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# MEWET-HOME SERVICE MODEL RESEARCH

Master's Thesis

Master of Welfare Technology 2018



MEWET-HOME SERVICE MODEL RESEARCH

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Master's Degree Programme in Welfare Technology

November 2018

Number of pages: 31

Appendices: None

Keywords: Service design, brainstorming, benchmarking

MeWeT is abbreviated from Model environment for Wellbeing enhancing Technology, and MeWeT-home is continuously developing research, development and learning environment for welfare technology. It is a smart-home, which adopts to resident's abilities to cope with every-day living. MeWeT-home is located to Ulvila, Finland and it is managed by Sataedu in collaboration with Satakunnan ammattikorkeakoulu.

The purpose of this thesis bases on the fact, that investment funding of MeWeT-home is covering the operation of year 2018. Starting from year 2019 the revenue should be arranged through new service models developed according to service design – principles.

Aim of the thesis is to clarify expectations of MeWeT – partner companies about the future co-operation and to utilize the feedback towards the definition of MeWeT – service models. A brainstorming session was arranged for this purpose. There was also a need to get a view of existing Finnish concepts already operating in the field of well-being enhancing. This data was collected through benchmarking different service models. Service design principles and design process was studied for providing a frame and road-map to support the service development process in the future.

Research provides recommendations to defined service models of MeWeT-home, and those can be further developed and delivered through the design process described in this thesis. The outcome of concepts includes collaboration of companies and student resources in an info-center environment, where citizens gets education and testing possibilities to developed solutions for wellbeing enhancing, reviewed by a third-party.

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#### 1 INTRODUCTION

### 1.1 Background

MeWeT is an abbreviation for Model environment for Wellbeing enhancing Technology, and MeWeT-home is continuously developing research, development and learning environment for welfare technology. It is a smart-home, which adopts to resident's abilities to cope with every-day living. The house has been already built to Ulvila, Finland with investment money provided by Satakuntaliitto, and it is managed by Sataedu in collaboration with Satakunnan ammattikorkeakoulu. Provided investment is covering the year 2018. Starting from year 2019 the income should be arranged through new services. Due to this, there was a need for a research, utilizing service design principles, aiming to support the future requirements and development of new service models. In the centre there is user-oriented multidisciplinary co-operation of citizens, companies, educators, health care and third sector.

### 1.2 Objectives of thesis and research questions

Aim of the thesis is to clarify expectations of MeWeT – partner companies about the future co-operation and to utilize the feedback towards the definition of MeWeT – service models. There was arranged a brainstorming session for this purpose.

It is also needed to get a view of existing Finnish concepts already operating in the field of wellbeing enhancing. This data was collected through benchmarking different service models.

Result of this thesis will be recommendations for defined MeWeT – service models. Based on the findings from brainstorming and benchmarking, analysed data will be harnessed to service design process for further development and delivery.

### Research questions are:

- 1) What different kind of services there are available in similar Finnish concepts?
- 2) What are partner companies expecting from co-operation?

- 3) How could innovation environment serve as educator of people?
- 4) What are recommendations for service models?

### 1.3 Thesis process

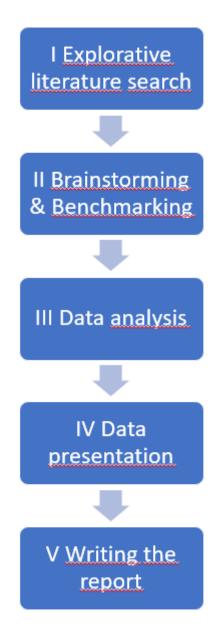
First step of the thesis was to carry out an explorative literature search. Intention there was to dive into phenomena behind the aim of the thesis. Through the literature there was a possibility to gain knowledge of service design process and results of already made productization researches.

Next step was to carry out the research of this thesis. That was made by using two methods: face-to-face brainstorming for ideating MeWeT – home service models with MeWeT partner companies and benchmarking of similar Finnish wellbeing enhancing service concepts through the public information of websites.

Third phase of this thesis was to analyse the data collected through researches for getting thematization of brainstorming ideation done and to reflect the benchmarking findings of already operational wellbeing enhancing concepts to recommendations of MeWeT service models.

Results of the research has been presented in chapter 4. Those have been divided to three topics of brainstorming ideation carried out and to benchmarking findings.

Final step of the thesis process was to write the report to conclude the work carried out. Complete process is illustrated in picture 1, and in chapter 3 there is described the research methodology itself.



PICTURE 1: ILLUSTRATION OF THESIS PROCESS

#### 2 SERVICE DESIGN AND PROCESSES

### 2.1 Definition of service design

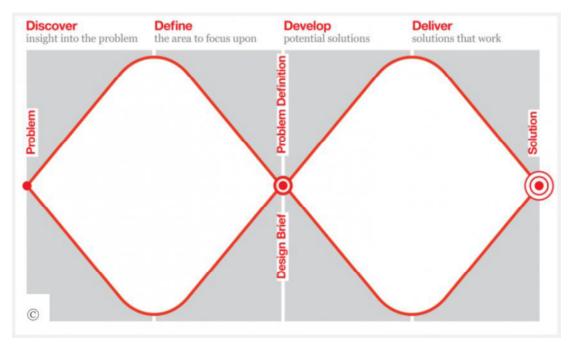
Service design is the activity of planning and organizing people, infrastructure, communication and material components of a service to improve its quality and the interaction between the service provider and its customers. Service design may function as a way to inform changes to an existing service or create a new service entirely. The purpose of service design methodologies is to establish best practices for designing services according to both the needs of customers and the competencies and capabilities of service providers. (Wikipedia)

There is no one and only definition to service design. Based on the eye of the beholder, the view can vary depending on the discipline one represents. Cornerstone of the service design, however, is the customer. The aim, therefore, is to provide better customer experience, rather than finding for example technological breakthroughs as such. The service provider's business objectives are to be met, as well, embracing the user-centricity.

Design Council (2015) has illustrated the creative design process as a Double Diamond – model, which includes four phases:

- 1) Discover (insight into the problem)
- 2) Define (the area to focus upon)
- 3) Develop (potential solutions)
- 4) Deliver (solutions that work)

In this research the focus is in phase 2, which is defining services to be developed. Design process phases are described for creating the understanding of complete service development process and providing a road-map for design model.



PICTURE 2: DOUBLE DIAMOND – MODEL (DESIGN COUNCIL 2015)

Hofferberth et al. (2012) have introduced Service Lifecycle Management Maturity Model<sup>TM</sup>, which includes 5 phases in a closed-loop for managing the service productization process. The main point is to continue the development process and optimizing the solution by starting again from the phase 1. Idea is based on continuous development process, that fine-tunes provided services further.

Suominen et al. (2009, 2) is clarifying the use of term productization in the product development process. As the term productization is describing something vague, there has been defined more standardized meaning depending on the context of product development. Through the literature review Suominen et al. (2009, 9) defines Service Product context, as "The main objective of productization is therefore utilizing and reusing the know-how that has been gained from previous projects."

Sarah Gibbons (2017) defines in her article the traditional split between goods and services. Tangible consumables, such as pens, and momentary exchanges, such as medical treatment, are used to see in own different boxes. However, nowadays there is no longer so clear divisions, i.e. combining these two together have created new businesses and customer experiences.

According to Gandrup (2018), one of the biggest challenges in service design is the organization. To be able to provide user-engaging and customer-oriented solutions, it is mandatory to have multidisciplinary development-team for covering the combination of practices and understanding the customer journey as a complete. It comes problematic, when responsibilities are divided between development-team members, and ownership of certain area leaves blind spots to influence outside one's own box. The solution is to engage the whole team to customer-centricity, take the customers to the development work and communicate clearly the principles of service design to the whole organization. It should not be so, that one person is focusing on making the profit and the other one is putting all the effort to easiness of shipping the end-product. Instead of product-driven strategy there is a must to implement the service-driven mentality.

#### 2.2 Phase 1 - Discover

The first phase in design process is to explore the identified problem. Design Council (2015) guides developers to walk in customer's shoes for a while, meaning that there will be gained understanding what different kind of experiences users are facing with the product, service or environment provided. This is to be done through identifying the target user-group and making a research of tasks end-users are carrying out. Simulations can be utilized. Disabling or limiting some user-functions, such as vision with tinted glasses or hands with gloves, could provide additional information for example about physical limitations of elder people. Sample of actual end-users provides the possibility to mapping real user-experiences through face-to-face interaction.

There was studied the revenue logic of virtual service to senior citizens in a thesis "Virtuaalihoivan ansaintalogiikka vanhusten hoivatyössä" (Leimio, SeAMK, 2016). Based on the expectations and values of people retiring now or in the future, there has been seen different care approach compared to people gone through the wartime depression. As older people are satisfied with the basic care, but now and in the future the needs and requirements are changing towards more demanding services. This is the call for new kind of services, which can be provided by concepts like MeWeT. In this thesis there will be looked after innovations based on more demanding customer needs, not forgetting business requirements of MeWeT.

In MeWeT-home case there has been already selected a path to follow, and the operating model is described in its website (2018). MeWeT-home is a smart-home, which has been designed to serve disabled residents. The welfare technology of the house is to ease everyday-living and enable independent activities of resident. The focus is in accessibility and in continuous improvement, which aims to further develop welfare technology. Companies, developers and customers have a possibility to get familiar with technologies available, and test the actual environment and technologies provided there. Students of Sataedu and Satakunnan ammattikorkeakoulu have also a possibility to deepen their knowledge in the field of wellbeing enhancing.

#### 2.2 Phase 2 - Define

Next step in productization process is defining and framing the problem one is dealing with. Sa (2018) highlights the importance of knowing the users of service, what are their motivations, context and needs behind the problem under the loop.

For this thesis a brainstorming session was carried out aiming to define potential service models for MeWeT-home. The approach to brainstrorming was to select wide range of expertise among the participants. There was sent an invitation to cover the fields of education, business, technology and wellbeing enhancing, all closely related to experiences of MeWeT-home customers. All participants have already been involved to the operation and current technological solutions of MeWeT-home, and they have gained valuable information of needs and expectations of its customer-segment. The group consisted of 9 professionals: teachers from both Sataedu and Satakunnan ammattikorkeakoulu and partner company representatives who have already delivered welfare technology to MeWeT-home. Brainstorming results are clarified separately in the thesis chapter 4.

Another approach is benchmarking of already operative wellbeing enhancing concepts in Finland. Those services have been defined to serve especially elder people through information sharing and guidance for using technological solutions helping the everyday life. As these services are already in operation, those can be reflected to be a guideline of operation models working in practice. Customer needs have been clarified and

based on the user-expectations there has been developed working concepts. Thesis chapter 4 includes results from the benchmarking carried out for this research.

In a thesis "Palvelumallin kehittäminen Retkeni-palvelulle" (Kirves, Laurea, 2012) Service Design processes and methods have been utilized for product development. Through this, there was created a functional service combining both the needs of the organization and customers. For developing service and content there was used brainstorming as an ideation method. Also benchmarking other similar services was carried out for generating additional ideas.

This same approach is applicable to defined recommendations of MeWeT-home service models in this thesis, and those recommendations can be further developed to be finally delivered as ready services. Feasible solutions are fundament to next phases of design process, and those phases are described in chapters 2.3 (Develop) and 2.4 (Deliver).

### 2.3 Phase 3 - Develop

Design Council (2015) advices several methods for brainstorming design concepts and testing functionality of ideas. Below examples gives an insight who will use the service, who will design the service and how will the service be used.

### Character profiles

Kirves (2012) has used character profiles in his thesis to define the average-user of developed service. Result was a customer-profile. Target was to map customer needs, expectations and motivations to gain the understanding of features required from service. These are service-characteristics, which provides added-value to end-users. Customer-profile also enabled the screening of group for prototype-testing.

### Service blueprint

Nurminen (2016) has studied a service process, which is a series of functions and results an outcome that provides added-value to the customer. Customer himself does

not see the complete process behind a service, but an objective to fulfill his own requirements. Only the interactive part of the service process is visible to its user. Individual customer experience of certain service is based on personal views and service design process should therefore aim to respond to needs and wishes arising from target-group. Quality of the service in question is evaluated by the customer in advance based on the expectations and afterwards according to the experiences formed from this service. Service process itself can be visualized by using a service blueprint; a service model, to provide illustration of customer journey towards the design-team.

In service blueprint the process is divided to smaller pieces and forms the complete customer journey around characteristics of service process. In addition to visible parts there are also supporting processes, including for example product maintenance and invoicing. The quality of the service is evaluated by the user based on different moments during this customer journey.

### Physical prototyping

Vandevelde et al. (2002) have clarified the role of physical prototyping in the product development process. Prototyping as a term includes building, testing and analyzing prototypes. The compression model relies on well-known process and putting together pieces of sequences from each step of that process. Uncertain process requires experiential model to be utilized, where improvisation, flexibility and real-time learning are key elements of prototyping. Combination of both models was seen to be included to physical prototyping in general. Creation of protypes is aiming to detect and correct possible failures noticed during the testing by the users prior to launching the developed product or service. Users might also have new valuable aspects for features of prototypes.

#### 2.4 Phase 4 - Deliver

The final stage in the Double Diamond – model is to finalize, produce and launch the product or service. Lessons learned by Semick (2018) includes his findings related to new product launches.

The main point is, that once it is confirmed that new product provides added-value to customers, it should be launched. This requires background information of users' pain points and their willingness to pay for solving their problems. Potential customer feedback to prototypes requires changes accordingly. However, targeting to absolute perfectness should not be holding the launch itself, as the real-user experiences and knowledge-base gaining enables the continuous improvement. Each new release of versions solves more customer needs. Testing the product by a small group doesn't usually match the entire target-segment's requirements, and in a case a real business transaction is not in place there is possibility to get overestimated views for frequency of using the product or willingness to pay for it.

According to Semick customers are not looking for features of the product, but the help to solving their problems and benefits for using it. It is a question of providing the core value towards customers, and secondary functions doesn't then need to be state-of-the-art. Simplified customer experience and easiness to use are often cheaper solutions. Additional features can be developed afterwards, when the revenue is flowing in. Evaluating the performance of the launched product and documenting the customer data will guide the decision-making in the future.

#### 3 RESEARCH METHODOLOGY

### 3.1 Brainstorming data collection

Brainstorming is a method for creative problem solving and its' purpose is to develop big amount of ideas in a safe environment so, that all group members have the possibility to participate. As the principle is to produce quality through big amount of ideas, the ideal situation is that all members are participating. It is more likely to generate useful ideas when the amount of ideas is overall big. The term brainstorming came popular in year 1953 through the book Applied Imagination by Alex Faickney Osborn. (Website of Wikipedia)

On April 10<sup>th</sup>, 2018 there was held a brainstorming session at MeWeT-home. Invitations were sent to partner-companies and participants were selected based on the expertise gained and required for understanding the customer-segment of MeWeT-home. This selected group of professionals (n = 9) represented Satakunnan ammattikor-keakoulu, Sataedu and those partner-companies, which have already delivered technology and services to MeWeT-home. Among the participants there was a wide experience in the fields of education, wellbeing enhancing, technology and business.

Setup to brainstorming was to use whiteboards and post-it notes for collecting the ideation material based on three pre-defined topics, answering the objectives of this thesis and research questions. The session was also voice-recorded by using a mobile phone application. Plan was to have a 3 x 20 minutes ideation so, that each of pre-defined topic would be handled during an hour period. Actual time spent was almost 30 minutes longer, as the first topic took 40 minutes and generated a huge amount of ideas, including partly other two topics as well. The focus in the brainstorming was to map potential service models of MeWeT-home, aiming to user-oriented solutions and clarifying needs for co-operation of partners in the future.

### 3.2 Benchmarking data collection

Benchmarking is comparing one's business processes and performance metrics to industry bests and best practices from other companies. In the process of best practice benchmarking, management identifies the best firms in their industry, or in another industry where similar processes exist, and compares the results and processes of those studied (the "targets") to one's own results and processes. In this way, they learn how well the targets perform and, more importantly, the business processes that explain why these firms are successful. (Website of Wikipedia).

Lapide's (2006) message in his column concerning benchmarking is to make sure that there shouldn't be automatically assumed that results between different organizations could be equalized. As the research always requires careful analysis to understand what can be picked-up from the benchmarking data. In this thesis the aim is to get insight for functioning service models provided by similar Finnish concepts as MeWeT.

Benchmarking of best practices was done through public channels (websites). Aim was to find answers to objectives of this thesis and to research questions, supporting the MeWeT-home service model ideation. Concepts in Finland were collected based on the similarity to the idea of MeWeT: research, development and learning facilities, operating in the field of wellbeing enhancing and providing services according to user-orientated approach.

### 3.3 Data analysis

Qualitative brainstorming data was analysed through thematization, based on the answers provided and number of similar ideas expressed. Certain themes were searched when the content analysis was carried out, for finding common features from answers. Content analysis is a research method for studying documents and communication artifacts, which might be texts of various formats, pictures, audio or video. Social scientists use content analysis to examine patterns in communication in a replicable and systematic manner. Practices and philosophies of content analysis vary between academic disciplines. They all involve systematic reading or observation of texts or artifacts which are assigned labels (sometimes called codes) to indicate the presence of interesting, meaningful pieces of content. By systematically labelling the content of a set of texts, researchers can analyse patterns of content quantitatively using statistical

methods or use qualitative methods to analyse meanings of content within texts. (Website of Wikipedia)

Conceptual analysis was used for cross-checking the answers related to three different themes provided as a setup to brainstorming session, ensuring that related data was grouped correctly.

Conceptual analysis consists primarily in breaking down or analyzing concepts into their constituent parts in order to gain knowledge or a better understanding of a particular philosophical issue in which the concept is involved. (Website of Wikipedia).

Benchmarked services have been defined to serve especially disabled or elder people through information sharing and guidance for using technological solutions helping the everyday life. As these services are already in operation, those can be reflected to be a guideline of operation models working in practice in concepts suitable to MeWeThome. Customer needs have been clarified and based on the user-expectations there has already been developed working concepts in Finland.

### 3.4 Research reliability and validity

Reliability of brainstorming data is based on the selected expertise among the participants. Members of brainstorming session were professionals in the fields of education, wellbeing enhancing, business and technology. This combined multidisciplinary setup represented wide knowledge around the research topic and expertise of research questions involved in ideation. The open atmosphere of meeting provided optimal circumstances to free ideation face-to-face, where everyone had the possibility to participate and provide own views in a safe environment.

For balancing the guided brainstorming session including certain themes for ideation, there was utilized public information for benchmarking best practices of already operating wellbeing enhancing concepts in Finland. This data was collected from different websites, and it is not tied to any questionnaires or leading the responds to a certain direction. As the benchmarking data is general information and already functional in wellbeing enhancing concepts, it can be reflected to be a valid practical guideline.

#### 4 RESULTS

### 4.1 Satakunta-region model

The first topic in brainstorming session was the Satakunta-region model. Aim was to ideate specific area concept features to be reflected to service models. There was raised a view, that Satakunta-profile includes aging population and it is typical to residents to work in the industry sector. It was seen, that size of the region is suitable for multi-disciplinary co-operation, as networking is easy: people know each other and there is an open and experiential environment. Industries in the area have a solid know-how of robotics through the education programs and provided technological solutions by the companies.

Partner companies were expecting, that MeWeT-home should provide companies a possibility to test welfare technology prototypes with end-users and act as a R&D environment by noticing the voice of people. As it has been earlier clarified in chapter 2, to be successful in customer journey, main service design principle or statement bases on fulfilling customer needs and providing solutions to pain points customers are facing. It was also expected, that MeWeT-home should be an info-center, where customers get information about welfare technology solutions and instructions for using them.

Important expectation aspect from MeWeT partner companies was to be a front-runner in SOTE reform by taking to account needs from both customers and service providers.

In Finland there will be launched a new model for all public Social and Health (SOTE) services between the government and municipalities. Target is, that starting from 1.1.2020 all Finnish citizens have equal opportunities to social and health services. Demography in Finland is also getting older and more care is needed due to that. At the same time the amount of people in a work-life is reducing. This equation is not sustainable. The aim is to reduce variances in peoples' wellbeing and health related matters through implementing best and most effective practices to be covering all 18 counties providing the future services. (Website of Alueuudistus).

SOTE reform provides new possibilities also to several private service providers in this sector. The government is looking forward cost reductions and improved quality, citizens have new needs and requirements coping with the everyday life and companies are developing new solutions based on the user-oriented approach. There is a need for multidisciplinary co-operation to cover the ideal customer journey.

```
1. Satakunta-region model
     Aging population and industry-oriented = Profile
     Based on needs (needs from customers, companies)
     Robot-knowledge
     SoTe-frontrunner
     Open-mindness
     Possibility to try
     Not so big region, so co-operation is quite easy (people knows each other)
     Test-equipment from companies
    Utilizing innovations from companies
10. Amending the existing, not replacing / copying
11. R&D environment, protoversions for testing
12. Co-operation between students and companies
13. Good possibilities for different disciplines and different levels of education co-operation
14. Know-how of actual costs
15. Long experience of testing environment projects (LivingLab, Robocoast...)
16. Understanding and concretising expectations
17. Bigger construction companies as partners
18. MeWeT as neutral environment to companies for bringing / taking equipment to customers of work-life
19. Products and services => adding the understanding of people
20. Benefit od companies
21. School - company cases for students
22. For companies – getting a multidisciplinary view
23. MeWeT is unique: student resorces, teknological integrations => possibility to test
24. Benefiting the suitable size, networking is easy as we are not big or small
25. All good ideas are generated in co-operation, in other context the idea might work better than the original idea
26. Which role to construction companies?
27. Health service companies in co-operation
28. Exchange of knowledge between educations, slow recruiting process
29. Services: culture of experiencing, new aspects not limited by current views, getting own needs heared
30. People: getting own needs heared, trying, finding
    Companies: networks, student resources, feedback: neutral party to evaluate benefits and makes them visible, knowledge increases
```

PICTURE 3: BRAINSTORMING TOPIC 1 IDEAS

### 4.2 Co-operation expectations of partner-companies

The second topic in the brainstorming was co-operation expectations of partner-companies of MeWeT-home. It was emphasized the possibility to utilize students as a resource in innovating and ideating activities. Satedu and Satakunnan ammattikor-keakoulu have several programmes to be linked to operation of MeWeT-home. This would be a two-way street, as both students and companies benefit from co-operation.

Satakunnan ammattikorkeakoulu has launched a service called Soteekki. It is social and health care service center, where anyone can order welfare services. Students are carrying out the tasks under teachers' guidance. (Website of Soteekki).

#### 2. Co-operation expectations of partner-companies

- 1. Relationship of people
- Innovations
- 3. Innovation-events (students / needs of companies)
- 4. Service-center, where one can test / get familiar
- Education co-operation
- 6. Long-term customer relationship instead of a single product (changing life-situation modifies the product)
- Showroom
- 8. Sales network? Stores?
- 9. Service-leasing: productised services and products
- 10. Innovation-contests
- 11. Doctor-chat
- 12. Available solutions info-center
- 13. Heard from the field: neutral party to evaluate benefits
- 14. Showroom

PICTURE 4: BRAINSTORMING TOPIC 2 IDEAS

#### 4.3 Revenue models

A revenue model is a framework for generating revenues. It identifies which revenue source to pursue, what value to offer, how to price the value, and who pays for the value. It is a key component of a company's business model. It primarily identifies what product or service will be created in order to generate revenues and the ways in which the product or service will be sold. Without a well-defined revenue model, that is, a clear plan of how to generate revenues, new businesses will more likely struggle due to costs which they will not be able to sustain. By having a clear revenue model, a business can focus on a target audience, fund development plans for a product or service, establish marketing plans, begin a line of credit and raise capital. (Website of Wikipedia).

The third topic in the brainstorming session was to ideate possible revenue models. It was expected by MeWeT partner companies to provide possibility to educate people around welfare products and services provided in MeWeT-home, utilizing the know-how of special environments. Characteristic to these products and services was mentioned to be modifiability according to changing life-situations of user. Data-analysis service towards the user was also separately taken up, to provide additional tool for user-centric operation of welfare technology. It was seen important to carry-out a review done by a third-party and get a special certificate to demonstrate the sustainability of operation and quality of services provided at MeWeT-home. By going a leap forward, there was ideated a concept, which bases on repairing and renting apartments

based on disabled resident's needs. That would require also partnering with companies in the building-sector.

#### 3. Revenue models

- 1. Maintaining and developing installation know-how of special environments
- 2. Know-how of special environments
- 3. Data-analysis as an additional earning possibility
- 4. Additional education
- 5. Increasing the vocational know-how
- 6. Certificate: MeWeT welfare certificate
- 7. Buying, modifying and renting apartments
- 8. Students as resources: Soteekki-model
- 9. Welfare certificate
- 10. MeWeT-certificate

PICTURE 5: BRAINSTORMING TOPIC 3 IDEAS

### 4.4 Benchmarked service concepts in Finland

#### **HUS Testbed**

HUS Testbed in Helsinki is an authentic hospital environment, where health technology companies can develop and validate their products and services. (Website of HUS Testbed). It provides device and service usability testing in a real hospital environment in co-operation with Helsinki University Hospital staff. GE Healthcare is utilizing HUS Testbed and gets clinicians to participate to their product development by providing professional views in authentic hospital environment. HUS Testbed has a single contact-point, where one person is handling all GE Healthcare projects with one agreement.

### Laurea Teknologialainaamo

Laurea ammattikorkeakoulu in Tikkurila has launched a service called Teknologialainaamo. (Website of Laurea). It is a contact center to welfare technology, where especially elder people, their relatives and social & health care professionals gets an insight and guidance about existing technological solutions. Businesses operating in the field of wellbeing has a possibility to meet customer-groups. Teknologialainaamo enhances

the knowledge of products and services of companies, collects customer feedbacks, informs customers about the availability of solutions and enables the development projects carried-out with the students of Laurea ammattikorkeakoulu. In this concept the partner company provides a product or service to the "showroom". Teknologialainaamo then introduces it, guides the testing with a customer and supports customer's whole purchasing process. Partner companies pays a service fee for financing the operation. There is also a possibility to purchase demonstrations for bigger groups, in case solutions available are wanted to be introduced in specific locations.

#### *HealthHUB*

HealthHUB in Tampere is a meeting place for health-sector companies, clinicians, researchers, developers, consumers and end-users. (Website of HealthHUB). It is operating under Tampereen Yliopistollinen Sairaala TAYS. There is arranged different events, courses, workshops and development-possibilities inside the hub. It also provides eight working spaces and a meeting room enabling presentations, which are free to the members. In addition, there is a virtual working space available, which allows arranging events for projects and creating a company-profile.

#### Toimiva Koti

Toimiva Koti in Helsinki provides care and cleaning services in the region and solutions to accessibility at home. (Website of Toimiva Koti) Review for services is free to the potential customers. In the shop for accessible living there is possibility to test available solutions and based on the results of review, planning and installation of furniture is carried-out. Accessible products can also be purchased on-line from the webstore.

#### **5 CONCLUSIONS**

Aim of the thesis was to clarify MeWeT – partner companies' expectations about the future co-operation and to utilize the brainstorming material towards the definition of MeWeT – service models. It was also needed to benchmark existing Finnish concepts already operating in the field of wellbeing enhancing. Based on the brainstormed and benchmarked results, the outcome of research is concluded below as recommendations to MeWeT service models.

### Satakunta-region model

Area-concept features ideated by MeWeT partner companies revealed the view, that co-operation in region is ideal due to the size: networking is easy, and people knows each other, i.e. businesses are familiar. Experiential and open-minded atmosphere is also supporting the basis for multidisciplinary collaboration required for delivery of wellbeing enhancing services. Satakunta-region model was seen to be an info-center: citizens would get education, information and testing possibility of wellbeing solutions under development and already developed. Voice of people was seen to be an important aspect, needs and requirements should be listened and taken to provided services. At the same time companies should have possibility to test their solutions and get feedback about customer experiences and possible improvement recommendations.

### Co-operation expectations of partner companies

It was highlighted by the partner companies, that students should be involved to MeWeT-operation. Especially the innovation and ideation were seen to be requiring resources. As Sataedu and Satakunnan ammattikorkeakoulu have several programs for students, multidisciplinary student resources would improve the R&D work of companies providing technological services and products. This type of work should be supervised by teachers.

#### Revenue models

Info-center concept ideated by MeWeT partner companies was seen to be requiring a third-party certification to demonstrate the sustainability and quality of provided services. Utilizing and further expanding the know-how of special environments noticed to be a spear-head, where for example installation services and people's education is seen as a natural continuity to existing. By going further with the idea of MeWeT-home, a concept for renovating apartments and renting to disabled or elder people was ideated. That concept would, however, require partnering with bigger construction companies.

### Benchmarked service concepts in Finland

Info-center model and student resources were also present in benchmarked wellbeing enhancing concepts in Finland. In this light recommended service models are functional through the operational models already in place.

#### 6 DISCUSSION

#### 6.1 Data collection methods and results

Results from brainstorming are based on the evidence from the specific research carried-out for objectives and research questions of this thesis. On the other hand, benchmarking is providing results, which are already operational practices and are based on functional experiences. Selected expertise among the participants of brainstorming is providing gained know-how of both the customer-orientation and service provider's business objectives. That is also one aspect to highlight the utilization of best practices in the ideation of potential service models.

Comparing the results from ideation material generated through the thematization of brainstorming answers to the benchmarked service models of operational wellbeing enhancing concepts in Finland, it can be concluded, that similarity to characteristics of ideated potential service models to MeWeT-home is remarkable to already operating concepts. In this light it can be stated, that recommendations to service models of MeWeT-home are well justified through these two methods used in the research.

### 6.2 Meaning of results for development of service models

Recommendations for defined service models are meant to be further developed through the design processes described in chapter 2. After the define-phase researched in this thesis, there are next two steps to be taken. Defined service models are to be further developed (phase 3) and finally delivered (phase 4).

Defined service model recommendations could be utilized in general by any other model environment operating in the field of wellbeing enhancing and aiming to develop new services. As there are also certain business objectives to be taken to account, these recommendations are not to be handled as absolute truths, but findings based on the research.

### 6.3 Reliability and validity of methodological approach

Research methodology guided the study and methodological approach provided results, which were looked after to cover the objectives of thesis and research questions. Brainstorming provided answers to MeWeT-partner companies expectations, and benchmarking data confirmed operational practices of already functional wellbeing enhancing concepts. Based on findings made through thematization of collected brainstorming data, there was generated recommendations to defined service models of MeWeT-home, supported by operational practices of benchmarked concepts.

Validity of brainstorming bases on the selected expertise among the participants of the session. Invitations were sent to targeted group of people, who have valuable professionalism in the fields of education, wellbeing enhancing, technology and business. Benchmarked wellbeing enhancing concepts in Finland are already functioning and operational service models, and through these operation models can be reflected to be best practices in the field of welfare technology.

Researcher has no ties to MeWeT-home and hasn't got any funding to this thesis. Data collected from the brainstorming session is solely and purely generated by the partner companies of MeWeT-home. Thematization of collected data is repeatable and provides similar themes despite of individual researcher. Benchmarked data is supporting the functionality of recommended service models, through the functioning operation models of Finnish wellbeing enhancing concepts.

### 6.4 Implementation of service models to MeWeT

Defined service models should be further processed through the design process phases described in chapter 2. After the Define-stage carried out in this research, there are step 3 (Develop) and step 4 (Deliver) to be carried out to enable the launch of services.

#### 6.5 Further research recommendations

#### 1. Renovating & Renting - model

As described in brainstorming results, there was raised an idea to renovate and rent apartments for disabled or elder people. This concept could be further studied for gaining additional information around the phenomena.

### 2. Development – process

Research to further develop recommended service models for ensuring the satisfying customer journey. As mentioned in the design process, it is essential to clarify who will use the service, who will design the service and how will the service be used.

### 3. Delivery – process

To finalize, produce and launch the service there is needed to dig into the final phase of design process for ensuring the proper approach about the readiness of concept.

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