

## From Systemic Insights to Sustainable Business Actions—A case study on GenZ parents in the DACH market

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## **Relating Systems Thinking and Design (RSD12) Symposium | October 6–20, 2023**

### **From Systemic Insights to Sustainable Business Actions—A case study on GenZ Parents in the DACH Market**

**Elisabeth Tschavgova, Elise Talgorn, Charlotte Kobus, Jo van Engelen, Conny Bakker, and Sonja van Dam**

This research uses systemic design to develop interventions for sustainable change in a business context. The primary objective is to address the communication and translation of systemic insights into practical business actions. Bridging the gap between research and practice is a major challenge in effectively communicating systemic insights and guiding actionable decision-making. Therefore, the research question guiding this study is: "How can systemic insights be effectively translated into feasible actions for businesses?" To address this question, a combination of established methods was applied in the business case study of sustainable parenthood.

The systemic analysis involved defining system boundaries, gathering data through desk research and interviews with business stakeholders, and creating a causal loop diagram. Further, Donella Meadows' theory was applied to identify leverage points for behavioural change strategies. To make the complexity of the system map and its leverage points comprehensible for stakeholders, it was translated into a story map and subsequently into insight cards. In-depth validation and analysis of the systemic insights were done through qualitative user interviews (n=10).

The main contribution of this paper is the use of insight cards, which offer a tangible and accessible format for conveying systemic insights. The cards allow the communication of complex systemic language and bridge research and

practice. However, while insight cards were a valuable tool for the development of concrete solutions, further strategic considerations are needed. Thus, the study highlights the need for further research in effective communication strategies and systemic language to facilitate the translation of systemic insights into tangible business actions.

KEYWORDS: Systemic design, Sustainability, Storytelling, Organizations, Behaviour change

RSD TOPIC(S): Cases & Practice, Economics & Organizations, Methods & Methodology

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## **Introduction**

In today's complex and interconnected world, addressing sustainability challenges requires a systemic approach (Jones, 2018) that considers the environmental impacts of innovation and business. Systemic design can be a valuable approach to sustainable interventions from a business perspective. However, the gap between research and practice (Green & Seifert, 2005) makes communicating systemic insights and actions based on them a challenge. Given this gap, the guiding research question for this study is: "How can systemic insights be effectively translated into feasible actions for businesses?"

To investigate this, a business case study was conducted with a leading consumer healthcare brand focusing on sustainable parenting. The sustainability issues and needs of GenZ first-time parents in the DACH (Germany-Austria-Switzerland) market were systemically analysed. The DACH market was chosen due to its openness to sustainable innovation and its leadership in sustainable consumption. Furthermore, first-time parents born between 1995 and 2010 represented the target group of future parents with high sustainability awareness (Marks et al, 2021).

## Methodology

To systematically analyse the complex problems of sustainable parenthood, two common practices in a system analysis are selected: the Causal Loop Diagram (4) and Donna Meadows' (Meadows, 1997) theory of leverage points. These two approaches were chosen since they are well-established and widely used in the field of systems theory and systemic design. A causal loop diagram (CLD) describes and maps a complex system and is optimal for visualising cause-effect relationships between different variables (4). However, understanding causal relationships may not be enough to have the intended systemic impact. Thus, leverage points, which are "places in a system where the least effort has the greatest impact" (5), need to be identified. Donna Meadows' theory of defining and ranking leverage points is, until today, one of the most applied theories to do so; therefore was selected to be applied for the systemic analysis of the case study.

The combination of CLD and Meadow's leverage point theory is applied in a four-step approach to guide the research process. The first step of this approach is the common systemic practice of defining the boundaries of the system. Followed by the system mapping through a CLD as a second step and the identification of leverage points as a third step. Due to the complexity of the process, systemic storytelling (6) was added to the third step to enable effective communication of the system analysis. Finally, the last and fourth steps aim to validate and further explore leverage points and opportunities for systemic change through a qualitative study with representative parents. In addition, a high level of involvement of relevant stakeholders within the company is required to ensure the feasibility and acceptance of the systemic analysis. Figure 1 provides an overview of the research process based on the combined methodology.

### Step 1—Framing and data gathering

First, boundaries were established with the business stakeholders, which involved representatives from the marketing, design and innovation, research, and sustainability teams, as well as the lead of the parenthood business section. The boundaries of this collaborative discussion were defined as global trends relevant to GenZ and millennials within the DACH market, sustainability in relation to healthcare and parenting, and

parenting as a business. Data was gathered from internal documents and company interviews. In addition, desk research based on a list of relevant keywords from over 70 documents was conducted, including academic papers, journal articles, and blog posts. The data collected was organised into 17 topics (Table 1), each with a summary.

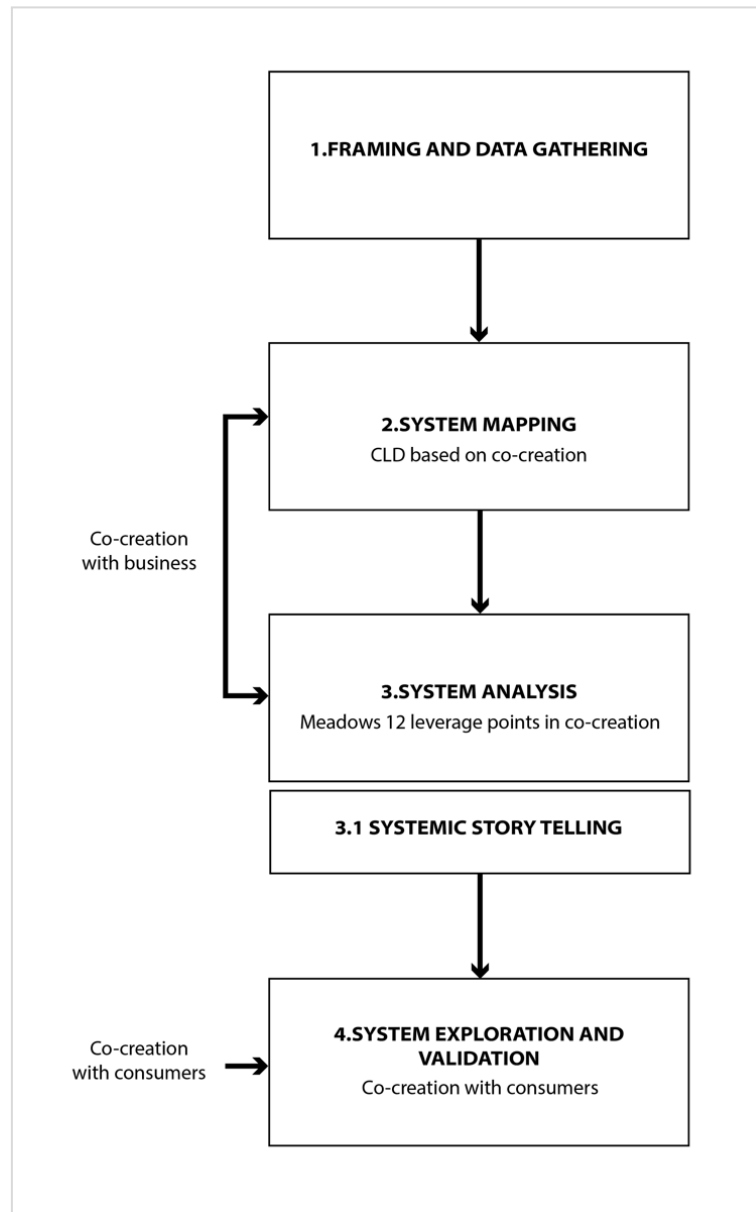


Figure 1: Four-step approach.

Topic number	Topic
1	GenZ as parents
2	Postpartum sexual life
3	Gender roles & work life in new families
4	Food & Diet for parents & babies (incl. breastfeeding)
5	GenZ & Wellbeing
6	Democratisation on Healthcare
7	GenZ online behaviour
8	GenZ digitalisation & health
9	GenZ & mental health
10	GenZ & money
11	GenZ & their sustainable attitude
12	Environmental footprint of families
13	Communication, Branding & Marketing
14	New business models in the sharing community
15	Positioning & Strategy towards mother & child care (of the business)
16	Positioning & Strategy towards sustainability (of the business)
17	EU sustainable regulations

*Table 1: Overview topics (Mapping of topics+summaries in Appendix A).*

## Step 2—System mapping

To create the system map, 17 mini CLDs (4) were developed (Figure 2). The creation of these mini-CLDs was facilitated through a co-creation workshop with design, research, and business stakeholders. Participants were divided into groups and asked to map the cause-effect relationships of each summary. The 17 mini CLDs are based on the 17 topics of Table 1.

Each of the mini-CLDs captured a specific aspect of the system, which, when linked together by common variables, formed the final system map (map in Appendix C).

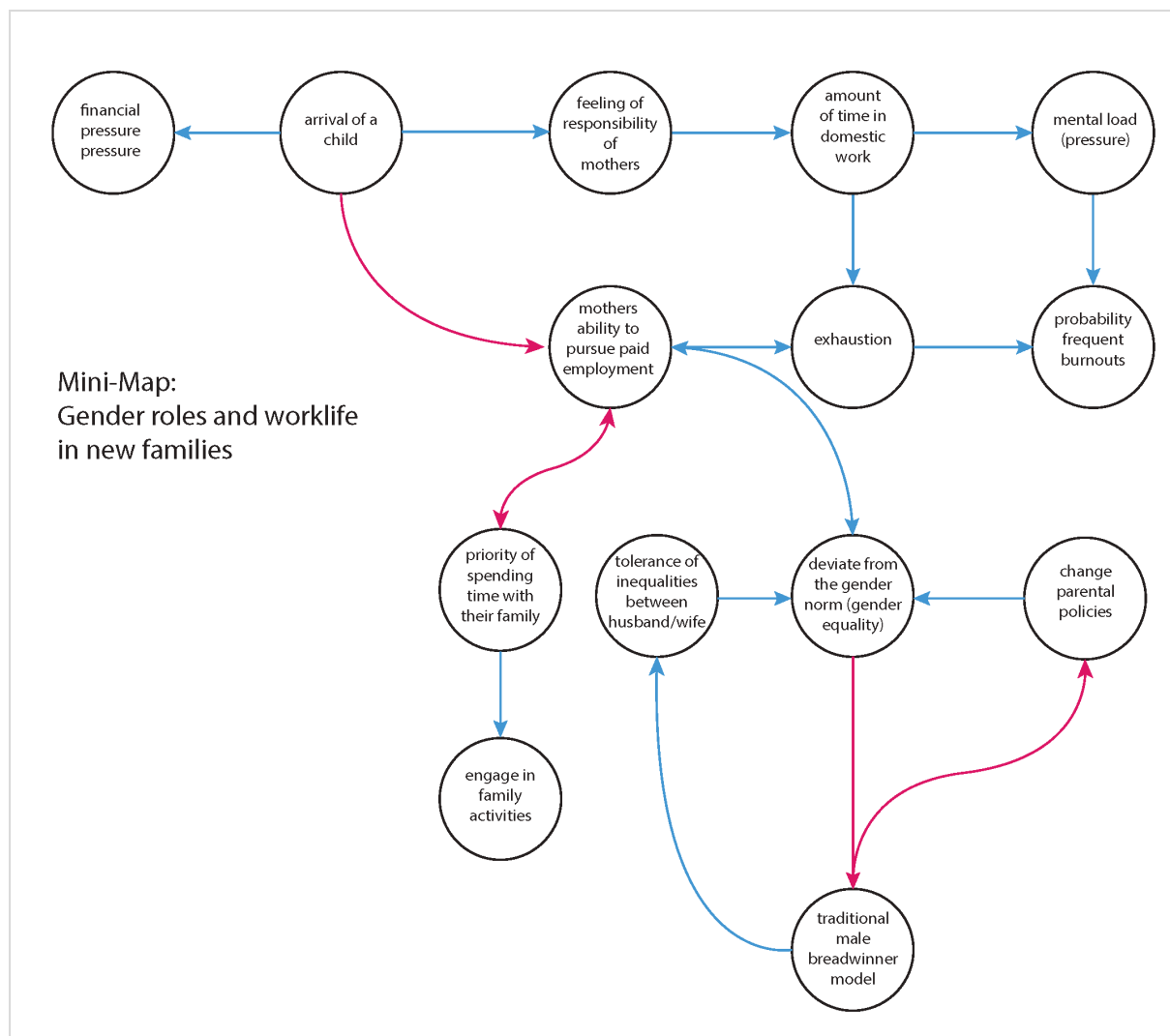


Figure 2: Mini-Map example (Overview of all Mini-Maps in Appendix B).

### **Step 3—System analysis**

Once the system map was created, leverage points were identified. In addition to determining reinforcing and balancing loops (4,5) as leverage points, additional criteria for leverage points were defined. These include variables that have a high number (>5) of incoming or outgoing arrows and variables that have a significant impact on the dynamics of the system based on trend knowledge. An additional stakeholder co-creation workshop was conducted to validate and rank the highest business leverage points based on feasibility, novelty, and impact. Then, using Meadow's "Leverage Points: Places to intervene in a system" (Meadows, 1997), the leverage points were reviewed, and an adapted map highlighting the prioritised leverage points was created. This resulted in the highest ranked leverage point as the parent's dilemma of wanting to act eco-responsible but being immersed in triggers for overconsumption.

To facilitate stakeholder understanding, visual storytelling principles were applied to create a 'story map' (Figure 3). These principles translate the logical analysis into an intuitive and empathetic comprehension of the system (Talgorn & Hendriks, 2021).



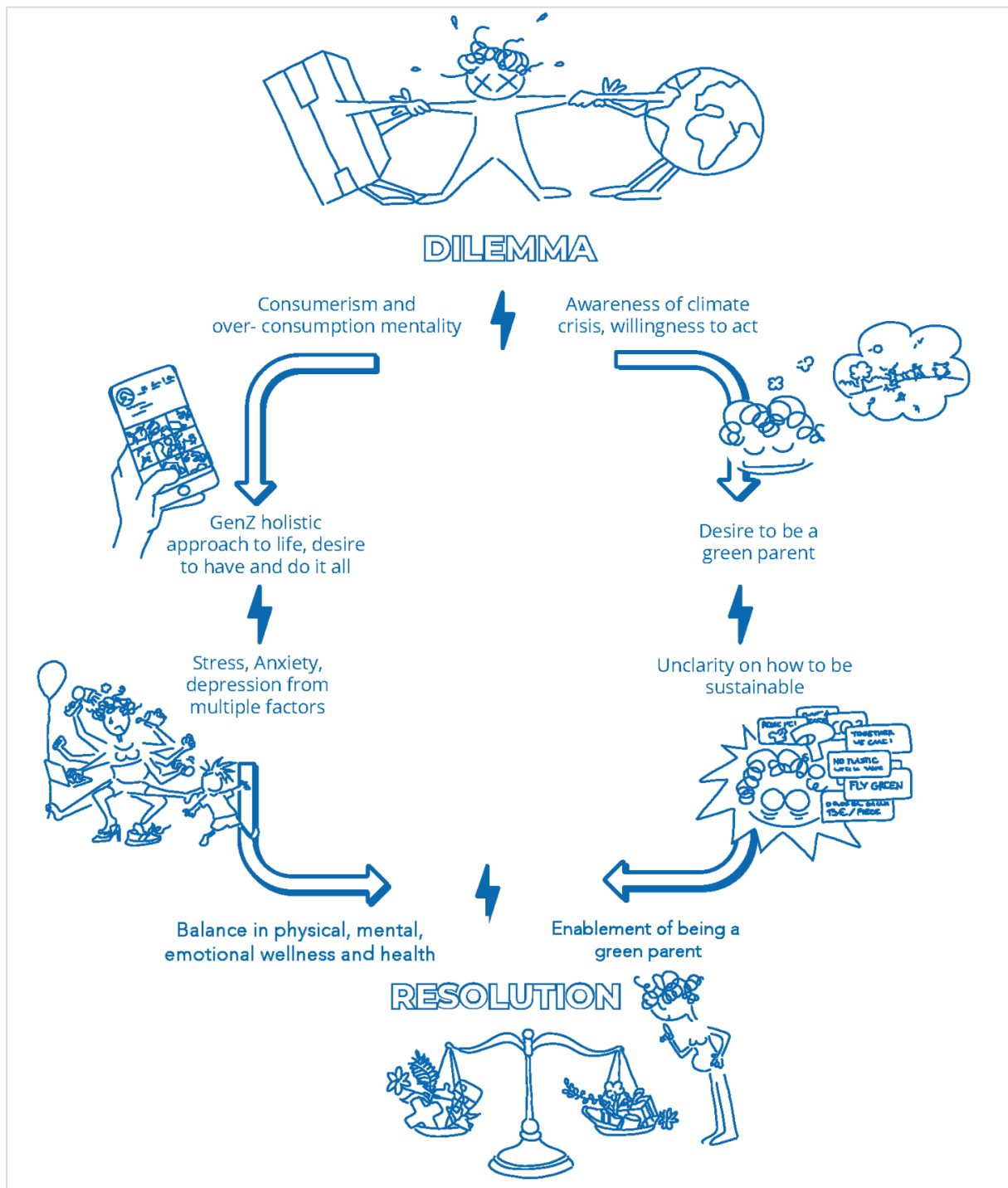


Figure 3: Simplified story map (Elaborate version in Appendix D).

#### **Step 4—System exploration and validation**

A qualitative study with representative parents was conducted to validate the dilemma and gain further insights on the story map. A convenience sample () was selected and snowball sampling (8) was used for recruitment. This resulted in a sample size of 13 parents aged 22-30 for 10 online interviews (n=10). To capture the thoughts during a semi-structured interview format with the parents, ZMET (Coulter & Zaltman 1994) and laddering (Kadir et al., 2018) were applied. The ZMET (Zaltman metaphor elicitation technique) exercise was applied at the beginning of the interview. Parents were presented with pictures to use as metaphors to express their thoughts. The usage of ZMET aimed to uncover both conscious and unconscious thoughts by exploring non-literal or metaphoric expressions (Coulter & Zaltman 1994).

Further in the interview, laddering was applied. Laddering proposes that mental constructs are ordered hierarchically and interconnected through cause and effect, with constructs forming the basis of an individual's beliefs. To delve deeper into underlying needs, motivations, and values and to understand their possible consequences, "why" questions need to be asked—this allows us to move up the pyramid—and to move down the pyramid, "how" questions were asked (Rugg & McGeorge, 1995).

The interviews were transcribed and analysed, which included mapping and coding of the qualitative data (Appendix E). The analysis resulted in 10 systemic insights (Table 2), reflecting the problems and needs of parents revolving around the identified dilemma of GenZ parents.

Insight number	Systemic insight
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 works 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 children and like to also give their used products to other parents
8	Parents often buy products without knowing if the products match their and their children's needs
9	Parents buy products in a preventive manner - to be well prepared for any situation
10	One of the most common strategies of parents to be more sustainable is to consume less and ask themselves: What do I really need?

*Table 2: Overview of the ten systemic insights.*

## **Insight cards**

In order to facilitate the translation of systemic insights into feasible actions for the business, the business stakeholders suggested using insight cards. Insight cards are a growing practice for business partners to make research easily accessible for business actions, such as products, product-service-systems, business models, etc. The 10 systemic insights and qualitative data were embedded in the general business insight card structure (Figure 4).

## **Results and Conclusion**

The insight cards address the research question, "How can systemic insights be effectively translated into feasible actions for businesses?" as follows:

First, the insight cards bridge the gap between research and practice in communicating systemic design in a business context. By using this familiar framework for the business, they reduce the abstraction of systemic insights and enable practical action. Further, despite the story map making the complexity of the system understandable and providing stakeholders with a holistic view of the customer needs, its non-linearity hinders the development of actionable business strategies. Thus, using the insight cards in combination allows the creation of business interventions to address the identified dilemma and promote sustainability among parents. Figure 5 shows an example insight card, with additional cards in the Appendix F.

Second, by focusing on the core issue and its systemic implications, insight cards allow businesses to temporarily shift their focus away from solely monetary considerations. This shift in perspective allows insights to be translated into value, bridging the gap between sustainability and profitability.

To ensure validity and applicability, one of the company's principal design researchers reviewed the cards, assessing their alignment with current business practices, language, and tools. Secondly, the insight cards were presented and discussed with different business units, i.e. inter-subjectively validated. Based on this review, the insight cards were considered applicable and translatable to innovation strategies.

Thus, using insights cards, systemic insights were made tangible, reducing the level of abstraction and complexity associated with system theory in a business context.

However, it is important to note that while the insight cards provide valuable information, they do not offer immediate solutions. Developing concrete solutions based on the insights is outside the scope of this research, and strategic thinking beyond the cards is required to effectively address the issues identified. This implies that further research is needed to develop actionable solutions and measure their impact. In addition, systemic analysis is complex and time-consuming and requires business partners to familiarise themselves with a new language and way of thinking. While insight cards help to bridge the communication gap to some extent, additional measures are needed to facilitate effective communication. In conclusion, this exploration can be seen as one step on a long pathway forward to approach sustainable business impact systemically.

INSIGHT DESCRIPTION	
<p><b>Context</b> Here the context of the insight will be explained.</p> <p><b>Trigger</b> The trigger moment describes the moment the challenge becomes more urged for the user.</p>	<p><b>Challenge</b> Here the challenge will be defined and elaborates more the wanted result.</p> <p><b>Research Question</b> Inspiration for the business for further research and discussion.</p>
<p><b>Consequences</b> Consequences for the user and business if insight is not (properly) resolved.</p> <p><b>Needs</b> Needs explain what is needed to overcome the challenge.</p>	<p>"A quotes give a statement."</p> <p>"A quotes give a statement."</p> <p>"A quotes give a statement."</p> <p>♥</p>

Figure 4: Template general structure insight card.

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

1

### 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.

### 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 easy 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?*

### 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 though saving money and time with sustainable parenthood
- Providing a trusted sustainable brand for parents where no additional time for information gathering is needed

"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."

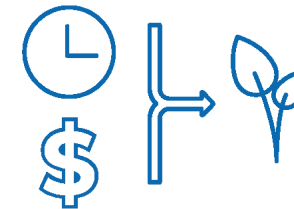


Figure 5: Example insight card.

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## **Appendices**

The following appendices are available via the the link.<sup>1</sup>

**Appendix A: Overview of topics+summaries**

**Appendix B: Overview of Mini-Maps**

**Appendix C: Final System Map**

**Appendix D: Story Map**

**Appendix E: Mapping qualitative data**

On the following pages:

**Appendix F: Insight Cards**

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<sup>1</sup> [https://rdsymposium.org/wp-content/uploads/2024/04/APPENDICES\\_GenZ-parents\\_DACH.pdf](https://rdsymposium.org/wp-content/uploads/2024/04/APPENDICES_GenZ-parents_DACH.pdf)

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### Context

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### Trigger

When sustainable ambitious parents are confronted with a product decision or a daily action, reality hits. Being sustainable takes more time then 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.

### 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 easy 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?*

### 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

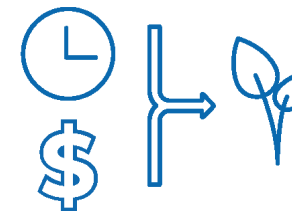
### Needs

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

*"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.

3

### 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

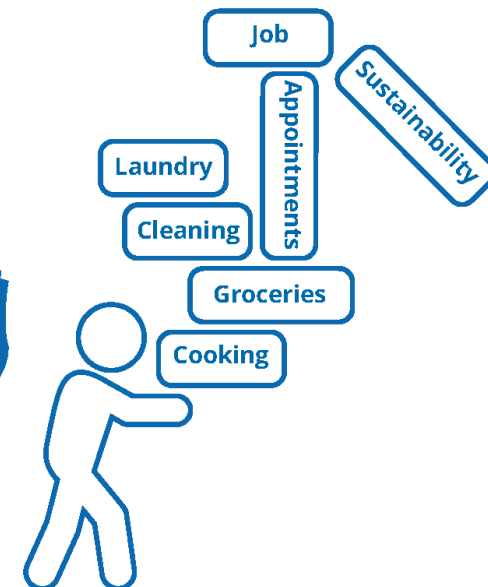
### Needs

- 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.

4

### 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

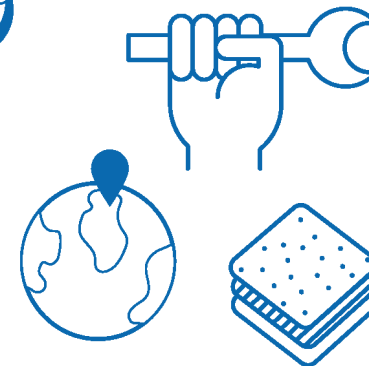
### Needs

- 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 properly 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 it's 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.

### 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?*

### 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

*"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'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.

### 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 a approach to enable the circulation of products among parents in consideration of the safety (hygiene) concern?*

### 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

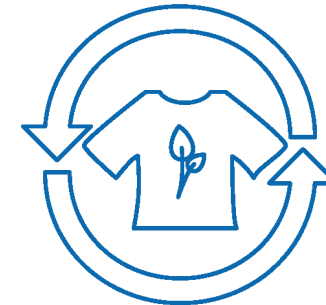
### Needs

- 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

*"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.

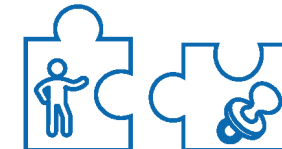
### Needs

- 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."*

*"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."*

*"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."*



## 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

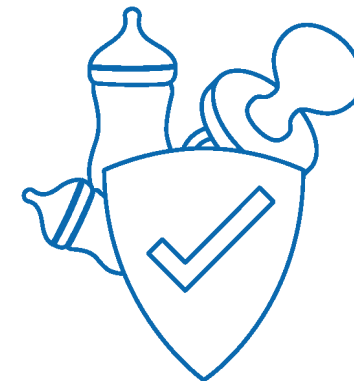
- Growing frustration of wasting money and space on products, which got bought in case but never used
- Relying to much on services giving guidance might lead to parents depending on Philips and not able to make the right choice on their own

### 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?"*

*"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."*

What do I need?

