



Sari Horn (ed.)

# LAMK SummerSchool 2019

## Co-designing Better Urban Living and Wellbeing

The Publication Series of LAB University of Applied Sciences, part 3



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# Dear Reader

The first International summer school arranged by Lahti University of Applied Sciences 2015 gave us good feedback and great experiences and these encourage us to continue this unique approach. The fifth edition of Co-designing Better Urban Living and Wellbeing was held in Lahti 27.5.-7.6.2019. The good practices learned from previous summer schools was used to improve the programme. This year we have gathered 4 fresh articles to this publication. These articles describe the project-based student projects, which were carried out during the two intensive weeks by 35 students from 19 different countries.

We would like to thank all working life partners, students, teachers and other staff members for the successful cooperation, and for their contributions to this publication.

We sincerely hope this story will continue.

Lahti, 5 November 2019

**Sari Horn**

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**” The corporate brand  
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Ulrike Silz, Alexandra Bushueva, Lisa Maria Eibel, Megi Zala, Harikrishnan Nair, Maria Yabut, Ala Al Dwairi, Samira Nazir, Shengji Ji, Kiran Ashok Apsunde, Antti Heinonen, Katariina Mäenpää

# Tajumo Project – Experience Centre for Art and Design

## Abstract

Project Tajumo aims at relocating, reviving and to support the reopening of the Art Museum at Lahti in its form as the Lahti Art, Poster and Design Museum (LAD). This article aims to develop a concrete marketing strategy for the museum using the Vyborg Collection which is in the possession of the LAD. In order to identify the essential steps of the process, it is important to assess how museums are using their key collections as a USP (Unique Selling Proposition), and what are the key approaches that they use to make sure this potential is fully utilized. In addition, analyses of the internal market and the ways how Vyborg Collection can be used as a USP for the LAD be justified is conducted. Finally, the key marketing and branding opportunities that could develop the awareness of the Vyborg collection and pull visitors to seeing the collection in 2021 are defined. The methodology remains overall similar in the initial stages with interviews, background research and brainstorming being the crucial stages.

**Keywords:** Art and design, museum marketing, emotional distance, digital museums, revisiting heritage, AR, VR

## Introduction

In 2021 centre that will host Lahti's art and poster collection as well as collaborative working space for the creative industry in Lahti will be finished. This will be the new home of Lahti Art, Poster, and Design Museum. The museum needs consultation work for the reopening. The main objectives of the study are to create a marketing strategy and an overarching framework

for event creation. The driving force of the project is to specifically make use of the Vyborg painting collection as a USP and attract pre-schoolers to the museum through designing digital technology based experiential events.

Many citizens from the estwhile Vyborg have relocated to Lahti and naturally for event creation. The driving force of the project is to specifically make use of the Vyborg painting collection as a USP and attract pre-schoolers to the museum through designing digital technology based experiential events.

Many citizens from the estwhile Vyborg have relocated to Lahti and naturally given Lahti many links with Vyborg, which was a vital part of Finland. Not only did the people of Vyborg but also several institutions found a way to set up their new home in Lahti. This very connection had the Lahti Historical Museum organised an exhibition titled “Viipuri – mon amour” which created a platform to bring back to light the collections salvaged from the Vyborg Art Museum and the Vyborg History Museum in combination with several Finnish exhibits (Wells 2014, p 51 ). This request by the citizens to view the Vyborg paintings shows the emotional connections that Lahti has with Vyborg.

Mainly, the project group is responsible for coming up with key approaches on how to communicate and promote the exhibit in LAD to the people in Lahti, as well as an overarching framework to capture the attention of pre-school students in Lahti. This is vital, as the visibility of the museum needs to be enhanced. The following research questions need to be answered by the proponents of the study to achieve their goal and objective of communicating the LAD project.

### **Questions asked:**

**RQ1:** How are museums using their key collections as a USP (Unique Selling Proposition)? What are the key approaches that they use to make sure this potential is fully utilized?

**RQ2:** By making use of an analysis of the internal market, how can the use of the Vyborg Collection as a USP for the LAD be justified?

**RQ3:** What are the key marketing and branding opportunities that could develop the awareness of the Vyborg collection and pull visitors to seeing the collection in 2021?

The method to the data collection as well as problem solving of the group is comprised of a gamut of different approaches. Through secondary qualitative research, informal interview of a museum curator fromw LAD, and framework analysis, the proponents of the study were able to come up with solutions to the research questions.

## **Background: Museum Marketing**

When it comes to the basics of marketing, private business and museums are more similar than commonly assumed. A key point for both is their branding. The evaluation of brand identity can be done on the basis of four dimensions: product, person, symbolic and organisation-related (Pusa and Uusitalo 2014).

All these factors, however, do not need to be simultaneously considered for building the brand identity. The most relevant factors or dimensions may be considered and worked upon. By doing so, the various symbolisms of the museum are being used as channels for representing the ideology, beliefs and values that are inherent. Everything ranging from the architecture of the museum to a logo, a slogan, a metaphor or a meaningful heritage story plays a vital role in attracting people and creating associations.

The core products of a museum are its area of specialisation and the quality of the art. These factors are not imitable. The corporate brand of the museum needs all the aspects of the organisation to be in line with its values and heritage. Furthermore, this must be perceived in the same way by all stakeholders. The coordination between these stakeholders is of utmost importance for them to be successful. This showcases the need for communicating the brand through an optimally synergised marketing mix (e.g. Karlsson et al. 2020, Salehi-Sangari and Wallström 2008 , Wood 2000).

Particular tools are used to attract people to the museum which are marketing tools such as Advertising, Sales Promotion, Direct Marketing, and Public Relations. The following are defined as:

### **Advertising**

Paid promotion of goods or services is the core definition of Advertisement. Strengthening the image of the museum by means of disseminating information is a way how value can be added through Advertising (Kotler et al. 2008 ).

### **Sales Promotion**

Sales Promotion is influencing the behaviour of the consumer through marketing that is action-focused. It should be noted that Sales Promotion differs from Permanent Price Reduction in such a way that Sales Promotion is a call-to-action, stating that the price has been reduced but only to a particular time frame or age group (Blattberg and Briesch 2012).

## **Direct Marketing**

To retain customers without the assistance of an intermediary constitutes Direct Marketing. Neglecting an intermediary is needed because there is a desire or a requirement to be able to have a direct response from the customer. Direct Marketing could be done through telemarketing, social media, or even door-to-door leafleting (Jobber and Lancaster 2009).

## **Public Relations**

Public Relations is defined as the management of communication between an entity like an organization or company and the stakeholders. The stakeholders could be the public or shareholders (Wilcox et al. 2015, Cameron and Reber 2015 ). According to Kotler et al. (2008) PR can span from a Press Kit, community relations, PSA, and publicity.

## **Methodology**

Starting the research process, the group practiced a divergent method of research. Each group member, individually, did deep-dive research on marketing in the context of museums. Different types of research materials were utilized by the group. The proponents of the study conducted a qualitative research in which primary and secondary techniques were used.

Journal articles, museum news articles, and museum websites that could be a source of inspiration for the LAD were the secondary research materials used. All of these helped in assisting the team to get to their goal of answering the research questions. After all the divergent deep-dive research that was individually conducted, the team got together and scrutinized information that had been found out through the academic exploration.

During the third day of the two-week research process, a meeting with one of the museum curators of LAD was organised. There, an informal interview was carried out. It was an open table discussion to which the team was free to ask questions that they deemed relevant to the study.

To make sense of the information as well as the suggestions that were gathered, a scientific approach was followed by making use of frameworks. The two main frameworks that the group used were SWOT and SMART. The SMART analysis was more specifically used to evaluate if the recommendations developed by the group are feasible.

## Results

Through ample qualitative research, by means of primary and secondary data gathering, the proponents of the study have collated fitting solutions to the objectives that were raised in the earlier parts of the study.

### **RQ 1: How are museums using their key collections as a Unique Selling Proposition (USP)? What are the key approaches that they use to make sure this potential is fully utilized?**

Key approaches of museums to use key collections as USP.

Thinking of the Mona Lisa, one could immediately think of the museum Louvre. This is one of the best examples of how much visitors can identify with key collection artworks. The museum makes use of this connection in diverse museum marketing channels. Similar to what the Louvre practices, the LAD should fit it as well to their practice and use the Vyborg collection as the flagship painting collection that attracts and brings the people to the museum.

According to Kotler et al., Kotler, and Kotler (2008, p.349) there are four main promotional methods and tool that museums use as their marketing channels. These are advertising, sales promotions, direct marketing, and public relations, which will be further explained through concrete examples in the following.

#### ADVERTISING

Looking at museums' strategies of successfully communicating their key collection it could be understood that websites, posters, and merchandise are their main media (Kotler et al. 2008, 20). As the Internet is part of the everyday practice of people, it could be concluded that it is a valuable tool to connect. In the case of museums, websites will be able to have a certain reach for audiences which cannot be done by traditional advertising platforms (Kotler et al. 2008, 20). Kotler explains why the Internet empowers the consumers as they can: "access information through the Internet that allows them to make intelligent choices about when to visit, when to join, when to shop and dine, and what prices to pay." (Kotler et al. 2008, 34). To further explain this point, analysing the website of the Röda Sten Konsthall - a gallery in Gothenburg, one could see that it is an engaging website (Röda Sten Konsthall 2019). Having a properly designed and well-structured website helps in achieving an immediate positive user experience. Secondly, one of the major advantages of online services is that information can be found on demand, as well as a

real-time content update. The previously mentioned website also provides different language options. This simple feature opens up the museum doors even wider, as global markets can be reached this will make it feasible for products and services to be easily accessed across the globe (Kotler et al. 2008, 34).

Changing from digital to print media, it is recognizable that posters are effective to communicate the message to the audience. Looking at the case study of The Museum für Gegenwartskunst Siegen by the brand agency Hauser Lacour in Frankfurt, highlights that posters are an important medium to communicate new exhibitions and events. It beautifully blends together the artistic standards of the institution and the actual information service (Hauser Lacour 2009).

Nowadays the importance of museum shops has grown (Kotler et al. 2008, 19). Besides the balance of expensive and inexpensive products, there is also a great variety in the product categories that are offered in museum shops. Popular merchandise articles that are found in museum shops are souvenirs, small items that fit most tourists' pockets. Such as stationary, fashion accessories, books, and small high quality handcrafted artworks.

The marketing and communication approaches mentioned above, which museums use to highlight their key collection as USP, are mostly covering the advertising strategies of museums. There are further strategies to attract an increase in visitors.

From creating posters to showcase Vyborg, to weekly updates on the LAD website, these could all help in building the very much needed anticipation for the opening of the museum.

#### SALES PROMOTIONS

One of the first contact points of the customers is the ticketing system. Sales promotion such as student discounts and family passes are common practice. This can be seen in the museum pricing structure of the Design Museum in Helsinki (Design Museo 2019).

Museums that have long ticketing queues often use online services for time-bound tickets to improve the visitor's experience and shorten the waiting times. A museum that practices this service design is the Louvre museum in Paris, France (Louvre 2019). To encourage the younger audience to go and see the Vyborg collection, LAD could introduce a special discounted price for students and families.

## DIRECT MARKETING

A way of interactive contact between museum visitors and the institution is direct marketing, which can be practiced for example through newsletters. This could be an opportunity to provide already interested customers with deeper information on events and offers. Subscribers to the newsletter by the Van Gogh Museum Amsterdam get informed about activities and research, as well as special offers (Van Gogh Museum, 2019). Another effective form of direct marketing is the use of different Social Media websites. Websites such as Facebook, Instagram, and Twitter could help disseminate information about the museum to a wider audience. Similar to a website, this medium holds the possibility of quick and visual information sharing (Pett 2012).

Social media has immensely changed the environment of marketing. LAD could use this powerful tool to communicate the Vyborg collection to everyone connected to their Social Media Platforms. From a simple photo post on Facebook or Instagram, to a hashtag that could help create buzz throughout different social media platforms regular participation in which should be made a part of the LAD's operational strategy.

## PUBLIC RELATIONS

The last umbrella tool to market a museum is Public Relations (PR). An example of PR for museums are brand image, publications, sponsorships, and public talks (Kotler et al. 2001). Public relation could be an important field to reach new customers. A good example of a popular website for art and design related reviews is the UK website Dezeen. The information this platform provides is independent from the museum itself (Morby 2016).

Word of mouth can also be an important tool in attracting visitors to a museum. For example, a committee with representatives from different local organizations was created in The Baltimore Museum of Art (LWRD 1998, 18). Cooperation with schools, churches, and stores helped in spreading the word about the place and its exhibitions. "Museums that flourish in the future will be those willing to collaborate with community partners." says Doreen Bolger, director of the museum.

The LAD could tap the potential of the Lahti homepage to create reviews of the museum and the Vyborg collection to help create interest for people in Lahti. Referring to the second point in the appendix, one can see how the possible PR news article could be. Referring to the second point in the appendix, one can see how the possible PR news article could be.



**RQ 2: By making use of an analysis of the internal market, how can the use of the Vyborg Collection as a USP for the LAD be justified?**

In order to answer the second research question, the group decided to conduct a SWOT (strengths, weaknesses, opportunities, threats) analysis on the basis of all the information that had been gathered through the interview and secondary research. The results of this analysis can be seen in the following figure:

Strengths	Weaknesses
<ul style="list-style-type: none"> <li>- Cultural heritage (collection and building)</li> <li>- New and large space</li> <li>- Cultural and social hub</li> <li>- Collection related merchandise</li> <li>- Existing demand</li> <li>- Works by famous artists</li> </ul>	<ul style="list-style-type: none"> <li>- Website, digital communication</li> <li>- Collection dissonance</li> <li>- Lack of strategy</li> <li>- Lack of visibility</li> <li>- Customer data not available for age groups between under-age and seniors</li> </ul>
Opportunities	Threats
<ul style="list-style-type: none"> <li>- Collaboration with schools</li> <li>- Co-operation with the City</li> <li>- Art residency program</li> <li>- Corporate Scene in Lahti</li> <li>- Tourism (e.g. tours &amp; events)</li> <li>- Digitalization</li> <li>- PR</li> </ul>	<ul style="list-style-type: none"> <li>- Location (emotional distance)</li> <li>- Lack of awareness &amp; expectations</li> <li>- Generation gap</li> <li>- Difficulty to reach pre-school children</li> <li>- Brain drain (Lahti to Helsinki)</li> </ul>

**Figure 1:** SWOT Analysis

The aspects collected through the SWOT analysis clearly show that the Vyborg collection offers various strengths and opportunities for the Lahti Art and Design Centre. As cultural heritage to the region it is of high public interest. This can be used by the museum to attract visitors from all over the country. Additionally, there are many opportunities for the museum to make use of existing and future collaborations and co-operations, which is crucial to reach their goals of building a solid stakeholder network and boosting the Lahti region.

Regarding existing internal weaknesses, one of the most striking issues is the current lack of marketing strategy, including a clear mission and vision statement. Furthermore, communication through the museum's website and social media channels is almost non-existent. External threats to the

museum have already been clearly identified by the museum management itself, highlighting that the location and reaching specific target groups are difficult issues.

**RQ 3: What are the key marketing and branding opportunities that could develop the awareness of the Vyborg collection and pull visitors to seeing the collection in 2021?**

CORPORATE IDENTITY AND MARKETING STRATEGY

As identified in the SWOT analysis, a significant weakness of the museum at this point is the lack of strategy and visible corporate identity. At the core of this identity lies the cultural heritage of the museum, specifically the history and values connected to the Vyborg collection. The emphasis here is laid on the strategic dimension of marketing, which needs to be adapted for the museum to gain the intended visibility amongst the citizens and visitors of Lahti alike. Brand identity, in this case, may be defined as how the museum defines itself and what it strives for. As already described in the theoretical background of this article, one of the most important factors in this context is that the corporate identity is perceived in the same way by all the museum's stakeholders. For the LAD and the TAJUMO project, major stakeholders are the society, media, employees and investors. In order to find out how the corporate identity of the LAD is perceived internally and externally the group recommends collecting input from the pop-up museum visitors, partners, and staff.

As most people are connected nowadays with their smart devices, the group deems that digital media is the best option as a promotional tool for the project. Traditional media was also considered, but it was the importance and efficiency of people being connected that made the group decide that making use of digital media is the appropriate choice. A specific example of a promotional tool that the researchers have suggested is making use of what the LAD already has. Such is their website, unambiguously updating the look and functionality of the website could invite more interested people to visit it and know more about the museum, especially the Vyborg collection. Having a more inviting website with specific information about exhibits and events could greatly increase visitorship of the LAD.

There are three major packages to which different promotional tools fall into. These different promotional tools are further listed into the appendix, as well as the SMART evaluation for said tools.

## Conclusions

Information dissemination about the LAD project is the main goal for the proponents of the group. To advertise the Vyborg collection the proponents of the study have curated carefully thought out marketing promotional tools. These promotional tools are deemed fitting to communicate the importance of the Vyborg collection. Divided into three major packages, the tools are as follows: Digital Package, Intangible Package, and Tangible Package. Digital package includes website, social media and more traditional channels like radio, TV and podcasts. Secondly, intangible package consisting of events and various forms of collaboration, and thirdly, tangible package that builds on pop-up museums and print media.

Proposed packages were analysed according to SMART analysis. SMART analysis assesses following factors: specific features, measurability, attainability, relevant and time bound. Digital package includes pragmatic manners for promoting and branding of the Vyborg collection on website, social media and podcasts. It is pointing out importance of tracking and analyzing digital customers traffic, commitment of staff members in content management and using a full potency of omnichannel marketing.

Tangible and intangible packages observe and suggest actions for Pop-up Museum brand development, event hosting and collaborations possibilities. It is noted that The Pop-up museum can act as an effective medium of mass communication until the museum is open and will be a means for the museum to rediscover and strengthen its corporate identity. Changes to the pop-up museum need to be immediate and prompt as this will provide valuable information that can shape the launch events and further operational strategies of the museum. Museum could host family and community focused events, first at the pop-up museum and later at the actual museum to regularly attract new visitors. It is suggested that Museum should thoroughly promote and host an opening event for the Vyborg collection and regularly host events at the museum that are targeted at reaching specific target groups.

With the recommendations that the group has developed for the project, it is deemed that these are feasible and will greatly help in sufficing the goal of the project. In knowing this, the proponents of the study hope that the solutions will be implemented right away, approach and understand the solutions offered in a pragmatic manner.

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## Appendix

### Proposed Packages and SMART analysis

<b>1.) Digital Package</b>	<b>Specific</b>	<b>WEBSITE</b>	<b>TV, RADIO, PODCASTS</b>
		<ul style="list-style-type: none"> <li>- Improve design</li> <li>- Enhance communication and information</li> <li>- Create online shop</li> <li>- Integrate Social Media</li> </ul>	<ul style="list-style-type: none"> <li>- Advertise on local TV channels and radio stations</li> <li>- Collaborate with Radio &amp; TV Museum</li> <li>- Create a podcast or advertise on existing ones</li> </ul>
	<b>Measurable</b>	<b>SOCIAL MEDIA</b>	
		<ul style="list-style-type: none"> <li>- Enter new platforms</li> <li>- Create targeted content</li> <li>- Increase level of communication</li> <li>- Communicate in English as well</li> <li>- Run marketing campaigns</li> </ul>	<ul style="list-style-type: none"> <li>- Use hashtags</li> <li>- Share and/or create blog content related to the museum</li> <li>- Have contests and raffles to engage audience</li> </ul>
		<ul style="list-style-type: none"> <li>- Make use of tools like Google analytics, track website traffic and followers on social media</li> <li>- Analyse range and coverage of radio stations, TV channels, and podcasts</li> <li>- Use the collected data for further targeted marketing</li> </ul>	
<ul style="list-style-type: none"> <li>- Hire professionals to create the new website</li> <li>- Educate and/or hire staff for content management and interactive communication</li> <li>- Possibly collaborate with universities for student projects in the area</li> </ul>			
<b>Attainable</b>	<ul style="list-style-type: none"> <li>- Hire professionals to create the new website</li> <li>- Educate and/or hire staff for content management and interactive communication</li> <li>- Possibly collaborate with universities for student projects in the area</li> </ul>		
<b>Relevant</b>	<ul style="list-style-type: none"> <li>- Hire professionals to create the new website</li> <li>- Educate and/or hire staff for content management and interactive communication</li> <li>- Possibly collaborate with universities for student projects in the area</li> </ul>		
<b>Time-Bound</b>	<ul style="list-style-type: none"> <li>- Implement the suggested improvements as soon as possible and start using them</li> <li>- Finish all improvements and create all necessary new channels before the opening campaign of the museum is launched, so that this can take place on all media simultaneously and generate maximum awareness and visibility</li> </ul>		

**Figure 2:** SMART analysis on Digital packaging

## Appendix

### Proposed Packages and SMART analysis

<b>2.) Tangible Package</b>	<b>POP-UP MUSEUM AND PRINT MEDIA</b>	
	<b>Specific</b>	<ul style="list-style-type: none"> <li>- Improve the visibility of the Pop-up museum</li> <li>- Conduct events in the Pop-up museum which makes people share their old memories and photographs of the museum</li> <li>- Focus of PR via increasing focus on the print media marketig</li> </ul>
	<b>Attainable</b>	<ul style="list-style-type: none"> <li>- Use the feedback received from events in the pop-up museum to perform deep content analysis</li> <li>- Conduct a survey through the readers of the local print media on the awareness of the museum re-openin</li> </ul>
	<b>Measurable</b>	<ul style="list-style-type: none"> <li>- Reflect on the results of content analysis to rediscover and strengthen the corporate identity of the museum and develop a unique visual identity in terms of a new refreshed logo and symbol, either use own staff, hire professionals, or collaborate with students to do so either use own staff, hire professionals, or collaborate with students to do so</li> <li>- Create merchandise that depict the refreshed image of the LAD</li> </ul>
	<b>Relevant</b>	<ul style="list-style-type: none"> <li>- All used marketing channels aim to promote and enhance the museum's overall corporate identity and marketing strategy</li> <li>- The Pop-up museum can act as an effective medium of mass communication until the museum is open and will be a means for the museum to rediscover and strengthen its corporate identity</li> <li>- Despite the popularity of new media, traditional print advertisement can still reach a wide audience, including those groups that are not technically competent</li> </ul>
<b>Time-Bound</b>	<ul style="list-style-type: none"> <li>- The changes to the pop-up museum need to be immediate and prompt as this will provide valuable information that can shape the launch events and further operational strategies of the museum</li> <li>- Print media campaigns should be planned and launched before the opening of the museum</li> </ul>	

**Figure 3:** SMART analysis on Tangible packaging

## Appendix

### Proposed Packages and SMART analysis

3.) Intangible Package	EVENTS		COLLABORATIONS	
	Specific	<ul style="list-style-type: none"> <li>- Host family and community focused events, first at the pop-up museum and later at the actual museum to regularly attract new visitors</li> <li>- Organize contests and raffles to engage people, create excitement and awareness, this should be done in connection with social media campaigns</li> <li>- Thoroughly promote and host an opening event for the museum to make people aware that the Vyborg collection is now finally available</li> <li>- Organize events for tourists, for example city walking tours that include the LAD and other main attractions of Lahti</li> <li>- Regularly host events at the museum that are targeted at reaching specific target groups, for example children or teenagers</li> </ul>	<ul style="list-style-type: none"> <li>- Make use of the proximity to LAMK to work together with students</li> <li>- Strengthen connections to other museums, organize common events (e.g. a museum day where people can visit all the museums in Lahti with a single ticket, or other public events that connect the cultural hubs)</li> <li>- Collaborate with the city of Lahti to enhance the image of Lahti as a whole</li> <li>- Set up collaborations with tourist offices and travel agencies to attract tourists and make them aware of Lahti's huge cultural offering</li> <li>- Collaborate with schools and preschools in Lahti to educate children about their rich cultural heritage, focusing on the Vyborg collection and interesting ways to attract this young audience to the museum</li> </ul>	
Attainable	<ul style="list-style-type: none"> <li>- Track number of participants and visitors of any events</li> <li>- Analyse participation in events, contests, etc.</li> </ul>			
Measurable	<ul style="list-style-type: none"> <li>- Using the pop-up museum and later the finished LAD as a venue makes it possible to host various events without needing to find and pay for a separate location</li> <li>- Networking and establishing different kinds of collaborations offers a huge potential for the LAD as well as for its partners and should therefore be attractive for both sides</li> <li>- Regarding collaborations with schools, educating children about their country's history and heritage does not only benefit the museum, but also the schools and children themselves</li> </ul>			
Relevant	<ul style="list-style-type: none"> <li>- Offering events to the public is crucial for the museum to create awareness and visibility for their new location and the finally permanently exhibited Vyborg collection, vice versa the famous Vyborg collection can be used to attract visitors to said events</li> <li>- Collaborations enable partners to get different points of view and make use of their each other's know-how and resources, additionally this helps the cause of connecting the whole Lahti region</li> </ul>			
Time-Bound	<ul style="list-style-type: none"> <li>- Before the opening of the LAD various events can be held at the pop-up museum to create awareness and excitement among Lahti citizens, the planning of these events should be commenced as soon as possible</li> <li>- The opening event should be organized in time</li> <li>- Regarding collaborations, it is crucial to strengthen existing ones and start building new ones as soon as there is an opportunity to do so</li> </ul>			

Figure 4: SMART analysis on Intangible packaging

**” Smart homes will allow the elderly to stay in their beloved homes instead of living in an expensive yet restricting retirement home.**



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# **JYRÄNKÖLÄ Settlementti – Service Design for Intelligent Lifetime Senior Citizen Care Solution**

This article discusses the method of co-design, and results of Jyränkölä-case in "Co-design and urban living" -course in Summer School in LAMK. The team, working in case "Jyränkölä" was formed of multidisciplinary students from different universities and study programs. The co-design approach in problem-solving is a creative practice where the aim is to create the formulation and solution in an authentic environment. This method brings together clients, designers, and stakeholders.

The "Jyränkölä" case study stakeholders are Jyränkölä settlement in Heinola and Peoplepower -company. Jyränkölä settlement provides elder care services and the Peoplepower -company's core business area is smart home services and senior care technology. Within two weeks, the student group worked a very compact and focused manner by exploring the topic first, and then focusing on service issues and designing a service model for the stakeholders.

**Keywords:** home care, service design, senior care, safety home care system

## **JYRÄNKÖLÄ-case**

Our summer school project aims to find the best way to implement the piloting of the security and home care system in the Finnish market. The main objective is to find out the most effective strategy for senior care service software needed in the retirement home in Heinola, Finland. An exemplary

implementation in the market is necessary from the purchaser's perspective. To get a bigger picture an interview with a senior who has lived in this retirement home for 20 years, was conducted. This is where the piloting needs to take place. Furthermore, w team used the outcome of this interview for the customer journey map and based upon which, the service blueprint was developed. During the process the use of stakeholder map was a turning point, because it led to the focus of the actual target on general practitioner. The GPs act as a bridge between the client and the senior-home-care company. The specific objective of this project stage, overall, is to achieve a successful adaptation and acceptance by the clients. The team strives for a remarkable implementation into the health care market which will create a huge impact on future living.

## Overview

Nowadays, the elderlies expect different things, and this changes continuously. What might have been helpful or safe for former generations, may not fit in the future. People either end up in retirement homes or must deal with an assistant who lives with them in their own home. Even when they do not want to live under such conditions, there is no other option to choose. The choice to stay with the supporting service in their own places is missing. (Johnson 2015)

As digitalization is becoming more and more evident in the daily life, everything is changing. It is becoming one of the key enablers of the home care system, as gathering and examining data is in the focus of managing any health care system. Cost of care and the lack availability of structured data of patient outcomes are delaying the implementation of such a home care system. Digitalization is the solution to adopt the safety and home care thinking. Many industries as well as healthcare are in the middle of a rapid change to the digital revolution. From the rise of wearables to the growth of electronic health records of patients, the digital proliferation in healthcare is disrupting the whole business environment. (Thompson 2018)

This article is about the company PeoplePower, which provides the best solution for such an emotional issue, which is bound to affect the future. They offer an innovative product service system which has been very successful in the United States. The business has grown extensively, with the aim of expanding into the European market. The company, with its senior care software was introduced by Mr. Okkonen, the CEO for the European market, who is the contact person for the team. The objective of this project is to devise proper communication to condense the decision- making process of the customer by presenting them with the benefits and advantages when purchasing the offered service. (Okkonen 2019)

During the preparation for the interview in the retirement home, some questions the group decided on asking are:

- What do you do in your free time? (ice breaker)
- What obstacles did you have to face while living at your place?
- What do you like most about living in the retirement home?  
What was new? What is different now?

Based on the research and outcome of the interview in addition to the introduction of the devices and software service, FEELI was created. A home care service for elderly to enable the stay in their beloved homes without borders. FEELI will be described in detail in the FEELI – the partner you can count on chapter.



**Figure 1:** Interview with a senior (Rathgeb 2019)

### **Partnership & collaboration**

The key to success is having a strong collaboration and a solid partnership is, thereby essential. Having both, it was a new experience for the team. Having worked in the health care segment for the first time, the chance to interfere with seniors was very important as they were the reason why this project was chosen in the first place. The business partner was very open minded, helpful by answering all the questions and provided all the necessary information.

The outcome of the project is a major step forward into the right direction. Smart homes will allow the elderly to stay in their beloved homes instead of living in an expensive yet restricting retirement home.

The collaboration within the group was very efficient. Each team member was part of something big, and active participation, free mind and the sharing of opinions were vital and pushed the dynamics of the group. Nevertheless, when it comes to group work, one of the important aspects that must be considered is communication. Without communication, a team cannot perform. When a group member shared a memory, a thought or a question, it was considered with utmost intent and together, it was made possible!

## **Peoplepower**

In 2013 the company PeoplePower developed the smart home app Presence; an app that changed the use of smartphones into a high-level home security, home automation and energy management system. It became very popular in the United States and was used as a solution for especially senior care. An IoT (Internet of Things) software company assembled designers, dreamers, engineers and musicians have defended the position as the leading software company by working on revolutionary design methods and managing consumer experience. Those services create brand value and new opportunities. Such benefits are the 24/7 customer support and call center monitoring, online retail marketplace, warehouse and inventory readiness and so on. Since its successful launch in the States, the company wants to launch the senior care solution in Finland. (Peoplepower 2019) The demand on the market of smart home has seen a continuous increase over the past few years.

## **Approach**

For a deeper understanding of the elderly, the daily routines and obstacles they must face daily, the team has visited Heinola for a day. The team has used semi-structured interviews which is a mixture of a structure and unstructured one (Dudovskiy 2019). In this specific kind of dialogue, the team prepared a set of questions that they wanted to be answered by the seniors.

Since open questions were used and a very broadened talk was considered, certain issues were easily clarified. This method was used due to its advantages for the project. It was the easiest way to obtain detailed information about the senior's life, hobbies, and likes and dislikes. Otherwise the information such as the one that she loves to listen to the radio, would not possible to get. This short interview gave a lot of good ideas on how to use and implement the senior care software and system. It is not only about the safety and care, but also the other features that the device has to offer like

playing music or an audio book, taking phone calls or powering a light on/off. This system enables more freedom and a better quality of living for the elderly.

The team started with an ice breaker question to gain trust of the senior and to make her feel comfortable, such as what her hobbies are. She started by telling about her daily routine, and that she likes listening to music while getting out of the bed. However, upon approaching the more specific ones, the aim was to know how she would feel if there is a device that detects her movements and behavior, but to which she could talk to or listen to music with.

At the first glance, she was suspicious, but with the mention of the additional options she could use like listening to music, an audio book or controlling the light, she seemed very interested. On the other hand, she does not feel very comfortable using tablets and having the motion sensors placed all over her apartment. She does have an emergency wristband. But there once was an accident wherein she had a fall and since she had forgotten to put on the wristband, even screaming did not help as no one could hear her. At that moment, the home care system would have been very useful.

In addition to the interview, a customer journey and a service blueprint was created. The service blueprint visualizes the connection between various service elements that are directly linked to touchpoints in this specific customer journey, like people and processes.

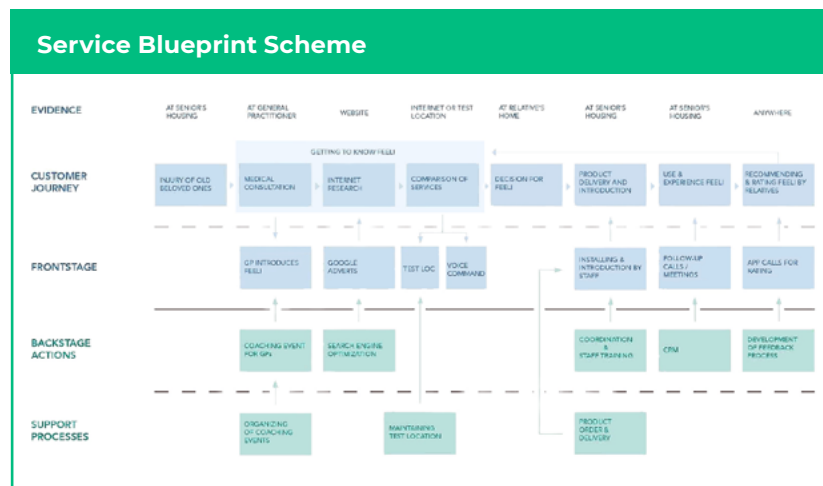


Figure 2: Service Blueprint (Drawn by authors 2019)

It can also be said that the service blueprint is a part of the customer journey map. Making use of both the customer journey map and the service blueprint methods, the service that the company provides with the home care and safety system and software was understood. Hidden opportunities can be uncovered and used for optimization. (Gibbons 2017)

By creating and using a unique blueprint, an overview of how the service could be implemented by the organization and can be used by the elderly.

### FEELI – the partner you can count on

Nowadays, there are only two options the elderly can choose. Whether they decide to get an assistant who lives with them and helps them through their daily life, or they choose the radical change – to move into a retirement home. But both options are, however, not pleasant. This is where FEELI comes into the picture, a system that allows the seniors to stay in their beloved homes without any restrictions. This is based on a technology which supports and comforts the family with the use of smart home devices. FEELI monitors the behavior and routines of the elderly. With the motion sensors, FEELI can detect actions e.g. if senior falls, and the system sends an immediate alarm to a neighbor or a relative, thereby, calling for help.

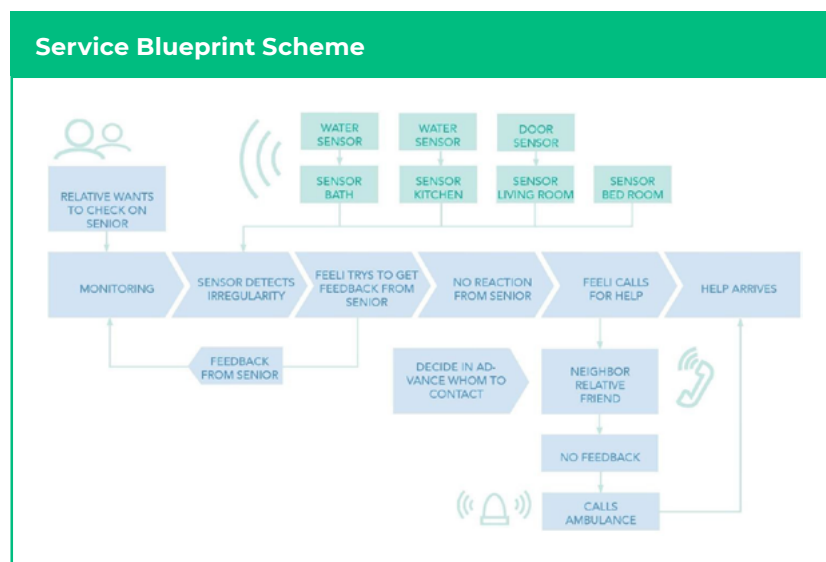


Figure 3: FEELI in Detail (Drawn by authors 2019)

Additionally, FEELI offers the ability to listening to music, audio books or powering on/off the lights, on command. According to this information we optimized the stakeholder map, which indicated that focus on the GPs to be the most efficient choice. Based on this, the customer journey has been developed, paying closer attention to the user-focused touchpoints and to how the client gets to know about the service. FEELI is first introduced to the network of practitioners, and subsequently introduced to the client via them. Initially the company contacts several practitioners and informs them about the capabilities of FEELI, these practitioners are then used as a medium to present FEELI to clients. While doing this the experts [GP's] are involved

in the process and thereby FEELI can ensure the delivery of optimum and on-time solutions to all its clients. With the active FEELI test locations the clients can get a complete experience of how this system functions and its user-friendliness in terms of hardware and software. Convenient and on time medical attention, this is FEELI's foreword. With the successful implementation of FEELI, it can be rest assured that our elderly will always get the best that they deserve.

### **Prospective change**

To summarize, the initial step by the company is to create a network of general practitioners. These GP's then educate the client about FEELI, and furthermore, the client learns about FEELI through various media of marketing employed by FEELI. Upon learning the advantages and benefits of using FEELI, the client can easily get in touch with the company and experience the same at test locations which give a complete feel of the system and the software. As the number of users keep increasing, it is possible to create a global network of practitioners and clients which benefits by staying in touch with each other. The extremely user-friendly interface and fast connectivity will ensure that every person connected through FEELI will receive the necessary help and care at the earliest. With the arrival of more advanced connectivity technologies, it must be further ensured that the FEELI network is capable of adapting. There is also a possibility of collaborations with similar organizations to make the service seamless.

The team would like to thank Mr. Okkonen for the invaluable support and help during solving the issue of the project.

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**” Ensuring that parents or grandparents are safe at home as they are getting older is becoming a very complex task in this time of rural depopulation and the constant mobility of younger generations.**

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# Using artificial intelligence to provide senior care services to improve safety at home

## Abstract

This article discusses the method of co-design, and results of Jyränkölä-case in "Co-design and urban living" -course in Summer School in LAMK. The team, working in case "Jyränkölä" was formed of multidisciplinary students from different universities and study programs. The co-design approach in problem-solving is a creative practice where the aim is to create the formulation and solution in an authentic environment. This method brings together clients, designers, and stakeholders.

The "Jyränkölä" case study stakeholders are Jyränkölä settlement in Heinola and Peoplepower -company. Jyränkölä settlement provides elder care services and the Peoplepower -company's core business area is smart home services and senior care technology. Within two weeks, the student group worked a very compact and focused manner by exploring the topic first, and then focusing on service issues and designing a service model for the stakeholders.

**Keywords:** service design, artificial intelligence, senior care service, senior home care

## Introduction

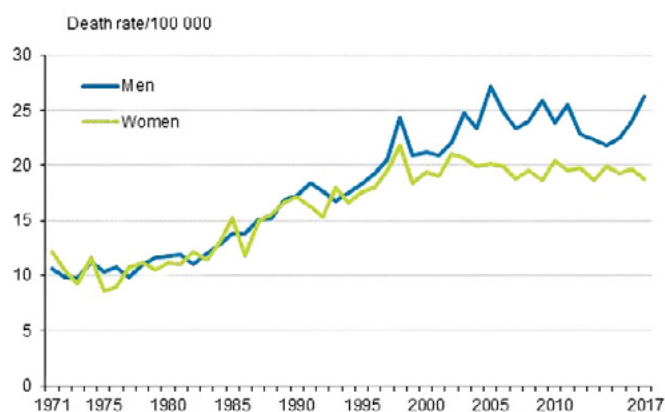
Ensuring that parents or grandparents are safe at home as they are getting older is becoming a very complex task in this time of rural depopulation and the constant mobility of younger generations. This article deals with a solution for this problem: A senior care service called SeniorCareFirst.

We are starting this article off by providing background information on the initial problem. The company PeoplePower providing SeniorCareFirst and main terms used in this article are introduced. The theoretical section is being completed by a market research. Next there is a presentation of the working process we went through as a group describing our methodical approach. Furthermore, our results (the marketing mix and a word cloud of the key words mentioned in an interview) are presented. Lastly, there is a section on our recommendations for PeoplePower, a conclusion and a discussion of our group work and collaboration with our partner PeoplePower.

## Background and Theory

### Relevant statistics/material describing the initial problem

According to Statistics Finland (2018), a growing number of elderly people in society show the increasing need of some form of professional care, especially for people who require extra attention because of diseases like dementia. In 2017, 53,670 persons died, 36% of deaths in Finland were caused by diseases of the circulatory system and 24% were caused by neoplasm. The most common disease of the circulatory system is ischemic heart disease. 9400 persons died from dementia, including Alzheimer's disease (17%). Over 1200 persons died as a result of accidental stumbles and falls, and four out of five falls resulting in death happened to people over the age of 75. Home is where these accidents commonly happened. This number has more than doubled in 40 years.



**Figure 1:** Men's and women's fatal accidental falls 1971 to 2017 (Statistics Finland 2018)

The Nordcare survey shows that between 2002 and 2012, in all Nordic countries, the number of nurses who wanted to quit their job is increasing. Among the other Nordic countries, Finland has the highest percentage in the

concern of low nurse staff, both in residential care and home care (Vabø fact, that states Finnish nurses can be handling 12 patients, while their counterparts in Denmark would have an average of 7.6 patients each, and states that Finnish nurses, in terms of elderly patients, were lagging behind Norway, Sweden and Denmark (News Now, 2017).

## **Introducing PeoplePower and main terms used**

### PEOPLE POWER

PeoplePower, the Internet of Things (IoT) software company, is providing custom branded services for senior care. The care solutions combine intelligent cloud services, mobile apps and low-cost sensors to create a smart home product that includes important care assistance and social outreach features (Nelson, 2019).

Noteworthy features that deliver critical insights and alerts to care providers include AI- powered fall detection, wandering notification, and activity and sleep monitoring. Each service is fueled by PeoplePower's patent pending machine learning algorithms that evolve constantly by learning patterns of the behavior in order to warn caregivers about incidents of concern and pending hazards (Nelson, 2019).

### ARTIFICIAL INTELLIGENCE

Artificial intelligence (AI) is an area of computer science that emphasizes the creation of intelligent machines that work and react like humans (Techopedia 2019).

### ARTIFICIAL INTELLIGENCE IN ELDERLY CARE

According to the United Nations report "World population prospects" (2017), the number of persons aged 60 or above is expected to grow from 962 million globally in 2017 to 2.1 billion in 2050 and 3.1 billion in 2100. Seeing the growth prospects of an aging population worldwide, it is no surprise that the assisted living industry is attracting innovations at a rapid pace, making health monitoring for caregivers a snap. These innovations are becoming increasingly important as the countries of the world deal with the elderly population explosion in the coming decades. These technologies have the potential to make life much easier for seniors, especially those with mobility issues (Dossman, 2018).

Wireless Sensor Network (WSN) is increasingly becoming a hot topic in the assisted living technologies domain (Dossman, 2018). These products use battery-powered wireless sensors (instead of an actual wearable device) to measure environmental parameters like temperature, humidity, and light intensity as well as micro-level incidents which allow monitoring of daily activities like moving, sitting, sleeping, usage of electrical appliances, and bathroom trips. The wireless sensors are placed around the house to monitor activity. A caregiver can simply log in to the product’s portal (or check texts, email, or mini-apps) to find out what their loved one is up to. Most of these products have a Personal Emergency Response System (PERS) that upon detecting significant deviations from the ordinary activity patterns of individuals and/or sudden falls, issues automated alarms which may be forwarded to authorized persons (Dossman, 2018).

**Potential competitors**

The competition of Senior Care First provided by People Power is analyzed via SWOT- Analysis. The competitors names are Vivago, Seniortek and Suvanto.

**1. VIVAGO**

Vivago provides a special watch that monitors bodily functions and alerts in case of disnormalities for 55€ per month (Vivago 2019).

Strengths	Weaknesses
<ul style="list-style-type: none"> <li>- Over 20 years experience in Europe and more than 80,000 users</li> <li>- Offering follow-up for healthcare professionals</li> </ul>	<ul style="list-style-type: none"> <li>- Only wearable device</li> </ul>
Opportunities	Threats
<ul style="list-style-type: none"> <li>- Doctors and nurses can give more personal medical advice and support with the data</li> <li>- Can be more trustworthy to the potential clients due to long existence on the market</li> </ul>	<ul style="list-style-type: none"> <li>- Device might not be close when accident happen</li> <li>- Passive attitude in social media</li> </ul>

**Figure 2:** SWOT Analysis on Vivago

## 2. SENIORTEK

Seniortek provides a system using different sensors to provide safety for seniors living in nursing homes or staying in the hospital in Finland, USA, Japan and China (Seniortek 2019).

Strengths	Weaknesses
<ul style="list-style-type: none"> <li>- Already exists on the market</li> <li>- Finnish technology</li> <li>- Advantage of service for medical institutions and their staff</li> </ul>	<ul style="list-style-type: none"> <li>- Not very active on social media</li> <li>- Social media only in finnish</li> <li>- not for private use</li> </ul>
Opportunities	Threats
<ul style="list-style-type: none"> <li>- Possibility of cutting human resource cost</li> <li>- Can be more trustworthy to the potential clients due to long existence on the market and finnish heritage</li> </ul>	<ul style="list-style-type: none"> <li>- Low customer attraction through the social media</li> <li>- Low attention to international customers that might cause sales to decrease</li> </ul>

Figure 3: SWOT Analysis on Seniortek

## 3. SUVANTO

Suvanto is a Finnish company providing safety for elderly people living at home using artificial intelligence for 89€ per month and one-time installation fee of 499€ (Suvanto Care 2019).

Strengths	Weaknesses
<ul style="list-style-type: none"> <li>- Already exists in the market</li> <li>- Finnish technology</li> </ul>	<ul style="list-style-type: none"> <li>- Not very active on social media (rare posts)</li> <li>- Office location is only in Rovaniemi</li> <li>- Staff consists only of five people</li> </ul>
Opportunities	Threats
<ul style="list-style-type: none"> <li>- Can be more trustworthy to the potential clients due to long existence on the market and finnish heritage</li> </ul>	<ul style="list-style-type: none"> <li>- Low customer attraction through the social media</li> <li>- Difficult to reach by customers if troubles occur</li> <li>- Due to high demand of service the company might not fulfill the customers demand</li> </ul>

Figure 4: SWOT Analysis on Suvanto

After identifying the competition and analyzing them via SWOT- Analysis the market research results show that Suvanto is the biggest competitor. They provide a similar service for a similar price. A list of recommendations to make it easier to deal with the competition can be found later on in the article in chapter 4.5.

## Potential investors

Potential investors/ partners could be senior care services such as Jyränkölän Setlementti in Heinola. There is another supportive residential accommodation, Hopeasilta and four home care groups in Heinola as well. Potential partners can also be found in Tampere (e.g. Kotitori), Helsinki (e.g. Stella), Lahti (e.g. Debora), Turku (e.g. Akson) and Jyväskylä (e.g. Mehiläinen).

## Methodology

To achieve the project goal, the following stages were carried out:

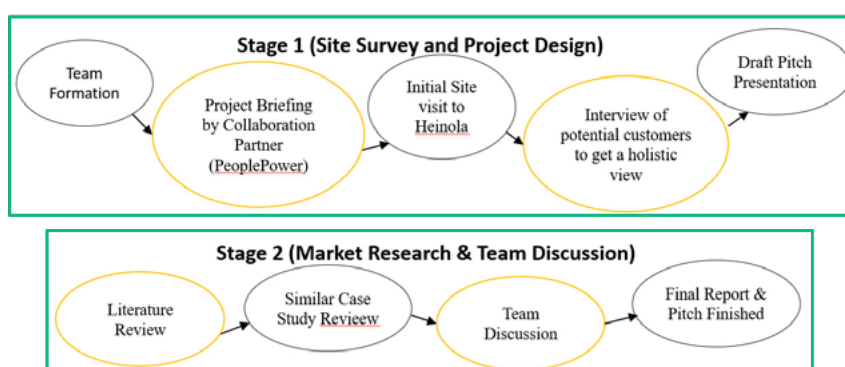


Figure 5: Methodology Flowchart

### STAGE 1. (SITE SURVEY AND PROJECT DESIGN)

Once the team was formed, the initial stages of the project was kicked off. Then, the Project briefing by the collaboration partner (PeoplePower) shed more light into what was expected from the team. Thereafter, there have been group discussions and the team visited the case study site in Heinola. During the site visit, an interview with a senior citizen was carried out, and then the team gathered to discuss on the site and further design the project outline, and what could be proposed there. Initial site visit was carried out on 29/05/2019:

## STAGE 2. (MARKET RESEARCH AND TEAM DISCUSSION)

At this stage, the team embarked on reviewing and extensive studying of existing literatures and similar case studies. Through discussions within the team, a draft proposal was prepared. All these steps are outlined in Figure 2 below:

## Results

This section contains our elaborated results including the marketing mix and key words mentioned in the interview we conducted.

## The marketing mix

### 1. Product

SeniorCareFirst is a service that provides quality tracking assistant help for elderly people living at home. SeniorCareFirst consists of three main important parts: nurse assistance, tracking sensors and an application.

#### NURSE ASSISTANCE

As our service will be presented via senior care services to seniors who are living alone, a part of the offered service will be nurse assistance. Nurses will have constant checks on senior's to review their wellbeing and health. The number of checks depend on the senior's diagnosis.

#### TRACKING SENSORS

These sensors are responsible for daily home activity tracking. Tracking sensors of the senior care service are divided into two categories: motion sensors and water sensors. Motion sensors control the movement of the senior client, observe whether the client is at home or not and detect if the client has fallen. Water sensors detect water for example when the bathtub is full or there's a leakage. These two sensors analyse the daily activity, send the data to the application and notify the closest circle via app if the behavior is different.



#### THE SENIORCAREFIRST APPLICATION

The “SeniorCareFirst” App is designed mainly for data analytics of the senior’s activity and for communication and sharing this data between the closest circle (e.g. family members, nurses and friends) that can be chosen by the senior himself/herself.

The Key Features of the SeniorCareFirst App:

- Analytics of tracking daily activities, the app learns the senior’s behavior
- Sending alerts to the closest circle if behavior is different than usual
- Reminder for the closest circle to get in contact with senior (for example “Call grandma today”)
- Custom settings about tracking action notification
- Chat/Call to closest circle
- Profile health card

## 1.2. Product values

The SeniorCareFirst carries 4 main values:

#### TRANSPARENCY

With SeniorCareFirst seniors will remain a part of society as the application gives constant connection to their closest circle and they will stay in their familiar environment.

#### EASE OF USE

Seniors do not need to complete any special training in order to understand how to use this app as the system will automatically notify their closest circle about any changes in their activity. Moreover, such features as chat and calling are similar to standard phone features and in some cases, it can be expected that seniors are familiar with these features.

#### ACCURACY

SeniorCareFirst provides accurate data statistics due to high tech artificial intelligence. Seniors do not need to worry about calling for help when accidents happen, the application will do it itself.

SAFETY

Seniors will feel completely safe as they do not need to worry about pressing any buttons in case of an emergency anymore. They can live by themselves and be safe as well.

**1.3. Target market**

B2C

The potential clients are seniors from age 65 and older living in their own home and far away from their family but wanting to stay a part of society and children or grandchildren of these seniors wanting to make sure their parents or grandparents are safe. Examples of such clients are given below (figures 4).



Figure 4: Examples of potential client A and B

B2B

SEE "POTENTIAL INVESTORS".

## 1.4. Mission

The main mission of SeniorCareFirst is to provide safety for elderly people so that they can stay in their own home as a full member of society.

## 1.5. Vision

24/7 nurse safety assistance in every senior's flat in Finland

**1.Price:** The pricing is subscription based. There is a one-time installation fee of approximately 500€ and a monthly fee of less than 100€ per month.

**2.Place:** SeniorCareFirst is being introduced to the Finland market. In addition to an online service there are going to be local support centers and a main office in Helsinki.

**3.Promotion:** SeniorCareFirst is focusing on both B2B and B2C.

B2B

### SENIOR CARE SERVICES:

- Negotiation via promoters
- Participation in tech events (e.g. Slush Helsinki), trade shows, conferences
- Offer one of their seniors a free trial run
- Price reduction
- Charities (e.g. senior care centers)
- Customer appreciation events

B2B

### SENIORS AND FAMILY MEMBERS:

- Free trial run of the service
- Information events
- Discounts/coupons
- Senior care service promotion
- Charities (e.g. senior care centers)
- Customer appreciation events

## Key words mentioned in interview

Below there is a word cloud with key words that were mentioned in an interview we conducted with a senior lady named Vieno in Heinola. She is one of two elderly people that is going to have the devices installed in her apartment as a trial run.



**Figure 5:** Word cloud with keywords mentioned in the interview (Skuzza 2019)

Vieno emphasized the security aspect of the service and that it will be more practical than the security watch she is already wearing. She mentioned that once she had fallen inside her flat and she couldn't reach her security watch as it was in another room. With SeniorCareFirst the alarm will go off automatically and there will be no fake alerts. Also, with this service she does not have to worry about being a burden to the homecare nurses or her family because they don't have to check on her all the time.



**Figure 6:** Vieno and our group after the interview (Skuzza 2019)

## **Our recommendations for PeoplePower**

Based on our results we have a few recommendations for PeoplePower that would make the service of SeniorCareFirst more unique on the market:

- 1.** Use and be active on social media. This is the channel young adults will use to get information on the service for their parents and grandparents.
- 2.** Record new professional promotional videos
- 3.** Rethink the amount of the monthly fee since Suvanto is providing a similar service for a similar amount of money.
- 4.** Create a feedback section on your website and make sure that you respond to the feedback so that customers feel respected and their feedback is appreciated.
- 5.** It could be beneficial to have local support centers on top of a main office.
- 6.** Add tracking sensors to everyday devices such as a watch to track the senior's location outside of the house and get notifications if the location is different than usual.
- 7.** Add a feature to the application so that it reacts to help calls such as "Safety, help" or "Safety, call daughter". The application would then send an automatic alert to the closest circle or connect the senior with the person he/she wants to call.
- 8.** Consider collaborating with Suvanto because they have the advantage of being a Finnish company and having experience on the Finnish market.

## **Conclusion**

In summary it can be stated that SeniorCareFirst is a service that will provide safety for elderly people living at home. This service is desperately needed in times of rural depopulation and lack of professional nursing staff in the communities. It sticks out on the market because of two main reasons. First, its transparency by providing direct access through the application since this enables a constant connection between the elderly person, their care providers and their family members. And second the ease of use. The features are simple and easily understandable and there are no overwhelming or complex features.

All in all, this service will bring great benefit to elderly people and their care providers. It will ensure seniors are taken care of in case of an emergency and make it possible for them to live in their own home. This service enables them to stay a part of society rather than being sent off to a nursing home.

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**” The collaborative efforts between such an interdisciplinary and intercultural group brought forth a great deal of perspectives.**

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# Inter-Active Niemi – Sustainable upgradation of the Niemi Area

## Introduction

This report discusses the urban design strategies that can be implemented in the Niemi area of Lahti, Finland. It utilizes a collaborative approach between an interdisciplinary and international group of students who partook in the summer school at Lahti University of Applied Sciences (LAMK) - from the 27th of May to the 7th of June 2019. The program was designed to improve team building skills in a structured manner by following the Tuckman (1965) approach of **Forming, Storming, Norming, Performing** as shared below:

- Getting to know the members of the team, including their strengths, weaknesses, opportunities and threats (SWOT). Being polite and understanding towards everyone's needs. This was primarily done by forming a chat group, and having a common time when everyone could meet and discuss face to face.

Discussing and putting everyone's ideas on the table was done by having everyone write down their thoughts about the priorities on post-it notes. Then each post-it was individually read out loud and discussed as to where its priority and stage should be. This collaborative discussion helped mutually understand who could take the lead and who can support the process at its different stages.

Everyone understood the tasks at hand, and each person agreed to contribute to a workflow based on their strengths and weakness that could help achieve the desired results. There was a good form of unity as each one had acclimatized to the others in the group.

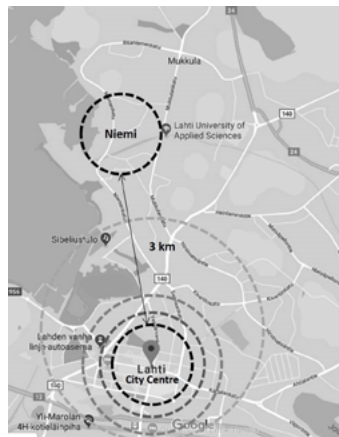
Semigroups of 2-3 split up to work towards their responsibilities in the project - video editing, pitch, presentation, master plan, mobile application, article, brainstorming. Instructions were barely necessary, and collaboration was key to combine everyone's effort towards the results.



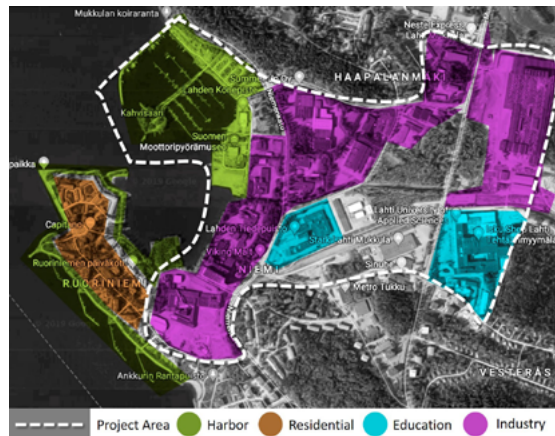
Lahti City is in the process of envisioning and planning the future of Niemi from an industrial area to a multifunctional urban environment containing education and research, new residential accommodation (including students) and new services. The aim of the project is to propose ideas of development and strategies that could be considered in such a transformation.

## Background

The Niemi area is in Lahti, 3 km north of the city center (30 minutes by walk or 10 minutes by bicycle). Its history can be traced back to that of an industrial zone started at the end of the 19th century, with the local malt factory being the most prominent industry still existing today. Most of the other older industrial buildings were retrofitted – converting it into LAMK University of Applied Sciences and some commercial offices.



**Figure 1:** The distance of Niemi area from City centre (Openstreetmap 2019, modified by authors)



**Figure 2:** Map of Niemi Area (Openstreetmap 2019, modified by authors)

The Niemi area also borders the Vesijärvi lake, hence boating activities and repairing is very prominent in the region. It also has some significant spots such as the Motorcycle Museum and the Kayak museum. Due to its proximity to the city centre, the Niemi area borders a lot of other activities. For instance, the main campus of LAMK University of Applied Sciences as well as the ISKU furniture factory are located immediately outside the Niemi site boundary. Several restaurants and retail stores are in the city centre, while the Sibelius Concert Hall and harborside restaurants are about 1.5 km from the Niemi area.

LAMK University of Applied Sciences has also premises located at Niemenkatu 73. This wing of the building hosts regular classes for students from LAMK, research activities in collaboration with Helsinki University, as well as part time masters education program in collaboration with Lappeenranta-Lahti Technical University (LUT)

The local malt factory has a history that dates back to the 1880's (Forsius 1989). It is still one of the most prominent employers in the area. There is a railway track that cuts through the Niemi area, and since it is a non-trespass zone, this creates distinct visual and spatial regions. There are barely any residential facilities in the area, but there are plans of constructing a new student accommodation for LAMK University along with a few additional residential buildings. However, currently the population appears to consist of working professionals and students who are transient in the region.



Figures 3a-b: Photos of Malt factory (Khan 2019)

## Key concepts

Maintaining some key concepts as premises help to establish strategies for the development of urban areas, for Niemi are the following concepts were considered:

### Sustainability

The biggest challenge that urbanisation processes face is to provide housing, infrastructure and basic services, while creating jobs and economic prosperity without straining land, ecosystems and local resources (United Nations 2019). A sustainable urbanisation process should be oriented towards the reduction of pollution, waste and emissions to minimum levels, with liveable public spaces that underpin the strengthening of local economy.

## **Liveability**

Liveability involves the social, physical, and cultural dimensions in built and natural environments. For Ramboll (2019), which coincidentally has an office located in Niemi, liveability frame conditions of a decent life in a city – including inhabitants, physical and mental wellbeing. A local approach is crucial for liveability. For Gehl (2011) in streets and urban spaces with low quality, human activity hardly takes place.

## **Placemaking**

Placemaking refers to a collaborative process by which public realm can be shaped to maximize shared value (Stea & Turan, 1993). This principle is the base to strengthen the sense of belonging of inhabitants to an area and it should be intrinsic to decision-making processes. For Pollice (2003) the strong territorial identity that placemaking can deliver favourable growth of sustainable development models. This concept also addresses the idea of working with treasured (existing) spaces that are hidden in Niemi, but do need to be legitimized, recognized, and used in the new planning proposal.

## **Trees in Urban Design**

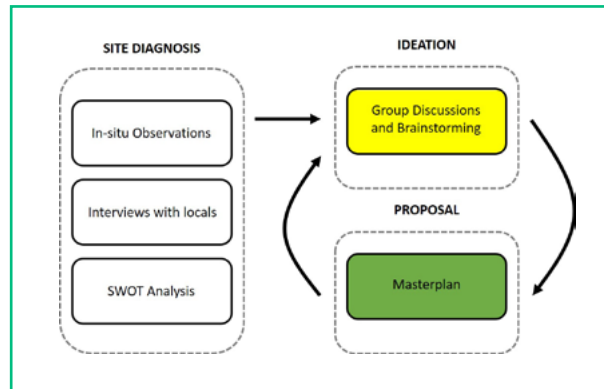
The use of trees in urban design can help a city in economic matters, like increasing property values, enhancing sense of place, reducing expenditures on grey infrastructure, reducing stormwater runoff, improving health and social conditions, improving human health, providing shade, creating visual and sound buffers, improving neighbourhood and creating walkable streets (Crabtree 2019). In this context, trees to create promenades help people orient through streets and define transitions between different urban icons. This can consequently help create visual interest from nod to nod, which can help increase walkability in specific areas.

## **Human Scale**

As discussed by Gehl (2011) human scale should be understood as the height and width that public spaces should have to create comfortable spaces for human activity. This is an important principle to apply in the case of Niemi, given that most urban elements are currently natural small forests mixed with tall industrial buildings with wide and large monochrome streets. Human scale is then key to improve existing spaces and transform them into activate locations for social activity.

## Methodology

A process was adopted to study the region as shown below.



**Figure 4:** Methodology contained in-situ observations, interviews with locals, SWOT analysis, ideation and preparing a master plan proposal.

## In-situ observations

Some students have been studying at LAMK University in Niemi for 6 months. This helped provide a young adult context of the area. Other students involved in this project were not locals, so a walking tour was conducted to help them get acquainted with the area and understand the region first-hand. They experienced the problems in the area, and it was also an opportunity to speak to a few locals.



**Figure 5a:** In-situ observations in progress (Torres 2019) **Figure 5b:** Group mapping exercise (Anufrienko 2019)

## Interview with locals

To get a local citizen perspective, residents and workers from the Niemi area were interviewed. During the first walking tour 4 people were approached: one lady resident of the area, one local young boy of approximately 20 years, two adults (the owner of the Motorcycle Museum-cum-restaurant, and one worker of the Canoeing Association). Also, during other days, specific working spaces (ISKU, Ramboll and others) were visited to get an insight from people working in the area (19 workers, 13 men and 6 women between 20 and 50 years of age). These interviews were conducted in an informal manner. Some questions related to their satisfaction, expectations and necessities in the area were asked. A conversation with three representatives from the Lahti City Council was held at their office. Their development plans and approaches to the area of Niemi were discussed.

The interviews were semi-structured as follows:

- Do you live in the Niemi Area? If not then where?
- What kind of transportation do you use to come here?  
If bicycle - then does it feel safe / convenient?
- Where do you go after work?
- What is the best thing about the Niemi area?
- What is missing / dislike / would you improve about the Niemi area.

With the help of this questionnaire, 19 workers (13 men and 6 women) between 20 and 50 years of age were interviewed in areas close to their work environment.



**Figures 6a-c:** Photos of interviews conducted with local citizens (Torres 2019)

## SWOT/ Findings

From the interviews as well as the general study of the area, the strengths, weaknesses, opportunities and threats (SWOT) for the area was formed as shown below:

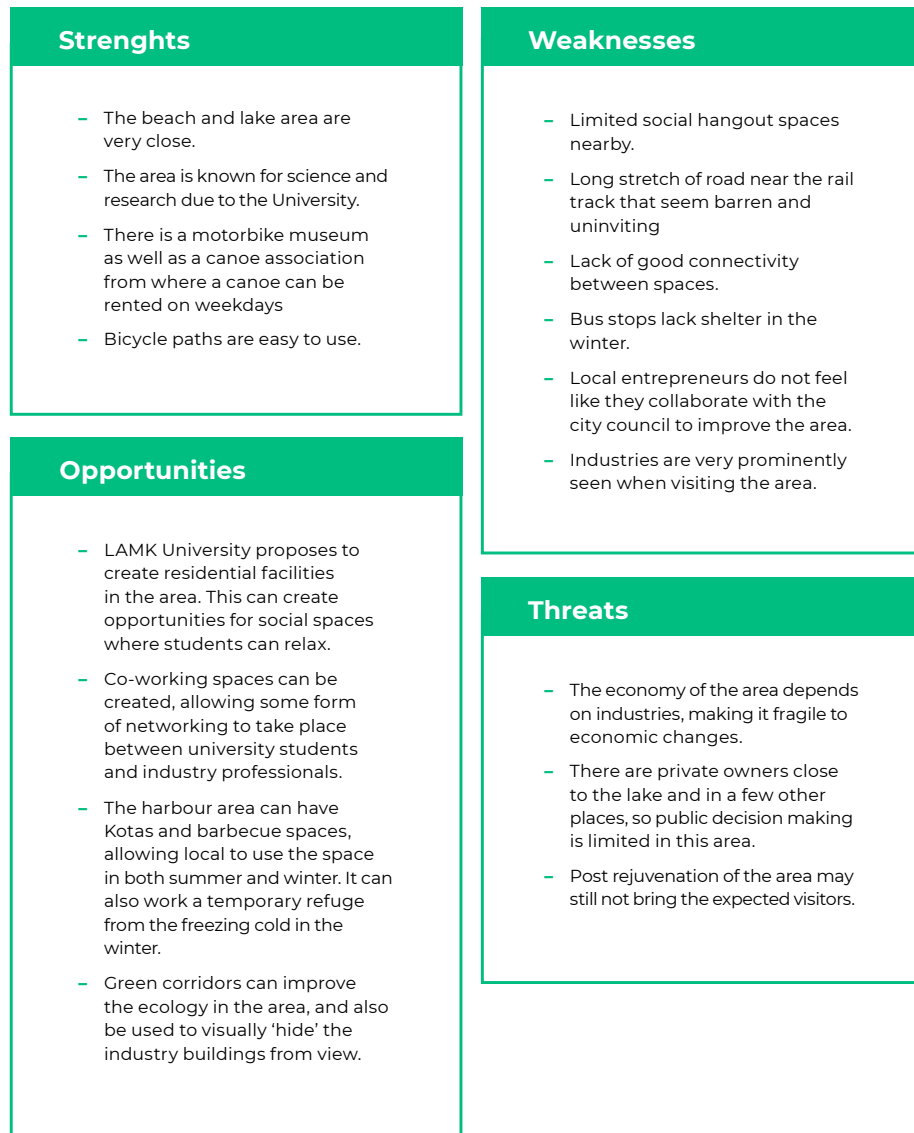


Figure 7: SWOT findings

## Ideation

The data collected was grouped according to the main discussion topics identified. Three topics were defined:

- **Tangible Connection (Infrastructure)** – Suggestions about transportation, walkability, security, etc.
- **Focus Points** – Suggestions about spots of activity, comfort, importance due to heritage, identity, beauty, nature preservation, etc.
- **Participatory Planning and Platforms for interaction** – Suggestions concerning the effectiveness in communication between public authorities and other stakeholders in the area. Also includes a platform for sharing information, events and planning strategies in the area.

This idea of grouping helped in ranking the local concerns, demands and expectations into an integrated urban master plan that could be aligned with the expectations of the City Council.

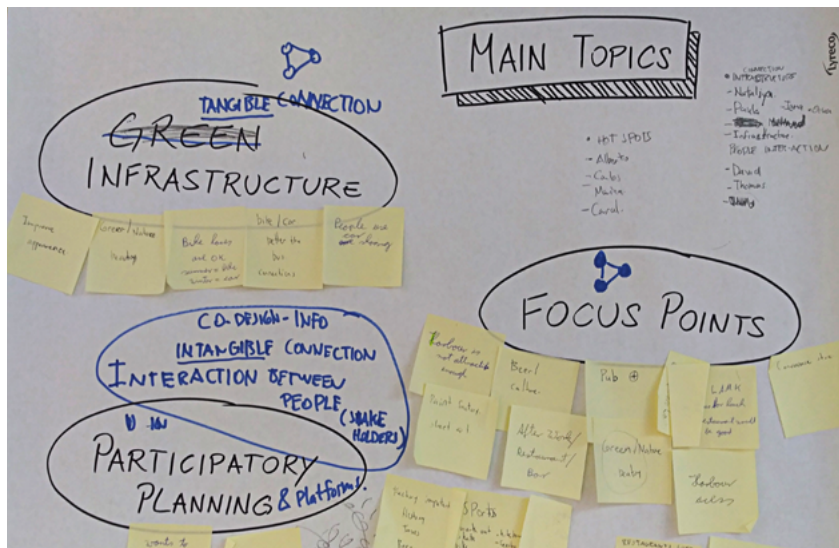


Figure 8a: Idea organisation (Mata 2019)



Figure 8b: Group discussion (Anufrienko 2019)

### Master Plan/Proposal

Once the information from the site visits along with the interviews and the premises obtained from the city council, a Masterplan was conceived as an integrated vision that compiles three major topics.



Figure 9a: Master Plan concept (Soto 2019)

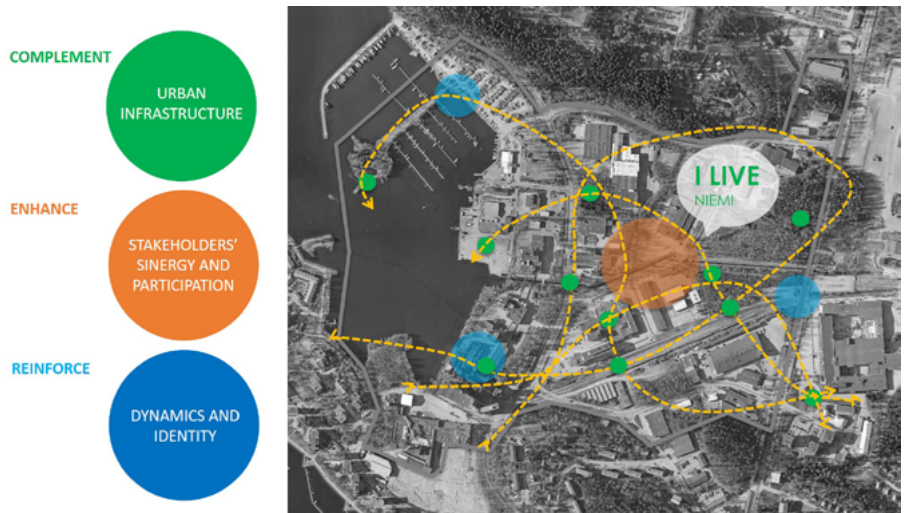


Figure 9b: Master Plan strategies (Soto 2019)



This approach includes creating public spaces designed under human-scale principles. For instance, urban elements that help define friendlier borders in cliffs, and trees that help define limits and orientation in streets and diminish the aggressive understanding of fences. These will help public spaces be more attractive for pedestrian activity but also for contemplation.

### **Enhancing the synergy between stakeholders and participation**

Under the principles of placemaking, the proposal aims to connect people (workers, students, current and future residents and visitors) and improve their communication with the City Council to ensure that urban development plans match the neighbours' needs and expectations. In that sense, both the development of the physical space and the advantages of technology play a key role to strengthen the sense of belonging.

In the "Niemi Networking Centre", spaces to interact and co-work can be located. This is supported by a mobile app that helps engage people with what Niemi has to offer and also to share their opinion on several topics related to facilities, activities and services.



**Figures 10:** Ideation through sketching (Mata,Soto 2019)

### **Reinforcing urban dynamics and identity**

Niemi has an industrial background and local neighbours are aware of it. However, contemporary development has left aside the importance of providing diversity and liveability. This is an opportunity to improve the way people understand that heritage and live the Niemi area (not only to work and/or study). Hence, apart from the Networking Centre, some other key activities are proposed to attend the current and future demand of services, leisure and

facilities through the refurbishment and the building of new public spaces, venues and a programmatic agenda that comes along with both the heritage of the place and contemporary happenings.



**Figure 11a:** Vision for the area adjacent to rail tracks (Khan, Soto 2019)



**Figure 11b:** Vision for the area adjacent to rail tracks (Khan, Soto 2019)

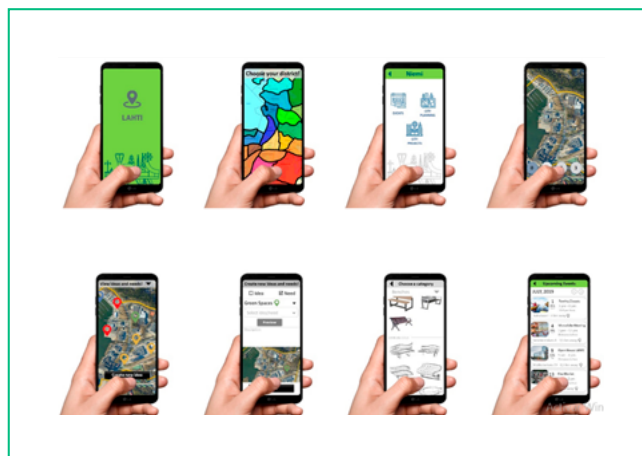


**Figure 12:** Collage of strategies (Khan, Soto 2019)

Most of the masterplan ideas are expressed through sketched visualizations considering the land ownership map provided by the Council, but in some cases some suggestions in terms of regulation of private lands are made

## Technological Intervention for Public Participation

A key element to improving public participation is suggested through the development of a mobile application. Basic features of the application were to include an interface that allows the citizens to view upcoming public infrastructure projects suggest developmental upgradations – such as the necessity for a new bench, and also view upcoming events in the area. The purpose of the application is to increase awareness about the locality, while also giving the citizens a sense of ownership about the area with the enabling of their own ideas.



**Figures 13:** Vision for the mobile application demonstrating different options and functions in the app (Kühner, Fichtel, Kaiser-Mühlecker 2019)

## Conclusions

The process of devising an urban master plan with the help an interdisciplinary team brought forth several perspectives. The master plan amalgamated urbanist views, understanding of human behaviour, local participation, engineering/ technology, ecological balance and service design. It serves as a reminder that urban development projects should include the local stakeholders, irrespective of their background.

The master plan hopes to create an identity for the Niemi area that is not necessarily revolutionary but is somewhat unique to the city of Lahti. The presence of the harbour, LAMK University and industries are key to creating some unique context specific opportunities, while other necessities - such as social spaces and improved physical connectivity - are standard suggestions that can be applied in many places.

Eventually, a combination of these ideas through this master plan will hopefully improve the image of the Niemi area and improve the economy with the help of recreational activities that would draw people to the area.

## Discussions of Collaboration

The collaborative efforts between such an interdisciplinary and intercultural group brought forth a great deal of perspectives. This allowed a holistic analysis of the area, which resulted in urban proposal that goes beyond the development of the physical space and also takes advantage of technology tools to achieve the proposed goals.

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This publication tells about the SummerSchool: Co-designing Better Urban Living and Wellbeing organized by LAMK University of Applied Sciences in 27.5.-7.6.2019. The articles describe the organization of the summer school and the project-based student projects, which were carried out during the two intensive weeks.

The articles are written by the summer school students and their teachers as well as other personnel involved in organizing the intensive course.

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