

# **DIGITAL SOLUTION REPORT**

**Theme**

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# PROBLEM FORMULATION <sup>1/2</sup>

An urban citizen might on various occasions happen to realize the impact of how urban lifestyle, commuting and being part of a city contribute to their own identity. Municipalities, neighborhoods, certain streets are building blocks of urban societies and also to the feeling of belonging. City life affects our emotions, way of thinking and **could be quite overwhelming**.

Human is a social being by nature and it is key for one's well-being to experience and understand what dynamics drive activities, places and cultures around themselves.

We are seeking a digital solution addressing these urges and feeling and facilitating **discovering one's neighborhood** and engaging in activities **celebrating community and belonging**.

It is important to add, that discovery and wandering around the city does not necessarily require a mobile solution as such, we must look at this project not as a requirement but as a tool to take advantage of the opportunity to reinvent the interactions around location services and community.

01

Therefore, we have framed the problem as follows:



***How might we design a mobile solution that empowers users to engage in and to support shaping their neighborhood's digital heritage?***



# PROBLEM FORMULATION 2/2

**We have identified two aspects of the problem:**

**1**

How might we design a solution that gives a smooth experience both to a local (user with experience living in a certain neighborhood) and traveller (user with no experience with a certain culture let alone getting around), supporting discovering an urban/residential area?

**2**

How might we reimagine and create interactions that enhance the discovery experience so that users prefer it over competitors i.e. traditional route planning services? The following two short scenarios depict possible problems of two above distinguished users.

02

## AS A LOCAL:

**You're stuck in a rut:** always walking/biking/driving the same streets to work or school, always getting your coffee at the **same cafe's**, always seeing the **same faces**, never noticing something new. You want to **break out of this pattern** and make your day-to-day life more exciting and spontaneous, but you have no idea how.

## AS A TRAVELLER:

You've already done your Google research of must-sees, must-dos, must-eats in your destination, but **you want more than that**. You want to be surprised and discover different places and things on your way **that most tourists never see**. But how do you find these?

# INTRODUCTION TO OUR DIGITAL SOLUTION

We are creating a web mapping service that offers route planning for traveling by foot, bicycle and any other slower means of transportation suggesting alternative routes according to one's personal interests, preferences and location history. In short terms, **it offers routes off your beaten paths.**

## ■ MISSION:

We want to change the perception of route planning services and provide an **user-curated experience** in the philosophies like **slow living and mindfulness**. Maybe the quickest way is not always the best way. The concept invites people to **be more curious**, whether it is in their daily life or while they are traveling.

## ■ VISION:

Shaping the cities of the future with **raising awareness** in the individual.

## ■ VALUES:

Curiosity, mindfulness, community awareness, participatory culture.

# FEATURES AND UNIQUE SELLING PROPOSITION

**Most map / route planning services only suggests the (few) quickest route(s) from A to B without giving any insight of the actual area and surroundings.**

Our application generates and plans a route for the user based on multiple variables i.e. the extra time the user has for the range of activities selected as interests; one's bucket list; human and computer generated recommendations; other sources and suggest alternate routes towards places called "points of interests". Possible points of interest are: streetart, open labs (i.e. Khorá, Space10), community centers (Absalon, Nørebrotallen etc), exhibitions/galleries, shopping, plane watching, adult playgrounds, street workout, parks to meditate, local greengrocer, cafe that has a roastery, filming locations, meetups, creative mornings, ad-hoc live concerts etc.

Our concept gives a twist on how people interact with mapping technology and lets users taking the time to absorb and discover what's right around them with:

- Sharing your trip plan with your friends
- Lists to follow curated by "ambassadors / local experts"
- Lists suggested by AI recommendations (information as an outcome of machine learning from sources i.e. according to interests, location history etc.)
- Destinations suggested according to your "bucket list / wishlist"

# THEORETICAL FRAMEWORK AND METHODOLOGY

## // DESIGN THINKING

Considering the fact that the focus of our research is how people search for **meaningful activities**, which interaction is embedded in a complex system of technological and sociological elements, in order to deeply investigate and understand the multiple ways of **how people navigate and explore** the area they live in and engage in new activities we have adapted the methodological framework of design thinking.

“Design thinking *«is a discipline that uses the designer’s sensibility and methods to match people’s needs with what is technologically feasible and what a viable business strategy can convert into customer value and market opportunity.»* (Tim Brown) [2]”

Design thinking focuses on innovating **human-centered activities**, while the main aspect is **not** in redesigning or **reinventing** already present functions and services but to find solutions to and **simplify complex problems**.

## // DESIGN PROCESS

To keep on track during the development of our idea, the way of mapping our design process is through the double diamond design process model. It consists of four distinct phases. [1]

- 1, The focus of this phase was to identify the latent **user needs** that met the following criteria:
- Urban-area-specific
  - Unaddressed in other competitive solutions

Because we wanted our user research to be guided by the above criteria, we established our initial assumptions on team brainstorming activities, with competitor **research and market research**, and used what we learned from this research in conducting unstructured interviews with fellow UX students and conducting a **user survey**, targeted on Copenhageners.

1, DISCOVER

2, DEFINE

- 2, The focus of this phase is to distill down the insights gathered from the first 'Discover' phase into a design concept.

We first used personas and methodologies to help us create several users for whom to design for, and a selection of relevant scenarios which represented the key touch points of interactions that were crucial to our route planning solution.

3, DEVELOP

4, DELIVER

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1, DISCOVER

2, DEFINE

3, DEVELOP

4, DELIVER

**3,** In the 'Develop' phase, the initial design brief is built upon and taken through an iterative process of developing and testing.

In our case, due to time limitations and scope of our project (primarily focusing on user interaction processes), this phase mainly focuses on ideation and prototyping of our product rather than the iteration of it. However, we followed suggested SCRUM methodology in order to manage our development process in an agile way.

While initially, we started to design a complete application and all of its components, through the process of creating scenarios, we realized that designing the touch points with a high level of precision much was much more valuable than creating an entire application at this point.

**4,** The final quarter of the double-diamond model includes the final steps of the project, final tests, and approval of the product. Further evaluation and creating feedback loops are the main tasks in order to discover limitation and also suggestions for further improvement.

But again, since we are undergoing only a single iteration, this process will largely be the single prototype test that we will conduct, and evaluation of that test, as well as the creation of suggestions for further iteration and improvement.

# RESEARCH AND MARKET ANALYSIS

Similar apps that could help us creating a distinguishable value proposition and customer experience:

## BIKE CITIZENS



The smart app when you are on the move. Discover new cycle routes. (+100k downloads on Google Play)

## WALC



Share and discover the best experiences in your city. (Still in beta, has not been finished.)

## FIELDTRIP



The application runs in the background of your phone so whenever you come near something unique and noteworthy, you'll receive a notification - push notification based.

## SIDEKIX



Generally called as Waze for walkers. (+50k downloads on Google Play)

## LOST iN



A travel guide publisher that embraces the philosophy "surrendering yourself to the essence of the place".

# PERSONAS

09

We assumed that two types of profiles needs to be distinguished for efficient use of the app:

- **Discovery mode for locals** - Gathering location history and calculating the route based on the ones you have never been on
- **Exploration mode for travellers** - Based on hidden recommendations from in-the-know neighborhood experts

## ROBERT, 29

Copenhagen  
Senior Developer  
Tech-lover, entry level  
gentry

He is calm, rational, detail-oriented.

Motivator: open-minded, free contribution to information stream between humans through digital technology.

Needs and desires: clean-code, open source programs, transparency.

Introvert personality.

Expectation: to stir up his over-structured sometimes seemingly boring life.

He is a bit bored of his every day commute routes but he is too organized to go on a unplanned wandering in the city. The app motivates him go on new routes but stay structured at the same time.



**"Knowledge  
is power,  
information  
is free."**

## LAURA, 23

Copenhagen  
Material Design Student  
Works at a vegan bakery

She is compassionate and empathetic.

Extrovert personality, community-mindedness, independent thinking.

Expectation towards app: engaging more people in her way of living.  
Stands up for what she is believing.

She has been vegan since high school and volunteers at her local community house offering fællesspisning.

She is very impulsive and adhoc, quick in making decisions and determined in execution.

Her decisions are driven by her emotions.

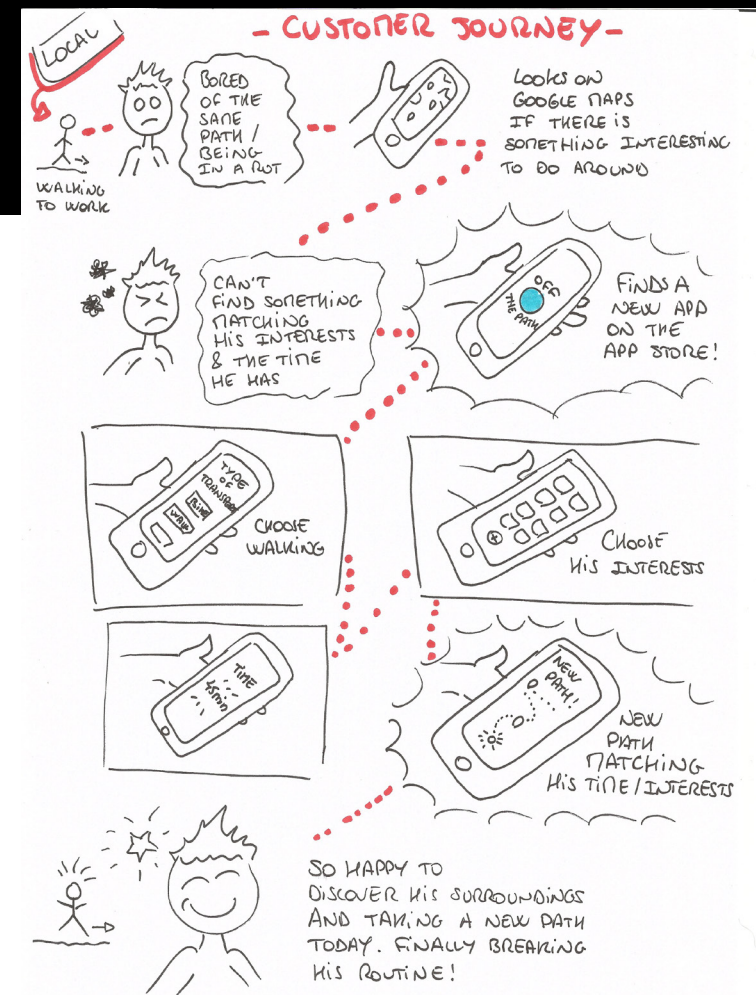
**"I strive for two  
things in design:  
simplicity and clarity.  
Great design is born  
of those two things."**





For better understanding of driving factors of consumer behaviour we creating a survey (see *full questionnaire and results in Appendix*) to create personas. Our survey received 41 responds upon which we created three personas.

# CUSTOMER JOURNEY <sup>1/2</sup>



## SABRINA, 31

Helsinki  
Freelance Journalist  
Travel blogger

She is happy, open-minded, creative.

Extrovert personality, Up-front, rational.  
Expectation towards app: Show her new ideas by locals, make her own list of places.

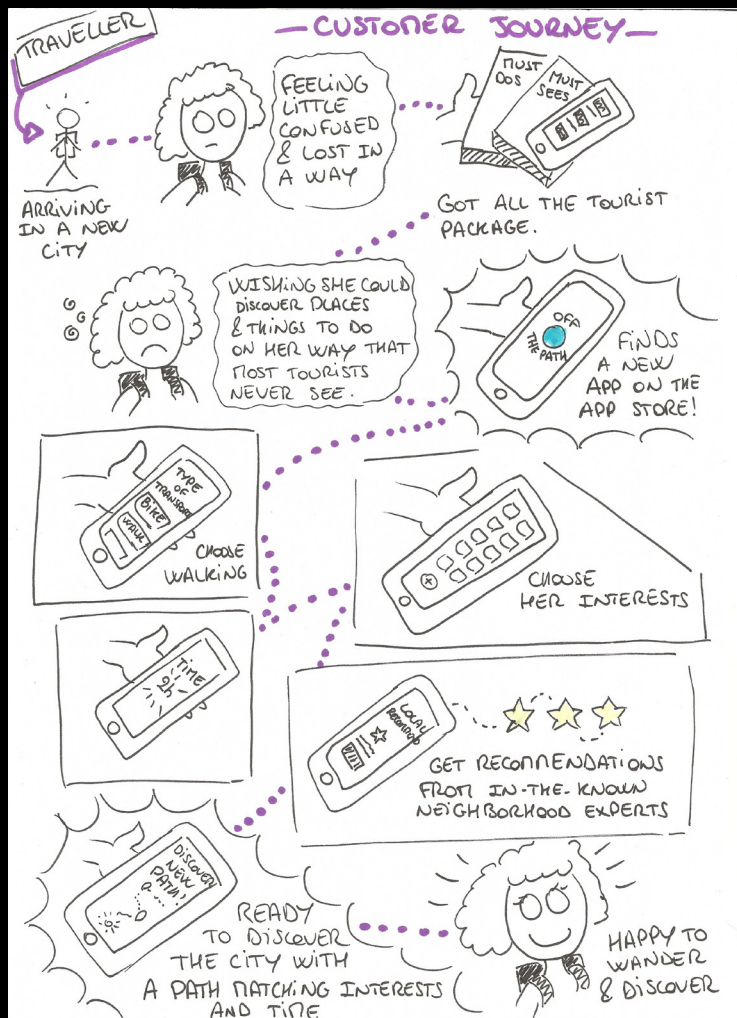
Always want to try new things.

Take photos of everything, records footage for her blog and write notes for future ideas.  
Left her 9-5 job to pursue her dreams and start a never ending journey around the globe.

Slow decision making due strategic content plan on her blog, but easily "manipulated" by good visuals, pre-made routes.  
Her decision are driven by trends, surroundings and emotions.

**"Be different,  
be unique,  
be yourself!"**

# CUSTOMER JOURNEY 2/2



**The customer journey** gives a clear understandable scheme of how our digital service has to interact with the user, what are the customer needs and how to reach his/her expectations and satisfaction.

The problems of our targets appear more comprehensible and precise.

**The local user is bored** and overwhelmed by being in a rut. This situation brings to the difficulty of breaking up his/her routine and spending time of discovering his/her surroundings. **The traveller wants more than a typical touristic trip** and aspire to a local-melting discovery excursion. In the same way, by taking under consideration the mood of the customer, we get a better vision and perception of how the digital solution can fulfill its mission.

By sketching the steps he/she is going through, we got more informations about his/her behaviors and what are the **features that need to be implemented** in the digital application. Matching **time, interests and types of transportation** are the main features in the customer journey process. Those touch points are shown explicitly following a logical continuation leading the customer to achieve his/her journey and to accomplish his/her primary aim.

**The channels** are also keys points that made us to think about and plan ahead of the customer journey. For the user to get to know the app, **promotional tools** have to be designed and well spread through online advertisements and social media. Also a **collaboration with local businesses** featured in the app is a great strategy to attain our target groups. Moreover, the customer journey reveals the importance of the **creation of a clear showcase** in the App Store and Play Store explaining the purpose of the application, its usability / functionality and how it will resolve the customer problem.

To sum up, the customer journey helped us to **better define the interactivity, conceptualize the digital application and what kind of branding materials is needed.**

## VALUE PROPOSITION

As is already deliberated above, the raw idea of our concept is to create an app that offers routes of your beaten paths, related to your personal interests. We make a clear distinction between the value for Locals and Travellers. For Locals the app provides a way to break their daily (commuting) patterns and get out of their comfort zone in their own city. For Travellers it provides a way to have local experiences on their trip and seeing beyond the major tourist sights.

## REVENUE STREAM

Our app will be offered for free and will therefore not rely on payments/subscriptions by customers. Our revenue stream will consist of contributions by **Investors, Dealers and Sponsorships**, that all have a particular interest in or benefit from our app. Our **Expertise** of local businesses and potential partners should be the most interesting asset for them.

## ACTIVITIES

In order to kick-off our app properly our first activities will be focused on:

- 1 Survey/research the interests of our **target group**
- 2 Survey/research the interests of our **potential local partners**
- 3 Research new places according to the interests from the surveys
- 4 Prototype the app
- 5 User testing

## INSPIRATIONAL NOTES

We are inspired by AirBnB in the sense that they provide travellers the opportunity to live and feel like a local when they visit a place. Their customers get to know the locals they are staying at and perhaps get some off the beaten path tips from them. We want travellers using our app to feel the same way.

# BUSINESS MODEL CANVAS

## CUSTOMER RELATIONSHIPS

In order to sustain the relationship with our customers we depend on:

■ **Self-service:** our app relies on a great usability experience, we want to design it in such a way that the user does not need any support after the first instructions upon downloading the app.

■ **Participation:** We would like users to feel inspired to contribute and share local spots in their own city. The more user participation there is, the larger the audience we can cater to their interests.

■ **Community:** We will provide a platform for users to share their experiences, reviews, photos and tips about spots they have visited. Especially for locals, it could create a local community of people with the same interests.



## COST STRUCTURES

We expect that our most important costs will be:

- 1** Developing the app (front and back-end), making sure the usability is more than great and we continuously work on improvement.
- 2** Marketing, especially in the beginning our app will depend a lot on our marketing strategies.
- 3** Research new spots and potential partnerships to ensure continuous improvement.

## RESSOURCES

For our concept to succeed we need:

- **Knowledge:** without local knowledge and expertise we have nothing new to offer to our customers.
- **Network:** our app financially depends on our network of local businesses and strong partnerships.
- **Website:** we need an appealing website that represents our company and app and attracts customers.

## PARTNERS

In our concept, Partners form the most important aspect of our business model.

- **Trade/Exchange:** our most important partnerships are the ones with local businesses that are featured in our app and are interesting for our customers. We need a strong local network to provide interesting content for our users and local businesses can benefit by being featured with some background information, photos, reviews etc. In exchange, they will promote our app in their stores and/or on their websites.
- **Strategic alliance with a non-competitor:** we aim to build a strong partnership with a (local) non-competitor such as Donkey Bikes or another large bike rental. As biking is becoming more popular as a means of transport for tourists, a good collaboration with them could ensure a regular stream of customers.
- **Utopia:** in a perfect world other big partners would be AirBnB and Google Maps (offering alternative routes to their service).

## CUSTOMERS

We want the app to be accessible for a large audience of all ages, gender and backgrounds. Anyone who is looking to discover something off the beaten path is welcome to use our app. Included in the BMC are features we think could make our app more appealing to different customer groups.

## CHANNELS

To reach our (potential) customers we will utilize:

- **Social Media:** we would post photos/videos of our 'hidden' spots on Instagram and Facebook.
- **Online Advertising:** we would place targeted ads for people searching for e.g. off the beaten path, local spots, local experience, alternative routes, discover [city name] etc.
- **Customer exchange:** we hope to reach more customers by fruitful partnerships with companies like Donkey Bike or bike rentals in general. They could promote the app when the customer rents a bike, and we could promote the use of Donkey Bikes to our (travel) users.

# COMMUNICATION PLAN

## // PURPOSE

The main purpose of all planned communication for us as a sender is to reach potential customers and convince them to try out the app. We want the receiver to feel we know what it's like to be stuck in a rut or not to know how to find a local experience as a traveller, and to present our solution in such a way it seems easy and attractive to use.

The purpose of the receiver is to find a solution to the problem they experience and feel inspired and encouraged to e.g. break their own pattern, discover new things, meet local people with the same interests etc.

## // EFFECTS

Our communication ought to have an effect on 3 different aspects:

### 1 Change in knowledge

**Local:** the receiver is more aware that his daily surroundings can be more interesting than he thought and might realize he is stuck in a rut.

**Traveller:** the receiver realizes there is so much more to see and discover in a destination than what is listed on Google's first page. Even on the way to a major tourist attraction a little detour could be worth it.

### 2 Change in attitude

The receiver feels more curious and wants to discover more interesting spots off the beaten path. He might feel that breaking his own pattern or having a local experience while traveling is actually possible.

### 3 Change in acting

The receiver feels encouraged enough to take action to counter his problem and uses our app to guide him. By doing so (successfully), he feels empowered and shares his excitement and discoveries. Our communication should stimulate his participation.



## // MESSAGE

Dare to go off the beaten path and discover hidden beauties!

## // COMMUNICATION ENVIRONMENT

Local customers will preferably find our app when they are looking on social media for something interesting and fun to do close to where they live or work. Probably at home or at the office (for an after-work activity).

Our traveling customers will probably come across our communication channels while preparing for their trip at home or perhaps a café. They are of course aware of apps/websites as Lonely Planet, TripAdvisor and Yelp, but these are more focused on the popular sights and popular contributions by their users and they lack a feature that gives you directions/a certain route to incorporate interesting spots on your way.

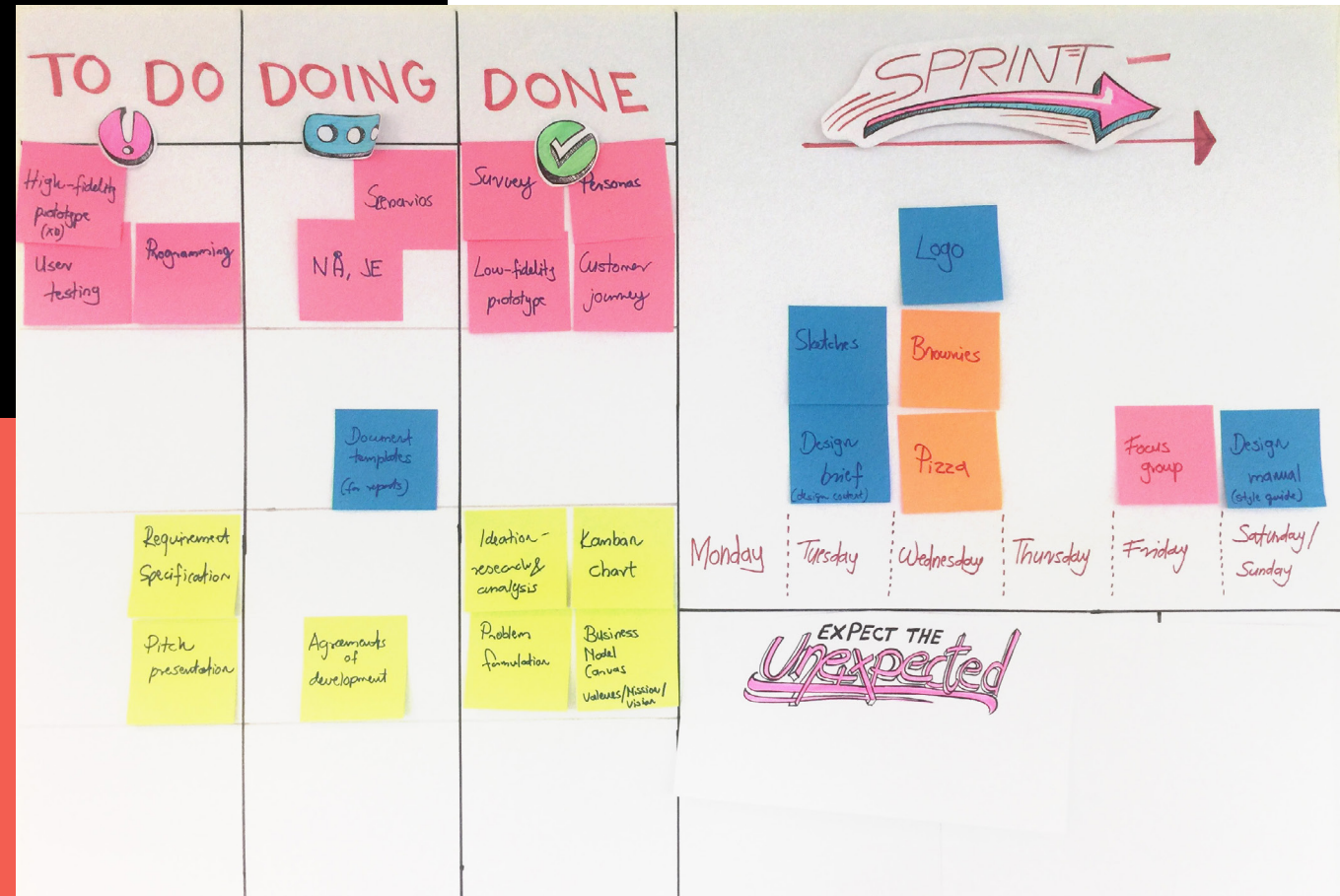
## // MEDIA ELEMENTS

Our users are expected to generally search for information online and be active on social media.

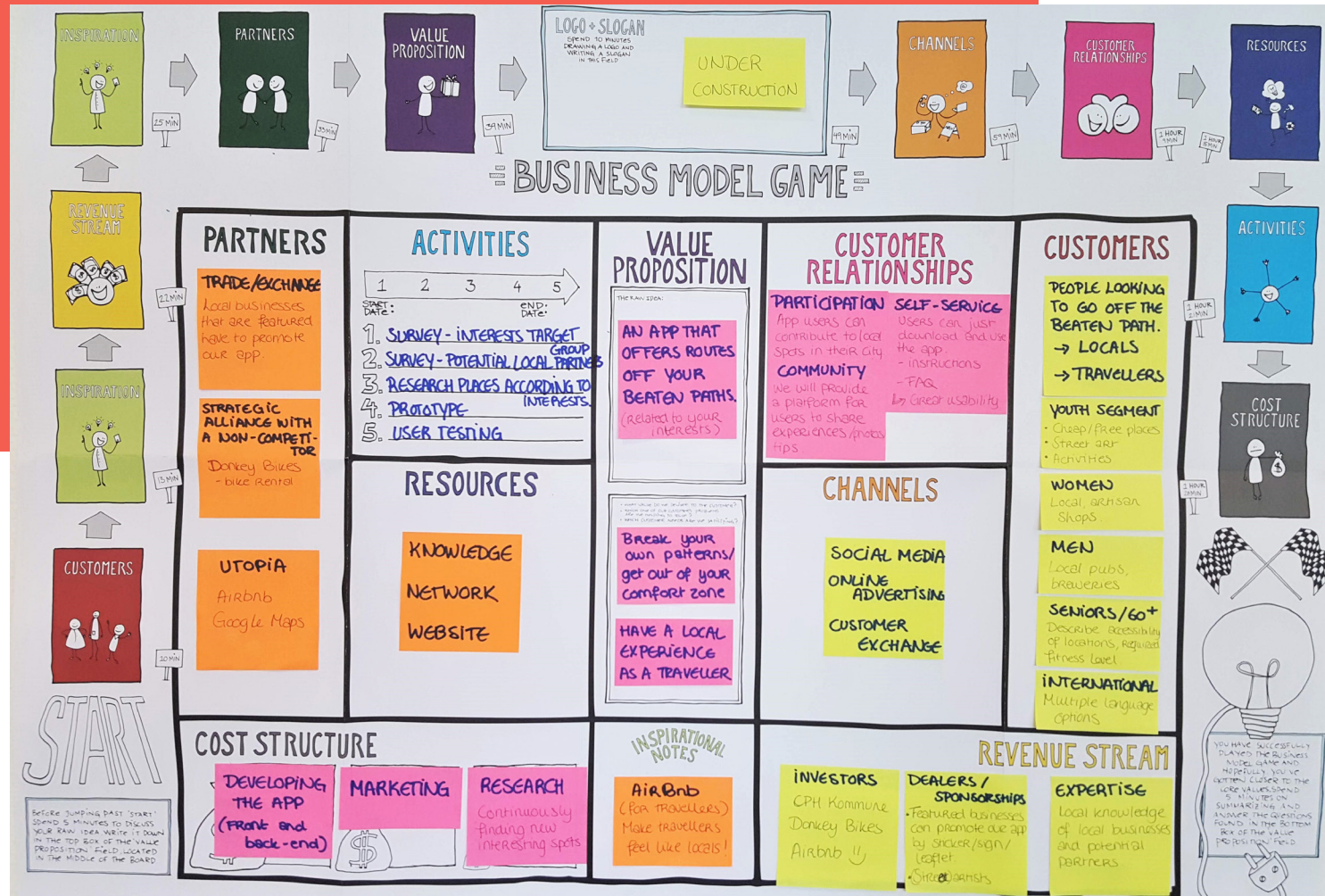
On social media we will mainly use photos and videos of featured local spots and businesses. It should look attractive and offer interesting background information. Short interviews with local business/shop owners/street artists would give it a more personal touch.

Additionally, we should provide engaging written content to complement our app. We could collaborate with websites and bloggers that target the same audience, they could maybe write about an interesting spot or route they've discovered thanks to our app.

# APPENDIX OUR KANBAN CHART



# BUSINESS MODEL CANVAS



# CUSTOMER SURVEY

## QUESTIONS

**1 -** How do you get around the city?

**2 -** Do you use any route planning application?

**3 -** If yes, how often do you use it?

**4 -** Do you take the same route to school/work every day?

## ANSWERS



**70%**  
Bike



**60%**  
Public Transport



**40%**  
Foot

**90% Google Maps**

**10% Others**



**40% Few times a week**

**20% Every day**



**25% Few times/once/  
less than once a month**

**15% Once a week**



**75% Yes**

**25% No**



## QUESTIONS

**5 -** What kind of new activities would motivate you to take a longer route to your destination?

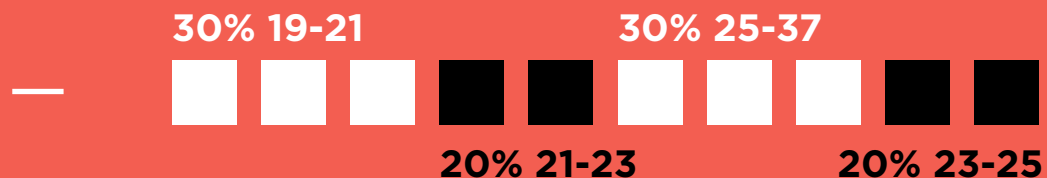
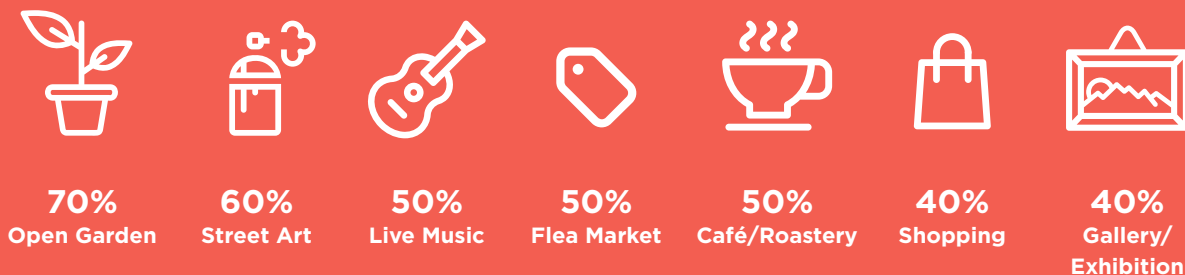
**6 -** Would you pay to discover new activities in your city?

**7 -** What application do you use when travelling to discover the area?

**8 -** Please, state your gender.

**9 -** How old are you?

## ANSWERS



## REFERENCES

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Design Council (UK) and InnovateUK. 2011. Design Methods for Developing Services.

<https://www.designcouncil.org.uk/sites/default/files/asset/document/Design%20methods%20for%20developing%20services.pdf>

### [2]

Brown, Tim. 2008. Design Thinking. Harvard Business Review, 86, 6.

**THANK YOU**  
**FOR READING**  
**OUR REPORT**