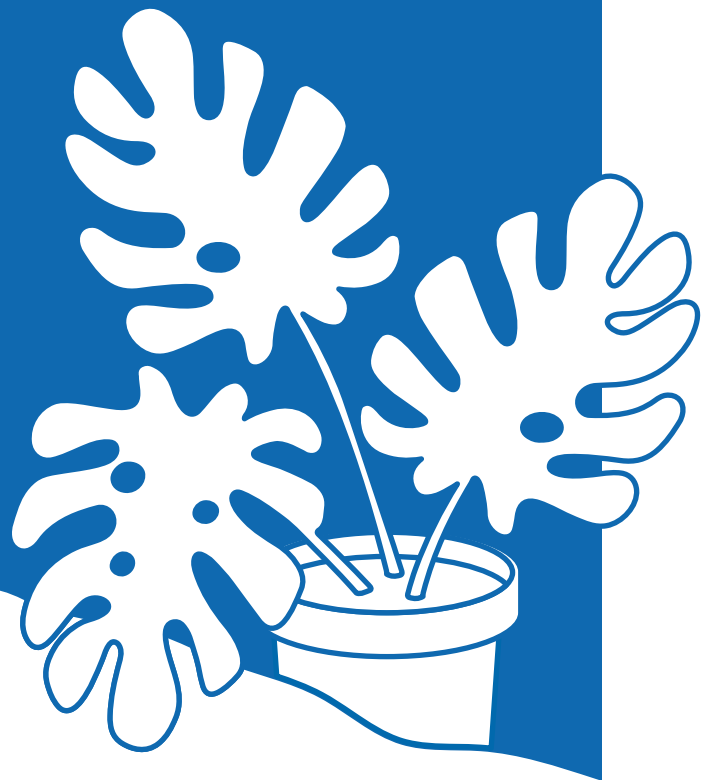


GREEN PARENTING IN 2030

exploration of systemic & sustainable innovation with Philips



COLOPHON

GREEN PARENTING IN THE 2030s

– exploration of systemic and sustainable innovation with Philips

June 2022

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In collaboration with:

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My heartfelt gratitude goes to all the amazing people who were there for me throughout this milestone in my life!

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Moreover, I want to express how grateful I am to all my friends for supporting me during these months. Thank you, Oude Delft 107, for making our house a home where I could work and get the needed distraction at the same time. Thank you, Nadiye and Gianmarco for taking this journey with me and sharing moments of happiness and trouble. Thank you Azhim, Mutia, Hanchu and Jacoba for all the work sessions at our faculty. Thank you, Vis and Franco, for your company during the countless hours at the library. Thank you 33F for the random evenings, giving me a break from all the thinking. Thank you, Lea, for being my creative and sustainable friend, who gave me new perspectives and inspiration. Thank you, Ji Youn and Claudia for the weekends with nice food, memories, and friendship. Thank you, Chrissy, Philipp, Anna and my two Lisas, for making me less homesick and your friendship despite the distance.

Finally, I want to thank my family, especially my mom. Nothing I have achieved in my life would have been possible without you and your endless support.



E. Tsch

ABSTRACT

CONTEXT WITHIN PHILIPS

This thesis is part of a new project track within Philips with the goal of developing a roadmap of tangible and practical sustainable solutions, integrated in the Philips portfolio and inspired by a long-term vision. The case study of this project track and therefore thesis is the MCC business (Mother and Child Care).

REDEFINING SUSTAINABILITY IN 2030

Looking at current practices of sustainability, this thesis questions them as being too slow and not effective enough. This dissatisfaction with current actions required taking a step back and rethinking what sustainability means in this project. Resulting in using Gaia, a future with the ideal to “focus human activity towards restoring the natural dynamic balance of ecosystems that nourishes all life on earth” (Brand, 2019), as the inspiration on what sustainability should become in the 2030.

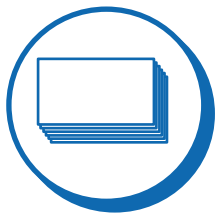
Concretely, this means from a **consumer perspective that our mindset needs to evolve from exploiting nature to giving back to nature**. From a **business perspective, however, this means to deliver value to the entire ecosystem and not only to humans** – in contrast to today’s businesses’ monetary and human-serving focus.

PROCESS

The complex topic of sustainable parenthood was analysed through system analysis, which resulted in the identification of the parent’s dilemma of wanting to act eco-responsible but being immersed in triggers for overconsumption. To make the complexity of the dilemma comprehensible for the stakeholders it got translated into a storytelling map (Talgorn & Hendriks, 2021). User research has been conducted to validate and analyse the identified dilemma in depth.

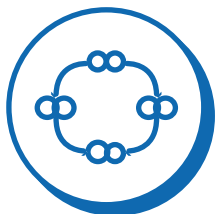
RESULTS

This thesis delivered three main results.



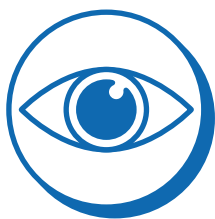
1. INSIGHT CARDS.

They are based on the user research, giving further details on the dilemma and providing insight on how to resolve it. They can be used by the MCC stakeholders to develop future BVPs.



2. DILEMMA MODEL.

The insight cards can be mapped down within the storytelling map. Resulting in a model explaining the dilemma parents face when it comes to becoming sustainable and mapping the insights needed on resolving this.



3. VISION.

The quotes and insights of the qualitative study have been applied in the context of a participatory story building workshop to create personas and develop a sustainable future vision for MCC.

IMPACT



Two papers are potentially emerging from this thesis, one focusing on the insights of sustainable parents and one about the system analysis.



Due to the relevance of the insight cards, they will be uploaded onto the Philips internal sharing platform and made accessible to all Philips employees. Having impact on future BVPs and SVPs.



The insights have been shared multiple times within Philips and specifically the MCC team.



Multiple workshops and presentations elaborating more on the project track and insights have been requested and conducted.



This thesis contributed to the validation of the impact of the new project track within Philips.

PRACTICAL GUIDE

In order to make this thesis as comprehensible and digestible, this practical guide has been created.

DEFINITIONS OF KEYWORDS

Climate crisis

This report refers to climate change as climate crisis to address the threat and urgency of this topic.

Paradigm

The word paradigm will be used quite often in this thesis and refers to a typical pattern or model within our current society.

ABBREVIATIONS

BVP

Business Value Proposition

DACH

Germany (D), Austria (A), Switzerland (CH)

ESG

Environmental, Social and Governance

MCC

Mother and Child Care

SVP

Sustainable Value Proposition

SAP

Sustainability Aware Parents

SPP

Sustainability Practicing Parents

COMPLEX AND DETAILED VISUALS

Certain visuals of this thesis were developed in Miro due to high details, complexity and the need for space to zoom in and out within the detailed data. A simplified variant of some of these visuals can be found in this thesis. However, all these mentioned visuals can be found in the Appendix in high resolution and can be zoomed into when reading from a device. Further, they can be viewed in an online Miro board.

While reading, keep an eye on this icon with a QR code. It denotes these complex visuals and gives you the direct link to the Miro board.

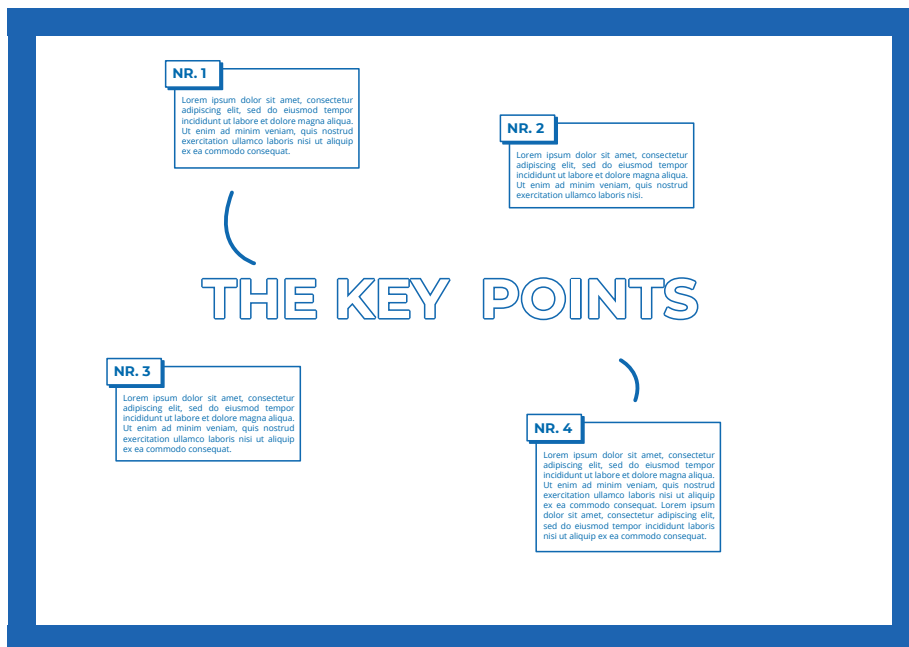
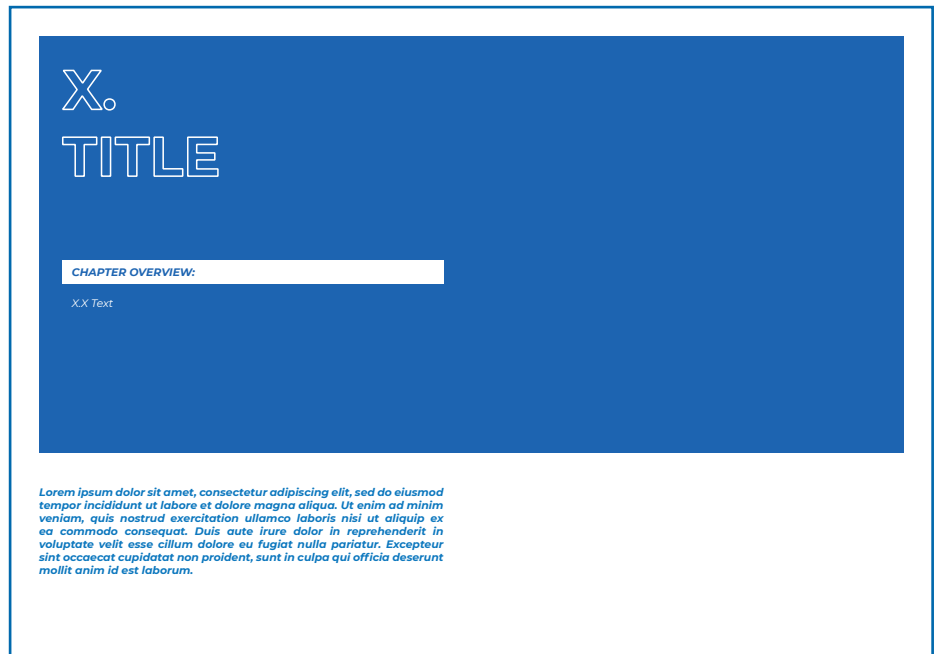


COLLABORATION WITH OTHER STRATEGISTS

As mentioned before, this thesis is part of a new track within Philips. Therefore, some of the content were created in collaboration with other strategists within Philips. For transparency, these collaborative contents will be marked with this icon and a description.

CHAPTER INTRODUCTION

At the beginning of every chapter, you can find a little paragraph next to the title page like this. It provides you with a brief introduction to the chapter and helps you to get a quick overview of what the chapter is about.



KEY POINTS

After every chapter you can find the key points box. Key points summarise the most important learnings of each chapter, making the essence clear and understandable for you.

APPENDIX A, B, C

This thesis resulted in three appendices:

Appendix A: Deepdive

This appendix dives deeper into certain parts of the thesis, providing additional information that were omitted from the main report to shorten the report length. The supplementary material provides context and details on certain steps, and it can be seen as an extension or a deep dive on the thesis.

Appendix B: Material library

This appendix provides all the materials as well as the intermediated results that were used throughout the thesis. This can be seen as the material library of the thesis.

Appendix C: Insight booklet

This appendix encapsulates the outcome of the thesis – the insight booklet, making it easily accessible for you.

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1.

BACK- GROUND

CHAPTER OVERVIEW:

1.1 Personal Motivation

1.2 Relevance

The first section of this chapter gives background on my personal journey as a designer and why sustainability has become my focus. It is then followed by the scientific elaboration on the urgency of the topic from a young people's perspective.



1.1 PERSONAL MOTIVATION

Since my teenage years, I have found no topic more pressing and frightening than the climate crisis. I remember the moment I understood the agricultural industry's treatment of the animals and its impact on the planet, how the fashion industry pollutes nature and exploits people, and how our economic system prioritizes money over everything else. I was in shock, which quickly turned into a mix of anger and frustration. It did not make sense to me how society, politicians and businesses could continue like this. Even back then (early 2000s), the numbers were clear. Science was clear to me (UNEP, 2010; World Bank, 2010), and I understood what it meant to continue living the same way. So I dedicated my studies and large parts of my private life to the topic of sustainability.

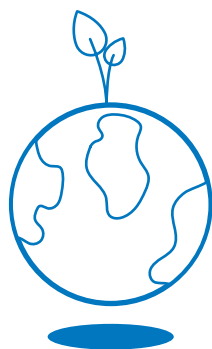
After finishing my bachelor's degree and working as an industrial designer in Austria for a year, I was frustrated by the unsustainable nature of the industry and my incapacity to make a difference. My contributions were far from my aspiration as a teenager. My frustrations were rebuffed repeatedly with a conjecture that I would eventually lose my intrinsic motivation and settle in a standard design job and that design is not the right path for a sustainable impact. This compelled me to return to university and explore ways to have a sustainable impact as a designer on a strategic level.

Thus started my journey as an Strategic Product Design (SPD) student at TU Delft.

I came here with the intention to explore sustainable long-term impact a designer can have on a strategic level. To do so, I took a step back and tried to answer this question from different perspectives, including philosophy, business, consumer, and political perspectives - using social, systemic and participatory design.

After more than two years of my explorative journey in the topic of sustainability and design I came to the following conclusion: Our current western lifestyle, in which businesses and consumers are serving with their actions, the reckless exponential growth of capitalism is the biggest challenge against a sustainable future. So how can design lead to change within this system? This is my personal quest, which I aim to explore in this thesis.

SAVE THE
PLANET!



1.2 RELEVANCE

Many young people see the future as bleak and gloomy. Anxiety and depression are on the rise. Instead of looking forward to a lifetime of possibilities, they are wondering if they will even have a future or if they should have children. In a recent study more than 15,000 young individuals aged 16 to 25 were polled in a quantitative study on “eco-anxiety.” The results revealed that 59 percent were very or extremely concerned, and 84 percent were at least moderately concerned. More than half of those polled reported feeling unhappy, nervous, furious, powerless, and even guilty. Participants perceived the government response to climate change as insufficient and have reported feeling betrayed rather than reassured. 39 percent of those polled were hesitant to have children (Marks et al., 2021).

Where is this pessimism rooted in?

On the issue of the climate crisis, science is obvious. It appears that humanity is unable to reach the Paris agreement of limiting global warming to the ambitious goal of 1.5 °C. The agreement was adopted in 2015 and went into effect in 2016 (UN, 2015). However, the latest UNEP shows that all current actions would prevent only 7.5% of greenhouse gas emissions by 2030. 55% are needed to reach the 1.5 °C goal (UNEP, 2021).

Despite reports showing different ranges within different scenarios based on estimations and predictions, the main message is clear: If current climate policies stagnate, global warming will be around 3 °C, which is tragic and far from acceptable. The CAT Thermometer in visual 1 (CAT, 2021) visualizes the temperature increase of 3 °C with the current policies. Also, scenario SSP2-4.5 of the Sixth Assessment Report (AR6) of the IPCC in visual 2 (IPCC a, 2021) corresponds to the current climate policy, as well as the SSP2 scenario of the Institute for Climate Economics in visual 3 (I4CE, 2019).

What does the increase of around 3 °C mean?

An increase of around 3 °C would destabilize food security, particularly in emerging countries (IPCC b, 2021). Extreme temperatures and heatwaves, as well as hydrological change, floods and droughts would be more common (Arnell et al., 2019). Furthermore, it can be expected that as a result of the climate crisis an increasing number of people would be forced to flee their nation as it becomes uninhabitable, necessitating further assistance. Already now, more than 100 million people require humanitarian aid as a result of climate disasters. This figure might have doubled in 20 years (IFRC, 2019).

This section of relevance could go on for pages. However, the core message is: Humanity does not have much time. Actions need to be taken. Individuals, companies, and governments all need to work together to reduce the disastrous impact of the climate crisis. The urgency is now. The relevance of **implementing and enabling sustainable behaviour from businesses and consumers** cannot be overstated. Therefore, this thesis is dedicated to exploring how Philips as a business can work together with consumers and move towards a sustainable and safe future.

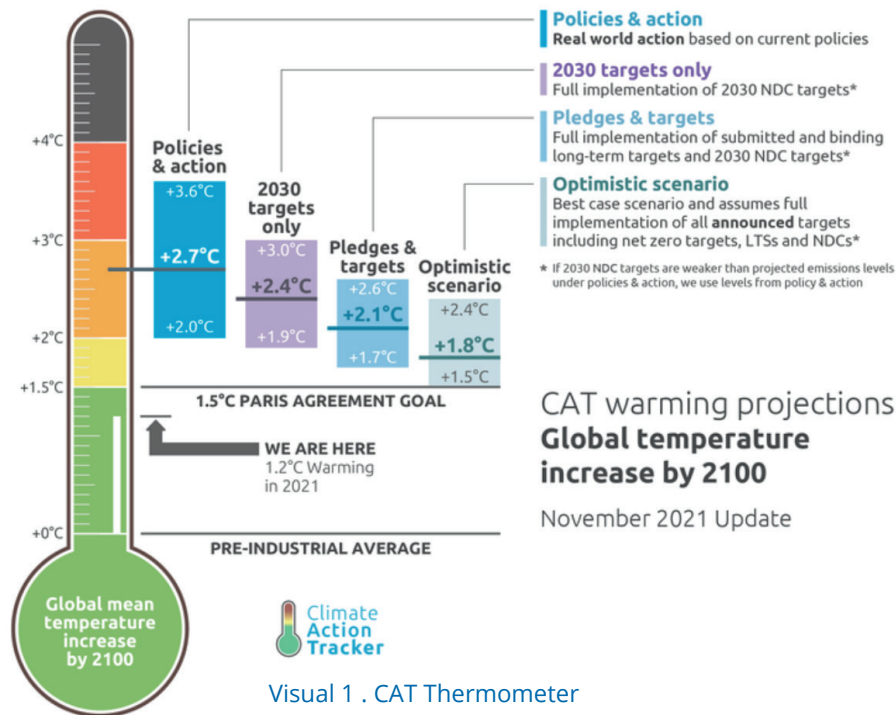


Table SPM.1 | Changes in global surface temperature, which are assessed based on multiple lines of evidence, for selected 20-year time periods and the five illustrative emissions scenarios considered. Temperature differences relative to the average global surface temperature of the period 1850–1900 are reported in °C. This includes the revised assessment of observed historical warming for the AR5 reference period 1986–2005, which in AR6 is higher by 0.08 [–0.01 to +0.12] °C than in AR5 (see footnote 10). Changes relative to the recent reference period 1995–2014 may be calculated approximately by subtracting 0.85°C, the best estimate of the observed warming from 1850–1900 to 1995–2014. (Cross-Chapter Box 2.3, 4.3, 4.4, Cross-Section Box TS.1)

Scenario	Near term, 2021–2040		Mid-term, 2041–2060		Long term, 2081–2100	
	Best estimate (°C)	Very likely range (°C)	Best estimate (°C)	Very likely range (°C)	Best estimate (°C)	Very likely range (°C)
SSP1-1.9	1.5	1.2 to 1.7	1.6	1.2 to 2.0	1.4	1.0 to 1.8
SSP1-2.6	1.5	1.2 to 1.8	1.7	1.3 to 2.2	1.8	1.3 to 2.4
SSP2-4.5	1.5	1.2 to 1.8	2.0	1.6 to 2.5	2.7	2.1 to 3.5
SSP3-7.0	1.5	1.2 to 1.8	2.1	1.7 to 2.6	3.6	2.8 to 4.6
SSP5-8.5	1.6	1.3 to 1.9	2.4	1.9 to 3.0	4.4	3.3 to 5.7

Visual 2. AR6 of IPCC

Scenario	Narrative	Challenge for mitigation	Challenge for adaptation
SSP1 Sustainability	Strong international cooperation, priority given to sustainable development, improvement in living conditions and consumer preferences for environmentally-friendly goods and services, with lower resource and energy intensity.	Low	Low
SSP2 Middle of the road	Current social, economic and technological trends continue, development and growth proceed unevenly depending on the country and region. National and international institutions work towards achieving sustainable development goals that progress slowly. The environment experiences degradation despite development that is less resource- and energy-intensive.	Medium	Medium
SSP3 Regional rivalry	Resurgent nationalism, slow economic development, persistence of inequalities and regional conflicts. Countries are guided by concerns about security and competitiveness. They focus on national or regional problems and on food and energy security issues. Low international priority is given to environmental protection, leading to strong environmental degradation in some regions.	High	High
SSP4 - Inequality	Development marked by wide disparities between and within countries. Degradation of social cohesion and multiplication of conflicts. A growing gap between an internationally connected elite, responsible for the majority of GHG emissions, and a fragmented collection of low-income, poorly educated people who are vulnerable to climate change. The energy sector diversifies between carbon-intensive and low-carbon energy sources. Environmental policies focus on local issues.	Low	High
SSP5 - Fossil fueled development	Development based on heavy use of fossil fuels and marked by high investments in health, education and new technologies. Adoption of resource- and energy-intensive lifestyles around the world. High economic growth and rapid technological progress. Local pollution problems are successfully managed and adaptation is facilitated by the reduction in poverty.	High	Low

Visual 3. Scenarios of the Institute for Climate Economics

2.

ABOUT THE ASSIGNMENT

CHAPTER OVERVIEW:

2.1 Key elements assignment

2.2 Design process and methods

The first section of this chapter provides an overview of the key elements of the assignment with a brief elaboration on each. In the second section the design process is illustrated and every method used throughout this thesis is mapped down.

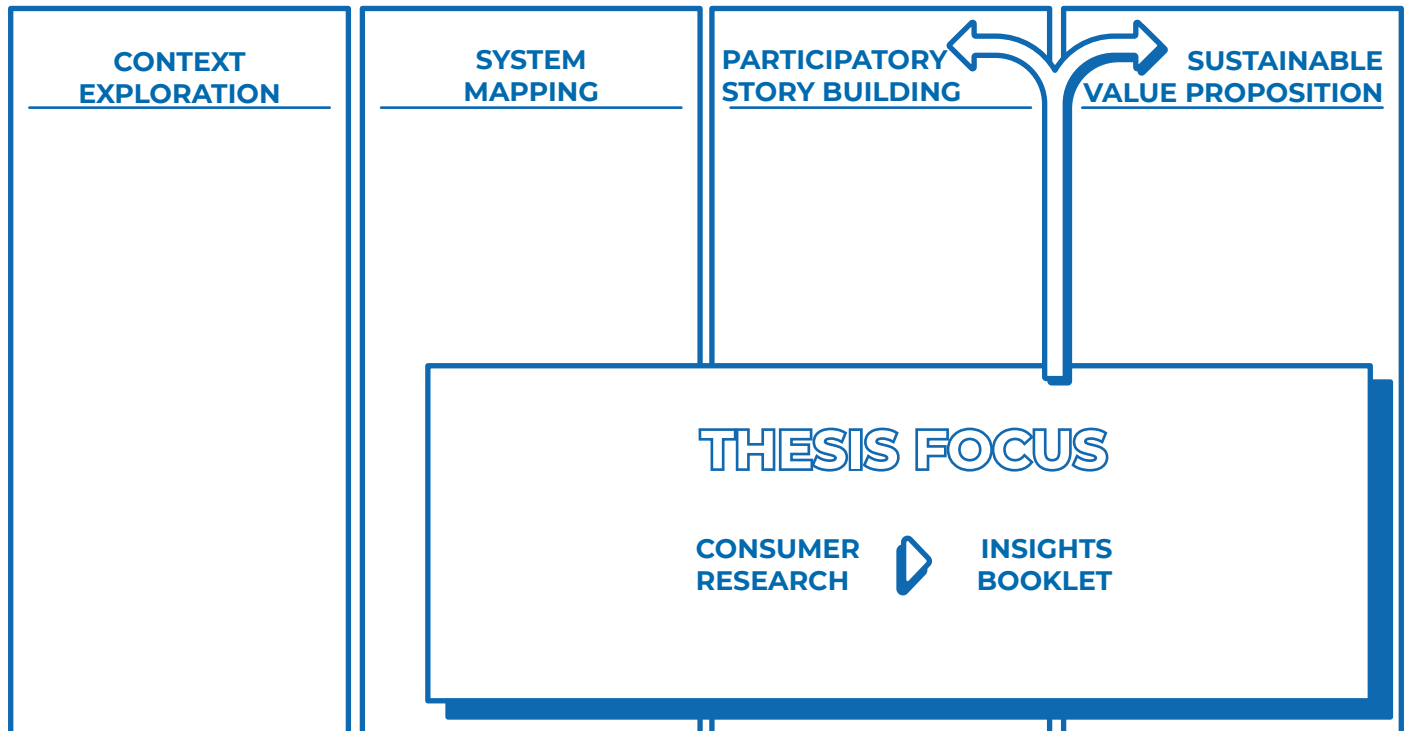


2.1 KEY ELEMENTS ASSIGNMENT

PROJECT TRACK AND THESIS CONTRIBUTION

This thesis is part of a new project track within Philips with the **goal of developing a systemic and sustainable innovation process**. In visual 4, the overview of the track is shown. Contributions of this thesis are in the discovery phase the vision development and co-creating the system map in

the system mapping phase. The system map sets the foundation of the user research, which will be delivering crucial insights for the Participatory Storytelling Building phase, as well as for the SVP development phase (Sustainable Value Proposition).



Visual 4. Project track and thesis contribution

MCC AS BUSINESS CASE

Sustainability is an **important topic for young parents**, and potentially a **differentiator** for Philips. The goal is to find approaches with the customer where sustainability can be implemented.

In MCC (Mother and Child Care) there is a willingness to include sustainable solutions in the product pipeline, and the first initial steps have already been taken. Therefore, this thesis aims to build on these to create a **sustainable impact now and in the future**.



PROJECT SCOPE

The focus is on the **DACH market** (Germany, Austria, Switzerland) as per MCC stakeholder input. The main argument is that this market is more open to sustainability and a leader in global trends.

The target group are young first-time parents who are starting their journey from 'wanting to have a child' to 'grown-up child' (first 1000 days). Considering that the sustainable value propositions will be further away in the future, the interest is on **GenZ and their upcoming needs**. As GenZ is the generation born between 1995-2010 (Francis & Hoefel, 2018).



OPPORTUNITY ROADMAP



CIRCULAR REVENUE FLOW AND FORECAST



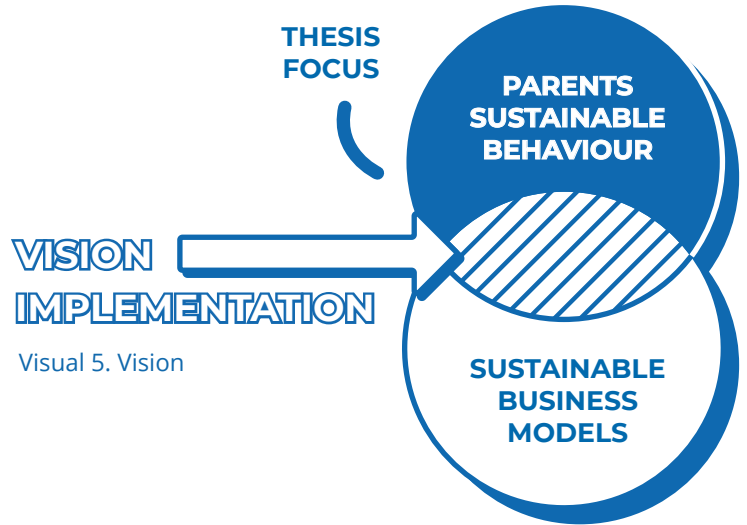
PLANET CENTRED VISION



DECISION MAKING

TRACK GOAL

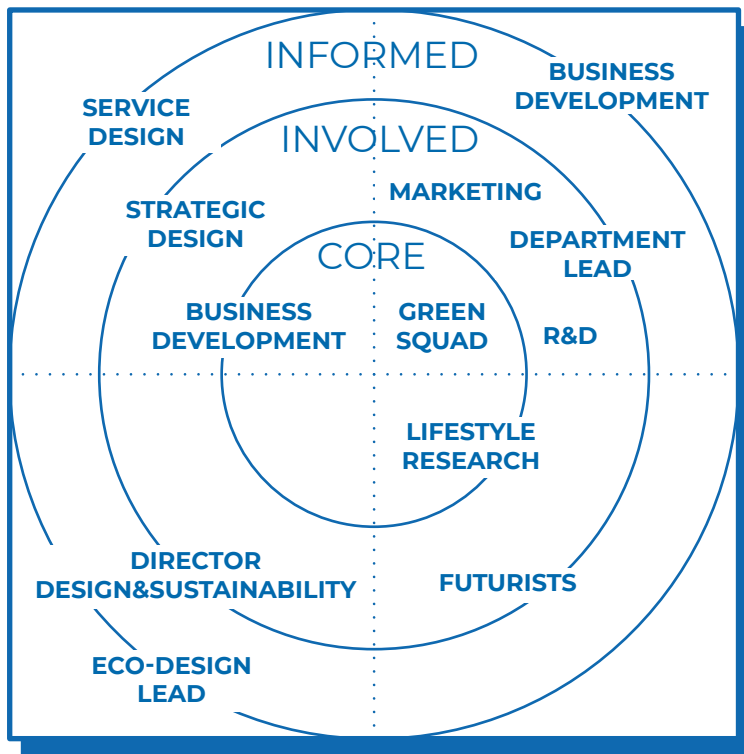
The goal of this track is to create a roadmap of **tangible and practical sustainable solutions** integrated in the MCC **portfolio** and inspired by a **long-term vision**. The implementation of the vision is believed to be achieved by finding the overlay of new sustainable business models and parents' sustainable behaviour (Visual 5).



STRATEGY

MCC

MAIN STAKEHOLDER GROUP



INVOLVED STAKEHOLDERS

A wide range of internal Philips stakeholders are involved, as shown in visual 6. The stakeholders represent different areas within Philips with diverse expertise, aiming to gain different perspectives and input on the project track.

However, the main stakeholders of this project track are the MCC representatives, specifically the Green Squad. Since the outcome will be delivered and used by them. The Green Squad is a working group aiming to collaborate with all initiatives and projects about sustainability and circular economy running across MCC. They provide thought leadership and coordination to connect internally at MCC and Philips but also externally with partnerships.

GROUP

SUSTAINABILITY

OTHER

AREA

Visual 6. Stakeholder overview

GRADUATION DELIVERABLE

The deliverable of this thesis is an insights booklet. Aiming to support MCC with future business innovations.

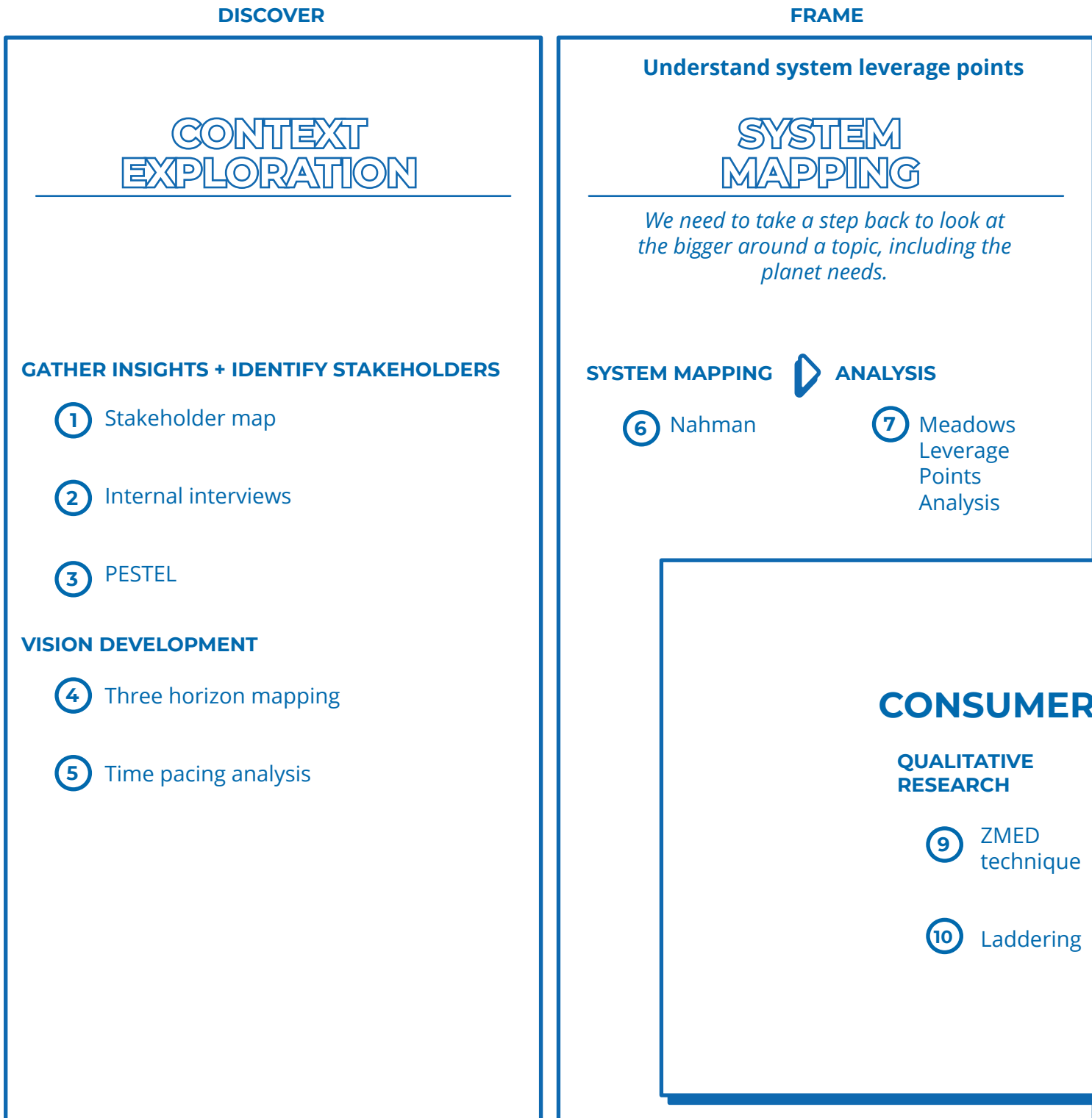


2.2 DESIGN PROCESS AND METHODS

In visual 7 the design process and the methods are mapped down in the previously introduced project track (visual 4). Considering the complexity of the topic of sustainable parenthood, conventional ways of problem solving show limitations. Systemic design, especially system mapping, provides an approach to analysing complexity and identifying hypothetical parts and relationships to change (Systemic Design Toolkit, n.d). This led to the novel approach of this track to take a **systemic** view on

sustainability around MCC and eventually create a **holistic and long-term vision** that is enabled through **short-term realistic propositions**.

The track follows the Philips framework of innovation: Discover, Frame, Ideate and Built (Philips d, n.d)



- ① Walker, D. H. T., Bourne, L. M., & Shelley, A. (2008). Influence, stakeholder mapping and visualization.
- ② Honer, A. (1994). Das explorative Interview: zur Rekonstruktion der Relevanzen von Expertinnen und anderen Leuten.
- ③ Yüksel I. (2012) Developing a Multi-Criteria Decision Making Model for PESTEL Analysis
- ④ Curry, A., & Hodgson, A. (2008). Seeing in multiple horizons: Connecting futures to strategy
- ⑤ Simonse, L. (2017). Design Road Mapping
- ⑥ Namahn a. (n.d). Systemic Design Toolkit
- ⑦ Meadows Donella. (2012). Leverage Points: Places to Intervene in a System
- ⑧ Talgorn E, & Handriks M. (2021). Storytelling for Systems Design: Embedding and communicating complex and intangible data through narratives.
- ⑨ Coulter R. H., & Zaltman G. (1994). Using the Zaltman Metaphor Elicitation Technique to Understand Brand Images
- ⑩ Rugg, G., & McGeorge, P. (1995). Laddering.
- ⑪ Sanders, E. B.-N., & Stappers, P. J. (2012). Convivial toolbox generative research for the front end of design
- ⑫ Sah, S. (2021). 7 biases to avoid in qualitative research
- ⑬ Sousa, D. (2014). Validation in Qualitative Research: General Aspects and Specificities of the Descriptive Phenomenological Method

IDEATE

BUILD

Imagine opportunities for system change

Enable opportunities for system change

PARTICIPATORY STORY BUILDING

SUSTAINABLE VALUE PROPOSITION

We need to take a step back to look at the bigger around a topic, including the planet needs.

We need to take a step back to look at the bigger around a topic, including the planet needs.

- ⑧ Storytelling for Systemic Design

THESIS FOCUS

RESEARCH ▶ **INSIGHTS BOOKLET**

INTERVIEW ANALYSIS

- ⑪ Analysis on the wall (Miro)
- ⑫ Bias analysis
- ⑬ Inter-subjectivity
Rule of consistency

3.

THE

CONTEXT

CHAPTER OVERVIEW:

3.1 Context of the Philips Business

3.2 Context of Gaia

3.3 Planet-centred - a new term for sustainability

3.4 Horizons

In the first section of this chapter, Philips will be introduced as the company partner and within the business units context. The introduction will include an overview of the business as well as MCC and the case study of this thesis. The second section will introduce Gaia as the inspiration and vision for the future context, which raises the need for a new term for sustainability in the third section. Lastly, in the fourth section, all the discussed elements come together and are mapped down in three horizons.



3.1 CONTEXT OF THE PHILIPS BUSINESS

Philips is most likely best known as one of the top leaders in health technology and as a purpose-driven company:



At Philips, our purpose is to improve people's health and well-being through meaningful innovation. We aim to improve 2.5 billion lives per year by 2030, including 400 million in undeserved communities. (Philips a, n.d)

Philips aims to innovate for people resulting in the belief that there is always a way to make life better. To do so, healthcare is seen as a connected whole, supporting people to live a healthy life and prevent disease (B2C) and providing clinicians and hospitals (B2B) with the tools needed for diagnosis and treatment. (Philips a, n.d)

3.1.1 PHILIPS SUSTAINABILITY STRATEGY

Besides being a health and innovation leader, Philips shows great ambition to improve people's lives through sustainable and social actions in collaborations with partners. As a purpose driven company, Philips strives with an enhanced and fully integrated approach of doing business in a responsible and sustainable manner (Philips, 2020). As such, it has made commitments to environmental, social and governance (ESG) goals (Visual 8) to drive environmental, social and governance priorities and create a global impact. (Philips b, n.d)



Visual 8. ESG goals of Philips

This thesis specifically focuses on the ecological goals of Philips. Philips is working to minimize the impact on the planet by taking climate action. It is driving the transition to a circular economy, implementing EcoDesign in its products, and partnering with suppliers to reduce the environmental footprint.

The environmental key commitments (Philips c, n.d) are the following visual 9:

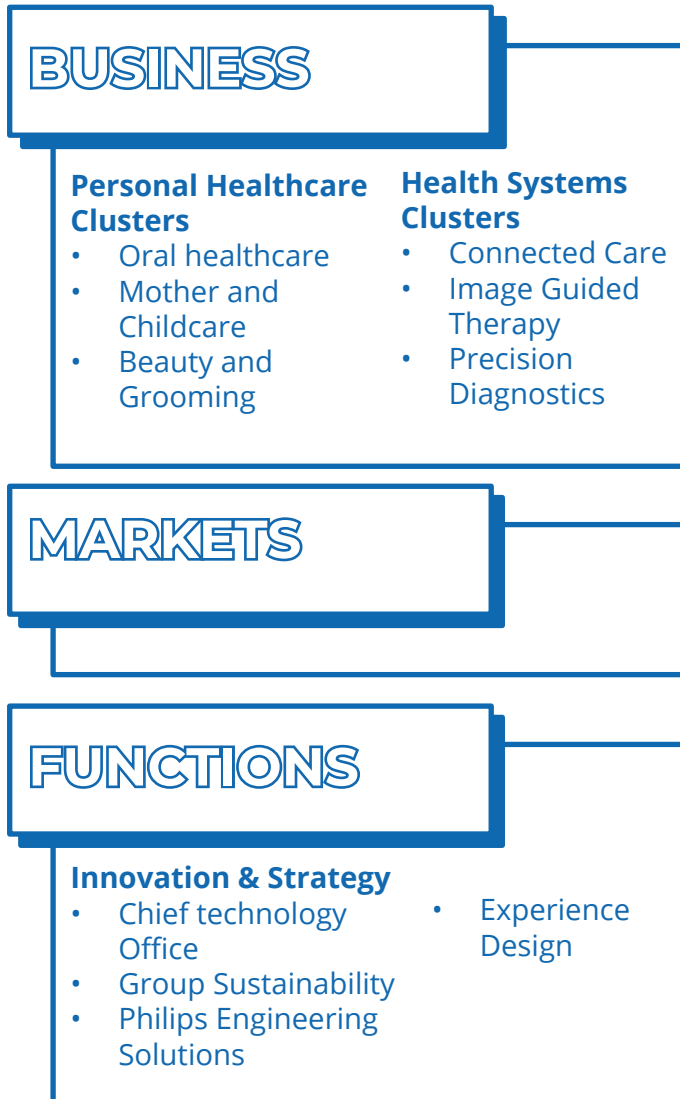
- We will maintain carbon neutrality and use 75% renewable energy in our operations by 2025. We will reduce CO2 emissions in our entire value chain in line with a 1.5 °C global warming scenario (based on Science Based Targets).
- We will generate 25% of our revenue from circular products, services and solutions, offer a trade-in on all professional medical equipment, and take care of responsible repurposing, by 2025.
- We will embed circular practices at our sites and put zero waste to landfill by 2025.
- All new product introductions will fulfil our EcoDesign requirements by 2025, with 'Eco-Heroes' accounting for 25% of revenues.
- We work with our suppliers to reduce the environmental footprint of our supply chain in line with a 1.5 °C global warming scenario (based on Science Based Targets).
- We engage with our stakeholders and other companies to drive sustainability efforts addressing the United Nations Sustainable Development Goals.

Visual 9. Table of the key commitments towards sustainability of Philips (Philips c, n.d)

3.1.2 MCC

MCC is one of the businesses within Philips (Visual 10) and focuses on the topic of Mother and Child Care.

The current portfolio of MCC shows the following products:



Visual 10. MCC within Philips

Vision and mission of MCC are as follows:

Vision

Philips Mother & Child Care will improve the lives of 20 million parents and their babies around the world by liberating parents to parent their way during the first 1000 days.

Mission

We are providing confidence with personalized care and health control during the first 1000 days of the parenting-journey through adaptive, trustworthy and intuitive solutions.



Breast feeding range



Bottle feeding range



Comforting range



Healthy feeding range



Monitoring range

3.2 CONTEXT OF GAIA

Reon Brand, the lead of the foresight activities at Philips, is leading the topic of emerging futures. He aims to provide “inspiration and cause for the reflection on innovating and designing for the future, calling into question existing approaches to Design and Innovation.” Brand’s entrepreneurial background in science helped him discover the importance of paradigms, resulting in his determination to help organizations make paradigms tangible. By doing so companies would be able to deal with complexity and create forward-looking views towards meaning and value. Eventually his thinking had a significant impact on Philips’ shift from an industrial company to a knowledge organization and transformation economy (Sophie Poulsen, 2019).

This thesis is utilizing the work of Brand as a context to develop a future vision for the MCC and create a shift in the consumer decision making for the upcoming sustainable offers. Gaia, one of Brand’s four future worlds, has been selected as the future context since it aligns with the goal of this thesis. He envisions Gaia to be the world where all human activity focuses towards restoring the natural dynamic balance of the planet (Brand, 2019).

3.2.1 FUTURE WORLD – GAIA

The current world

Brand describes in his work that “social, technological and economic development has been guided by a utilitarian, anthropocentric and material worldview focused on customer preferences, human aspirations, human needs, and the pursuit of economic growth” as the current state of the world. This approach led to the weight of all human-made artefacts or “anthropogenic mass” surpassing the overall living biomass on earth in 2020 (Elhacham et al., 2020). This “anthropogenic mass” consists of components such as aggregates, bricks, asphalt, metals, and ‘other’ materials (e.g wood used for paper and industry, glass, plastic etc). All this mass is produced by humans for humans while causing massive damage to the planet. This is how we shape and use our planet according to our needs to stay on top of the food chain. (Lewis & Maslin, 2015)

Gaia as the chosen co-emerging future

Brand’s work (2019) introduces four different Co-Emerging Future, which are shaping our world:



ETHERA

Sentio-centrism
Valuing Intelligence
above all



HABITANIA

Resource-centrism
Valuing sustainable prosperity



IMMORTALIA

Anthropo-centrism
Valuing human progress
above all



GAIA

Eco-centrism Valuing
biodiverse ecosystems

The context of this thesis is the world, Gaia. Gaia is part of the route of "Transformation" where through coordinated human action, cooperation and systemic change, humanity can prevent the apocalypse of climate change and ecosystem collapse. Transformation in this route includes the way we live, consume and produce and requires a new relationship between humanity and the planet. Gaia envisions a future with a regenerating and healthy ecosystem. In brief, Gaia's ideal is to "focus human activity towards restoring the natural dynamic balance of ecosystems that nourishes all life on earth" (Brand, 2019).

The new narrative of Gaia

In Gaia, humanity sees itself as one with nature (eco-entangled). This requires the rethinking of all human activities, neutralization of human's impact on the ecosystem and eventually the adoption of an active beneficial role by humanity towards the global ecosystem. In short, achieving Gaia will require far greater

systemic change than current actions such as recycling or reducing carbon emissions. This systemic change needs to start with individual transformation through a shift in our personal relationship with the planet and ourselves. This requires fostering a sense of sufficiency and a feeling of deep connection with each other and nature, a new understanding that all desires and all money circulating has an impact on somebody or something and shifting from a post-anthropocentric mindset to a post-utilitarian and post-materialistic one. Or a "change of heart" as Brand (2019) puts it.

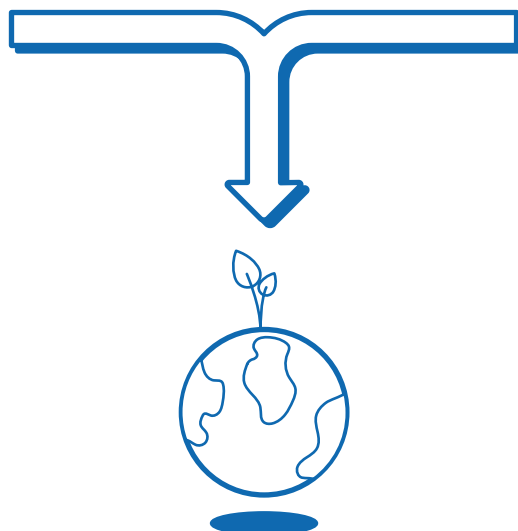
Concretely, this means from a **consumer perspective that our mindset needs to evolve from exploiting nature to giving back to nature.** From a **business perspective, however, this means to deliver value to the entire ecosystem and not only to humans** – in contrast to today's businesses' monetary and human-serving focus. To quote Timothy Morton (2018):

"What exactly are we sustaining, if not the one-size-fits-all agricultural temporality pipe that has sucked all lifeforms into it like a vacuum cleaner, pretty much over its 12,500-year run? And in the end which means already, designing stuff according to the template is going to damage humans as well, in a very obvious way, because of the unavoidable interconnectedness of everything we know and understand, and even everything we can't know or see, too."

Morton's dire conclusion supports the need for a paradigm shift towards Gaia.

THE WORLD

Focus human activity towards restoring the natural balance of ecosystems that nourish all life on earth.



THE MINDSET

We are one with nature and are serving nature.

3.2.1 TRANSLATION OF GAIA FOR THIS THESIS

To bring the line of Gaia thinking back to tangibility for this thesis and to establish a provisional equilibrium between the daring vision and the business, three considerations need to be taken:

TIMESPAN

By defining a timespan, a certain perspective and focus are taken. The defined timespan for this thesis is 2025-2030 for feasible solutions for the business supporting the Gaia vision.

LEAVING OUT OR FOCUSING ON ENTITIES

Changing all entities or elements within the current societal system to enable the Gaia vision is far from realistic. Therefore, one strategy to create a more practical approach is to leave out entities or parts of the system, reducing the complexity and creating a reasonable scope from a business perspective. This thesis focuses on the entity of sustainable behaviour of parents, making the scope feasible.

SCOPING WITHIN THE ENTITY SYSTEM

Focusing on the entity of sustainable behaviour of parents also enables scoping of the relations within the system of the chosen entity. These relations revolve around the eco-system and the first-degree relations and the sphere of impact of Philips and designers.

3.2.3 DISCUSSION ON GAIA

Discussions on the state of the planet are currently paradoxical. On the one hand, people involved in the topic of climate change agree that earth behaves as a regulated system that is about to collapse due to human activities. On the other hand, the hypothesis that the earth is indeed a self-regulating system such as Lovelock (1979) suggested, remains controversial (Latour & Lenton, 2019).

Gaia was introduced back in 1972 and 1973 by Lovelock (Lovelock, 1972; Margulis and Lovelock, 1974; Lovelock and Margulis, 1973). The initial introduction of the concept of Gaia was poetic rather than scientific. Looking at Gaia from a scientific perspective, Kirchner (2002) proves in his work that the three central propositions of Gaia are not doing well under scrutiny (i. biologically mediated feedbacks contribute to environmental homeostasis; ii. such feedbacks create an environment more suitable for life; iii. such feedback should arise by Darwinian natural selection).

Further, scientifically validating Gaia through complementary experiments and simulations show limitations as well. Until now it remains challenging to obtain convincing proof that the results can be extrapolated to the entire biosphere (Free, 2017).

On another note, many logically distinct theories have been labelled as a Gaia hypothesis, making it impossible to create a coherent statement (Kirchner, 1989). More than that, Gaia is difficult to grasp since it is unclear whether it is a phenomenon in science or rather a philosophy on looking at phenomena on earth (Latour et al., 2018). Sébastien Dutreuil (2018) even shows in his work that Gaia is simultaneously a hypothesis, a testable theory, a summary of highly specific facts, a worldview, and a philosophy of nature – all mixed together. Kirchner (1989) explains that Gaia can also be seen as a metaphor and metaphors are untestable. Nevertheless, they can be scientifically useful since they can suggest new lines of thinking:

*“As scientific metaphors go, Gaia is unusually colourful, rich, and evocative, and I hope that it will spur many interesting and fruitful speculations.”
(Kirchner, 1989).*

However, Kirchner (1989) argues against taking this metaphor literally as it would be misleading and attempts to test it would ultimately be futile.

This thesis utilized Gaia more as a vision and inspiration to envisage a sustainable world and create a context to design for - and by designing for this world come closer to Gaia. This is inspired by Morton's (2018) statement:

"The future emerges directly from the objects we design."

Ultimately, not looking into Gaia might result in big losses. Or as Kircher (1989) would argue:

"Some may object that to abandon the empirical search for Gaia is to forgo the chance of discovering a grand, ultimate truth."

3.3 PLANET-CENTRED - A NEW TERM FOR SUSTAINABILITY

This thesis is trying to operationalise sustainability representing the vision of Gaia and in alignment with the MCC. The work of Waseem and Kota (2017) shows the fluidity of sustainability as a term. Depending on the context, sustainability can go in multiple diverse directions, have different meanings, and imply a variety of approaches. Waseem and Kota (2017) identify the need for measurable and clear definitions of sustainability. Therefore, this thesis approaches the term sustainability by moving away from it and exploring a term that better matches the aspirations.

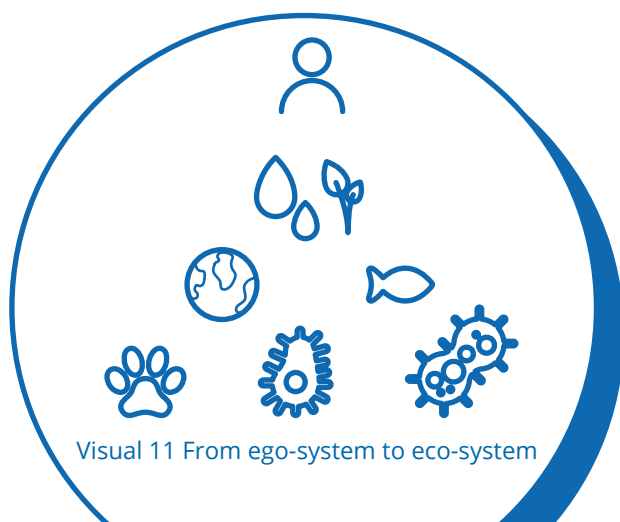
An initial discussion with Brand was scheduled, where Gaia and the term sustainability were discussed. It was concluded that the term sustainability is not representative of the vision of Gaia. Sustainability is too simple, not disruptive enough and used to describe the current understanding of behaviours and actions towards a healthier planet. Furthermore, Brand stated that the semantics of sustainability are based on the

word "sustain". Sustain /sə'steɪn/, according to the Cambridge English Dictionary (2022), means "to cause or allow something to continue for a period of time" or "to keep alive", which is not in alignment with the regenerative vision of Gaia, which goes beyond sustaining the current state.

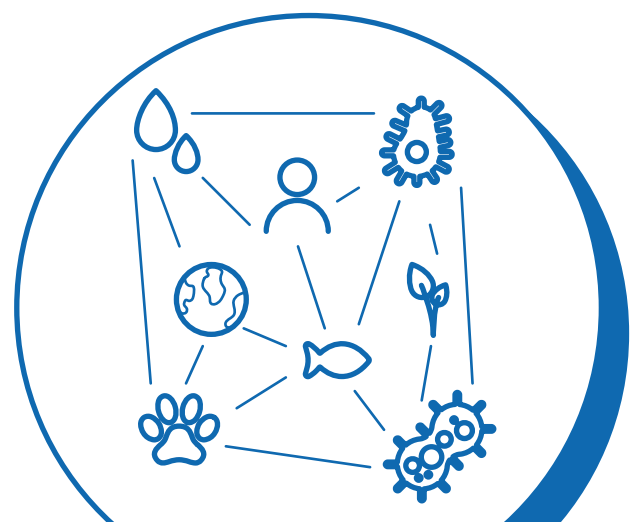
This work aims to question the current way we act towards the planet. Therefore, a term for sustainability is needed to communicate the regeneration of nature and all living beings in an ecosystem where humans and nature are synergised. Brand used the term eco-entangled to do so. Conversations with stakeholders have shown that the term is too abstract and complex. It is impractical to use during communication with businesses, as well as with consumers.

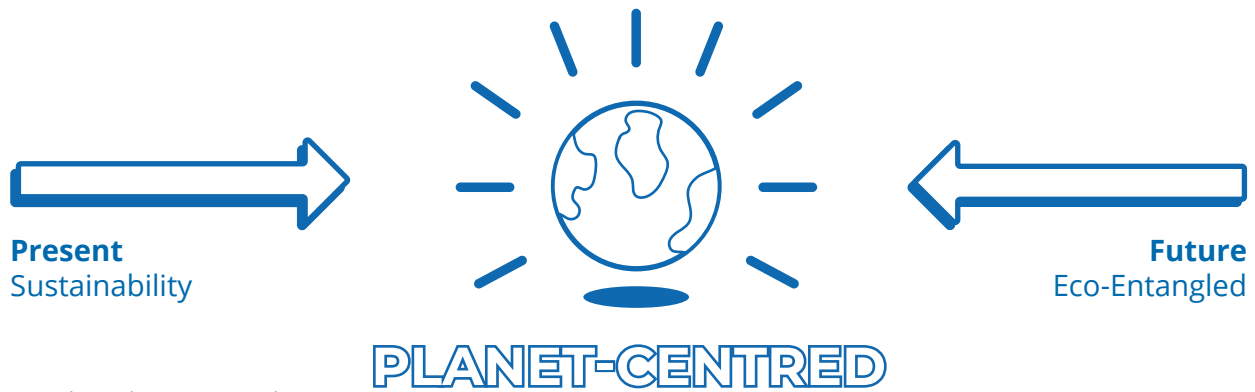
Overall, a term is needed as understandable as sustainability and at the same time communicating the vision of eco-entangledness. The corporate world is currently still in the terminology of old paradigms. There is a need for urgent improvement if we are serious about saving the planet. Awareness that we are not on top of nature but part of it and that everything is interconnected and related is necessary to this change. This Interdependence is pushing us to create a new language. This means we are outgrowing the meaning of sustainability as we know it. We need now to embrace resilience and we need to act differently, and to do so, we need a new term. This term has an intermediate function. It is a term to interlink the present and the future. However, currently, language is in transformation and the narrative under discussion, but there is no term describing the intermediate state towards eco-entangled.

During the literature review the term planet-centred was discovered and perceived as an apt term for this thesis. The term planet-centred tries to link the micro (human) and macro (planet) levels to achieve long-term sustainability on the planet (Vignoli et al., 2021). To do so, a shift from an ego-system towards an eco-system is needed (Visual 11).



Visual 11 From ego-system to eco-system





Visual 12 Planet-centred

Planet-centred design raises the question for whom the solutions are being designed for. Up until recently, solutions have been mainly serving human needs and, therefore, been human-centred, without considering the planet's needs. As such, planet-centred design requires developing a new fundamental mindset and values to enable behaviour change in alignment with the needs of the planet (Visual 12).

3.2.1 DISCUSSION ON PLANET-CENTRED

It needs to be emphasized that planet-centred does not wholly represent the vision of Gaia, according to Brand. Furthermore, he raises the concern of planet-centred giving space to be abused for greenwashing.

The term has been discussed with another futurist of Philips, Simona Rocchi. She agreed planet-centred is not the optimal term. However, she believes it represents the thesis's aim, and it is disruptive enough to challenge the current practices from human-centred and understandable by Philips employees as well as consumers. Finally, planet-centred represents complementary values to Gaia and can be considered as a pre-state of the eco-entangled vision of Gaia. Hence, since all stakeholders are aligned on this term, this report will be using planet-centred as a temporary term to describe activities matching the vision of Gaia.

Despite the term planet-centred being a suitable solution and being applicable in the context of this thesis, there are still several limitations. Generalizations will run into practical limitations, such as measuring direct effects, cross-over effects, scoping etc. Furthermore, scientific embedding of the term planet-centred is lacking in this thesis. There are many perspectives which need to be considered when it comes to such as an ontological analysis of the concept, further historic embedding, operationalisation of the term and so on.

On a last note, it needs to be clarified that planet-

centred gives space for misinterpretation. Planet can be misinterpreted or seen as a synonym for the globe or the planet earth. Latour et al. (2018) insists on making a clear differentiation on that: "Gaia is not Nature and has nothing to do with the Globe". This thesis agrees with this statement since the aim is not to design for the globe (or the planet earth) but to design with the entangled eco-system in mind. Therefore, planet in planet-centred is referring to the interconnected system of all life and all emerging relations on earth. Another way to illustrate the meaning of planet-centred within this thesis is to look at the following quote from Morton (2018):

"So designers should be careful what they design. Maybe they need to think at least on a number of different temporal scales when they design something. A plastic bag isn't just for humans. It's for seagulls to choke on, (...). A Styrofoam cup isn't just for coffee it's for slowly being digested by soil bacteria for five hundred years. A nuclear device isn't just for your enemy. It's for beings 24,000 years from now. This Diet Coke isn't just for me. It's for my teeth and my stomach bacteria, and the latter may get slaughtered by the acids in there. "

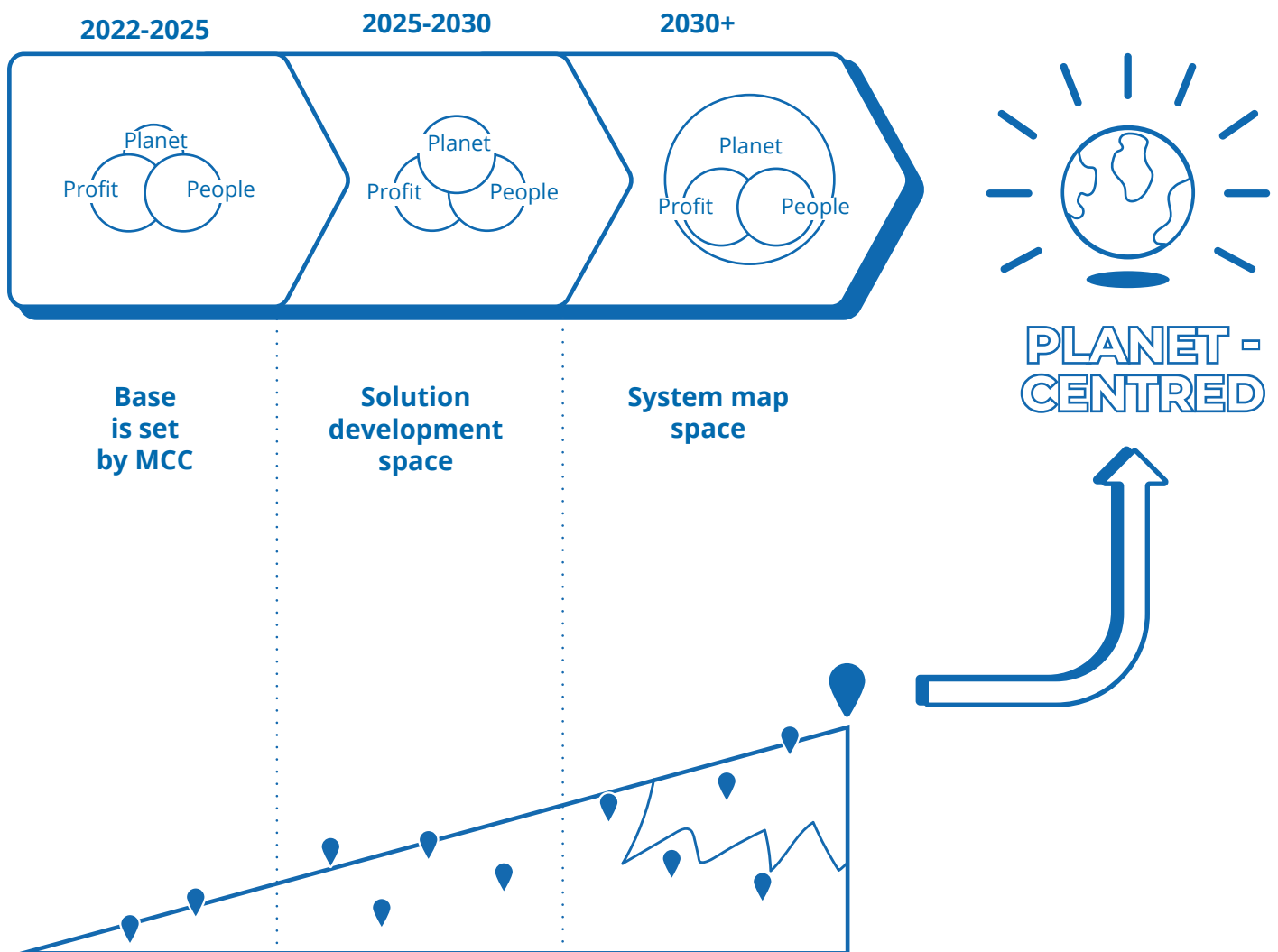
3.3 HORIZONS

Three horizons have been defined to elaborate on a tangible transition towards planet-centred design within MCC (Visual 13). This transition requires a shift from product-focus towards a system-focus in the product portfolio, as well as increasingly disruptive and planet-focused solutions. To make this transition visually more tangible a metaphor of a mountain was developed: the peak of planet-centred design is high and ambitious; therefore, it needs to be broken down in tangible basecamps all collectively supporting the path to reach the peak.

The first horizon revolves around tangible short-term goals and existing solutions within the MCC roadmap (e.g Eureka rental project for breast pumps, sustainable materials in products,

packaging reduction etc.). The second horizon is the solution for development space, for which the insights booklet will be used to develop solutions in alignment with planet-centred design. The third horizon is the uncertain future, which will be partly explored through a system map. The insights from this map are the base for the solution development space in the second horizon.

Both, the horizons and the mountain metaphor, are the result of multiple collaborative iterations with diverse stakeholders of MCC (one MCC innovation lead, two R&D MCC representatives and one MCC marketing lead). The timeframe of the horizons is considering the time pacing (Simonse, 2017) within Philips innovation developments.



Visual 13. Horizons

NR. 1

The topic of sustainability is of great interest, considering Philips is a purpose-driven organization aiming to improve people's lives through sustainable and social actions. This demonstrates the company's ambitions to keep up with the ESG goals.



THE KEY

NR. 3

Sustainability as a term does not represent the vision of Gaia, since the mindset and values are different from the current ones. Therefore, planet-centred has been selected as a matching term in collaboration with futurists and stakeholders.

NR. 2

Gaia is the context and vision this thesis is designing for. In the future world of Gaia human activity focuses towards restoring the natural dynamic balance of the planet (Brand, 2019).

POINTS



NR. 4

Three horizons have been defined to elaborate on a tangible transition towards planet-centred design within MCC. This transition requires a shift from product-focus towards a system-focus in the product portfolio, as well as increasingly disruptive and planet-centred solutions.

4.

SYSTEM ANALYSIS

CHAPTER OVERVIEW:

4.1 System mapping process

4.2 Systemic storytelling

In the first section of this chapter, system mapping in general is being introduced. Furthermore, the process of the thesis's system mapping as well as the insights of the final system map will be elaborated. In the second section, the complexity of the system map will be reduced to a storytelling map, making the communication of the insights comprehensible for the business.



4.1 SYSTEM MAPPING PROCESS

Considering the complexity of the topic of sustainable parenthood, conventional ways of problem solving show limitations. Or as Jones (2014) states, systemic design is suited for wicked problems, which sustainability is.

Systemic design, especially system mapping, provides an approach to analysing complexity and identifying hypothetical parts and relationships to change (Systemic Design Toolkit, n.d). A system map is an ensemble of variables (e.g parameter, trends, stakeholder needs etc.) in an interconnected network or whole (Madden & Ohlson, 2020). It is used to map and try to elucidate the complexity through visualization of variables interrelating over time within the context of sustainable parenthood. Once those interdependencies are mapped it can give a more grounded hypothesis on how to intervene, this is defined as leverage points. Donella Meadows, one of the pioneers of applying system dynamic tools to global problems (donellameadows.org, 2016), describes leverage points as “places within a complex system where a small shift in one thing can produce big changes in everything” (Meadows, 2012). Which is what this thesis is aiming for to identify and develop strategies to intervene.

Finally, the process of system mapping allows us to take a step back and conduct a holistic analysis, including those aspects which would not have been considered in conventional ways. This enlarges the ideation space and results in innovative solutions.

Limitations of the thesis system mapping

However, it needs to be clarified that there are limitations within the system map of this thesis. First, the data collection can never be complete when dealing with systems as this one, where knowledge is heterogeneous, dispersed, incomplete, often tacit (Nijs, 2014) and “fuzzy” (Dimitrov, 2003). Further, this thesis deals with an open system as the first law of thermodynamics would define it, this means that surroundings of the analysed boundaries may influence the system in ways which can't be taken into account (Tolhoek & De Groot, 1952).

Communication and business involvement

System maps are facing one major difficulty when it comes to practical implementation. Meadows (2012) describes it as counterintuitiveness and lack of understanding of leverage points by whom, who's not part of the system map creation. To ensure understanding of the leverage points within this work and have high involvement in an early stage of the stakeholders, co-creative workshops were conducted. More information can be found in appendix A “communication and business involvement in the system map”.

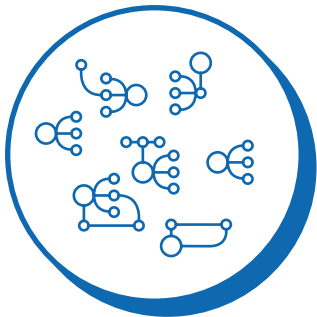
Miro was used as the working tool throughout the entire process to gather insights for analysis. The system mapping revealed the fundamental dilemma of GenZ parents: How to act responsibly while being immersed in triggers for over-consumption? Systemic storytelling is being applied to communicate the complex system thinking to stakeholders of this map. (Talgorn & Hendriks, 2021)

The system map followed a four-step process:



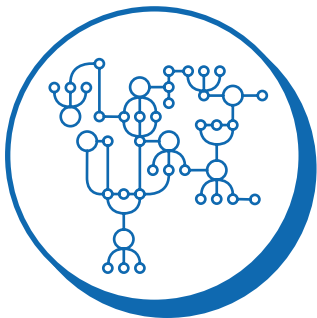
FRAMING AND INSIGHT GATHERING

System boundaries need to be framed to gather insights. The boundaries are (1) Global Trends relevant for GenZ within the DACH market (2) Sustainability and (3) MCC as a sector within Philips. The insights have been gathered through Philips internal knowledge and external research based on the PESTEL approach (Yüksel, 2012).



MINI-MAPPING CREATION

Mini-Maps are mapping down all crucial variables of the insights gathered by applying the Systemic Design Toolkit (n.d) of the Nahman method (Namahn a, n.d). The goal of Mini-Maps is to create the elements that will compose the system map in an appropriate manner. Furthermore, this step is also an opportunity to involve stakeholders and to implement their perspective and input.



SYSTEM MAPPING

The full system is a representation of the defined system boundaries and created by connecting the Mini-Maps through their shared variables. The activity of system mapping gives a deep understanding of the chosen context.



ANALYSIS

A process adapted from the theory of Donella Meadows (Meadows, 2012) was applied to identify the relevant leverage points. Which delivers an understanding of the points altering the entire system by changing them (Meadows, 2012).



FRAMING AND INSIGHT GATHERING

As an initial step to frame the system boundaries, a system question serving the vision of the 3rd horizon (Visual 13) was formulated:

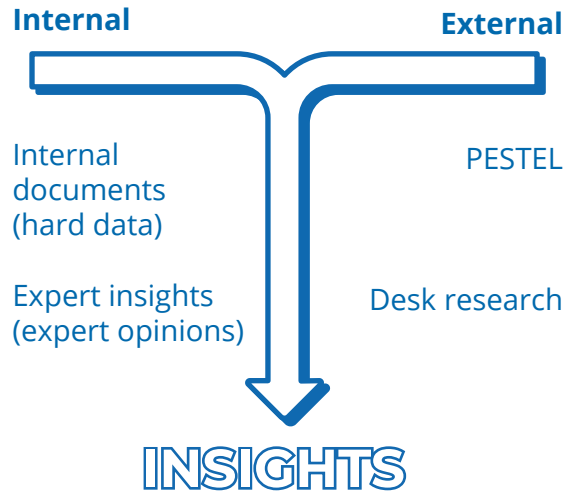
“How can Philips actively alter the relationships (Philips-Parents-Objects) enabling planet-centred solutions?”

The question was then rephrased in a more applicable language for the business as:

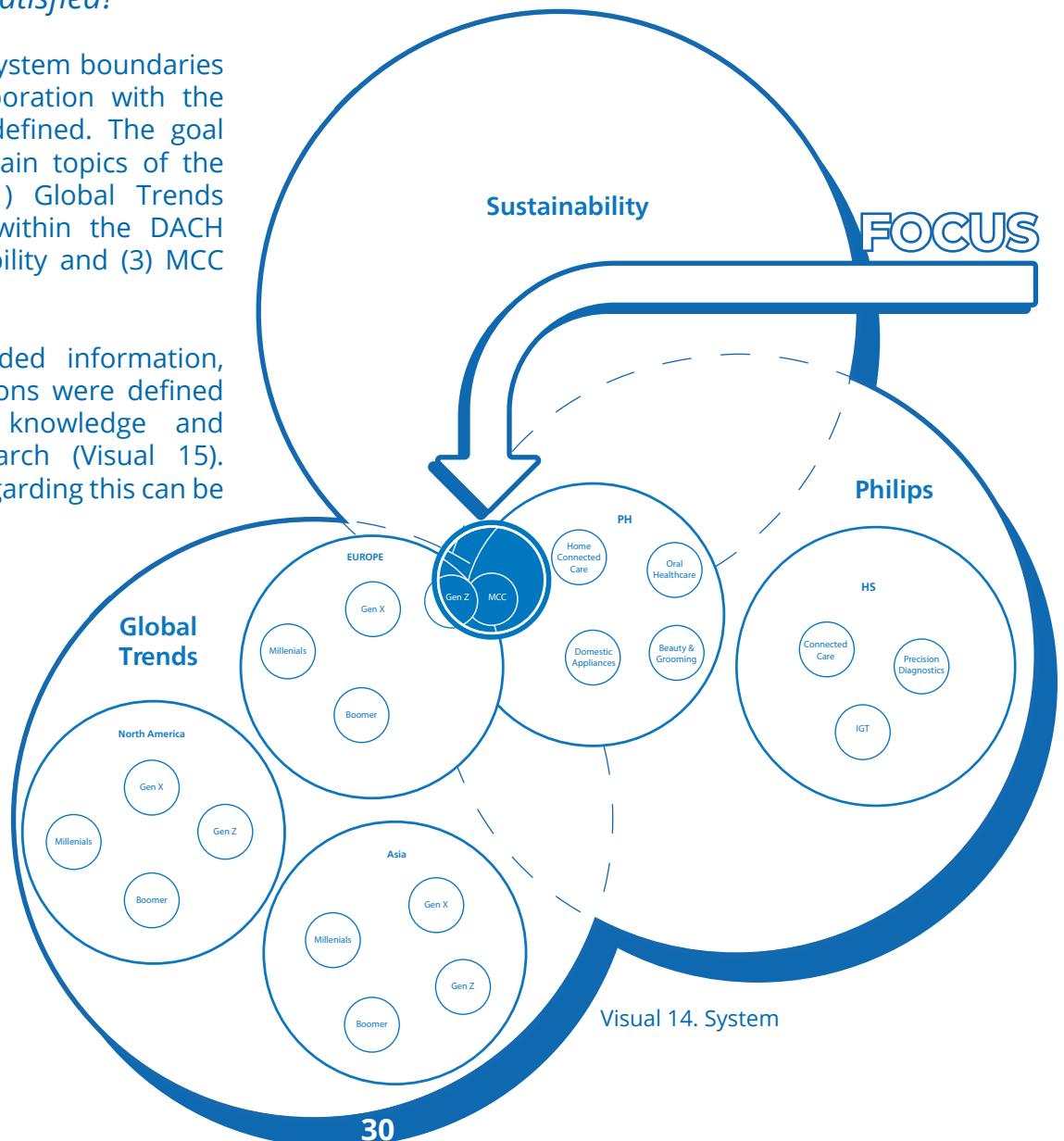
“How can we create and deliver solutions where Gen Z parenting needs and planet needs are both satisfied?”

Additionally, three system boundaries (Visual 14) in collaboration with the stakeholders were defined. The goal was to cover the main topics of the system question, (1) Global Trends relevant for GenZ within the DACH market (2) Sustainability and (3) MCC as a sector.

To gather the needed information, two research directions were defined - internal Philips knowledge and external desk research (Visual 15). More information regarding this can be found in appendix A, “Insights gathering”.



Visual 15. Overview of the two directions



Visual 14. System

Creating Insights cards

Once the information gathering phase was finalized, the analysis and translation of information was initiated. To organize the acquired information, an overview map was created, consisting of 4 elements (Visual 16) building on each other:

Theme

Themes connect topics which are related to each other

Topic

Topics are the overarching title of the clusters

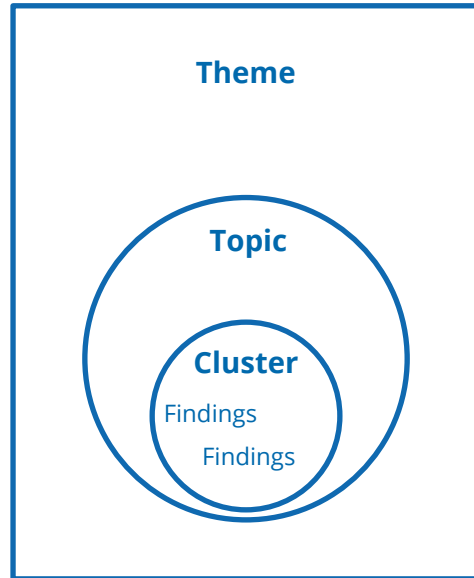
Cluster

Insights clusters are information summaries which are grouped together based on overlapping and related content

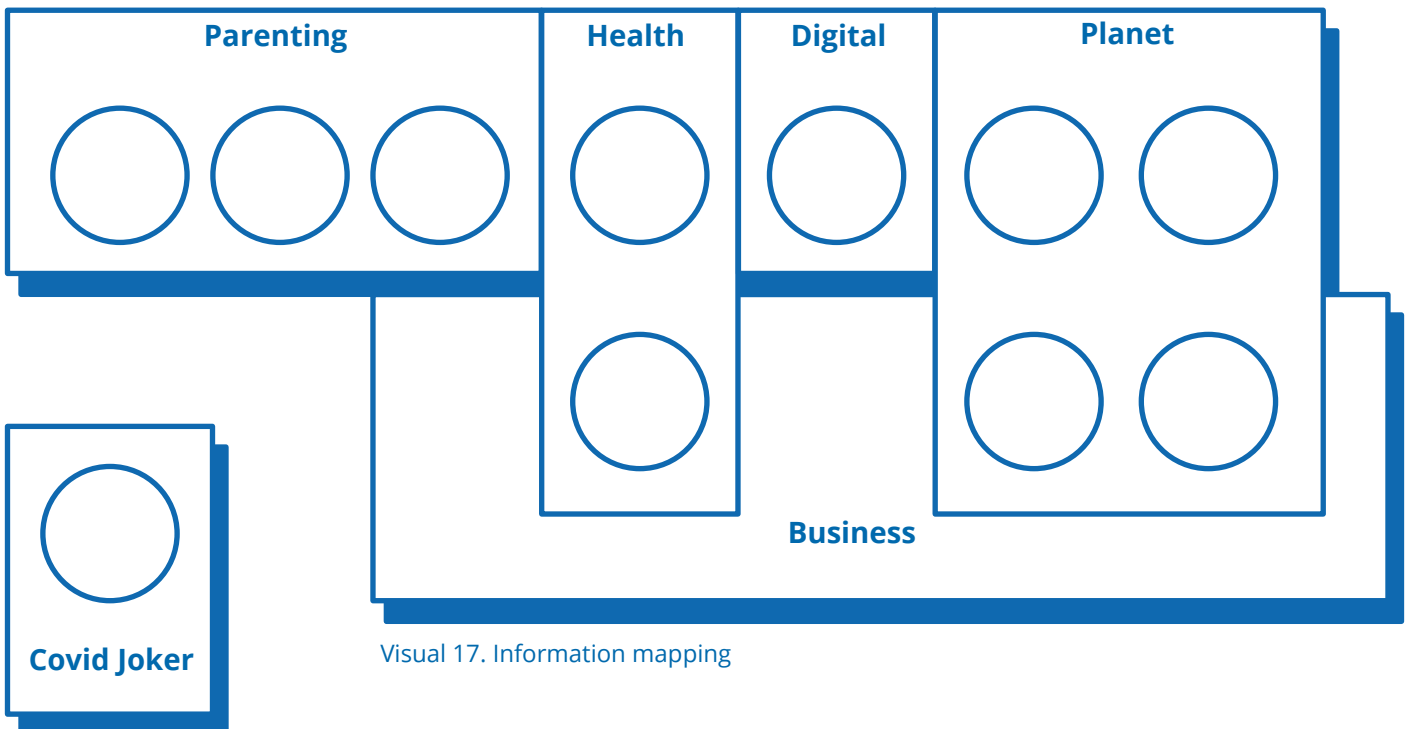
Findings

Findings of the information gathered through the internal Philips research and external desk research

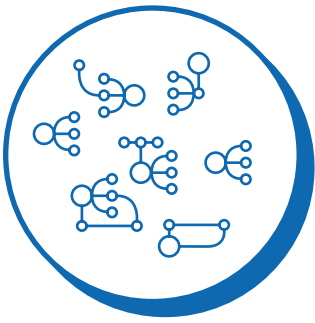
This resulted in 7 themes, 11 topics, 50 Clusters and 119 Findings. Visual 17 gives a simplified overview of the information mapping – the detailed overview can be found in the appendix B. This overview was required to create insight cards for the mini-mapping workshop. The goal of the insight cards was to communicate relevant information to participants. Eventually this resulted in 17 insight cards, which can be found mapped down in information mapping in appendix B.



Visual 16. Overview of the elements



Visual 17. Information mapping



MINI-MAPPING CREATION

Namahn b (n.d) introduced their systemic design toolkit (Systemic Design Toolkit, n.d) to Philips, which was applied for the system analysis. One of the initial steps is creating a Mini-Map. A Mini-Map is a system map of one insight card according to the Systemic Design Toolkit (n.d). The goal of the Mini-Mapping workshop was to create 17 Mini-Maps based on each insight card. All those Mini-Maps were then used to create one large system map (Visual 18).

A Mini-Map was created by reading an insight card and marking variables. A variable is an entity, which can vary over a scale and can be high or low, measurable, or non-measurable (Systemic Design Toolkit, n.d). The relationships between the variables are visualized with 505 red or blue lines with an arrowhead. The colour indicates positive (blue) or negative (red) relations between the variables. A positive relation leads to a casual effect in the same direction and a negative relation leads to a casual effect in the opposite direction. The arrowhead indicates the direction of effect, resulting in a tail variable (beginning of arrow) and a head variable (ending of arrow with head) (Systemic Design Toolkit, n.d). All variables within this system are interconnected, some variables show a higher tendency to be a tail variable, some others to be a head variable (Visual 19).

In a follow up step, the marked variables were then mapped down. Depending on the relationship between the variables they will be connected by either blue or red arrows (Systemic Design Toolkit, n.d).



If A increases, then B increases
If A decreases, then B decreases



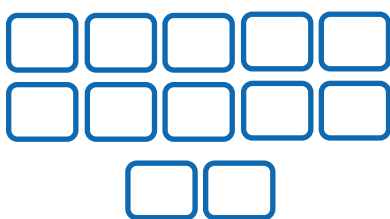
If A increases, then B decreases
If A decreases, then B increases



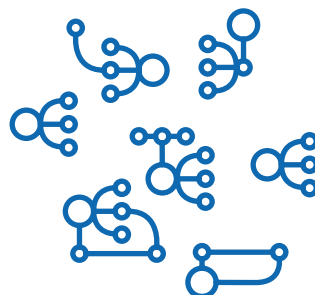
Visual 19: Explanation the variables Mini-Map

The workshop resulted in 17 finished Mini-Maps and a positive response from the stakeholders. Involving the stakeholders in this step not only resulted in an efficient Mini-Map creation but also added value through diverse perspectives and stronger stakeholder engagement for future steps.

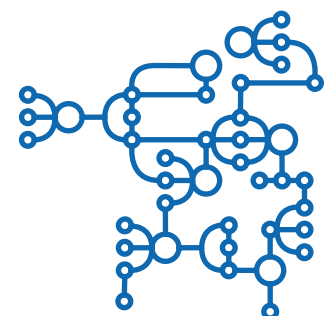
Preparation, setup and conduction as well as the result of the Mini-Mapping workshop can be found in appendix A "Mini-Mapping workshop".



17 Insight Cards

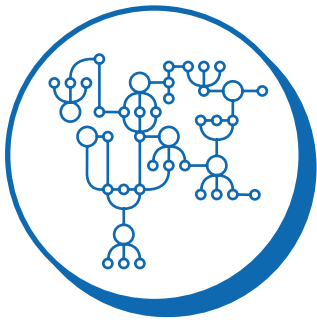


17 Mini-Maps



System Map

Visual 18: From Insight cards to Mini-Maps to System Map Mini-Map



SYSTEM MAPPING

The 17 Mini-Maps have been transferred to a new Miro board to have a clean space for the creation of the system map (Visual 20). More detailed information on the process of creating the system map based on the Mini-Maps can be found in appendix A "Clean up and Connection".

Ultimately, the final qualitative conceptual model has 293 variables and 505 connection arrows.



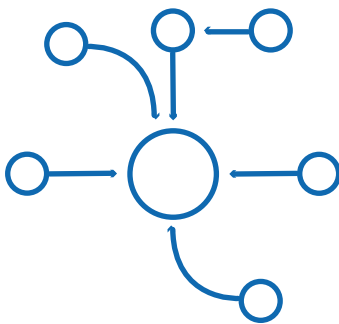
Visual 20. Final system map



ANALYSIS

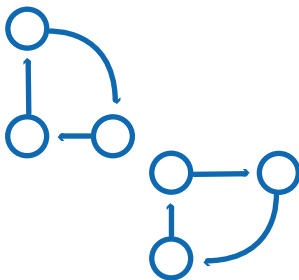
Identifying leverage points, points which can change the system (Meadows, 2012), is seen as one of the biggest challenges within the system map community – raising the question of how to approach the analysis for this system map. An analysis method adopted from Nahman (n.d) and

Meadows (2012) used in Philips. Leverage points within this work can be with a variable, a loop or a group of variables. Extensive elaboration on terms and the process can be found in appendix A “Leverage points identification”.



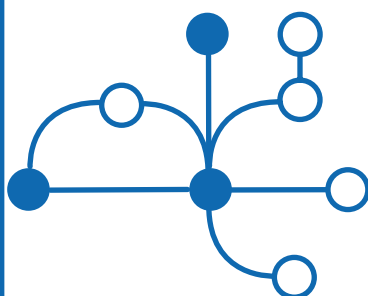
MAIN VARIABLES

As an initial step of leverage points identification, the main variables have been highlighted, those are variables which show a number of >5 ingoing or outgoing arrows, which ensure comprehension of the structure due to their high interconnectivity. This resulted in 22 main variables.



IDENTIFICATION OF LOOPS

In this work the first leverage points which got identified are reinforcing and balancing loops. Reinforcing loops are loops in which the causal relationships of the variables create exponential growth or collapse (Rushing, 2012) In balancing loops causal influences in the loop keep things in equilibrium, or in balance (Rushing, 2012).



SELECTION OF CRUCIAL VARIABLES

Followed by an initial selection of variables that the system analyst identified as having a strong impact on the system dynamics because of trend knowledge based on the preparation, feeling for innovation enablers trough innovation industry experience, consideration of relevant business opportunities based on knowledge of the portfolio and strategic directions of the company and personal knowledge and experience.

LEVERAGE POINTS VERIFICATION THROUGH STAKEHOLDER INPUT



MCC stakeholders have been involved in the first verification of the leverage points. Further the MCC stakeholders were asked to rank the most relevant leverage points. This it resulted in these two core loops with the highest ranking:

"holistic (mental) health resulting in self-empowerment (+) and high expectations (-)"

"confusion about how to be sustainable and sustainable information sources"

LEVERAGE POINTS VERIFICATION THROUGH MEADOWS FRAMEWORK



The second round of verification was based on reviewing and confirming the leverage points through the work of Meadows. Meadow's book *Thinking in systems: A Primer* (2008) so far one of the most accessible and comprehensive guides on how to approach the identification of leverage points. For this thesis the crucial points of this analysis are the following:

3 - Goal of the system: Changing the goal of the system changes all the leverage points and the system itself (Meadows, 2012). The goal of this system map is rooted in the system question and can be defined as the creation of planet-centred solutions, which satisfies both the planet and people.

2 - Mindset or the paradigm out of which the system arises: The paradigm of the system map is based on two core loops, which are in conflict with each other, resulting in a dilemma of wanting to be a holistic and sustainable parent in a consumption driven world. Each core loop of the system has its own paradigm which needs to be overcome. Therefore, there is, on the one hand, the paradigm of the holistic parent and the socially constructed pressure arising from it. On the other hand, there is the paradigm of being a green parent in a world dominated by consumerism, implying high cost, time, energy and money to be a sustainable parent. This conflict impacts the entire system and all leverage points and is the core engine. Meadow suggests that paradigms might be able to change through repeatedly and consistently pointing out anomalies and failures in the current paradigm to those with open minds.

1- Paradigm to be transcended: The dilemma of the two core loops is grounded in consumerism and capitalism. This is the paradigm which needs to be transcended to enable the vision of Gaia.

In summary, the final system map resulted in 293 variables and 48 leverage points. The system map resulted in the dilemma of parents wanting to act eco-responsible but being immersed in triggers for overconsumption.

4.2 SYSTEMIC STORY TELLING

The visual representation of the system was a useful approach to properly capture the system variables and connections, but it was too much to be communicated effectively and understandable to those not involved in the map's creation. To make the system map accessible to the stakeholders, systemic storytelling was applied, resulting in a storytelling map.

Systemic storytelling is translating a logical analysis in an intuitive and empathetic comprehension of the systems. The basic structure is to only incorporate the most significant or central variables in a map. While embedding the other variables describing context, challenges or opportunities in short narratives and illustrations. Benefits include incorporation of the different views of the stakeholders as well as enhanced stakeholder engagement, effective communication of the system insights and ideation on future systems. (Talgorn & Hendriks, 2021).

Storytelling map overview

As already explained in the system map analysis, the paradigm of the system map is based on two core loops, which are in conflict with each other, resulting in a dilemma of parents wanting to act eco-responsible but being immersed in triggers for overconsumption. This dilemma, which the map unveiled, is the base of the research goal of the following user research.

The storytelling map visualizes the tension of this dilemma by putting the inner conflict on top, and raising the question: How to act eco-responsible while being immersed in triggers for over-consumption?

At this point, the dilemma divides into the two core loops of (i) wanting to be a holistic parent and the rising socially constructed pressure from this resulting in poor mental health, anxiety and stress for GenZ; and (ii) wanting to be a green parent in a world dominated by consumerism. Both conflicts are elaborated on their own, diving deeper into the problems parents face, giving insights on helpful characteristics of GenZ and mapping down opportunities within the system to act on.

The two loops meet at the bottom of the storytelling map and suggest that to resolve the dilemma a new balance and prioritization is needed. This is indicated by the question: Having it all is not realistic. Young families (parents+children) need to find a new balance

focusing on what is good for their wellbeing and for the planet. What should they prioritize and what should they leave behind? To conclude, green behaviour must become an intrinsic part of the holistic balance that GenZ values so much. This means abandoning old habits and priorities (such as consuming certain goods and experiences) as well as conceptions that 'having it all and doing it all' will provide peace of mind. Instead, they must embrace JOMO (Joy of Missing Out), consume less but better. In turn, stepping away from materialism and reconnecting with nature will decrease GenZ's stress and anxiety.

The extensive storytelling map with elaborate explanation can be found in appendix A "Systemic Storytelling". And visual 21 shows a simplified version of the storytelling map.



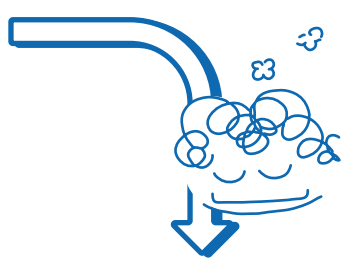
DILEMMA

Consumerism and over-consumption mentality

Awareness of climate crisis, willingness to act



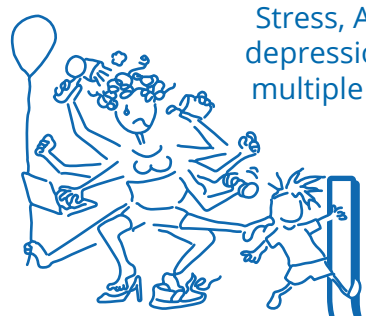
GenZ holistic approach to life, desire to have and do it all



Desire to be a green parent

Stress, Anxiety, depression from multiple factors

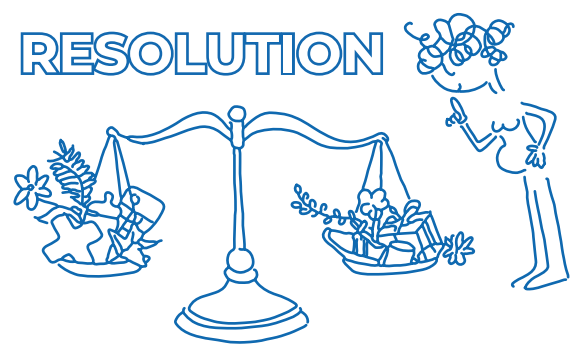
Unclear on how to be sustainable



Consumerism and over-consumption mentality

Awareness of climate crisis, willingness to act

RESOLUTION



Visual 21. Simplified storytelling map



Visual 22: Illustration of parents



This illustration (Visual 22) visualises the moment parents have overcome the dilemma: a happy couple at the beginning of their parenthood journey, connected to the virtual world (computer) learning more about Green Parenting. They have also found the balance between parenthood (baby bottles), their mental health (medical box) and sustainability (plants).

NR. 1

Considering the complexity of the topic of sustainable parenthood, conventional ways of problem-solving show limitations. Systemic design, especially system mapping, provides an approach to analyse complexity and identifying hypothetical parts and relationships to change (Namahn, 2021).



THE KEY

NR. 3

The system mapping has identified the dilemma of parents wanting to be a holistic and sustainable parent in a consumption-driven world.



Methodology System Analysis & Systemic Storytelling: Elise Talgorn;
Supervision: Elise Talgorn;

Framing & Insight Gathering: Elise Talgorn, Elisabeth Tschavgora, Eefje van der Kaaden

Systemic Analysis: Elise Talgorn, Elisabeth Tschavgora, Eefje van der Kaaden

Writing: Elisabeth Tschavgora

Visualization: Elisabeth Tschavgora

NR. 2

Having a strong stakeholder engagement through feedback moments and workshops enhances the understanding of the complexity and creates high engagement.

POINTS



NR. 4

A storytelling map breaks down the complexity and tells the adventure of GenZ to break free from the dilemma. And eventually, finding mental wellbeing and balance to become the sustainable parents they aspire to be.

5.

USER

RESEARCH

CHAPTER OVERVIEW:

5.1 Research Goal

5.6 Insight overview

5.2 Process

5.7 Discussion

5.3 Sample

5.4 Data collection method

5.5 Data analysis method

In the first section of this chapter, the connection of the system map dilemma as a base for the user research is made. The following sections explain the process, sample, data collection method and the data analysis method. All these sections provide information on the research process and which decisions have been made and why. Eventually the last two sections present an overview of the insights and discuss them in a critical manner. The chapter ends with the discussion of the insights gained.



5.1 RESEARCH GOAL

While Philips has conducted considerable research on Parenthood from a clinical and consumer perspective and on sustainability communication strategies less attention has been given to user-centred research on sustainable behaviour change for parents.

To find directions for potential solutions, a better understanding of the dilemma (the parent's desire to be eco-responsible in a consumeristic society) itself is needed. To do so a qualitative exploratory research was conducted to identify patterns, relations between variables and insights for solutions to the dilemma.

5.2 PROCESS

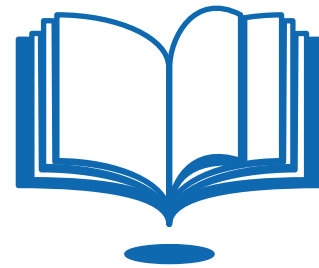
The process of this user research followed the basic research sequence suggested by Sanders & Strappers (2012) with some alterations. Those alterations included a division of the analysis into two parts with the communication period in between. This adaptation of the process was needed to have higher stakeholder involvement for the validation of the analysis direction and alignment. Additionally, this communication moment was crucial to iterate the analysis and reduce the chances of missing out on crucial insights from an MCC perspective.

This process was chosen as the best fit for this thesis since it aligns with the project track structure. The preparation phase can be executed while the system map is being analysed. The

gathering and analysis of the user research can be conducted while the system mapping workshop is being prepared and planned. Additionally, the communication step sensitises the stakeholders, who will also be participants of the upcoming workshop. Furthermore, the conceptualization phase, which results in the insights booklet, provides the business crucial insights for sustainable value propositions in the last phase of the track. Visual 23 shows how user research processes and projects align.

Ultimately, this process was favoured for the high stakeholder involvement based on the planned communication moment, matching the high demand of stakeholder collaboration.

Two rounds of test interviews were conducted to iterate and adjust the structure of the final interview setup which can be found in appendix B.



**Stories, concepts, design
based on the insights booklet**

CONCEPTUALISATION

ANALYSIS 2

Finalization and iteration

COMMUNICATION

**Presentation MCC team,
participatory storytelling
workshop**

ANALYSIS 1

**Finding themes, patterns and
selected quotes**

GATHERING

**Conduction of interviews,
transcripts**

PREPARATION

**Session plan, recruiting parents,
dummy interviews**

Visual 23. Research process



**Sustainability Aware
Parents**



**Sustainability Practicing
Parents**

Visual 24. Participant sample

5.3 SAMPLE

The goal of this user research is to explain, comprehend, and clarify parents' experiences, identify patterns and relations between variables, and discover insights for the solutions to the dilemma. As such, parents were recruited based on their capability to provide rich examples of the subject under investigation, because experience is the unit of analysis. These conditions limit the sample size. However, data collection processes and the range of evidence they offer are more significant than the quantity of participants. Resulting in the choices of the sample are based on feasibility and the exploratory nature of this stage of the user research.

A sample of 13 parents (3 couples and 7 individuals) were invited to participate in the user research. 10 mothers and 3 fathers were interviewed. The sample was a convenient one (Sousa et al., 2004) and snowball sampling (Johnson, 2014) was adopted to recruit the participants. Each respondent was asked to recommend another parent who might be able to articulate their views on sustainable parenthood. The parents are based in the DACH market and represent either SAP or SPP (Visual 24). SAP in this work is defined as Sustainability Aware Parents, who haven't integrated sustainability in their daily life. And SPP are defined as sustainability practising parents, who have integrated sustainability into their daily life. The groups were classified based on their own reporting on the integration of sustainability in their daily life. The age range of the participants was set between 25-35 years to gain the Gen Z/ Millennial perspective. Given the time restraint, 10 interviews (n=10) were decided to be sufficient to supply varied and detailed accounts for the

purpose of this user research. This number of participants is further validated by Zaltman's (1997) claim that ZMET interviews of 4 to 5 persons offer around 90% of the key information from all interviews. The ZMET technique was applied in this work to uncover conscious and unconscious thoughts by exploring people's non-literal or metaphoric expressions (Coulter & Zaltman, 1994). However, a higher sample number would better represent the parents in the DACH market. Regardless, the quality of the sample of sustainability aware young millennials is perceived as representative. As in the aforementioned study of Marks et. al (2021), GenZ worries about climate change (59% very or extremely worried). This correlates with the sample's worries on sustainability of 50% SPPs interviews, representing the extremely worried view of GenZ. Furthermore, over 45% said that their views about climate change had a negative impact on their everyday life and functioning, and many reported having a significant amount of negative thoughts about climate change, which again resonated with the SPP and SAP mindset on climate change. In the qualitative study of this thesis, no interviews were conducted with the parents who showed no concerns about climate change. This is to represent the growing climate concern. The high number of GenZ (84%) being at least moderately worried (Marks et al., 2021) leads to the assumption that future parents will be mainly categorised under SAP or SPP.

All participants were asked to sign a consent form to participate in the qualitative interviews and did so.

5.4 DATA COLLECTION METHOD

Approximately 60 minutes of online interviews were conducted with all 10 interviews. Four topics of interest were identified based on the system map and user research questions, including a standard set of questions in a semi structured interview guide (which can be found in appendix B). The interviews were designed to explore how parents perceive the topic of sustainability and to discuss their decision-making process for sustainable products. However, the parents were given the reins to steer the direction of the interview and follow their interests as they arose.

Two exercises were used in the setup of the user research. The first one was based on the ZMET technique (Coulter & Zaltman, 1994) with a starting question: "What does parenthood mean to you?". The parents could utilise 29 different pictures as metaphors to communicate their thoughts. This was followed by the second question: "What does sustainable parenthood mean to you?". The same 29 different pictures were at disposal to the parents for their responses. The second exercise was a product discussion, which was broken down into tasks and interview questions. The parents interviewed were asked to reiterate their last product purchase for which they had conducted research on its sustainability.

The purpose of both exercises was to identify conscious and unconscious thoughts of the parents by indirect questions and exercises. In addition to ZMET, laddering was applied during the user research to discover those insights. Laddering is a mental model which argues that mental construct systems are hierarchically ordered and interrelated through cause and effect, with constructs being fundamental to an individual's views. These fundamental individual views can be seen as the top point of a pyramid, with the system of connected constructs filling the lower levels. (Kelly, 1991; Kadir et al., 2018)

To move to the upwards levels of the system, "why-questions" (upwards probe), such as "Why is that

important to you?" were asked. Such questions allow researchers to go deeper into underlying needs, motivations, values and understand what consequences they could entail (Rugg & McGeroge, 1995). To move down the hierarchy "how-questions" (downwards probe) were asked, such as "How is this sustainable?" (Kadir et al., 2018).

5.5 DATA ANALYSIS METHOD

The initial stages of data analysis involved reviewing each interview transcript, highlighting and colour-coding relevant quotes on the emerging areas of interest, including connections, preliminary interpretations, a sense of the parents interviewed, and identifying contradictions leading to segmentation of the insights. The next stage involved copying the quotes into Miro, where they were labelled and grouped in the possible emerging topics and connected to ensure consistency of meaning and intersubjectivity of the research narrative (Sousa, 2014; Smaling, 1992). A detailed table of topics was created (Visual 25), and ordered coherently, with related themes linked together and given a suitable title, and subordinate topics listed below.

After the analysis of 6 interviews, an intermediate presentation to the MCC marketing team was held. Topics, sub-topics and initial key insights were confirmed through discussion during this presentation, resulting in the validation of the user research through triangulation using different judges such as the MCC stakeholders and other strategists, who are familiar with the methods applied and the raw data (Hill et al., 1997; Sousa, 2014). Eventually, all the insights were brought together in a consistent narrative. This final narrative (the big picture) connects and verifies that the insights are compatible with each other and not contradictory.

PRESSURE

- **Pressure Sustainability**
- **Pressure Parenthood**
- **Pressure Time**

Visual 25. Table of topics with subtopics based on the analysis

BUYING SUSTAINABLE PRODUCTS

- Platforms parents buy Second Hand
- Second hand statements
- Product Criteria

OTHERS NEEDS

- Conflict between generations
 - Presents
- Egoism
- Buying products for themselves

SUSTAINABLE LIFE

- Difficulties
- Sustainability is a privilege
- Social aspect of sustainability
- Origin sustainable mindset
- Concerns Climate crisis
- Influence of becoming parent
- Next generations
- Showing the child sustainability
- Making a sustainable lifestyle easier
- Sustainable actions
- Sustainability as a process

SHORT TIME USAGE

- Preparation
- Using products only for a short time
- Experience to prevent this
- Consume less
- Making the right decision
- Trying out

EVERY CHILD IS DIFFERENT

COMPROMISES

- Sustainable behaviour needs to be feasible/actionable
- Combining sustainable and non-sustainable behaviour
- Compromises when kids want something non sustainable

SOCIAL MEDIA

- Usage of social media
- Influence of social media
- Social Network (offline)

INFORMING ABOUT SUSTAINABILITY

- Finding information is a lot of effort
- Not knowing if it was the right product
- Identification of a sustainable product
- Accessibility of sustainable information
- Creating trust
- Research

5.6 INSIGHT OVERVIEW

Clustering the insights into topics resulted in the following overview:

PRESSURE

Within this user research three different variants of pressure for parents were identified.

Pressure sustainability: The pressure of sustainability, on the one hand, comes from the parents themselves since it is important to them. On the other hand, this pressure comes from outside influences as well, such as other parents.

From time to time I have a feeling that I could take it (sustainability) a little easier. Then I realise again how important it is to me and that I actually do it of my own accord. But I still don't want to force anything, so it's still fun. This is important.

7I_L_2402

Pressure time: Parenthood requires a new and challenging time management, which is based around the child's needs. The main challenge about this new time management is the lack of time for the individual parent, specifically the mothers. One major change when it comes to time for parents is that parents must learn to be present in the moment with the child.

Pressure parenthood: Pressure on how to practise parenthood comes not only from the society but also through the family of the parents. This pressure to live up to all the expectations also results in higher mental load, especially for women, who are challenged by all these expectations and tasks without appreciation but with constant criticism.

COMPROMISES

When it comes to the difficulty of incorporating sustainable behaviour, both parent groups try to find compromises to make it actionable and feasible in their everyday life. Two parents (4I_KM_2302, 2I_M_1602) specifically explained that they set sustainable ambitions, read into the matter and felt prepared. However, theory and reality are two different things. This is when compromises were needed to balance ambitions and daily life.

Combining sustainable and unsustainable actions was the most frequent strategy of compromise identified. One returning example was cloth diapers. Parents had aimed to use them instead of conventional diapers to reduce waste. However, once the child arrived, and their daily life got busy, cloth diapers seemed unfeasible since they require a lot of work and time. Therefore, parents tried to find a compromise. Some decided to get a Co2 neutral diaper with sustainable materials, others decided for a hybrid solution between cloth diapers at home during the day and conventional diapers when outside or during the night. These strategies still aim to be sustainable when it comes to diapers but integrate them in daily life in a feasible manner.

And yes, that's actually the biggest thing I've come to realize. Ok, that's a compromise, that's sustainability for me anyway. I would love to live plastic-free and only use homemade cleaning products. But then at some point it's simply not feasible...

2I_M_1602

Further, some parents explained that they try not to find compromises only in their own actions but also in their children's daily life. The most common example was toys. Parents listen to what their child would like to have and try to find the toy secondhand.

SOCIAL MEDIA

Social Media has become a relevant tool for parents on the journey of parenthood. Representatives from both parent groups confirmed the influence of other parents they trust and influences in their decision making and the discovery of new products. However, more than that, social media was being used by the interviewees to gather information and for inspiration on parenthood. A strong example can be found in the interview 8I_G_2802 where the interviewee explained that she created a social media account specifically for education. On the other hand, some parents have no interest or are critical towards social media. To conclude, for this set of interviewees it cannot be concluded that social media is universal to all parents and that it has influence on their parenting style and decision making.

To be honest, I did stop using my social media. I made a new account where I don't even have anything posted yet, and I just follow like these teachers, that talk about Montessori or Waldorf or positive discipline and tools that I want to learn for myself to then apply with my child. 8I_G_2802

not necessarily related to clothing, which can be reused relatively easily. But things that are really about hygiene, the things that end up in the mouth. It's actually really difficult without expert knowledge because you're a midwife or a doctor and you work in that area, to always make all these decisions. 9I_C_0503

Lastly, the relevance of an offline parent community was also highlighted by multiple interviewees. Having a community helps parents go through the journey. They learn from each other about parenting styles, products, exchange information and even share products.

INFORMING ABOUT SUSTAINABILITY

One of the major problems both parent groups seem to face when it comes to sustainability is related to information. The interviews conducted show that finding sustainable information requires a lot of effort and results in a high time investment. Some parents such as interviewee 9I_C_0503 specifically shared how difficult it is to identify if a product is sustainable, and even after its purchase they still doubt its sustainable status.

I also bought a pacifier and I think I stood in front of this shelf for 15 minutes and looked to see if you could buy plastic. To be honest, I don't know if my decision was a good one, but I took one made of rubber. I think this was the only product which I don't think was out of silicone? Well, that was a conventional drugstore that I bought this from, because I didn't go to a special store. I'm also honestly not sure if the product is better than the others. Price wise I can't remember if there was a big difference, but I thought it didn't look nicer than the others, but I hope it's a better product. It's really not easy for me to always know what's actually right, because there are just so many products on the market and not everyone has the time to deal with which product is good, which is not good. How do you ultimately dispose of the product? But it is particularly difficult with baby products, so things that are

To better understand the struggles of information gathering, the parents were asked how they approach their product research. Internet research was the most frequently mentioned answer in combination with reading reviews. Two couples (6I_DM_2402, 4I_KM_2302) explained that one partner conducts the general research and shares an already filtered product to the other to make the final decision together. Internet research was also further used to investigate testing websites (e.g. Stiftungwarentest) or to investigate mum forums. Another frequently mentioned approach was to rely on science such as reading scientific articles and speaking to experts about the articles or connecting to experts such as midwives. Lastly, some parents also mentioned certificates in their research and that they like to experience the product physically in the store.

SHORT TIME CONSUMPTION

One key insight from the interviews was the short time usage of products. SAP group respondents buy products in advance, not being certain if they will need the products. Safety and preparedness in case a certain product is needed were the reasons identified by the SAP group for the premature purchase. Such an act was most prevalent in parents who lacked experience with children. In interview 1I_I_1502, the parent gave an example where she bought a breast pump in case she would not have been able to breastfeed her child. Fortunately, there was no problem, but the product was already bought and not used. Also, some products, such as sterilisers, toys, bottle warmers, food processors, diapers and pacifiers, were bought with the idea that they would be useful but then turned out to not be used as much as expected. Another reason for unnecessary purchase is that parents are overwhelmed with the choice of products. It is very difficult to navigate through the mass of products and identify which ones are needed.

Because I'm breastfeeding, so I didn't need them. Well, at the beginning, when she was born, there was a bit of this panic, what if I can't breastfeed or something, that I always have it at home and... if you have to get something like that quickly and especially since it was lockdown, I wanted to have it at home before i would even need it. And I never needed it, so it was really unnecessary. And I didn't really need any of those baby food processors either, but that was because M. refused to eat this porridge. She is only eating what we eat. Yes, of course I didn't know that beforehand either, so it was just something I thought to myself: you try it, you offer it, but you're never sure that it will be accepted by her. It's the same with the pacifiers, so we have the whole range of pacifiers at home, so we have easily 20 different types, no kidding. Because we tried if she wanted a pacifier... just to offer it, you know, because it makes things a lot easier, but she doesn't take them, she just plays with it. She thought it was funny as a toy, but she didn't want to take the pacifier and of course it's not very sustainable either, because we now have 20 pairs of unused pacifiers lying at home.

11_I_1502

Consuming less or minimalism is one of the most common strategies of both parent groups to avoid short-time consumption. Most parents try to make this actionable by actively questioning if they really need the product they are planning to get. Consuming less has also shown an overlay with the definition of sustainability of some parents.

For me it mean that it's pointless to buy something that I don't need at first, so let's think about it, do I really need it?

10I_J_0503

One major takeaway to handle short time consumption:

The parents interviewed have also shared that every child is different, which makes the selection

of the products needed even more difficult. Such as buying a toy, a carefully selected toy might not bring joy to one's own child but maybe to another. Also, parents handle the usage of products from child to child differently. Other examples would be children not liking the food of the food processor, not wanting to use pacifiers. This all leads up to the need for a trial space for young parents with different products, helping them explore what would work well for them as parents with their parenting style and what gives the biggest joy to their children.

BUYING SUSTAINABLE PRODUCTS

All parents interviewed had experience with secondhand products for their children. However, there are limitations in products when it comes to secondhand purchases, specifically, hygiene products, including those which are in close contact with body liquids, e.g., pacifier, bottles, breast pump and mattresses.

Of course I dealt with the topic of breast pumps and of course I could have borrowed one from the pharmacy. Um, but then I heard from a friend that you get the oldest breast pumps there and who knows if they are so hygienically clean...

10I_J_0503

In addition to that, in interview 6I_DM_2402, the parents raised a concern about buying electrical products second hand, since they are not experts and worry that the electrical products will break quickly.

When questioned about product criteria, the most frequently mentioned requirements were the durability of the product, easy maintenance (cleanable, spare parts, reparability) as well as the brand quality. Parents explained that they like to use durable high-quality products for a long time to have a sustainable contribution. Another crucial criterion for parents is the topic of convenience. This includes instant accessibility of the desired product, which is not always available in secondhand purchase, since it is faster to order products online or the secondhand product needs to be picked up further away. Further, for parents the criterion of sustainability not only includes sustainable materials such as wood, reduction of plastic and toxin free materials, but also the origin and working conditions under which the product was produced. Safety was identified as the last crucial criteria for the products, but it has been

seen as one of the most important ones. Safety is above sustainability and includes ergonomic aspects.

OTHERS NEEDS

Parents look beyond the child's needs when buying products for the child. Parents like to buy products they consider interesting and nice from their perspective and not only from their child's perspective. For example, they would buy products which are considered good looking but impractical or toys which would have made the parents happy in their childhood.

However, the grandparent's perspective also plays a role in the products the children get. This has been identified as a conflict between the generations, where different parenting styles and ideologies cause friction. When it comes to sustainability, SPP have disagreements regarding the presents their children receive from their grandparents. In 5I_E_2302, the interviewee explained that the mother-in-law perceives second hand as being poor. In 4I_KM_2302, the mother-in-law saw second hand as low in quality. Presents are a difficult topic to discuss, since quite some younger parents would prefer quality time over presents, and they create a list to control the amount of presents their children get from their grandparents.

She wants to give them something new and she doesn't want to go shopping second hand somewhere because to her it's a feeling of poverty and she can't afford it. And that certainly resonates with the older generation, that they simply had a lot less and that they simply want to treat the children differently now, so to speak, that they didn't have it themselves. Again injured child and satisfying own needs.

5I_E_2302

SUSTAINABLE LIFE

Difficulties

There are several difficulties parents face when it comes to being a sustainable parent. The most frequently mentioned difficulty is the integration into daily life, which includes easier and more difficult days and a lot of preparation. Sustainability in terms of being zero waste and producing all the products on your own and using cloth diapers is too much work.

If you have a lot of time to think, then maybe it's still possible. But especially when you are stressed in everyday life, it is not always easy. Then you just go to the supermarket and buy food there, which is often plastic-packaged, instead of taking the further route which is sustainable because it is more regional.
9I_C_0503

Being sustainable is perceived as energy and time consuming and, therefore, adds to the mental load as well. Parents before had high expectations on how to tackle sustainability in daily life. However their practical attempts, such as making their own pap for the baby didn't work out since the child didn't want to eat the food, leading to disappointment. Mobility was highlighted as another area where sustainability is difficult to integrate in the daily life of the parents. Lastly, the topic of sustainability is seen as too big for parents to be an expert on thus, making it impossible to achieve a sustainable life.

Keeping the difficulties in mind, sustainability is seen as a privilege among parents. In the interviews conducted, 2 main specifications of privilege could be identified.

Money: Parents want to buy high quality sustainable products and regionally produced food from farmers markets, which requires a higher income.

This topic of sustainability I find extremely important, but I also find it really difficult at times. In terms of how we live, just how much waste we create. I don't think it's that easy, and of course it's also a financial matter. I'd love to go to the market, or to the packaging-free store and do our weekly shopping there. But I just can't afford it, it's just not possible.

6I_DM_2402

Time: Having the time to be able to do sustainable activities such as making their own baby food, but also, in terms of time investment, to conduct research on products and sustainable lifestyles. This topic shows a large overlay with "informing about sustainability" since parents have shared that they see access to the right information through having an

expert in reach and the social environment to learn about sustainability.

So it's not possible for you to inform yourself endlessly in all areas (of sustainability). Then you can give up your job and then you can simply do a "I inform myself about things" job.
5I_E_2302

Concerns about the climate crisis and their impact on parenthood

When it comes to concerns about the climate crisis, all interviewees showed concerns and concurred the need for more actions from the companies and the governments. Especially, SPP stated that the climate crisis in general is a major concern and has grown since the arrival of their first child. Impact on their children and the future generation was the most frequently raised concern among the parents regarding the climate crisis. One parent (8I_G_2802) elaborated his concerns that his child's generation marks the first generation which has worse prospects than the previous generations.

And sometimes I worry about this belief in the good in the world that things are turning for the better. This is something that was very much in our parents' generation. They were children during the huge economic growth of World War Two. So, our grandparents' generation lived through that. Also this idea that many Western countries have is declining...that the children are going to have a better life than the parents. If I look at the generation after us I think chances are getting harder and harder that our children will be having a better life than we do. And I hope that our children's generation doesn't get desperate over that. Because even if you take your garden, it isn't as green... it's still a garden it can still be nice to have. But obviously you get desperate over that and then fall into paralysis or stagnation. And then you also stop changing the world or trying to change the world for a better place or impact in general. And this is a huge risk because

there are so many tools to tranquillise yourself. 8I_G_2802

This concern results not only in parents wanting to be more sustainable but also in parents teaching their children about sustainability. Parents seek education and dialogue with their children on the topic of sustainability, meat consumption and resources. Additionally, parents are raising the awareness of their children through experiences and nature-related interactions such as growing plants together, and moments with animals. Furthermore, parents take their children for grocery shopping at the supermarkets and farmer markets, so, children understand local and seasonal food. Parents, in general, want to be role models to their children. One SPP dived deeper into the topic of education by explaining the difficulties she experienced by changing her lifestyle towards sustainability. She does not want her child to go through this process but instead have these sustainable behaviours internalised.

I also try that (educating on sustainability) when he waters with me the plants. He is loving to kiss the little leaves. We we've been trying to make him understand that even if they don't scream they're still living. And they help us with making our oxygen. This other approach that we are one with this world and we only have one planet so it's about how we want to use it.
8I_G_2802

Sustainability as a process

Sustainability is seen as a process among both the parents' groups and is described as taking mini steps in different directions built on a sustainable journey with constant discoveries of new opportunities.

I've always been a vegetarian and animal welfare and environmental protection have always been important to me. But the children made me change my mind, and since then, we have switched our diet to vegan. Except for the eggs that our hens lay. Also that the topic with the diapers...so I just looked for alternatives. From this they actually came up with more and more topics and...yes, there

are always new ones being added.
71_L_2402

SPP are critical of their journey and have points they want to improve on. They consider this development as part of their process. Interview 2I_M_1602 (SPP) gave an example of using cloth diapers, where this sustainable action has become a daily practice of the process.

Sustainable actions both parent groups have integrated show a large diversity, such as reducing plastic packaging, separating trash, picking up trash, making things last, making own clothes, swapping shops, biking, growing own food, shopping packaging free, secondhand products, vegan and vegetarian diet, buying seasonal and regional products and going to farmers markets.

Further statements from both parent groups were collected to create an overview on the ways to make a sustainable lifestyle easier, resulting in the following insights: having a new mindset, integrating fun and not creating pressure to be sustainable, consuming less and questioning what is really needed, making compromises, buying second hand, education through courses, finding ways how sustainability makes everyday life easier (e.g., less trash, fewer things to carry), finding your own personal approach and starting with the first small steps (e.g., bringing your own bag).

Social aspect of sustainability

Parents see sustainability as more than just materials. Multiple parents consider the social aspect as part of a sustainable product and investigate the country of origin, working conditions and corporate social responsibility in general.

And for me, sustainability means not only the conscious handling of nature and the products that the earth gives us, but also the treatment of people.
10I_J_0503

5.7 DISCUSSION

5.7.1 THE BIG PICTURE

In summary, the qualitative user research shows that all the interviewed parents are aware of the climate crisis. In this small sample, this awareness is the differentiating factor from the previous generations. This is evident from the

mentioned conflicts within families about parenthood and a sustainable lifestyle.

The parents experience pressure to be sustainable from within themselves. The research findings contrast the assumption that social influencers are the main incentive of the sample to adapt sustainable behaviour. This proposition is indicated by previous research (Goldsmith & Goldsmith, 2011; Cialdini, 2005; Nolan et al., 2008) and the system map. However, this study has confirmed that parents experience general pressure, such as mum shaming, due to the high expectations of the society and the family. The mothers, especially, who have multiple roles, such as mother, partner, and employee, are exposed to the pressure. Societal pressure to be a sustainable parent was less frequently mentioned. Rather, the pressure of acting sustainably comes from within the parents and results in new practices and mindsets, such as buying second hand (despite limitations due to hygiene concerns), requesting more sustainable actions and social corporate responsibility from businesses. The future of upcoming generations is the major driver among all parents to become more sustainable. They expressed that they want their children to experience nature as they did, and they worry about the upcoming conflicts and the living conditions their children will face.

These concerns result in parents educating their children about sustainability and teaching them respectful behaviour towards the planet. Furthermore, the most adopted strategies among parents for a sustainable future were making compromises and consuming less. Compromises lead to sustainability becoming part of daily life without causing more challenges in the already difficult parenthood. Consuming less questions the parents about what they really need and encourages them from buying excess products.

Without a doubt, a sustainable lifestyle is challenging. Parents reported that they are struggling to decide on the products to buy due to choice overload and limited access to proper information. Researching the sustainability of a product is overwhelming and lacks valid information. Parents have described the decision making as trusting at some point that the decision was right, but not knowing if it really is. The topic of sustainability is perceived as very complex and missing expert knowledge. This results in the need for more easily accessible expert guidance and information.

Similarly, information gathering regarding parenthood is facing difficulties as well. First time parents are new to the journey and not sure what is needed in their daily life. They are insecure

and want to be prepared. In response, they buy products in a preventive manner, such as having a breast pump in case they can't breastfeed, and end up buying a product which might never be used but feeling prepared as a parent. This also applies to other purchases, which are bought without knowing if the child will like them, e.g. homemade food from a food processor, toys, pacifiers etc.

Previous research (Moon et al., 2019; Baker & Yang, 2018; Duggan et al., 2015) and the system map indicated that social media and influencers play a major role in the daily life of parents. This study shows that social media is indeed an important tool for the parents interviewed. It is used to gather information and inspiration on upbringing and parenthood. Parents also follow other parents to learn from each other and create a community, which influences the product choices later on, helping identify sustainable products, since parents trust sustainable influencer parents on their choice and reduce their own time for research. However, the influence on parents' decision making was in this sample more influenced by the real-life community and friends. Yet, the sample of this study might not be the most representative since the parents aren't Gen Z. Therefore, there might be a different use of

social media and parenthood in the coming years. This user research, nonetheless, could identify an increasing role of social media in parenthood.

Sustainability is perceived as a privilege by the parents. Not only in terms of being able to afford sustainable products but also in terms of time. Parents have very limited time yet learning about sustainability and researching sustainable products is highly time consuming. This concern of time and impracticality of sustainability in daily life is a big obstacle to parents. Many sustainable practices such as cloth diapers, making your own baby food etc. are seen as implausible and impractical to be integrated in daily life.

It was assumed that the sustainable problems between the two parent groups (SAP and SPP) would be distinctly disparate. However, the daily struggle of integrating sustainability into daily life was very similar. The sustainable strategies also showed overlaps (consuming less and compromises). Major differences were the mindset. SPP have internalised sustainability in their daily actions and are further in the process of sustainability, leading to different daily sustainable actions e.g. vegan diet, repairing products, making their own clothes, not owning a car.

1. *Sustainability is perceived as a privilege for families who have time and money for a sustainable lifestyle.*
2. *Parents are facing a huge choice and information overload.*
3. *Everyday life for a first time parent is overwhelming and stressful. Sustainability is seen as an addition to the workload.*
4. *Sustainability is described as a process. It takes time and exploration on what work best for different families and requests space for trial and error.*
5. *To parents sustainability means more than materials, they also consider the social aspects*
6. *Parents want to teach their children a sustainable mindset and be a role model.*
7. *Parents are open to the concept of second hand products for their child and like to also give their used products to other parents.*
8. *Parents buy often products without knowing if the products match their and their children's needs.*



Parents buy products in a preventive manner - to be well prepared for any situation.



One of the most common strategies of parents to be more sustainable is to consume less and ask themselves: What do I really need?

Visual 26. Top 10 insights

Eventually, sustainability has been described by both parent groups as a process. It takes time to educate oneself on the topic, to find solutions which work in the individual's life, and there are always new aspects and practices to learn about the broad topic of sustainability.

The big picture can be summarised in the 10 key insights (Visual 26).

5.7.2 RESEARCH LIMITATIONS

The findings of this study should be viewed with some caution due to its limitations.

The first limitation is the low generalisability of the user research results due to the limited context and research participants. The current sample is not representative of the wider population of the DACH market i.e all parents were all higher educated. Therefore, it needs to be stated that the views expressed are not necessarily generalisable or representative of the experiences of parents from diverse social and cultural backgrounds. As such, the findings are likely to be somewhat biased. However, exploration by the ZMET method does involve a limited context but with deep exploration (Zaltman, 1997). Therefore, further research could explore different social background's perception of the topic, as well as other markets i.e North America.

The second limitation is that the focus group are GenZ parents. However GenZ representatives are currently at the beginning of adulthood and mainly teenagers. Therefore, the sample consists of young Millennials, who share traits with GenZ but do not fully represent them.

The third limitation is the sample profile. Due to the snowball sampling (Johnson, 2014), parents invited befriended parents who share similar values and making the sample homogeneous. In addition, the self-reported data of this user research shows a high participant bias, including the friendliness bias, social desirability bias and habituation bias. Lastly, this user research faces the researcher bias as well, including confirmation bias, question-order bias and wording bias. Despite the research comprising questions designed to reduce the probability of the named

biases, exclusion is not possible.

While a larger sample size was beyond the scope of the study, it would be recommended in the future studies in this area to include a larger and more diverse number of participants to create a more comprehensive understanding of emotions, cognitions and behaviours of parents towards sustainability.

5.7.3 VALIDATION AND VALUE OF QUALITATIVE RESEARCH

Validation

The MCC stakeholders have shown high interest and positive response to the insights, which validates the value to the business, resulting in the opportunities for the company's internal sharing session and interest in working with the insights. Furthermore, the stakeholders from the research department saw the potential of the user research to be translated into insight cards and be made accessible within the internal data-sharing platform of Philips.

Since the user research is in alignment with the findings of the systemic analysis, it is not only validated but also provides respondent validation (Bloor, 1978) of the identified dilemma.

Finally, due to the valuable learnings of the quotes from the qualitative study, it has been decided that they would be used as a base for personal creation in the participatory storytelling workshop. .

Scientific and business value

The scientific value of this study is the identified knowledge gap on the dealing of parents from the DACH market with the identified dilemma by using the described theoretical approach to investigate patterns, relations between variables and insights for solution development. Furthermore, the business value from a Philips perspective is to use the user research foundation and setting a base for sustainable innovation within MCC by understanding parent's sustainable needs.

NR. 1

While Philips has conducted considerable research on parenthood and consistent and accurate sustainability storytelling of the company, less attention was given to address the system map's dilemma of parents wanting to become eco-responsible but restricted by the overconsumption triggers.

THE KEY

NR. 3

The user research results in an overview of the 10 main insights, which can be found in visual 25 on page 54.

NR. 2

The user research validates the identified dilemma of the system map and provides additional insights on it.

POINTS

6.

THE

DELIVERABLE

CHAPTER OVERVIEW:

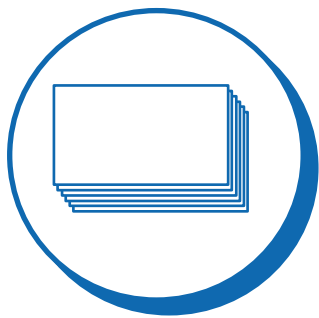
6.1 The three deliverables

6.2 Insight booklet

In the first part of this chapter an overview of all the three deliverables (Insight cards, Dilemma model and Vision) of this thesis are given. These deliverables are made tangible for MCC through an insight booklet, which has been elaborated in the second part of this chapter.

S

6.1 THE THREE DELIVERABLES



DELIVERABLE 1: INSIGHT CARDS

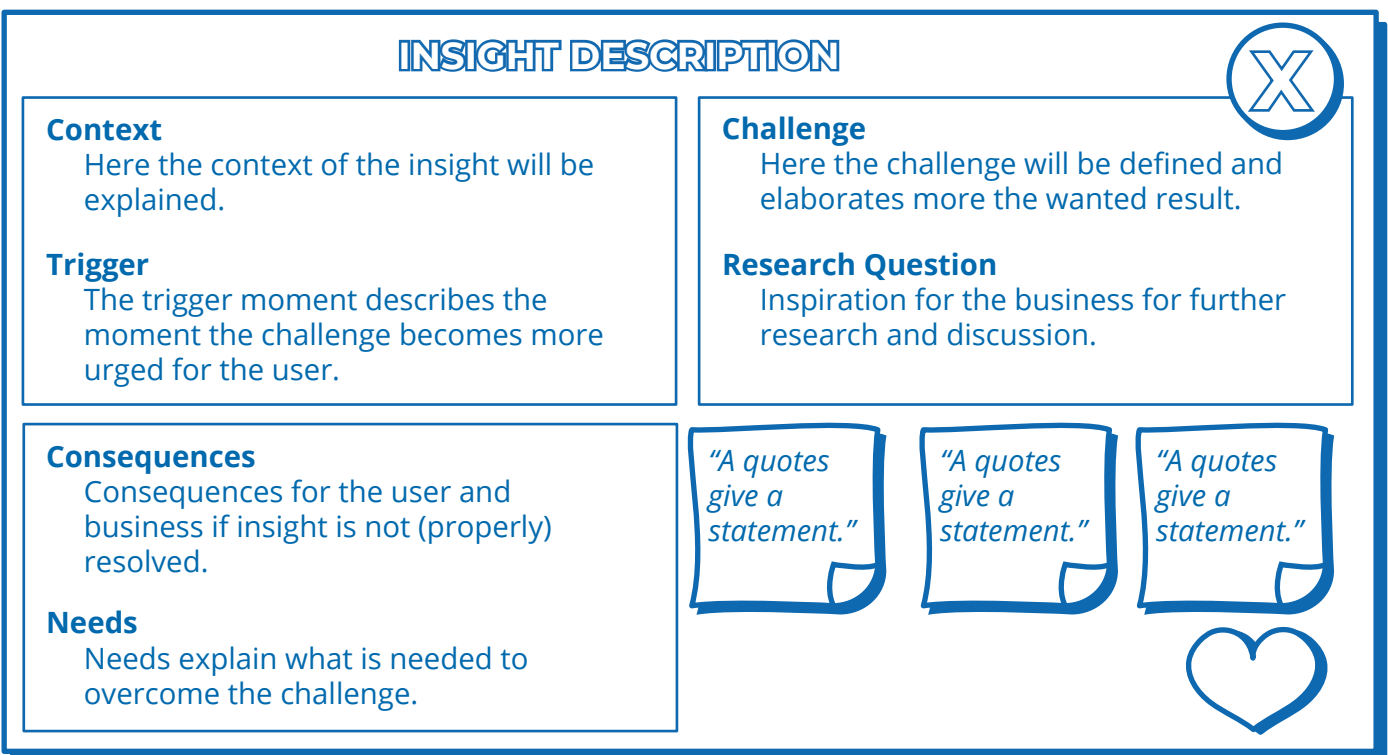
Translating research into practice can be a difficult step (Green & Seifert, 2005). Therefore, to make the insights of this thesis tangible and actionable for the business, insight cards have been created.

Insight cards within Philips

Insight cards are a growing practice within Philips, with the goal of making research easily accessible for new innovations. The insight cards, or experience insights, are used in concept ideation and strategic discussions at Philips to anchor innovation in user-centred needs. They are uploaded in the internal data-sharing platform of Philips. They articulate the experiential challenges of people across the care continuum. The aim is to identify the emotional, physical and behavioural needs in order to address the challenges people face.

Insight cards of this thesis

The user research resulted in the 10 main insights of page 54. To make the insights tangible for the business they have been translated into insight cards. The base is the Philips insights card structure with additional quotes and illustrations. The final structure overview of the thesis insight cards can be found in visual 27 and the insight cards can be found in the insight booklet in appendix C.



Visual 27: Structure overview of insight cards



3 **DAILY LIFE FOR A FIRST TIME PARENT IS OVERWHELMING AND SUSTAINABILITY IS SEEN AS ADDITION TO THE WORKLOAD.**

Parents are facing difficulties when it comes to being a sustainable parent. The most frequently mentioned difficulty is the perception of sustainability in daily life even though there are easier ways to be sustainable.

Challenge
Integrating sustainability in the daily life of parents needs to be feasible and actionable. More than that, sustainable practices instead of being forceful squeezed in the daily life, need to support parents and reduce sustainable behaviors takes up time and space for overworked parents; actively support the need to comply with overworked parents and serve the unpredictable needs of parents.

Research Question
How can sustainability not add but actually release stress and workload?

3



4 **SUSTAINABILITY IS DESCRIBED AS A PROCESS. AN EXPLORATION ON WHAT WORKS BEST FOR DIFFERENT FAMILIES REQUESTS SPACE FOR TRIAL AND ERROR.**

Context
Sustainability is seen as a process among parents and is described as taking mini steps and trying in different directions. Resulting in the creation of a sustainable journey with constant discoveries of new opportunities.

Trigger
Successful integration of one sustainable task in the daily life can become a starting point and motivation for the process of becoming a sustainable parent.

Challenge
Sustainability as a process is best for the individual needs. Solutions which easily integrate also need to be affordable and... What works for one family, child or another. However, understanding what the best solution is can be difficult and not all parents are able to explore the process of sustainability on their own. Support by professionals can ease the process.

Research Question
How can active support in this process look like?

4

5 **IT TAKES TIME AND TRIAL AND ERROR TO INTEGRATE SUSTAINABILITY INTO DAILY LIFE FOR DIFFERENT FAMILIES AND CHILDREN.**

As a process takes time and exploration on what works best for the individual needs, this requires space for trial and error. Sustainable solutions are not always affordable and without commitment of ownership. Understanding what the best solution for the individual needs is difficult and not all parents have the motivation to explore the process of sustainability on their own. Guidance and support by professionals can ease the process.

"Not everything can go in the direction of sustainability... everyday life demands much. Such as cloth diapers, if you think about it. Especially in the beginning like 10 times a day... changed like 10 times a day... you don't actually do anything... else but washing diapers then."

"I'm in for any change, it just has to be feasible and needs to make sense."

"Yes, we make excuses out of the fact that we just have very little capacity, even for thinking and for existing, because it's hardy lets us sleep..."

Consequences if insight not (properly) resolved

- To much space for exploration increased probability of having negative experience and discouragement could rise
- Beginning the process of sustainability without guidance might result in parents feeling lost and overwhelmed

Needs

- Creating a positive and new experience of exploring the process of sustainable parenthood
- Solutions, which allow moving away from ownership and giving space for trial and error to understand what products or solutions work best
- Inspiration and guidance on which daily practices and products would be good to explore
- Making the impact of all the small steps in the process visible to parents

"I've always been a vegetarian and animal welfare and environmental protection have always been important to me. But the children made me change my mind and since then we have switched our diet to vegan. Except for the eggs that our hens lay. Also that the topic with the diapers... so I just looked for alternatives. From this they actually came up with more and more topics and... yes, there are always new ones being added."

"That's why I would take the picture on the right with the blue background, where he climbs these stairs. Yes, because I can learn more, that's the way for me. Step by step learning. I would say that is what he is doing. How can I then reach my goal that I can really live completely sustainably or let's say within a framework that is okay?"

"In the last 10 years we got more into the topic and that we made our lives as sustainable as possible. Of course we know that there is a room for improvement. But and that why it was also clear to us beforehand that living sustainably with a child is not necessarily easier than without a child."



7 **PARENTS ARE OPEN TO THE CONCEPT OF SECOND HAND PRODUCTS FOR THEIR CHILD AND LIKE TO GIVE THEIR USED PRODUCTS TO OTHER PARENTS.**

Context
Secondhand products for their children are a common practice of parents, as well as giving products to other parents. However, there are limitations when it comes to secondhand. Specifically, when it comes to hygiene such as products which are close in contact with body liquids e.g pacifier, breast pump etc.

Trigger
With the rise of sharing economies, new business models and awareness of over-consumption; reusing and secondhand products are becoming more common. Further, the financial aspect makes secondhand products more attractive. Renting opportunities for breast pumps are entering the market and raising the question of how far reusing products can go among parents.

Consequences if insight not (properly) resolved

- Parents increased frustration of owning products they don't need anymore but they can't give to other parents
- Parent's wanting to save money on circulating products second hand but not doing so

Needs

- Changing the perception of hygiene hazard of circulating products, resulting in making parent feel safe about the product
- Making circulation products more attractive and accessible, resulting in easing up the everyday life of parents
- Increased communication on safety and transparency of renting hygiene products
- Provide expert insights and parents feedback on confidence and safety

Challenge
Parents seem open towards circulation of used products, which can make sustainability easy accessible, safe money and depending on the business model make life easier for parents. However, safety has been identified as a crucial criteria and is seen as more relevant than sustainability for parents. Hygiene products such as pacifiers, breast pumps, baby bottles etc. are not seen as safe enough to circulate between strangers.

Research Question
What could be an approach to enable the circulation of products among parents in consideration of the safety (hygiene) concern?

"Yes, all hygiene product, actually... breast pumps, for buy everything used, or baby bottles, pacifiers... all things that should be hygienically clean."

"Of course I deal with the topic of breast pumps and of course I heard from a friend that there is the oldest breast pumps that are and who knows if they are so hygienically clean..."

"And that's something that we usually try to do. And I also give some clothes for free on ebay in Australia."

9 **PARENTS ARE NOT ALWAYS READY TO BE EDUCATED IN A PREVENTIVE MANNER - TO BE WELL PREPARED FOR ANY SITUATION.**

Challenge
Wanting to be prepared and having everything ready for the baby can make first time-parents very insecure; to prevent parents from buying products they need to be educated on what is needed and when, gain confidence in their parenting style and have easy and fast access to products in case of need. However, establishing confidence and understanding is time-consuming and takes time and reassurance by experts and other parents.

Research Question
How can parent be feel safe and prepared without over-consumption?

Consequences if insight not (properly) resolved

- Parents not feeling safe and prepared for any situation
- Over-consumption of products

Needs

- Providing parents with strategies that apply what the right solution and their abilities as parents
- Provide parents with strategies that apply what the right solution and their abilities as parents
- Realized expert guidance on the individuals in a situation is needed
- Something is needed there will be the right product matching the individual

"The Amnet sterilizer from Philips, I haven't used it for a long time because she doesn't drink from the bottle. And I don't need the pump now either."



8 **PARENTS BUY OFTEN PRODUCTS WITHOUT KNOWING IF THEY MATCH THEIR AND THEIR CHILDREN'S NEEDS.**

Context
Parents end up not using products they buy. It is hard to know beforehand what is needed, some products were perceived as being useful but then turned out to not be. Also it is overwhelming to know what is actually needed with the huge choice of products on the market.

Trigger
The moment parents are surrounded by products which they thought it would be a great solution, is a frustrating moment. Such as a food processor of which the baby doesn't like the pap, or a toy which the child does not want to use.

Challenge
Parents are surrounded by a narrative which makes them buy a lot of products, with the goal to make their life easier. To help parents explore which products match their needs, space for trial and error without ownership and easy accessible solutions supporting urgent needs are required. However, letting go of owning convenience and benefits need to change in behavior, therefore convenience and benefits need to be made visible.

Research Question
How can parents be enabled and given space to explore products?

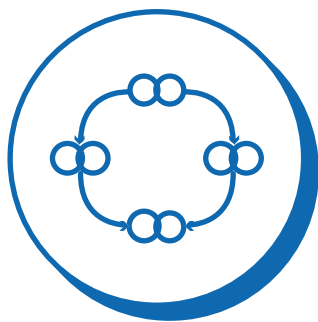
"With the first child you think you have the best concept and then you second child comes. And then you realize that all the concepts which you had for the first, for the second it's not working because..."

Consequences if insight not (properly) resolved

- Making non consumption the only option as a sustainable parent
- Non-consumption might be a too drastic fear of parents who are new to sustain
- Parents mind might stay limited towards introduced to other possibilities

Needs

- Showing parents alternatives ways of being non consumption
- Provide parents with different approaches of non consumption



DELIVERABLE 2: DILEMMA MODEL

As elaborated in the system mapping chapter, the system map resulted in a storytelling map of the parents' dilemma of wanting to become eco-responsible but being immersed in triggers overconsumption. To develop approaches which support the solution development of resolving the dilemma, the insights cards can be mapped down within the storytelling map, resulting in a model, which explains the dilemma of the young parents and maps down the needed insights to develop approaches to resolving this. The dilemma model can be seen as a systemic user journey and be used in workshops, just as typical journey maps or experience flows are used. Visual 28 shows the whole dilemma model.

- ① **Insight Card:** Sustainability is perceived as a privilege for families who have time and money for a sustainable lifestyle.
- ② **Insight Card:** Parents are facing a huge choice and information overload.
- ③ **Insight Card:** Everyday life for a first time parent is overwhelming and stressful. Sustainability is seen as an addition to the workload.
- ④ **Insight Card:** Sustainability is described as a process. It takes time and exploration on what work best for different families and requests space for trial and error.
- ⑤ **Insight Card:** To parents sustainability means more than materials, they also consider the social aspects
- ⑥ **Insight Card:** Parents want to teach their children a sustainable mindset and be a role model.
- ⑦ **Insight Card:** Parents are open to the concept of second hand products for their child and like to also give their used products to other parents.
- ⑧ **Insight Card:** Parents buy often products without knowing if the products match their and their children's needs.
- ⑨ **Insight Card:** Parents buy products in a preventive manner - to be well prepared for any situation.
- ⑩ **Insight Card:** One of the most common strategies of parents to be more sustainable is to consume less and ask themselves: What do I really need?

The digital story World

Gen Z are digital natives. For this generation, online platforms and social media are a primary source of connection and information on the topics of health care, mental health, lifestyle, sustainability, and parenthood. (1)

Technology and the digital world is central to Gen Z's health and wellness practices: apps and wearables seamlessly become part of their daily rituals. Gen Z is the generation most interested in health monitoring and self-tracking - for fitness, food and water intake, sleep, social media use, but also for their mental and emotional state. (2)

Advances in connected sensing and data sharing enable health care providers to have an holistic view of people's lifestyle and health to provide better care. (3)

Overall GenZ look for effectiveness, convenience, efficiency, and transparency in health services. Half prefer telemedicine to traditional in-person visits. (4)

Overall, traditional health care doesn't resonate with their holistic approach to health. Instead of traditional sources for health information (health websites, doctors and pharmacists), GenZ rather rely on social media (e.g. TikTok, social media discussions) and social networks for answers to health and wellness questions (including drug prescriptions). The pandemic has accelerated this trend. (5)

The pandemic has led people to spend more time on social media, video calling, more e-commerce, but also resulted in more digital detoxes. New technologies (haptics, voice control, virtual and augmented reality) enable natural interactions away from the classical screen. (6)

Gen Z holistic approach to health and life

Gen Z have a holistic view on health and wellness: reaching a **balance** between **physical, mental, emotional and social** wellness is an identity. Personal behaviors like healthy eating, working out, managing, meditating, sleeping, building self-esteem, and having time to socialize and friends are seen as key to being healthy and happy.

Contrary to millennials who seek fulfillment and identity through life, more and more GenZ consider work as a means to **fulfill** those aspects to reach a balance. For example, a majority of Gen Z show **significantly** more interest in health-related topics, such as mental health, biology apps that fall under the category of wellness or evidence of their effectiveness.

GenZ feel **self-empowered** to control their own productivity that they have **high standards and expectations in health management**, often due to being aligned with day-to-day behavior.

The holistic approach to life reflects in the parenting style of Gen Z: explore and express their needs, an approach called **baby-led parenting** leads to high attention for the child's mental health and topics such as stress coping, emotional resilience and empathy.



The battle - anxiety, stress and social pressure

72% of GenZ say managing stress and mental health is their most and wellness concern. They are **constantly confronted with a constructed image of "has it all and do it all"** (social perfection, identity, looks...) and pressure to **be perfect** (not just by social, but by themselves) to others. **Constantly** they feel a constant feeling of not doing enough. Furthermore, over-education - parents have also a negative impact on individual stress, leading to constantly **underachievement** of goals. Finally, GenZ grew in a world of anxiety (i.e. changing climates, economic, capital challenges and (fluctuating) economy) over which they feel they have little control.

Parents have only a limited awareness of their own mental health. **Children** have to cope with their own stress, but their parents, even to the extent that they **control** their children's lives.

If we focus on young parents, the **arrival of a child** adds a **triple** relationship with the partner, **uncertainty** and **difficulties** linked to particular, mothers who carry the **major** load and feel the pressure to successfully combine professional and family lives are subject to stress and failure.

On the positive side, GenZ is a generation that embodies resilience in managing their mental health, and open to talk about it.

create and deliver solutions where needs and planet needs are both satisfied?

- (Gen Z) trend**: A factual variable
- A treasure**: a goal
- A dragon**: a pain
- A joker**: a pain/a strength
- Armor**: a Gen Z value/belief
- A wand/Fairy**: an opportunity to act

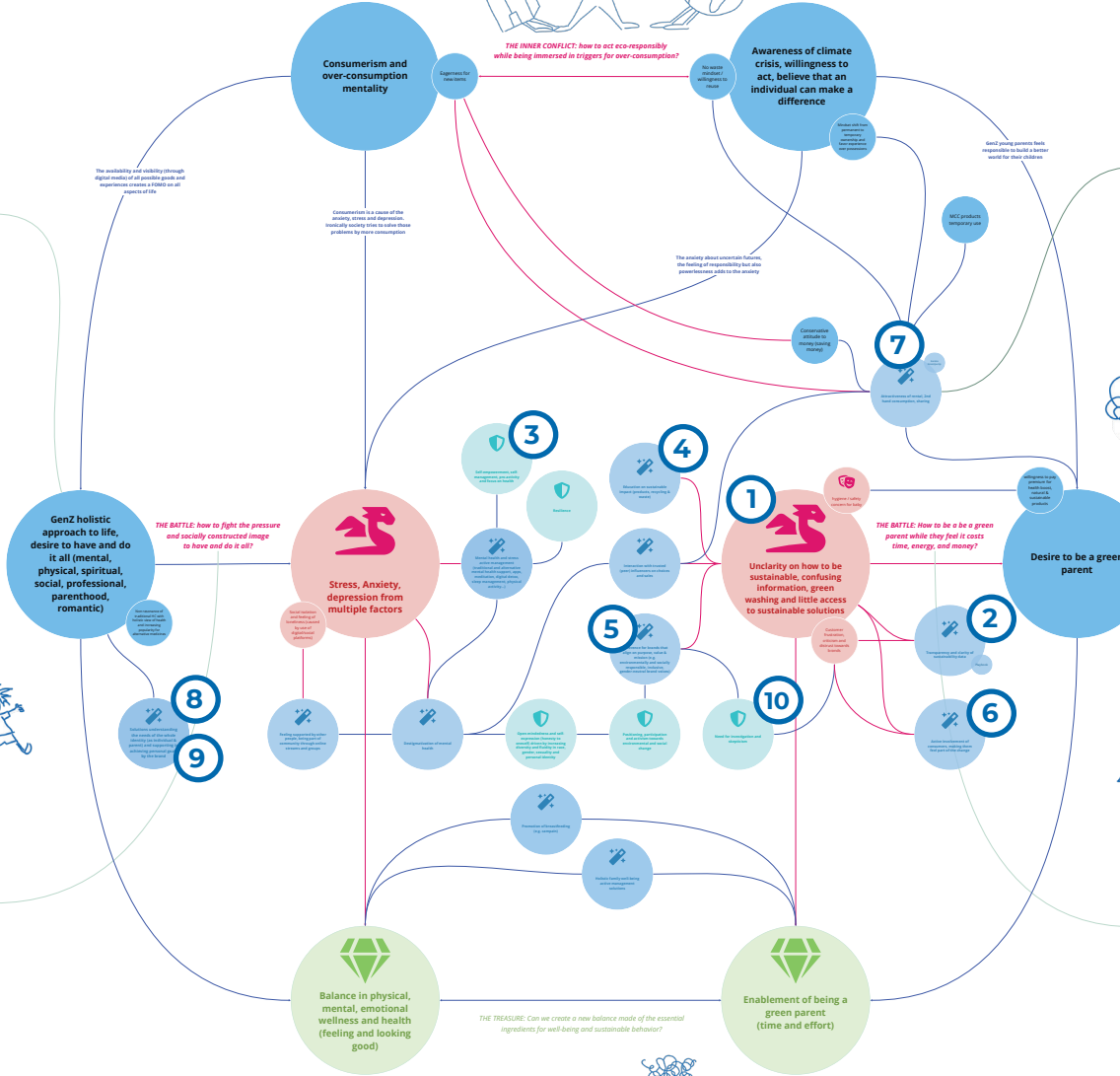
The inner conflict
Climate change and protecting the environment is No. 1 concern for Gen Z. They know the world is on fire, and that humans are responsible for it. They believe in the possibilities for an individual to make a difference, and take action for example by buying green cosmetics, purchasing from ethical brands, limiting plastic, and eating vegetarian or vegan.
At the same time, they live in a **consumeristic society** shaped around the belief that happiness and well-being depend fundamentally on material possessions, which is the main cause for Earth resources depletion and negative environmental impact.
For GenZ, this is a fundamental dilemma: how to act responsibly while being immersed in triggers for over-consumption?
The paradox is that both awareness about climate issues and over-consumption go hand in hand with **wealth level**. The globally growing middle class increases this trend.

Lead state of mind to their...
...with family...
...their professional...
...interest in...
...and despite...
...conclude...
...own health. They...
...which often fall...
...They let the child...
...ending. This...
...as confidence.

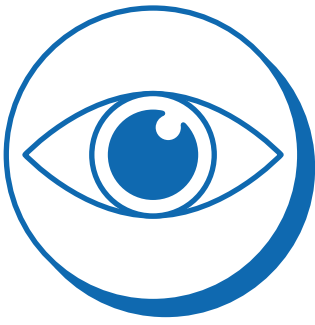
New business models drivers
The main motivation for second-hand consumption is **fair pricing**. Also, people see the **ethical and environmental benefits** of buying items even if they don't always explicitly stated it.
For parents it makes sense to reuse, since kids rarely grow out of clothes before they have reached their **potential**. There is a **belief** that another child should have the chance to use an item, because it is **beneficial** to their own child and gives them practice. **Parents** might bring awareness to **ethical** brand opportunities. A barrier for buying second-hand is **hygiene and safety** as a concern.
Gen Z in particular are **challenged** in **appreciating** gift shopping, driven by a **desire for uniqueness and style**, or **anxiety** in **reaction** against **consumerism and the environmental impact of fast fashion**. As creators become **sustainable**, Gen Z consumers seek to buy directly from them, cutting out the retailer as middleman. This opens new roads for business models and partnerships for Philips.



The battle: the difficulty to be a green parent
Gen Z are willing to protect the environment and combat climate change. At the same time, there is a **preconception** that green parenting costs money, time and energy. As young parents, they need **convenient, safe and affordable** products and services.
GenZ are **impatient and impatient**, looking for **immediate** such solutions. However, the topic is **complexity**. It covers everything from using **sustainability** targeted marketing versus **ethical** green sources of sustainability. Gen Z is very **critical** towards **branding** and **greenwashing** or **greenwashing** to cover up past harmful actions and a **reason to charge** more for products.
Consumers want to see **measurable** and **transparent** commitment actions backing up brands' **ethical** commitments (beyond **source**, **manufacturing**, **durability**, **safety**, and **direct** environmental impact). **Manufacturers** need to be **transparent** and want to see **behind the curtain**, to be able to know the **production** process behind products and services. To build **trust** and **loyalty** with the **conscious** consumer, brands also need to show **transparency** in the **supply**, the **supply**, the **supply** and the **supply**. Additionally, an **empowered** creator and **entrepreneur**, Gen Z don't simply want to be **traded** as **passive** consumers and consumers; they have **ideas**, **brand**, and **action** to improve their products, services, content and brands they love and they expect their voices to be heard.



Visual 28: Dilemma model



DELIVERABLE 3: VISION

The vision is based on the three personas resulting from the participatory storytelling workshop.

WORKSHOP: PARTICIPATORY STORYTELLING

04 May 2022 - 12 participants

GOAL OF THE WORKSHOP:

To create personas and stories that focus on user needs and problems based on real user insights. These narratives establish the base for future vision creation and inspiration for sustainable innovations. The vision is used as inspiration by the innovation and business teams to shape future concepts and strategies.

PARTICIPANTS:

A total of 12 participants joined the participatory storytelling workshop, who represented a mix of MCC stakeholders, young millennial parents and GenZ.

APPROACH:

Participatory story building is a method for co-creating future user experiences (Talgorn et al., 2022). The workshop used the quotes and pictures from the user research (Chapter 5) in combination with additional pictures representing parenthood in the future as a sensitising exercise (Sanders & Stappers, 2012). Through that the participants gained a basic understanding of the parent's life and their daily and sustainable challenges, followed by creating a persona (Miaskiewicz & Kozar, 2011), which represented either a SPP, SAP or a non-sustainable parent (Persona template can be found in appendix B). Finally, the groups were asked to map down a two-day scenarios in the life of their persona, which would be used later for design idea and vision creation (Madsen & Nilsen, 2010).

OUTCOME:

Three personas, Alex, Myrthe and Kim, were delivered including stories about the two days in their lives.

Impressions of the workshop can be found in appendix A "Impressions

Practicing Sustainability

SINGLE PARENT

(pressure family?)

Who is

living in 2030?

(Alex) 32

strong
organized, perfectionist, busy
single parent
sustainable community

exhaust

former
activist
(Fridays for
Future)

* over ambitions

* low resources

x money
x time
x energy

x Super sustainable

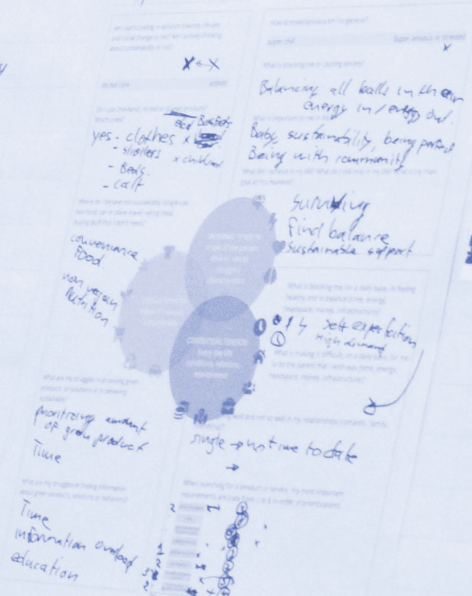
x both dispos

x (own gardening)

x cooking

x Vegan

x 24-30 week work



headlines for slide
impact on the planet
size of gathering
price
how will it be perceived by the parent
value & quality
durability
looks



Workshop planning and Conduction: Elise Talgorn, Elisabeth Tschavgora, Eefje van der Kaaden

Materials creation: Elise Talgorn, Elisabeth Tschavgora, Eefje van der Kaaden

Vision creation: Elise talgorn, Elisabeth Tschavgora, Eefje van der Kaaden

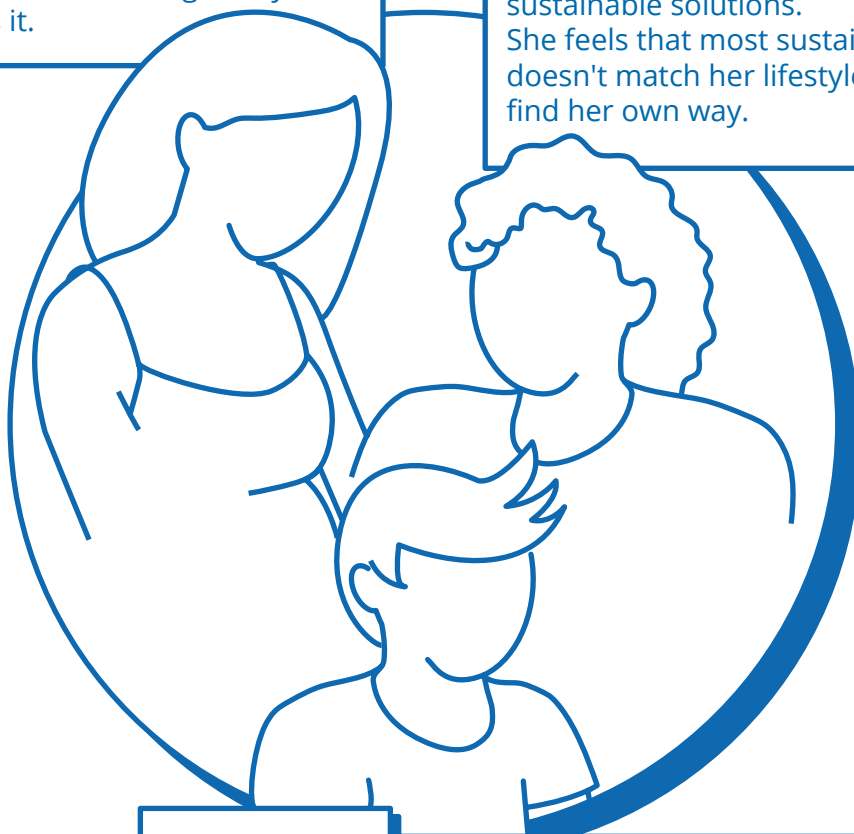
As mentioned, Alex, Myrthe and Kim (Visual 29) were the three personas created. Each of them has a contrasting lifestyle and prioritises sustainability in different ways. After creating not only the personas but also mapping down the two days in their life, a better understanding of their sustainability needs was gained. Here is a brief overview:

KIM

Kim, a social media influencer who does not care about sustainability. Online identity is as important as real life identity. She is materialistic and like to over-consume. Social status and how she is perceived is her main driver. Therefore she is becoming more sustainable. Kim never showed much interest in sustainability but seeing so many other mums doing so and wanting to match the mood of the time she had to become part of this rising lifestyle. And she loves it.

MYRTHE

Myrthe is a single mum and has little time for sustainability in her daily life (SAP), but she works in the field of sustainability. Baby's health is priority and this overshadows sustainable behaviour. She has money to spend but no time to investigate on sustainable solutions. She feels that most sustainable approaches doesn't match her lifestyle and is struggling to find her own way.



ALEX

Alex is a gender-fluid single parent, who is a SPP and lives in a community with many other like-minded people. Alex is a performer and struggling with juggling all the roles of them and the perfectionism in the daily life. Sustainability sometimes feels like an additional factor of stress.

All three personas have been used to develop a fundamental principle that matches their needs and enables them to become a green parent. Visual 30 gives an overview of these principles.



KIM

"Sustainability is a group effort and I feel empowered, when I see all the parents on social media contributing together towards a better planet for our children. Despite that these relationships are online, they are still very meaningful for me."

MYRTHE

"There is no one right sustainability. I see now that there are different ways of being a sustainable parent and I found my tailored approach, matching my personal and child's needs."



ALEX

"Sustainability does not have to be time consuming and difficult. It makes my life better and gives me peace of mind."

Visual 30: The personas with their principles

Those three principles set the base for the sustainable future vision of MCC and is defined as follows:

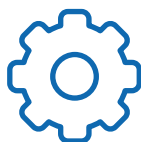
IN 2030 GREEN PARENTING IS ACCESSIBLE AND EASY FOR ALL FAMILIES.

By integrating education, inspiration and solutions promoting sustainability in the analogue and online world of digital natives, Philips empowers young parents to take care of their baby's health, their own (mental) well-being, and the planet.



INVOLVE

Green parenting is easy: it goes hand in hand with the health of parents and children.



CUSTOMIZE

Green parenting is for all: it comes in many forms through a personalized approach



SIMPLIFY

Green parenting is for digital natives: it spreads through online engagement and relationships for impact in the real world

Creating a full vision is out of the time scope of this thesis, since it is still in development by the design team at the end of this thesis and will require further iterations with the MCC stakeholders.

Therefore, this initial definition sets a first step and sets a spark for inspiration on how a vision resolving the dilemma and enabling planet-centred design could look like.

6.2 INSIGHT BOOKLET

To have a strong narrative and deliver the outputs to the business in an applicable way, a compact overview of all deliverables in alignment with all the stakeholders was created, resulting in the insights booklet of this thesis work. This is as follows:

USER

MCC team and MCC Greensquad

RECOMMENDED FOR

All strategic, emerging, adjacent and new areas in MCC where sustainability is a crucial element.

AIM

The insight booklet gives access in a compact format to the complexity of the system map and user research in an actionable and standardised format

CONTENT OVERVIEW

The insight booklet introduces a storytelling map and the dilemma, then gives a brief overview on the conducted user research and the 10 insight cards. Followed by the dilemma model. Eventually the vision based on the participatory telling workshop is elaborated.



The whole booklet can be found in appendix C.

INSIGHTS BOOKLET





Philips believes in creating products and services that go beyond user expectations to enrich the quality of their lives. Therefore, it is needed to put ourselves in our users' shoes to truly understand their needs.

To make meaningful innovation happen it takes a collaborative, human-centered approach from the start. Experience insights capture and articulate this human centered approach. The XD team has created a tool for effectively capturing these insights in order to successfully activate and utilize. The cards will give enough information to understand at a glance, and can be used as a standalone in future design research projects.


A user research has been conducted on the DACH market and resulted in 10 main insights. To make the insights tangible for the business they have been translated into insights cards, following the experience design capture elaborated before. The aim is to identify the emotional, physical and behavioural needs in order to address the challenges parents face.

The insight cards can be used on their own or in the context of the dilemma.

OVERVIEW USER RESEARCH

QUALITATIVE INTERVIEWS


The qualitative interviews were designed to explore the dilemma young parents are facing. The parents were strongly guiding the direction of the interview and following their interests as they arose.




SAMPLE BACKGROUND

The parents are based represent:

Sustainability Aware Parents (SAP), who haven't integrated sustainability in their daily life



Sustainability practicing Parents (SPP), who integrated sustainability in their daily life.



A sample of 13 parents (3 couple interviews, 7 individual interviews) were invited to take part in the research. 10 mothers and 3 fathers were interviewed. 5 interviews with SPP and 5 interviews with SAP have been conducted.

INTERVIEW TOPICS





Gathering information and social media	Concern about climate crisis
Role of sustainability	Pressure to be a holistic parents

Four topics of interest have been identified based on the system map and research question, which needed further exploration.

SAMPLE SIZE

The age range of the participants was set between 25-35 years to gain Gen Z / Millennial perspective insights from the DACH market.

Marks et. Al (2021) discusses that GenZ worries about climate change. Over 45 percent said that their views about climate change had a negative impact on their everyday life and functioning, and many reported having a significant quantity of negative thoughts about climate change. This correlates with the sample's perception of sustainability and makes the sample representative for GenZ insights.

NR. 1

The insight booklet shows the final outcome of this thesis, making the dilemma of the system map and user insights from the qualitative study tangible for the business.



THE KEY

NR. 2

The insights booklet contains all three deliverables, insight cards, dilemma model and vision, in a handy format.

POINTS



NR. 3

The insights booklet creates a tool for future BVPs for MCC, all aligned by a sustainable vision.

7.

THE

CONCLUSION

CHAPTER OVERVIEW:

7.1 Contributions

7.2 Limitations

7.3 Recommendation

7.4 Personal Reflection

The chapter begins with the discussion on the contributions of this thesis, including contributions to academia, business and fellow designers. It will then be followed by the exploration of the limitations and recommendations of this thesis, again including academia and business. Eventually, a personal reflection looks back on the key learning from this thesis.



7.1 CONTRIBUTIONS

The project track of which this thesis is part of, was aiming to develop a roadmap of tangible and practical sustainable solutions integrated in the MCC portfolio and inspired by a long-term vision.

To contribute to this aspiration within the thesis, the complex topic of sustainable parenthood was analysed through system mapping in the context of Gaia (Lovelock, 1979), which resulted in the identification of the parent's dilemma of wanting to act eco-responsible but being immersed in overconsumption triggers. To make the complexity of the dilemma comprehensible for the stakeholders it got translated into a storytelling map (Talgorn & Hendriks, 2021). User research was conducted to validate and analyse the identified dilemma in depth. This resulted in the **first crucial contribution of this thesis: insight cards**, which can be used by the MCC stakeholders to develop future BVPs. Further, the quotes of the qualitative study have been applied in the context of a participatory story building workshop to create personas and develop the **second crucial contribution of this thesis: a sustainable future vision for MCC**. Eventually the insight cards can be mapped down within the storytelling map, resulting in the **third contribution outcome of this thesis: a model explaining the dilemma parents face when it comes to becoming sustainable and mapping the needed insights on resolving this**. Visual 31 gives an overview of the contributions which can all be found in the Insight booklet.

Further contributions of the thesis include co-creation of the explorative approach of the academic methods in a business environment. This resulted in the translation of the complexity and fuzziness of system mapping into a feasible output for the business. This was achieved through high stakeholder involvement and the combination of user research and storytelling. At the end of the thesis, a possible publication to make the experiences and the combination of approaches accessible to the academic world was under discussion.

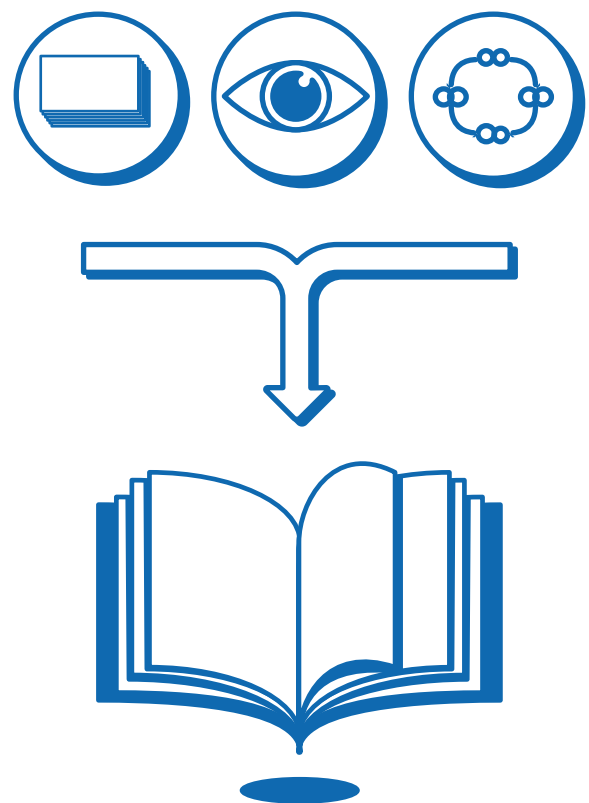
Furthermore, the system map's dilemma was identified as a knowledge gap and the exploratory user research has a first contribution on gaining a better understanding of this, which again opened discussions for further academic publications on this topic.

Moreover, the contributions of this thesis also have implications for the business of Philips. The explorative track of which this thesis is a part

of, with the goal of developing a systemic and sustainable innovation process, got validated. This validation is based on the positive responses from the MCC stakeholders of the track results and upcoming steps from the business based on the track. The deliverables of the track will, in the following months, be used to develop BVPs by the MCC team, resulting in the business value of new truly sustainable innovations considering the customers and the planet's needs through a combination of systemic analysis, high stakeholder involvement and user research.

Additionally, this thesis aims to contribute to the discussion among fellow design colleagues on designing within a capitalistic system and utilising the design skills to explore new ways to provide solutions for a sustainable (planet-centred) future.

Finally, and even more importantly, this paper is bringing hope for the future, the concept of sustainability developed over time – conceptual and operationalised (Faber et al, 2005). Therefore, the angle of this thesis the choice of Gaia for inspirations and the choice of the DACH market brings a unique perspective for contributing to this scientific and political dialogue towards further shared interpretations of sustainability.



Visual 31: Overview of the contributions in the Insight booklet

7.2 LIMITATIONS

Limitations of certain approaches of this thesis have been discussed in the chapters, such as limitations of Gaia, planet-centred, system mapping and the user research. The limitations here aim to discuss the limitations of the thesis in general.

GENERALISABILITY OF THE THESIS RESULTS

The generalisability of the thesis results is beyond the scope of this research due to the limited context of Gaia and research participants. Both Gaia and research participant limitations have been discussed in detail before. However, I hope this study, exploratory by nature, is convincingly enough to invite further study and generalisation.

VALIDATION OF VISION

Given the time limitations, it was out of the thesis scope to validate and iterate the vision with the parents' input and business stakeholders in detail. Additionally, the operationalisation and financial feasibility of the vision were not viable in the time given. The design team has decided to follow up on the work contributed by this thesis.

DILEMMA APPLICABILITY FOR DIFFERENT MARKETS

The dilemma of the system map builds the base and the direction of this thesis. However, the dilemma needs further exploration of its applicability within different markets and cultures outside of the sustainability-aware, educated and a financially stable sample of the DACH market. Nevertheless, the thesis has crucial business contributions, considering the DACH market has more than a 100million inhabitants and German is the second most spoken language in Europe. (O'Neill, 2021).

PERSONAL VALUES

Sustainability as a topic is so complex, existentially threatening and loaded with personal beliefs, that it is difficult to approach it in an unbiased way. It is impossible to deny the impact of personal values within this thesis and the personal perception of what a sustainable future should look like. However, by collaborating and exchanging ideas with other strategists and taking into consideration the stakeholders' input and business needs, the personal bias was able to be diluted.

7.3 RECOMMENDATIONS ON FURTHER EXPLORATION

Reflecting on the recommendations allows us to investigate different perspectives. Of course, there is the thesis perspective looking into the recommendations for open questions. However, there are some recommendations which can be addressed towards the academic world and the business of Philips

THESIS RECOMMENDATIONS

Throughout the whole process of this thesis, constant questions, and possibilities to deep dive further into various topics and approaches emerged. Since those aspects were outside the scope of this thesis, a brief overview of possible extensions of this thesis is given.

PROTOTYPING, DEVELOPING AND TESTING

This thesis had a very strong academic and research focus, which was needed to create a convincing narrative for the business and a strong foundation for sustainable business development. However, prototyping, developing and testing BVPs based on the thesis results would have been a required follow-up step, but since the primary restraint of this thesis was time, those steps were out of scope. This raises the question to my colleagues within Philips: "How to make sure that the research insights are embedded in the business and leading to sustainable innovations?"

DEVELOPMENT OF THE ROADMAP

Projects like this one come with a tremendous amount of tacit knowledge. Therefore, one must find a way to convey this tacit knowledge to the business. To convey the knowledge within this project, at least one business colleague working closely on the project is necessary. In this case, my Philips mentor Elise is the one colleague, who will hopefully ensure that a large coverage of the tactic knowledge created during this project is safe with her. One crucial step for her, especially considering that the goal of the project track is to create a roadmap of tangible and practical sustainable solutions integrated into the MCC portfolio, is to develop the roadmap in collaboration with the MCC team.

QUANTIFYING SUSTAINABLE IMPACT

During meetings with the business and the marketing teams, questions on how to quantify and measure sustainable impact were raised. This is a valid query from a business perspective in terms of the financial feasibility of sustainable innovation. This raises the question: "How do you quantify the sustainable impact and make use of this as a crucial argument to convince businesses of the value of sustainable actions?"

A lot has been written on this matter and diverse methods of quantifying are available. I would like to recommend a book by McElroy & van Engelen (2012): *Corporate Sustainability Management – The Art and Science of Managing Non-Financial Performance*. This book happens to be a useful tool for businesses committed to improving their sustainability performance, including measurement, management, and reporting. This book could be utilised to provide satisfying answers to the business on this matter.

ACADEMIC RECOMMENDATIONS

The explorative nature of this thesis led to the exploration of multiple academic approaches and concepts. However, due to time and scope limitations, the depth is lacking. Therefore, academia has the opportunity to explore the premise further in depth, which this thesis was not able to do.

THE DILEMMA IN DIFFERENT CULTURAL CONTEXTS

The findings of this thesis bring several implications from an academic point of view, particularly about the further research on the system map's dilemma, such as the exploration of the dilemma in other cultural backgrounds like North America, China, Eastern Europe etc. This is to overcome the local context and gain an understanding of the dilemma and its different manifestations. As a result, it is advisable to design a solution that covers the differentiation to a certain degree to achieve a general solution to the dilemma.

A NEW TERM FOR SUSTAINABILITY?

As already mentioned in the discussion of the term planet-centred, further advancement of what is understood by sustainability is needed. Sustainability is a complicated and confusing concept. Current confusion surrounding the meaning of sustainability hinders its business implementation and makes it difficult to operationalise (Faber et al., 2005). Planet-centred is being used as an inspiring narrative to trigger discussions on the meaning of sustainability now and in the future. Hoping that by introducing this new "wording", discussion on new desires and mindsets will evolve, sparking ideas for a daring sustainable future. However, as discussed before, this term shows limitations and is not generalisable.

The concept of sustainability is developing rapidly over time, same as its operationalisation (Faber et al., 2005). Raising the question towards academia instead of introducing a new word, more impact might be achieved by developing the current term decade by decade and by further exploring the topic not only from a business perspective but from a societal one as well.

BUSINESS FEASIBILITY OF COMPLEX ACADEMIC INSIGHTS

This thesis faced the challenges of communicating complex academic approaches, such as system mapping, in a business context. This was made feasible by applying the Nahman method (n.d) and systemic storytelling (Talgorn & Handriks, 2021) as well as due to the involvement of the high stakeholders. Academia could further investigate different methods to make complex academic insights feasible for businesses.

BUSINESS RECOMMENDATIONS

After working with academic methods in a business environment to make the process understandable while building on the stakeholder input and dedicating on delivering output, which can be implemented by the business, some recommendations can be given to the business as well.

SEE THE POTENTIAL TO SCALE THE TRACK TO OTHER BUSINESSES

Starting a novel approach required scoping down the focus, as was done in this project. This, inevitably, lowers the straightforward generalisability of the outcome. However, the process, which delivered the outcome, shows potential to be scalable among different businesses of Philips such as Beauty&Grooming. The approach applied in this process can be seen as the beginning of a novel way of sustainable innovation, which still needs further exploration. Therefore, it needs to be emphasised that one must not overlook the potential of this track for other Philips businesses.

TRUST THE PROCESS

Through the process there were moments where the data seemed incongruous with the Philips business context, the system map overwhelming, and the user insights untranslatable for the business. However, through close collaboration and open communication, the trust and support of the business could be maintained, and the process could succeed. Therefore, it needs to be emphasised to trust the fuzzy and complex design process, even when sometimes it feels difficult to do so.

NEVER GIVE UP ON SUSTAINABILITY

Implementing sustainable ambitions into the business can be difficult, complex, expensive and financially challenging. Working with the different Philips stakeholders on this thesis has shown the high commitment of individuals, the top-down and the bottom-up interest of the business for more sustainable solutions. Philips has proved to be an environment of people with high sustainable aspirations and goals, contributing with all they have for a sustainable future. Therefore, it needs to be emphasised to never give up on sustainability despite the difficulties.

7.4 FINAL THOUGHTS

Now that this thesis is coming to an end, I would like to take a moment to reflect on this journey and share some final thoughts. I decided to not dedicate this chapter to the skills I have gained, although there isn't a comparable project in my design journey so far, which has let me grow and challenged me on a professional level as this thesis. However, I would like to dedicate this chapter to some final thoughts on the importance of sustainability in my design career.


I would like to start with my newly gained hope that there is a space and support for sustainability in the business and design world. Of course, it is not as disruptive and incremental as a person with my views on the topic of capitalism and sustainability would like it to be. But the change is there and passionate people contributing every day towards a sustainable future are there as well. The relevancy of sustainability is growing, business interest is growing, regulations are being implemented, and consumers are starting to demand sustainability. Seeing this gave me the motivation even during the challenging and draining moments of this thesis.

Furthermore, writing a thesis during exceptional times, such as the global pandemic and periods of war, felt wrong, inappropriate and ridiculous. I can say with certainty that if this thesis wasn't dedicated to sustainability and providing me with a feeling of contribution to a better world, it would have been impossible for me to continue working. Many questions were raised and forced me to re-evaluate what I considered important in so many aspects of my life and career. I believe this helped me to see clearly how important meaning in work is for me and made me understand how much I aspire to dedicate my work to a better future. However, this also pushed me to understand that I am limited in so many ways, and I can't dedicate myself to every problem in this world for obvious reasons. This confirms that I must dedicate my career to the topic of sustainability or as people say: Choose your battles wisely.

**“THE FUTURE
EMERGES
DIRECTLY FROM
THE
OBJECTS WE
DESIGN.”**

Morton (2018)



A blue-outlined speech bubble with a folded bottom-right corner, containing text in a blue, italicized font.

I would like to add that more than more from the objects, the future emerges from the mindset and the systems which we are surrounded with and which we shape though design.

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APPENDIX A

Deep Dive

DEEP DIVE

COMMUNICATION AND BUSINESS INVOLVEMENT IN THE SYSTEM MAP

Looking back at the origins of system maps, the founding father of System Dynamics, Jay Forrester from MIT (Forrester a, 1971), argues that people understand and know intuitively where leverage points exist. However, he and Donella Meadows observed in their work that although people can identify crucial leverage points intuitively, their actions are counterproductive. Meadows describes the phenomenon as backward intuition and Forrester as counterintuitive (Meadows, 2012). One classic example of backwards intuition is the world model of Forrester (Forrester b, 1971). This system map, requested by the Club of Rome, show the relationship between major global problems (hunger, poverty, unemployment, environmental destruction etc.) and their potential solution. Forrester used a computer model to identify growth as the one clear leverage point. Growth, especially economic growth, is already identified and pushed by the world leaders as the answer to the problems addressed. However, it is being

pushed in the wrong direction, because an increased economic growth is not the answer. A different kind of growth, such as slower growth, no growth or negative growth, is. Simply put, by wanting to solve the major global problems by economic growth, we increase them. Coming back to the leverage points not being intuitive or they will be used backwards and worsening the problem they are trying to solve (Meadows, 2012; Forrester a, 1971). Which results in the challenge of communicating leverage points when the map is not being studied for excessive time. Outstanders (in this case the stakeholders within Philips) might be having a challenging time understanding the leverage points and might experience conflicts with their own intuition.

The stakeholders participated in the following ways:

MINI-MAPPING
WORKSHOP

EXPERT INTERVIEWS OF
STAKEHOLDERS

REGULAR MEETINGS FOR UPDATES
AND INPUT

To communicate the system map to other stakeholders, who were not part of the collaborative process, system storytelling (Talgorn & Hendriks, 2021) was applied.

DEEP DIVE

INSIGHTS GATHERING

INTERNAL PHILIPS KNOWLEDGE

Philips as a large research and innovation corporation offers two distinct types of data. These are industry insights through internal documents (hard data) and expert insights (expert opinions).

To gather the internal Philips knowledge, an overview of all the relevant internal documents were created by contacting the stakeholders from the MMC business as well as from the marketing and the design research teams. One crucial goal of this was not only to gather documents, but also to get referrals for other experts to acquire further needed knowledge and other valuable documents. Eventually, reaching out to the experts also gave the opportunity to better understand their area of expertise and gain an overview of potential interview candidates. This process of connecting resulted in sixteen internal documents. Simultaneously to the document collection, six expert interviews were conducted.

Summary of the project-relevant insights from the Philips internal expert interviews:

Interview 1: Material expert from MCC

The interviewee was positive about consumer involvement because materials alone cannot solve sustainability problems. Our work can contribute to her work in the most effective way by tackling sustainability in a joint effort as company and user.

There is a lot of confusion from the consumer perspective when it comes to sustainable materials. They do not know what is right and see sustainability as a difficult and overwhelming topic. Consumers mainly see sustainability as being plastic free and reducing single use products, and fail to consider durables and multiple use products. A demystification of knowledge of the customer is necessary.

Big learning is that Philips not only explores mechanical way of recycling but also chemical recycling, opening a range of opportunities for the business. The big advantage in chemical recycling lies in the fact that it enables plastic to maintain its

quality for reuse and circulation. Further it is safe for food packaging and has the same characteristics as new plastic, therefore, offering the same convenience.

Interview 2: R&D expert for understanding the business perspective of MCC

In this interview one perspective for a sustainable future saw Philips become more than a maker/producer. Philips should be embedded in an ecosystem of partners and there is a need of rethinking the current supply chain. This offers opportunities for new business models and strong reverse logistics.

Sustainability is not only up to Philips and collaboration with others is necessary.

A strong sustainable business opportunity would be that the user shifts from a transactional ownership to a temporary ownership.

Sustainability can be used as a differentiator and enabler on the market.

There is ambiguity on the definition of shared sustainable responsibility between a company and a consumer.

Sustainability within Philips has a stronger impact if it happens both ways, top-down and bottom-up. Top-down ESG goals are in place and MCC has top-down KPIs defined as well. Partnerships should be enabled top-down but concrete activation should happen bottom-up. This project is currently bottom-up as it is initiated by us..

The key narrative is of the sustainable narrative playbook is: USE LESS, REUSE MORE. This is a solid base for the first and second horizons since it has a clear product focus for sustainable development in the closer future. This narrative offers Philips to build a strong sustainable company to later leverage its expertise to create ecosystems and collaborations. Furthermore, this establishes opportunities to build on strategies for enhanced sustainable consumer empowerment through involvement and co-responsibility.

Communication with Gen Z needs clear numbers and facts. The data should be reliable and tangible to have a strong impact on Gen Z. Furthermore, sustainability should be the main message. Gen Z also expects transparency from brands during communication and dislikes greenwashing. As such, they are willing to pay more for true sustainability.

Sustainability is defined by three main aspects:

1. refurbishment,
2. recycled materials,
3. energy efficiency.

Philips aims to have a strong sustainable narrative and positioning against greenwashing. This is not only crucial to have a true sustainable impact but also aligns with the consumers' belief and builds a strong trusting relationship amid increasing criticism against greenwashing. Furthermore, this offers a strong differentiation from current competitors which have shown to practice greenwashing.

There is currently a good momentum for our work, since Gen Z is a promising upcoming sustainability generation. Additionally, due to the emotions towards the child, MCC is a strong target group (work with the connection between kid and planet). Furthermore, it is THE product group where consumers need products for a short amount of time – consumers go every 3 months to Prenatal to buy the whole package).

We were encouraged to think outside the box in the MCC to make sustainability viable even after the baby becomes older than two years. Therefore, we had to think about the long-term impact of behaviour change.

Summary of the project-relevant insights from the Philips internal documents:

The reports on consumers show a large variety and definitions of potential target groups within the DACH market to focus on.

Philips aims to grow its knowledge and expertise in sustainability, resulting in crucial initial research of this topic within the IVP reports regarding young parents. However, there is still room to explore the consumers' sustainable perspective.

EXTERNAL DESK RESEARCH

External desk research was conducted alongside the internal research with the goal of discovering new insights and gaining fresh perspectives. To do so, the PESTEL analysis (Pestelanalysis, 2020) was applied, within the system boundaries, on the three project-relevant general trends – Gen Z, Parenthood and Life after Covid. In the External Desk Research, 70+ documents, comprising scientific articles, trend reports and blogs, were reviewed. The table of documents can be found in the Appendix. The PESTEL analysis began with an alignment session on the topic in each PESTEL section.

This was followed by the regular iteration moments to discuss the gathered information and identify potential gaps. This, however, resulted in a lack of in-depth data on the following 3 topics

- **Empowerment of the Individual**
- **Social Media and Gen Z**
- **Upcoming EU policies regarding sustainability**

This resulted in another insight gathering step for those missing topics.

DEEP DIVE MINI-MAPPING WORKSHOP

PREPARATION

Creating insight cards, planning a moment for the workshop with all relevant stakeholders, setting up the Miro board for the workshop and creating four Mini-Maps were the main preparation activities.

The decision to prepare four Mini-Maps was a result of the high number of insight cards and the limited amount of time the stakeholders had for the workshop. To ensure quality work from the stakeholders without overloading them with work during the workshop, the following four insight cards were chosen for the preparation:

- **DEMOCRATIZATION ON HEALTHCARE**
- **EU SUSTAINABLE REGULATIONS**
- **PHILIPS (PH) POSITIONING & STRATEGY TOWARDS MOTHER AND CHILD CARE**
- **PHILIPS POSITIONING & STRATEGY TOWARDS SUSTAINABILITY**

Setup and Conduction

The workshop had a co-creative format with five stakeholders. The stakeholders were split into four groups with one facilitator each. To balance out the different length of the insight cards, group 1 and 2 got three longer insight cards and Group 3 and 4 got four shorter insight cards. All the groups had three hours to create their Mini-Maps. The results can be seen in visual 1.

GROUP 1

GEN Z AND WELL-BEING

Gen Z has high levels of well-being and happiness. They are more physically active, eat healthier, and have better mental health. They are also more socially active and have better relationships with family and friends. They are also more environmentally conscious and have better attitudes towards diversity and inclusion.

GEN Z ENVIRONMENTAL HEALTH

Gen Z is more environmentally conscious than previous generations. They are more likely to recycle, use reusable products, and support environmentally friendly companies. They are also more likely to engage in climate change activism and have better attitudes towards environmental issues.

GEN Z DIGITIZATION AND HEALTH

Gen Z is the most digitally native generation. They are more likely to use digital health tools, such as telemedicine and health apps. They are also more likely to engage in digital health literacy and have better attitudes towards digital health.

GROUP 2

GEN Z ONLINE BEHAVIOR

Gen Z is the most digitally native generation. They are more likely to use social media, streaming services, and digital health tools. They are also more likely to engage in digital health literacy and have better attitudes towards digital health.

SUSTAINABILITY COMMUNICATION, BRANDING AND MARKETING

Gen Z is more environmentally conscious and socially responsible. They are more likely to support sustainable brands and have better attitudes towards sustainability. They are also more likely to engage in sustainability activism and have better attitudes towards diversity and inclusion.

GEN Z AND THEIR SUSTAINABLE ATTITUDE

Gen Z has a strong sustainable attitude. They are more likely to support sustainable brands and have better attitudes towards sustainability. They are also more likely to engage in sustainability activism and have better attitudes towards diversity and inclusion.

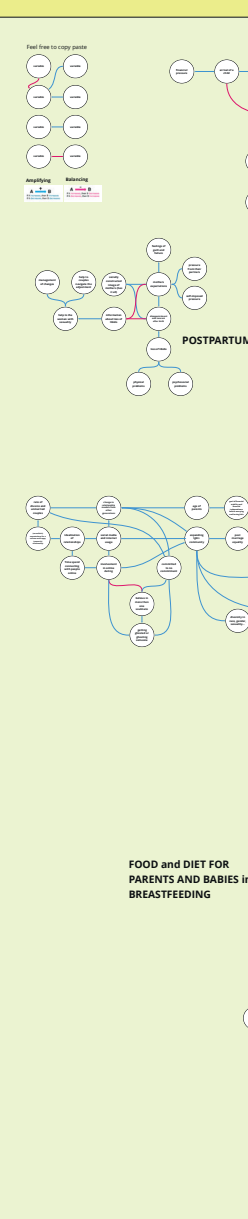
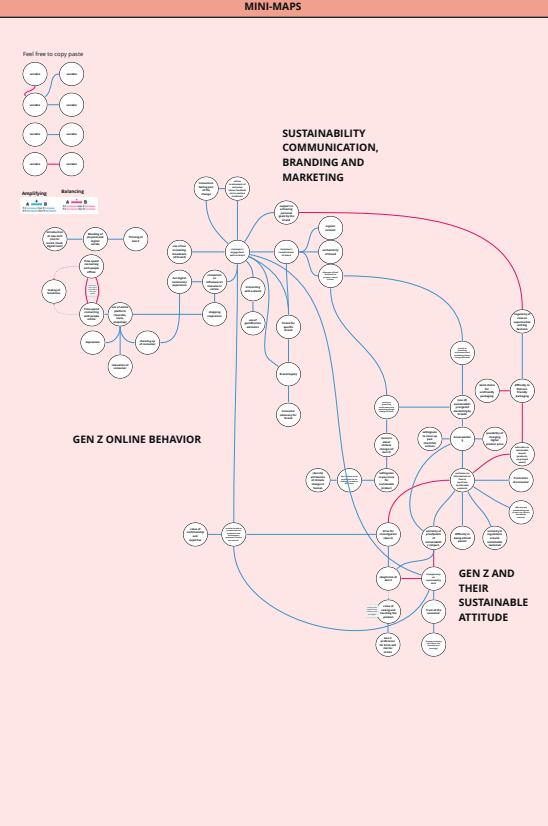
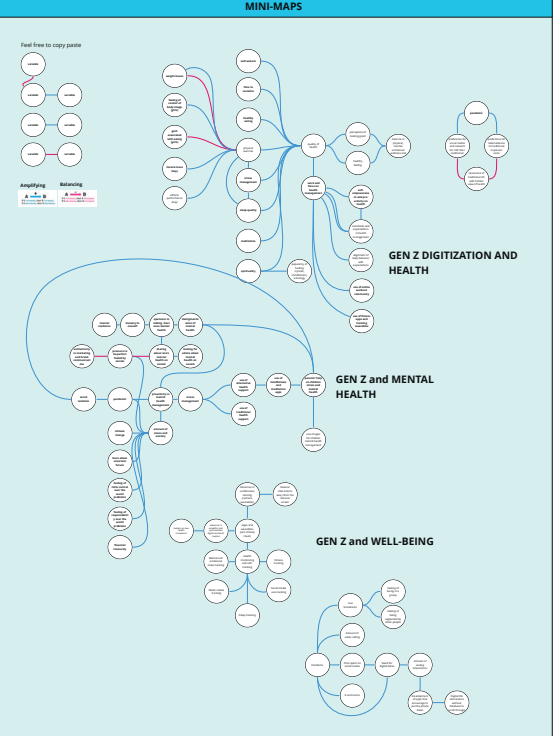
GROUP 3

POSTPARTUM SEXUAL HEALTH

Postpartum sexual health is an important part of a woman's overall health. It involves the physical, emotional, and psychological aspects of sex after childbirth. It is important for women to have open communication with their partners and seek support if needed.

GEN Z AND THEIR SUSTAINABLE ATTITUDE

Gen Z has a strong sustainable attitude. They are more likely to support sustainable brands and have better attitudes towards sustainability. They are also more likely to engage in sustainability activism and have better attitudes towards diversity and inclusion.



Visual 1. Mini-Mapping results

FOOD AND DUTY FOR PROGRESS AND WELL-BEING: KEY INSIGHTS

Food is a key element of progress and well-being. It is a source of energy and nutrients that enable us to live and work. It is also a source of pleasure and joy. However, food production and consumption are also a source of environmental and social challenges. We need to find ways to produce food sustainably and equitably, while also addressing the environmental and social impacts of food production and consumption.

Key insights include:

- Food production and consumption are a source of environmental and social challenges.
- We need to find ways to produce food sustainably and equitably.
- Food production and consumption are also a source of pleasure and joy.
- We need to address the environmental and social impacts of food production and consumption.

GROUP 4

ENVIRONMENTAL FOOTPRINT OF FAMILIES

As the world's population grows, the environmental footprint of families is also growing. This is due to a number of factors, including increased consumption, increased energy use, and increased travel. The environmental footprint of families is a complex issue that involves many different factors, including energy use, water use, and waste production.

Key insights include:

- The environmental footprint of families is growing.
- This is due to a number of factors, including increased consumption, increased energy use, and increased travel.
- The environmental footprint of families is a complex issue that involves many different factors.

NEW BUSINESS MODELS IN THE SHARING ECONOMY

The sharing economy is a new business model that is based on sharing resources. This model is based on the idea that people can share their resources, such as cars, homes, and tools, with others. This model is based on the idea that people can share their resources, such as cars, homes, and tools, with others.

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GEN Z AND MONEY

Generation Z is the first generation to be born in the 21st century. They are a diverse group of people who are growing up in a world of rapid technological change. They are also a generation that is growing up in a world of economic uncertainty. This has led to a number of unique characteristics for this generation, including a focus on financial stability and a desire for meaningful work.

Key insights include:

- Generation Z is the first generation born in the 21st century.
- They are a diverse group of people growing up in a world of rapid technological change.
- They are also growing up in a world of economic uncertainty.
- This has led to unique characteristics for this generation, including a focus on financial stability and a desire for meaningful work.

Pre-work

PHILIPS (PH) POSITIONING & STRATEGY TOWARDS MOTHER AND CHILD CARE

Philips is a global leader in healthcare and consumer electronics. The company is committed to improving the lives of people around the world. This commitment is reflected in the company's strategy towards mother and child care. Philips is focused on providing high-quality products and services that help mothers and children live healthier lives.

Key insights include:

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EU SUSTAINABLE REGULATIONS

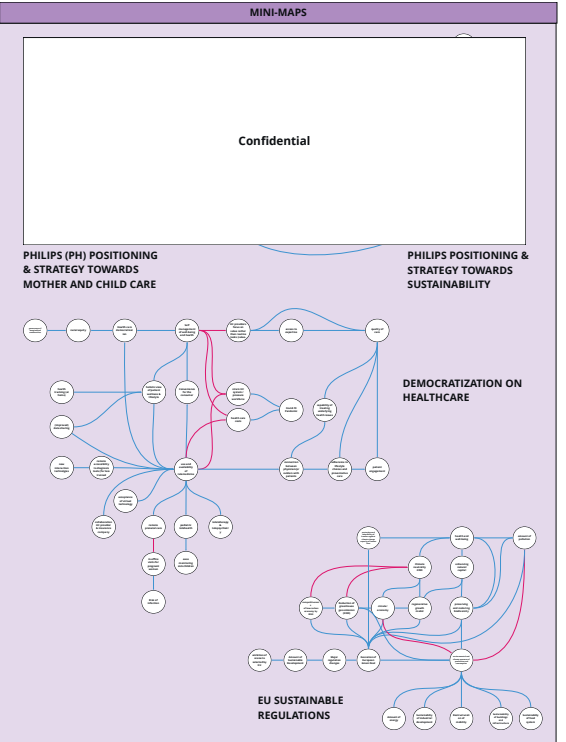
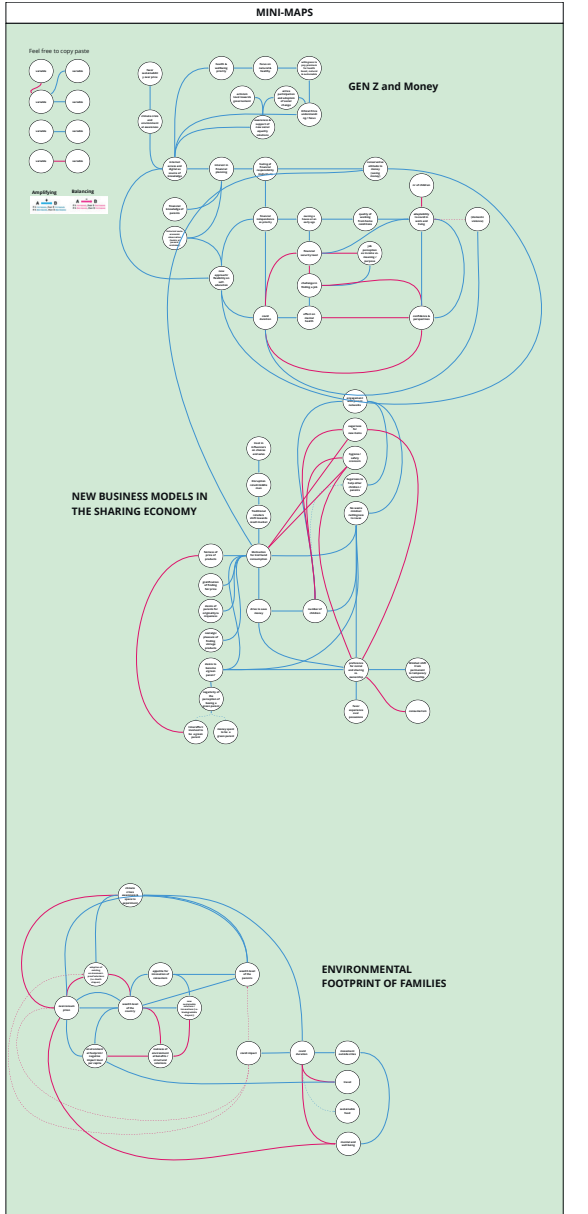
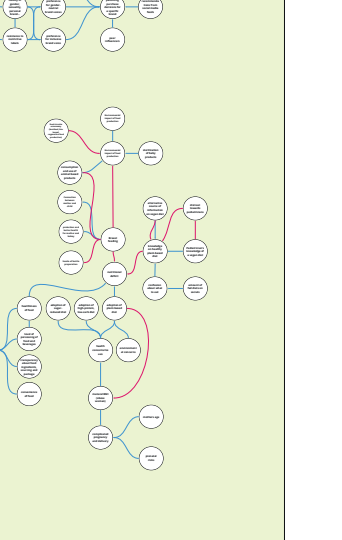
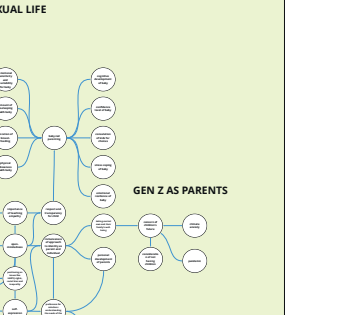
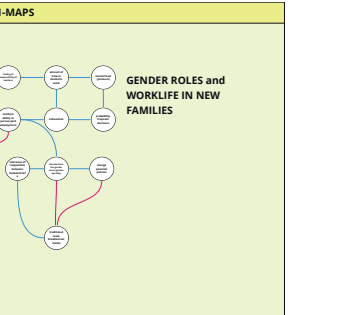
The European Union is a global leader in sustainable development. The EU has a number of regulations in place that aim to promote sustainable development. These regulations cover a wide range of areas, including energy, climate change, and the environment. The EU's regulations are designed to ensure that sustainable development is a priority for all member states.

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Confidential

Confidential



DEEP DIVE CLEAN UP AND CONNECTION

CLEAN UP AND CONNECTION

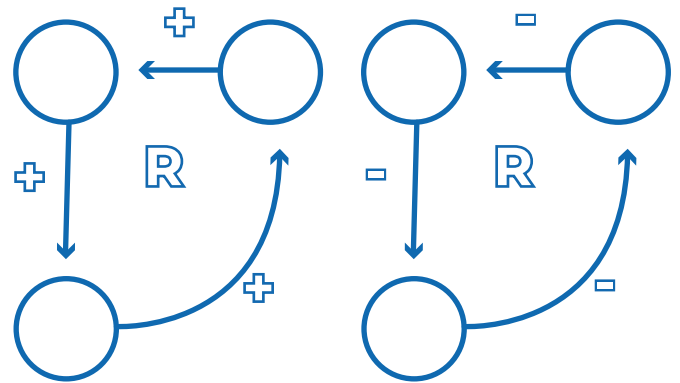
As an initial activity, the Mini-Maps were rearranged according to the similar and overlaying topics in the new Miro board. Next to the variables, which were double, got merged into one variable, resulting in new connections between Mini-Maps. This was an expected occurrence since the insight cards had some overlaying topics, and, therefore, the same variable can appear multiple times. Once all the double variables were identified, variables were shifted, and initial groups of variables were formed. For orientation and readability of the map, the variable groups were named to match the topic they represented. In total, the system map showed 13 variable groups (Visual 4).

Further, the topic of COVID showed such an incremental and overarching effect on multiple variables that the decision was made to incorporate COVID's impact as a red circle on the effected variables rather than making it a variable itself. This enhances readability and understanding of the system map. To further increase the map arrows' readability, they were changed to dark blue. These arrows are less relevant to the system map and the change of colour reduces the contrast to the background, making those connections less prominent while allowing the relevant arrows to stand out more.

DEEP DIVE LEVERAGE POINTS IDENTIFICATION

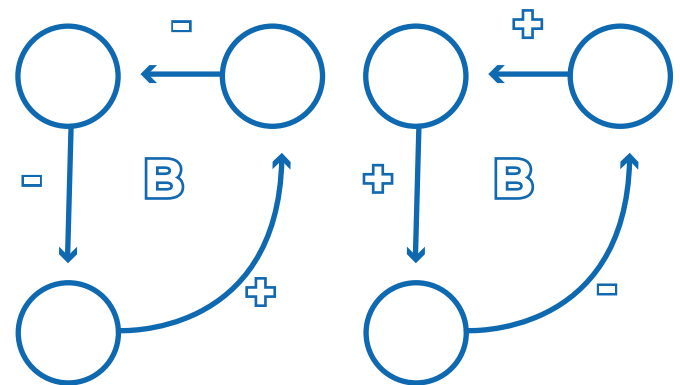
LOOPS IDENTIFIED

The system map occasionally shows two variables which have a reinforcing or balancing relationship (visual 2) and are considered part of the loops. Lastly, contradicting variables were identified. Contradicting loops have one variable, which causes two opposite effects (visual 3).



Reinforcing loops

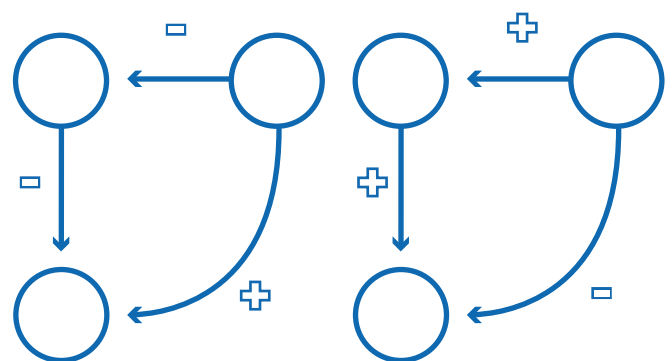
R means reinforcing (i.e., the causal relationships within the loop create exponential growth or collapse).



Balancing loops

B means balancing (i.e., the causal influences in the loop keep things in equilibrium, or in balance.)

Visual 2. Visual of the two variables



Contradicting loops

Contradiction or trade-off (one cause gives 2 opposite effects)

Visual 3. Visual of contradicting loop

LEVERAGE POINTS VERIFICATION THROUGH STAKEHOLDER

Leverage points verification through stakeholders is avoiding a subjective outcome and insures to reduce the chance of aspects from being missed out. Additionally, the main leverage points and

the core engine were worked out in collaboration during this process. The stakeholders were guided through the general map, main variables, and leverage points. Once an overview and general understanding were ensured and all the questions answered, a power dotting exercise was conducted. The stakeholders received a leverage points overview and got five stars in an assigned individual colour. The stars were placed according to their judgement on the following question:

“What topics (loops or individual variables) are worth exploring?”

To simplify the language and reduce confusion due to the terminology, the word “leverage point” was replaced by the word “topic”. It was up to the

stakeholders to place the stars as they saw fit. They could either put one star per topic or multiple stars on a topic that they saw as crucial. The exercise lasted 10 minutes, and the stakeholders were asked to give a brief reasoning for their star placement (Visual 4). In total, 7 stakeholders were involved in this verification step and it resulted in two core loops with the highest ranking:

“holistic (mental) health resulting in self-empowerment (+) and high expectations (-)”

“confusion about how to be sustainable and sustainable information sources”



Visual 4. Visual of the Leverage

The final leverage points can be found in the following overview:

PLACES TO INTERVENE IN A SYSTEM ACCORDING TO MEADOWS (2012)

LEVERAGE POINTS IN THE SYSTEM MAP

Constants, parameters, numbers (such as subsidies, taxes, standards).

12

Parameters:

Parameters refers to the numbers that determine the discrepancy of variables (Meadows, 2012). In the system, different parameters were identified as variables or as leverage points (e.g., material, BMI, wealth of the country), which can be solitary or part of a loop.

The sizes of buffers and other stabilizing stocks, relative to their flows.

11

Buffers:

Not found on the map

The structure of material stocks and flows (such as transport networks, population age structures).

10

Material stocks and flows:

The main identification was based on tangible aspects such as materials within existing structures and products (Meadows, 2012). This resulted in variables (e.g., medical grade plastic) but no prioritised leverage points.

The lengths of delays, relative to the rate of system change.

9

Length of delays, relative to the rate of system changes:

The identification of these leverage points was based on the effect of information, which was received too fast or too late, which can cause over/underreaction or oscillations (Meadows, 2012). With this under consideration, variables (e.g., Philips internal process) and leverage points (e.g., Greenwashing and confusion of consumers to purchase sustainable products) were found.

The strength of negative feedback loops, relative to the impacts they are trying to correct against.

8

Balancing loops:

The causal influences in the loop keep things in equilibrium, or in balance (Rushing, 2012).

The gain around driving positive feedback loops.

7

Reinforcing loops:

Reinforcing loops are loops in which the causal relationships of the variables create exponential growth or collapse. (Rushing, 2012)

The structure of information flows (who does and does not have access to information).

6

Structure of information flow:

Information flow is considered a loop when it delivers new information. This is an especially powerful leverage point in terms of creating impact since it is easier to change information flows than the whole structure of the system (Meadows, 2012). This matches the two selected core loops based on stakeholder input: "holistic (mental) health resulting in self-empowerment (+) and high expectations (-) " and "confusion about how to be sustainable and sustainable information sources" sustainable information sources"

The rules of the system (such as incentives, punishments, constraints).

5

Rules of the system:

The rules of the system map are to a large extent dependent on Philips' business perspective and the action space connected to this. Meaning, what is reasonable to consider for the Philips portfolio, in terms of strategy, innovation, technology, markets, etc, results in a high quantity of leverage points. Additionally, the upcoming EU regulations on sustainability is one of the rule makers of the system.

The power to add, change, evolve, or self-organize system structure.

4

The power to add, change, evolve, or self-organize system structure:

This describes the ability of the system to change itself by creating new structures, adding new loops, promoting new information flows, or creating new rules (Meadows, 2012). With this under consideration, it was identified as the behaviour and decision making of parents based on the core loops i.e., use the resilience and proactivity of users on mental health towards sustainable choices.

The goals of the system.

3

Goal of the system:

Changing the goal of the system changes all the leverage points and the system itself (Meadows, 2012). The goal of this system map was rooted in the system question and can be defined as the creation of planet-centred solutions, which satisfies both the planet and people.

The mindset or paradigm out of which the system — its goals, structure, rules, delays, parameters — arises.

2

Mindset or the paradigm out of which the system arises:

The paradigm of the system map is based on two core loops, which are in conflict with each other, resulting in a dilemma of wanting to be a holistic and sustainable parent in a consumption driven world. Each core loop of the system has its own paradigm which needs to be overcome. Therefore, there is, on the one hand, the paradigm of the holistic parent and the socially constructed pressure arising from it. On the other hand, there is the paradigm of being a green parent in a world dominated by consumerism, implying high cost, time, energy and money to be a sustainable parent. This conflict impacts the entire system and all leverage points and is the core engine. Meadow suggests that paradigms might be able to change through repeatedly and consistently pointing out anomalies and failures in the current paradigm to those with open minds.

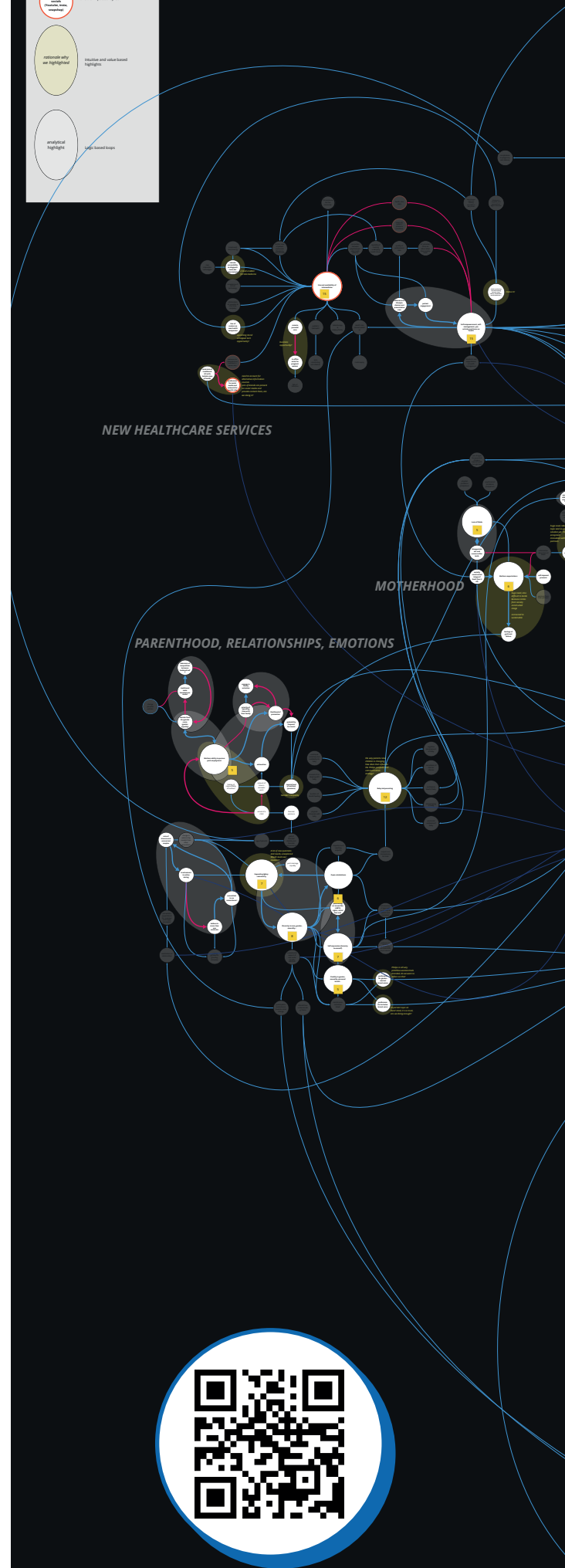
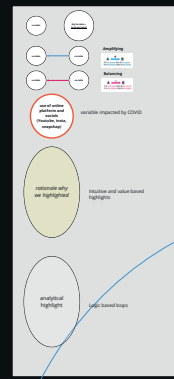
The power to transcend paradigms

1

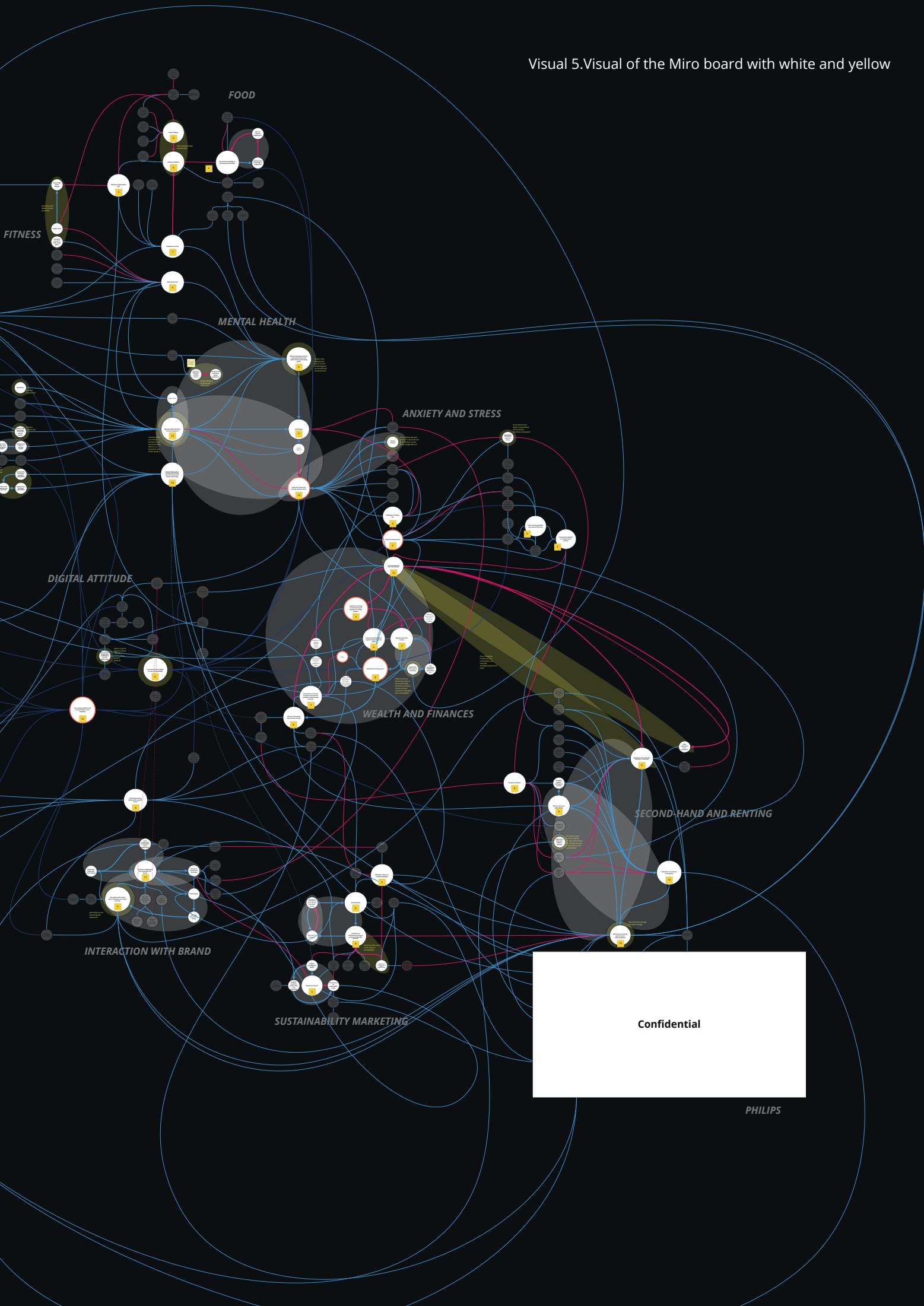
Paradigm to be transcended:

The dilemma of the two core loops is grounded in consumerism and capitalism. This is the paradigm which needs to be transcended to enable the vision of Gaia.

Eventually all leverage points were marked in the system map (Visual 5).



Visual 5. Visual of the Miro board with white and yellow



Confidential

DEEP DIVE

SYSTEMIC STORYTELLING

An introduction to the different types of variables and the story world are given to enhance the understanding of the storytelling map (Visual 6) and the interaction between the variables. The legend of variables can be found in the top right of the map.

Legend of variables:

Factual variable - A factual variable is an occurrence e.g., a trend

Treasure variable - A treasure variable is linked to strategy and is the goal of the map. This is what we want to achieve with Phillips and our customers etc.

Dragon variables - A dragon variable is an obstacle that is along the path to our treasure.

Joker variables - A joker variable can be good in some ways but bad in others. We consider them double-faced since they have a twofold effect on our system.

Armour variable - An armour variable is considered a weapon of Gen Z. It is a helpful characteristic of Gen Z in their quest and can be a value, belief, or a quality they have.

Fairy variable - A fairy variable is an opportunity within the system for Philips to act on by amplifying them with a bigger effect on the system and twisting the system in a way to reach our goal

Story world:

Gen Z are digital natives. For this generation, online platforms and social media are a primary source of connection and information on the topics of health care, mental health, lifestyle, sustainability, and parenthood.

Technology and the digital world are central to Gen Z's health and wellness practices: apps and wearables seamlessly become part of their daily rituals. Gen Z is the generation most interested in health monitoring and self-tracking for fitness, food and water intake, sleep, social media use, but also for their mental and emotional state.

Advances in connected sensing and data sharing enable health care providers to have a holistic view of people's lifestyle and health to provide better care.

Overall, Gen Z look for effectiveness, convenience,

efficiency, and transparency in health services. Half prefer telemedicine to traditional in-person visits. Overall, traditional health care does not resonate with their holistic approach to health. Instead of traditional sources for health information (health websites, doctors, and pharmacists), Gen Z rely on social media (e.g., TikTok, social media discussion) and social networks for answers to health and wellness questions (including drug prescription). The pandemic has accelerated this trend.

The pandemic has led people to spend more time on social media, video calling, e-commerce, but also resulted in more digital detoxes. New technologies (haptics, voice control, virtual and augmented reality) enable natural interactions away from the classical screen

Now let's start with our story:

We will start from the top of the map where the inner conflict begins. The conflict is about consumerism and the overconsumption mentality. Gen Z is living in this consumeristic world where they can buy everything, including goods, experiences, and relationships. However, at the same time, this generation is extremely aware of the climate crisis and the need for immediate action. They feel responsible for protecting the environment and acting against climate change. This is their number one priority.

But how is it possible for them to live with this contrast against consumeristic behaviour and willingness to make a difference in the world? Well, it is very difficult, and it causes a lot of stress and internal conflicts. If we move down the map, we will encounter two main Dragons. Gen Z needs to win against both to reach their treasure at the bottom of the map.

The first dragon

The dragon on the right side is confronting Gen Z parents with the ambiguity on ways to be sustainable. Parents are aware of the climate crisis, and they want to build a better world for their children. They want to be green parents. But reality is different. It is confusing to get information; greenwashing is everywhere; and there is little access to sustainable solutions. This is very tiring and overwhelming for the parents, and they become frustrated and critical.

And this is the first battle: "How can they be a green parent while they feel it costs time,

energy and money?" This battle is between the desire to be a green parent and the ambiguity on how to be sustainable and navigate through the information.

Which wands can Philips use to help Gen Z win this battle? Well, we could deliver more transparent and clear data and we are already working on it, for instance, with the PH playbook. Another effective fairy Philips can use is to involve the consumers. Gen Z wants to see what is happening, help, and be part of the change. This can be achieved through social media. Another fairy variable is brands that align on the purpose and values of Gen Z. Influencers and peers (online and offline) are also fairy variables. The last two fairy variables which Philips can use are education on sustainability and new business models (rental, 2nd hand consumption, sharing etc).

The second dragon

Unfortunately, Gen Z must face a second dragon on the left as well - mental health. Consumerism is a cause of anxiety, depression, and stress. Society tries to make Gen Z believe that they would be less depressed and less anxious if they bought more products. Gen Z is constantly confronted with all those goods and those experiences through social media, creating a fear of missing out. So, they want more, believing that life will be better with this one trip or a new car or a house or a breast pump. But it is the opposite! This has created a vicious circle in which most Gen Z are trapped. Gen Z is stressed and anxious, which is their number one health concern. Despite this stress and anxiety, they still want to have it all - mental health, physical fitness, spiritual awakening, social fulfilment, professional success, being a good parent, being a good romantic partner, etc. It is impossible yet Gen Z wants it all. They think they need to have it all because that is what social media portrays. But all they get is more stress and anxiety on top. And that is the second battle: "How to fight the pressure and socially constructed image to have it all? "

So which wands can Philips use to fight this second battle? Well, we can of course provide solutions that understand the needs of personal identity in a holistic manner. Gen

Z also likes to be supported. So how can we create communities to support them on mental health?

Philips can also use the already increasing de-stigmatisation of mental health as a wand. Furthermore, the fairy of feeling supported by other people and having a community could help Gen Z to fight this battle. And lastly, the fairy of mental health and active stress management will be a strong ally in this battle.

The treasure

But again, nobody can have it all. So how can Gen Z really achieve being a green parent and living in total balance? Well, maybe, Gen Z does not have to. This might be the trick to enable green parenting in this consumeristic society. Young families need to find a new balance focusing on what is actually good for their wellbeing and for the planet. So, prioritising some things and leaving some other things behind - this is really the final treasure Gen Z must get.

How can we create and deliver solutions where GenZers needs and planet needs are both satisfied?

(Gen Z) trend

A factual variat

The digital story World

Gen Z are digital natives. For this generation, online platforms and social media are a primary source of connection and information on the topics of health care, mental health, lifestyle, sustainability, and parenthood. (1)

Technology and the digital world is central to Gen Z's health and wellness practices; apps and wearables seamlessly become part of their daily rituals. Gen Z is the generation most interested in health monitoring and self tracking - for fitness, food and water intake, sleep, social media use, but also for their mental and emotional state. (2) Advances in connected sensing and data sharing enable health care providers to have an holistic view of people's lifestyle and health to provide better care. (3)

Overall GenZ look for effectiveness, convenience, efficiency, and transparency in health services. Half prefer telemedicine to traditional in-person visits. (4) Overall, traditional health care doesn't resonate with their holistic approach to health. Instead of traditional sources for health information (health websites, doctors and pharmacists), Gen Z rather rely on social media (e.g. TikTok, social media discussion) and social networks for answers to health and wellness questions (including drug prescription). The pandemic has accelerated this trend. (5)

The pandemic has led people to spend more time on social media, video calling, more e-commerce, but also resulted in more digital detoxes. New technologies (haptics, voice control, virtual and augmented reality) enable natural interactions away from the classical screen. (6)

Gen Z holistic approach to health and life

Gen Z have a holistic view on health and wellness: reaching a **balanced state of complete physical, mental, emotional and social wellness** is central to their identity. Personal behaviors like healthy eating, working out, managing stress, meditating, sleeping, building self-esteem, and having time to socialize with family and friends are seen as key to being healthy and happy.

Contrarily to millennials who seek fulfillment and identity through their professional life, more and more GenZ consider work as a mean to get income and focus on other aspects to reach a balance, for example a majority of Gen Z show interest in spirituality. There is a growing popularity of healing crystals, mindfulness and astrology apps that fall under the reparative umbrella of wellness (debatable conclusive evidence of their effectiveness).

GenZ **self-empowered** to control and improve proactively their own health. They have **high standards and expectations in health management**, which often fall short due to lacking alignment with day-to-day behavior.

The holistic approach to life reflects in the parenting style of Gen Z. They let the child explore and express their needs - an approach called **"baby-led parenting"**. This leads to high attention for the child's mental health and topics such as confidence, stress coping, emotional resilience and empathy.

The battle: anxiety, stress and social pressure

72% of GenZ say managing stress and mental health is their most important health and wellness concern. They are **constantly confronted with a socially constructed image of how it all and do it all** (social, professional, relationship, identity/looks...) and pressure to be perfect (judged by social). The constant comparison to others results in low self-esteem, the constant unsatisfaction or feeling of not doing enough. Furthermore, over-consumption - fueled by social media - has also a negative impact on individual psyche, resulting in developing a constantly unsatisfied state of mind. Finally, GenZ grows in a world of increased anxiety (i.e. shooting terrorist, pandemics, climate change) and rapidly changing (fluctuating economy) lives which they feel they have little control. The Covid pandemic has only amplified this anxiety. They fear for their future and that of their children, even to the point that many consider not having children.

If we focus on young parents, **the arrival of a child adds** readiness, changes in the relationship with the partner, equality, and pressures linked to parenthood. In particular, mothers who carry a **high mental load** and feel the pressure to successfully combine professional and family lives are subject to feelings of guilt and failure.

On the positive side, GenZ is a generation that embodies resilience, is proactive in managing their mental health, and open to talk about it.

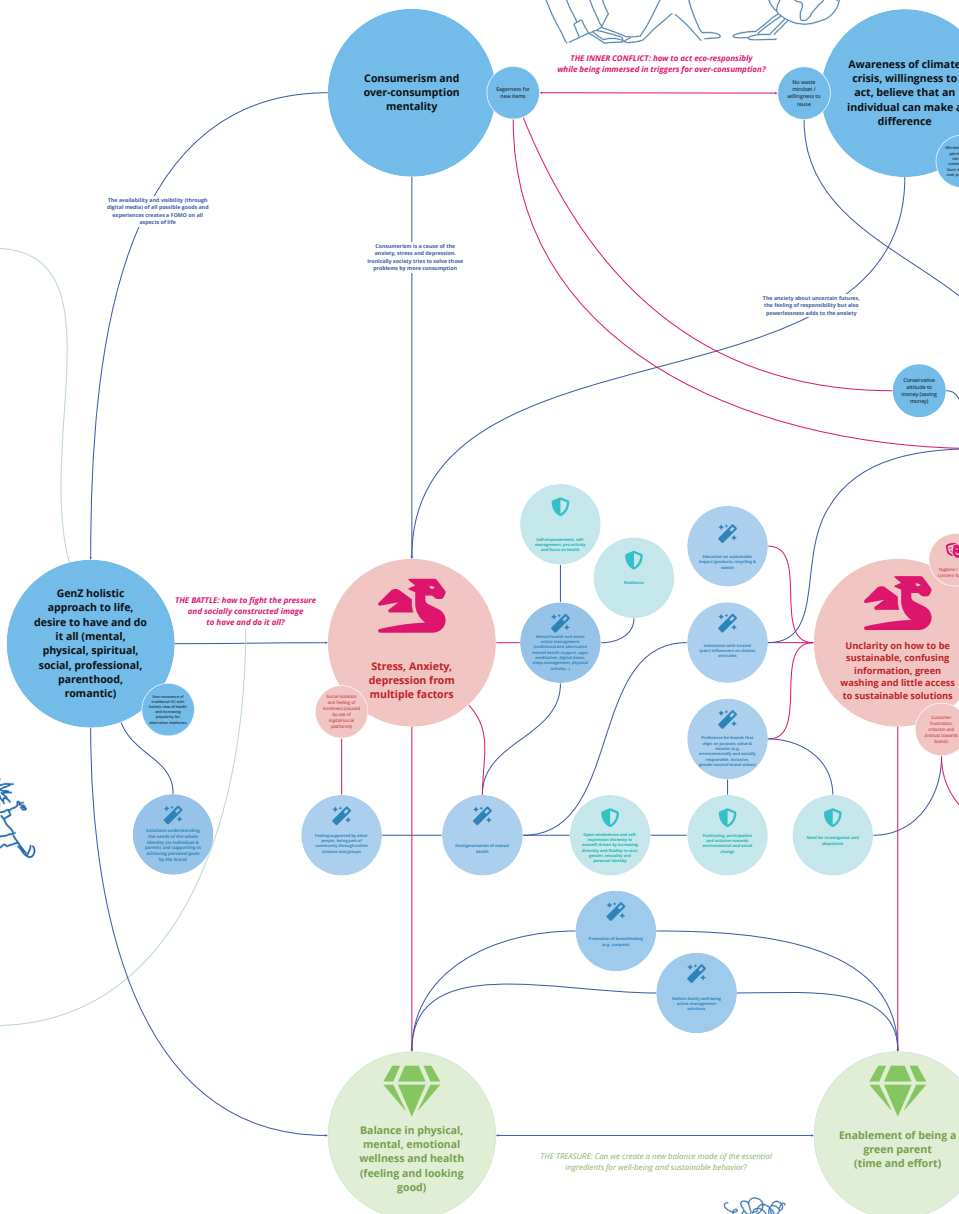
The inner conflict

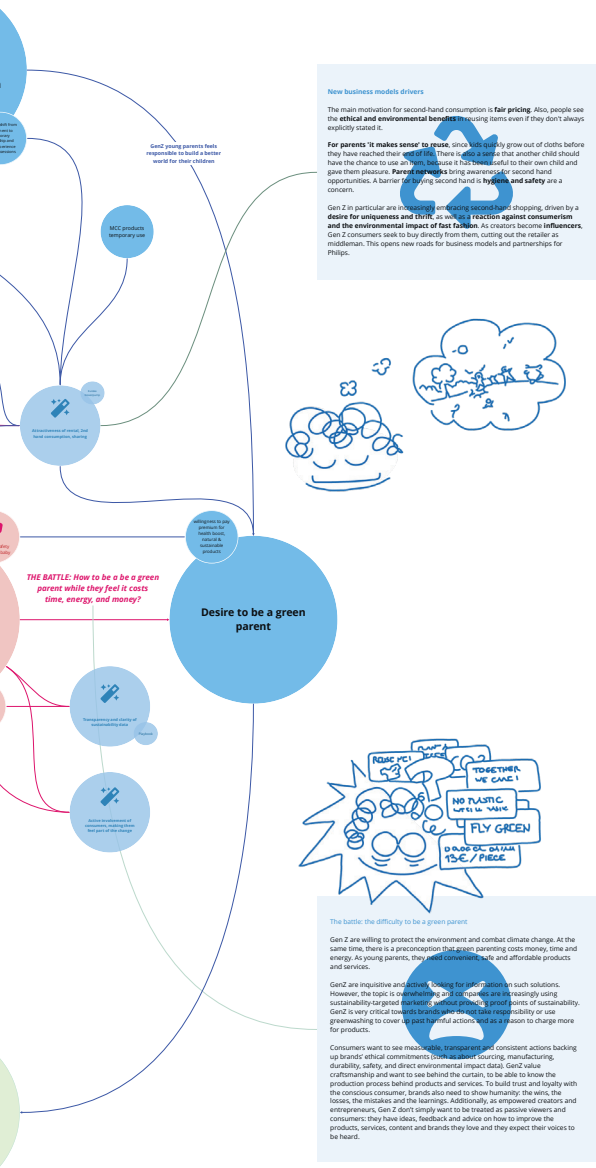
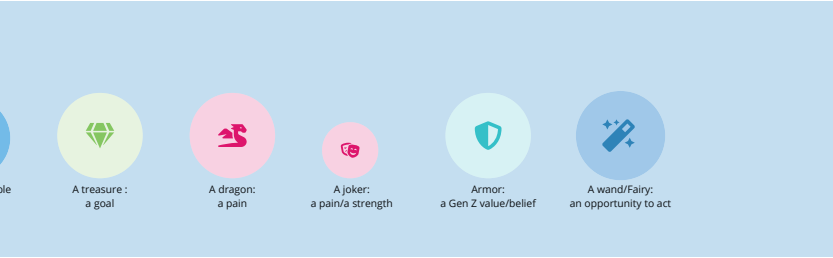
Climate change and protecting the environment is No. 1 concern for Gen Z. They know the world is on fire, and that **turnkey solutions** are possible for it. They believe in the possibilities for an individual to make a difference, and take action - for example by working at green companies, purchasing from ethical brands, limiting waste, and eating vegetarian or vegan.

At the same time, they live in a **consumeristic society** that should stand the belief that happiness and well-being depend **fundamentally on material possessions**, which is the main cause for Earth resources depletion and the negative environmental impact.

For GenZ, this is a **fundamental dilemma: how to be eco-responsible** while being immersed in triggers for over-consumption?

The paradox is that both awareness about climate issues and over-consumption go hand in hand with **wealth level**. The globally growing middle class increases this trend.





New business models drivers

The main motivation for second hand consumption is **fair pricing**. Also, people see the **ethical and environmental benefits** they get even if they don't always explicitly stated it.

For parents **'it makes sense' to reuse**, since kids quickly grow out of cloths before they have reached their **adulthood**. There is **less waste** as another child should have the chance to use an item, because it has been **useful** to their own child and gave them pleasure. **Parental influence** bring awareness for second hand opportunities. A barrier for this second hand is **hygiene and safety** are a concern.

Gen Z in particular are **inquiring** **emerging second hand** shopping, driven by a **desire for uniqueness and style** or **highly** **reactions against consumerism and the environmental impact of fast fashion**. As creators become **influencers**, Gen Z consumers seek to buy directly from them, cutting out the retailer as middleman. This opens new roads for business models and partnerships for Philips.

The battle: the difficulty to be a green parent

Gen Z are willing to protect the environment and combat climate change. At the same time, there is a preconception that **green parenting costs money, time and energy**. As young parents, they **need convenient** and **affordable products** and services.

GenZ are **inquisitive and active**, looking for **information** on such solutions. However, the topic is **overwhelming** as **3 companies** are **increasingly** using **sustainability** as **green marketing** without **proving** **proof** of **sustainability**. GenZ is **very critical** towards **brands** who **do not take responsibility** or **use greenwashing** to cover up **past harmful actions** as a **reason** to charge more for products.

Consumers want to see **measurable, transparent** and **consistent actions** backing up brands' **ethical commitments** (**down the supply** **sourcing**, **manufacturing**, **durability**, **safety**, and **direct environmental impact data**). GenZ value **craftsmanship** and want to see **behind the curtain**, to be able to know the **production process** behind products and services. To build **trust and loyalty** with the **conscious consumer**, brands also need to show **humility**, the **wins**, the **losses**, the **mistakes** and the **learnings**. Additionally, as **empowered creators** and **entrepreneurs**, Gen Z don't simply want to be treated as **passive viewers** and **consumers**; they have **ideas**, **feedback** and **advice** on how to improve the **products**, **services**, **content** and **brands** they love and they expect their **voices** to be heard.



DEEP DIVE

IMPRESSIONS PARTICIPATORY STORYTELLING WORKSHOP





APPENDIX B

Material Library

GRADUATION BRIEF

Parents decision making for circular business models _____ 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 11 - 11 - 2021 11 - 05 - 2022 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, ...).

The current linear economy has damaged and drained the planet to an irreversible state. Nevertheless, I believe that there is hope to change the system, reduce future damages, and revise some of the harm done. I have this hope because I see companies beginning to acknowledge their responsibility and the importance of implementing sustainability through systematic rethinking and circular strategies. However, despite the growing relevance of sustainability to businesses, companies are struggling to implement sustainability into their strategies. Furthermore, the growing consciousness of the urgency of the climate crisis is also noticeable in consumer perspectives. Mainstream consumers are beginning to realize the relevance and impact of their actions. [1] Although the consumers are interested in sustainable alternatives, they often don't act on this. Decisions against sustainability in the western world make it challenging for companies to adopt sustainable business models, despite the theory offering promising circular business frameworks.

In order to adopt a circular system, solutions must include the perspectives of both the companies and consumers. Businesses are the providers, and therefore, facilitators of consumer behaviors via the products and systems companies offer in the market. However, it is the consumers that choose to respond to the businesses' offer.

The current conventional business system generates abundant waste, and the medical sector is no exception. This is also a rising topic of awareness among the mainstream mass and was even the subject of a recent artwork by Dutch artist Maria Kojck, who portrayed the single-use products used for her surgery in her art. [2] To provide the much needed sustainable alternatives, Philips is aspiring to become a leader in circular practices within the medical sector. The transition of Philips towards a circular company is already in motion, with the company developing circular products, collaborating with circular partners, looking into sustainable strategies and defining goals for 2025. Goals such as generating 25% of the revenue from circular products, services and solutions include closing the loop by offering a trade-in on all professional medical equipment, taking care of responsible re-purposing, embedding circular practices in factories and offices and sending zero waste to landfills. [3] One of the sustainable strategies of Philips is the current development of diverse business models based on subscription for product lines. So far those are either not largely accepted by the consumer or still visionary concepts in need of implementation.

As the medical sector and Philips portfolio is broad, this work only focuses on MCC (Mother and Child Care) as a case study for the B2B market of aspiring parents within the western world (Central-Europe). Aspiring parents are aware that having a baby is not a sustainable choice, however there is a growing number of parents who desire to make it as sustainable as the circumstances allow. MCC is a challenging area for sustainability due to the sensitive topic of having a child. Many obstacles exist for aspiring parents who want to be more sustainable. Hygiene and safety for the baby, change of the everyday life structure, change of priorities and unexpected challenges are just few of these challenges. As they prioritize easy solutions, convenience and the availability of the best products for their baby, they lower their priority for sustainability. With a subscription model for the parents we have an intriguing approach to support the parents on their challenging journey with the baby and sustainability. Despite this, parents do not always act in a sustainable way even if they want to, leading to the aim of this graduation thesis: Explore with Philips how a sustainable subscription service for MCC can be largely accepted by aspiring parents.

[1] Trudel, R. (2019). Sustainable consumer behavior. *Consumer Psychology Review*, 2, 85-96.

[2] <https://www.mariakojck.com/>

[3] <https://www.philips.com/a-w/about/environmental-social-governance.html>

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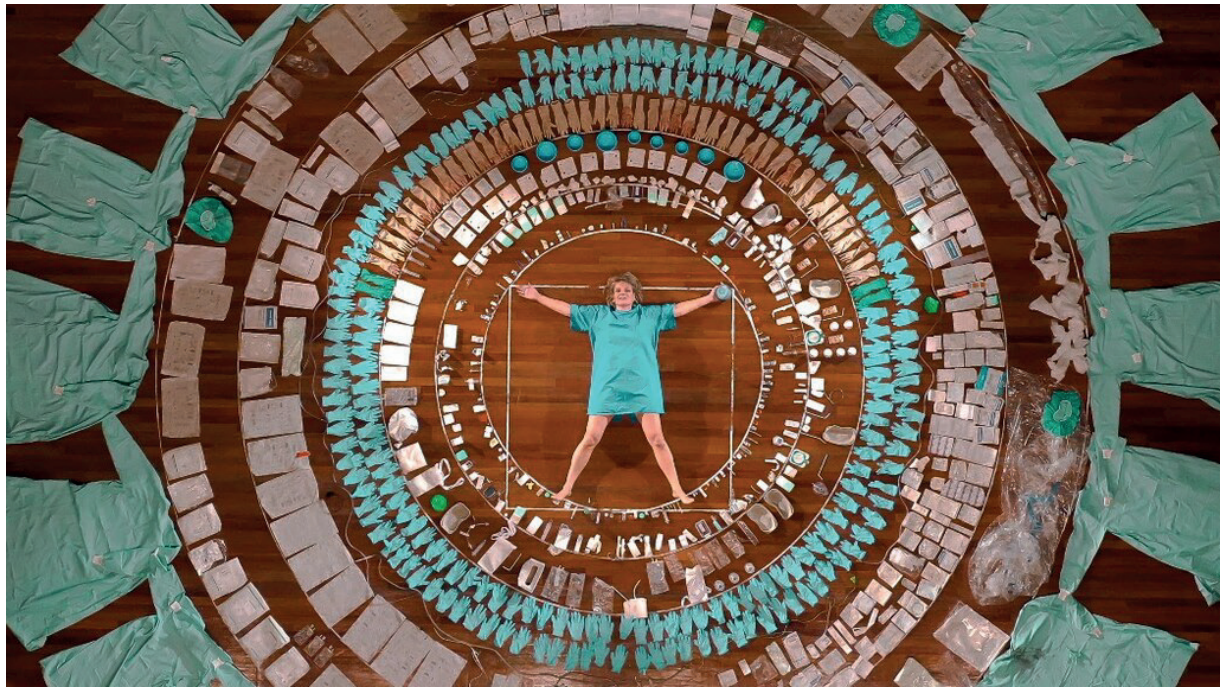
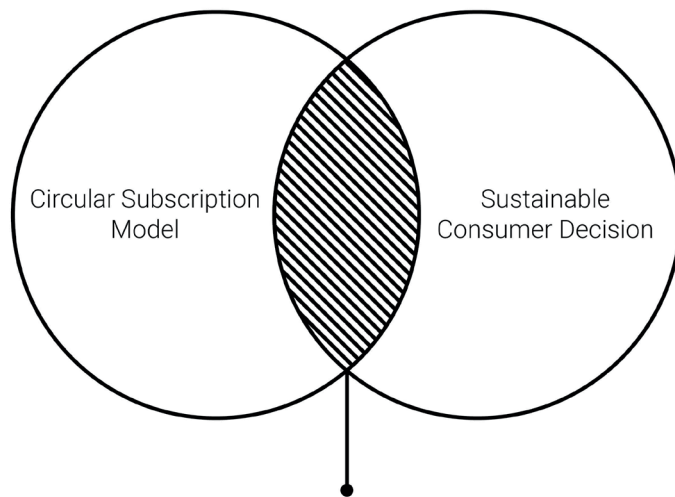


image / figure 1: Artwork of Maria Kojick showing the waste generated in the medical sector [2]



Using a suitable decision making model to translate the sustainable thoughts of aspiring parents into a decision for the circular subscription

image / figure 2: Focus Area

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.

The overarching societal problem (SQ) this work focuses on is Philips' search for an approach to become more sustainable by offering circular subscription models to their costumers. Sustainable business innovations show a large variety of new business models which are feasible and financially reasonable. There is a vast amount of tools on how to develop sustainable business models as well as innovative circular models. Yet, barely any of these models are implemented on the market. One of the causes of this problem is the consumers' non-decision for sustainable alternatives. Therefore, this work solution aims to connect sustainable business models with the decision of the consumers to enable the consumers to choose sustainable alternatives.

Philips' MCC sector offers an interesting space for this work, since the topic of sustainability is new to this sector with lots of room for exploration. Hence, circular subscription models and their consumer acceptance are a novelty for MCC. This leads to the research question (RQ) of how to combine parents decision making and a circular subscription for Philips baby products. Since Philips also has interest on consumer decision making for potential circular subscription models form other product sectors, this is seen as a Sub Research Question (sRQ) to investigate the generalisability and replication of this work's outcome to other PSS.

The choice of the decision making model will be based on an initial investigation and creation of an overview of psychological and sociological approaches and in consideration of the consumer perspective, resulting in the most suitable choice of the given ambition of this work.

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.

This work expects to deliver a framework and road map on implementing a circular service systems for the MCC sector, resulting in aspiring parents deciding a circular subscription for baby products . Ideally, the developed framework might offer the opportunity to be replicated and applied within other circular subscription services of Philips from other sectors.

The thesis aims to connect the circular business model of subscription with the consumer's decision to purchase it. To do so the existing knowledge of Philips on developed subscription systems will be translated to a draft of a circular subscription model for MCC. The decision of the aspiring parents for this subscription model will be explored through the most suitable decision model based on literature research - aiming to translate the sustainable thoughts of aspiring parents into a sustainable decision for the subscription service. The results are expected to deliver a framework with road map for MCC to launch a circular subscription service for aspiring parents to choose.

This includes the following actions:

- Research on historical developments that lead to our current non-sustainable decision making
 - Creating an overview of decision making models (psychological and sociological perspective)
- Investigate needs and roadblocks in adopting a circular subscription service (PSS) for MCC
 - Map down drivers which make the users behave in a sustainable/unsustainable way
 - Define sustainable and unsustainable behavior in this field
- Map out the opportunities for influence and change at the product, service and social level
 - Explore possible approaches which lead to sustainable decision making based on the chosen model
 - Map the customer journey of becoming parents and key opportunities for sustainable decision making
- Investigate experience design guidelines based on literature, interviews/co-creation sessions with consumers

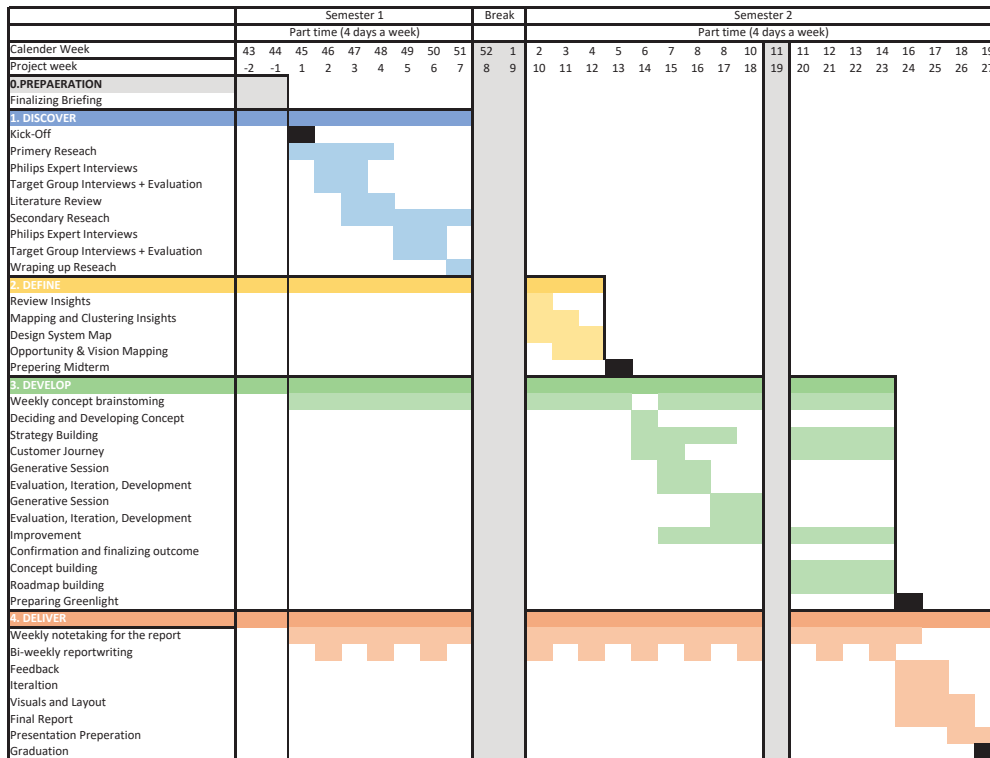
PLANNING AND APPROACH **

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 11 - 11 - 2021

11 - 5 - 2022

end date



The planning is structured in 4 main phases, but due to the visualization of the Gantt-Chart, the process has a linear way of working. However, to break this linearity a weekly concept brainstorming session is being added to the planning. This makes the design process more dynamic, enables deeper scrutiny of ideas, and make learnings more in-depth. Furthermore, the schedule includes weekly note-taking and bi-weekly report writing sessions. These sessions are in place to avoid extensive report writing in the last few weeks before graduation.

The black squares in the Gantt-Chart denote the weeks of the four main milestones - kickoff meeting, midterm meeting, green-light meeting and graduation ceremony. Furthermore, breaks are also marked in the planner as grey; this includes two weeks of Christmas holiday and one recharge week during the developing phase.

Overall, the internship will be a four-day workweek graduation since, I will be occupied with wrapping up the my ongoing honors project as well as one TA job, followed by Dutch classes one day a week from February.

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.

After my bachelors, which was followed by a year of working as an industrial designer in Austria, I was very frustrated to see how unsustainable the industry is and my inability to have an impact. This resulted in my decision to return to studies and find ways to have a sustainable impact as a designer on a strategic level. Through my electives, honours, internships and TA jobs, I have focused on answering this question from different perspectives, including business, consumer, and political perspectives - using social, systemic and participatory design.

After almost two years of my explorative journey in the topic of sustainability and design at the TU Delft, I concluded that our current western lifestyle based on a linear economy serving businesses and customers is the biggest challenge against a sustainable future. After better understanding the power dynamics of politics, society and businesses, and looking into who should be held accountable for polluting the planet, it became clear that this is my topic of interest.

Looking back at my studies, two electives triggered my interest in the topic of sustainable business models and sustainable consumer behaviour. On the one hand, they gave me relevant initial insights and knowledge , but on the other, they also raised the question of why it is so common to think in silos and not combine consumer behaviour more directly into innovative sustainable business models. This drove me to focus on the solutions for the needed transition of businesses and consumers within the western world towards a circular economy. Therefore, I aim to utilize my thesis as an opportunity to dedicate 100 days of my time to go in-depth into this topic.

After graduating from SPD, I aim to enter the job market again as a strategist and utilize the acquired competencies from my master towards my goal of having a sustainable impact on a systemic level. Through this thesis, I aspire to gain expertise to help businesses move from a linear economy to a circular economy. Eventually, I aim to use this experience as a stepping stone to grow as a sustainable strategist. Working with a company like Philips and experiencing strategic and sustainable design in practice are great opportunities for me to develop into the designer I aspire to be. In a nutshell, my top learning objectives of this graduation thesis are:

1. Developing in-depth knowledge and expertise in sustainable consumer behaviour in the western world
2. Developing in-depth knowledge and expertise in sustainable business models in the western world
3. Learning to connect consumer behaviour with sustainable business models, to trigger sustainable consumer behaviour and combine this with sustainable business models.
4. Exploring how businesses like Philips can transition from a linear economy to a circular economy by using strategic design.

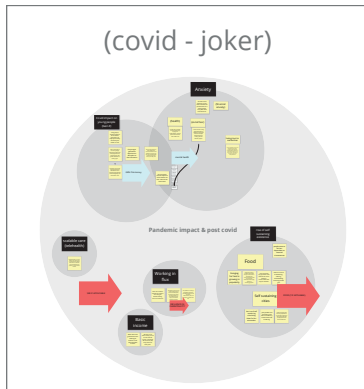
I also aim to develop my following softskills:

1. Confident appearance and generally growing in confidence in my work
2. Structured and good project and stakeholder management

FINAL COMMENTS

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

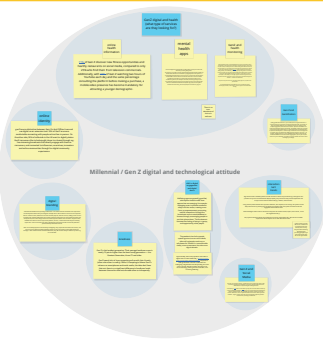
INFORMATION MAPPING



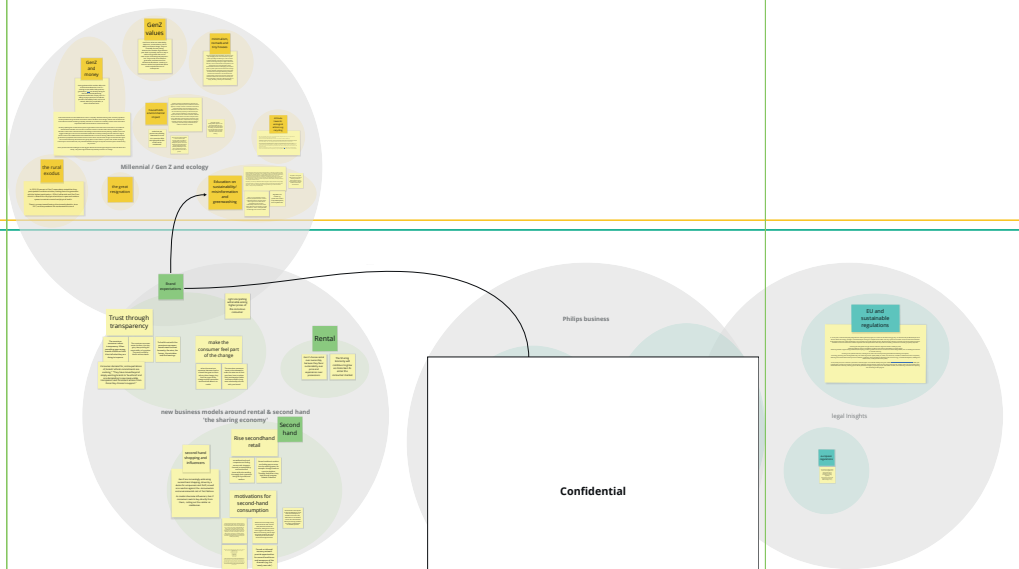
<p>Gen Z/Mill people and society</p>	<p>Parenting</p>	<p>Healthcare</p>
<p>Business</p>		



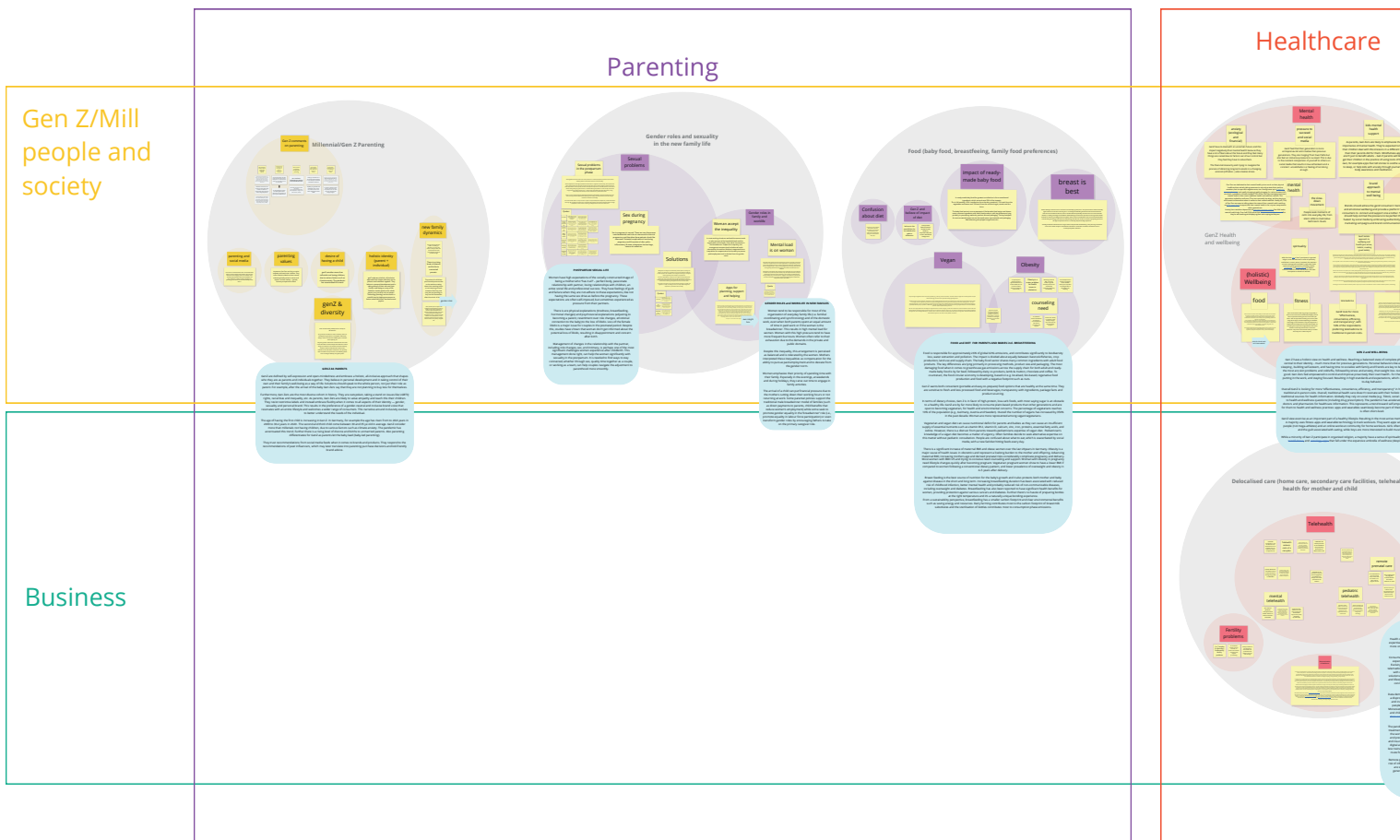
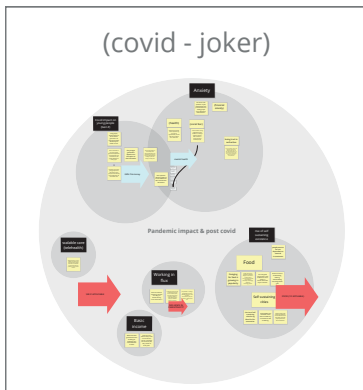
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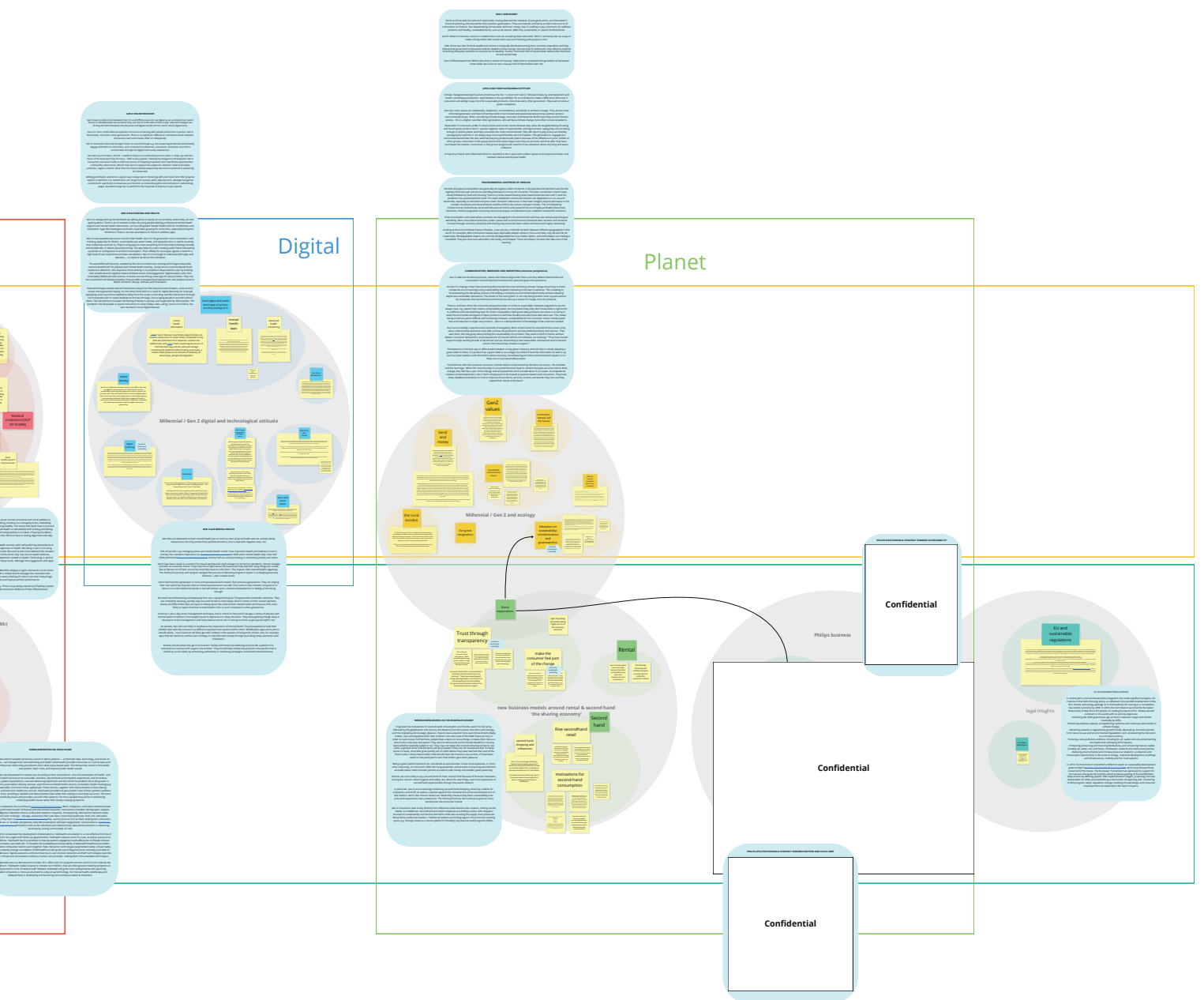


Planet



INFORMATION MAPPING WITH INSIGHT CARDS





FINAL INTERVIEW SETUP

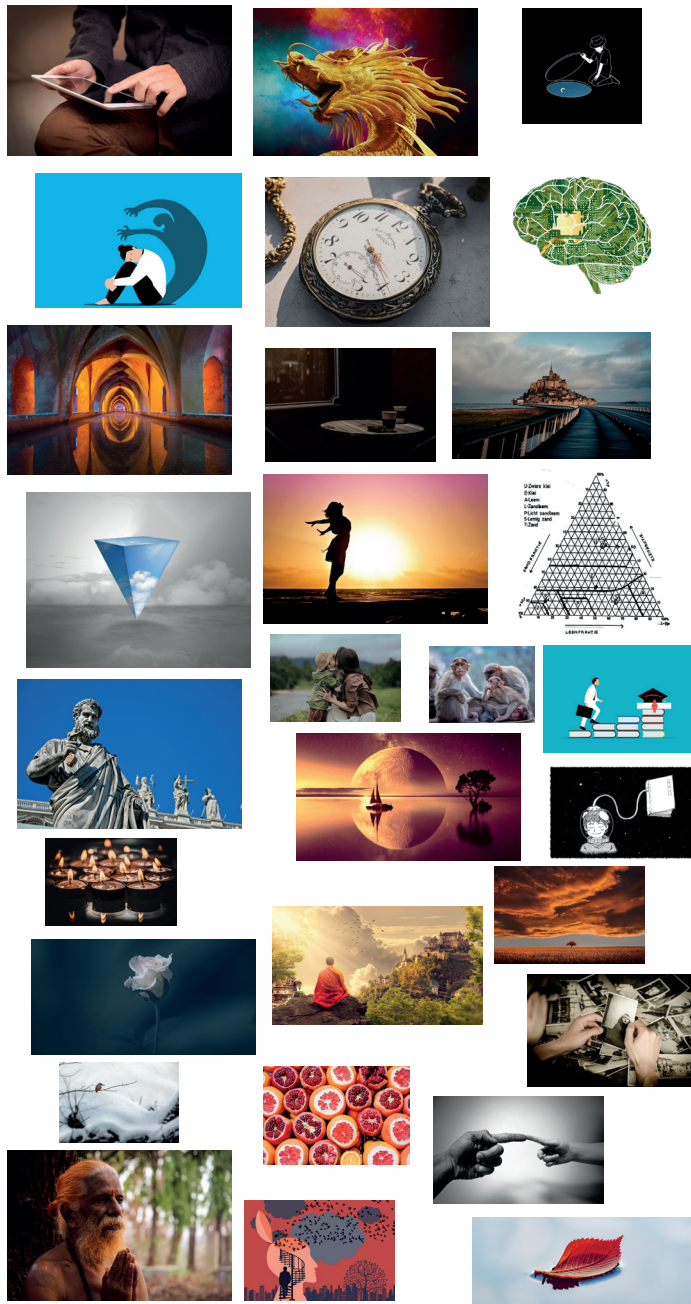
Übung 1

Was bedeutet es für dich ein Elternteil zu sein?

Ziehe hier 1-2 Metapherbilder her um deine Gedanken auszudrücken.

Was bedeutet es für dich nachhaltige Eltern zu sein?

Ziehe hier 1-2 Metapherbilder her um deine Gedanken auszudrücken.

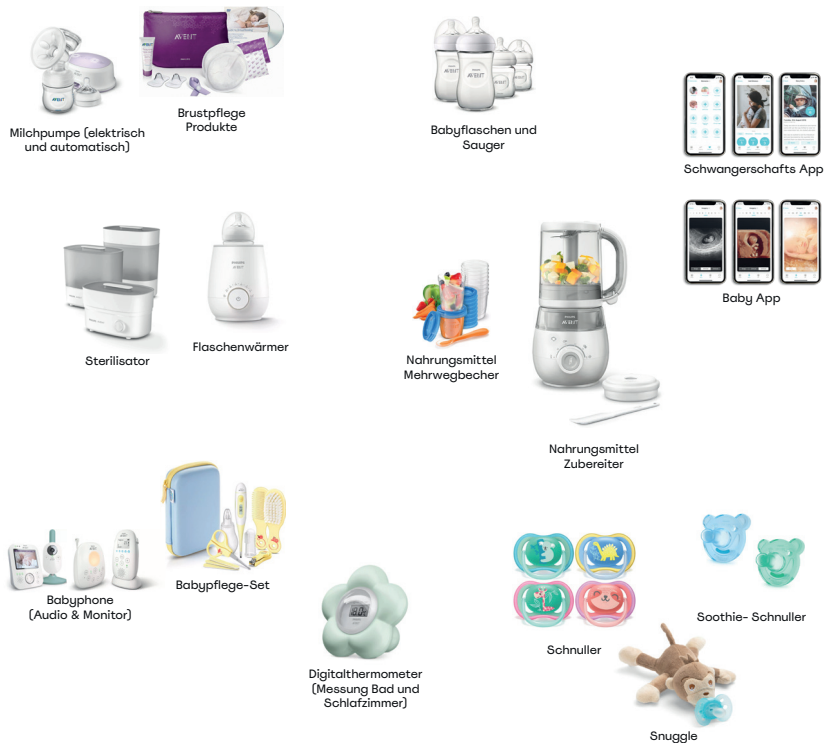


Übung 2

Was war das letzte Babyprodukt, welches du gekauft hast, so du dich mit mit Nachhaltigkeit auseinandergesetzt hast?

Du kannst hier ein Bild aus der Inspiration herziehen oder wir suchen ein Bild aus dem Internet zu dem Produkt worüber wir reden werden.

Inspiration Produkte



Inspiration Nachhaltigkeit



SEMI STRUCTURED INTERVIEW GUIDE

INTO AND WARM UP

- Moment to get to know each other (Personal introduction)
- Project introduction

FIRST QUESTION

General understanding of parenting

- What does it mean for you to be a parent?
- What are the most important values or principles for you as a parent?

General understanding of sustainable parenting

- What does it mean for you to be a sustainable parent?
- What actions do you consider to be sustainable?
- Do you think it is easy to be a sustainable parent?

Self perception of sustainable behaviour

- Do you consider yourself a sustainable parent?
- If No – Do you want to be more sustainable?
 - Why/Why not?
 - What would trigger you or help you to be more sustainable?
- If Yes – What makes you a sustainable parent?
 - Why did you become a sustainable parent?
 - What would trigger you or help you to be more sustainable?

SECOND QUESTION

Gathering information and social media

- How did you conduct research for the product?
 - How did you approach it?
 - How do you inform yourself?
 - What platforms did you use?
- What role did social media play in the decision-making?
 - What other factors influenced your decision?
 - What role did people around you (family, friends, colleagues...) and in-store visits play in the decision making?

Role of Sustainability

- Which are the factors which influence your choice?
- Did you look into sustainable information when you bought this product?
 - If no - Why not?
Openness towards sustainable products?
What do you think about people who go for sustainable products?
 - If yes: How did you learn about sustainability of the product?
Was the sustainable information easy to read and understand?
Did you felt overwhelmed?

Pressure to be a holistic parent

- When looking into the product did you feel pressured into being sustainable?
 - Why?
Where was this pressure coming from?

Concerns of climate crisis

- How do you feel about the environment?
- How do you feel about your kids growing up in this climate crisis.
 - Is there something you would like to do about it?
- What are the main considerations when you looked into this product?
 - Was sustainability a consideration or not?
Why?

QUOTE MAPPING

Pressure

When this user research three different categories of pressure for parents were identified:

Pressure sustainability
The pressure of sustainability, on the one hand, comes from the parents themselves once it's important to them. On the other hand, this pressure comes from societal influences as well, such as the media.

Pressure parenthood
Parenthood requires a new and challenging time management, which is based around the child's needs. The most challenging aspect is the time management of the work of one for the individual parent, specifically for mothers. One major change when it comes to time for parents is that parents must learn to be present in the moment with the child.

Pressure time
Parents spend more time on their children than ever before. Parenthood comes not only from the activity but also from the time spent with the child. The pressure to be on all the expectations also results in higher mental load, especially for women, who are challenged by these expectations and have without appreciation but with constant criticism.

Pressure



Concessions

When it comes to the difficulty of incorporating sustainable behaviors, both parent groups try to find compromises to make it achievable and feasible in their everyday life.

The parents (G1 and G2) (2021, 2022, 2023, 2024) specifically expressed that they are not sustainable ambitions, but they are not prepared. However, they and really are two different things. This when compromises were needed to balance products and daily life. Concessions were made to incorporate sustainable behaviors with the frequent change of circumstances identified. One interesting example was both groups having had to give up on their idea of a conventional diaper to reduce waste. However, when the child arrived, and their daily life got busy, both groups turned towards cloth diapers. This was a concession that they made to be sustainable when it comes to diapers but integrate them in daily life in a feasible manner. Additionally, that they try to find a compromise only in their own actions but also in their children's daily life. The most common example was that parents tried to use what their child would like to have and try to find the way forward.

Compromises

Sustainable behaviors need to be flexible and achievable. Combining sustainable and non-sustainable behaviors. Compromises which kids were somewhat non-sustainable.

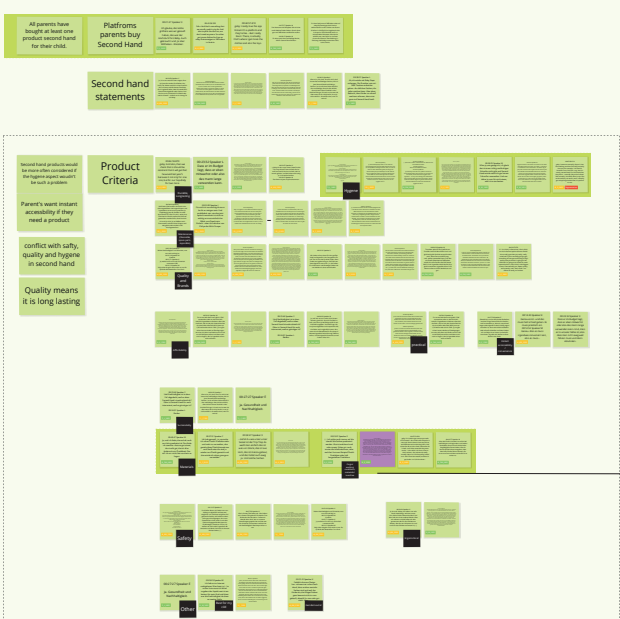
Buying sustainable products

All parents interviewed had experienced with second-hand products for their children. However, all participants expressed that when it comes to second-hand products, they are not sure about buying second-hand items as a child's contact with body, clothes, or public, breast, baby powder, and medicine.

In addition to that, in interview G1 (2021, 2022), the parents stated a concern about buying second-hand items as a child's contact with body, clothes, or public, breast, baby powder, and medicine.

When questioned about product criteria, the most frequently mentioned requirements were the durability of the product, any maintenance instructions, open parts, reporting, and well or brand quality. Parents expressed that they do not use durable high-quality products for a long time. They are more likely to buy products that are easy to use for parents in the long run. This includes the ease of use of the product, which is not necessarily related to the durability of the product. Parents also mentioned that they do not use products that are not sustainable products. Parents do not use products that are not sustainable products. Parents do not use products that are not sustainable products.

Buying sustainable products



Short time consumption

One key insight from the interview was the short time consumption. Parents buy products for their child's consumption. In addition, they buy certain products for their child's consumption. In addition, they buy certain products for their child's consumption. In addition, they buy certain products for their child's consumption.

Short time consumption



Others needs

Parents also beyond the child's needs when buying products for their child. Parents buy products for their child's needs. Parents buy products for their child's needs. Parents buy products for their child's needs.

Others needs (grandparents, parents, friends)



Sustainable life

Difficulties
There is a shared difficulty parents face when it comes to having a sustainable parent. The most frequently mentioned difficulty is the integration into daily life, which includes wear and tear and a difficult task of integration. Sustainability means of being more aware and protecting the products on your own and using cloth diapers too much work.

Being conscious to prevent an emergency situation, therefore adds to the mental load as well. Parents have high expectations to have to be sustainable in daily life. However, they do not have the time to be sustainable in daily life. They do not have the time to be sustainable in daily life. They do not have the time to be sustainable in daily life.

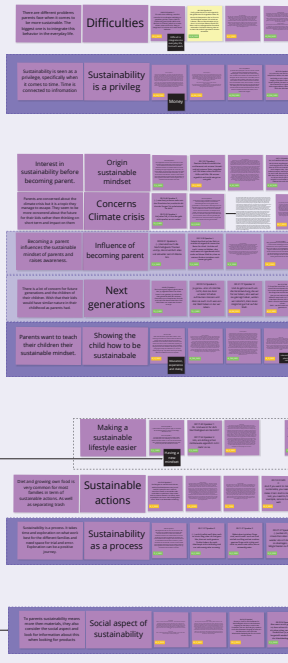
Keeping the difficulties in mind, sustainability is seen as a privilege among parents. In the interview conducted, 2 main specifications of privilege could be identified: 1. Parents, which they find a higher status. 2. Parents, which they find a higher status. 2. Parents, which they find a higher status.

Concerns about the climate crisis and their impact on parenthood
When it comes to concerns about the climate crisis, all participants expressed concerns and discussed the need to take action. Parents are aware of the climate crisis and its impact on parenthood. Parents are aware of the climate crisis and its impact on parenthood. Parents are aware of the climate crisis and its impact on parenthood.

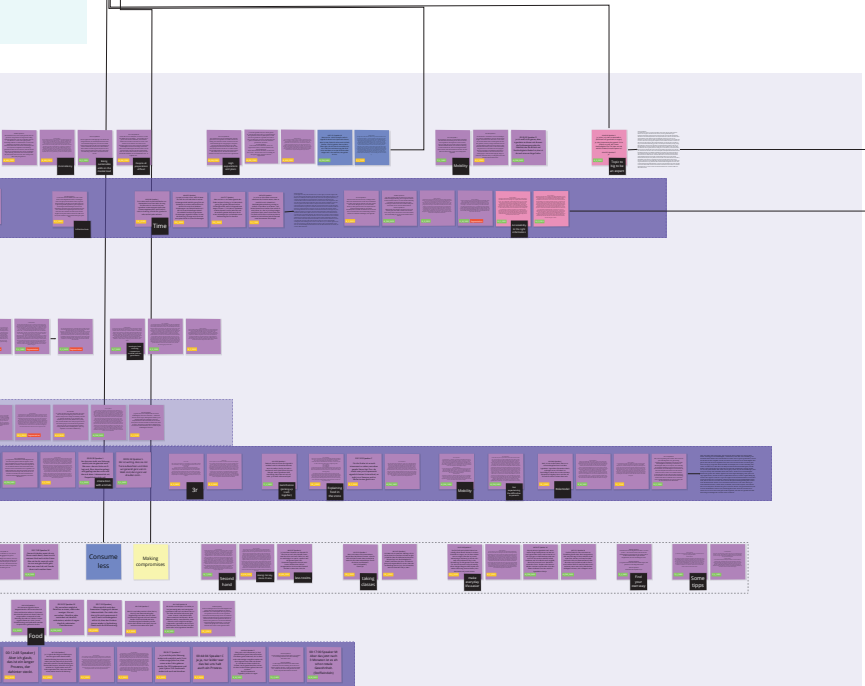
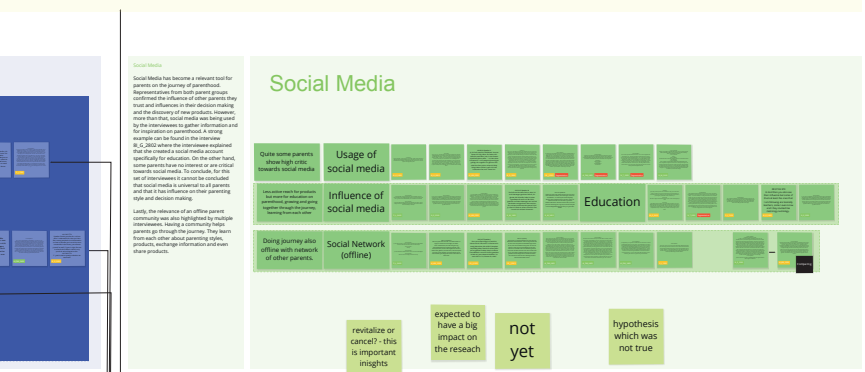
Every child is different



Sustainable life



omises

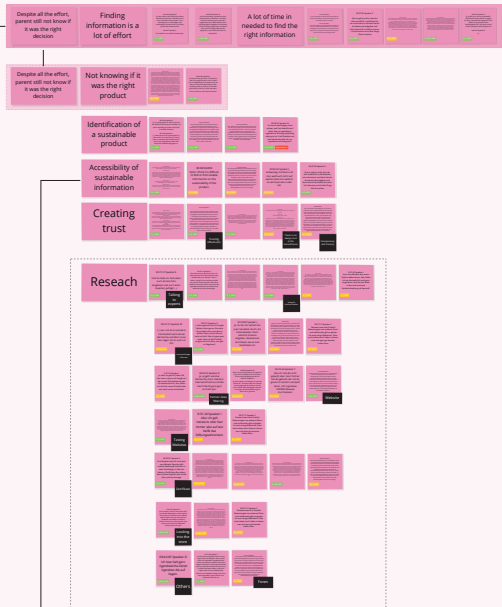


Interviewee quotes

One of the major problems both parent groups seem to face when it comes to sustainability is related to information. The interviewees concluded that finding sustainable educational options is a lot of effort and results in a high time investment. Some parents such as Interviewee H_C_2023 specifically stated how difficult it is to identify if a product is sustainable, and even after it is purchased they still doubt its sustainability.

To better understand the magnitude of information gathering, the parents were asked how they approach their product research. Interview research was the most frequently mentioned answer in combination with finding friends and family. Interview B_2402, H_W_2302 explained that one parent cooked the general research and shared an already finished product to the other to make the decision simpler. The interviewees also mentioned that interviewees seeking solutions in a different way was to investigate from forums. Another frequently mentioned approach was to visit an online such as reading scientific articles and speaking to experts about the product or contacting to health care providers. Lastly, some parents also mentioned activities in their research and that they like to experience the product physically in the store.

Informing about sustainability



WORKSHOP MATERIALS

Group A

Sustainably Aware Parent

Eefje

Andre

Daan

Alessia

Group B

Sustainably Practicing Parent

Elisabeth

Gizela

Victor

Coen

Group C

No Sustainably Parent

Elise

Elly

Jelle

Weichun

Agenda

Intro

- 9.15 Welcome & coffee
- 9.20 Introduction round & energizer
- 9.25 Goal and scope (Eefje/Elise)
- 9.35 User insights + Q&A (Elisabeth)
(pasting cards to quotes)
- 10.15 Story building process (Elise)

Workshop part 1 - Persona

- 10.20 Warm-up
- 10.25 Personas building + coffee break when needed
- 11.10 Personas sharing

Workshop part 2 - Story building

- 11.30 Story building + lunch
- 12.30 Story sharing

End

- 12.50 Wrap up
- 13.00 End of the workshop

INSPIRATION BOARD WITH SOCIAL MEDIA SCREEN SHOTS



Instagram screenshot showing a post from 'annarrative_' (Berlin, Germany) about toy rotation. The post features a photo of a child playing with toys and a caption in German: "Ich weiß nicht alles. Aber ich weiß, dass ihr drei mich, so oft ihr mich auch auf die Palme bringt, nicht ärgern werlt." It has 251 likes and a link to a blog post.

Instagram screenshot showing a hashtag search for '#babiesoftiktok' with 35.88 views. The hashtag is added to favorites. Below the search results, there are several photos of babies and children.

Instagram screenshot showing a search for 'sustainable parenting' with various hashtag results: #sustainableparenting (104.1K views), #sustainable (1.3B views), #sustainableliving (394.3M views), #responsibleparenting (1.3M views), #sustainablefarming (9.8M views), #responsibleparent (50.0K views), #supportiveparent (7.4M views), #essentialparent (171 views), #sustainableliving (1.8M views), #singleparenting (16.4M views), #sustainableplanting (6426 views), and #sustainablestyle (26.1M views).

Instagram screenshot showing the profile of 'philipsavent' with 363 posts. The bio reads: "Philips Avent Baby goods/kids goods. We believe in liberating parents linktr.ee/PhilipsAvent_".

Instagram screenshot showing a post from 'annarrative_' (Friedrichshain) with a photo of a woman reading to a child. The caption is in German: "Even wonder what cloth dispensers look like!" and "FOLDING WIPES TO POP OUT OF DISPENSERS".

Instagram screenshot showing a hashtag search for '#sustainableparenting' with 120.8K views. The hashtag is added to favorites. Below the search results, there are several photos of parents and children.

Instagram screenshot showing a search for 'dadlife' with various hashtag results: #dadlife (6.5M views), #dadsdife (48.5M views), #singledadlife (306.7M views), #dadlifebeike (93.9M views), #newdadlife (34.0M views), #momdadlife (9.7M views), #daddydife (46.5M views), #dad4life (5.7M views), #thedadlife (729.3K views), #dadlifeisgood (98.8K views), #lifeofdad (5.3M views), and #protectedadlife (265.4K views).

Instagram screenshot showing the profile of 'recycleandplay' with 583 posts. The bio reads: "Recycle And Play Sharing the best recycled craft and more www.hellowonderful.co/post/".

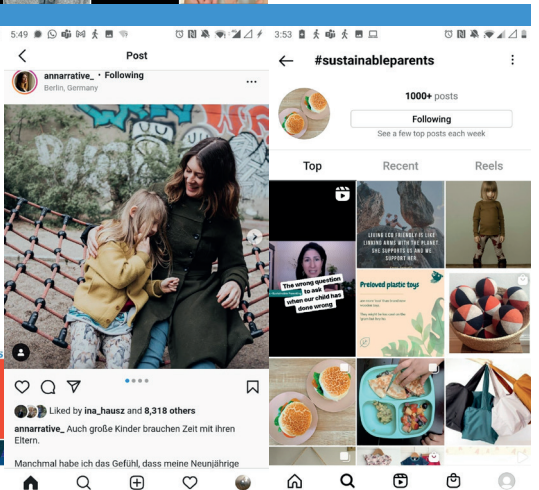
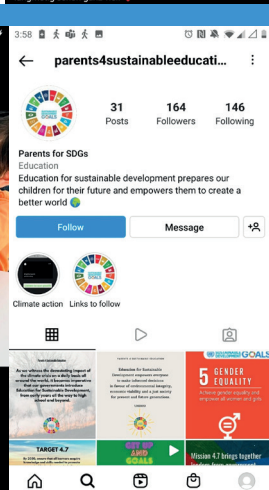
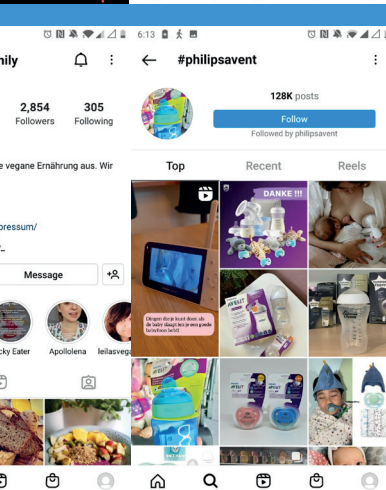
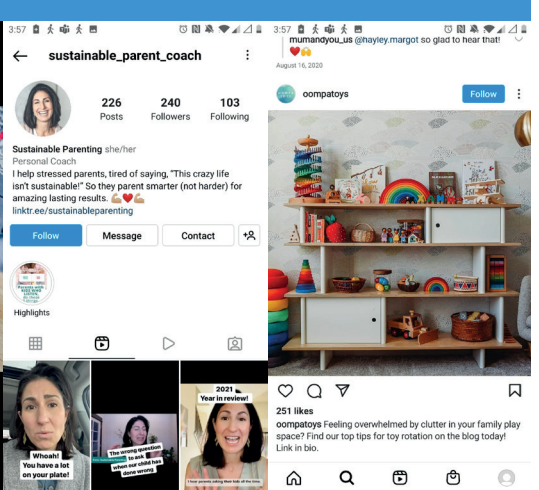
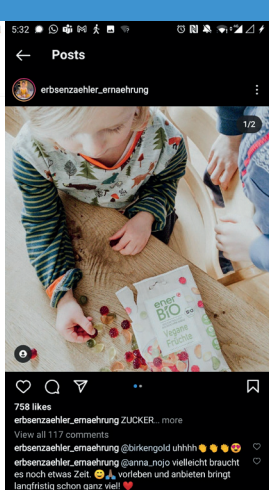
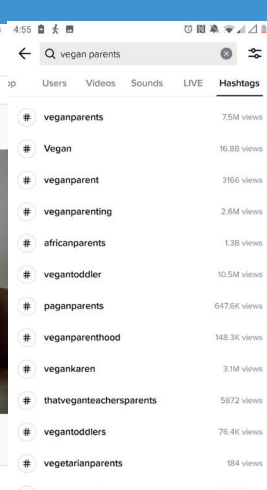
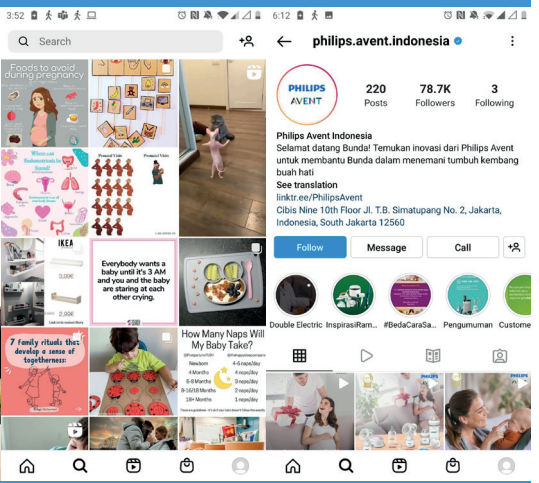
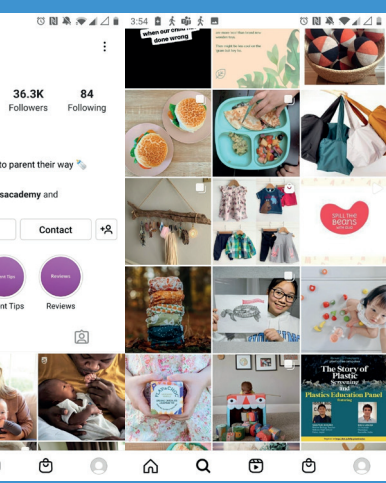
Instagram screenshot showing the profile of 'erbsenzaehler_ernaehru...' with a grid of food images and text: "Gemüse für die Bebi", "Vitamin B12 ab Geburt oder Bebiessenz?", "Ich vertrage keine Hülsenfrüchte", and "EISEN in den veganen Bebi".

Instagram screenshot showing the profile of 'philipsavent' with 222 posts, 9,494 followers, and 114 following. The bio reads: "Philips AVENT | Product/service Reduce las odlicios, gases y malestares con el Biberón Airfree Vent. Encuéntralos en @afalabella_co... more See translation linktr.ee/Philipsaventico".

Instagram screenshot showing a post from 'fmarketto' (fmarketto) featuring a hand holding a pack of 'Marley's Monsters CLOTH WIPES'. The caption says: "You won't believe who ordered from us!".

Instagram screenshot showing the profile of 'philipsavent' with a post asking "Can you guess which book I am?" with a visual equation: 🍎 + 🍏 + 🍏 = ?

Instagram screenshot showing the profile of 'veganuary4fam' with 52 posts. The bio reads: "Veganuary für Familien Problem mit uns im Januar ein unterstützen each durch -Familienfreundliche Rezepte -Einsteigtipp... more See translation an-klempflinchen-8kb.de/img".



STIMULI QUOTES FROM THE USER RESEARCH

00:27:01 Speaker I

Well, I mean there are things where I say because of hygiene, I wouldn't get them second hand. These are things that you use on the toilet, for example, a toilet seat or something like that. The same goes for a baby mattress, I would always buy a new one. Or things like pacifiers...I really like buying used things but as a mother, that changed for me. For example, the pacifier...because you want the best for your child and without exception the best, and in this case hygiene is also part of that. And I've already seen that by several mothers and it's certainly been said more often that you just don't want to take any risks. Your child is the most important thing and you want to minimize that risk.

00:18:30 Speaker M

We were aiming to always cook. But now we buy these squeezes that are wrapped in plastic in 100 gram packs. Because it simply makes our day easier. And there we do it again in a way that we buy the ones that cost a little more... I think they're the ones from Demeter (biological brand). The packaging is also B certified. And that's that middle ground again, that you try to be more sustainable, but it also has to be practicable.

00:13:20 Speaker C

If you have a lot of time to think, then maybe it's still possible. But especially when you are stressed in everyday life, it is not always easy. Then you just go to the supermarket and buy food there, which is often plastic-packaged, instead of taking the further route which is sustainable because it is more regional.

00:52:24 Speaker I

Yes, it's definitely daily. Because you are always confronted with all this packaging stuff. For example, M. likes these, these squeezes...I find them horrible. I think it's totally terrible that the thing is used once and then ends up in the garbage. And I've informed myself to see if you can buy them to refill them yourself. It's just that...unfortunately, as a parent, you're short on time, because the day is really far too short for the hours that are there. I can only speak for myself, but because I have this little time, I prefer to spend all the time with the child. For example, chopping fruit and preparing porridge so that the child has this squeeze later. And on the other hand, when she is asleep, I also need a little time for myself. To recharge my batteries and then I don't feel like making this sustainable natural porridge or refilling this squeeze, because that takes a lot of time... And that's the reason why I do buy plastic, not necessarily because it's great or because I like that. So I hate it every time, it annoys me a lot, yes, but it's just weighting the bad. I choose this bad rather than the time I have to invest in preparing everything on my own.

00:21:29 Speaker D

This topic of sustainability I find it totally, extremely important, but I also find it really difficult at times. In terms of how we live, just how much waste we create. I don't think it's that easy, and of course it's also a financial matter. I'd love to go to the market, or to the packaging-free store and do our weekly shopping there. But I just can't afford it, it's just not possible.

00:17:38 Speaker M

So you can prepare as well as you want, you can think about it and you come up against so many limits. And then so many demands on oneself that the desired sustainability is one of the first things that crumble.

00:30:34 Speaker C

I also bought a pacifier and I think I stood in front of this shelf for 15 minutes and looked to see if you could buy plastic reduced. To be honest, I don't know if my decision was a good one, but I took one made of rubber. I think this was the only product which I don't think was out of silicone? Well, that was a conventional drugstore that I bought this from, because I didn't go to a special store. I'm also honestly not sure if the product is better than the others. Price wise I can't remember if there was a big difference but I thought I doesn't look nicer than the others but I hope it's a better product. It's really not easy for me to always know what's actually right, because there are just so many products on the market and not everyone has the time to deal with which product is good, which is not good, how do you ultimately dispose the product? But it is particularly difficult with baby products, so things that are not necessarily related to clothing, which can be reused relatively easily. But things that are really about hygiene, the things that end up in the mouth. It's actually difficult knowing anything special, for example because you're a midwife or a doctor and you work in that area. I find it really difficult to always make these decisions.

00:50:41 Speaker C

I find it very difficult to live sustainably in general and as a parent because there are just so many decisions to do as a parent. And because I am not an expert, or probably most of the parents aren't experts in the field. I think, you as a mother, you would be very happy if you didn't have to take the time to do extra research for each product. What is just so much time that you're wasting. I would be very grateful if companies would take it on and if politicians were a little braver to do more.

01:04:06 Speaker G:

The problem is there is too much options on what you actually need because there are so many things that everybody swears on and they say that this works. But at the end of the day, you have to find out for yourself, because your child is unique and different. I don't know it's really, really hard, I think I feel more tension in the fact of what actually I should get. Because there are so many sources for so many products and so many things and I am like: Okay, what is actually good? What actually are the things that I do think are going to be good for my kid?

00:16:12 Speaker K

Of course, we bought clothes for her in advance, so more than 9 months in advance we gathered everything possible.

00:32:30 Speaker L

My way of thinking has changed a bit in recent years. At the beginning I also thought that I needed all of this and that so that my child is fine. Meanwhile...I think the fewer the better. You just have to consume consciously and see what alternatives are there.

00:11:06 Speaker J

For me it means that it's pointless to buy something that I don't need at first. So let's think about it, do I really need it?

00:27:22 Speaker K

The Avnet sterilizer from Philips, I haven't used it for a long time because she doesn't drink from the bottle. And I don't need the pump now either.

00:35:55 Speaker I

I've never used the sterilizer and bottle warmer.

00:36:19 speaker 3

Why?

00:36:21 Speaker I

Because I'm breastfeeding, so I didn't need them. Well, at the beginning, when she was born, there was a bit of this panic, what if I can't breastfeed or something, that I always have it at home and... if you have to get something like that quickly and especially since it was lock down, I wanted to have it at home before I would even need it. And I never needed it, so it was really just unnecessary. And I didn't really need any of those baby food processors either, but that was because M. refused to eat this porridge. She is only eating what we eat. Yes, of course I didn't know that beforehand either, so it was just something I thought to myself: you try it, you offer it, but you're never sure that it will be accepted by her. It's the same with the pacifiers, so we have the whole range of pacifiers at home, so we have easily 20 different types, no kidding. Because we tried if she wanted a pacifier... just to offer it, you know, because it makes things a lot easier, but she doesn't take them, she just plays with it. She thought it was funny as a toy, but she didn't want to take the pacifier and of course it's not very sustainable either, because we now have 20 pairs of pacifiers. 20 pieces of pacifier lying at home which are not used.

00:45:47 Speaker K

With the cloths, for example. It also has many advantages if you don't buy them new. Not just because it's more sustainable but because all the dyes, poisons, preservatives and whatever substances have already been washed out many times over and over.

00:40:43 Speaker M

Sometimes we have to fall back on what is there and not all can be sustainable. That's why I am coming back to the compromise! Because of course you have a bit of a conflict when you have to buy things that are shrink-wrapped in plastic. You have to buy it, you just can not buy it at all. For example if our farmer's market woman isn't there and I need carrots, then I just buy organic carrots from Austria, but they're in plastic. And yes, it doesn't quite fit in (sustainable lifestyle). But I keep trying more and more, for example I love avocados! But I really try to only buy them on special occasions, because that's just a conflict... avocado or mango. I only buy bananas when they are on sale because otherwise they would probably be thrown away because most people don't like them brown. I tend to like it better when they're ripe and then I think to myself, maybe I'll save groceries that would be thrown away. And that, again, is a compromise. There are always conflicts like that, things just overlap and you can't do everything perfectly...

00:13:31 Speaker F:
We want to give a world to our children that is livable. And want to show our children how they can make it sustainable, so also that their children can have a world that is nice to live on. And I do think that showing how to, that's something that goes into how we educate. We try to at a young age to raise awareness.

00:28:35 Speaker G:
I also try that (educating on sustainability) when he waters with me the plants. He is loving to kiss the little leaves. We we've been trying to make him understand that even if they don't scream they're still living. And they help us with making our oxygen. This other approach that we are one with this world and we only have one again planet so it's about how we want to use it.

00:28:25 Speaker L
Yes, in terms of sustainability (feeling pressured). I mean, it used to be that I was the only one who used cloth diapers. I have been usually looked at funnily. Or when I didn't want to buy certain things, even though others are buying them...There was more pressure that I people looked weirdly at me because the topic was or is important to me. But now that has changed.

01:06:00 Speaker G:
It is very difficult and sometimes you screw up. You realize that you get something... you're super excited, you've investigated, it's Fair Trade, it's good materials, good quality! You get it, you give it to your son. And then he looks at it, plays with it 2 seconds. And you are: "Oh no I invested so much time, energy and effort thinking what to do". And then it didn't really work. And then he prefers to use I don't know the box of the product. So it is a trial and error. So for my child it didn't work and we put it in Vinted and for somebody else it works.

00:25:02 Speaker M

Regarding clothing for example, F. (the child) often wants things that I should sew for her. Then we drive together to the organic fabric shop (by bike) and choose a fabric that she likes. I also think it's important to show her the process, that it's work. You have to decide what you want, you have to think about it, then you drive there, you choose a fabric, the fabric needs to be washed, then it has to dry, then you have to cut it, then you have to sew it up, then maybe you have to measure again, then you have to change that and then it fits. That was also the case when she needed new underpants and then we needed to sew them. And so I think it's important to show that that's the case, that is very valuable. She also gets bought things..but we don't actually buy that much, most of it is mostly inherited or sewn. But it's important to me to show her this approach. Like also when you plant something, you have to take care of it from March, April and then in July to be able to eat it. That doesn't mean that we don't buy tomatoes from Spar. But I think it's important to simply show both. And to drive with her to the farmermarket with her again and again and to shop with her and to have our own bags...

00:33:54 Speaker L

It depends on what my current workload is. So whether I really have the time to do an extensive research. If I can't afford it right now, then I fall back on simple solutions.

00:46:44 Speaker K

Yes, of course I have 1000 mommy accounts that I follow. They may have changed in the last year and a half... I've followed many influences on Instagram, some who had a baby about the same time or a little earlier than me. Simply because I was interested in the topic.

00:03:43 Speaker C

Yes, the one with the woman sitting on the floor. Legs bent and head resting on her knees. And in the background you can probably see her shadow, which is attacking her or wants to roll over and eat her up. (describes a picture) I think that's how some mothers feel sometimes and I certainly do too, I think these are situations where you as a parent might feel a bit overwhelmed to do justice to all the roles that you are as one person. As a mother, as an employee or maybe also as an employer, to do justice to this role at work and as a partner. That can sometimes be very, very exhausting and then sometimes you would like to crawl into an empty room, close the door behind you and don't want to know anything about anything anymore and that's what this picture actually describes for me.

00:45:47 Speaker C

But I find the decision about products even more difficult. Which products do I need and then which products do I buy? Just in the baby area...in the first half year, in terms of pacifiers, bottles, then sterilizers, bottles warmer if you need something like that or a mixer. They're all made of plastic or of materials that are most likely not particularly sustainable. But as a consumer, how do I make the decision without being a scientist and without doing a doctorate... well, that's damn difficult...

00:09:54 Speaker E

This constant critic, that if you do something...it doesn't matter how you do it, it's not really that you're doing something wrong... for example breastfeeding. If you don't breastfeed it's wrong, if you're breastfeeding for too long it's wrong, if you're breastfeeding in an way... if you let the child suckle for too long it's wrong, if you stop breastfeeding too soon it is wrong and if you say "No for me there are boundaries" this is also wrong. It's just always wrong. On the other hand, men simply get the full praise when they do something. And that's exactly what this shadow is like, which I think somehow lies over motherhood because of society.

00:14:49 Speaker J

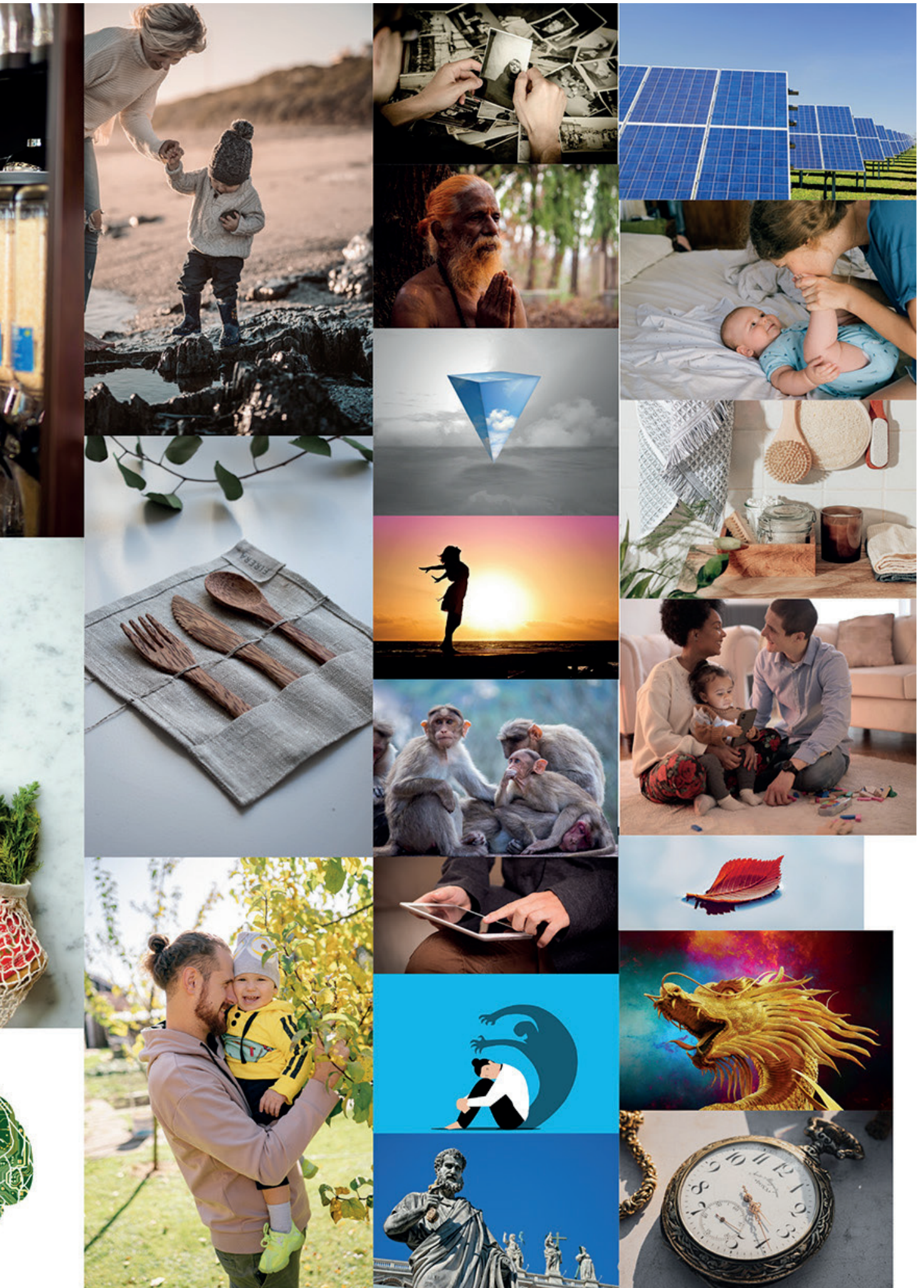
By taking my child with me when I go shopping and explaining why we don't do things like that like the others, for example. To introduce them to consciously thinking about what to buy, how to use it, what to do with it.

00:16:36 Speaker L

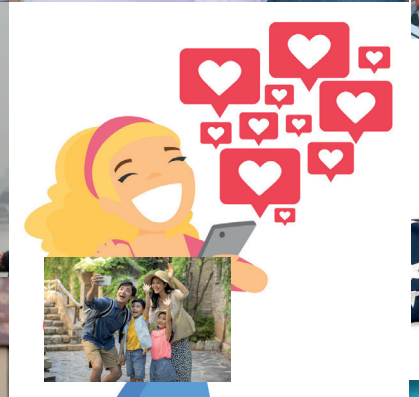
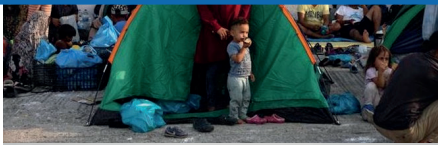
Because we actually set an example for them (the kids) and they can join if they want. And yes, from time to time we also make games out of it, for example, if there is garbage lying around at some point, then pick it up - it's a garbage-picking game.

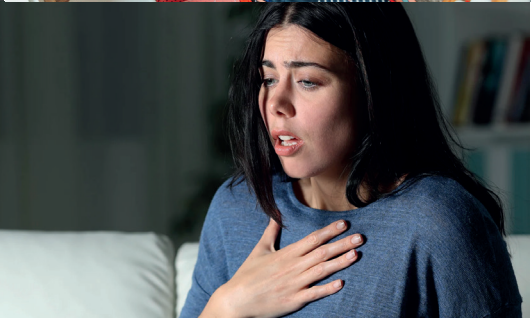
STIMULI PICTURES TO MAP WITH THE QUOTES





STIMULI PICTURES TO MAP WITH THE QUOTES





STORYTELLING MAP

How can we create and deliver solutions where Gen Z's needs and planet needs are both satisfied?



The digital story world

Gen Z are **digital natives**. For this generation, **online platforms and social media are a primary source of connection and information** on the topics of health care, mental health, lifestyle, sustainability, and parenthood. (7)

Technology and the digital world is central to Gen Z's health and wellness practices: apps and wearables seamlessly become part of their daily lives. Gen Z is the generation most **interested in health monitoring and self tracking**, for fitness, food and water intake, sleep, social media use, but also for their mental and emotional state. (9)

Advances in connected sensing and data sharing enable health care providers to have a holistic view of people's lifestyle and health to provide better care. (5)

Overall, Gen Z seeks for effectiveness, convenience, efficiency and transparency in health services. **Half prefer telemedicine** to traditional in-person visits. (4) Overall, **traditional health care doesn't resonate with their holistic approach to health**. Instead of traditional sources for health information (health websites, doctors and pharmacists), Gen Z either rely on social media (e.g. TikTok, social media discussions) and social networks for answers to health and wellness questions (including drug prescriptions). The pandemic has accelerated this trend. (3)

The pandemic has led people to spend more time on social media, video calling, more e-commerce, but also resulted in more **digital detoxes**. New technologies (haptics, voice control, virtual and augmented reality) enable natural interactions away from the physical screen. (6)

The inner conflict

Climate change and protecting the environment is No. 1 concern for Gen Z. They know the world is in peril, and that neither are responsible for it. They believe in the possibility for an individual to make a difference, and take action: for example by working at green companies, purchasing from ethical brands, living more sustainably, and voting responsibly on issues. (1)

At the same time, they live in a **consumeristic society** raised around the belief that happiness and well-being depend fundamentally on material possessions, which is the main cause for Earth resources depletion and negative environmental impact. (2)

For Gen Z this is a fundamental dilemma: how to act responsibly while being immersed in a culture of over-consumption?

The paradox is the both awareness about climate issues and over-consumption go hand in hand with **wealth level**. The globally growing middle class increases this trend.

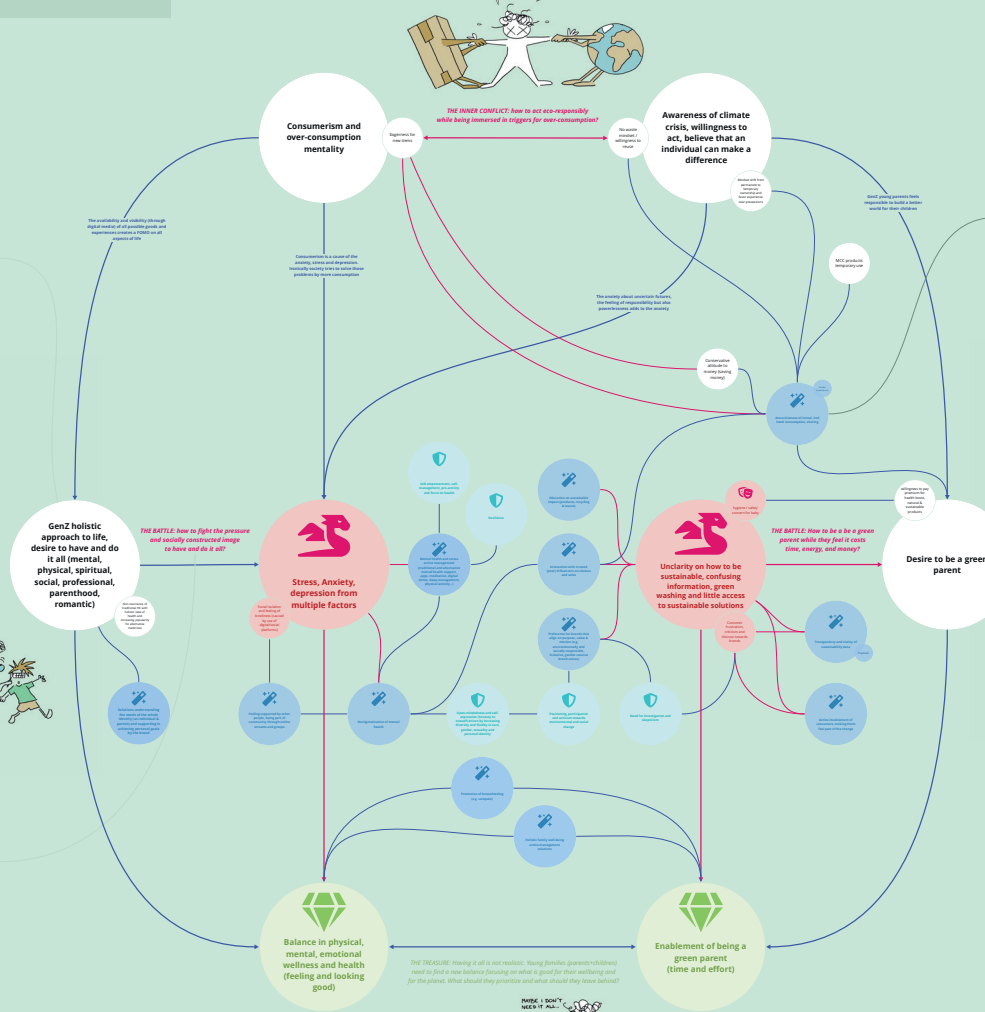
Gen Z holistic approach to health and life

Gen Z has a holistic view on health and wellness: reaching a **balanced state of complete physical, mental, emotional and social wellness** is central to their identity. Personal behaviors like healthy eating, working, managing stress, exercising, sleeping, feeling and emotions, and having time to connect with family and friends are seen as key to living well and happy.

Conversely, individuals who lack fulfillment and identity through their professional life, more and more Gen Z consider work as a means to get income and focus on other aspects of their health and life: for example, a priority of Gen Z is **work-life balance in spirituality**. There is a growing popularity of healing crystals, meditation and wellness apps that cater to the experience of holistic wellness combinations.

Gen Z **has self-empowerment** to control and monitor proactively their own health. They have **high standards and expectations in health management**, which often fall short due to the lack of alignment with the facts between.

The holistic approach to life reflects in the parenting style of Gen Z. They let the child explore and discover their needs and opportunities called **"baby-led parenting"**. This leads to high attention for the child's mental health and supports such as confidence, stress coping, emotional resilience and empathy.



New business models drivers

The main motivation for second-hand consumption is **fair pricing**. While people use it for **ethical and environmental benefits** in buying items even if they don't always explicitly stated.

For parents, it **makes sense to reuse**. Kids quickly grow out of clothes before they have washed them out of it. There is also a sense that another child should have the chance to use an item, because it's been useful to their own child and gave them pleasure. **Brand name marketing** appears to be second-hand opportunities. A former first buying second-hand in **clothing and safety gear** as a teenager.

Gen Z is particularly interested in embracing second-hand shopping driven by a **desire for uniqueness and style**, as well as a **reaction against consumerism and the environmental impact of fast fashion**. As a reaction to income inequality, Gen Z consumers seek to buy ethically sourced items, voting with the wallet as a statement. This opens roads for business models and partnerships for Planet.



The battle: anxiety, stress and social pressure

72% of Gen Z say managing stress and mental health is their most important health and wellness concern. They are **consistently contented with a society** characterized by **flexible work and do-it-yourself** (DIY) communities, entrepreneurship, digital privacy, and pressure to perform fueled by social media. The constant comparison to others results in low self-esteem and a constant sense of lack of fulfillment or feeling of not doing enough. Furthermore, many consumers, pushed by social media also engage more on an individualistic journey, resulting in developing a consuming-oriented sense of need. Finally, Gen Z lives in a world of increased anxiety (i.e. shootings, terrorism, pandemics, climate change) and rapidly changing (fluctuating) economy, none which has led them to have little control. The Gen Z pandemic has only amplified this anxiety. They live for their future and that of their children, even to the point that they consider not having children.

If we focus on young parents, the **arrival of a child adds** tensions, changes in the relationship with the partner and overall mental health. Parents tend to particularly mothers who carry a high mental load and feel the pressure to succeed to combine professional and family life are subject to feelings of guilt and failure.

On the positive side, Gen Z is generation that embodies resilience, is pro-active in managing their mental health, and open to talk about it.

The treasure

On one side, we need to help Gen Z with their health and well-being, particularly by supporting their **right against anxiety and stress**. On the other side, we need to enable them to be green parents with clear information, and convenient and affordable sustainable solutions.

How can these two goals work together? Can we create a new balance made of the essential ingredients for well-being and sustainable behavior?

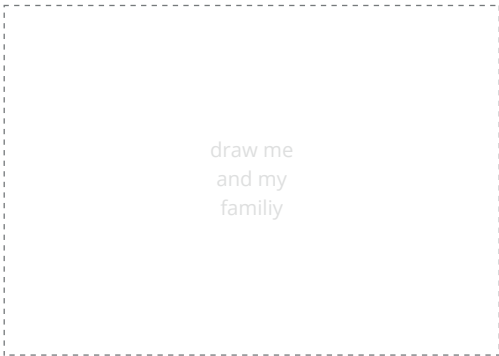
Green parenting thus becomes an essential part of the holistic balance that Gen Z values. Then they will be more pro-active and involved towards eco-friendly consumption and will be more engaged in their own green parenting. In fact, if Gen Z become greener, they will stop staying away from materialism, reconnect with nature, which will decrease stress and anxiety.

The main paradigm to transition is the idea of Gen Z: having it all and doing it all well. Supporting it right against anxiety and stress. This is an understandable goal. But by embracing **Global Day of Mindful Care**, consuming less but better, they can reach a balance made of the essential ingredients for healthy people and a healthy planet.



PERSONA TEMPLATE

Who is your character, living in 2030?



- name, age
- appearance and looks
- personality and character
- sexual orientations and family status
- social circle
- hobbies
- job

Am I participating in activism towards climate and social change or not? Am I actively thinking about sustainability or not?

do not care activist

Do I use 2nd-hand, rented or shared products? Which ones?

Where do I behave non-sustainably (single-use, fast-food, car or plane travel, eating meat, buying stuff that I don't need)?



What are my struggles in accessing green products or solutions or in behaving sustainably?

What are my struggles in finding information about green products, solutions or behaviors?

How stressed/anxious am I in general?

super chill Super anxious or stressed

What is stressing me or causing anxiety?

What is important to me in life?

What did I achieve in my life? What do I still miss in my life? What is my main goal at this moment?

What is blocking me, on a daily base, in feeling healthy and in balance (time, energy, headspace, money, infrastructure)?

What is making it difficult, on a daily base, for me to be the parent that I wish was (time, energy, headspace, money, infrastructure)?

What is going well and not so well in my relationships (romantic, family, friendship)?

When searching for a product or service, my most important requirements are (rate from 1 to 8 in order of prioritization):

- price (a cheap solution)
- looks
- value and quality (i want the best for my child)
- durability (long lasting)
- healthiness for my child
- ease of getting it
- How i will be perceived as a parent
- impact on the planet (production, in use, recyclability)

TEMPLATE FOR MAPPING TWO DAYS IN THE LIFE OF THE PERSONAS



20 21 22 23 00 01 02 03 04 05 06 07



20 21 22 23 00 01 02 03 04 05 06 07



08 09 10 11 12 13 14 15 16 17 18 19



08 09 10 11 12 13 14 15 16 17 18 19

APPENDIX C

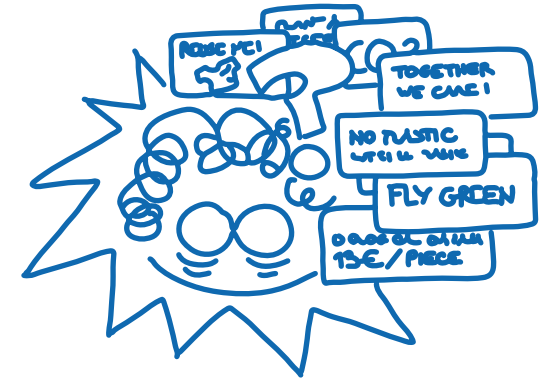
Insights Booklet

INSIGHTS BOOKLET



2030.

A world dominated by fear and anxiety. Young adults, also known as GenZ, grew up through climate crisis, pandemics, war, terrorism, and uncertain economies. Many suffer from mental health issues [1]. The constant comparison with others on social media fuels a pressure to be perfect, feelings of insecurity, failure, and low-self-esteem.



Despite the struggles, GenZers embody resilience and self-empowerment. They want it all – to look good, feel good, be a good parent, a good friend, a good partner, good for the Planet [2].

To be a better person, this hyper connected generation pro-actively seeks online for information and solutions [3]. They are most inquisitive and critical to make their way through an overload of information and choices, misinformation and green-washing.

[1] Hickman, C., Marks, E., Pihkala, P., Clayton, S., Lewandowski, E. R., Mayall, E. E., Wray, B., Mellor, C., & van Susteren, L. (2021). Young People's Voices on Climate Anxiety, Government Betrayal and Moral Injury: A Global Phenomenon. SSRN Electronic Journal. <https://doi.org/10.2139/ssrn.3918955>; White paper on Millennials and Generation Z. (2021, June 28). Deloitte. <https://www2.deloitte.com/global/en/pages/about-deloitte/articles/millennials-gen-z-and-mental-health.html>

[2] Demeritt, L. (2016, March 16). How Gen Z looks at health and wellness. SmartBrief. <https://corp.smartbrief.com/original/2016/03/how-gen-z-looks-health-and-wellness>

[3] Sanchez, S. (2021, May 24). Gen Z relies on non-traditional sources for healthcare information | Digital. Campaign Asia. <https://www.campaignasia.com/article/gen-z-relies-on-non-traditional-sources-for-healthcare-information/469795>

THE CHALLENGE

for GenZers is to be eco-responsible - their top priority [4] - while being immersed in a consumeristic society.

Young parents in particular feel responsible to create a world in which their children can grow healthily. But there are so many decisions to take, and they are tired, busy and mentally overloaded [5].



Philips must help families to find a new balance where they prioritize what's most important for their well-being and the planet and let go of old habits and ideals (such as consuming certain goods and experiences).

[4] Barbiroglio, E. (2019, December 10). Generation Z Fears Climate Change More Than Anything Else. Forbes. <https://www.forbes.com/sites/emanuelabarbiroglio/2019/12/09/generation-z-fears-climate-change-more-than-anything-else/?sh=35db2a86501b>

[5] Collins, R. (2015). Keeping it in the family? Re-focusing household sustainability. Geoforum, 60, 22-32. <https://doi.org/10.1016/j.geoforum.2015.01.006>; Carrell, R. (2019, August 15). Let's Share Women's Mental Load. Forbes. <https://www.forbes.com/sites/rachelcarrell/2019/08/15/lets-share-womens-mental-load/?sh=55927dd96bd6>

How can we create and deliver solutions where GenZers needs and planet needs are both satisfied?



The digital story World

Gen Z are digital natives. For the generation, online platforms and social media are primary source of communication and information in the space of health care, mental health, lifestyle, sustainability, and parenthood. (1)

Technology and the digital world is central to Gen Z's health and wellness. GenZers engage in online social networking, streaming, and social media use. They spend more time on social media than any other generation. (2)

Advances in connected sensing and data sharing enable health care providers to have an holistic view of people (through and health) to provide better care. (3)

Overall GenZ look for effectiveness, convenience, efficiency and transparency in health services. They prefer telemedicine to traditional in-person visits. (4)

Overall, traditional health care doesn't resonate with their holistic approach to health. Instead of traditional health care, health information through various, doctors and pharmaceuticals, Gen Z often rely on social media like TikTok, health influencers and social content for answers to health and wellness questions (including drug prescriptions). The pandemic has accelerated this trend. (5)

The pandemic has led people to spend more time on social media, video calling, home workouts, but also resulted in more digital detoxes. New technologies (streaming, voice control, virtual and augmented reality) enable natural transitions away from the digital screen. (6)

Gen Z holistic approach to health and life

Gen Z has a holistic view of health and wellness, including balanced state of **emotional, physical, mental, emotional and social well-being**. (1)

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The holistic, integrated, connected, and digital pressure

70% of Gen Z say managing stress and mental health is their most important health and wellness concern. They also report **anxiety, depression, and mental health issues** as their top health concerns. (1)

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The inner conflict

Desire to be a green parent and the inner conflict to act because of a green parent only they put it on time, energy, and money?

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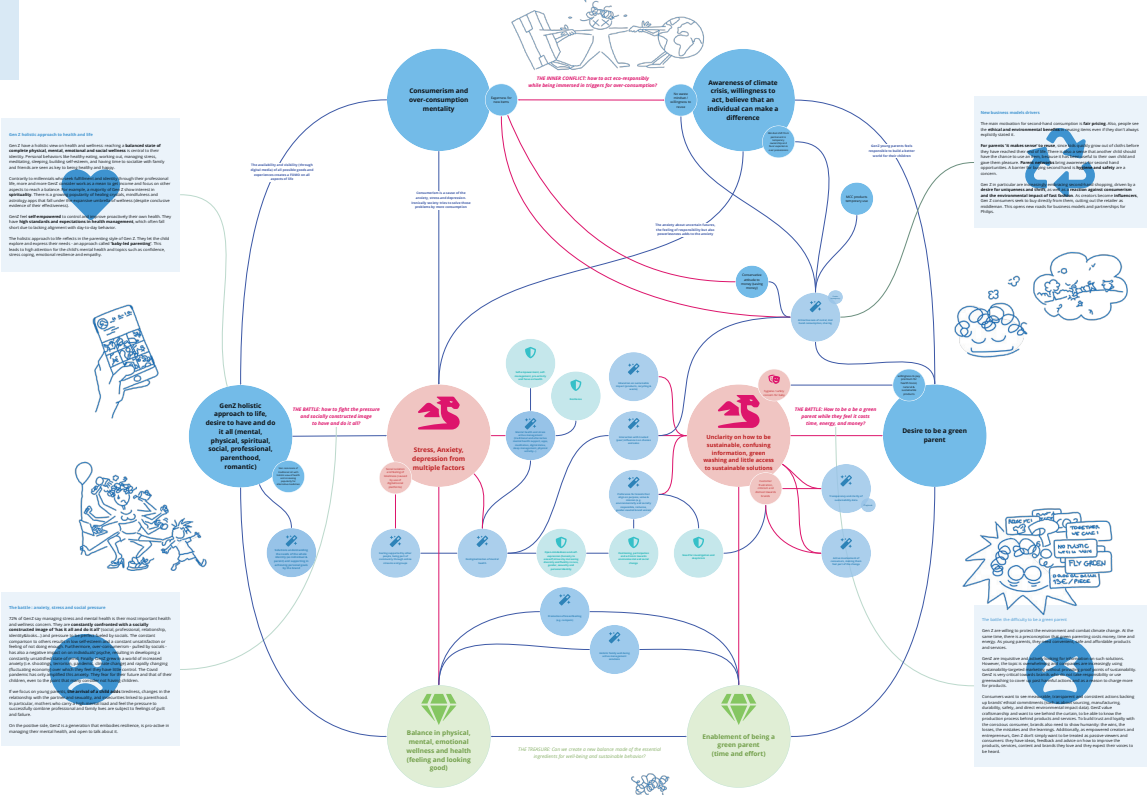
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The balance

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The desire to be a green parent

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STORY TELLING MAP

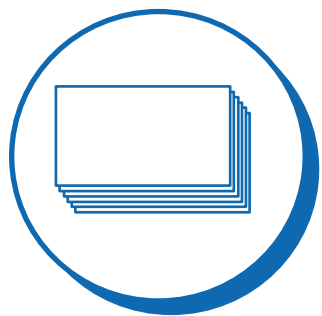
The story telling map visualizes the tension of this dilemma this inner conflict on top. And raises the question: How to act eco-responsible while being immersed in triggers for over-consumption?

At this point the dilemma divides into the two problems:

1. wanting to be a holistic parent and the socially constructed pressure rising from this
2. wanting to be a green parent in a world dominated by consumerism.

Both conflicts are elaborated on their own, diving deeper into the problems parents face, giving insights on helpful characteristics of GenZ and mapping down opportunities within the system to act on. The two problems meet at the bottom of the map and suggest to resolve the dilemma a new balance and prioritization is needed.

Breaking down to the following conclusion that green behaviour must become an intrinsic part of the holistic balance that GenZ values so much. This means letting go of old habits and priorities (such as consuming certain goods and experiences) and of the conception that 'having it all and doing it all' will provide peace of mind. Rather, stepping away from materialism and reconnecting with nature will decrease GenZ stress and anxiety.



INSIGHT CARDS

Philips believes in creating products and services that go beyond user expectations to enrich the quality of their lives. Therefore, it is needed to put ourselves in our users' shoes to truly understand their needs.

To make meaningful innovation happen it takes a collaborative, human-centred approach from the start. Experience insights capture and articulate this human centred approach. The XD team has created a tool for effectively capturing these insights in order to successfully activate and utilize. The cards will give enough information to understand at a glance, and can be used as a standalone in future design research projects.

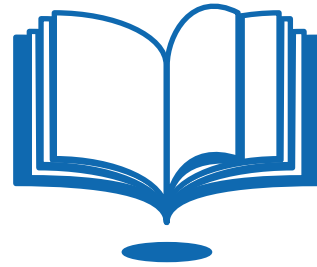
A user research has been conducted on the DACH market and resulted in 10 main insights. To make the insights tangible for the business they have been translated into insights cards, following the experience design capture elaborated before. The aim is to identify the emotional, physical and behavioural needs in order to address the challenges parents face.

The insight cards can be used on their own or in the context of the dilemma.

OVERVIEW USER RESEARCH

QUALITATIVE INTERVIEWS

The qualitative interviews were designed to explore the dilemma young parents are facing. The parents were strongly guiding the direction of the interview and following their interests as they arose.



INTERVIEW TOPICS

Gathering information and social media

Concern about climate crisis

Role of sustainability

Pressure to be a holistic parents

Four topics of interest have been identified based on the system map and research question, which needed further exploration.

SAMPLE BACKGROUND

The parents are based represent:

Sustainability Aware Parents (SAP), who haven't integrated sustainability in their daily life



SAP

Sustainability practicing Parents (SPP), who integrated sustainability in their daily life.



SPP

A sample of 13 parents (3 couple interviews, 7 individual interviews) were invited to take part in the research. 10 mothers and 3 fathers were interviewed. 5 interviews with SSP and 5 interviews with SAP have been conducted.

SAMPLE SIZE

The age range of the participants was set between 25-35 years to gain Gen Z/ Millennial perspective insights from the DACH market.



Marks et. Al (2021) discusses that GenZ worries about climate change. Over 45 percent said that their views about climate change had a negative impact on their everyday life and functioning, and many reported having a significant quantity of negative thoughts about climate change. This correlates with the sample's perception of sustainability and makes the sample representative for GenZ insights.



SUSTAINABILITY IS PERCEIVED AS A PRIVILEGE FOR FAMILIES WHO HAVE TIME AND MONEY FOR A SUSTAINABLE LIFESTYLE.



Context

Being sustainable is perceived as taking up too much time and money - adding up to the mental load. Therefore sustainability is seen as a privilege for families who are wealthy enough to afford spending money and having enough free time to inform about this topic.

Trigger

When sustainable ambitious parents are confronted with a product decision or a daily action, reality hits. Being sustainable takes more time than expected in the daily life, not only for activities but also information gathering. Further sustainable products are perceived to be a higher price-class and difficult to afford on a regular basis.

Consequences if insight not (properly) resolved

- Overloading parents with information and the complexity of sustainability might lead to feeling overwhelmed and frustrated
- Perception of sustainability being mainly accessible for wealthy families, might result in lower to middle class families not even trying to be sustainable

Needs

- A new narrative of sustainability in which sustainability is accessible and feasible for all families
- Creating additional value through saving money and time with sustainable parenthood
- Providing a trusted sustainable brand for parents where no additional time for information gathering is needed

Challenge

Integrating sustainability in the daily life needs to change perception. Sustainability should be made accessible for every family by education on low price solutions, sustainable products should be made affordable and informing about sustainable parenthood should be easily accessible.

However, changing the perception of sustainability can be difficult and not all parents will have the motivation to do so, there is an additional incentive needed.

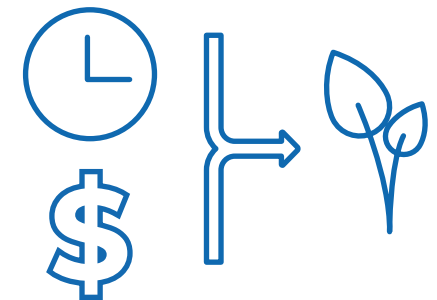
Research Question

How can sustainability be made accessible for everyone?

"I can imagine that if you don't have the resources in terms of time. That at some point you say: 'It doesn't matter, we'll just do it like the neighbour did it or like mom did it. We all grew up, it doesn't matter.' Well, I can't imagine what it's like when you just have a few resources and not this totally protected space with all these people from whom you can learn. But I can imagine that it's not that easy and that you have to be very careful not to give up your energy. Then you're completely burned out and can no longer concentrate on the children."

"If you have a lot of time to think, then maybe it's still possible. But especially when you are stressed in everyday life, it is not always easy. Then you just go to the supermarket and buy food there, which is often plastic-packaged, instead of taking the further route which is sustainable because it is more regional."

"Yes I just had enough time during my pregnancy because I was on leave because of Corona. (...) I was able to think about it and you had the time and muse for it. Because if you are already pregnant and have to work, there is little time for all of this."



PARENTS ARE FACING A HUGE CHOICE AND INFORMATION OVERLOAD.

2

Context

The topic of parenthood and sustainability is too big to be an expert. Finding sustainable information requires a lot of effort, is not easy accessible and results in high time investment of parents. A lot of time is needed to find the right information and make the right decision.

Trigger

When parents decide to buy a new product and research is being conducted, it can be overwhelming and difficult to understand what the right choice is. Even after purchase of a product parents have doubts if the chosen product is sustainable and if this was the right decision.

Challenge

Sustainable information gathering can be overwhelming; parents need to have trustworthy sources, easy accessible information made understandable, clear criteria and expert verification.

However, making a good judgement and applying the provided information is difficult; they still need to be guided and supported by professionals.

Research Question

How can the relevant information be communicated to the parents in a easy accessible way?

Consequences if insight not (properly) resolved

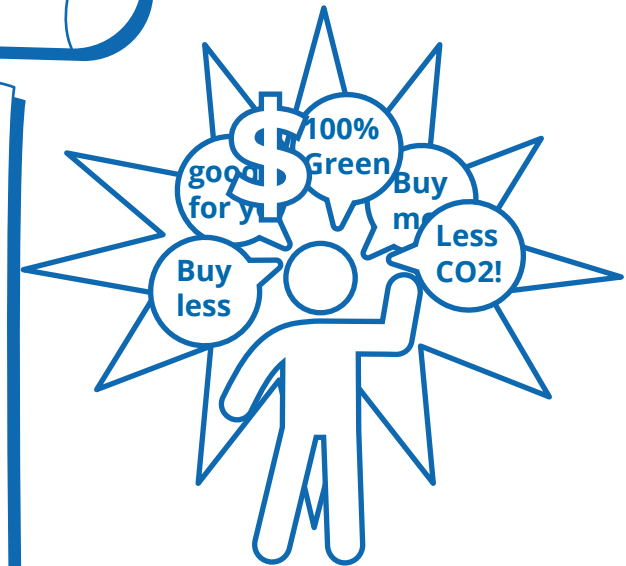
- Educational activities to learn more about sustainability might result in more stress and higher workload for parents
- Misinformation on the topic of sustainability can lead to mistrust and wrong judgement towards sustainable brands and solutions

Needs

- Increased confidence of parents and ability to make a sustainable decision
- Ease of mind and reduced pressure on parents by knowing that a good decision has been made
- Making education on judging product sustainability accessible and understandable for parents
- Tools, criteria and understandable concise information

"Then you can give up your job and then you can simply do a "I inform myself about things" job."

"The problem is there is too much options and that's I think the tension of like what actually to get. What is actually what you need because there's so many things that everybody swears at them and they say that this works. But at the end of the day, you have to find out for yourself, because your child is unique and different. (...) I don't know it's really, really hard, I think I feel more tension in the fact of what actually I should get. Because there are so many source for so many products and so many things that are good and then I'm like: Okay, what is actually good? What actually are the things that I do think are going to be good for my kid?"



EVERYDAY LIFE FOR A FIRST TIME PARENT IS OVERWHELMING AND STRESSFUL. SUSTAINABILITY IS SEEN AS ADDITION TO THE WORKLOAD.

Context

Nowadays parents are facing difficulties when it comes to being a sustainable parent. The most frequently mentioned difficulty is the integration of sustainability in daily life even though there are easier and more difficult days.

Trigger

Once the parents start building up their daily routine, reality hits in. Parenthood is stressful and overwhelming and despite preparation sustainability is difficult to integrate. More than that, by trying to make sustainability part of daily life, the stress and daily workload is increasing.

Challenge

Integrating sustainability in the daily life of parents needs to be feasible and actionable. More than that, sustainable practices instead of being forcefully squeezed in the daily life, need to support parents and reduce mental load. However, creating and learning sustainable behaviors takes up time and space for exploration in the daily life as well. Solutions need to comply with overworked parents; actively support the unpredictable challenges of first time parents and serve the individual needs of parents.

Research Question

How can sustainability not add but actually release stress and workload?

Consequences if insight not (properly) resolved

- Creating too many fast paced and drastic changes might lead to counterproductive results and possible discouraged parents
- Perception of sustainability as additional workload might result in complete avoidance of sustainable actions

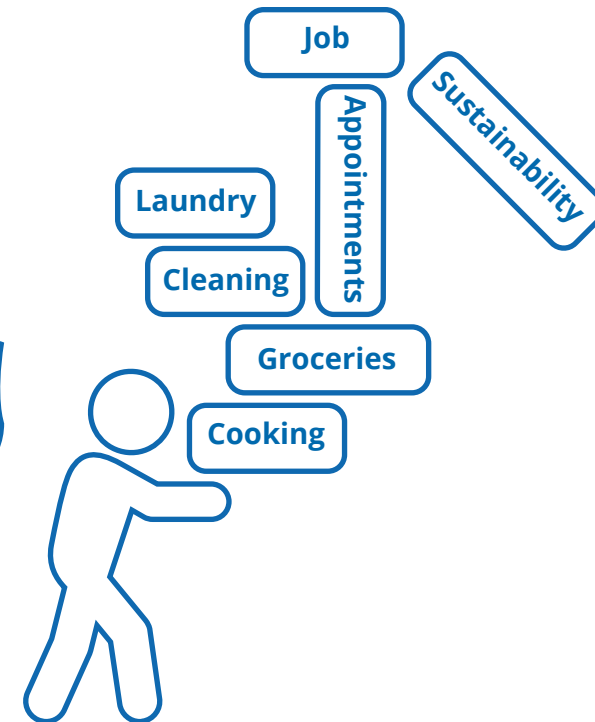
Needs

- A new narrative of sustainability, where sustainability does not add on workload and stress, but reduces it
- Alternatives that fit into young family patterns
- Solutions making sustainable daily activities feasible and actionable
- Encouragement of parents to adopt new personal sustainable patterns of behavior

"Not everything can go in the direction of sustainability... everyday life demands much. Such as cloth diapers, if you think about it. Especially in the beginning like the kid needs to be changed like 10 times a day... you don't actually do anything else but washing diapers then."

"I'm in for any change. It just has to be feasible and needs to make sense."

"Yes, we make excuses out of the fact that we just have very little capacity, even for thinking and for existing, because it hardly lets us sleep..."



SUSTAINABILITY IS DESCRIBED AS A PROCESS. IT TAKES TIME AND EXPLORATION ON WHAT WORK BEST FOR DIFFERENT FAMILIES AND REQUESTS SPACE FOR TRIAL AND ERROR.



Context

Sustainability is seen as a process among parents and is described as taking mini steps and trying in different directions. Resulting in the creation of a sustainable journey with constant discoveries of new opportunities.

Trigger

Successful integration of one sustainable task in the daily life can become a starting point and motivation for the process of becoming a sustainable parent.

Challenge

Sustainability as a process takes time and exploration on what works best for the individual needs, this requires space for trial and error. Solutions which easily integrate or improve daily life are required, but also need to be affordable and without commitment of ownership. What works for one family, child or parent might not work for another.

However, understanding what the best solution for the individual situation can be difficult and not all parents have the motivation to explore the process of sustainability on their own: guidance and support by professionals can ease the process.

Research Question

How can active support in this process look like?

Consequences if insight not (properly) resolved

- To much space for exploration increased probability of having negative experience and discouragement could rise
- Beginning the process of sustainability without guidance might result in parents feeling lost and overwhelmed

Needs

- Creating a positive and new experience of exploring the process of sustainable parenthood
- Solutions, which allow moving away from ownership and giving space for trial and error to understand what products or solutions work best
- Inspiration and guidance on which daily practices and products would be good to explore
- Making the impact of all the small steps in the process visible to parents

"I've always been a vegetarian and animal welfare and environmental protection have always been important to me. But the children made me change my mind and since then we have switched our diet to vegan. Except for the eggs that our hens lay. Also that the topic with the diapers... so I just looked for alternatives. From this they actually came up with more and more topics and...yes, there are always new ones being added."

"In the last 10 years we got more and more into the topic and that we want to made our lives as sustainable as possible. Of course we know that there is a lot of room for improvement. But and that's why it was also clear to us beforehand that living sustainably with a child is not necessarily easier than without a child."

"That's why I would take the picture on the right with the blue background, where he climbs these stairs. Yes, because I can learn more, that's the way for me. Step by step learning, I would say that is what he is doing. How can I then reach my goal that I can really live completely sustainably or let's say within a framework that is okay?"



TO PARENTS SUSTAINABILITY MEANS MORE THEN MATERIALS, THEY ALSO CONSIDER THE SOCIAL ASPECTS.

5

Context

Sustainability means to parents more than just materials, packaging and waste.

Trigger

When making a purchase decision parents conduct research on multiple criteria of the product. One of them is the social factor, this includes origin country, working conditions and cooperate social responsibility (CSR) in general.

Challenge

Trying to understand the social aspect of a product can be challenging; information needs to be transparent and easy understandable, parents don't want to be lied to and misguided by wrong claims.

However, the complexity of cooperate social responsibility is tricky to understand and see through, parents on their own are not able to properly judge the social aspects of a product and need guidance by professionals to judge transparency of brand.

Research Question

How can Social Cooperate Responsibility be made visible in the sustainable communication?

Consequences if insight not (properly) resolved

- If brands don't incorporate CSR in their communication reputation might get damaged or brands are missing out on a important differentiator for parents
- No proper communication of CSR might result in disappointment about product purchase once looking into the purchase

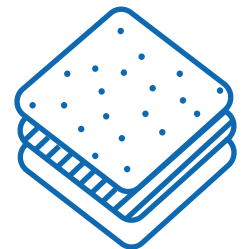
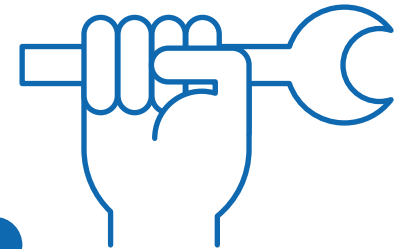
Needs

- Empowering the parents to understand the social aspects of their purchase
- Transparent communication of Philips, showing their achievements and future plans
- Honesty showing points of improvements and weaknesses
- Concise and clear communication, avoiding to mislead parents

"Yes. In a sense that at least we check that actually the people that are working are property paid. Because that's something that in Mexico happened and often that even kids are producing the product...so that's also something I do check that the quality is good that the people are getting well paid for the work that they're doing."

"But if it's possible for me then take a look where does the product come from? How was this made? What were the working conditions like?"

"And for me, sustainability means not only the conscious handling of nature and the products that the earth gives us, but also the treatment of people."



PARENTS WANT TO TEACH THEIR CHILDREN A SUSTAINABLE MINDSET AND BE A ROLE MODEL.

6

Context

Parents are raising the awareness of their children by experiences and interactions in nature, such as growing plants together, moments with animals and taking the children grocery shopping to teach about local and seasonal food. Parents in general want to be role models to their children. Being sustainable is perceived as taking up to much time and money - adding up to the mental load. Therefore sustainability is seen as a privilege for families who are wealthy enough to afford spending money and having enough free time to inform about this topic.

Trigger

Increasing concerns about the climate crisis and its impact on future generations, makes parents seek for more actions from companies and governments. But also sustainable actions in their personal life and educating their children on this topic.

Consequences if insight not (properly) resolved

- Overloading parents with information and the complexity of sustainability might lead to feeling overwhelmed and frustrated
- Parents might not teaching their children about sustainability at all due to their perception of them not having enough expertise

Needs

- A co-shared responsibility among users and companies on education, reducing pressure on the parents doing this task on their own
- Make education on sustainability accessible and understandable for parents
- Provide guidance and tools for communicating the complexity of sustainability to children
- Enhance parents confidence in the topic of sustainability though support of professionals and experts

Challenge

Parents aim to educate and have dialogue with their children on the topic of sustainability. To archive this, parents needs to educate themselves first, integrate sustainable solutions and strategies in their life and have developed a sustainable mind on their own.

However, gaining this expertise on their own while being occupied with parenthood is challenging. Not all parents are able to do so on their own.

Research Question

How can active support in sustainable education of the children look like?

"By taking my child with me when I go shopping and explaining why we don't do things like that like the others, for example. To introduce them to consciously thinking about what you buy, how you use it, what you can do with it."

"Because we actually set an example and they can join if they want. From time to time we also make games out of it, for example, if there is garbage lying around then pick it up... it's a garbage-picking game."

"I also try that he waters with me the plant. He is loving to kiss the little leaves. And he does it and he loves it... I think that's something that it's, at least for us, we we've been trying to make him know that even if they don't scream they're still living. And they help us with making our oxygen so it's just like. This other approach that we are one with this world and we only have one again planet so it's about how we want to use it."



PARENTS ARE OPEN TO THE CONCEPT OF SECOND HAND FOR THEIR CHILD AND LIKE TO GIVE THEIR USED PRODUCTS TO OTHER PARENTS.

7

Context

Second-hand products for their children are a common practice of parents, as well as giving products to other parents. However, there are limitations when it comes to second-hand. Specifically, when it comes to hygiene such as products which are close in contact with body liquids e.g. pacifier, breast pump etc.

Trigger

With the rise of sharing economies, new business models and awareness of over-consumption; reusing and second-hand products are becoming more common. Further, the financial aspect makes second-hand products more attractive. Renting opportunities for breast pumps are entering the market and raising the question of how far reusing products can go among parents.

Consequences if insight not (properly) resolved

- Parents increased frustration of owning products they don't need anymore but they can't give to other parents
- Parent's wanting to save money on circulating products/ second hand but not doing so

Needs

- Changing the perception of hygiene hazard of circulating products, resulting in making parent feel safe about the product and creating trust in Philips
- Making circulation products more attractive and accessible, resulting in easing up the everyday life of parents
- Increased communication on safety and transparency of renting hygiene products
- Provide expert insights and parents feedback on confidence and safety

Challenge

Parents seem open towards circulation of used products, which can make sustainability easy accessible, save money and depending on the business model make life easier for parents. However, safety has been identified as a crucial criteria and is seen as more relevant than sustainability for parents. Hygiene products such as pacifiers, breast pumps, baby bottles etc. are not seen as safe enough to circulate between strangers.

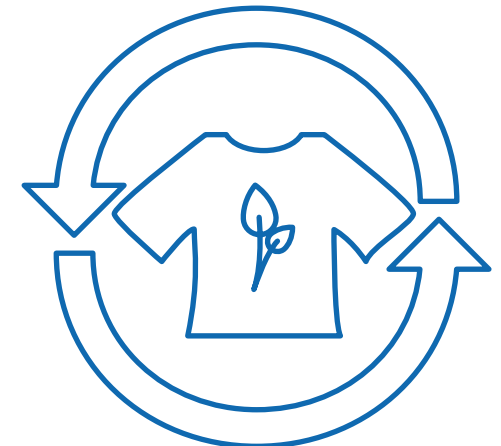
Research Question

What could be an approach to enable the circulation of products among parents in consideration of the safety (hygiene) concern?

"Yes, all hygiene product. Actually...breast pumps, for example, I wouldn't probably buy everything used. Or baby bottles, pacifiers...all things that should be hygienically clean."

"And that's something that we usually try to do. And also to pass the stuff on we don't need anymore. So rather put some clothes for free on eBay Kleinanzeigen or Willhaben in Austria."

"Of course I dealt with the topic of breast pumps and of course I could have borrowed one from the pharmacy. Um, but then I heard from a friend that you get the oldest breast pumps there and who knows if they are so hygienically clean..."



PARENTS BUY OFTEN PRODUCTS WITHOUT KNOWING IF THE PRODUCTS MATCH THEIR AND THEIR CHILDREN'S NEEDS.

8

Context

Parents end up not using products they buy. It is hard to know beforehand what is needed, some products were perceived as being useful but then turned out to not be. Also it is overwhelming to know what is actually needed with the huge choice of products on the market.

Trigger

The moment parents are surrounded by products which they thought it would be a great solution, is a frustrating moment. Such as a food processor of which the baby doesn't like the pap, or pacifiers which the child does not want to use.

Challenge

Parents are surrounded by a narrative which makes them buy a lot of products, with the goal to make their life easier. To help parents explore which products match their needs, space for trial and error without ownership and easy accessible solutions supporting urged needs are required.

However, letting go of owning products might cause a big change in behaviour, therefore convenience and benefits need to be made visible.

Research Question

How can parents be enabled and given space to explore products?

Consequences if insight not (properly) resolved

- Frustration due to wasted money, time and space for unused products
 - Buying the same product multiple times to see if the brand, material etc. is the reason for not using the product
- Enabling parents for exploration of products might lead to counterproductive results and parents consuming and using more products than they would usually do. Leading to a new form of over-consumption.

Needs

- A new way of exploring products by moving away from ownership, empowers parents to better understand what their families needs are
- Creating a safe space of understanding what works best for the daily individual life, without losing money and having commitment to ownership
- Providing a trusted sustainable brand for parents
- Education and personalized expert guidance on the individuals needs
- Collaborations with other companies to provide expertise and brought product range

"But at the end of the day, you have to find out for yourself, because your child is unique and different."

"Yeah, it is very difficult and sometimes you screw up. You realize that you get something... you're super excited, you've investigated, it's Fair Trade, it's good materials, good quality! You get it you give it to your son. And then he looks at it, plays with it 2 seconds. And you are: "Oh no I invested so much time, energy and effort thinking what to do". And then it didn't really work. And then he prefers to use I don't know the box of the product. So it is a trial and error. So maybe for my child it didn't work and we just put it in Vinted and for somebody else it works."

"With the first child you think, you have the best concept and then the second child comes. And then you realize that all the concepts which worked with the first, for the second it doesn't work anymore. It's not because of the perfect upbringing, but because the first child was just like that. But the other is very different."



PARENTS BUY PRODUCTS IN A PREVENTIVE MANNER - TO BE WELL PREPARED FOR ANY SITUATION.

9

Context

Being a first-time parent is full of unexpected moments and many parents feel insecure. Leading to the purchase of many baby products in a preventive manner and so the feeling of safety and preparedness. Unfortunately, some of the bought products will end up unused.

Trigger

Realization of parents that they bought products to feel safe but don't end up using them. Such as a breast pump, which got bought in case the mother can't breastfeed and this pump ended up unused. Now parents have to find a solution what to do with these products.

Challenge

Wanting to be prepared and having everything ready for the baby can make first-time-parents very insecure; to prevent parents from buying products they need to be educated on what is needed and when, gain confidence in their parenting style and have easy and fast access to products in case of need. However, establishing confidence and understanding is difficult and takes time and reassurance by experts and other parents.

Research Question

How can parent be feel safe and prepared without over-consumption?

Consequences if insight not (properly) resolved

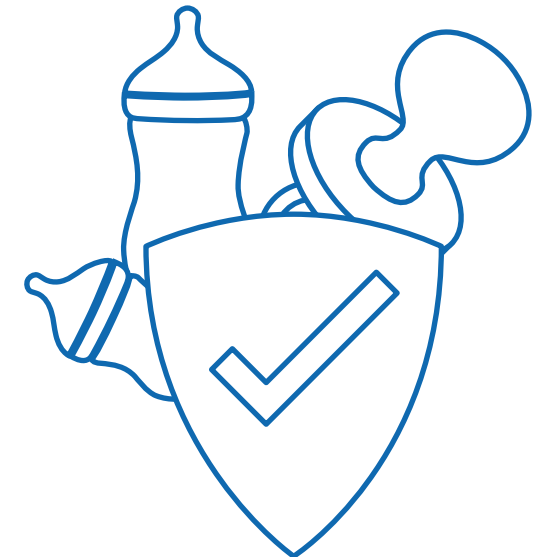
- Growing frustration of wasting money and space on products, which got bought in case but never used
- Relying to much on services giving guidance might lead to parents depending on Philips and not able to make the right choice on their own

Needs

- Increased confidence of first-time parents on products they need and their abilities as parents
- Provide parents with strategies that apply what the right solution to a certain situation is
- Education and personalized expert guidance on the individuals needs
- Safety net what when something is needed there will be immediate access to the right product matching the individual families needs

"This pressure...ok I now have everything for my child at home in case of an emergency. For example, many mothers make I've heard that a lot, they have the pressure of breastfeeding. Does breastfeeding work, doesn't it work, can I give a bottle or something else? Just knowing when I'm out of the hospital, and I know it just doesn't work for 2 days with breastfeeding, for example, that's such a very sensitive topic... thank God I was lucky! Knowing in an emergency in this changing table at the bottom there is formula, there is a bottle. It gives you so much security that you can get involved with the subject in a more relaxed manner."

"The Avnet sterilizer from Philips, I haven't used it for a long time because she doesn't drink from the bottle. And I don't need the pump now either."



"Of course, we bought clothes for her in advance, so more than 9 months in advance we gathered everything possible."

ONE OF THE MOST COMMON SUSTAINABILITY STRATEGIES OF PARENTS IS TO CONSUME LESS AND ASK THEMSELVES: WHAT DO I REALLY NEED?

10

Context

Non consumption is one of the most common strategies of parent to be sustainable, since it is easy applicable and clear. Most parents try to make this actionable by actively questioning if they really need the product they are planning to get. Non consumption also has shown an overlay with the definition of sustainability of some parents.

Trigger

In a situation when parents would like to purchase a sustainable product, difficulties arise in the understanding if the product is sustainable or not. Therefore to avoid a unsustainable decision, parents tent to apply the easy way of not purchase it. Resulting in a limited knowledge of possibilities of sustainability,

Challenge

Understanding if a product is sustainable or not can be difficult and parents seek for easy criteria to be able to do so, this also includes recommendations, expert input and trusted brands. However, parents are not knowledgeable enough about all considerations on what makes a product sustainable or not; companies need to communicate different approaches of product sustainability to them.

Research Question

How can innovation be built on new perceptions of sustainability?

Consequences if insight not (properly) resolved

- Making non consumption the only criteria of sustainability, might reduce other sustainable actions or ambitions to grow as a sustainable parent
- Non-consumption might be a too drastic technique and scare of parents who are new to sustainability
- Parents mind might stay limited towards sustainability if not introduced to other possibilities

Needs

- Showing parents alternatives ways of being sustainable besides of non consumption
- Provide parents with different perceptions of sustainability and different approaches of being sustainable

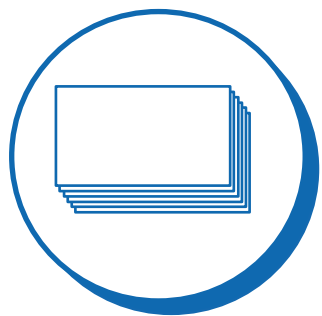
"It's exactly my approach and that's also the part that doesn't suit me in my life yet, we have to move away from consumption. We have to use as few products as possible. For long-term sustainable thinking, it doesn't matter whether I have 1000 sustainable pieces of clothing that I think spend a lot of money, or 1000 H&M items of clothing."

"For me it mean that it's pointless to buy something that I don't need at first, so let's think about it, do I really need it?"

What do I need?

"My way of thinking has changed a bit in recent years. At the beginning I also thought that I needed all of this and that and that. So that my child is fine. Meanwhile...I think the fewer the better. You just have to consume consciously and see what alternatives are there."





DILEMMA MODEL

Combining insight cards with story telling map

The system analysis resulted in a storytelling map of the parents' dilemma of wanting to become eco-responsible but being immersed in triggers overconsumption. Which has been introduced at the beginning of this insights booklet.

The insights cards can be mapped down within the story telling map, resulting in a model, which explains the dilemma of the young parents and maps down the needed insights to develop approaches to resolving this. This model can be seen as a systemic user journey. It can be used in workshops, just as typical journey maps or experience flows are used to develop innovations and solutions.

A large scale version of the dilemma model can be found in Miro with this QR code:



INSIGHT CARD NUMBER

How can we create and deliver solutions where GenZers needs and planet needs are both satisfied?



Insight Card: Sustainability is perceived as a privilege for families who have time and money for a sustainable lifestyle.

Insight Card: Parents are facing a huge choice and information overload.

Insight Card: Everyday life for a first time parent is overwhelming and stressful. Sustainability is seen as an addition to the workload.

Insight Card: Sustainability is described as a process. It takes time and exploration on what work best for different families and requests space for trial and error.

Insight Card: To parents sustainability means more than materials, they also consider the social aspects

Insight Card: Parents want to teach their children a sustainable mindset and be a role model.

Insight Card: Parents are open to the concept of second hand products for their child and like to also give their used products to other parents.

Insight Card: Parents buy often products without knowing if the products match their and their children's needs.

Insight Card: Parents buy products in a preventive manner - to be well prepared for any situation.

Insight Card: One of the most common strategies of parents to be more sustainable is to consume less and ask themselves: What do I really need?

The digital story World

Gen Z are digital natives, for this generation, online platforms and social media are a primary source of connection and information on the topics of health care, mental health, lifestyle, sustainability, and parenthood. (1)

Technology and the digital world is central to Gen Z. Health and wellness practices, apps and wearables seamlessly become part of their daily lives. Gen Z is the generation that responded to health monitoring and self-tracking - for fitness, food and water intake, sleep, social media use, but also for their mental and emotional health. (2)

Advances in connected learning and data sharing enable health care providers to have an holistic view of people's physical and health to provide better care. (3)

Overall Gen Z looks for effectiveness, convenience, efficiency, and transparency in health services. They prefer subscription to traditional consumer goods, all levels of medical health care, direct interaction with their health support team. Instead of traditional courses for health information (health coaches, doctors and therapists) Gen Z prefers on social media like YouTube, social media discussions and social networks for answers to health and wellness questions (including drug prescriptions). The pandemic has accelerated this trend. (4)

The pandemic has led people to spend more time on social media, video calling, more e-commerce, but also resulted in more digital diseases. New technologies, health, social contacts, virtual and augmented reality enable natural interactions away from the classical screen. (5)

Gen Z holistic approach to health and life

Gen Z take a holistic view on health and wellness, meaning a balanced view of physical, mental, emotional and spiritual. Connected learning, the relationship between learning using working on, managing time, managing money, being part of a network, and sharing one's own story and brand can also be key to their holistic approach. (1)

Connecting with others through their professional life, sports and other digital means can be an important part of their health and wellness journey. Health and wellness practices are often shared on social media. Managing one's time and energy is also a key part of their holistic approach. (2)

Gen Z are self-empowered to control their own destiny, they can health, they have high emotional and spiritual needs. Gen Z are more likely to be health oriented as to be happy, aligned with life for well-being. (3)

The holistic approach to health and life is a journey, it is not a destination. It is a process that evolves and changes over time. It is a way of life that is rooted in self-awareness and a deep understanding of one's own needs and desires. (4)

The holistic approach to health and life is a journey, it is not a destination. It is a process that evolves and changes over time. It is a way of life that is rooted in self-awareness and a deep understanding of one's own needs and desires. (5)

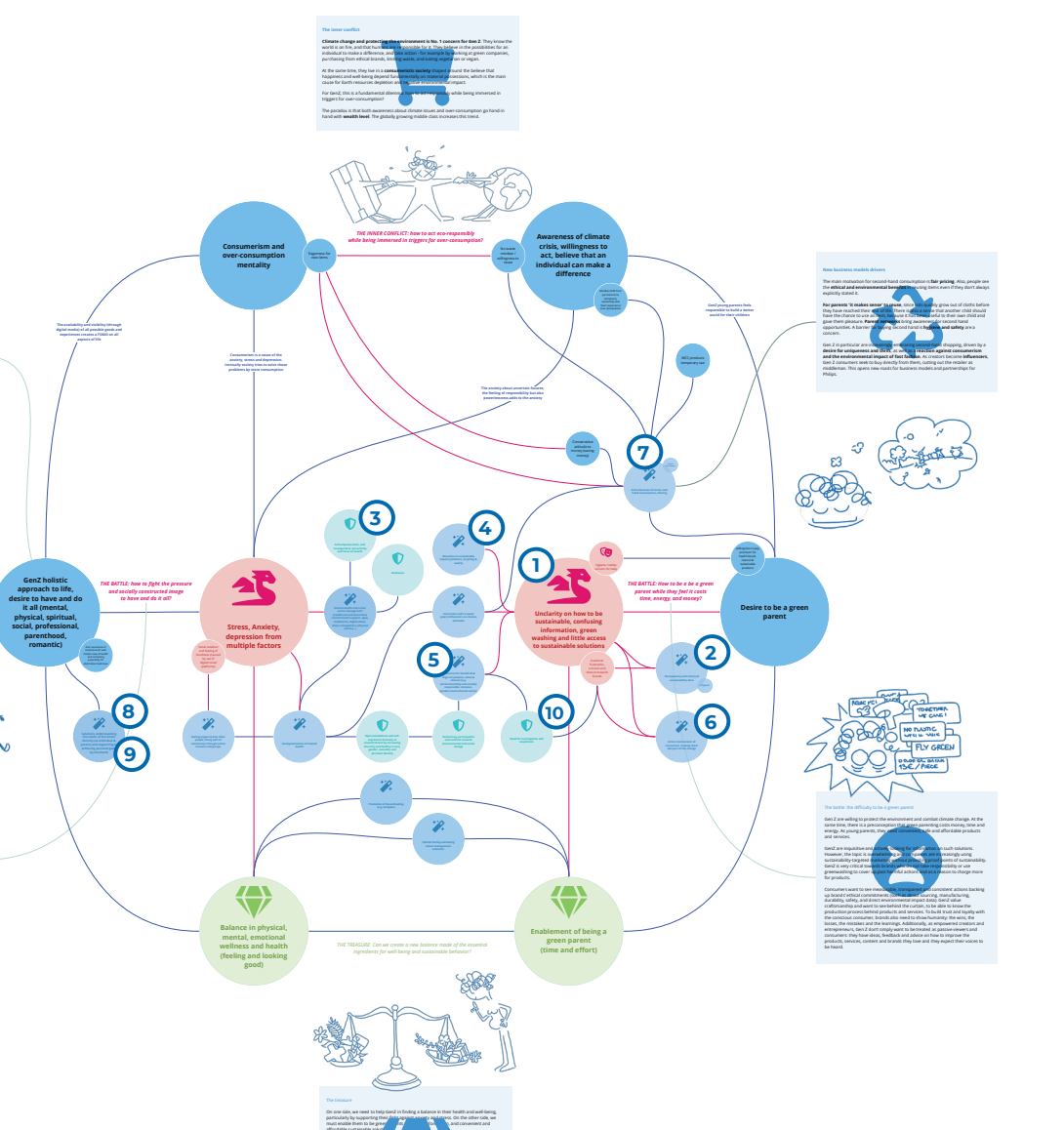
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The holistic approach to health and life is a journey, it is not a destination. It is a process that evolves and changes over time. It is a way of life that is rooted in self-awareness and a deep understanding of one's own needs and desires. (10)





A story telling workshop provided the base for the suggested design directions for MCC.

A participatory telling workshop was conducted based on the system map's dilemma. Quotes from the user research have been used to sensitize the participants to the topic of parenthood. Followed by a persona creation session of a SAP, SPP and a non sustainable parent. Finally the participants mapped a day in the life of the created personas.

The design direction is based on three exploitative personas: Alex, Myrthe and Kim.

KIM

Kim, a social media influencer who does not care about sustainability. Online identity is as important as real life identity. She is materialistic and like to over-consume. Social status and how she is perceived is her main driver. Therefore she is becoming more sustainable. Kim never showed much interest in sustainability but seeing so many other mums doing so and wanting to match the mood of the time she had to become part of this rising lifestyle. And she loves it.

"Sustainability is a group effort and I feel empowered, when I see all the parents on social media contributing together towards a better planet for our children. Despite that these relationships are online, they are still very meaningful for me."

INVOLVE

MYRTHE

Myrthe is a single mum and has little time for sustainability in her daily life (SAP), but she works in the field of sustainability. Baby's health is priority and this overshadows sustainable behaviour. She has money to spend but no time to investigate on sustainable solutions. She feels that most sustainable approaches doesn't match her lifestyle and is struggling to find her own way.

"There is no one right sustainability. I see now that there are different ways of being a sustainable parent and I found my tailored approach, matching my personal and child's needs."

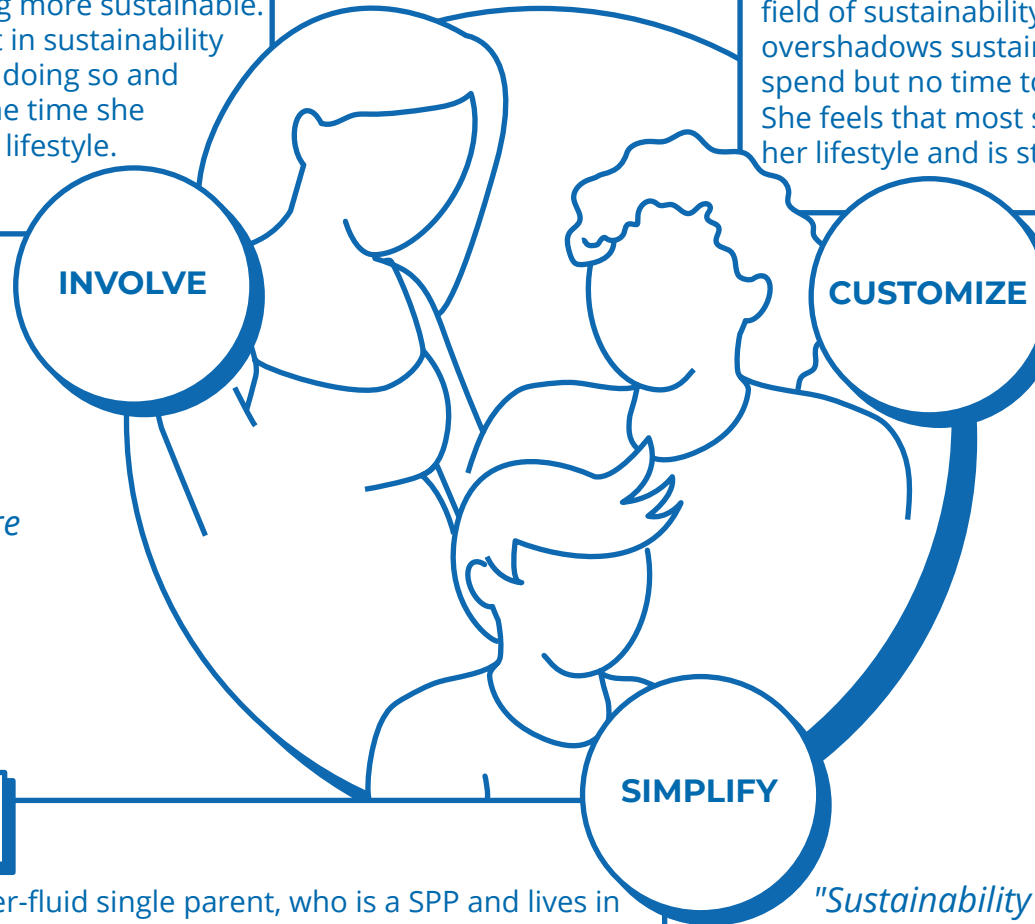
CUSTOMIZE

ALEX

Alex is a gender-fluid single parent, who is a SPP and lives in a community with many other like-minded people. Alex is a performer and struggling with juggling all the roles of them and the perfectionism in the daily life. Sustainability sometimes feels like an additional factor of stress.

SIMPLIFY

"Sustainability does not have to be time consuming and difficult. It makes my life better and gives me peace of mind."



IN 2030 GREEN PARENTING IS ACCESSIBLE AND EASY FOR ALL FAMILIES

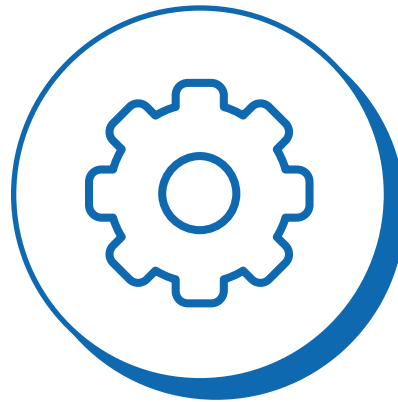
By integrating education, inspiration and solutions promoting sustainability in the analogue and online world of digital natives, Philips empowers young parents to take care of their baby's health, their own (mental) well-being, and the planet.



INVOLVE

Green parenting is easy:

it goes hand in hand with the health of parents and children.



CUSTOMIZE

Green parenting is for all:

it comes in many forms through a personalized approach



SIMPLIFY

Green parenting is for digital natives:

it spreads through online engagement and relationships for impact in the real world

SAVE THE
PLANET!

