

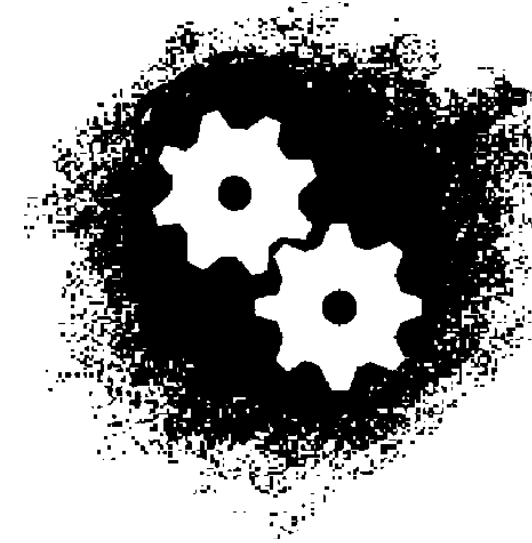
Product Service Systems

Oscar Tomico

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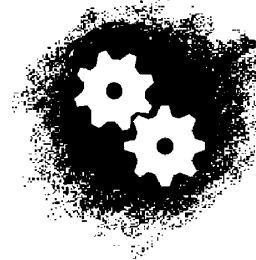
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EIGHT TYPES OF PRODUCT-SERVICE SYSTEM: EIGHT WAYS TO SUSTAINABILITY? EXPERIENCES FROM SUSPRONET



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A. TUKKER

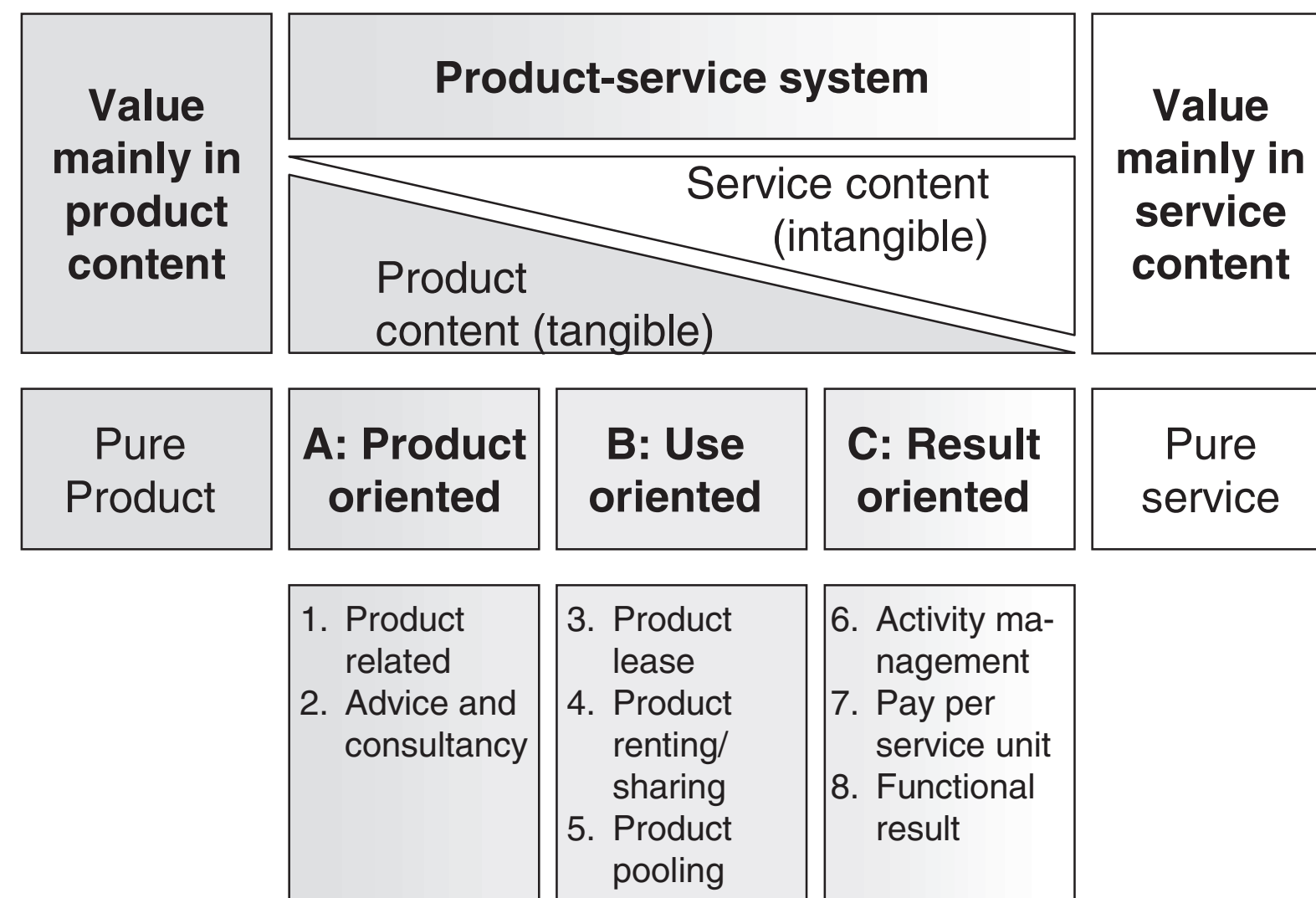


Figure 1. Main and subcategories of PSS

bending the back are translated into sounds such as piano chords or musical instruments, which fade in and out. Vigour is ultra-personalised by adapting its physical appearance to the body and preferences of the patient who will be wearing the cardigan (interfaces 2 and 3). This means that the back end of the service is aimed at producing individual customised pieces, rather than mass-produced high volumes. The patient and physiotherapist have tools available (by using the iPad application) to adapt the sensor sensitivity and sound feedback according to the actual exercise and physical and cognitive capabilities of the patient (interfaces 6 and 7). Through this end-user programming procedure the garment can be personalised further.

s0055 7.4.3 *Vibe-ing: a self-care tool for personal well-being*

p0245 Vibe-ing is a self-care tool in the form of a garment, which invites the body to feel, move, and heal through vibration therapy (Figure 7.3) (Bhömer et al., 2013b). By developing this prototype we aim to inspire a multidisciplinary audience,



f0020 **Figure 7.3** Vibe-ing is a therapeutic self-treatment care tool.
Photo: Wetzler and Berends.

PSS Value

Persona Exploration

Drama - Emotionally attachment

story-telling through performance

Sense / Experience ^{bodily} / ^{verbal}

	Abstract	Realistic
instant picture	maps	images
Action scene (chronic)	flows	narratives

Services vs. Products

Reading

Social interaction in service

objects (service cues)
environment (service cues)
people (encounters)

Depression
Emotionally
psychological
distress

Social
psychological
change

menopause



Activities
• swimming
• take walk with a dog
• travelling

therapy

• 52 years old woman
• one daughter
• a dog

Health and Wellbeing

biological change
high fever
sweating
breathing

working women at University



She is 52 years old & single.
She is experiencing menopause symptoms.
Her name is Kumi

introverted:
Not much social activity with other people.

neurological disorder

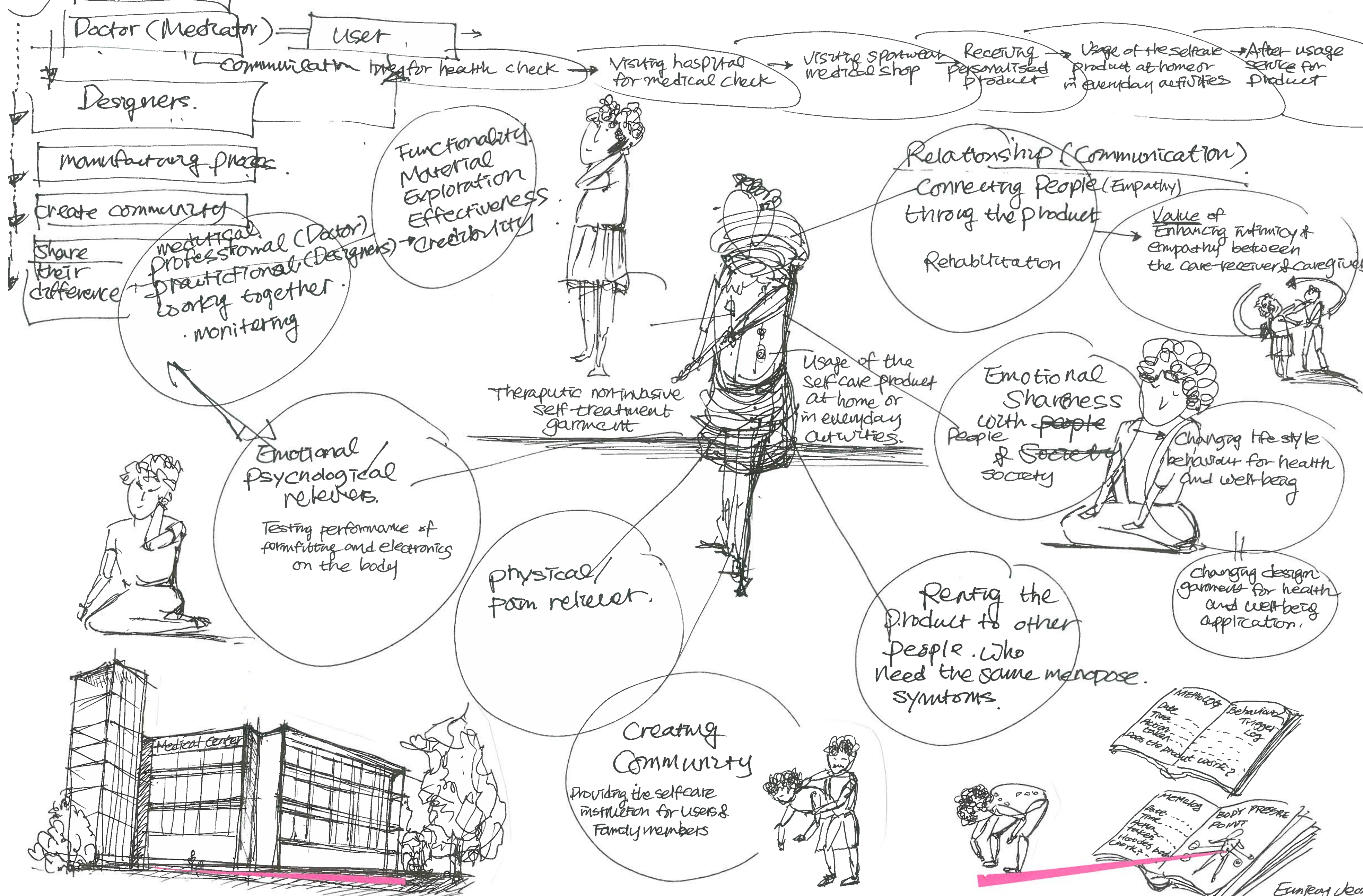
• lack of willingness
• lack of energy

weakened muscle



Stakeholders

Pre-Product Service System



Doctor (Mediator) - User

Communication for health check

Visiting hospital for medical check

Visiting sportswear medical shop

Receiving personalised product

Usage of the self-care product at home or in everyday activities

After usage service for product

Designers

Manufacturing process

Create community

Share their difference

Medical professional (Doctor) + Practical professional (Designers) working together - monitoring

Functionality, Material, Exploration, Effectiveness, Credibility



Therapeutic non-invasive self-treatment garment

Usage of the self-care product at home or in everyday activities

Relationship (Communication)

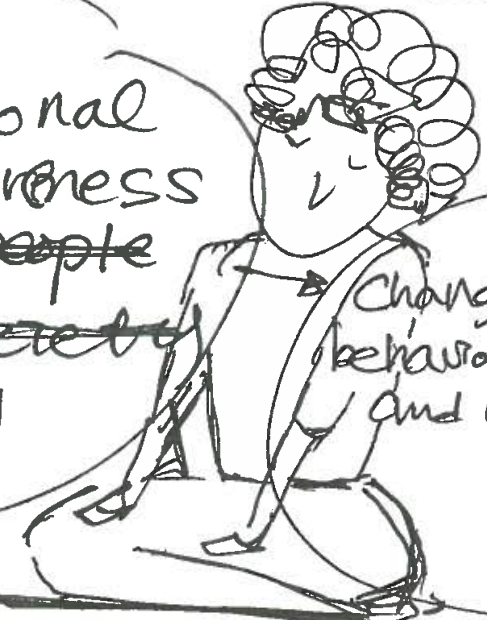
Connecting people (Empathy) through the product

Rehabilitation

Value of Enhancing intimacy & empathy between the care-receiver & caregivers



Emotional Shareness with people & Society



Changing lifestyle behaviour for health and wellbeing

changing design garments for health and wellbeing application

Emotional psychological relever

Testing performance of formfitting and electronics on the body

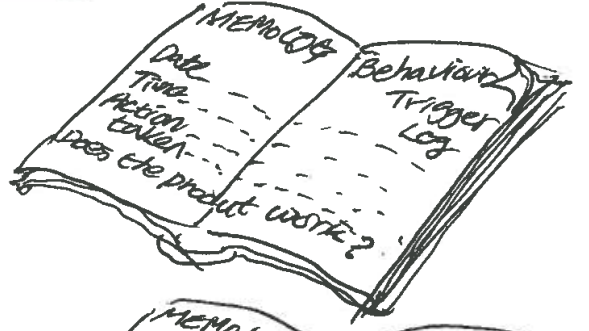
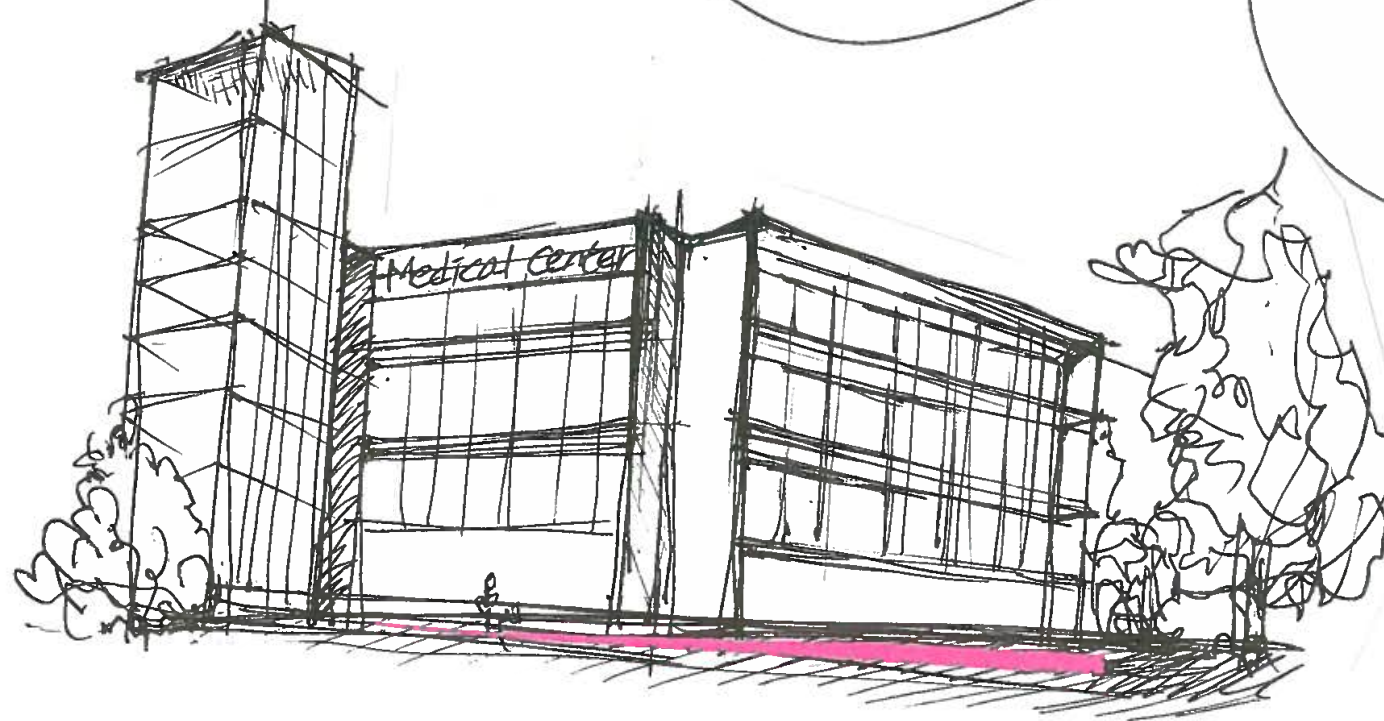


physical/pain relever

Renting the product to other people who need the same menopause symptoms

Creating Community

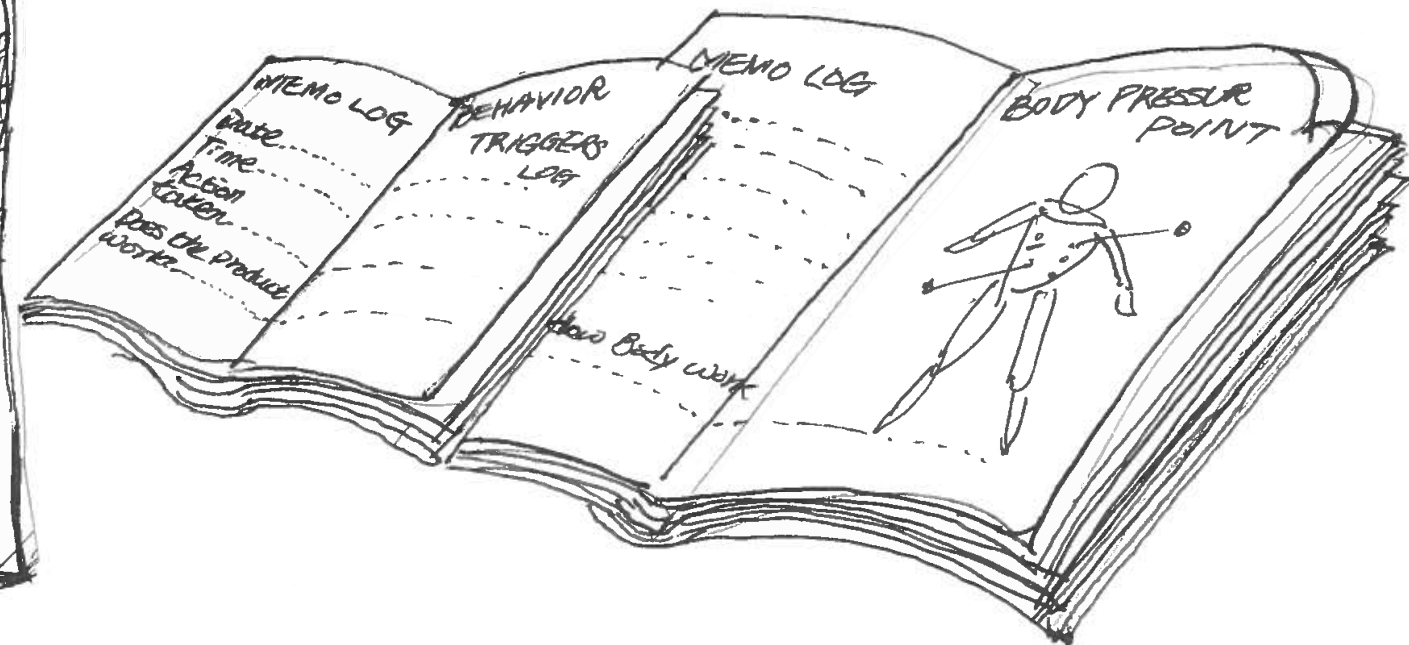
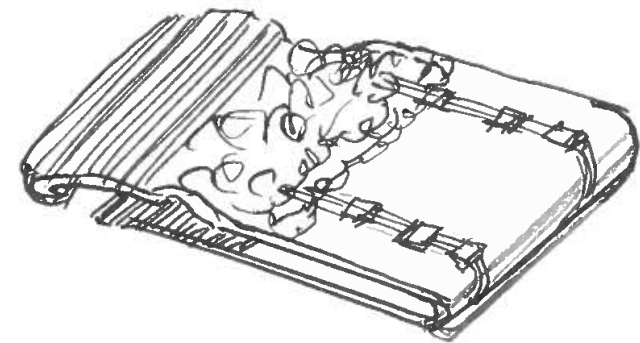
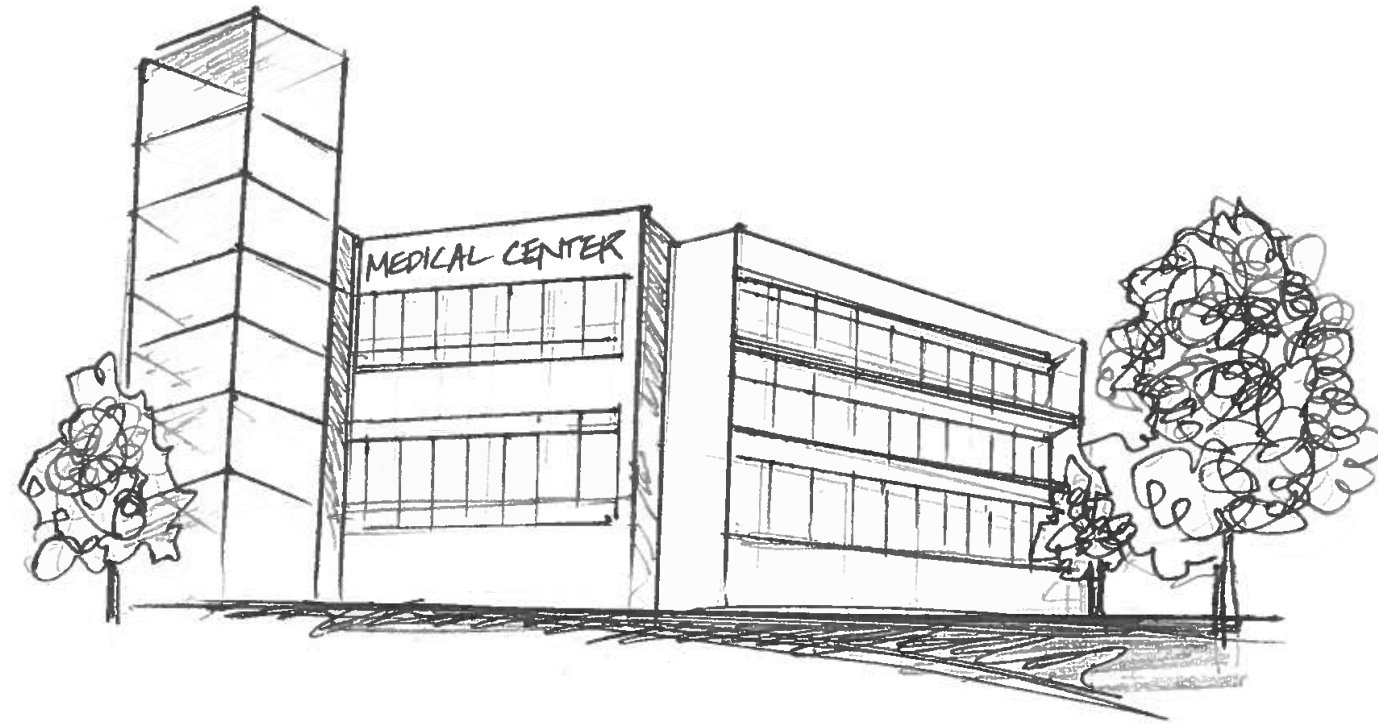
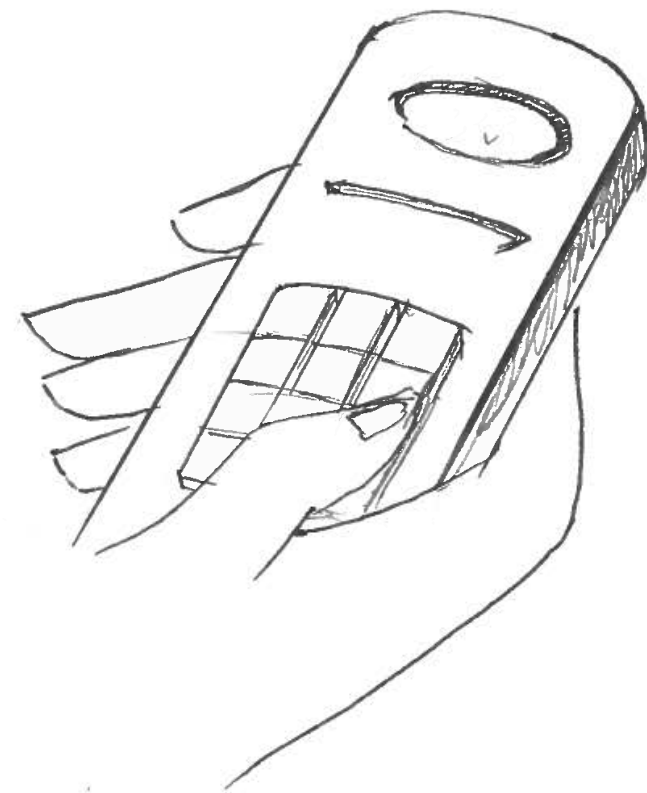
Providing the self-care instruction for users & Family members



Eunyoung Jeon (June 2013)

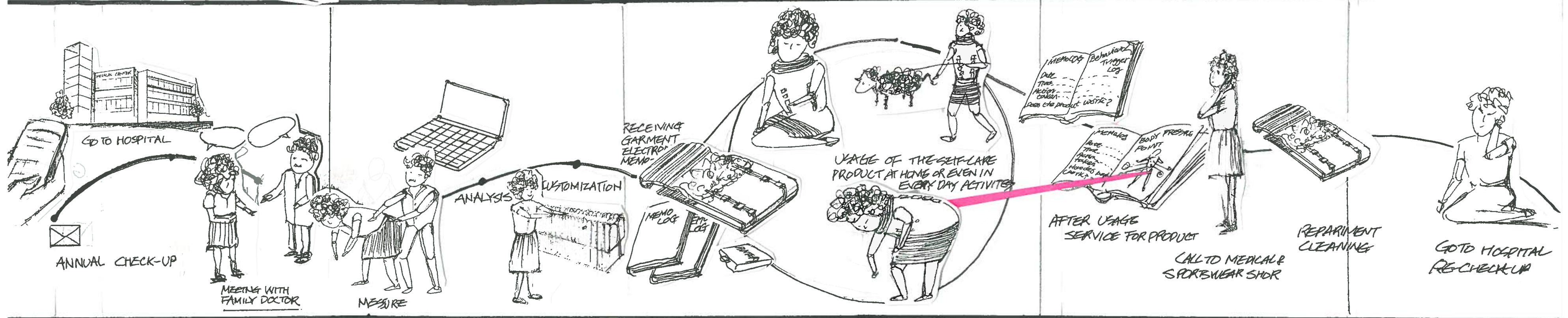
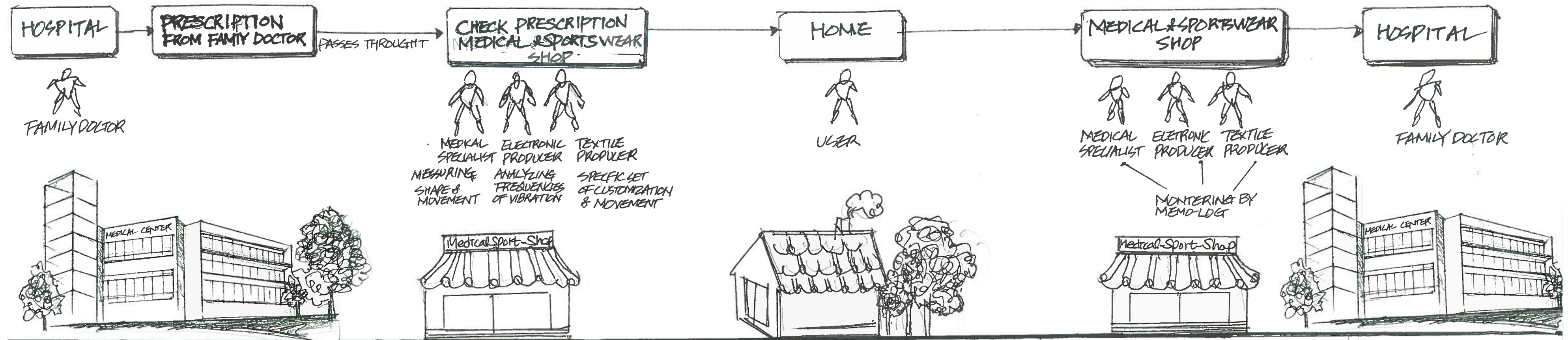
Service Interfaces

PSS Drawtag (Eunjeong Jeon)



Customer Journey

PRODUCT SERVICE SYSTEM



MEETING WITH FAMILY DOCTOR HEALTH CHECK

- BLOOD PRESSURE
- OSTEOPOROSIS
- HEAT DISEASE
- MENOPAUSAL SYMPTOMS
- EMOTIONAL DISTRESS

DISCUSSION ABOUT MAINTAINING GOOD HEALTH

PRESCRIPTION FOR MEETING PEOPLE AT MEDICAL & SPORT SHOP

MEETING WITH THE SPECIALIST MEASURE

- FINDING SPECIFIC BODY PRESSURE POINT

MEETING WITH ELECTRONIC PRODUCER ANALYSIS

- FINDING ADEQUATE FREQUENCIES OF ELECTRONICS ON THE BODY
- TESTING PERFORMANCES

MEETING WITH TEXTILE PRODUCER CUSTOMIZATION

- TESTING PERFORMANCES FORM-FITTING
- CUSTOMIZING SIZE, COLOUR, PRESSURE POINT

RECEIVING PERSONALISED GARMENT ELECTRONICS (BATTERY CHARGE)

- MEMO LOGS
- MANUAL INFORMATION (SELF-CARE INSTRUCTION FOR USERS)

TRY IT ON IN EVERY DAY ACTIVITIES

DOCUMENTING THE USAGE OF GARMENT, ELECTRONIC PERFORMANCE ON THE BODY

CALL TO MEDICAL & SPORTSWEAR SHOP FOR THE REPAIRMENT

- CLEANING SERVICES
- AFTER USAGE SERVICES FOR THE GARMENT, & ELECTRONICS.

RAMIFICATION OF SELF-CARE TREATMENT SERVICES, FROM MEDICAL SPECIALIST, ELECTRONIC PRODUCER & TEXTILE PRODUCER

RECHECK UP AT THE HOSPITAL BASED ON MEMO LOG & MEDICAL SPECIALIST

Service Front and Back Ends

Input from the Business model

Back End

Value for the company

Finacial

Financial

Financial

Reliability

Reliability

Reliability

Company profiles

Family doctor facility

Hospital facility

Chiropractic

Textile producer

Electronic producer

Sportswear medical shop

What the providers offers

Maintaining healthcare support

Perscribing the self-care treatment

Personalized threatment

Tailor made garment

Personalized treatment by application of vibration sensors and motors
Analyzing the frequencies of vibration how to affect it on the body

Coustomized garment integrated with electronics

Interaction provided

Communicational channel with people for healthcare service needs

Health medical examination

Analyzing body shape and movement

Specific set of self threatment actions

Design components, electronic components

Touch Points

(1)
By annual medical checkup

(2) Visiting hospital for medical checkup

(3)
Visiting sportswear medical shop

(4) Receiving personalised product

Interaction supported

Communication line for health check

Discussion about current health problem

Finding specific body pressure points for care

Information and customization

Finding adeqate frequencies of electronics on the body

Providing the product instruction how to use it

what the users can do

Questions in relation to general health care service

Change life style for recovering health

Healing

Testing performance and formfitting

Testing performance of electronics on the body

Try it on

User Profiles

One of the Family members (son or daughter) with mother in menopause svmptom

Over 50years old women are experiencing menopause svmptom

Over 50years old women are experiencing menopause symptom

Over 50years old women are experiencing menopause svmptom

Value for the user

Good care for mother

Physical & emotional wellbeing

Physical & emotional wellbeing

Input from the Costumer Journey

Front End

Input from the Personas

						Information on how to fill the cells
credibility	credibility	credibility	Formation of Trust from customers	image of company brand value	image of company brand value	(Each cell contains a list of economical values relating to an specific touch point for an specific company)
Medical specialist	Textile producer	Electronic producer	Medical specialist	Textile producer	Electronic producer	(Each cell contains the name and type of company involved) A drawing of the company and a logo needs to be provided
Memo-log for health check	Memo-log for the garment check	Memo-log for the electronics check	Concurrent health service monitor	Concurrent product service monitor	Concurrent product service monitor	(Each cell contains the list what that the company prepares as back end)
Performance instruction how to find specific body pressure points	Performance instruction of garment behaviour how to interact with body	Performance instruction how to work on the specific electronic components	Perscribing the adjustment of self-care treatment	Providing garment repairment and maintenance service	Providing garment electornics repairment and maintenance service	(Each cell contains the list of detailed actions the provider does)
(5) Usage of the self care product at home or in everyday activities			(6) After usage service for product			(Each cell contains the description of what the touchpoint consists of) A drawing should be provided
Providing the self-care instruction for users	Providing the self-care instruction for family members	Providing the self-care instruction for users and family members	Ramification of self-care tretment on the body	Ramification of self-care tretment with the textile properties and design	Ramification of self-care tretment with the electronics	(Each cell contains the list of detailed actions the user could do)
Rehabilitation	Connecting people (empathy) through the product		Theraputic noninvasive self-treatment			(Each cell contains the list of detailed actions the user does)
Over 50years old women are experiencing menopause svmptom	Family members as the caregivers	Over 50years old women are experiencing menopause symptom and her familv members	Over 50years old women are experiencing menopause symptom and her family members and friends			(Each cell contains the name and type of user involved) A drawing of the user needs to be provided.
Enhancing intimacy and empathy between the care-receiver and caregivers			Changing lifestyle behaviour for health and wellbeing	Socially connecting with people who are experiencing similar menopause symptoms		(Each cell contains a list of sociall values relating to an specific touch point for an specific user)

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