feature) to not talk                                  |
| Searching for sometime alone with a match                             | Book all seats   |
| Searching for sometime alone with a <b>hive</b>                       | You are already alone!   |
| Devoting sometime for self-development / self-care with a <b>hive</b> | View my data / CO2<br>Alert me when reaching 10€<br>Destination in map |
| Devoting sometime for self-development / self-care with a taxi/phv    | See cool info about the trip:<br>CO2, city info                        |
|   |  |

#### Björn ideas:

| Searching for sometime alone with a | Tell the driver (feature) to not talk |
|-------------------------------------|---------------------------------------|
| taxi/phv                            |                                       |

#### Eric ideas:

| Devoting sometime for self-development / self-care with a taxi/phv | Have Duolingo minutes for free while in-trip. Or other 3rd party apps. |
|--|--|
| Seeking for high efficiency with a taxi/phv/taxi xl                | Wifi onboard   |
| Nourishing oneself through others with a match                     | Games to interact with each other                                      |

#### Senana ideas:

| Searching for sometime alone with a taxi/phv        | Having some minutes for free<br>Headspace & have noice cancelling<br>equipment in the car. |
|---|--|
| Searching for sometime alone with a taxi/phv        | Have a curtain / wall (like UK)  |
| Seeking for high efficiency with a taxi/phv/taxi xl | Space like Moia  |
| Seeking for high efficiency with a taxi xl          | mobile office (with a commuting subscription)  |
| Nourishing oneself through others with a match      | tinder for taxi  |

#### Vinicius ideas:

| Nourishing oneself through others with a taxi xl/match                 | pick up people in events - Shuttle (like we did in Rock in Rio) |
|--|---|
| Devoting sometime for self-<br>development / self-care with a taxi/phv | Book shelf or magazines   |
| Nourishing oneself through others with a taxi/phv/taxi xl              | Play own Spotify playlist                                       |

#### Ronald ideas:

| Nourishing oneself through others with a <b>hive</b>               | Explore city mode / phone stand navigation |
|--|--|
| Nourishing oneself through others with a <b>hive</b>               | Rent several scooters (like Ov-fiets)      |
| Devoting sometime for self-development / self-care with a taxi/phv | Sightseeing tours                          |

#### Alba ideas:

| Searching for sometime alone with a | Have a curtain / wall (like UK) - Like in |
|-------------------------------------|---|
| taxi/phv                            | AVE                                       |

#### Charlotte ideas:

| Nourishing oneself through others with a match                            | Profile based on data (parties, music etc) get a choice of people based on 2-3 mutual interests (busy people with busy people) |
|---|--|
| Devoting sometime for self-development / self-care with a <b>taxi/phv</b> | Free wifi, get connected to learn partnering with Ted Talks. [time trip = time talk]   |
| Devoting sometime for self-<br>development / self-care with a taxi/phv    | The driver and passenger practice a language together  |

## Colophon

Master Thesis: When the journey becomes the destination: Proposing a mindset-based vision to rethink and create multi-modal mobility solutions.

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Date of graduation: 21/08/2019

Júlia Fort Muñoz juliafort.com juliafortm@gmail.com The mobility industry is facing a disruptive transformation. A large number of social, economic and technological trends are shaping the way we will move in the future. In this fast-changing environment, mytaxi becomes FREE NOW due to the joint venture in 2019 between its mother company Daimler together with BMW. While joining forces to become a stronger mobility player, FREE NOW's product portfolio is undergoing a major change. Moving from offering only taxi rides to becoming a multi-modal mobility provider. This holistic approach to mobility brings lots of new challenges for the company.

This project is born from the knowledge gap identified within the company, regarding the city dweller's behaviours and attitudes. With an open and explorative approach, this project focuses on providing the company with a human-centred upgrade to mobility.

Based on a user and trend research, this project identifies how the essence of mobility – of covering a physical distance – will evolve towards a multi-purpose-driven activity: shifting from a compromising experience towards a fulfilling experience.

The project, 'When the journey becomes the destination', identifies four mindsets that describe the interactions city dwellers will have while travelling in the future context. For FREE NOW, the identified potential is to enable people to act according to their state of mind and facilitating them to recognise the mindset they are at that moment. This will allow providing a fulfilling service experience by matching them with the right mobility service.

This mindset-based approach proposed aims to help FREE NOW rethink and create multi-modal mobility solutions. While leaving apart the purely functional connotations of mobility, the designed mindsets focus on the meaningful nuances of mobility. From the service experience resulting from the human interactions with the space, four design directions are created to stimulate the designers from FREE NOW to question the status quo, as well as the future context.