D1.2
User, Technical, and Storytelling Requirements

(public document)

Edited by: Kevin Sanders (Mintlab, KU Leuven)
Contributions from: Chaja Libot (VRT), Andries De Reyghere (Bits of Love), ...

Version: 4
Date: 29 oktober 2021

ITEA3

Project Key Data

Acronym and full-length title

Reference: 17006
Full-length title: Citizen Storytelling
Roadmap Challenge: Urbanisation

Project description

The project CityStory wants to innovate through a creative, intelligent, safe, and social storytelling development environment. Do-it-yourself and do-it-with-others, around media and make it accessible for everyone. The project aims to stimulate collaboration with a co-creation and design platform to share ideas and get opinions heard. Through new modes of interactive storytelling, city touchpoints, interactive screens, innovative media recognition, and data analysis, tools that assist while filming and intelligent, and deep learning tools, the project will enable ideas to be turned into a story and valuable media output.

Project duration & size

Size: Effort: 24.18 PY
             Costs: 2 933 930 €
Time frame: Start: 1 September 2019
             End: 31 August 2022 (36 months)

Coordinator

VRT (Belgium)
Type: Public Company
Contact person: Karim Dahdah
E-mail address: karim.dahdah@vrt.be

Consortium

Belgium   Bits Of Love
                 BUUR bureau voor urbanisme
                 Katholieke Universiteit Leuven

	NXP SemiConductors Belgium NV
	Studio Dott
	VRT
Denmark	Legind Technologies

Table of Contents

Project Acronyms

AI   Artificial Intelligence
AR   Augmented Reality
EDL   Edit Decision List
GDPR General Data Protection Regulation
IoT   Internet of Things
ML   Machine Learning

Introduction

The current document is a living document, which will be extended with the results of further research activities throughout the CityStory project. The contents of the document describes three different types of requirements for the products that will be developed in the CityStory project, as well as the methodology by which these requirements were defined.

The three types of requirements that are discussed in this document are:
- User-requirements which are gathered through user research (observations, interviews…)
- Technical requirements which are gathered through the analysis of available technology
- Storytelling requirements which are gathered through co-design workshops with professional storytellers and end-users

The requirements that are defined in this document will guide the development efforts throughout the Citystory project.
The document first describes the findings derived during the initial stages of the project and the elaboration of the year 1 use case in Berchem. Next, the main findings resulting from "Stories of Luchtbal International Design Workshop Week" are presented. And finaly we will list some of the requirements directly linked to the Y2 use cases in each of the technological tracks as presented in D 1.1.

1 Initial Requirements

1.1 User Requirements

This chapter discusses the user requirements that were gathered through the different user research steps in the CityStory. These user-requirements can be influenced by many contextual factors such as the user's motivations for using the system, the user's abilities and the environment in which the system resides. It is therefore important to speak to users and understand both the social as well as the physical contexts in which system use will take place, as well as the potential personal motivations for or against use of a storytelling system.

1.1.1. Research goals

The goal for the research that is described in this chapter is to uncover user-requirements for the physical storytelling devices which are to be developed and deployed over the course of the CityStory project. Since these devices are to be deployed in specific city environments, there is an additional focus on the contextual factors within these environments and their influence on user-requirements. In order to uncover these (contextual) user requirements, we aim to:
1. Understand what people would want to share
2. Understand who uses the space
3. Understand how they use the space

4. Understand why people might want to use the system

1.1.2. Location selection and Familiarization

In order to research these contextually influenced user-requirements, it was necessary to select an area that would be interesting and suitable for this research task - preferably one which may also allow us to run tests with the prototypes that are being developed in the CityStory project. A potential opportunity was found within the project Ringparken Groene Vesten, in which BUUR is involved as a partner.

Context Ringpark Groene Vesten

Project context

Ringpark Groene Vesten is an urban development project focusing on an area which encompasses the area around a stretch of the ring road in Antwerp (figure 1). The area includes large stretches of park

Figure 1: Area surrounding the ringroad involved in project Ringpark Groene Vesten (source: https://www.agvespa.be/nieuws/ontwerpteams-ringpark-groene-vesten-en-ringpark-west-bekend)

area but explicitly excludes the ring road itself. The main goal of the project is to increase the livability of the area with a focus on preserving green and battling the ongoing noise problems caused by the ring road.

A long-term vision for the ring area is to cap the ring road, having the ring road disappear underground and covering it up with a large park area, connecting both sides of the ring road over the full width of the area. The current project will not be working towards this goal as ongoing research activities towards this vision are required to be carried out further before plans can be made towards achieving this. It is however important to consider this long-term vision in the sense that all developments that will be done within the Ringpark Groene Vesten project should not encumber the potential future capping of the ring road, but should ideally be beneficial for future capping plans.

First "Ringdag"

As a part of the citizen participation track within the project Ringpark Groene Vesten, a first "Ringdag" (Ringday) was organized. During this day, both BUUR and Mintlab were present, BUUR as a Ringpark Groene Vesten project partner and Mintlab to make observations with regards to potential CityStory research involvements in this area. The goal of the first Ringdag was to inform the citizens of the Ringpark Groene Vesten area about the plans for the upcoming urban redesign of the area. Furthermore, it served the purpose of answering the first questions citizens had about these plans,

hearing their ideas and concerns and recruiting citizens to join the Vestenbouwer programme. People in the Vestenbouwer programme will be kept in the loop very closely by the urban design team to actively participate in shaping the designs for the area.

The Ringdag was organized as an open meeting to which residents of the affected area were invited. The meeting room featured (among others) several areas with project information, several session tables and a post-it wall. At the session tables, partners from the Ringpark Groene Vesten project would first present the project objectives and first ideas to a group of residents, after which the residents had the possibility to ask questions and discuss ideas. Furthermore, a post-it wall allowed visitors to share their thoughts by sticking post-its under either of three questions: What is needed? What must definitely be preserved? What do we definitely not want?

Valuable insights gained during this day included insights about the Ringpark Groene Vesten area itself, such as the large interest in the long-term idea of capping the ring-road, which has been a very prominent idea for quite some time, as well as complaints about noise caused by the ring-road. Furthermore, observations on the dynamics of the day revealed that the visitors appeared to have little difficulties suggesting things that should change in the area, it was much more difficult for them though to formulate the things that are good or valuable about the parks in their current form. This means that they are either largely dissatisfied with the current situation, or they need more help to vocalize the positive aspects of the park.

Figure 2: Map of the area Villegaspark & Brilschanspark Source: adapted from maps.google.com

Selected area

After the ringdag, it was decided that a specific part of the Ringpark Groene Vesten area might be a good target area to focus our research on. This area consists of two parks (Villegaspark and Brilschanspark, figure 2), one on each side of the ring, which are connected by a bridge accessible to cyclists and pedestrians. The parks are of very different sizes and were said to be quite different in terms of their use and the population living around them, making this an interesting and varied case to study.

1.1.3. Planned methodology pre-COVID-19 lockdown

In order to investigate the different user requirements for physical storytelling devices, related to the context of the selected area, several research steps were initially planned with the goal of understanding the four main targets.

1. Understand what people would want to share
2. Understand who uses the space
3. Understand how they use the space

4. Understand why people might want to use the system

Field observations and behavioural mapping

Field observation would be conducted by a researcher to get an initial understanding of the space itself (what are the characteristics of the location) and the behaviour of people within this space. Based on the observed behaviour in the space, behavioural maps would be created by sketching out trajectories and behaviours along a map of the area to reveal differences in how different parts of the area are used by the people visiting the park.

- These activities would give an initial idea of who the people are who use the space (2)
- These activities would give an initial idea of how a large number of people use the space during the course of the day (3)

Guided tours

In addition to the field observations and behavioural maps, a series of interviews would be conducted with residents and users of the area. These interviews would be shaped as guided tours, in which the participants would be asked to give the researcher a guided tour of the area to show them what they think are the most interesting parts of the two parks, during these tours, the researcher would be asking the participant to share both personal as well as general stories connected to the parks or other relevant areas.

- The guided tours would give insight into the different types of stories that people might be willing to share (1) and why they would find it interesting to share these stories (4)
- The guided tours would additionally provide more in-depth information to the earlier topics of who use the space (2) and how people use the space (3)

COVID-19 Lockdown impact

Due to societal restrictions in order to respond to the rising COVID-19 problems in Belgium, the planned travels to do field observations and in-person interviews were impossible methods to employ. The methodologies were revised to gain insights using remote interactions.

1.1.4. Methodology

The methodology was adapted so it could be performed within the societal constraints of the COVD-19 lockdown. Since it was impossible to travel to the location in order to do observations, the original two-step approach made way for a series of in-depth interviews. These interviews would be done through video conferencing (using Skype). In these interviews, participants would give the researcher a virtual guided tour of the area using a combination of google maps, google street view and images of the area. To accommodate the discarded observation step, participants were asked to

express both their own connections to the parks and how they use it, as well as observations about how other people tend to use the different areas of the parks.

Participants

Participants were recruited using a combination of targeted recruitment attempts, snowball sampling and an open recruitment message. For the initial recruitment step, facebook groups revolving around the Berchem area were searched for active users who engaged in some form of storytelling behaviour through meaningful contributions in the shape of posts and comments. A personal recruitment message was sent to these people through Facebook's private messaging service, briefly outlining the goals of the research project and explaining that the target participants are users of the Brilschans and / or Villegaspark. Only one participant was recruited through these direct messages.

Through their professional background, this participant had connections with a lot of people from different backgrounds and provided a list of people who would be interesting to contact for further interviews. Through this list, two additional participants were found. Furthermore, an open call for participation was posted in the facebook groups which were used for the earlier targeted recruitment, this led to an additional two participants. Lastly a targeted message was sent to the neighbourhood director, who also participated - leading to a total of six interviews.

Procedure

Prior to the interview, participants read and signed an online informed consent form, outlining the nature of the interview, the goals and the project. A date and time for the interview were planned and the participant received a link through which they could join the skype call at that time. Interviews took place using Skype and in line with the informed consent, audio and video were recorded for analysis purposes using OBS Studio software.

Participants were greeted upon entry, the researcher introduced themself, the CityStory project and the interview. Next, the participant introduced themself and the interview started. The interviews were semi-structured and followed an interview guide (Appendix X) while leaving enough space for open dialogue and input from the participant. Depending on the participant's familiarity with using Google Maps and Google Streetview, either the participant or the interviewer would share their screen showing Google maps and navigate through these maps and streetview images to contextualize the stories told during the interview. Further materials that were occasionally used included a collection of pictures from inside the parks that was collected by the researcher prior to starting the interviews (to make up for the lack of streetview possibilities inside of the Brilschanspark) and other images that would be pulled up from google either by the researcher or by the participant, to illustrate specific parts of the stories the participants were telling. All visual information used during the interview was included in the screen recordings.

After the interview, the participant was thanked for their participation and input and received a €30 gift voucher as an incentive.

Analysis

For the analysis, quotes were collected from the interviews. During this process, the quotes were grouped into categories to fit to the geographical region to which these quotes applied. This could be the area as a whole, either of the two parks, surrounding areas or specific locations within the parks. This allowed us to map the different findings to the specific locations and areas to which they are related. Two additional (non-geographical) categories were used to collect quotes which mainly concerned storytelling or the impact of COVID-19. Additionally, the temporary context was noted (History, Recent history, Current situation, Future visions).

Next, based on these quotes, codes were created and written down on post-it notes and affinity diagrams were made for each of the categories using these codes.

1.1.5. Results

Results were categorized into a total of 18 categories, and within those, further subdivided in different themes where possible. In the current section, we will describe the results of each category in more detail. Many of the categories are linked to a specific location (figure 3)

Global area

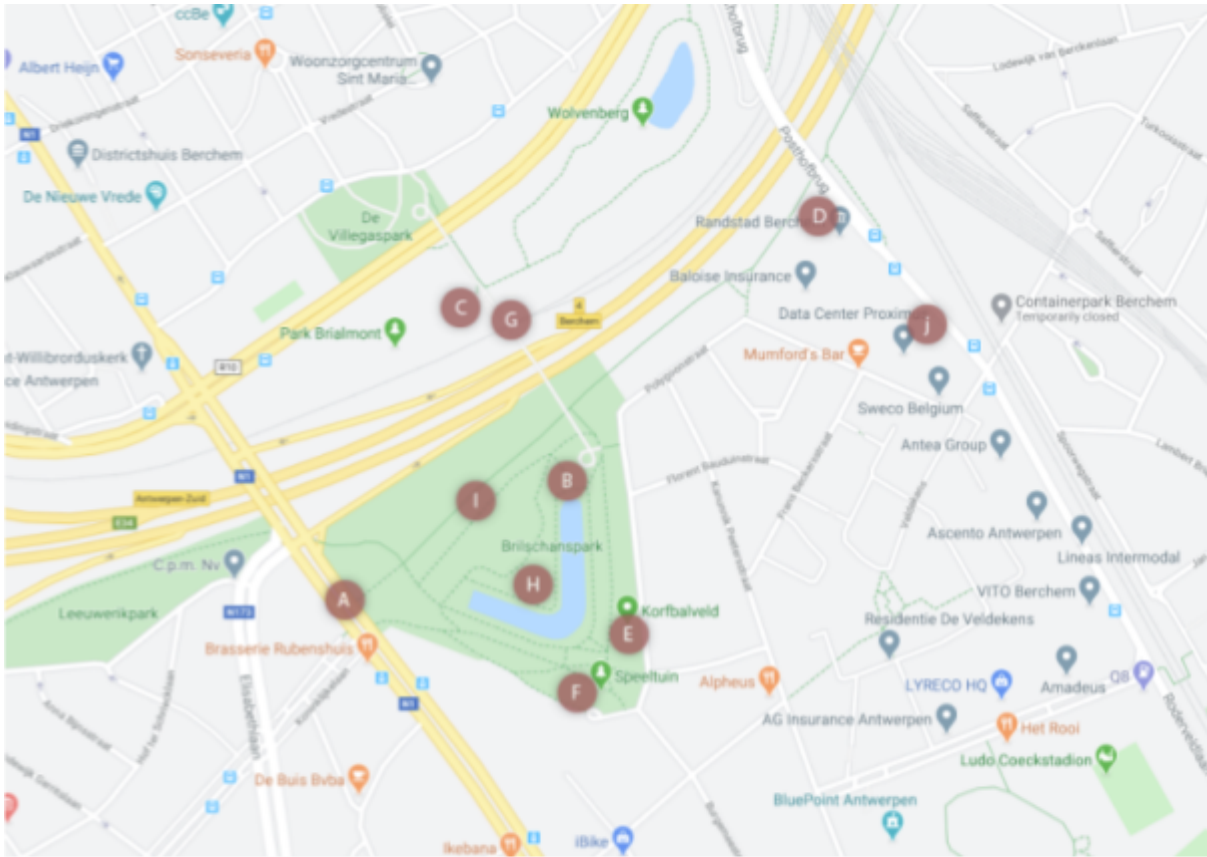The first category contains information that describes the global area of study results are subdivided into 6 themes.

Figure 3: Map of the area with markers for specific areas of interest (adapted from maps.google.com)

Characteristics of Berchem

Berchem is the area in the city of Antwerp within which the Brilschans and Villegaspark reside. Berchem is made up of four districts and is an average area in terms of problems related to safety and crime. Berchem was split into two in the 60's when the ring road was created to pass straight through Berchem. Nowadays, there is the (socio-political) tendency of wanting to reconnect these areas.

The district of Oud-Berchem (to which the Villegapark belongs) is on the inner part of the ring and was described as a neighborhood like a village inside the city, many people tend to stay there for a long time and people often know one another. Participants from oud-berchem have however mentioned not to know a lot of people from the other side of the ring or go to the other side.

Miscellaneous information about the Berchem area includes the nearby Ludo Coeckstadion, which is the football stadium of the local club which used to be quite good some time ago, furthermore the Fruithoflaan (outside of the ring) was mentioned as an area that used to be high-status in the 50's / 60's.

Neighbourhood differences & connection

The two parts of Berchem that have been separated by the ring road are quite different from each other. The inner part of the ring is very multi-cultural and city-like, quite densely populated, whereas the part outside of the ring is more sparsely populated and largely populated by Belgian natives.

Both areas are connected across the ring by a slow connection, a pedestrian / cyclist bridge connecting the different neighbourhoods as well as four parks in between. The Villegaspark to the north (inner) side of the ring roads, the brilschanspark to the south (outer) side of the ring roads and the Wolvenberg and Brialmont park (a.k.a Wolvenberg 2) in the center, between the two ring roads. All of these parks are accessible by using the bridge. When comparing the Brilschans and the Villegaspark, they are two very different entities, with the Brilschans being much more of a cozy park and the Villegaspark being a lot more rough and active.

Park use

When inquired about the function that these parks serve and the ways this park area is used, many participants mentioned going there for walking / running. Alone, with others or with the dog. The parks were described as a place for relaxation and as a huge pull to choose to live in the area. One participant mentioned that despite the air probably not being very healthy, they do feel that is a healthy area due to all the green. Visitors of the park area are thought to be residents of the surrounding neighbourhoods.

Recent/future developments

In recent years, work has been done to make the parks a much safer and cleaner area, which made them gain attractiveness and popularity. As a part of this, the bridge between the parks has been renovated with proper lighting. For the future, there is talk of capping the ring-road by building a large ecoduct over the ring road. This ecoduct would effectively connect all four parks.

Military history

The park area has a strong connection with military history. There used to be a belt of around 16 fortresses along the border of the city, which served to protect the city of Antwerp since the port of Antwerp was of high military significance to the French. There is a cycling path "Brialmontroute" which goes past all the fortress locations. The shame of Antwerp is that the city fell within two days.

There used to be a fortress (fort Brialmont) right where the parks are now located. All of the green along the ring road are remnants of the army's grounds. The different street names in the area stem from the fortress era and from the history of horse merchants in the area.

Area description

The larger Berchem area is known as the street-art district, also featuring a street-art tour. The street-art on the electricity cabinets in Brilschans represents animals that can be found in the Wolvenberg park. They are a miniature replication of the artwork at the Berchem station. A common problem in the area is that there is a lot of noise from the ring road.

Brilschanspark

The Brilschans park is a rather sizable park just outside the ring road. Several specific locations within the Brilschanspark have been discussed, the current section first evaluates the results that apply to the park as a whole.

Who uses Brilschans park?

In general, this park is used mostly by adults, sometimes also children. It is also frequently used by older, less mobile, people. The residents of the area around Brilschans are mostly Belgian natives including a rather large French-speaking community. The Brilschans area features mostly new and somewhat expensive houses.

How is the park used? - Activities

The park is really a park for people to walk / run or sit in. Many participants mentioned that they would go walking (alone / with others / with the dog) in this park, also running is a popular activity in the park. Furthermore, the benches along the waterside are often used by people (often in small groups) to relax. The park is also used for the yearly music festival "Bar Brilschans" which features a stage for performances and some stalls for food, drinks and other things.

How is the park used? - Social

Participants discussed the social function of the park as they would often go walking there with friends or family members. It also serves as a space for couples to retreat and enjoy each other's company. One participant also mentioned repeatedly meeting the same people in the park and eventually ending up going on runs together. Repeatedly encountering the same people also creates some social control for instance by runners warning each other when they have spotted any suspicious behaviour. Lastly, the Bar Brilschans event tends to bring together a lot of residents.

How is the park used? - Connection

The park serves an important function as a connection between different areas of the city. Through the bridge, it serves as a soft connection between the inner and outer-side of the city. Furthermore,

there is a cycling path traversing the park from west to east, which serves as a quick way to get to the Berchem railway station.

BBQs

There used to be public BBQs in the park, near the landing of the bridge. For many this allowed an opportunity for a group activity outside, especially for people who did not have a garden. There were however some problems with noise, littering and unwanted behaviour around these barbecues, causing them to be removed. It is still possible to rent a barbecue from the city to use in this location. This is, however, not so widely known nor used.

Recent improvements

Over the course of recent history, the park has been improved and made much safer and nicer. There used to be a building belonging to the old korfball club, this has been removed. Furthermore, for some time, a mobile toilet was installed in the park by popular demand. This was, however, removed again as it was too expensive to maintain.

Ideas for improvement

Several ideas for improvement of the park were mentioned throughout the interviews. Ideas include suggestions for new facilities such as more benches, sports facilities or bringing back the public barbecues. Participants also mentioned the need for eating/drinking facilities in or around the park - such as food-trucks, a café or a community center. Ideas to draw more people towards the park included some music festival or exposition in the park. Lastly the two areas where the water ends were mentioned as potential areas to improve upon and a cap on the ring-road was also mentioned as a way to provide some new opportunities to the park.

Future plans

Some concrete plans for the future of the park were mentioned, one of these plans was to build a new building for the fire department in the area of the park that now hosts communal gardens. Furthermore, there are ideas of building a sound wall along the ring-road and moving the cycling path onto that. Also, there is the plan to put back the mounds in the park. Lastly, one participant mentioned the park as a potential space for building, however this is unlikely to happen in the short-term.

Miscellaneous

Miscellaneous topics raised around the Brialmont park include the constant sounds from the ring being a nuisance, descriptions of the park as an area with a lot of elevation level differences, the park being home to the last remaining part of the Brialmont rampart (omwalling) and stories of a girl that was killed in the park in the 1990's.

Villegaspark

The Villegaspark is the park in Oud-Berchem, at the northern (inner) side of the ring road.

Who uses Villegaspark?

The Villegaspark is really a park that is mainly used by youth and children (and their families) since there are facilities there for them to play and play sports. The visitors of the park will mostly be young and rather multi-cultural, specifically the Muslim and Jewish communities were mentioned to use the park. Lastly, the Villegaspark is also used by the nearby school.

How is the park used? - Activities

The park is really too small for walking, however it does feature a dog-walking area which is often used by dog-owners. Dog owners will meet and chat around that field. Furthermore, children often play in the small playground and there is a football/basketball pitch that is very often being used. Lastly, the Villegaspark is used by youth to hang out. For other people, this park mostly serves as a connection to the other side of the ring or to the other parks in-between the ring.

Description

The park is located in a pretty quiet neighbourhood. It is a multicultural area (as is Oud-Berchem, where it is located) which can have a lot of traffic passing by during office hours, as there are some company buildings nearby. It is a very small park and according to one of the participants, many people might not even know the park by its name. There are a lot of trees in the park providing shade, but at night it is not very well lit. On the walls near the dog-walking field there are paintings made by artists from Berchem.

Negative connotation

Most participants mentioned that the park has a bit of a negative connotation. In addition to some petty crime caused by the youth hanging out at the park, there is a history of drugs-related problems in and around the park. For this reason, surveillance cameras were installed in the park. Over the course of the last years, these negative connotations of the park have been fading.

Recent change & opportunities

The park was reconstructed about 6 years ago, a large number of trees was removed from the back of the park to help combat the drugs-problems. One participant mentioned that this park would be a good location to set up a skate-park. Another participant noted that the landing area of the bridge in the Villegaspark is a rather dangerous area as it leads directly onto the street.

Military history

The grounds on which this park is built are still property of defence. The park is named after general Villegas who used to be stationed there. During recent construction of the school, construction workers hit some of the foundations of the old fortress that used to occupy this space.

Wolvenberg

Wolvenberg is the eastern park between the two ring roads. While this was not one of the main objects of study, it was mentioned rather often as a part of the overall park area.

Description

Wolvenberg is a nature reserve that is kept rather wild. There is a container next to the park that is used by volunteers of Natuurpunt, who work on the preservation of the park, however the city does not interfere with the nature in the park. One participant mentioned that there is a bat colony in the park.

The park is quite secluded and there is a lot of noise from the ring. It is also not very easily accessible. The park has a rather dirty or negative connotation. There are stories about a body having been found in the water there.

Park use positive

The park is mostly frequented by nature lovers and there has recently been an increase of visitors in the park.

Park use negative

Participants mentioned that the park is sometimes visited by less desirable figures and that people sometimes do unsavory things in the park. Furthermore, during the COVID-19 lockdown, groups of youth went to the park to hang out without surveillance.

History

Parts of the fortress can still be found in this park. The pond in the park is a mouth of the Zilverbeek, which is a river that passes by AGFA Gevaert photo company. According to one participant, this brook got its name from the silver particles that entered the water from this company.

Park Brialmont / Wolvenberg 2

Park Brialmont (or Wolvenberg 2, as one participant called it) is the western park between the two ringroads.

Pre-change

The western part between the ring roads used to be a location with communal gardens. It used to be a rather secluded area where people could easily hide. These gardens have now been removed and the removal faced quite some resistance from the gardeners. Some of the gardeners got a new spot nearby at Prieel

Post-change

At the time of the interviews, a new park was being completed in this area where the communal gardens used to be. The new area allows for much more social control and it is already being used.

Area A: New entrance Brilschans

This area used to just be grass going down into the park. It has recently been re-done and was made to be a proper entrance to the park. It features an amphitheater-like staircase with plateaus for people to sit on and work is currently ongoing to recreate the mounds that used to be there in the past. The entrance is on the side of a big road and the goal is to get more people to visit the park from that side.

Area B: Landing bridge Brilschans

Description

The area where the bridge lands in Brilschans park was often mentioned as an important area in the park. It is a rather open area with grass, water and some picnic tables for people to sit at.

BBQs

It is also the location where there used to be public barbecues. Opinions on the success of these barbecues vary as some participants mentioned that there were often large groups of people using them making you feel unwelcome, others find it regretful that they were removed. Supposedly, they were removed due to noise complaints filed by people in the area.

Opportunity for change / development

Several participants mentioned the potential for improvement of this area. First of all, a participant noted that the intersection where the cyclists come down the ramp is currently quite dangerous. Another participant thought the area underneath the bridge would be a good spot for a skatepark, as grass doesn't grow well there anyways. According to another participant, the benches and tables in this area are often crowded and the park would need more of these seating areas.

Area D: New entrance Brilschans

A new entrance to the park was created here recently, it also features a relatively large dog-walking area.

Area E: Communal activity field

This large open field was mentioned as an important part of the park by several participants.

Korfbal Field

The large area used to be a korfball field some years ago. The club had however disappeared from the area and the ugly old chalet that functioned as its club-house was later removed as well.

Group activities

The area is used a lot by people engaging in group sports and activities. There are often organized activities going on in this field, sometimes a coach will be present. These can be activities such as,

dancing, yoga or Tai-Chi. Groups can be as large as 200 adults, but the activities are not organized in a club.

Use of the area

In addition to the large group activities, the field is used a lot by groups of people sitting in the grass, having a picnic. There's also a small kiosque in the area, where there will often be some older ladies and gentlemen having a chat.

Area F: Large playground

The Brilschans park largely attracts adults, however there is a large playground area which attracts children too. Near the playground, there is also some public fitness equipment available.

Area H: Behind the water

There is an area behind the water where you can also go, however participants mentioned that this part is not very accessible.

Area I: Field along cycling path

There is a rather large field along the cycling path in the north of the park, this area currently seems rather wasted.

Area J: Business area

There is a large business area to the east of the Brilschans park with a large number of offices. People working there tend to go on walks to the park during lunchtime.

Area G: Connecting bridge

The bridge that connects the different parts in the area has been mentioned as a very important part to the area. It doesn't only connect Brilschans to Villegaspark, but it also makes the Wolvenberg & Brialmont areas usable. Furthermore, a participant mentioned that it gives a nice view over the 6 lines of traffic on the ring road, which is not a common thing in the country.

Area C: Landing bridge Wolvenberg

Halfway along the bridge, there is a staircase going down into the Wolvenberg area. This used to be a rather dark and secluded area, where there used to be some problems with heroïne use and homeless people.

Corona impact

During the interviews, several questions were asked to assess the impact of the COVID-19 situation on the parks and their use. Participants shared various observations and ideas about this.

Who use the park

Most participants mentioned that the parks had been used by more people during the lockdown than was the case before the lockdown. Also the type of users changed. More people were walking / running in the parks, conversely, there were fewer cyclists. Another observation was that there were more entire families using the parks as parents were often (working from) home during the daytime. Additionally, people would use the parks as places to hang out with others outside, this was also reflected by overflowing trash-cans largely filled with take-away meal packaging materials.

Perceptions / reasons

Participants mentioned that they believed the parks were used more during the lockdown period, because people wanted to get outside and the parks provided some kind of escape from staying indoors all day. People started to appreciate the parks more during the lockdown and there is a possibility that this appreciation will stick after the lockdown.

Corona-related change

As a result of the lockdown measures, certain parts of the parks, such as playgrounds, were closed down. Limitations in movement caused by the lockdown meant that a lot of people newly discovered these parks in their area, since they might normally not visit these parts of their neighbourhood. The use of the park changed in the sense that very few people would be sitting around on the grass (as this was prohibited), instead people were mostly walking on the paths. This led to the park feeling more crowded than usual to some, but less crowded to others.

Storytelling

During the interviews, several observations can be made concerning storytelling in and about the area that was being investigated.

Where do people tell stories?

One of the platforms most often mentioned as the place where people share stories about the area is online, on social media. There are several facebook groups, differing in size and geographical area in which people gather and post content. Groups that were mentioned are "Ge zijt van Berchem als ge... " and a small facebook group for the market area north of the Villegaspark. Participants believed that word about the parks spreads on social media, but that one should always take note that there is often also a lot of bad (spam/unrelated) content in social media groups.

Other locations where people talk and tell stories are on the market, as a market stall owner, people always come to you to tell you things and ask you things, and at the dog-walking areas. Dog owners will often encounter the same people and stay in the area for a while, which causes conversations to occur. Similarly, when meeting the same people regularly on runs or walks in the park, this may lead to conversations. Additionally, there are also neighbourhood events where people gather and there is a café to the north of Villegaspark (De Nieuwe Vrede) which has several different purpose rooms for people to gather in.

Who currently does Storytelling?

Several different organizations are prevalent storytellers in the area. This includes the local festival organizers and culture centers, Buurthuis Posthof which is a community center creating opportunities for the less opportune groups in the area, De Kras which is a youth organisation and the Heemkundige Kring Berchem which works to preserve stories and heritage from the Berhem area. Depending on who one talks to, many different types of stories could surface.

What do people want to share?

People tend to often share information about their annoyances concerning the area. Annoyances that were mentioned include, littering, fly-tipping, noise, dogs and the lack of toilets. Conversely, people also like to discuss positive aspects of the park, such as what you can do in the park, the fact that it is a pleasant place to visit and raising awareness that people could consider this as their own backyard. While many participants feel that the bridge connects the two different areas, one participant viewed this as a physical threshold for visiting the other side of the ring.

As was noted in the previous sections, the area has a rich history and this is a topic that will come up very often when people start sharing stories about the area. People would show old pictures and maps of the area to discuss its historical purpose as a fortress or of the St. Maria assisted living facility that used to be a hospital.

In addition to these stories about the area's history, people might also share stories about a more personal history in the area. One participant told a story about his grandfather who was a farmer who was leasing land from two ladies who lived near the park. During the second world war, this man would take his horse cart up to the city to pay the ladies for the lease, paying partly in kind. Once the war was over, the ladies relieved the man of his remaining payment duties because his payments in kind allowed them to survive during the wartime.

Negative connotation

People also told stories of the negative events of a violent nature that had happened in the park areas in the past. One participant mentioned that a man had been shot at Brilschans and that a girl was once found dead at Brilschans. The parents supposedly started a Facebook group after this incident.

Questions people have

Participants mentioned that they (or others) also have questions they would like to ask. One participant mentioned that she had joined the local politics because people often came to her with questions and concerns, and this way she would be able to raise them on a political level. Additionally, whenever changes are being made in the area, people are interested to know why these changes are being made.

Other participants mentioned wanting to know more about the area's history. Are the wild stories about the Wolvenberg area true? Why do the parks look the way they do - with the Wolvenberg being so wild while the others are much more organized?

Lastly, participants said they like to be up to date with the city's future plans for the area.

How to

A couple of practical remarks about storytelling were made during the interviews. One participant mentioned the importance of any (interactive) devices that would be placed in a park should remain optional and that people should be able to enjoy the park without using these. Another participant noted that it would be good to provide different means of storytelling for the different visitors, stating that youth would probably be interested in going around with a camera making vlogs of what they are doing in the area. Lastly, it was noted that before publishing any stories it should be important to check the quality and correctness of the stories that people are sharing.

1.1.6. Requirements and potential

The requirements for physical storytelling devices to be successfully deployed, depends on a combination of three factors. The location where the device is deployed, the audience (and their activities) visiting those locations and the types of stories one wishes to capture.

Contextual implications

The contextual factors of location and audience are largely co-dependant and should thus be examined together to understand the specific requirements and potential these combinations of factors give rise to.

Villegaspark - dog-walking area (See Results: section Villegaspark -> How is the park used? - Activities)

Characteristics	Requirements:
- Adults - Alone or small groups (with peers or relative strangers) - On location for several minutes - Inactive, routine visits.	- Interactions should at most take a couple of minutes - Interactions should not be too cognitively demanding as the user will be keeping an eye on the dog. **Potential:** - As this is a location people routinely visit on a daily basis, this is a good location to have repeated interactions. - Since this is a place where relative strangers end up chatting, there is potential for multi-user interactions with other dog-walkers.

Villegaspark - football pitch (See Results: section Villegaspark -> How is the park used? - Activities)

Characteristics	Requirements:
- Young age - Digital natives - Group setting - On location for an extended period of time - Active and interactive setting - Recurring visits	- The audience visits this place to engage in interactions with peers. The device should facilitate this type of group interactions. - The materials used should be solid (not prone to breakage)

Villegaspark - playground (See Results: section Villegaspark -> How is the park used? - Activities)

Characteristics	Requirements/implications:

- Very young children
- Parents supervising children
- On location for an extended period of time
- Child entertainment and development is the main function of the area
	- Interactions should not be too cognitively demanding as the user will be keeping an eye on their children.
	- In the case of joined interactions with the child and parent:
	  - Should be at a suitable height for the child to interact
	  - The materials used should be solid (not prone to breakage)
	  - Child-proof
	  - Extra focus on privacy - use of cameras and online sharing discouraged
	  - Interaction should be fun for the child
	
	Potential:
	- Interactions for children and parents to engage in together could make for additional responses.

Bridge (See Results: section Area G: Connecting bridge)

Characteristics	Requirements:
- Passthrough traffic - Cyclists - Pedestrians - View on the most debated subject in the area (ring road)	- For people who are on a trip to somewhere, interactions should be short - Users of the system should not be blocking other passengers. - Content moderation might be required on controversial topics **Potential:**

	- Take advantage of the physical location which has a great view on the influential ring road

Brilschans - Walking path (See Results: section Brilschanspark -> How is the park used? - Activities)

Characteristics	Requirements:
- Mostly adults - Alone or in (small) groups - Pedestrians (relaxation) - Runners - Path that people are likely to (partly) follow	- For pedestrians, just strolling through the park, interactions might be a bit longer as it can be assumed that they have some time to spare. - For pedestrians, just strolling through the park, the system should not be too obtrusive, in the sense that it should not take away from a relaxing walk around the park. This is something to consider both in terms of the design as well as the interactions with the device. - For runners, the system should have a very clear (and quickly understandable) call to action. It is unlikely that runners will stop to use the system mid-work-out, so the first goal is to raise awareness and interest, making the person come back at a later point to interact.

Brilschans - Near water (benches) (See Results: section Brilschanspark-> How is the park used? - Activities)

Characteristics	Requirements:
- Mostly adults - Alone, in duo's or in (small) groups - People come here for relaxation - People come here to socialize	- The system should not be too obtrusive, in the sense that it should not take away from the relaxing nature of the area and the attention people can have for each other **Potential:** - Duo or (small) group interactions should be possible - Longer interaction times are a possibility

Brilschans - Activity field (See Results: section Area E: Communal activity field)

Characteristics	Requirements:

- Mostly adults
- Visiting for an extended period of time
- Large groups
  - Group activities
  - Organized
  - Recurrent
- Small groups
  - Relaxation
	- For the large organized group events, it is important to consider that there may be a lack of privacy in utilizing the device as there are a large number of relative strangers around during use.
	- In this large open area, the device should be carefully positioned so that it is not obtrusive (in the way) but also easily visible.
	- The device should spark curiosity when seen from a distance
	
	Potential:
	- (small) group interactions are to be expected.
	  - Longer interaction times are a possibility especially

Brilschans - Bridge landing (See Results: section Area B: Landing bridge Brilschans)

Characteristics	Requirements:
- Area identified as an opportunity area	- Choosing the right location of the device in this area is important

- Through traffic (pedestrians and cyclists) - Dangerous intersection - Controversial history (bbq) - Groups - Social activities	- Depending on the device's location and orientation relative to the bridge landing you will either get the through traffic going direction Villegas or the people coming down into Brilschans - Positioning the device more in the area of the picnic tables will make it more likely to reach the people using those but not through traffic. - The potential dangerous nature of the intersection should be considered when placing the device - it should not add an additional hazard. - Content moderation might be required on controversial topics (such as the public bbq history of the place)

Wolvenberg (See Results: section Wolvenberg)

Characteristics	Requirements:
- Nature reserve - Mostly visited by adults - Nature lovers - Potentially shady figures	- The device should be unobtrusive, it should not interfere with the (wild) nature in the area, nor take away from the experience of visiting this nature reserve. - Beware of misuse due to the secluded nature of the location.

Storytelling implications

Requirements for physical storytelling devices may change depending on the types of stories one wants to capture. We discuss some ideas of story types and possible requirements for capturing those that became apparent through the interviews.

Descriptive stories
Descriptive stories are those stories that are told to convey a description or better understanding of the area. Their content can span a number of things and each may have different implications for system requirements :
- The history of the area
    - Requirement: To allow the use of archive and current images and maps (or other media) to illustrate the stories. Comparing how it was then and how things are now to explain why certain things are the way they are for historical reasons.
- The social fabric of the area
    - Requirement: To allow sufficiently nuanced stories to be told. Subjects related to the social fabric of an area can get rather sensitive, especially when they deal with differences in culture or tradition and people's interpretations of these. It became very clear in the interviews that people take serious caution when treading these waters.
    - Requirement: Guidance in discussing these subjects. Due to the potentially sensitive nature of these topics, people might need guidance in order to feel comfortable sharing their thoughts on the matter, especially when they cannot judge and adapt to the reactions of the receiver of this message. It was clear during the interviews that people awaited the reaction of the researcher to make sure they understood

the nuance (or intentional lack thereof to magnify a certain aspect) when discussing these topics

- The identity of the area
    - Requirement: Systems can try to tap into existing themes in the identity of an area as people might be more willing to share their story if they feel some sense of pride or connection regarding these themes. The system could for instance make us of Berchem's identity as the street art district.
    - Requirement: Image management. Some areas have negative connotations and images attached to them which the city is working to help fade out over time as they improve the area. It is important to keep in mind the potential negative effects of people enforcing these connotations by focusing on them, while also allowing people to be realistic in the stories they tell.

Personal stories

Personal stories are stories that have some sort of personal relevance, either going into people's emotional attachment to the location or a family story about the area.

- Requirement: People need guidance to know what kinds of stories may (or may not) be interesting. Especially when it came to personal stories, people were uncertain whether or not what they said was of any interest or value to the interviewer. Some probing or help in reasoning why certain things might be interesting can help overcome this uncertainty.

Annoyances

Annoyances are the collection of things people think are currently wrong with the area and that they would like to see changed.

- Requirement: Expectation management. It became clear from the interviews (and the ringdag) that it is rather easy for people to discuss things they are annoyed by. However when collecting these stories, it is important to make sure to manage expectations of what will (or will not) be done with them as a result, so people do not expect certain problems to disappear only because they shared a complaint.

Opinions and conflict

- Requirement: Moderation of opinions and debates. Certain topics may be quite controversial. In the case that there are possibilities for debates, reactions and openly accessible sharing of opinions through these storytelling systems, there should be some sort of moderation foreseen to make sure the debate is civilized and valuable.

Asking questions

- Requirement: There should be the possibility to ask other citizens for stories. Several interviewees mentioned at times that they weren't actually sure why a certain thing was a certain way and noted that they would be interested in finding the answer. Allowing people to ask these types of questions and that way make story requests to people could be an interesting way to create interactions between users.

Generalized requirements:

Based on the location-based and storytelling implications and requirements that are described above, more generalized requirements are described as results of the User Requirement gathering

effort. Each being numbered using the following format: [UR-##'] with UR representing "User Requirement" and ## a number to identify the requirement.

UR-01: Sensible interaction times

Care should be taken to design the interactions in such a way that the time required for the interaction to be carried out matches with the time that is available to people during their activity at the location where the storycatcher is being deployed.

UR-02: Cognitive load

It is important to consider the cognitive load that an interaction requires and the cognitive load that is available to the user at the time of the interaction. For instance, considering that people may need to stay aware of their surroundings and potentially supervising children or pets that they have brought along.

UR-03: Location-specific potential

It is important to consider the particularities of different deployment locations and to capitulate on the specific potential that these locations provide. For instance by taking advantage of the likelihood of recurring visits to the location, or the specific view that a location has.

UR-04: Individual user characteristics

It is important to consider the characteristics of the individual users, both in terms of interaction design, as well as in terms of the type of storytelling that is asked from them (which questions are asked or which types of stories are asked for).

UR-05: Group interactions

It is important to consider how people could interact with the storycatcher when they are in a group, by inviting some sort of group interactions. Within groups, it is important to also consider the individual group members.

UR-06: Durability

Especially when considering certain groups of users (youth and children) it is important to have durable (solid) constructions for the storycatcher, since certain users might not take great care of the storycatcher during their interaction.

UR-07: Interaction privacy

When deploying storycatchers (especially in crowded locations) it is important to consider that users might be reluctant to contribute stories of a too personal nature, or controversial opinions, when there are other people around that can observe them doing so.

UR-08: Passers-by privacy

When using recording devices, it is important to realize that passers-by who do not interact with the device might be recorded without their knowledge, and to consider how this can be minimized.

UR-09: Unobtrusive physical placement

Care should be taken that the deployed storycatcher should be deployed in such a way that it is unobtrusive. This can both be in terms of not being a physical obstacle which negatively impacts the

flow of people through narrow or crowded locations, but also in a landscaping sense when deploying the storycatchers in specific locations such as nature areas.

UR-10: Clear call to action
It is important that passers-by are quickly drawn towards the storycatcher and have a reason to go towards the storycatcher right away, or have a reason to return to the storycatcher to interact with it at a later stage.

UR-11: Content moderation
Especially in case stories that are produced by users will also be broadcasted publicly, it is important to consider a way of doing content moderation to avoid abuse.

UR-12: Media use
In order to support storytelling, users should be able to utilize different types of media to further illustrate their stories, such as maps and images.

UR-13: Allow nuanced storytelling
Especially when dealing with sensitive or controversial topics, it is important that the storyteller is able to tell a nuanced story and provide sufficiently detailed argumentation for their opinions.3
UR-14: Storytelling guidance
Storytellers should receive guidance during their storytelling, to help them when discussing sensitive topics, but also to help them understand what types of stories may be valuable

UR-15: Expectation management
It is important that users are aware of what purpose their storytelling will serve and what they can expect will be done with the stories they produce.

UR-16: Interactions between users
It is important to consider the possibility of having interactions between different users of the system. For instance by allowing reactions to each others' stories or allowing people to request stories or information from others.

1.2. Technical requirements

This section tries to define global technical requirements based on user stories and concepts.
We describe them generally to avoid any specific technical choices (vendors, libraries, frameworks).
In this way, we avoid getting stuck in the coming years due to new and fast evolutions.

Within the general concept, we see several **components**:

- The **question** or notification system
- The **input** or capture system
- The **platform** or data engine processes, indexes, and enriches the input
- The platform or data engine offers data back to 3rd parties
- Presentation of **results** to the participant by using de input or question system (feedback loop)
- Presentation of results to organizations by using the platform admin functions

We distinguish several personas with specific demands :

- The end-user, participant, or citizen.
- The municipality or organizer
- The storyteller
- The product owner (Business development)
- Developers, technical producers, and 3rd parties
- Society in general

For every persona, we define critical but general concepts with an influence on technical preferences.

The end-user, participant, or citizen

- Quickly **discover** the questions or survey, online or offline
- Be able to **participate** in the questions without friction, on location
- Have **many possibilities** to give "input" in all kinds of forms.
- Getting feedback and **value** back from the system so that the input investment proves to be valuable (feedback loop)
- Have a sense of great **privacy** and **anonymity**, with minimal personal data input.

The municipality or organizer

- No dependency on proprietary software
- Possible on-premise installation of the whole product
- Being able to decide what information will be open to storytellers

- Being able to set up a questionnaire or survey independently and quickly
- Ability to generate and export specific visual anchor points (ex. QR codes) for offline locations
- At least have these levels of permissions, roles, and data :
  - Product owner or super admin
  - Organization level
    - Survey level
      - Question sets
        - Questions

The storyteller

- Being able to consult input from multiple organizations and surveys easily
- Being able to transform information from raw form to story in an easy way
- Receive as much metadata as possible from the system and within the privacy of individual users
- Open to off-the-shelf enrichment cloud engines for text, audio, video, and images.

The product owner (Business development)

- Keep infrastructure and license costs as low as possible
- Keep installation costs for organizations as low as possible
- Support multiple organizations with a specifically dedicated database and reporting engines
- Support multilingual and multi currency

Society in general

- Allow input through widely available devices with deep market penetration in all layers of society
- GDPR friendly system, backing trust and anonymity

Developers, technical producers, and 3rd parties

- Keep the data footprint from input streams and output streams as small as possible.
- Scalable code (users, roles, languages)
- A scalable infrastructure with different data regions, automatic upscale of resources, incremental backups, and no vendor lock-in
- Performance of the highest quality
- Export/hook to 3rd party storytelling tools
- Export/hook to 3rd party reporting tools

1.3. Storytelling requirements

This chapter discusses the storytelling requirements that were gathered through workshops with professionals and end-users.

COVID-19 Lockdown impact
Due to societal restrictions in order to respond to the rising COVID-19 problems in Belgium, the planned workshops and tests were done remotely.

1.3.1. Workshop with professionals

Figure XX: Printscreens Zoom meeting Online workshop

In August 2020, we (Kevin Sanders, Mintlab & Chaja Libot, VRT Innovation) organized an (online) **workshop with professionals.** In this workshop, we focused on professionals who would use data ("mini stories", anecdotes) from citizens, local residents to tell a story themselves or to use it as input for a participation process. We tried to define what this data must meet in order to be usable.

In this workshop we involved professional media makers (VRT), employees of the Antwerp city communication services (because of our use case: ringpark Groene Vesten) and designers (BUUR, Studio Dott). We believe this combination of participant profiles will provide interesting and educational insights.

We started off with sending out an online introductory presentation 18/08/2020. (https://docs.google.com/presentation/d/1ORl3BmvEnqIy4gWDyQ4BjUwUyJED4JhJ/edit#slide=id.g8f1ef2d684_0_0) We asked all participants to do a preparatory exercise independently prior to the workshop. They described their goals, their specific wishes and demands on how such a mini-story should look like, to be useful to them.

A couple of days later, 20/08/2020, we came together in an online workshop. This workshop was prepared in Miro. (https://miro.com/app/board/o9J_knP5nMg=/) We started off with a short discussion on the results of the preparation.
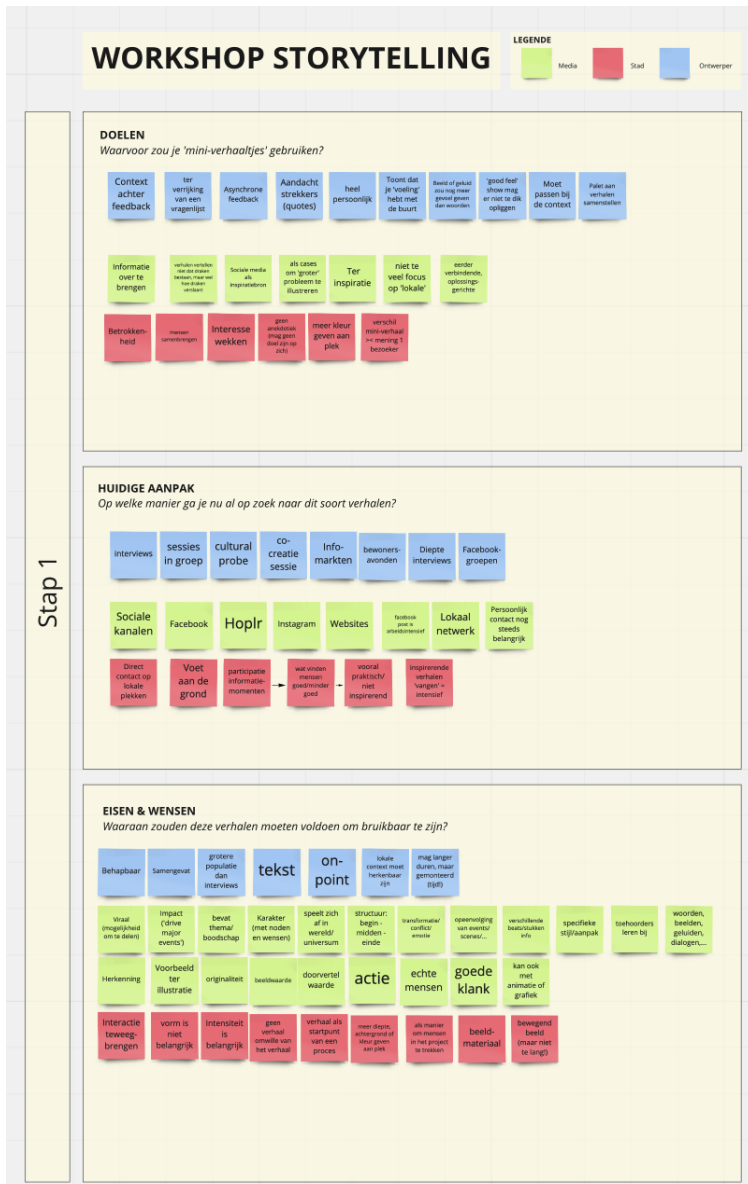
Figure X: Miro translation of the participants preparations

The preparation

Why would the participants use these kinds of stories? What do they want to achieve?

Stories...
- **as a way to enrich feedback**

Designers would like to use those mini-stories as a way to enrich their general feedback, questionnaire.
- **as a way to create support base**

The stories are personal. Using these will show that you feel more in touch with the place Create a pallet of different stories. Use quotes from personal stories to arouse interest.

- **to reach different people**

People will be able to give feedback at their own pace. Designers will receive asynchronous feedback in this way. The city wants to involve more people.

- **to use them as a source of inspiration**
- **to inform**

The stories can be used as cases to illustrate the bigger story

- **to connect neighbours**

Bring people together

At the moment different participants use **different sources** to get those stories. E.g. Interviews, group sessions, social media groups.

Most times topics, feedback and conversations tend to be rather practical than inspiring. It also takes a lot of time and most times those group sessions for example tend to attract the same kind of people.

What should these stories meet in order to be useful?

The stories…

- need to be **manageable**

The stories can't be too time consuming. They need to be to the point.

- are from a **broader audience** compared to current interviews/sessions
- **recognisable**
- create **trust**
- have **impact**

Stories need to drive major events. Stories should be easy to share and contain a certain storytelling value. Why should people want to share/retell these stories?

Stories should trigger **interaction**. We should be able to use those stories as a way to **involve** other people in the project.

- have **structure** (start - middle - ending)

A story is **a sequence of events**

- must contain a **transformation/conflict/some emotion**

Intensity of the story is prior to form. Although a moving image might be more impactful.

- need to be **informative** for their audience

The stories must contain a **clear message/topic and goal.**

- should be used afterwards: **"Not just tell stories to tell stories"**

We used the last exercise, **wishes and demands**, as input for the 3 following exercises.
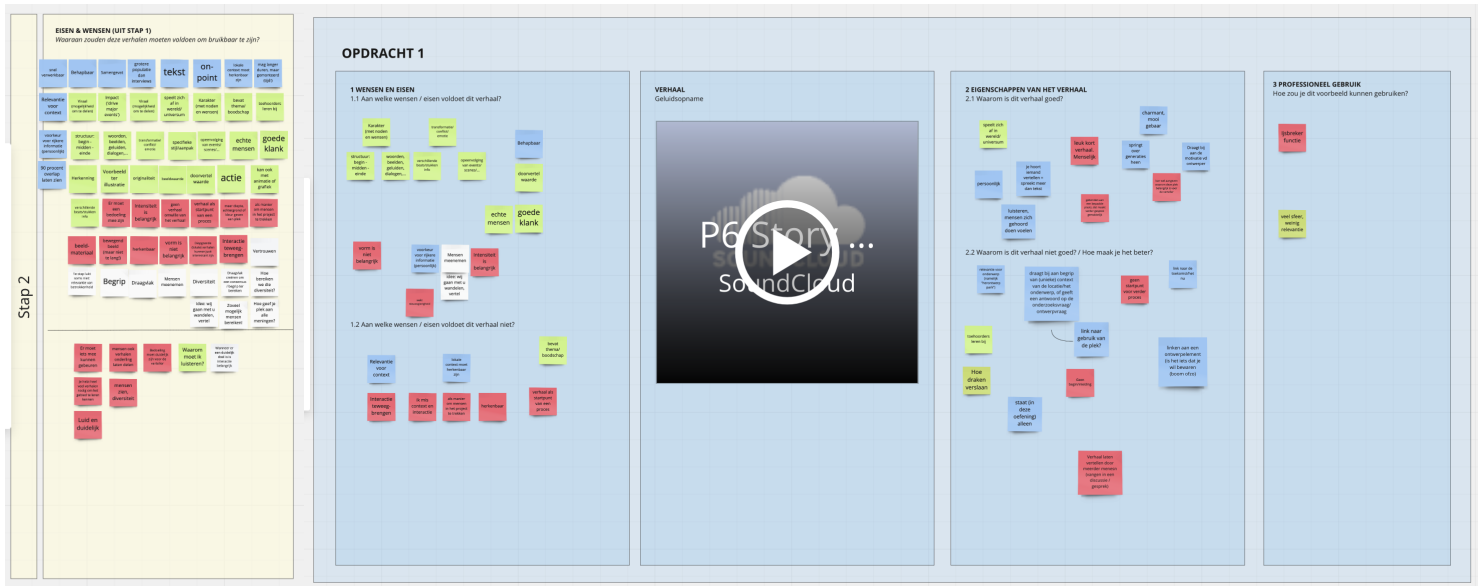
Workshop Exercises

Figure X: Exercise 1 sound fragment

The following exercises presented **3 different types of stories** created by citizens.
The first exercise was a sound fragment from one of the interviews done by Mintlab.

During the first part of the exercise participants needed to select which **wishes and demands** this story **meets (1.1) or does not meet(1.2)**.

After this, they were asked to translate this into more concrete **story characteristics. (2.1 & 2.2)**
We ended an exercise with the question on how they would use this story for their job purposes.

Results exercise 1:

- **Why is the story good/useful?**

The story felt **real and personal**. It involved a character with his own needs and wishes. The story triggers **curiosity.** The story could **contribute to the motivation of the designer.** This story tells why a certain place is important for the storyteller So it could help with a better understanding of the context of a certain location. The fact that you **hear someone tell** the story means more than only text.

- **Why is the story not good/not useful?**

The story missed relevance. It **didn't have a clear message or purpose**. The story wasn't complete: it had no introduction and the audience **missed context**.

The relevance for our research goal (redesign parc) is questionable but it could help with a better understanding of the context of the location.

The story could be used as a starting point for a discussion, as an ice-breaker but misses relevance for the project itself.

- **How could this story be used?**

The same exercise was done for two other types of stories: an instagram post and a Facebook video post.
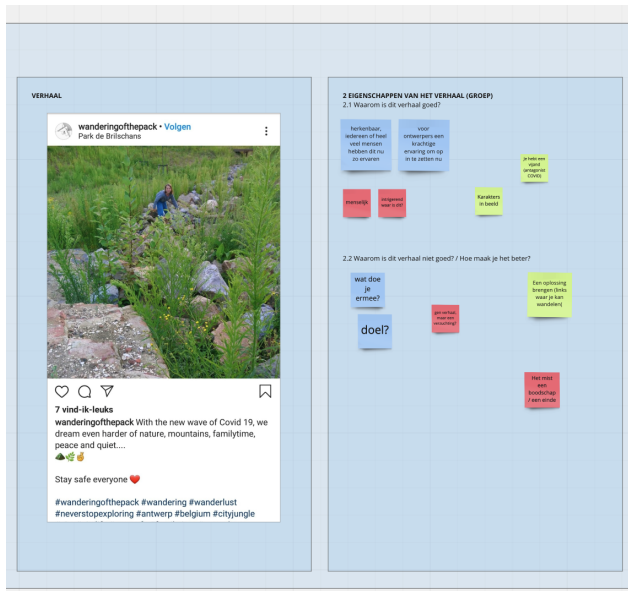

Figure X: Exercise 2 instagram post

Results exercise 2:

- **Why is the story good/useful?**

The story is recognisable and human: A lot of people might have experienced the same. For designers this experience is very powerful to bet on. There is a character in the picture and an antagonist (COVID-19)

- **Why is the story not good/not useful?**

What can we do with this kind of story? Not really a story, more like sighing. This story misses a clear message and ending. Adding solutions could help (e.g links to places where you could go for a beautiful walk)
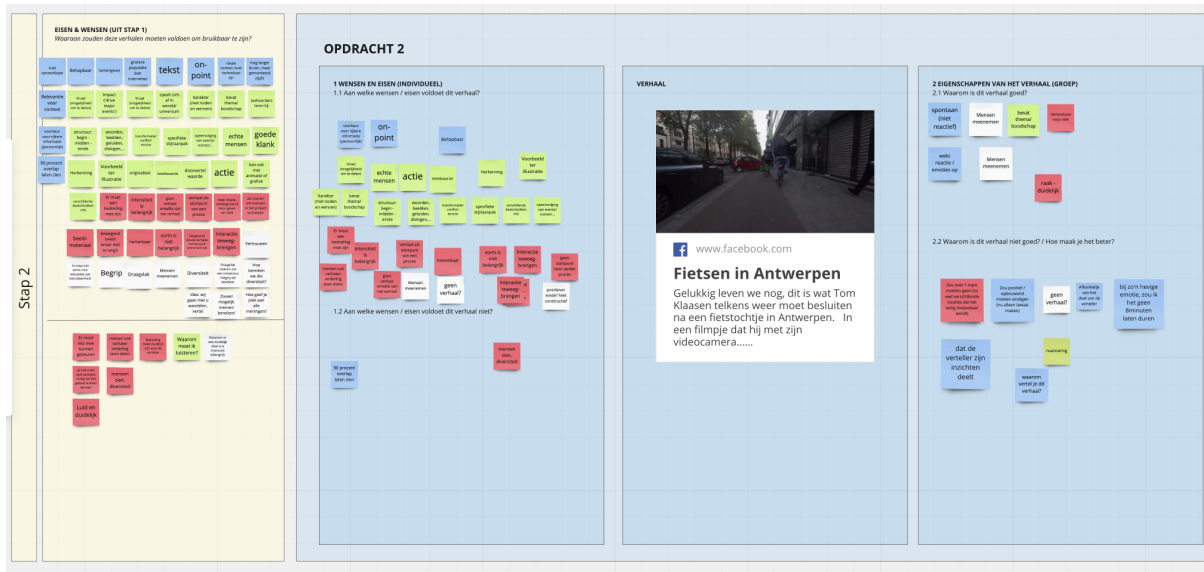
Figure X: Exercise 3 video posted on Facebook

Results exercise 3:

- **Why is the story good/useful?**

This story is understandable. Other people can easily recognise the story. It involves a clear message and shows examples to illustrate this. This story has the potential to go viral. The story has been told spontaneously and is not reactive.

- **Why is the story not good/not useful?**

The story lacks a positive ending. **It is not constructive.**Now it's perceived as just making noise. The story should be about one topic. Now it involves a lot of different issues and locations which makes it a lot to handle. The emotion is real, but the video takes too long to emphasize this.
Adding some nuance to this story could make it better.

Set of requirements

This set of requirements is not final. It is a work in progress and only results from one workshop. We will have to keep evaluating captured stories throughout the project.

Words that came up a lot as a requirement for a good and useful story:
- recognizable: real, personal
  - rich information (e.g image video)
- constructive: not only complaining
- understandable: clear message, goal
- relevance for the work context

- structure: intro (context) - mid - ending (clear message)

1.3.2. EDUkit

Besides the workshops we are working towards an **EDUkit** for storytelling in an urban design context. (while this kit was in an earlier stage, we already discussed this in D2.1) We are developing this kit together with the EDUbox team of VRT NWS (https://www.vrt.be/nl/vrtonderwijs/edubox/). EDUbox is an educational tool that introduces students to various social themes, such as democracy and fake news. In this case we are developing and testing a storytelling kit for participative media in urban design.

We learn a lot by discussing and developing the EDUkit together with professionals at VRT NWS. We will work on this kit iteratively. It will be tested with different audiences to improve it.

We finished stage 1 of our development and **tested the first version with youngsters** (end of August 2020) which **gave us insight into storytelling requirements on the end-users' sight.** In the following stage we will present these stories to professional users. to get more input on the requirements.

The goal of these tests is to gain more insight in how to facilitate people with telling their story and create impact in a fun and engaging way. EDUbox in itself focuses on young people. Afterwards we will apply the same techniques on a broader audience. This tool should help people, the end-user, to tell their stories (in the context of urban design), and persuade other people, the government or professional storytellers with their stories.

<u>Test stage 1</u>

We tested the first version of the EDUkit with 8 participants (age 12 - 17).

Before the tests started participants were asked to fill in a pre survey. In which we ask them about their **current knowledge**, whether they are **used to giving their opinion or tell their personal story** in this context and whether they **already use social media for example to consume or tell stories.**

They all used social media, 3 of them use it to share their own content. 4 of them gave their opinion about a city design or initiative. Examples:
- a slow down signage for playing children to the city government.
- giving their opinion in school or to their parents by starting with 'I think... ' or 'According to my opinion...'
- I tell to my friends that I think it's nice when the city gets a new pool
- When they were going to build a new highway, I gave my opinion to my mom.

Participants who indicated they wouldn't give their opinion stated:
- I'm not aware of new buildings being built and besides that I haven't got the urge to give my opinion, plus I don't know where to do so.

- I've never received the question. I would only give my opinion if it's about something that really concerns me. I don't have any clue how I would do it.

We started the tests with an introduction (online or at the door) and a first assignment. They received the EDUkit (printed version) in their mailbox.

The **EDUkit** consists of four chapters and introduces three new skills: design, storytelling and directing.

- **Design:** a plan to solve a problem or challenge.
- **Storytelling:** conveying, telling and convincing an idea
- **Directing**: how to make and convey your story in the most convincing way

In the first three chapters we explain how you can learn these skills. In each chapter we start off with a little theoretical explanation and afterwards the participants can get to work.
In the fourth and final chapter they present each other's work in the "Show & Tell".

- How to design?
    - What is urban design?
    - From problem to plan
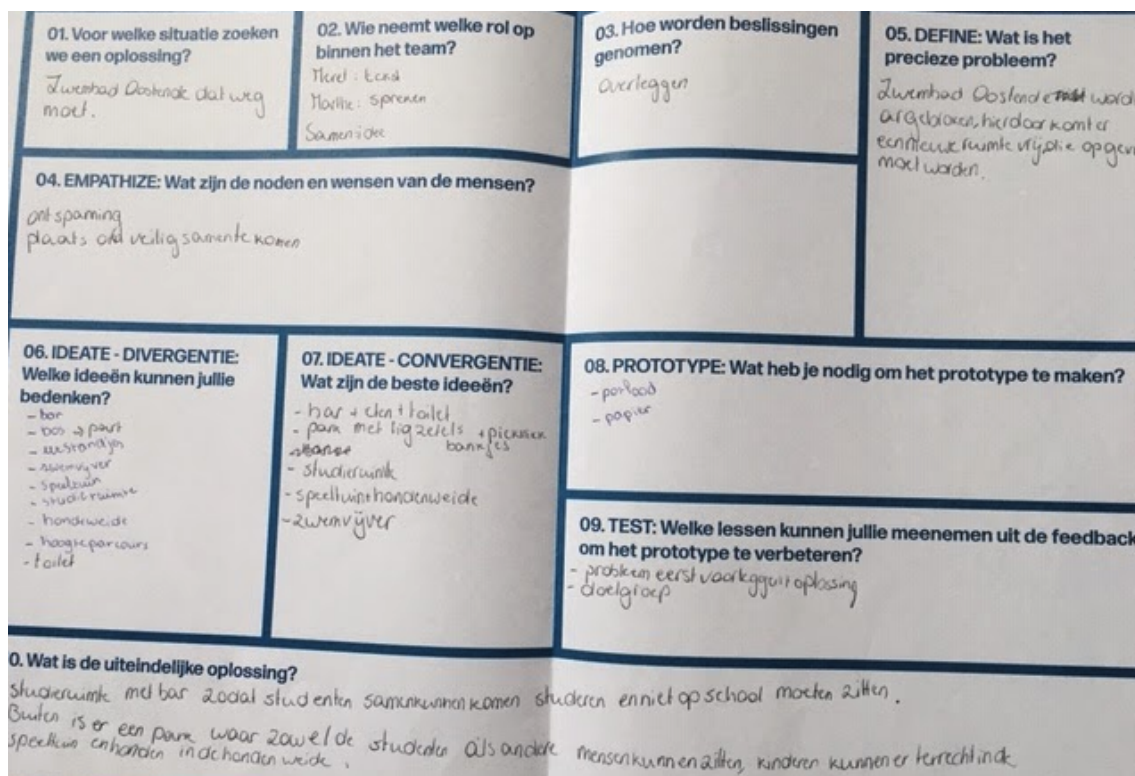   - Creative design canvas

Figure X. Creative Design Canvas group B
    - Group reflection

- How to story?
    - What is a story?

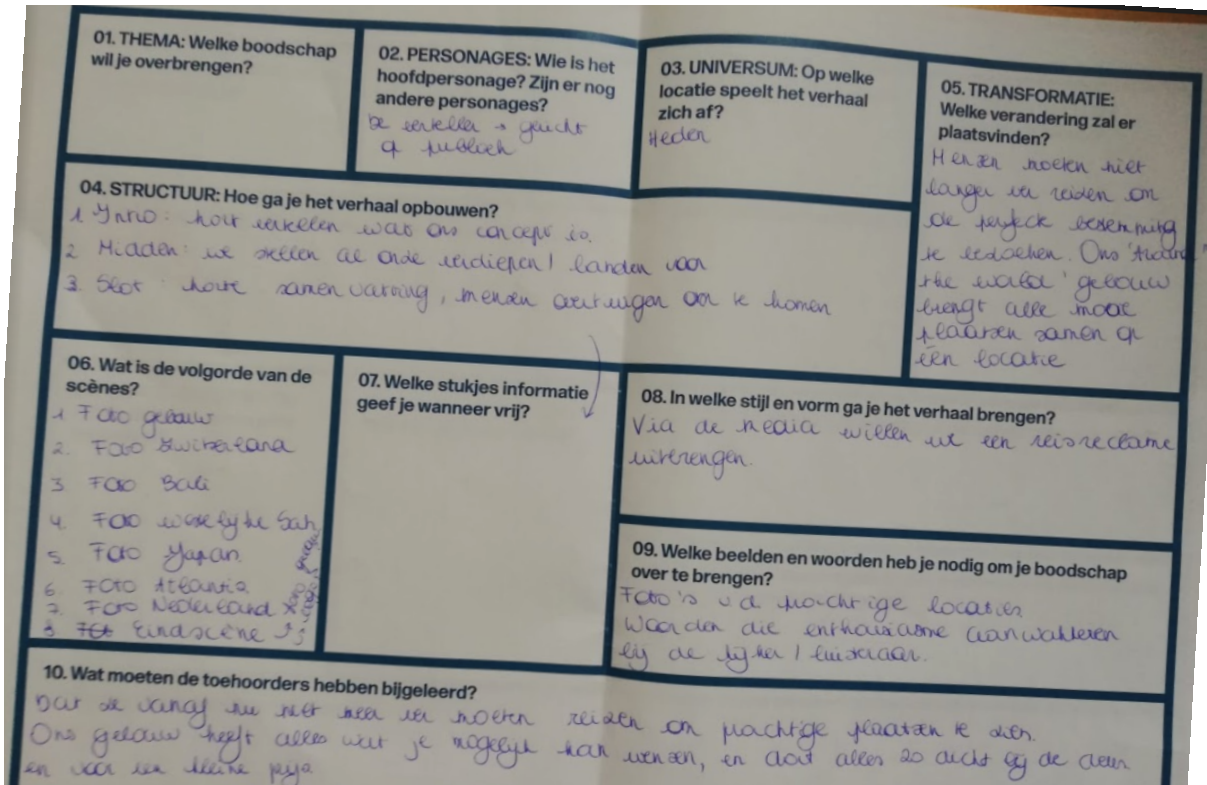- From idea to story
- Persuasive story canvas

Figure X. Persuasive storytelling canvas group C
- Group reflection

- How to tell?
  - What is telling a story?
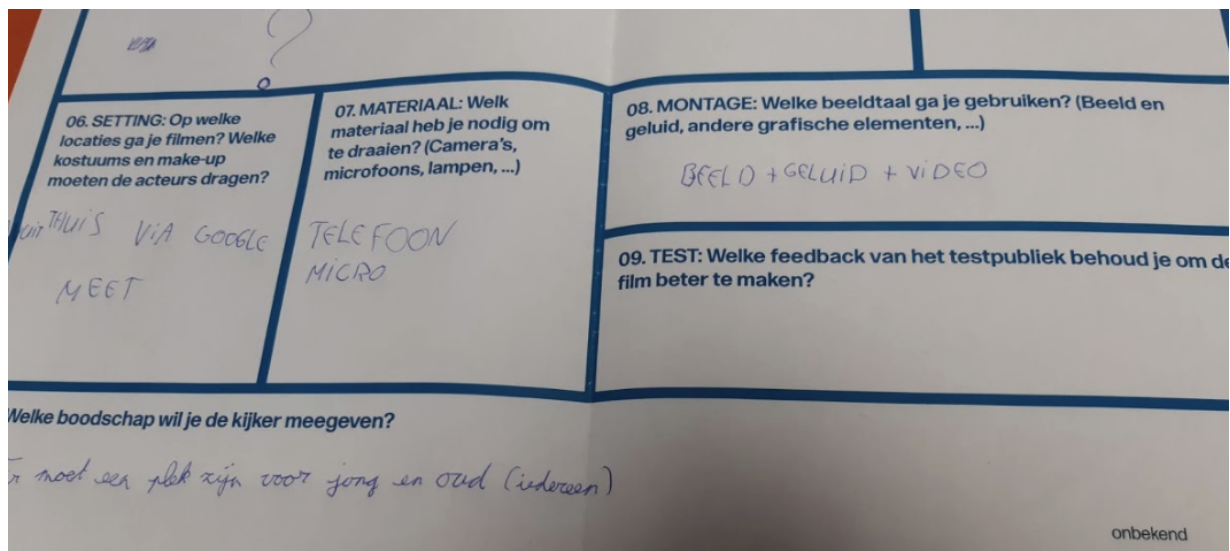   - media: media / director canvas

Figure X. Media/director canvas group A

- development

- 1 image: meme
- 10 images: instagram
- 1000 images: video
- group reflection

- Townhall: Show & tell

- present
- discuss
- evaluate (enter for AI)
- tools & publication

Learnings first test and next steps

First learnings of this first test:

- Add more fun activities/assignments: a lot of possibilities to make the canvasses more fun. (e.g. add gamification, visually attractive)
- Duration: 3u-7u → shorter
- Simple tips & tricks for direction, making their video
- The ideation phase consumes too much time, although it is important
- Design thinking is too broad → focus on ideation
  → We can for example start with explaining the role of the designer in the introduction and start from their needs
  - The role of the edu'kid' = participants designers. They have to think of their own idea and not an idea/story that's good for everyone (= role designer).
- The essence: What do you want → how should you tell it
- Flow: Ideation → pitch (draw/make something to explain your idea to the others) → work together towards one idea → make a story
- Title was confusing → better option: *van idee naar verhaal/van idee naar videoboodschap* (english: from idea to story)

We will continue working (stage 2) at the end of October 2020. **Stage 2 will be an iteration** on what we did in stage 1. We will use the feedback we received during the test (August 2020) and we will **present the resulting stories of the first test to professionals (designers, city of Antwerp, VRT) to evaluate the story requirements.**

Evaluation stories

We are also experimenting with a new way to evaluate a story. We will do an on the spot evaluation via a Qualtrics survey. (survey in Dutch: https://vrt.eu.qualtrics.com/jfe/form/SV_0PL5ogv0X6LGGvH) We are going to ask each participant that tests the EDUkit to evaluate the other participants' resulting story during the Show&Tell. We are able to use the results as a way to start a discussion. And in this way, when having a lot of this kind of data we can analyse this data in Qualtrics via a 'key driver analysis' and might discover which story characteristics determine the quality of that story.

1.4. Requirement tracking

The current chapter will provide a comprehensive list of the different user, technical and storytelling requirements that were defined during the different research activities. These requirements serve to inform the development of prototypes during the course of the project, and this list allows to track how these requirements have been considered during the design. More information on the requirements can be found in the previous chapters of the current document.

Req-##		
UR-01		
UR-02		
UR-03		
UR-04		
UR-05		
UR-06		
UR-07		
UR-08		
UR-09		
UR-10		
UR-11		
UR-12		
UR-13		
UR-14		
UR-15		
UR-16		

2 (Storytelling) Requirements from the "Stories of Luchtbal International Design Week" Workshop

2.1 Introduction

Within Work Package 2, Studio Dott and VRT organised a workshop for the International Design Workshopweek (IDW) from the University of Antwerp. The workshop was held for 5 days for master students product development, architecture, interior architecture, heritage studies, and urbanism and spatial planning of the Faculty of Design Sciences at the University of Antwerp and for students of the Royal Academy of Fine Arts of the AP University College.
(https://www.uantwerpen.be/en/projects/international-design-workshops/
Goal of the workshop was to explore sustainable methods to capture, document and publish stories that take place at Luchtbal (Antwerp), in a structured way looking into aspects like

- Under which circumstances are people willing to share their story?
- How can we support people in telling their story?
- And lastly, in what way can we share these stories, holding space for both the collective and the individual?
- How can these stories contribute to the identity of and love for the neighbourhood, both of its own residents as of bystanders, neighbours, passers-by…?

Detailed information on the workshop and experiments are described in the report "Stories of Luchtbal International Design Workshop Week". In this deliverable D1.2 we only copy the main findings of the workshop.

2.2 (Storytelling) requirements resulting from the workshop

How to help people tell their stories?

- **Create trust**
  You cannot push people to tell their story. You need to create trust first. But how to do this?
    - Share the reason why you want to collect their story
    - Make use of a (trusted) in-between person?
    - Share your part of the story first?
- **Need for a conversation starter**
  People need a trigger to start sharing their stories. A simple question might not always be sufficient when it leads to a straight answer only. The trigger must be
    - recognisable
    - have a link with the present (e.g. 'The taste of before')
- **Need for an example**
  People are triggered by examples. So it might be wise to show previous stories to them to indicate what is expected.

Aspects to consider when setting up story catching experiments.

- **Context**
  The context is essential to take along when setting up story catching experiments. Who lives here? Are people working or living here? What is the history?
  To be able to catch a lot of stories it is important to find a place where people are 'wandering around without a cause'. Because it's difficult to get people to deviate from their predefined plan. For example, it was learned that at the school gate, people just want to go home.
- **Target group**
  Different target groups are triggered by different installations/interaction methods.

Story requirements

Stories must be:
- **Qualitative**
  You need to know the purpose of the stories to be able to decide how you're going to capture them. For example the format, is it vertical or horizontal? Do you want rich material?
- **Recognisable:**
  relating to the audience own living environment
- **Constructive**
- **Understandable**
  audio quality is important
- **Relevant**
- **Structured**
  There is a need for a tension arc, different acts a beginning and an end

3. Year 2 use case related requirements

In this section we describe some requirements for each of the use cases described in D1.1 related to the Y2 use cases. *text in italics refers to requirements of future versions of the use case demonstrators.*

3.1 Track 1: Audio Stories

Functional
- 2 direction communication is needed to make interaction a success
- Feedback loop needs to be closed
- Ownership of the story should be given to the user
- Full commitment of storyteller is needed

Technical
- No community format in the first iteration, but live feed of time stamped items in the radio 2 app, where even the smallest contribution is considered publishable.
- User input can be quotes, images, videos and *audio*; audio snippets are glueing the feed items together

● Later iterations should be able to run on a community platform

3.2 Track 2: Poster Talk

The platform should allow for:
Democratisation: enable a transparent and inclusive participation process, implying:
- accessible to all citizens
- allows participants to create and respond to questions
- constant availability of generated content
- simple user interface
- physical call to action via ubiquitous technologies (optional)
- download option for all posters (optional)
- *upvote/downvote function (optional)*

Moderation: steer participation and avoid inappropriate content to secure a safe place for debate
- moderators should be able to unpublish inappropriate content
- *moderators should be able to contact participants (optional)*
- basic analytic functions for additional context (optional)
- keep track of approved submissions (optional)
- *moderators should be able to change the order of content (optional)*

Hybrid participation: increase the reach of the platform in digital and physical space to attract as many residents as possible, implying
- a virtual platform with connection to physical space
- questions should be available in physical space and online

Privacy: to reduce entry barriers to a minimum and empower participants to also raise more critical topics
- anonymous participation (if prefferd)
- no user profiles

3.3 Track 3: Speech to Text

Requirements for transferring the Danish solution to a Flemish one
Need of Corpus fulfilling the following requirements
- Size of data set: 100 - 1000GB
- Quality of audio:
  - Higher the better
  - Start with good quality then continue with lower and more diversified
  - One speaker
- Size: Ideally 20-30 seconds
- Corpus composition:
  - <u>Base set</u>:
    - High quality audio (no background noise)
    - Slow and articulated talk (preferably native speaker)

- Real life set
    - High quality audio, with some background noise
    - Normal talk
- Regional set
    - High quality audio, with some background noise
    - Normal talk, with a specific regional dialect
- Non-native speaker set
    - High quality audio, with some background noise
    - Normal talk, with a non-native speaker
- Low quality real-life set
    - Lower quality audio, preferably recorded by phone
    - Normal talk, similar to what we expect from users of the app

3.4 Track 4: Audio Pillar

Overall requirements:
The installation should allow for:
- playing prestored stories via a wirelessly connected headset
- qualititatively record audio fragments
- storing or deleting recorded stories

Technological requirements
The solution needs a
- NXP NxH3670 device (dongle & headset)
- Raspberry Pi 4 as application processor
- NXP's proprietary Bluetooth low energy solution to support audio streaming between dongle and headphone (used for gaming headsets)
- USB Streaming/Capturing by Raspberry Pi

3.5 Track 5: TikTok for Cities

Functional requirements:
- focus should be on youth
- open forma
- challenges i.s.o. questions
- hyperlocal
- video first
- user generated content

3.6 Track 6: Mobile Media Fablab

Functional requirements
- It concerns the creation of an experience
- It needs to be more than a survey
- The installation needs to allow citizens to experiment and learn
- The installation should act as a social meeting point

- The user should feel that he is a part of something (for example their story will become a part of an art work in the museum.)
- it should be possible to create a "Shareable' experience. The user should receive their contribution so they could share it
- Triggers, for example objects, should be used to make associations.
- The Multimedis Fablab should package existing gathering and analysis tools and make them available for stakeholders