

MASTER THESIS

DESIGN FOR
PHILIPS GROOMING
PRODUCT RETURN
EXPERIENCE

XINGYU FAN

MSC INTEGRATED PRODUCT DESIGN



Appendix

- A. Project brief
- B. Philips sustainability goal
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IDE Master Graduation

Project team, Procedural checks and personal Project brief

This document contains the agreements made between student and supervisory team about the student's IDE Master Graduation Project. This document can also include the involvement of an external organisation, however, it does not cover any legal employment relationship that the student and the client (might) agree upon. Next to that, this document facilitates the required procedural checks. In this document:

- The student defines the team, what he/she is going to do/deliver and how that will come about.
- SSC E&SA (Shared Service Center, Education & Student Affairs) reports on the student's registration and study progress.
- IDE's Board of Examiners confirms if the student is allowed to start the Graduation Project.

! USE ADOBE ACROBAT READER TO OPEN, EDIT AND SAVE THIS DOCUMENT

Download again and reopen in case you tried other software, such as Preview (Mac) or a webbrowser.

STUDENT DATA & MASTER PROGRAMME

Save this form according the format "IDE Master Graduation Project Brief_familyname_firstname_studentnumber_dd-mm-yyyy". Complete all blue parts of the form and include the approved Project Brief in your Graduation Report as Appendix 1 !

family name	Fan	Your master programme (only select the options that apply to you):
initials	X	IDE master(s): <input checked="" type="radio"/> IPD <input type="radio"/> Dfl <input type="radio"/> SPD
given name	Xingyu	2 nd non-IDE master: _____
student number	_____	individual programme: _____ (give date of approval)
street & no.	_____	honours programme: <input type="radio"/> Honours Programme Master
zipcode & city	_____	specialisation / annotation: <input type="radio"/> Medisign
country	_____	<input type="radio"/> Tech. in Sustainable Design
phone	_____	<input type="radio"/> Entrepreneurship
email	_____	

SUPERVISORY TEAM **

Fill in the required data for the supervisory team members. Please check the instructions on the right !

** chair	Conny Bakker	dept. / section:	SDE/CPD
** mentor	Ruth Mugge	dept. / section:	DOS/MCR
2 nd mentor	_____		
organisation:	_____		
city:	_____	country:	_____
comments (optional)			

Chair should request the IDE Board of Examiners for approval of a non-IDE mentor, including a motivation letter and c.v.



Second mentor only applies in case the assignment is hosted by an external organisation.



Ensure a heterogeneous team. In case you wish to include two team members from the same section, please explain why.

APPROVAL PROJECT BRIEF

To be filled in by the chair of the supervisory team.

chair Conny Bakker date - - signature _____

CHECK STUDY PROGRESS

To be filled in by the SSC E&SA (Shared Service Center, Education & Student Affairs), after approval of the project brief by the Chair. The study progress will be checked for a 2nd time just before the green light meeting.

Master electives no. of EC accumulated in total: _____ EC YES all 1st year master courses passed

Of which, taking the conditional requirements into account, can be part of the exam programme _____ EC NO missing 1st year master courses are:

List of electives obtained before the third semester without approval of the BoE

name _____ date - - signature _____

FORMAL APPROVAL GRADUATION PROJECT

To be filled in by the Board of Examiners of IDE TU Delft. Please check the supervisory team and study the parts of the brief marked **. Next, please assess, (dis)approve and sign this Project Brief, by using the criteria below.

- Does the project fit within the (MSc)-programme of the student (taking into account, if described, the activities done next to the obligatory MSc specific courses)?
- Is the level of the project challenging enough for a MSc IDE graduating student?
- Is the project expected to be doable within 100 working days/20 weeks ?
- Does the composition of the supervisory team comply with the regulations and fit the assignment ?

Content: APPROVED NOT APPROVED

Procedure: APPROVED NOT APPROVED

comments

name _____ date - - signature _____

Design Return Experience for Philips Male Grooming Product Consumers project title

Please state the title of your graduation project (above) and the start date and end date (below). Keep the title compact and simple. Do not use abbreviations. The remainder of this document allows you to define and clarify your graduation project.

start date 05 - 07 - 2021 10 - 12 - 2021 end date

INTRODUCTION **

Please describe, the context of your project, and address the main stakeholders (interests) within this context in a concise yet complete manner. Who are involved, what do they value and how do they currently operate within the given context? What are the main opportunities and limitations you are currently aware of (cultural- and social norms, resources (time, money,...), technology, ...).

For a sustainable world, the transition from a linear to a circular economy is essential. To obtain a closed loop of resources and ensure a sufficient volume of products to enable circular strategies, manufacturers need to find a way to nudge users to send back their products when unused, unwanted or at the end of their life.

As one of the manufacturers who consider the circular economy as a key driver of business value creation, Philips is exploring new ways to involve consumers in co-creating the closed-loop for Male Grooming (MG) products and exploring possibilities on leveraging learnings on other similar Philips Personal Health products. So far, Philips has developed some circular services for the Personal Health products, such as the 90-day return service and Lumea Try&Buy service, which offers customers access to Lumea rather than the ownership of it.

For this project, Phillips intends to explore how to improve user experience during *EOU (end of use) stage. So that users can be motivated to send back their unused MG products, and Philips can have the products reprocessed and provided to new users. By developing such services, opportunities could be a new culture of returning Philips products among consumers and the increase in Philips competencies in sustainable health technology. The project outcome might encourage and trigger the whole industry to transit towards the circular economy.

In addition to Philips, other stakeholders such as retail stores, refurbishment/recovery/recycling organizations and third-party trade-in organizations might also get involved in this project. Because these organizations are experienced in disposing of different types of products, Philips could collaborate with them to increase the effectiveness of the return process.

*Definition of EOU

EOU (end of use): the consumer stops using MG products due to any reasons from their own perspective.

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introduction (continued): space for images

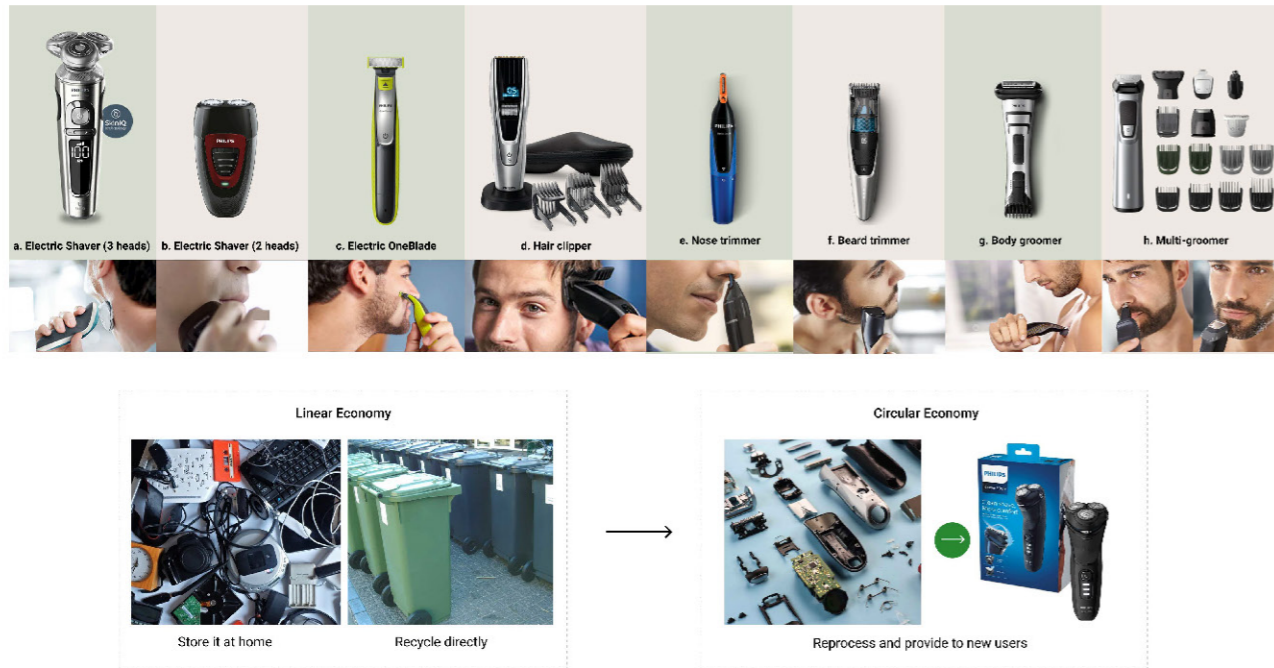


image / figure 1: Philips aims to collect unused MG devices for further development of circular economy

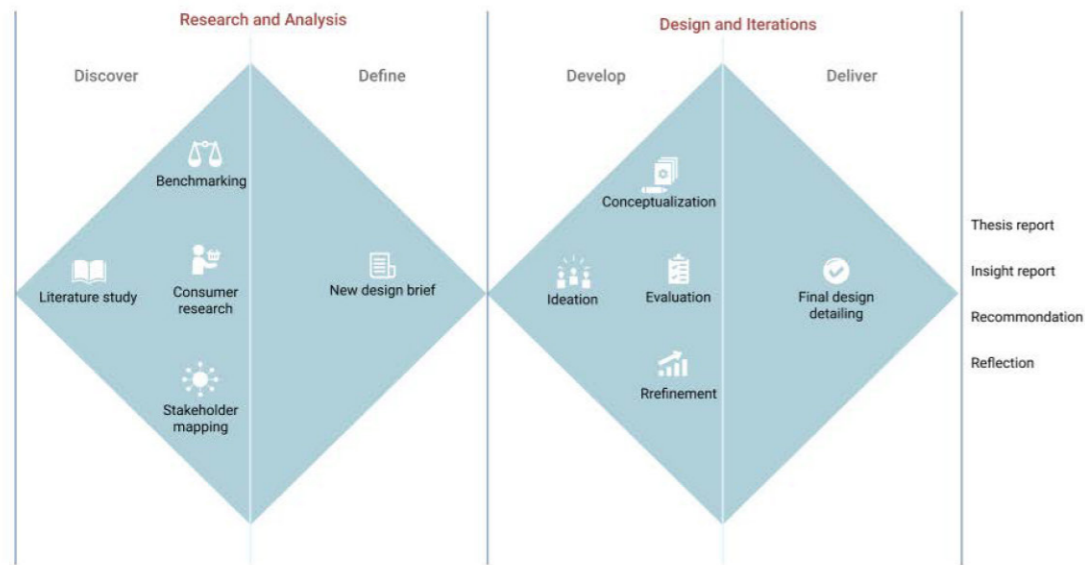


image / figure 2: Research process and approach

PROBLEM DEFINITION **

Limit and define the scope and solution space of your project to one that is manageable within one Master Graduation Project of 30 EC (= 20 full time weeks or 100 working days) and clearly indicate what issue(s) should be addressed in this project.

Philips aims to drive the circular economy by capturing the value of unused MG devices. However, since existing return services are not effective enough to nudge consumers to return MG products, consumers rarely send the products back, making it difficult for Philips to close the loop.

With the purpose of making the return service more effective and lasting, it is crucial to stimulate consumers to change their behaviors from 'throwing, storing, forgetting' to 'returning'. Moreover, in order to let consumers give priority to Philips's return service over other disposal options when facing the EOU phase, it's necessary to investigate what factors are interested to the target consumers and what they value the most.

The project scope can be formulated as:

Design an effective and lasting return program to motivate MG consumers to return unused devices to Philips, by exploring what interventions can be applied to change their behavior towards 'returning' and what is important to consumer's preference over other similar return services.

Therefore, the design space within the scope lies in understanding consumers experience and behaviors during EOU phase, thus to apply relevant interventions to encourage consumers return the MG devices, and thereby the products can be refurbished, recycled, and offered again to the new users.

ASSIGNMENT **

State in 2 or 3 sentences what you are going to research, design, create and / or generate, that will solve (part of) the issue(s) pointed out in "problem definition". Then illustrate this assignment by indicating what kind of solution you expect and / or aim to deliver, for instance: a product, a product-service combination, a strategy illustrated through product or product-service combination ideas, In case of a Specialisation and/or Annotation, make sure the assignment reflects this/these.

The primary goal of this project is to develop a solution that provides a motivational and rewarding consumer's MG products return experience that supports Philips's further development for the circular economy. The solution will stimulate consumer's behavior change from "storing, forgetting and throwing" to "returning" while also building consumer loyalty and increasing their sustainable awareness.

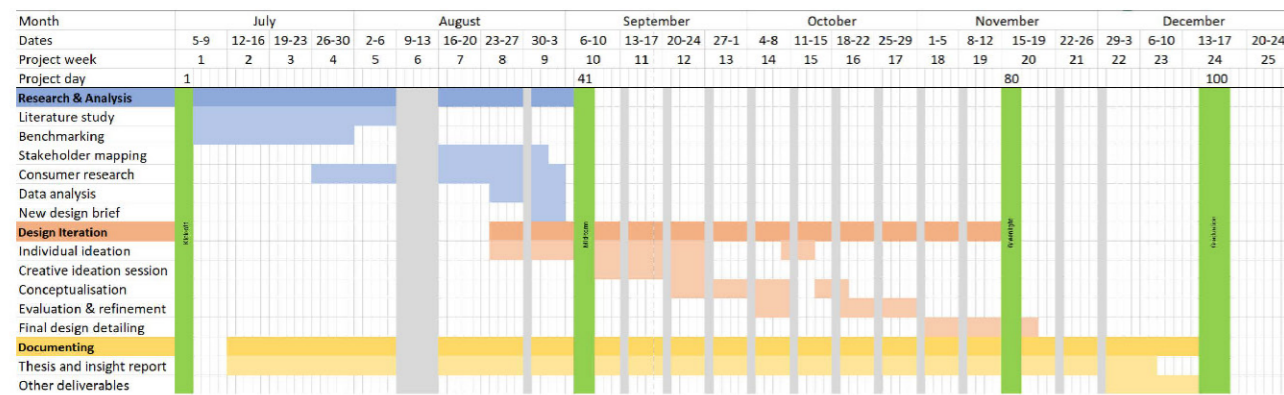
The outcome of this project is expected to be a solution in the form of a product-service combination. It will be an integrated service with at least one touchpoint elaborated as physical or digital product design. The final deliverables will include the following items:

1. A thesis report that provides: (1) Description of methods, and the key insights from context research, consumer research, and benchmarking; (2) The detailed design iteration process that includes iterative ideation, conceptualization, and evaluation; (3) The final design demonstration; (4) Reflection on the values for consumers, Philips, other stakeholders, and the society; (5) Recommendation based on the final evaluation results that can be referred to for further improvements.
2. A showcase including a poster and a video that clearly demonstrate the context, the challenge and the final design solution.
3. Final presentation.
4. An insight report for Philips with recommendations and guidelines. The insights will mainly focus on the consumer's perspective, and can be generated throughout the whole design process. There will be two parts of insights demonstrated in the report separately; insights under the specific context of MG products, and insights that can be leveraged in a more general context for other similar Philips Healthcare products.

PLANNING AND APPROACH **

Include a Gantt Chart (replace the example below - more examples can be found in Manual 2) that shows the different phases of your project, deliverables you have in mind, meetings, and how you plan to spend your time. Please note that all activities should fit within the given net time of 30 EC = 20 full time weeks or 100 working days, and your planning should include a kick-off meeting, mid-term meeting, green light meeting and graduation ceremony. Illustrate your Gantt Chart by, for instance, explaining your approach, and please indicate periods of part-time activities and/or periods of not spending time on your graduation project, if any, for instance because of holidays or parallel activities.

start date 5 - 7 - 2021 end date 10 - 12 - 2021



Project Duration= 05/07/2021 to 15/12/2021
 - 100 Working days
 - 5 days holiday from 9th – 13th Aug
 - Since 30th Aug, I will work 4 days per week because a course will be taken on every Monday.
 The plan might be modified as the project will proceed with results obtained at each stage.

The tentative important dates:
 Kick off meeting: 5 th Jul 2021;
 Midterm evaluation: 7 th Sep 2021;
 Green light Meeting: 15 th Nov 2021;
 The graduation defense: 15th Dec 2021.

The project consists of three phases: (1) Research and analysis phase: The project will be initiated with a literature review to gain in-depth knowledge of circular economy, consumer behavior theories, and previous study on design for divestment. Later, the benchmarking will be conducted to get an overview of existing product-return solutions. Then a stakeholder mapping will be prepared to analyze different types of stakeholders involved in MG product ecosystem. Consumer research will start two weeks later after kick-off and will be completed before the final design detailing. Methods such as context mapping and interviews will be carried out to understand consumer experience and behavior. To gain more insights from the current return experience, I will also get a MG product by myself to experience the whole journey, especially the return process. Key insights will be generated after consumer research. Persona and user journey map will be used as tools to describe user behavior, needs, and experience journey. Finally, a new design brief will be formulated as a start point for the next phase. It will redefine the problem, design vision, and develop the requirements & criteria based on the guidelines from previous design-for-divestment research. (2) Design and iteration phase: The second phase starts with the diverging process: ideation and conceptualization. In addition to the personal ideation, a workshop with peers and stakeholders will be organized to get inspiration. After narrowing down and clustering the ideas, a concept will be developed. In the conceptualization stage, a service blueprint will be used to detail the process and visualize stakeholders' relationships. Furthermore, prototypes and storyboards will be developed for further evaluation with stakeholders. After the small iterations, the final design will be delivered, including an improved service blueprint, prototypes of touchpoint(s), and a reflection on how the results contribute to the user, Philips, and society. (3) Documenting: The thesis report and the insight report will be written throughout the project. Each chapter and all the insights will be documented once the activities are done. Furthermore, the showcase and presentation will be developed during the last two weeks of the project.

MOTIVATION AND PERSONAL AMBITIONS

Explain why you set up this project, what competences you want to prove and learn. For example: acquired competences from your MSc programme, the elective semester, extra-curricular activities (etc.) and point out the competences you have yet developed. Optionally, describe which personal learning ambitions you explicitly want to address in this project, on top of the learning objectives of the Graduation Project, such as: in depth knowledge a on specific subject, broadening your competences or experimenting with a specific tool and/or methodology, Stick to no more than five ambitions.

As my mother teaches water treatment in the university, I usually went to the sewage treatment plants since I was very little. I truly felt the impact of human activities on the environment, which has built my sustainability awareness. Apart from that, this project also reminds me of the moments when I face the dilemma of whether to store the old electronics.

Therefore, I found this project extremely meaningful and closely attached to my interests. Through the previous study at IPD, TU Delft, I have done many different projects that vary from product design to product-service system design. The IPD experience helped me develop skills in bringing solutions in a practical way. Apart from that, the internship experience as a UX designer also trained me to get familiar with an industry and extract insights quickly.

During this project, I want to get in-depth knowledge of the circular economy and consumer behavior change. Moreover, as an IPD student who lacks experience in strategic product design and service design, I also want to broaden my competencies by experimenting with qualitative research and service design methodologies.

FINAL COMMENTS

In case your project brief needs final comments, please add any information you think is relevant.

B. Philips sustainability goal

Our ambitious targets for 2025

3 CONSUMABLES AND SERVICES

Health and well-being for all

- We improve the health and well-being of 2 billion people per year through meaningful innovation
- As part of this, we enable access to care for 300 million people in underserved communities

12 RESPONSIBLE CONSUMPTION AND PRODUCTION

Circular economy

- We generate **25%** of our revenue from circular products, services and solutions
- We offer a **trade-in on all professional medical equipment**, and take care of **responsible repurposing****
- We embed circular practices at our sites* and put **zero waste to landfill**

13 CLIMATE ACTION

Climate action

- We reduce our CO₂ emissions in line with a 1.5 °C global warming scenario, for example by further improving the energy efficiency of our products during the customer use phase
- We source 100% of our electricity and over 75% of our total energy consumption from renewable sources

17 PARTNERSHIPS FOR THE GOALS

Partnerships

- We team up with our partners to deliver sustainable value and drive global change
- We improve the lives of 1 million workers in our supply chain and reduce its environmental footprint

ENABLERS

Enablers

- We design 100% of our products and services in line with EcoDesign requirements, with 'Eco-Heroes' accounting for 25% of revenues
- We embed sustainable practices in our ways of working, as defined by the Philips Business System

* including non-manufacturing sites, such as large offices, warehouses and R&D facilities
** either refurbished at Philips, or locally recycled in line with Philips policies

C. Benchmarking on take-back strategy

Stimulus	Discount / gift card				
Company	Apple	Media Markt	Cool blue	Suning ('Cross-brand' trade in)	
Program info	Apple Trade In: https://www.apple.com/nl/trade-in/	Get a trade-in discount for the old device	Only B2B can trade in the old device	Get a device upgrade	consumer electronic stores trade-in / buy back program
stakeholders	Offline: apple store , Online: Bright star (nl)	Media Markt store	Coolblue	Apple, Samsung, Coolblue	Suning physical stores
Product for return	All apple products can be recycled,	Only available for Apple, Samsung, and Microsoft products	at least 5 business IT devices.	Only available for Apple and Samsung smartphones	Multiple types of electronics from a large number of brands (it could be bought from other stores other than Suning)
How?	Offline: trade in at Apple Stores, the staff will evaluate the device and the corresponding price, and assist you to remove the personal data on the old device. Some products can get credit: if you trade in your old device when you buy a new product, Apple will settle the trade-in value with your purchase, or they will recycle it free of charge. Online: The consumer can purchase the new product and estimate the price for the old device at the same time. The new purchase will be sent out first, and the staff will pick up the device at door. After checking the condition of old device, the consumer can get a trade-in value directly	Bring the old device to the MediaMarkt branch with your ID, and receive a credit that worth the estimated price. Then pay for the new device at the checkout and redeem the credit.	You can exchange old business hardware for a fee via Coolblue's trade-in service. You will receive an estimate of the value of the equipment in advance. The products are collected, inspected, erased and prepared for recycling. You will then receive your money and a 'Data Erasure Report'. This certificate proves that all data from your old device has been completely and carefully removed.	Online: Choose 'upgrade' while order the new phone, receive the instructions after payment. Offline: Make an appointment for the Coolblue stores	https://www.bilibili.com/video/BV1rD4y127BP?from=search&seid=15857137764751837599 Three options for consumers to send back the device: 1. send via post. 2. The staff will pick up your device at door. 3. Select a physical store and go to the store.
Value	Trade-in value: Apple Store gift card used for buying new products				1. The price might be higher compared to the credits provided by the original brands. 2. Consumers have more options for the new device (from other brands)
What does the company do with the returned products	Recycle?				
Accessibility	Easy to access in the Apple official website. Procedure are very clear. Trade-in options in the new products shopping page		Can be easily found in 'Customer service'	Hidden in 'service', not as obvious as general return service	Easy to find in the official page

Stimulus	Discount / gift card				
Company	H&M	Media Markt	Cool blue	Suning ('Cross-brand' trade in)	
Program info	Consumer can take any unwanted clothes or textiles, by any brand and in any condition, to one of H&M stores and receive a voucher to use towards the next purchase https://www2.hm.com/en_ie/hm-sustainability/fets-change.html/close-the-loop	Get a trade-in discount for the old device https://www.mediamarkt.ch/de/shop/service/eintausch-rabatt.html	Only B2B can trade in the old device https://www.coolblue.nl/advies/wat-is-trade-in-service-coolblue-zakelijk.htm#td-trade-in-service-bestellen	Get a device upgrade https://www.coolblue.nl/advies/allen-over-smartphone-upgrade.html	consumer electronic stores trade-in / buy back program https://hx.suning.com/
stakeholders	Collaborate textile recycle company I:CO https://www.ico-spirit.com/en/	Media Markt store	Coolblue	Apple, Samsung, Coolblue	Suning physical stores
Product for return	Any unwanted clothes or textiles	Only available for Apple, Samsung, and Microsoft products	at least 5 business IT devices.	Only available for Apple and Samsung smartphones	Multiple types of electronics from a large number of brands (it could be bought from other stores other than Suning)
How?	https://www.youtube.com/watch?v=BDWISi8VcHA Bring the old clothes to H&M store and the staff will help you put old clothes into a collection box. Finally you will get a discount card (unlimited, no expiration) for buying new products Chinese consumers can get access to the collection program by using 微信小程序	Bring the old device to the MediaMarkt branch with your ID, and receive a credit that worth the estimated price. Then pay for the new device at the checkout and redeem the credit.	You can exchange old business hardware for a fee via Coolblue's trade-in service. You will receive an estimate of the value of the equipment in advance. The products are collected, inspected, erased and prepared for recycling. You will then receive your money and a 'Data Erasure Report'. This certificate proves that all data from your old device has been completely and carefully removed.	Online: Choose 'upgrade' while order the new phone, receive the instructions after payment. Offline: Make an appointment for the Coolblue stores	https://www.bilibili.com/video/BV1rD4y127BP?from=search&seid=15857137764751837599 Three options for consumers to send back the device: 1. send via post. 2. The staff will pick up your device at door. 3. Select a physical store and go to the store.
Value					1. The price might be higher compared to the credits provided by the original brands. 2. Consumers have more options for the new device (from other brands)
What does the company do with the returned products	Attract consumers to consume in their store				
Accessibility	Easy to find under 'sustainability' tab in H&M's navigation bar		Can be easily found in 'Customer service'	Hidden in 'service', not as obvious as general return service	Easy to find in the official page
	Negative side: encourage a guilt-free consumption attitude where customers think				

E. Interview questions

F. Interview participants recruitment questionnaire

Research questions

User behaviour and experience

- Where do consumers purchase MG products?
- How long is the life cycle of MG devices?
- In what situations would the consumers start to face the EOU?
- What are consumers doing with the unused MG devices?
- How do different states of the old MG device influence the consumer behaviour?

Opportunity to return

- How is their opportunity to return the MG products?
- Why is their opportunity low/high?

Motivation to return

- How is their motivation to return the MG products?
- Why is their motivation low/high?

- What are their needs during EOU?
- Why their motivation is higher for other divestment options than for return? What are the factors that influence their decision?

- How is their perceived image of return programs? Why do they have such a perception?
- What is the perceived value and effort based on their previous experience or assumption?

Habit during EOU

- What are their existing habits during EOU?
- Why do they recycle/return other products such as papers, plastics, but they don't return/recycle shavers?

The desired return program

- How is their desired return program be like?
- What factors do they value when evaluating a return option?

- Will consumers be interested in buying refurbished MG products?

Interview questions

- How many MG product have you used before? How often do you change one?
- What is(are) the products that you don't use anymore?
- Where did you get it?
- How long have you used them? How often do you change one?
- Why stop using?
- What happened with the previous product?

- Have you heard about / tried any take-back service for MG products?
- Do you know other take-back services?

- Do you have easy access to the logistical service?
- How convenient do you think logistical service is?

- What options did you consider when dispose with your old products?
- Why did(not) you choose this option? (Ask all the options)
 - Resell
 - Give away to others
 - Get repaired by the company or repair shop
 - Repaired by myself
 - Get exchanged
 - Replace the broken parts
 - Recycle via take-back programs
 - Recycle by throwing properly
 - Throw away to the normal bins without recycling
 - Store at home

- If you don't dispose of items properly, will you feel social pressure?
 - How do you feel if you don't recycle paper/plastic? Why?
 - How do you feel if you don't throw electronics properly? Why?

- Do you consider yourself highly responsible for the environment?

- How do you think of the value of storing shavers at home and never using it?
- Do you think it can create a certain value for the environment if it's disposed properly?
- Compared to the sustainability value, do you think it's more valuable to store it at home in case you might use it someday?

- What is the overview impression that you have for the take-back or return service?
 - Imagine Philips has launched a new take-back service. You have seen the advertisement on Youtube/Facebook with little details. Two month later when you decide to dispose of it, will you consider this service?



Fig. example of the Youtube ad

- Will you try to look for more details of the service? Why?
- What is your assumption about the service process? How convenient do you think?
- How convenient is the post service do you think? How about throwing at electronic stores? Collection box at supermarket? ...

- What happened most with your unused items? How many (stored) at home?
- Habit of recycling unused electronics? Habit of storing electronics?
- What is your habit with the regular recycle (paper, plastic, etc.)? Why?
 - Is it because sustainability awareness? Infrastructure? Regulation? Or any other reasons?

- How important are these factors to you? Why?

We're developing a program to collect old device. How important are these factors to you? Why?

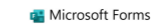
	1	2	3	4	5
Financial compensation	Not important	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	Very important
The remaining value can still be used by someone who needs it	Not important	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	Very important
Contribution to the environment	Not important	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	Very important
The device's life-cycle can be extended	Not important	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	Very important
It's easy to do	Not important	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	Very important

- Will you be interested in buying refurbished male grooming products?

Thank you for completing the survey! We really appreciate your time.

If you are chosen as the interview participant, you will be contacted within one week. If you have any questions, feel free to contact the researcher via email: xingyu.fan@philips.com (<mailto:xingyu.fan@philips.com>).

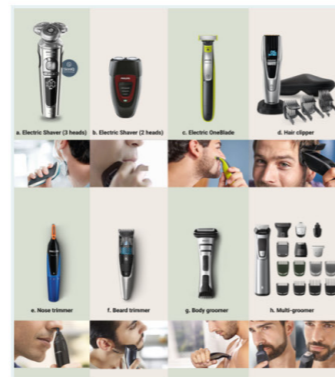
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Product usage experience

1

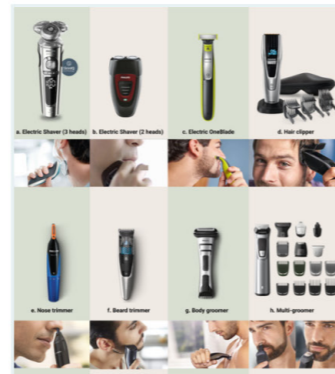
Have you used any of these products? (Could be from any brands)



- Yes
- No

2

Which device(s) have you used previously?



- a. Electric shaver (3 heads)
- b. Electric shaver (2 heads)
- c. Electric one-blade
- d. Hair clipper
- e. Nose trimmer
- f. Beard trimmer
- g. Body groomer
- h. Multi-groomer
-
- Other

3

Was there at least one male grooming device that you don't use anymore?

- Yes, I have stored it somewhere / I have already disposed of it / I plan to get rid of it
- I'm still using all of them in a normal way

4

What did you do with your previous old device(s)?

- Stored/put somewhere at home
- Threw away
- Gave away to someone else
- Recycled through recycling service
- Returned to the original company
- I don't have any plan yet for the stored device(s)
-
- Other

5

What are you planning to do with your male grooming device after it's not used anymore?

- Stored/put somewhere at home
- Threw away
- Gave away to someone else
- Recycled through recycling service
- Returned to the original company
- I don't have any plan yet for the stored device(s)
-
- Other

G. Benchmarking on return kits

Personal details

6

Your age

- < 31
- 31~40
- 41~50
- 51~65
- > 65

7

Which country do you live now?

8

Would you like to help us by participating a 40-min interview?

- Yes
- No


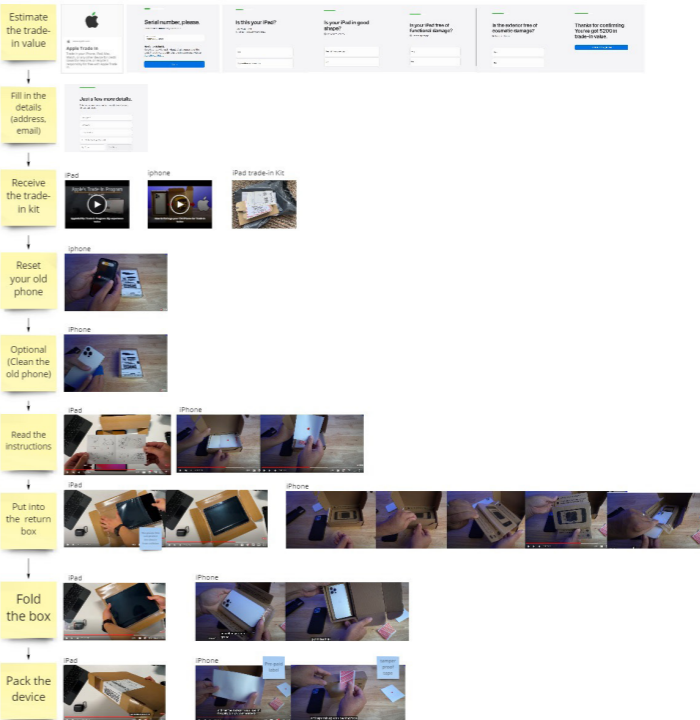

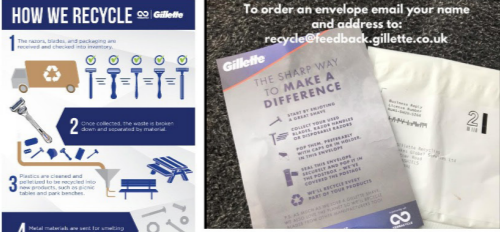


9

Your contact details (phone number/ E-mail / WhatsApp)

Thank you for completing the survey! We really appreciate your time.

If you are chosen as the interview participant, you will be contacted within one week. If you have any questions, feel free to contact the researcher via email: xingyu.fan@philips.com (<mailto:xingyu.fan@philips.com>)

New table

Brand	Return process
 <p>Apple</p>	
 <p>NESPRESSO</p>	
 <p>Gillette</p>	<ul style="list-style-type: none"> • Order a prepaid envelope through the Gillette® website • Place your razors and razor blades inside the envelope; • Put your envelope in the post and send it to TerraCycle® for recycling <p>https://www.terracycle.com/en-US/brigades/gillette#@40.77027075200147:95.93705549677736zoom:4</p> 
 <p>hp</p>	

H. Intermediary concept user test questions

User test questions

1. Current scenario

1.1 What device(s) do you have now? What is the status of the device?

Device 1: _____

Device 2: _____

Status: functioning partially defect non-functioning

Status: functioning partially defect non-functioning

1.2 What device you don't use anymore? What happened with the previous device?

Device 1: _____

Device 2: _____

Device 3: _____

Result: _____

Result: _____

Result: _____

Why: _____

Why: _____

Why: _____

1.3 Your knowledge about male grooming products take-back service

- I have never heard of male grooming take-back service
- I have heard of male grooming take-back service
- I have experience with male grooming take-back service

1.4 Your knowledge on the warranty status of your male grooming devices

- I don't know the warranty length, and I have no idea whether my device is within warranty
- I have a rough perception on the warranty, it's around_____ years. But I'm not sure whether my device is within warranty.
- I clearly know whether my device is within warranty.

1.5 Your knowledge on the after-sale services for you device(s)

- I don't know any after-sale services
- I know some after-sale services, but not sure if they are available to my device
- I clearly know the available after-sale services for my device

User test questions

1. I would like to press 'learn more' or scan the QR code after seeing these ads to acquire further information

Totally disagree ¹ ² ³ ⁴ ⁵ Totally agree

2. The ads remind me of my unused device at home

Totally disagree ¹ ² ³ ⁴ ⁵ Totally agree

3. I will get back to the service once I decide stop using the current device

Totally disagree ¹ ² ³ ⁴ ⁵ Totally agree

4. The financial benefit is attractive to me

Totally disagree ¹ ² ³ ⁴ ⁵ Totally agree

5. The promotion channels can effectively inform me (I am aware of Philips Return Service after seeing these promotions)

Totally disagree ¹ ² ³ ⁴ ⁵ Totally agree

6. Other factors that trigger you/ prevent you to learn more about the service?

2.3 I think my action can protect the environment

Totally disagree ¹ ² ³ ⁴ ⁵ Totally agree

2.4 I feel the website is easy-to-use

Totally disagree ¹ ² ³ ⁴ ⁵ Totally agree

2.5 The information is clear to me

Totally disagree ¹ ² ³ ⁴ ⁵ Totally agree

2.6 I'm more clear with the available services with my current device

Totally disagree ¹ ² ³ ⁴ ⁵ Totally agree

2.7 What makes you finally decide to return/ not to return?

3. After using the return service

3.1 The return method is acceptable to me

Totally disagree ¹ ² ³ ⁴ ⁵ Totally agree

3.2 The return method is easy-to-use

Totally disagree ¹ ² ³ ⁴ ⁵ Totally agree

3.3 Other factors that you like/dislike about this return process?

I. Consent form

INFORMATION FOR INDIVIDUALS, user research & evaluative study
Design for Divestment

INFORMATION LETTER for the interview

Improving the return of Philips Personal Health products by investigating the consumer behaviour during the end-of-use stage

Invitation

Dear sir/madam,

We are inviting you to participate in an interview. In this information letter, we inform you about this interview because before you decide whether you want to participate or not, it is of course very important that you understand **why** this interview is conducted and **how** it will be conducted.

Please feel free to contact the responsible researcher if you need more information. The responsible researcher's name and contact information can be found elsewhere in this document.

Thank you very much for reading this information and for considering your participation.

INFORMATION FOR INDIVIDUALS, user research & evaluative study
Design for Divestment

What is the goal of this interview?

In order to create a positive environmental impact and drive consumer loyalty, Philips is exploring new ways to motivate consumers to send back unused Personal Health(PH) products. With this study, our goal is to develop a solution that provides a motivational consumer return experience that supports Philips's development for the circular economy.

Two rounds of interviews will be conducted during two phases of this research separately: user research phase and concept evaluation phase. Through user research interviews, we want to understand the PH consumers' behaviours during the product end-of-use phase and to explore the barriers associated with the specific behaviours. Based on the research data, we will develop design concepts to solve the challenges. After concepts are elaborated, the second round interviews will be conducted in order to examine the effectiveness of concepts and to collect feedbacks. The final design solution will be further developed to improve the return of Philips.

In order to better illustrate the research findings, the quotes from the interview may be used for Philips internal and external communication such as project presentation, project report, external publication, etc., but anonymized. (if permitted by you by ticking the relevant boxes in the informed consent form).

Where will the interview be conducted?

The interviews will be conducted through online communication platforms such as Microsoft Teams, Zoom, and Skype. No physical presence is needed.

Who organized and paid for the interview?

These interviews are organized and paid for by Philips Electronics NL, acting through Philips Experience Design, also acting for the benefit of its affiliates (hereinafter referred to as "Philips").

Who is involved in this interview?

The interview will be conducted by:

Role	Name	Email	Company /Institution	Full address
Responsible researcher	Xingyu Fan	x.fan-3@student.tudelft.nl	TU Delft	Landbergstraat 15 Delft the Netherlands
Supervisor	Helle Ullerup	helle.ullerup@philips.com	Philips	High Tech Campus 33 5656AE Eindhoven
Supervisor	Conny Bakker	C.A.Bakker@tudelft.nl	TU Delft	Landbergstraat 15 Delft the Netherlands
Supervisor	Ruth Mugge	R.Mugge@tudelft.nl	TU Delft	Landbergstraat 15 Delft the Netherlands

Duration of the interview

If you decide to participate, the total time of your participation of the user research interview will be about 0.5 hours. The total time of your participation of the concept evaluation interview will be about 1 hour.

What are the steps in the interview and what is expected from you?

After the participation is confirmed, remote interview sessions will be conducted through phone call or digital communication softwares.

In the first round of interviews (user research), the process will take 0.5 hours. You will be asked by the researcher to answer questions that are only related to this project.

In the second round of interviews (concept evaluation), the process will take 1 hour. First, you will be shown the design concepts by the researcher. Next, you will be asked to complete a few tasks through the concepts. Finally, an interview will be conducted to collect your feelings / thoughts / other feedbacks throughout the journey.

Which equipment will be used in this interview?

Since the interview will be conducted remotely, you will be invited for the interview through Teams, Skype or Zoom, depending on your preference. This requires the use of Microsoft Teams, Skype, and Zoom for online communication. All the software are commercially available. Mobile devices such as laptops or smartphones will be needed to run the software.

Collection and confidentiality of personal data

Philips is committed to respect your privacy rights. Your identity and participation in this interview will be kept strictly confidential. All personal information will be de-identified, according to the permission you select in the informed consent form.

If you decide to participate in the interview, personal data may be collected during the interview. The personal data may be related your function, ethnic background or other sensitive aspects.

To protect your privacy, the following process will be applied: All directly identifying personal data (e.g., name, address, etc.) will be separated from the research data and replaced by an assigned code. The directly identifying data will only be used to contact you. Access to the link between the assigned code and your identity will be limited to the responsible researcher and might only be disclosed to auditing bodies, if required.

In case any directly identifying data cannot be removed and coded as indicated above due to reporting requirements or due to technical limitations, the responsible researcher will inform you about the personal data that will not be coded and also why this will not be done.

As a record of your participation, your personal data will be stored as long as is required by local regulations and practice. You have the right at any time to request an overview of your identifiable personal data that has been collected, and to have inaccurate, incomplete or irrelevant data corrected or deleted (if applicable). To do so, please contact the responsible researcher.

Other data collection

During the interviews we may make audio and screen recordings of you, but only if permitted by you in the Consent form. The recordings will be transferred to a secure server and deleted from the camera/recorder.

Images (stills) may be used by Philips as part of a presentation, report or publication. In those cases, identifying elements of your image will be removed. Such de-identification will occur to the extent technically possible within 6 weeks after recording by blurring faces.

Audio recordings are only used for analysis and transcription purposes and will be deleted from the server directly after processing which will take place once the responsible researcher graduates.

The research team will process the collected study data in anonymous and aggregated form.

Can I stop my participation?

You can stop your participation in this study at any time without giving reasons. The Responsible Researcher may ask why you decided to stop but you are entitled to refuse giving an answer.

The Responsible Researcher may end your participation if:

- You no longer meet the criteria for participation
- Philips decided to stop the study.

If your participation is no longer possible, the Responsible Researcher will inform you.

Please note, in case your participation stops, personal data already collected about you will be further processed by Philips as described in this information letter, however, you always have the right to have it deleted if you wish so.

What are your rights?

If you would like to:

- (i) ask questions about how we handle Personal Data;
 - (ii) request to review, correct, update, suppress or restrict the use of your Personal Data;
- please contact us at privacy@philips.com. We will respond to your request consistent with applicable law.

What are the potential risks of participating in the study?

No specific risks associated with this study have been identified.

What are the benefits of participating in the study?

Participation in the research will contribute towards a new rewarding product return experience and design guidelines that improve the return of Philips PH products in the future. Also, participation will contribute to the development of circular economy, which creates significant value for the environment in the long run.

What happens with the results of this study?

The data collected in this study will only be used for development of the return solutions and design guidelines for Philips PH products.

Philips' confidential information

In connection with this study you will come across confidential information of Philips. The information brochures, interview description, instructions, together with information generated by you during the interview and any and all other information of confidential or proprietary nature (as reasonably apparent under the circumstances) are confidential information belonging to Philips or its affiliate(s) ("Confidential Information").

By signing the informed consent you agree that, unless Philips gives its prior written authorization, you do not disclose information in connection with the interview to others.

Philips use of disclosed information

By signing the informed consent you agree that any and all information or feedback provided by you to Philips, its affiliates or (sub)contractors during or in connection with your participation in the interview shall be at the free use of Philips and its affiliates (subject to your rights with respect to your personal data) and you shall not claim any rights (including without limitation ownership) regarding the use by Philips or its affiliates of the information or feedback provided by you to Philips, its affiliates or (sub)contractors in connection with this interview.

Thank you very much for reading this information letter and for considering your participation in the interview.

If you decide to participate you will get a copy of this information letter and a copy of the signed informed consent.

INFORMED CONSENT Individuals < Improving the return of Philips Personal Health products by investigating the consumer behaviour during the end-of-use stage >

Participation in this interview

- I have read and understood the information letter about this interview and all my questions have been answered by the responsible researcher. yes
no
- I had sufficient time to consider my participation in this interview. yes
no
- I know that I can decide not to participate or stop my participation at any time without giving any reason for this decision. yes
no

Philips' confidential information

- I agree that, unless Philips gives its prior written authorization, except to the extent permitted by mandatory law, I shall, during my participation in this study until a period of five (5) years from the date of completion of my participation in the study, (i) use the Confidential Information (as defined in the information letter) solely for the purpose of my participation in the study, (ii) protect the Confidential Information against disclosure in the same manner and with the same degree of care, but not less than a reasonable degree of care, with which I protect confidential information of like nature of my own, (iii) in case samples form part of the Confidential Information, not analyze the samples to determine the composition of samples, (iv) not measure the properties of samples, except as reasonably necessary to accomplish the purpose of my participation in the study, and (v) not alter, decompile, disassemble, attempt to decipher or otherwise reverse engineer any software, device or any part thereof disclosed in connection with the study, nor permit others to do so. yes
no

Philips use of disclosed information

- I agree that any and all information or feedback provided by me to Philips, its affiliates or (sub)contractors during or in connection with my participation in the interview shall be at the free use of Philips and its affiliates (subject to my rights with respect to my personal data) and I shall not claim any rights (including without limitation ownership) regarding the use by Philips or its affiliates of the information or feedback provided by me to Philips, its affiliates or (sub)contractors in connection with this interview. For the avoidance of doubt, Philips and its affiliates are hereby entitled to use any and all information or feedback received from me in connection with the interview in any manner, without any consent nor compensation whatsoever to me or any third party (unless otherwise agreed upon in writing). yes
no

J. Return kit ideation and prototype

INFORMED CONSENT

Personal data

- I understand and agree that personal data will be collected, used and processed, for the purposes of the interview, by the responsible researcher and other parties involved in the interview. The personal data may be related to my function, ethnic background or other sensitive aspects. I understand that my directly identifying personal data (e.g., name, address, etc.) will be separated from the research data and replaced by an assigned code, and that access to the link between the assigned code and my identity will be limited to the responsible researcher and might only be disclosed to auditing bodies, if necessary.

yes
no

- I know that I have the right to request an overview of the personal data collected about me and can have it corrected or deleted.

yes
no

Permissions

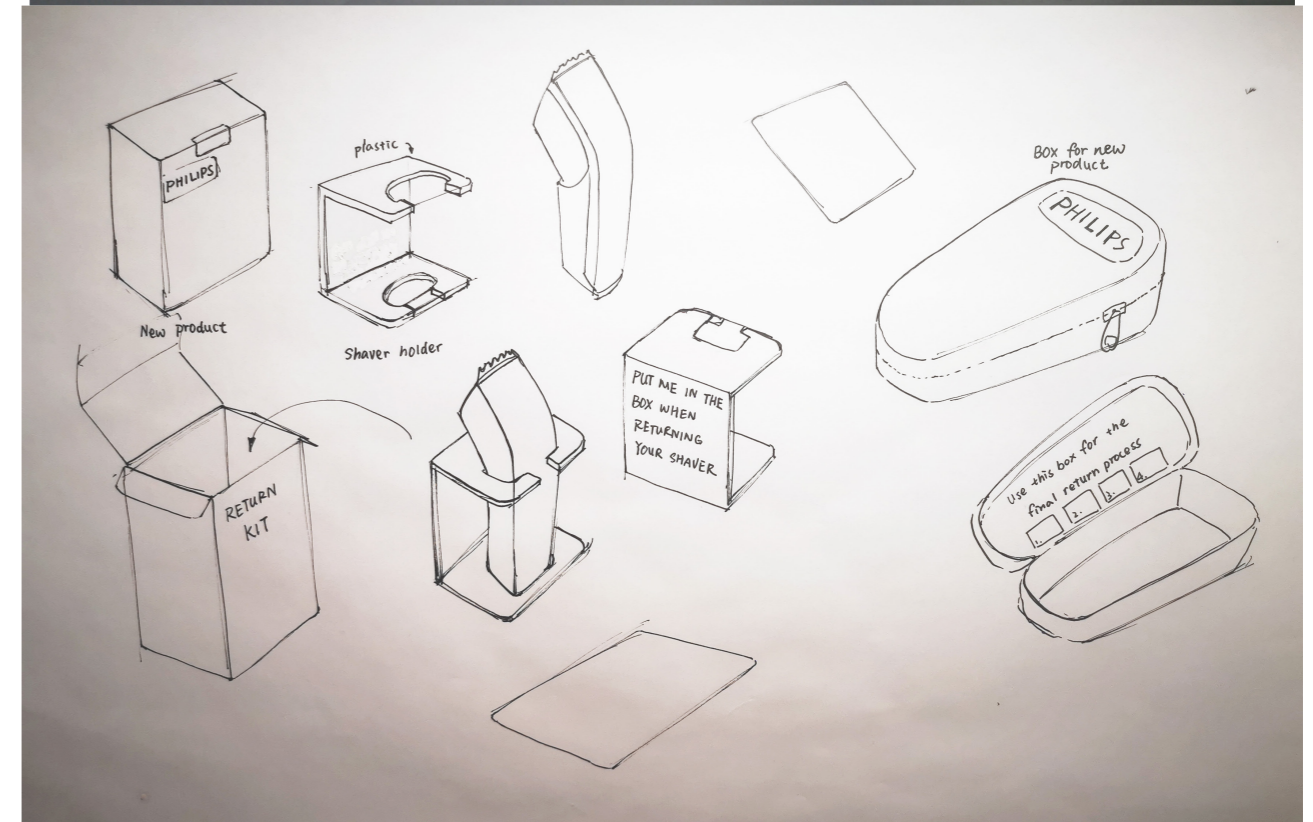
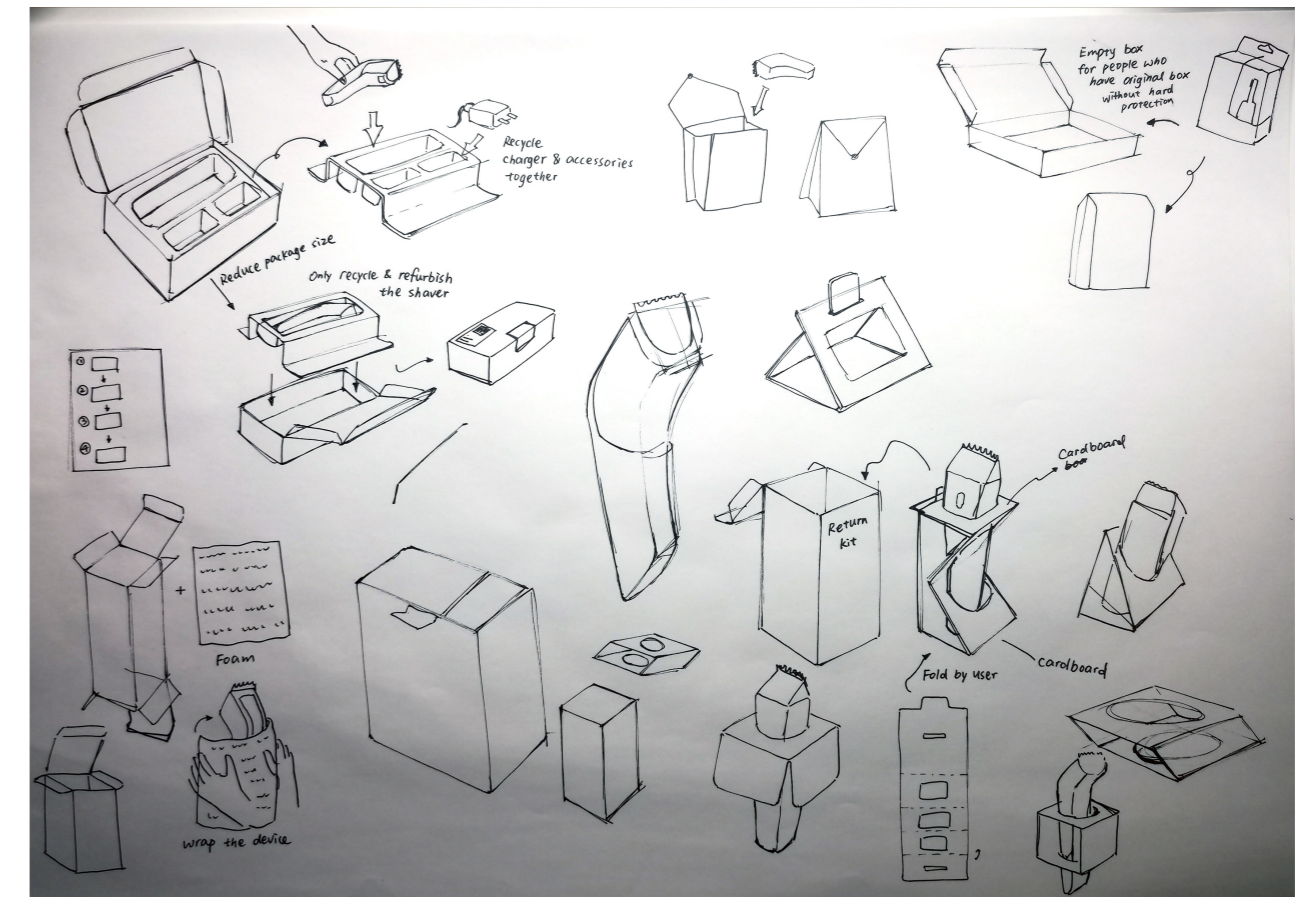
- I give permission to the Audio recording of me during the interviews, by ticking the box below:

yes
no

Name _____

Signature _____

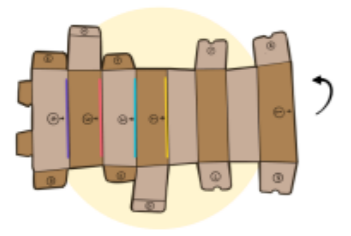
Date _____



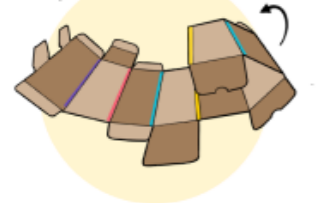
Return kit ideation

How to pack up your device

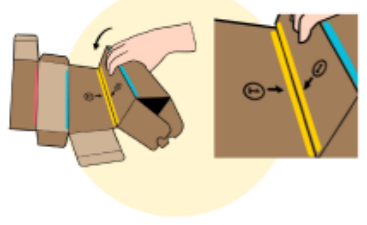
1. Place the foldable box as shown below:



2. Roll up the cardboard from ①



3. Keep rolling up the cardboard to match the sides with the same color and same numbers



How to mail it out

1. Package up your return securely by following the instructions.

2. There are two ways to send out your package

Drop off at UPS parcel shop

Scan the QR code to find the nearest UPS post office.



Free door-to-door collection

You can also scan the QR code to book a pick-up. The service is available 7.30 am - 11 pm everyday. The package will be collected by our partner Flink.



What happens next

You can track the return via the link in the email that you received before.

You will receive the voucher via email once your return is confirmed.

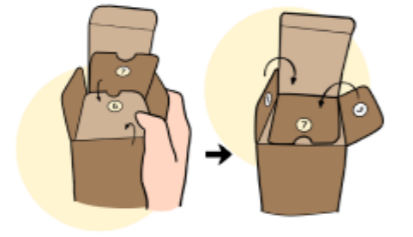
6. Put your device into the bubble wrapped bag



4. Insert the two projections into the two holes



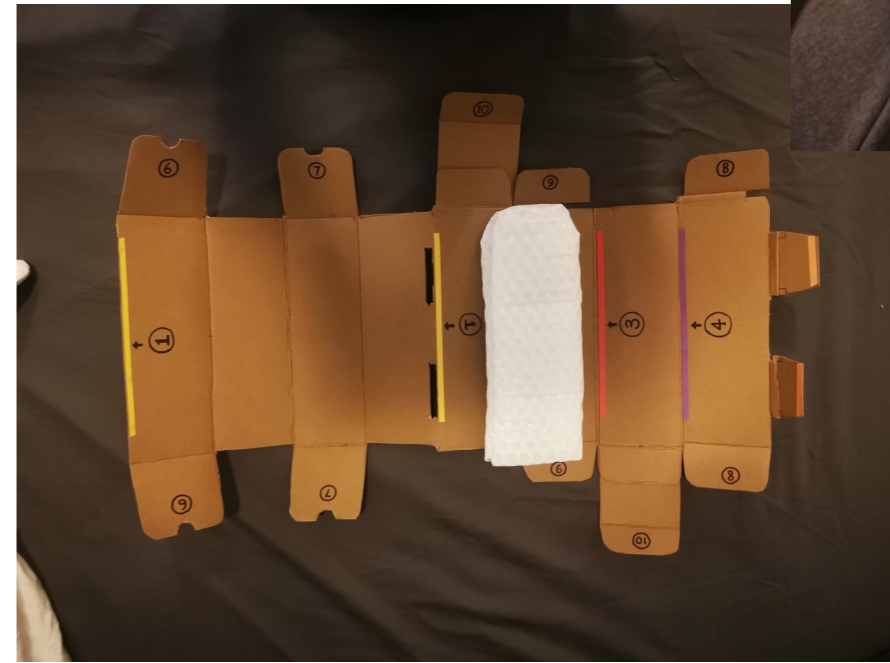
5. Follow the numbers to fold one side of the box



7. Repeat step 5 to fold the second side of the box



8. Put on the shipping label. Done!



Return kit prototype

Thank you for making contribution to protecting our planet!

What happens to the old devices?

All old male grooming devices collected are shipped to TerraCycle warehouse, where the materials are sorted and processed creating new recycled products from your male grooming products.

Find more about our recycling process:

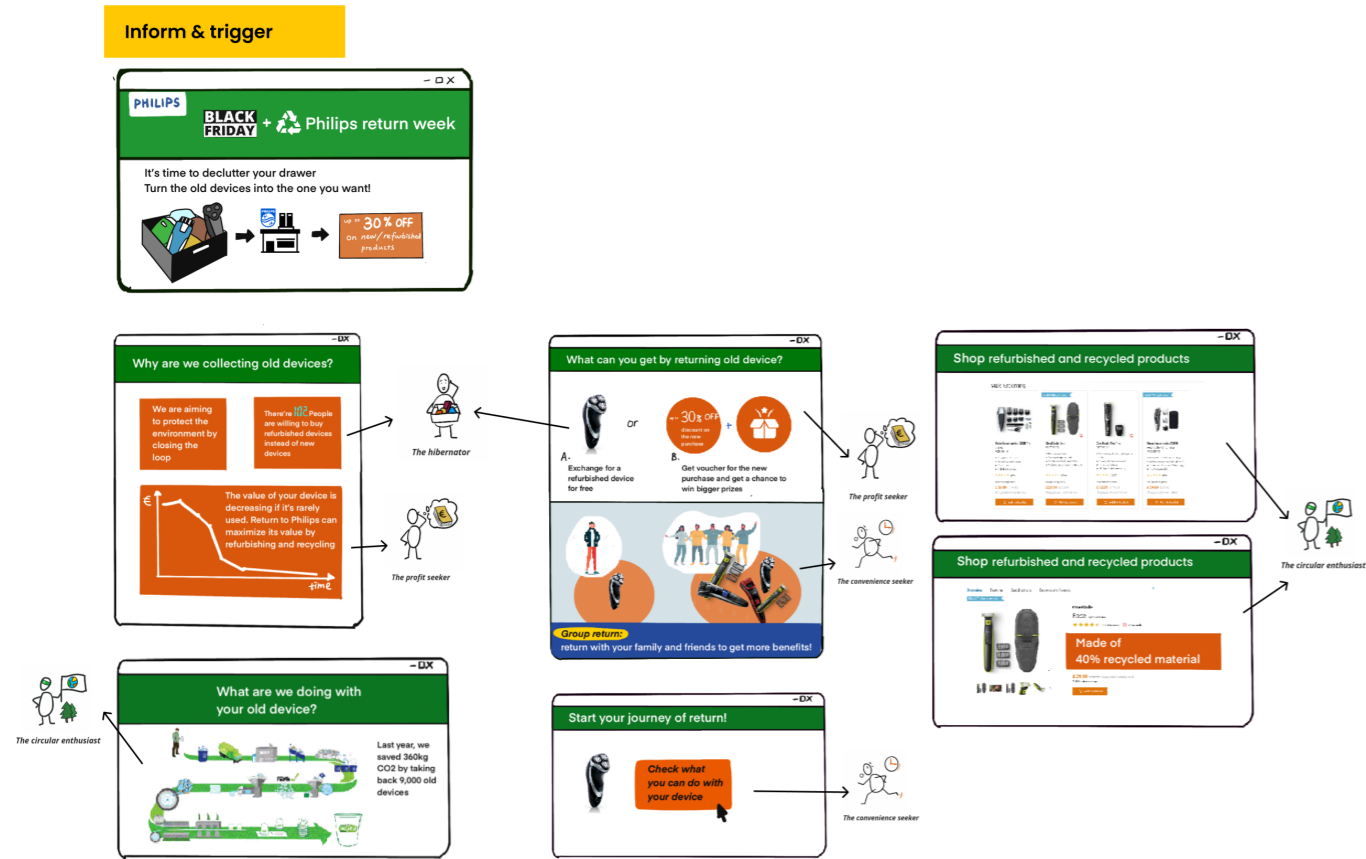


Return kit prototype



(informal) user test

K. Preliminary concept



L. Intermediary concept

<https://www.figma.com/proto/eXaLpiX10mdGzdg-FAHIN66/User-research?page-id=521%3A387&node-id=521%3A388&viewport=288%2C48%2C0.06&scaling=min-zoom>

