

Prolonging the life of IKEA furniture *through Creative Repair*



Participatory Research and Design for Repair of customers' IKEA furniture

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Dated February, 2023

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Acknowledgements

I'd like to extend my warmest acknowledgements and heartfelt gratitude to everyone who supported me through this journey of repair and my graduation.

I'm thankful to Dave and Ruth for taking on the project with me, and supporting me through the graduation process with valuable feedback and insights.

I'm grateful for the support, feedback and encouragement of the sustainability team at IKEA, especially, my mentor Chiel, Hanneke and Camilla. I truly appreciated the weekly team check-ins and the team spirit they brought to the project. I'd also like to express my acknowledgements, to all the stakeholders, product and services experts, and also store co-workers who allowed me a glimpse into the world of furniture retail (*which was completely new to me*).

I'm truly appreciative of each and every participant and customer who gave their time to the research and co-creation sessions. Their participation, responses and feedback have shaped the outcomes of the presented project.

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Executive Summary

Valuable resources are discarded on a daily basis, in the form of home furniture. Tonnes of prematurely disposed, functional and repairable furniture is often destined for landfill or incineration, with small proportions recycled. The emergent sustainability needs of the planet, and changing policies for repair of consumer products, drives the home furnishing company IKEA to explore repair as a circular strategy to enable prolonging the life of IKEA furniture. This project explores the context of repair at IKEA and is focused on the use-life of furniture, in people's home.

Linear models aimed at profit making from the sale of new furniture, have so far prevented exploration of repair in IKEA stores. Subsequently leading to lacking visibility, knowledge, competencies, and resources for repair. While interventions are now being explored, in the form of tests and few examples at IKEA globally, channels for exchange of knowledge and service to customers are limited or yet to be developed. In terms of customer behaviour for repair various values associated to furniture, from functional, aesthetic, emotional, material, and social, motivate customers to repair their home furniture. Yet highly person and product dependent and often-times limited perceived ability, in terms of knowledge, skills and resources for repair of home furniture, prevents people of taking

any actions for repair. Furthermore, missing triggers, especially in the face of easily available and affordable new furniture, and high effort, low impact perception of repair leads people to replace rather than repair their furniture.

A participatory approach to include various perspectives relevant for repair, guided the research + design project. Desk research, interviews, front days, and co-creation with various stakeholders, including services co-workers, product retail experts, store management and front co-workers helped identify the context of repair at IKEA. In terms of the infrastructural capacities, shortcomings, and subsequent opportunities for customer-end repair interventions by IKEA. Customer insights were gathered from desk research and further explored through interviews, survey, and co-creation sessions. Pain points, challenges and needs identified for distinct customer personas, enabled conceptualisation and prototyping of repair interventions to prolong the life of IKEA furniture. Various concepts were developed in the form of in store activities for care and repair, to enable customers and IKEA to Do-it-Together; digital consult, catalogue, and blog to enable and support Do-it-Yourself customers; and expert services for the non-repairers. Within the scope of this project, customer challenges of missing awareness of repair resources and overwhelming

options for repair were explored alongside their needs for a sense of preparedness, advice, and guidance for repair of home furniture. In-store repair and refurbish activities for customers were explored as prototypes in collaboration with external experts to mitigate the limited repair resources and competencies in the store. The activities explored repair as a creative and social process. These were proposed to inspire, motivate, and enable customers to add value to their IKEA furniture. Creatively repaired products, demonstrations, hands-on engagement, and advice from experts were evaluated to investigate customer experience and desirability of the workshops.

While customer experience was positive and desirability for future workshops was high, yet there is low scope of feasibly and viably operating the workshops in their current format. Prominent challenges included limited dedicated space for and exploration of creative repairs and repaired products for inspiration, as well as many interdependent systems, especially in case of customer engagement and. The prototype workshops revealed a need to develop infrastructure, knowledge and products that are creatively repaired, prior to engaging with customers for knowledge exchange.

An alternate model of in-store repair and refurbish of IKEA furniture is proposed as future recommendation in the form of a visible creative repair hub, hosted by external experts. To enable development of a range of creatively repaired furniture for sale and inspiration, thereby preventing the waste of abundant damaged furniture from showroom and customer returns. A local repair hub in-store and expert collaborations also offer the opportunity to cater to customer repair requests in-stores, or referral to at-home services. A combination of in-store, digital and at-home repair interventions explored and identified in this project offer potential to inspire, motivate and enable the many customers seeking guidance and services for repair of home furniture.

Image 1. Image from prototype workshop at IKEA Barendrecht





European Member States are major consumers of furniture, estimated at €68 billion per year. A significant proportion of consumption includes wooden furniture, kitchen units and mattresses. The domestic sector accounts for 82% of furniture consumption, with the remaining 18% associated with B2B (business to business) consumption.

10 million tonnes of this furniture are discarded by businesses and consumers in EU Member States each year, the majority of which is destined for either landfill or incineration. *(Forrest et al., 2017)*

Improved refurbishment and re-manufacture of discarded furniture can trigger up to **157,000 new jobs and prevent about 6 million tonnes of CO₂ emissions** equivalent in the EU. *(Forrest et al., 2017)*

Introduction

Home furniture broken in use and capable for repair is often-times discarded for recycling or disposed out on the streets as waste. Premature replacement of functional furniture leads to wastage of extremely valuable material resources, while increasing demand for and pressure on limited environmental resources.

The climate emergency and pertinent shift to circularity, alongside changing policies drives the home furnishing company IKEA, to explore ways to prolong the life of customers' home furniture, through repair.

Repair is described as the restoration of a broken product to a well-functioning and usable state. Repair of customers' home furniture in this case, is explored as a sustainability initiative and circular strategy to enable care and maintenance of IKEA furniture.

In terms of offering repair in the form of services to customers, various perspectives on repair, different roles based on who is to perform it, with what skills and for what purposes and different ambitions of citizens and amongst organisations create a complex and intertwined landscape for repair (Gobert et al., 2021).

Furthermore, the current retail landscape of IKEA operates on linear models for profit-making by sale of new furniture. This creates several value-action gaps towards repairing customers' furniture, given the current lack of infrastructure, knowledge, resources, and channels for repair. For instance, current policies and regulations for product returns, compliance and quality are all relevant for the products capacity for retail though not for its potential for repair in identification of damages or damaged products. Specific home furnishing ranges and subsequent repair activities require specialized skills, equipment, and expertise. These are currently missing and require the development of competencies in IKEA

stores. Spare parts, fittings and tools offered by IKEA support repair only by swapping the damaged parts of IKEA furniture with new parts from the available inventory. While the offer of spare parts enables customers willing and able, to repair, it does not cater to a larger segment of IKEA customers who may not be willing or able to carry out repair themselves.

Taking responsibility for the tonnes of furniture manufactured and sold, IKEA ought to take steps for enabling a longer life of home furniture and preventing waste from the discard of valuable resources.

This project is situated along the lifetime of the furniture, when in-use at consumers' home. Consumers' play an integral role in the process of prolonging furniture life from care activities to initiating acts for repair in case of breakage. Customers' behaviour in the context of furniture care reveals people's willingness towards repair of furniture, as Ackermann et al. (2018) point out customers may be motivated to care for products given the product's functional, aesthetic, or emotional value or their concern for sustainability, yet many barriers prevent actions for repair. Despite being motivated to repair, people often don't take actions due to limited perceived ability to repair specific furniture items, especially in case of missing or invisible resources for repair. Ranging from a lack of knowledge & skills, tools & parts, or inspiration, to a lack of convenient and trustworthy repair services or the price of repair. And in the face of lacking triggers, often-times, people simply become overwhelmed and either do nothing, replace their furniture, or throw things away. Strategies to motivate customers to participate in acts of repair, or enable them with resources for repair, point to various opportunities for IKEA to initiate channels for care and repair of customers' IKEA furniture. These are explored in the scope of this project.

The exploratory research + design takes a participatory approach within the retail landscape of IKEA franchise store at Barendrecht, NL.

The landscape of IKEA for repair of customers home furniture (Part III) was established based on contextual inquiry of IKEA services landscape in NL. Learnings and insights from tests in other countries and by IKEA global were explored in the context of Barendrecht IKEA store, to identify specific challenges, limitations, and opportunities to offer repair interventions for customers' home furniture.

Literature review of consumer behaviour for care points out motivation factors for people's behaviour of care, which are generally positive and in favour of repair, yet highly varied, and product-person specific perceived ability for furniture repair and limited triggers serve as barriers to actions of repair. Distinct customer personas that of DIY repairers, occasional repairers and Non repairers helped encapsulate the person-related motivations, abilities, or lack thereof to repair home furniture by themselves. Insights from literature were further explored through interviews and co-creative sessions with customers (Part IV), to identify the specific challenges and needs of customers for repair of their home furniture.

Consumer end strategies discovered from literature to enable care and repair were explored alongside the opportunities identified to enable repair at IKEA (Part V). Also, informed by the value-action gaps customers currently face, in terms of taking actions for repair, various ideas were generated, to develop 3 distinct concepts for repair by IKEA. In the form of in-store activities, digital solutions, and at-home or in-store expert services. Given the scope, timeline and criteria of customer-end and in-store interventions, repair and refurbish workshops for customers in store were prototyped as part of the project.

Part VI describes the prototype workshops facilitated at IKEA Barendrecht. Design criteria based on customer needs & values, learnings from past initiatives, specific in-store challenges and opportunities informed the development of prototype workshops in-store. Developed in collaboration with external furniture experts, the workshops were envisioned to engage customers in a community gathering to learn skills and get advice and guidance to creatively repair their IKEA furniture.

Evaluation of the in-store repair & refurbish workshops for customers, in terms of customer desirability, feasibility and viability (Part VII) point to high desirability and positive experience amongst customers, yet low scope of feasibly and viably operating the workshops in their current format. Recommendations are outlined to explore feasible and viable forms of in-store repair and refurbish of IKEA furniture, that can also inspire and enable customers.



I. Consumers and furniture for repair

A brief literature review to identify customer behaviour with respect to care and specifically repair enabled further exploration of motivation and perceived ability factors specific for home furniture. Furthermore, repair profiles based on recent literature reflecting the landscape of repair, helped encapsulate the many stakeholders for customer-end repair interventions by IKEA. Strategies to enable product care and retention through motivating activities and awareness triggers identified from literature, were explored in the context of repair activities and interventions for home furniture.

The wide range of IKEA home furniture was explored in the form of wooden and textile based categories to inform repair services by IKEA. The range selection was determined by various factors including, existing services, costs and customer requirements.

Chapter 1: Behaviour for care and furniture repair

1.1. Profiles for repair

Chapter 2: Strategies for care and repair

Chapter 3: Furniture for repair

Chapter 1: Behaviour for care and furniture repair

Furniture forms an integral part of our lives at home. A range of value associations and a variety of damages in case of home furniture evoke varying care and repair behaviour towards furniture dependent on individual motivation, perceived ability and available triggers (based on Fogg's behaviour model). Several value associations to furniture, from functional, aesthetic, financial to emotional generally motivate people to care for and repair their furniture. Though limited perceived ability and missing triggers, often prevent people from taking actions for care and repair. These point to opportunities for IKEA, through provision of resources and development of triggers, to enable people to care for and repair their home furniture.

Gregson et al. (2009) describes furniture as objects, that continually occupy our daily spaces of living, eating and sleeping. Furniture and furnishing items whilst less mobile are both repeatedly used and positioned in an on-going flow of daily action such as a dining table in a family's home that may become the place and position of daily meals, conversations, completing homework or taking work calls; And it may even move homes as a family grows or shrinks. Furniture at home may take various forms, from being actively in use, to inactive and forgotten, yet present. Home furniture often holds different values for different people, and care behaviour, including repair activities for furniture are subsequently dominated by various individual and product specific aspects.

Fogg's behaviour model outlines three factors – motivation, ability and triggers that make people behave the way they do. While a certain amount of motivation and abilities are necessary for people to take actions, triggers can push them to act. Very low motivation or ability factors, or only triggers do not inspire actions amongst consumers. Ackermann, et al. (2018) describes consumer behaviour for care, in terms of,

- Motivation for care, determined by product related, person-dependent factors or based on product-person relationship.

- Ability factors, such as availability of tools, time and means, that determine consumers perception of how easy it is to undertake care or repair activities. And,
- Lastly, triggers that can facilitate or provide sparks or signals to act.

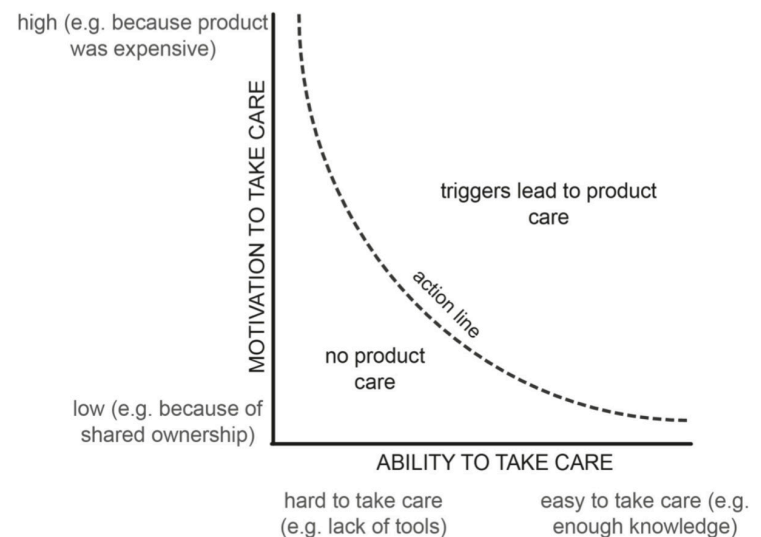


Figure 1. Fogg's model for motivation, ability and triggers for product care. As illustrated by Ackermann, et al. (2018)

The motivation factors described by Ackermann, et al. (2018), also resonate with the value and emotional motivators and barriers presented by Terzioğlu (2021), specific to repair (Figure 2); whereas, perceived ability factors for care were found in line with technical motivators and barriers for repair.

Motivation factors

People's motivations, either product related, person dependent or based on product-person relationship affect people's care behaviour towards products.

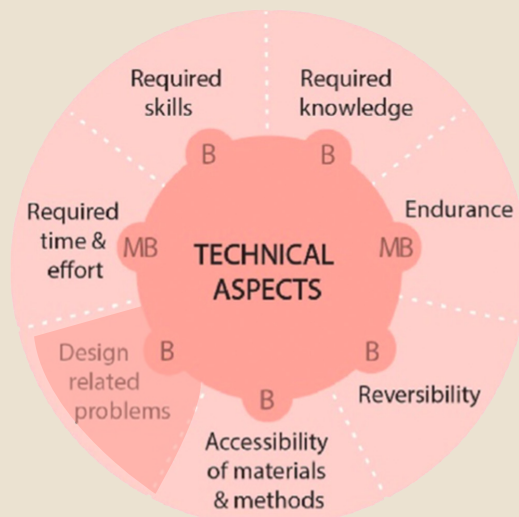
Product related aspects such as aesthetics, functionality and pleasure from specific care activities were found as positive motivators for care of products.

For instance, maintaining and polishing one's generational dining table with expert care, as a monthly ritual, or regularly cleaning one's perfectly functional and used study table.

Financial aspects may also motivate care, given the high price of the original product, or serve as barriers for repair, in case of expensive spare parts and repairs. Terzioğlu (2021), points out value aspects such as product aesthetics as motivator or barrier dependent on the increase or decrease of the product's aesthetic value after repair. Furthermore, condition of the product, such as old, unfashionable, or under warranty may motivate or present a barrier for the repair of the product.

Person-dependent motivations, such as a general attitude towards caring for products and using them longer, or 'rebellion against brands' encourages people to repair their products (Ackermann, et al., 2018). Terzioğlu (2021), points out emotional aspects, dependent on individuals, that offer motivation for repair. These aspects range from environmental concern, and negative feelings towards throwing products away; to perceived interest and pleasure from repair activities and incorporating trendy methods for repair. On the other hand, lack in confidence can prevent people from repairing their products. People invariably share bonds and relationships with their products in their shared everyday lives. Ackermann, et al. (2018) describes consumers motivations related to **product-person relationships**, as dependent on the emotional attachment consumers have with their products. For instance, consumers would be motivated to repair a "cherished and valued study passed down generations," while the motivation to repair, "a cheap side table that came with my student house" is contrastingly low. Furthermore, products that resonate with one's personal identity or hold symbolic value for people offer motivation for care. Shared ownership, however, prevent actions of care, since people don't feel responsible for the product given its collective nature.

Specific to home furniture, Rogers et al., (2021) also points out a lack of sentimentality towards furniture, though people's preference to donate broken furniture over any other activity option, including recycling, or selling as second hand indicates a perception that the furniture maintains some level of material value, even when broken. Home furniture often holds distinct values for different people, ranging from functional, aesthetic, material and in some cases, even emotional and social. Many value associations



Technical aspect resonate with factors of perceived ability as described by Ackermann, et. al. (2018) and offer scope for intervention to enable IKEA customers to repair their furniture

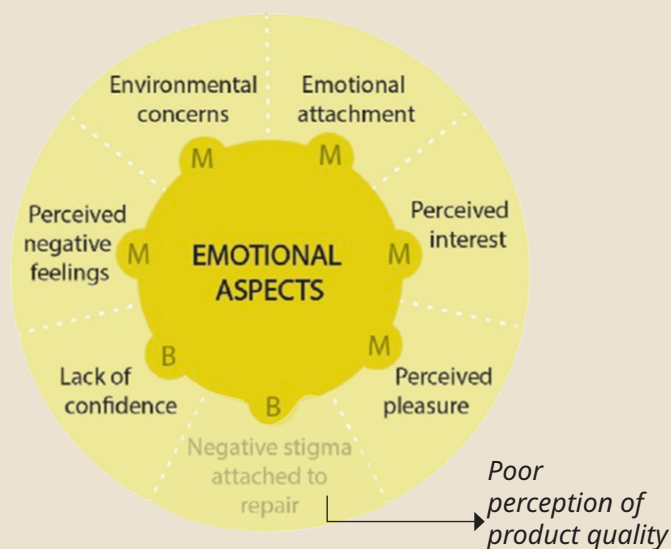
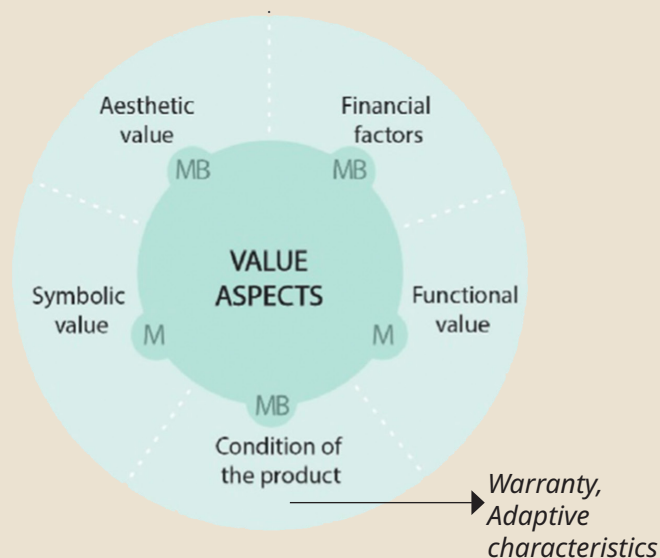


Figure 2. Motivation and barriers for repair, also relevant in the scope of furniture repair. Model by Terzioğlu (2021), annotations by author.

to furniture alongside growing awareness of environmental concerns because of wasted resources, generally motivate consumers to take care of their furniture. Though limited ability or triggers for care, often prevent people from caring for and repairing their furniture, as they would like.

Ability factors

Furniture repair while feasible at home is highly dependent on the damage and individual abilities to care for and repair their products. Home furniture maybe considered in the range of medium complexity repairs. High complexity repairs include products such as appliances, electronics, etc., composed of hidden components, often due to high risks and strict rules for safety, security, and/ or health. On the other hand, low complexity repairs such as fixing a missing button or tightening a loose screw can be carried out easily by most people.

A variety of damages in case of furniture ranging from visual wear-and-tear to functional breakage, require a range of repair and care activities.

These may demand simple tools and easy skills, like cleaning a stain from a table or washing sofa covers. Alternately, furniture damages may also require expert skills, and specialised tools or materials, like carrying out wood polishing for a water damaged table or fixing a broken cabinet door and hinge.

The various care and repair activities for furniture maybe perceived as simple or complex given individual ability.

Ackermann, et. al. (2018), highlights various perceived ability factors that positively motivate consumers to engage in activities of care. For instance, having the right knowledge & skills and having enough time, to invest in the effort of care motivates people to care for their products. On the other hand, lack of required knowledge & skills, or time, or high perceived effort can serve as barriers to people's motivation to repair. Furthermore, lack of repair-ability or design related problems can prevent consumers from being able to repair*. Inaccessible or unavailable materials, tools and parts can further prevent people from caring and repairing their products.

Terzioğlu (2021), points out endurance of repair, "how long will the repaired product last", and reversibility of repair, "can I go back, in case of

a faulty/ shabby repair?" as additional technical aspects that may serve as motivation or barrier to people's repair behaviour.

IKEA can play a prominent role, and as manufacturers hold the responsibility to enable repair and care of home furniture. Apart from interventions in product development* to improve repair-ability of manufactured furniture, accessibility to product knowledge and appropriate resources can especially enable customers to care for and repair their home furniture. Provision of handy and accessible product knowledge, care products and instructions, and tools and parts for repair can all improve consumers perceived ability and enable actions of required care and repair of furniture.

Triggers for repair

With considerable motivation, and improved perception of ability to care for and repair furniture, triggers can offer the spark or signals to take action. Ackermann, et. al. (2018) describes triggers that push people to perform care behaviour. These include external triggers, such as appearance triggers, to do with how a product looks. Loss of original appearance or damage, for instance, stained sofa covers, or a table surface can motivate product care. Time triggers such as reminders for routine product check-ups or signals integrated in products to indicate usage over time, can prompt users to undertake maintenance activities in a timely manner; or social triggers, that is the influence of social circles of friends and family. People's social environment may influence their care behaviour positively or negatively, for instance, "*not feeling responsible enough to care for common furniture in a shared student house, since the others don't do it either.*"

In case of furniture, diminished appearance over time or damages to valuable furniture offer triggers to undertake care and repair activities. Though, development of additional triggers offer scope for IKEA to prompt appropriate care and repair of home furniture. For instance, time triggers in the form of personalised emails for care of furniture, or social triggers in the form of a more present culture and practice of repair in furniture stores.

A variety of value associations and damages,

determine the individual motivation and ability to care for and repair home furniture. Reflection on the behavioural aspects for care, specifically in the realm of furniture repair, point towards willingness to repair, yet barriers to customers' perceived ability and missing triggers limit actions for repair. These reveal opportunities for IKEA to improve and offer visible channels for repair resources, that can effectively enable customers to care for and repair their valuable home furniture.

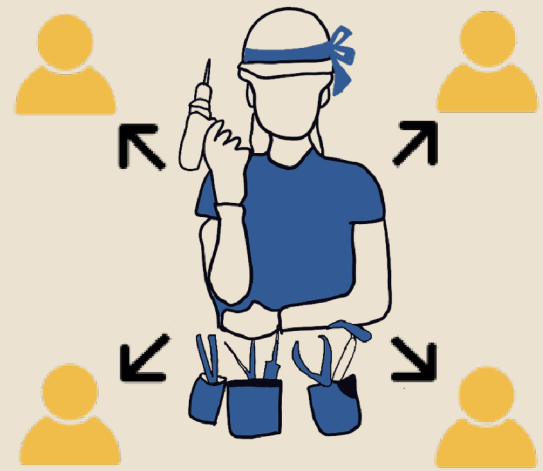
1.1. Profiles for repair

The wide-ranging consumer behaviour towards repair also poses difficulties for repair and reuse initiatives to effectively target and design triggers and interventions for the many customers. Diverse forms of repair and reuse initiatives can benefit from representations and segmentation of customers for repair. Gobert et al., (2021) outline 5 such representations (Figure 3) based on customers' commitment to repair – their appetite for repair, willingness, or unwillingness to share repair knowledge and know-how and the ability to manage repair, recovery, or remodel of objects. These representations are reflected upon in terms of consumers' behaviour for care and aptly enables personifying the various stakeholders for repair outside of IKEA, including customers.

The **militant repairer** is involved in 'third places', such as repair cafés and makers' spaces, that actively promote and undertake repair activities. Sufficiently motivated and able, the militant repairer even triggers others to repair, through actively sharing knowledge of repair amongst community members and neighbourhood.

The **holistic repairer**, already identified as a resource in their community and neighbourhood, is ready to help and pass on skills. The friend or relative one calls for advice and help when something breaks down. The holistic repairer maybe motivated by a general attitude of repairing products and has the resources and ability to repair. While in no need of triggers themselves, given their high motivation and ability to repair, they freely offer knowledge, resources, and guidance to members of community and amongst friends.

The militant and holistic repairers offer opportunities of collaboration with IKEA, given their vision, intention and motivation for repair.



Militant and Holistic Repairers are motivated, able and even trigger others in the community to repair.

In the context of repair at IKEA these capture personas for expert collaborations



Solitary repairers are motivated and able to carry out their own repairs

Occasional repairers seek advice and guidance to carry out their own repairs



Non-repairers are not willing to carry out their own repairs

In the context of IKEA the solitary, occasional and non repairers aptly capture customer personas to target for repair interventions

Figure 3. Illustrations of repair profiles, described by Gobert et al., (2021). Also relevant as stakeholder personas for repair at IKEA.

The **solitary repairer**, likes to repair, has the tools for this practice but does not wish to share their knowledge. They may also be grounded in practical knowledge of working with and in specific materials like wood, with cherished tools, and exhibit an appreciation of both materials and tools, referred to as the **Craft consumer** by Gregson et al., (2009). The solitary repairer has high interest and motivation for repair, and usually owns the resources and has the knowledge required to carry out repairs. Provision of required spare parts and materials for furniture repair, can sufficiently aid them to carry out their own repairs.

The **occasional repairer** is in search of skills. While motivated, they lack the ability to repair. They may lack the tools, resources or knowledge and skills for specific repairs. Interventions to offer visible and easily accessible resources and knowledge for repair, can aptly trigger occasional repairers to carry out repairs.

The **non-repairer** is not willing to learn how to repair. Barriers such as lack of time, value for convenience or quality of repair may prevent people from repairing themselves. In terms of repair behaviour, while non-repairers

may have the motivation to repair, extremely low perceived ability factors such as less time, high perceived effort, etc. prevent them from carrying out repair activities by themselves. Convenient and accessible professional repair services can trigger non-repairers to get their furniture repaired.

It is relevant to note that people may assume different segments, even at different points in one's life, based on various factors including availability of triggers and solutions for repair. The group of militant repairers and holistic repairers offer valuable scope of collaboration for IKEA, to exchange repair knowledge and grow community networks for repair. On the other hand, the solitary, occasional and non-repairers can be considered as relevant target groups to serve through repair interventions by IKEA. Repair initiatives to offer tools and parts can support solitary repairers, while provision of repair knowledge and content can enable occasional repairers to develop competencies and subsequently, their perceived ability to repair. Lastly, expert repair services by IKEA could offer non-repairers the option to repair their products.

Chapter 2: Strategies for care and repair

Strategies to stimulate product care and maintenance, identified from recent literature are also relevant for repair. Stimulating **activities that foster social connections, enable reflecting & appropriation, and offer antecedents & consequences** can enhance consumers' motivation to engage in care and repair activities for their products. Repair and care activities can also enable valued associations with products and stimulate people to retain their products longer and extend the use-life of products. Furthermore, strategies to build awareness, inform and enable customers with resources can improve their perceived ability to carry out care and repair activities.

Stimulating product care and maintenance can enable products to retain their functional value and ensure longer product life. Ackermann et al. (2021) highlights strategies that offer motivation for consumers to undertake care activities.

Fostering **social connections** for product care or through product care, at community repair cafés, motivate consumers to participate in care activities together as a community. It also offers exchange of knowledge and space, tools, and parts that one cannot always afford by themselves.

Strategies for **reflecting** can inspire positive emotions towards a product and its care, in the form of memories created around a product or joyous experience of its care activities. Repair activities carried out by oneself and using creative techniques offer opportunities to develop personal and valuable memories with products.

Appropriation in form of personalisation through modular and ever-changeable products, or creative interactions with the products in the form of up-cycling or Do-it-Yourself activities, enhance product attachment and motivate product care. **Product upgradability** offers possibilities to retain the product's functional value over a longer period. Given the products' ability to adapt to different phases of use or evolve with changing needs or technology with advanced parts or functions. Adding value by personalising or customizing

one's furniture can be motivating for customers, over re-storing furniture back to its original state, especially in case of damage. Exploring repair as an opportunity to refurbish or up-cycle products can enhance customers' motivation to repair their damaged products.

Communicating **antecedents & consequences**, that is the effects of product care can motivate customers to engage in product care. For instance, anticipation of a shiny product after care, or fear of a damage in case of non-repair when made apparent through the products state, or rewards and penalties for sustainable behaviour can motivate people to care for their products. Repair activities, and consequently restored or even value-added products can instil a sense of pride amongst repairers and serve as inspiring antecedents for future activities.

Lastly, a **challenge-based approach**, where people want to try it out themselves and explore their personal boundaries, can provide motivation for product care. It can also influence people's ability, providing enough motivation to overcome the challenge of missing tools or lacking knowledge.

Motivating and engaging care activities can also stimulate internal triggers, in the form of valuable personal experiences with care activities. These can serve as motivation for future activities in case the activity was found joyful or relaxing and brought feelings of pride and pleasure (Ackermann, et al., 2018).

Activities outlined for product care and repair, can enhance the emotional value of products and stimulate their retention. Van den Berge et al. (2021) outlines strategies based on people's emotional, functional, and at times intertwining social values of owned products. Product attachment, in the form of memories around the product and self-expression, through products that match ones' personal identity and offer scope of personalisation, can for instance, strengthen people's emotional bond with their products. Emotional and functional values of products maybe be intertwined with other values of owned products.

For instance, social values of self-expression and group affiliation from “*DIY activities to repair a shared table with a group of friends*”, may encourage meaningful emotional bonds with the products worked upon. Or “*taking care of one’s leather couch regularly*”, may establish an emotional bond of comfort and joy in one’s handy-work and knowledge of materials. In this case, retention of the products functional value leads to an emotional bond with the product.

Triggers to stimulate awareness, and strategies for informing and enabling with care and repair resources, can enhance consumers perceived ability factors to carry out care activities and repairs.

Awareness strategies in the form of push messages, product changes in appearance, such as a greying table surface and product changes in functionality or performance can inform customers of the need and urgency of care activities. In the case of repairs, while the damage informs the need and urgency of the situation, awareness of possible repair solutions can improve customers’ perceived ability for repair, in case of damage.

Informing through instruction manuals and guides, or interactive websites, workshops or providing physical product indicators, that offer knowledge and information for product care, can enhance consumers’ knowledge and thus, ability to care for and repair their products.

Enabling strategies, can further enhance consumers ability for product care, by providing flexibility in the form of standard and accessible parts, providing necessary means such as tools and instructions in a timely manner, or providing a professional service

Control can act as a trigger for product care and refers to the extent of control consumers have over product care. Varying in intensities, control may range from product taking initiative with a warning for regular maintenance or product handling care by itself, for instance, using self-healing materials. Regular product care, may also become a habitual part of one’s life, resulting in unconscious takeover. In the realm of furniture, service models to lease furniture offers opportunities for service providers to control the care and repair of leased furniture, through subscribed and regular maintenance activities.

Activities that facilitate social connections, reflecting, appropriation or upgradeability can enhance consumers’ motivation to engage with product care and repair. Visible antecedents and consequences of care & repair activities or a challenge-based approach can also offer motivation to customers. Care and repair activities can subsequently enable developing emotional, functional, and even social values for owned products. Product attachment through such value associations, can stimulate future product care and retention. Strategies to improve consumers perceived ability, include building awareness, informing, and enabling consumers with resources and knowledge for care and repair. Lastly, varying the control consumers have over product care and maintenance, through service models can enable effective product care, maintenance, and repairs.

Strategies to motivate engagement with repair activities and stimulate awareness, were explored in the form of customer-end interventions for repair.

Image 2. Wooden and textile furniture from the living, office, kitchen, dining and bed from Home Furnishing Business ranges was selected

Chapter 3: Furniture for repair

IKEA furniture provides unique opportunities in being designed for assembly and at times disassembly, and availability of standardized spare parts for a wide range of products. In terms of repair-ability the wide range of IKEA home furnishing items, each offer certain opportunities and challenges, in terms of feasibility and viability of repair, customer acceptance and need for repair, building capacity for repair and cost of repair.

External collaborations with manufacturers and companies already cater to **complex repairs**. These include services for customers' kitchen worktop installation, maintenance, and repairs, also for appliances and kitchen worktops, which were considered out of scope for this project.

Criteria based on **cost and material** enabled the selection of a suitable product range to explore for repair. The initial cost of the furnishing product was considered, and products costing more than 100€ were selected as those fit for repair. From the perspective of IKEA expensive products are worth repairing to maintain brand value and product quality information. These products are also most sensible for customers to repair, given the high replacement and initial cost of the product. In terms of financial aspects, Fachbach et al., (2022) point out consumers are willing to pay between 19% and 30% (24.54% for furniture) of the purchase price for a product

repair. The range was further narrowed down by the choice of materials. Wooden furniture with possible textile parts, including seating furniture was selected given the wide range of spare parts manufactured and available at IKEA. Customer data and earlier research^[4] also reveal couches, kitchens, and wardrobes as products that customers most frequently need repairs and help for.

Lastly, in consideration of large/ built-in products for which customer's require repair, also pose challenges for logistics. Both for customers to bring the product to a store or facility and for IKEA to provide pick-up and delivery for customers' products. **Transportation** for such items is expensive both in terms of monetary value and energy consumption. The challenge of logistics of considered in the development of concept for repair interventions.

Based on the criteria, the range of sitting furniture including dining chairs, office chairs and couches and other wooden (like-wood) furniture including kitchen cabinets, dining tables, wardrobes, shelves, and bed frames were included in the scope of the project (*Images 2,3,4*). The identified furniture was further validated with customers and co-workers during the co-creative and inquiry sessions. (*Product mapping for selection of repair range can be found in Appendix A*)



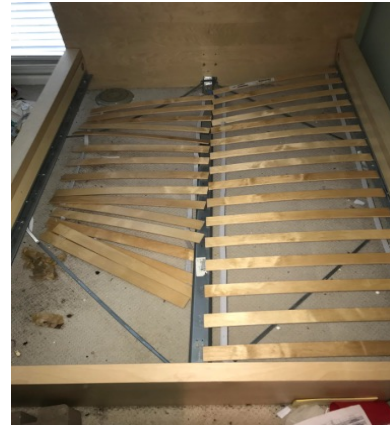
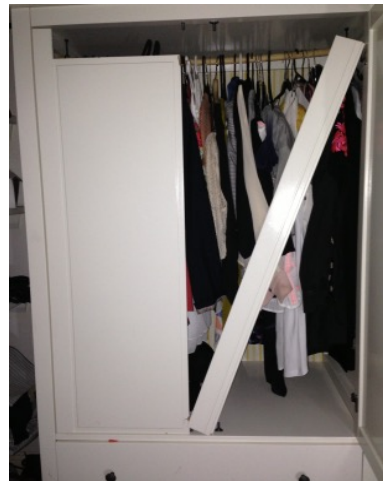


Image 3. Common damages identified and further explored for wooden furniture at home



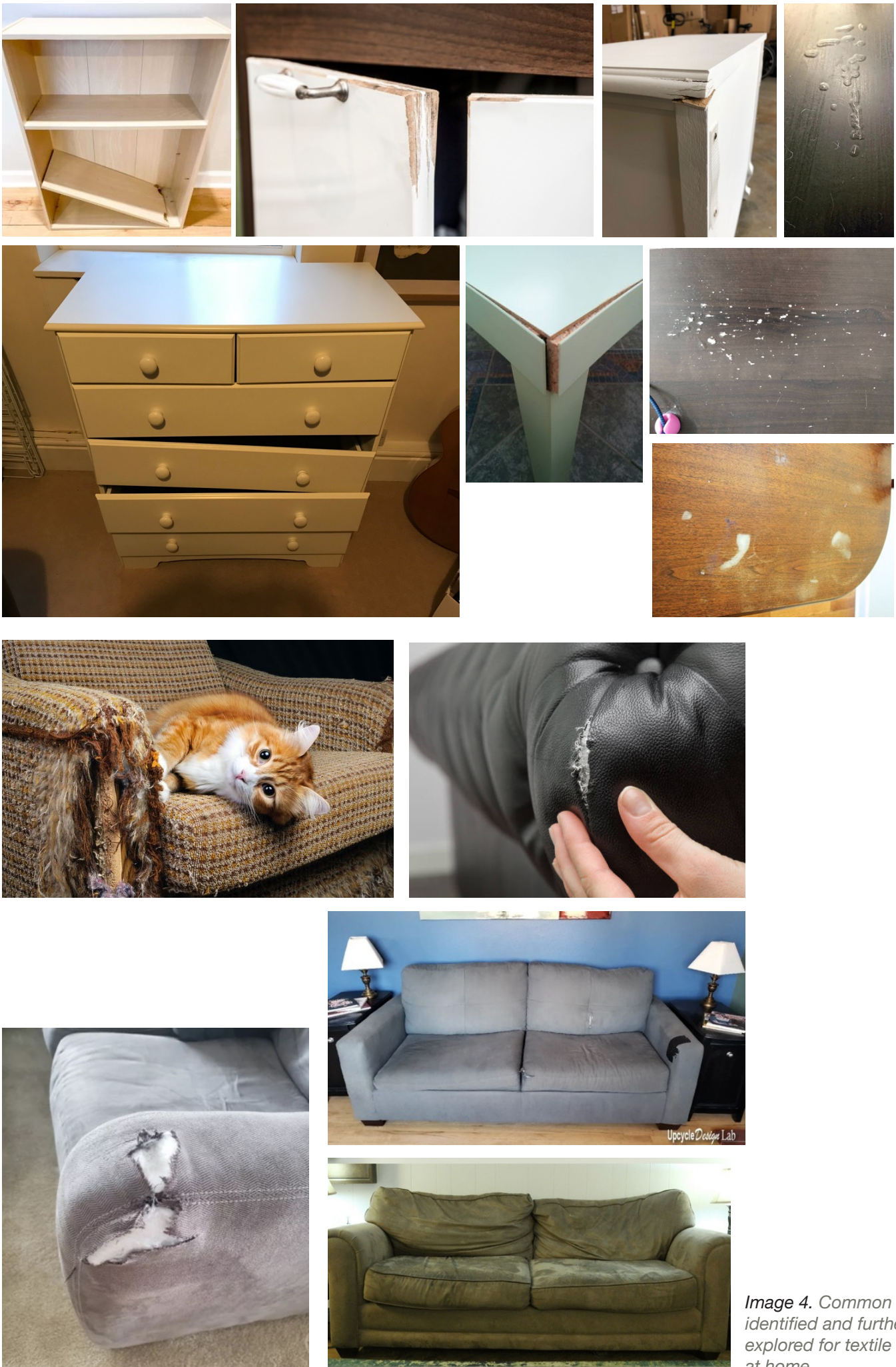


Image 4. Common damages identified and further explored for textile furniture at home



II. Landscape for Repair at IKEA

The complex and wide-ranging landscape of repair was identified and established through the first phase of the project that comprised of contextual inquiry. A participatory approach guided the research phase of the project to include multiple stakeholders relevant for repair. Within IKEA, learnings from the global IKEA concept, steering perspectives of IKEA NL country management and Barendrecht store perspectives were included in the investigation and inquiry of the existing repair context.

Various forms of inquiry included interviews, Front Days at the IKEA store, desk research and case studies. The inquiry helped establish the current landscape of customers' products after

sales and informed the context for future repair interventions. The investigation of the context was guided by the following -

Research Questions:

- **What are the current shortcomings, and limitations for repair of customers' furniture?**
- **What value-action gaps in the identified context can trigger opportunities for repair of customers' broken IKEA furniture?**
- **What are existing learnings and insights for repair, to support customer interventions?**

Chapter 4: Services landscape IKEA NL

4.1. Interviews with Services co-workers (IKEA NL)



4.2. Repair as a care initiative at IKEA

4.3 Changing policies for repair

4.4 Product rules and guidelines

4.5 Business challenges and proposition

4.6 Drivers & barriers for repair at IKEA NL

Chapter 5: Global learnings from IKEA, in the context of IKEA Barendrecht

• Desk research

• Front Days at Barendrecht store

• Creative inquiry with services and store co-workers



5.1 Care products and Spare parts - In-store visibility, availability and management

5.2 Repair methods - Recovery Hub at the Barendrecht store

5.3 Activities for care & repair | Inactive & undocumented in NL

5.4 At-home repair service | Quality Bus and customer relations in store

Chapter 6: Conclusions

Image 5. Local waste island within the recovery hub at IKEA Barendrecht.

Image 6. Small furniture assembly area within recovery hub.

Chapter 4: Services landscape IKEA NL

Steering committee for repair at IKEA NL

- Sustainability lead
- Services lead
- Product quality lead
- Product compliance lead
- Communication & graphics stakeholders

- Market Manager, IKEA Barendrecht
- Business Navigator, IKEA Barendrecht
- Local Marketing manager, IKEA Barendrecht

Based at the Service office, Haarlem and IKEA Barendrecht store, NL

Interviews to investigate

- Scope of repair interventions at IKEA
- Drivers for repair
- Barriers for repair

4.1. Interviews with Services co-workers (IKEA NL)

Online and in-person interviews, conversations, and discussions with experts from the services office of Netherlands, at Haarlem enabled to establish and identify the context of repair for IKEA NL. The IKEA retail store at Barendrecht and infrastructure of IKEA NL provided the backdrop for the development of repair interventions to enable customers to repair their IKEA furniture.

Sustainable and circular ambitions, alongside changing policies for repair drive the home-furnishing company to explore opportunities for repair of customer furniture. The context for repair of home furniture at IKEA was established based on the product quality, recovery and compliance rules, regulations, and standards; and taking into consideration the business challenges and proposition for customer-end repair services at IKEA. These perspectives were considered for the development, longevity and implementation of interventions for furniture repair at IKEA.

4.2. Repair as a care initiative at IKEA

Initiated by the sustainability team of IKEA NL, repair is explored as part of the global strategic goal to

'Enable customers to acquire, care for and pass on products in circular ways.'

The proposed Circular Roadmap for IKEA Netherlands (*Figure 4*) caters to these three aspects of an extended customer journey for circularity. Second hand platforms and shops as well as removal and trade-in services are being explored to enable customers to acquire and pass on their products in circular ways. With this project **repair was explored as a service offer for customers to care for their IKEA furniture.** Customer-end channels were explored for after sales parts, care range, expert repair services and AS-IS furniture including slightly damaged or used customer returns and showroom furniture.

The proposed project explores repair as a circular strategy, alongside another one of the global strategic goals by IKEA, that of **joining forces with others**. The project takes inspiration from and explores scope of collaboration with emerging contemporary and local repair initiatives.

Furthermore, **taking the lead**, IKEA proposes to explore repair guidelines and models that can support future customers' right to repair their home furniture.

4.3. Changing policies for repair

The EU commission's recent efforts to enable and accelerate the adoption of the circular economy principles have led to the development of policy and regulatory pre-conditions. Reuse and repair are high on agenda, given their impact for prolonging product and material life, addressing one of the most problematic climate impact areas. The recently developed **Right to Repair** for customers obliges producers to meet specific criteria for repair, such as design for disassembly and repair, or provision of spare parts for product lifetime, etc. While currently applicable only on electrical consumer products, IKEA foresees value in promoting repair and reuse for customers' home furnishing products, to enable retention and a longer life for home furnishing products and materials. Key principles as outlined by IKEA (*Appendix B*) to

prolong product life while maintaining business viability include, the design of products for reuse and repair, a need for physical and digital infrastructure to support reuse and repair and promotion of circular behaviours to maximize value retention. This project focuses on the latter, promotion of circular behaviour to maximize value of customers' damaged products. Repair and refurbish are identified as important steps for care and maintenance, to enable a longer use-life of furniture. And relevant to prevent wastage of valuable resources, headed for landfill.

4.4. Product quality, recovery and compliance rules and guidelines

The existing product quality, recovery, and compliance norms for furniture, helped identify various considerations and shortcomings for the repair of customer products after sales. The product quality and recovery leaders pointed out various challenges with tackling **complex repairs** in-house, "For appliances we connect the customer to the manufacturer for any repairs and complaints. All we can do is provide a replacement if it cannot be repaired by the professional services." Services for the most complex to repair products, that is kitchen appliances such as microwaves, dishwashers, etc. are already outsourced to manufacturers or technical experts.

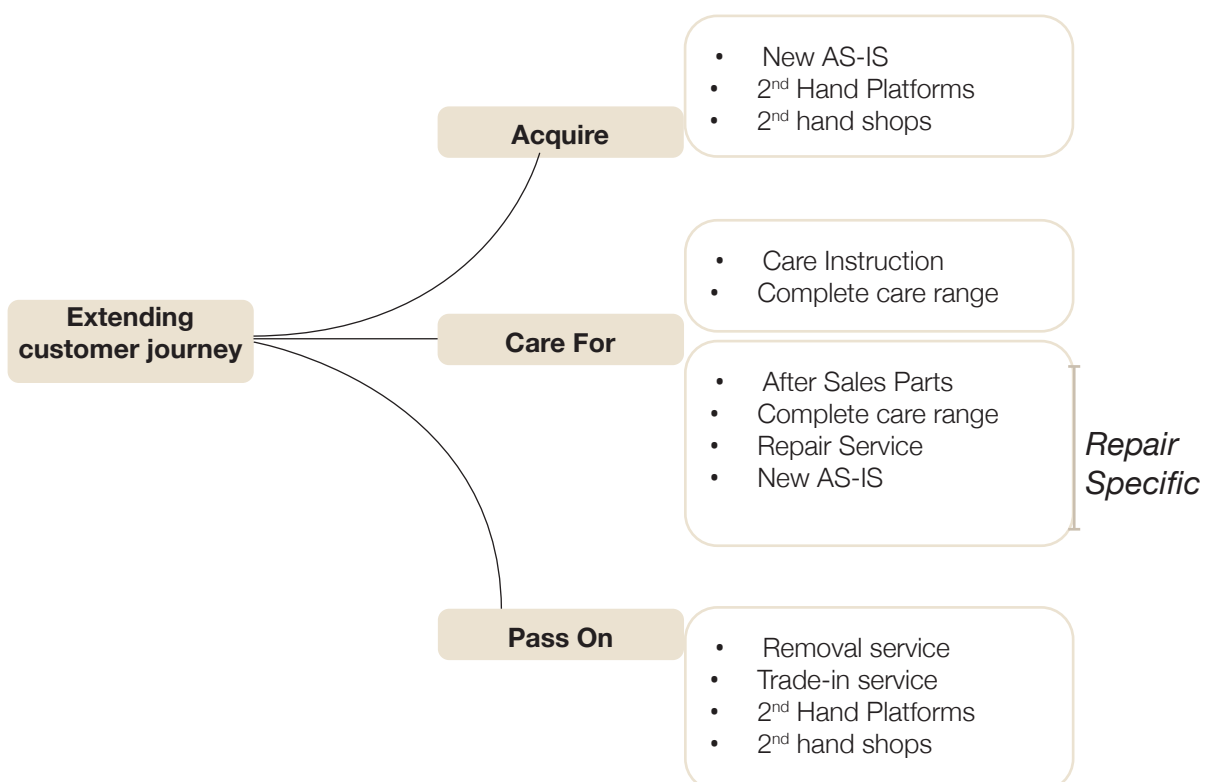


Figure 4. Circularity roadmap currently under research and planning phase at IKEA NL.

A service for couch maintenance and repairs, managed by the Regional Customer Management Point* (RCMP, Groningen), is offered to customers in case of warranty claims, though the service is not visible, or pro-actively referred to customers. Offered only for furniture within warranty, the service is otherwise expensive for customers. While external competencies prevent development of in-house product knowledge, these offer opportunities to explore other forms of product-service collaborations.

Compliance regulations and rules such as product functionality, safety, energy rating and safety warnings that apply to retail consumer products are also pertinent for repair and refurbishment, specifically when carried out or advised by IKEA. The product compliance leader pointed out critical measures and stringent liability for the safety and hygiene, specifically of children's products and fabric-based furniture. They were especially wary of the infrastructure (space, equipment, tools, parts) and the resources (knowledge and skills) required for repair and currently missing in stores. Challenges with logistics of large furniture, for instance, *"bringing a couch to the store would require hiring transport services, which are expensive"* were also considerable for IKEA. Furthermore, compliance for in-house repairs would also extend to safety protocols for the equipment and activities for repair carried out in the store. For instance, *"fire safety in case of repairs requiring welding of a metal plate, or chemical hazards in case of painting jobs"*, should all be considered in case repairs are proposed as an activity to be carried out in the store premises.

Another aspect was that of **repair-ability** of specific products, for instance if the *"PAX wardrobe's side panel chipboard is severely damaged, it must be replaced."* They were cautious of offering quick fixes to customers, without any guarantee as, *"these can have severe consequences for the brand value, if a repair advice goes wrong."* From a brand perspective, they adhere to tried and tested recommendations, and not 'hacks.' Limited product manufacturing knowledge from Inter

IKEA and lacking norms for repair, currently, prevent repair of customers' IKEA furniture. IKEA management at the country level that is the retail franchise (INGKA) agrees to adhere to the IKEA concept (Inter IKEA) by the supplier and manufacturer of IKEA products. The agreement states that original IKEA products cannot be changed or modified by the retail franchise (country or stores) unless keeping true to the assembly, maintenance or repair instructions provided by the supplier.

Nonetheless, value of repair was evident amongst stakeholders, both for customers and to save failure costs from internal damages. Through re-sale of second hand or damaged products with restored or added value. They mentioned trials for internal repairs, wherein few *"co-workers have been trained to re-use, through quick repairs showroom electronics like lights and bulbs."* Though there are currently considerable shortcomings to offer repair solutions or services to customers.

Many challenges such as complexity of repairs and missing safety standards, limited product knowledge and repair-ability of products and infrastructural limitations, currently prevents the repair of IKEA furniture for customers and in-store. Repair interventions offer opportunities both for customers, and to prevent failure costs by restoring or adding value to internally damaged furniture and customer returns.

4.5. Business challenges and proposition

Integration and adoption of a repair intervention in the current ecosystem of IKEA is also dependent on the business proposition of the intervention. First and foremost, the current retail model of IKEA franchises is geared towards profitability, from the sale of new furniture. Therefore, development of product services aimed at meeting product and customer needs during the lifetime of a product would be a lengthy and slow process. Since investment in repair infrastructure and resources conflicts with both the affordable nature and sale of new products in-store. While currently driven by **linear models** of

*The Regional Customer Management Point in Groningen, catering to customers from across NL was not covered within the scope of the project.

business and economy, policies play an important role for transitions within complex systems and pushing companies to adopt circular models for sustainability. The promise of fully circular by 2030 encourages IKEA to take steps towards a circular and sustainable shift. To maintain brand value and loyalty it is pertinent for IKEA to meet its' customers' sustainability ambitions. Repair interventions offer various opportunities for IKEA to become a people and planet positive company. Repair and associated services offer scope of customer engagement online, or through store visitation and across IKEA furniture's use life. Furthermore, development of repair content and knowledge, can support building competencies for furniture repair both within and outside IKEA. Lastly, product use and quality data based on customer repair services has potential to provide valuable feedback for product development and maintenance.

4.6. Drivers and barriers for repair at IKEA NL

Sustainability ambitions to become circular and emerging policies for Right to Repair, drive the home furnishing giant IKEA to explore repair services for customers' home furniture. Product guidelines and regulations, and the proposition of repair for business were investigated to identify

barriers and establish the context for repair interventions at IKEA.

Product and compliance regulations or guidelines for repair are currently lacking at IKEA. It would be critical to consider various aspects for the repair of IKEA products, including complexity of product repair and corresponding safety standards; the repair-ability and quality of repair and its influence on brand image; and limited in-store resources and infrastructure. Product repairs at IKEA hold value not only for customers, but also for recovery of internal damages and sale of second-hand and re-used products.

While IKEA's business models are geared for profitability and not a longer life for furniture, repair interventions offer various opportunities for the company to become people and planet positive. These include customer engagement through interaction along the lifetime of IKEA furniture; brand value and loyalty by meeting customers' sustainability ambitions; skill development for co-workers and customers via documentation and knowledge sharing; and product development based on product-use data from repair activities.

The various drivers and barrier for repair at IKEA are illustrated in *Figure 5*.

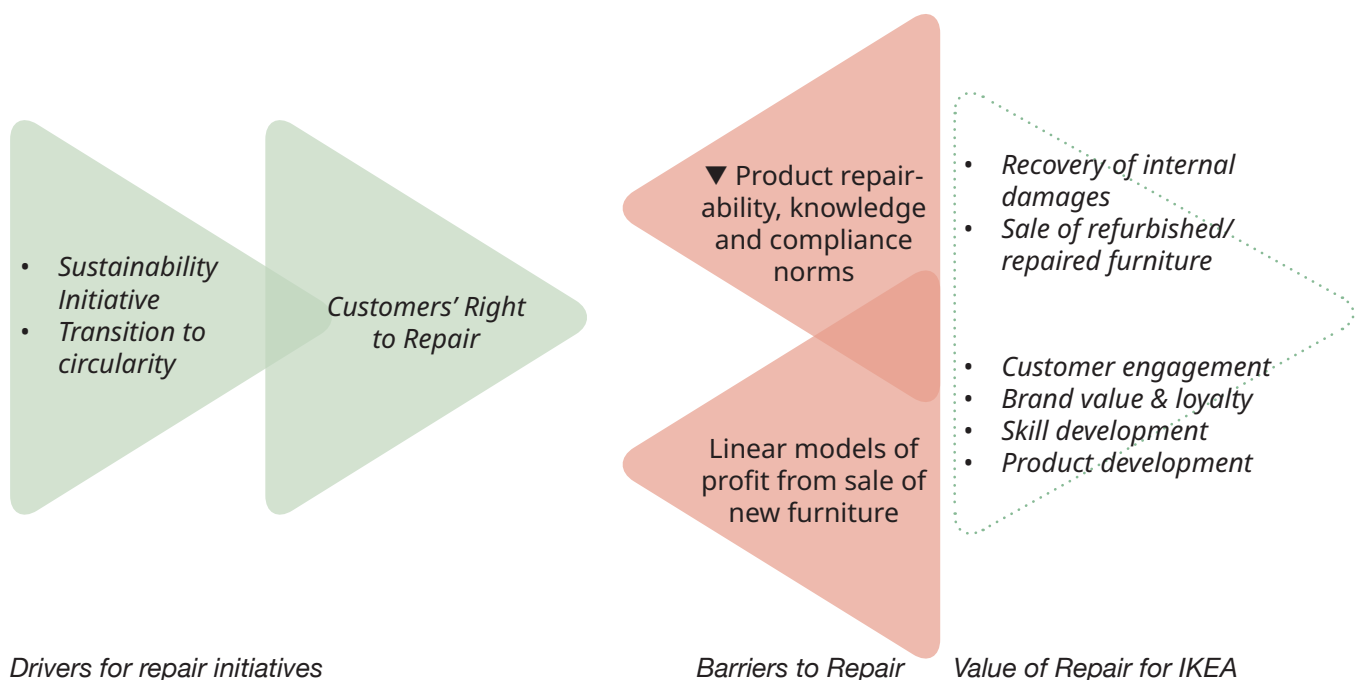


Figure 5. Identified drivers and barriers for repair interventions at IKEA NL.



Chapter 5: Global learnings from IKEA, in the context of IKEA Barendrecht

IKEA's recent advances to transition to a circular economy and become a People and Planet Positive company has led to several explorations and initiatives for customers. Many care and repair initiatives are still under development globally and being tested in some countries. Some of these, in the realm of care and repair provided inspiration and learnings for repair at IKEA Barendrecht, NL. The learnings and identified initiatives were evaluated in the context of store capacities, resources and infrastructure. research activities including desk research, in-store experiences, and creative inquiry with services and store co-workers, helped identify specific specific shortcomings in repair infrastructure and subsequent opportunities for furniture repair initiatives at IKEA, NL.

Desk research

Insights and explorations for repair were gathered based on initiatives, concepts and tests conducted and implemented at IKEA globally and in different European countries and for various product ranges such as kitchen appliances or couches. Conceptual learnings and tests in other European markets have explored the potential of transforming care and maintenance products into service propositions including those for repair, that can appropriately cater to the care and maintenance needs of IKEA products and customers.

Learnings and concepts relevant for care and repair of IKEA products include the offer of **care products & spare parts, testing of repair methods for re-sale, in-store activities for care and repair, and an example of an at-home repair service** in Denmark. The solutions and learnings described here are only tested in certain countries and not yet applicable across IKEA. *(Insights from IKEA are compiled in Appendix C)*

Front Days and Interviews at IKEA Barendrecht

The context for repair at the IKEA Barendrecht store was established in terms of the processes carried out post sales and identifying subsequent challenges and opportunities for repair interventions in-store. At the IKEA Barendrecht

store, the Recovery Hub, the Tweedekanshoek (Second-chance corner for sale of second-hand and AS-IS furniture) and Customer Relations provided relevant grounds to investigate the product journey post sale to customers. Various activities that are carried out at the recovery hub and by customer relations backline and desk were mapped based on hands-on experience during front days, interviews, and discussions with co-workers. Inquiry days at the store helped build an understanding of the store co-worker roles, responsibilities, challenges, and motivations. Data was documented in the form of photographs, conversation comics, interview transcripts and service interactions maps, to identify specific process or co-worker challenges and subsequent opportunities or inspirations for repair. *(Detailed outcomes from front days are presented in Appendix D)*

Creative inquiry with services co-workers

A 120-minutes long creative inquiry session was carried out in hybrid mode with services co-workers, leaders from product quality, services experience, sustainability and legal. The inquiry session included a combination of group interactions supported by presentation of customer needs and moments of individual reflection. The session was designed to enable sensitisation to customer needs, reflection on current infrastructure and ideation of possible propositions. These were intended to explore repair competencies or lack thereof, based on available and possible to develop infrastructure, capabilities, and resources for repair within IKEA.

Creative inquiry with store co-workers

A following 60-minutes, creative inquiry session with 5 co-workers from the store was carried out to explore capabilities and challenges for repair within the store. The session investigated co-worker competency and enabled reflection on their current workspace, and possibilities to equip the same for repair. The session provided insights on the availability and scope of developing resources for repair such as product knowledge, tools, parts, space, and skills. It further defined the specific co-worker challenges and painpoints.

(Outcomes from creative inquiry with services and store co-workers are presented in Appendix E and F, respectively)

Session with services co-workers to identify:

- Challenges for repairing customer's furniture (*Customer needs presented for sensitisation*)
- Opportunities at IKEA for repair of home furniture (*Ideation of propositions*)

Co-design Session set-up

120 minutes; Hybrid - Haarlem office & online

Participants

Services stakeholders: *Sustainability lead, Services lead, Product quality lead, Legal and public affairs lead*

Figure 6. Creative inquiry with services co-workers flow and structure

Ice breaker: "Toss it or Fix it" with the group.

1 Toss it or Fix it ?

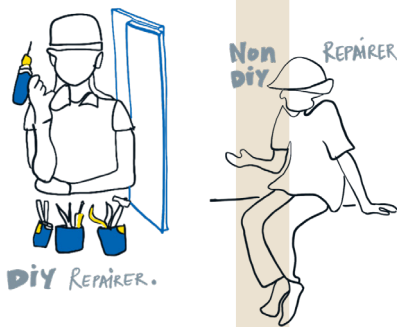
Individual: Prepare a proposition for customers to repair the selected furniture item

4 How can we (as IKEA) serve our customers best, to repair their IKEA products (warranty + out of warranty)?

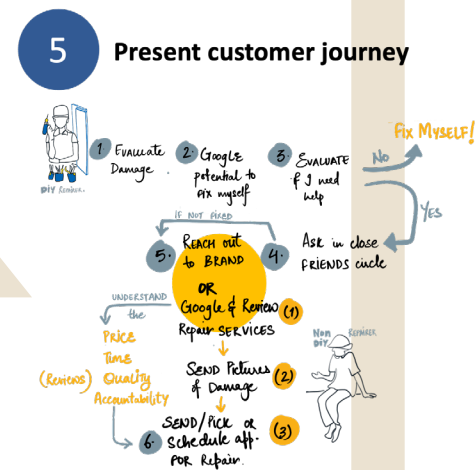
FOR WHO? *DIY / Non-DIY customer* — FOR WHAT? *(Product)*

Presentation for sensitization: Customer experiences of repair - personas and the various challenges they face while repairing their IKEA furniture

2 Present customer profiles and challenges with repair

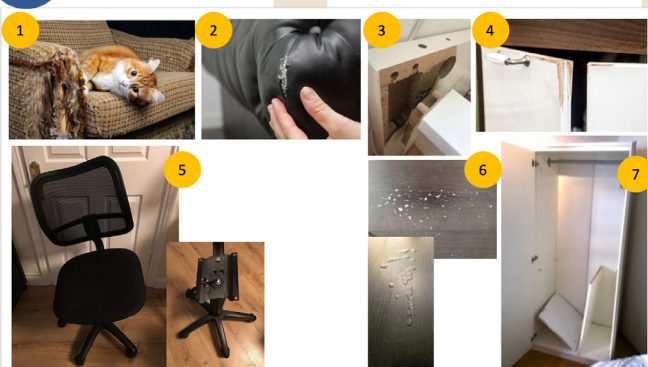


Presentation: Desired customer journey and needs, based on co-creative session with customers



Individual: Pick products that IKEA could offer repair for, 7 products were selected based on customers' choices during the co-creative session

3 Each one, picks one for a Repair Proposition!



Group discussion: To prompt ideas and explore opportunities for repair within IKEA

6 Discuss propositions with group



Session with store co-workers to identify:

- Challenges for repairing home furniture in IKEA store (*Advice to customers, resources required and available*)
- In-store opportunities for repair (*Possible to develop infrastructure*)

Co-design Session set-up

90 minutes; IKEA Barendrecht store

Participants

3 participants from Recovery Hub, 2 from Sales

Figure 7. Creative inquiry session with store co-workers flow and structure

Ice breaker: "Toss it or Fix it" with the group.

1 Toss it or Fix it ?



Individual On template: Pick 3 damaged products and offer advice to customers for the repair of the damaged product.

2 What advice would you give customers for these products' repair?



Discussion of each co-worker's advice to customers with the group

3

Available within IKEA WHO?	Can be developed within IKEA How?	Best to outsource To WHO?
Availability within IKEA		
Product Information		
Repair Instructions		
Repair Skills		
Tools and Equipment		
Spare Parts		
Space		
Time		

co-workers: High Low

Group discussion: To identify infrastructure and resources for repair in-store

4 Group discussion on repair of selected products



Analysis: To identify challenges and opportunities for customer-end repair interventions at IKEA

5.1. Care products and Spare parts - In-store visibility, availability and management

In the realm of enabling customers to prolong product life, IKEA offers a range of care products and spare parts for the maintenance, care, and partial repair of their products. A wide range of spare parts including fittings such as screws, bolts and hinges, and product components such as shelves, side or back panels, sofa covers, lampshades and lighting components are available to customers free of charge, for products under warranty.

A store range of the top 500 components ordered by IKEA stores is available for stores to organise as an effective, with most popular parts and conveniently located library, for both customers and co-workers who will assist customers. The spare parts are offered to customers also via online ordering and fittings via a self-serve wall in store.

Proactive communication through channels such as the IKEA website, physical meeting point in-store or personalised emails have been executed in some countries to offer customers the **right care information in the right way at the right time**. These hold potential to trigger customers to maintain their products .

Communication strategies, such as personalized emails for kitchen care, feedback and upselling were implemented in Czech Republic, Hungary

and Slovakia to encourage customer loyalty. Feedback mails were found effective, and customers appreciated the care instructions, revealing promising results of customer satisfaction, even when the communication had commercial goals of cross-selling and up-selling. Though, **communication for care supported by a strong message of sustainability, was better received and accepted by customers.**

These interventions indicate the value of proactive communication. Customers must first have an awareness of care and maintenance services and solutions offered by IKEA. Highlighting the durability and quality of products with approved instructions and information and providing product specific care and maintenance instructions in simple language can enable customers to extend the life of their belongings. Though content for repair and care is yet to be developed.

In-store availability of care products and management of parts

At IKEA Barendrecht care products are only partially offered at the Tweedekanshoek, care instructions and awareness amongst customers is lacking; and **no customer communication strategies have been implemented** to communicate about care and maintenance of IKEA products.

The recovery team at IKEA Barendrecht caters to the storage and management of the in-store



Learnings from tests and concepts

- Wide range of spare parts - fittings and components
- Available via online ordering, in-store library and fittings wall
- Proactive communication for care, with a sustainability message offers scope for cross-selling & upselling
- Personalised communication can enable customers to care for their furniture and ensure a longer life for their furniture

stock and digital inventory (SPARTACUS) of **spare parts, for provision to customers in store and for delivery**. Recovery co-workers are well versed with the most requested ranges and parts and ensure that the frequently used spare parts are in stock and available at most times. While an in-store spare parts library can sufficiently aid and support repair activities, a few challenges with the in-store library offer the opportunity to intervene for improvements.

Spare parts and some tools are available to customers, though these are not widely communicated to customers of IKEA NL, nor are they integrated in the current retail landscape of IKEA NL stores or online platform. Given a limited range of care products and free spare parts, these offer limited opportunities for profitability for stores. **Access and visibility of spare parts, both in-store and online are limited.**

Co-workers indicated difficulties with the provision of spare parts, *“customers don’t know they can order online, which requires multiple co-workers from customer relations and recovery to get involved in customer requests, delaying other tasks at recovery.”* Spatial constraints that prevent stocking a very extensive library in-store, lack of co-worker

capacity and poor online ordering infrastructure for spare parts, overloads recovery co-workers with customer requests and management of spare parts.

In case of unavailability of spare parts in-store, oftentimes, parts from new product packages are offered to customers. A prominent challenge pointed out by multiple co-workers was that of orphans, *“Sometimes parts of a furniture item go missing, and often the part turns up a few days later, while the other furniture parts have been disposed.”*

These are also generated from new furniture parts offered to customers as spare parts. Lack of space and poor logistics and infrastructure for reuse or repair lead to **abundant parts of new furniture, being discarded for recycling**. Parts of older or discontinued ranges of furniture are not stocked, though these are often required for and requested by customers.

Improving online accessibility of parts and components offer scope for interventions to reduce the task load for recovery co-workers. Repair interventions can prevent disposal of damaged furniture and new parts, which serve as **valuable resources for product upgrades and repairs**.

Challenges towards customer services, IKEA NL

- Limited care range and free spare parts offer low scope of profitability and are poorly communicated
- Low visibility and accessibility of spare parts for customers online & in-store

Customer-End
Back-End

- Extensive co-worker investment & spatial constraints for providing parts to customers
- Abundant new parts are often discarded and parts of old furniture are unavailable

Intervention opportunities

- Improvement in visibility & accessibility of spare parts online & in-store

Value for IKEA

- Abundant parts can be saved & utilized as valuable resources for repair and refurbish



5.2. Repair methods - Recovery Hub at the Barendrecht store

Methods for repair of second-hand IKEA furniture have been outlined based on tests in *IKEA Finland and Sweden* to refurbish **customer returns for re-selling and maintain office furniture**. These were developed with refurbishment partners to ensure, repair treatments result in safe second-hand products not damaging to the health. The treatments include **cleaning, filling and polishing of wood, re-upholstery and filling, spare parts replacement, tightening of screws and stabilisation and on spot painting**. Still under testing, the success of the methods highly depends on product type and economic value before and after restoration for economic viability. For instance, the differences between the original price, restoration costs and resale-price of the products. The repair of second-hand products for sale, is also dependent on **sufficient parts, tools, materials, and space, as well as refurbishment partners' access to information** on product construction and characteristics. While repair methods are currently not exchanged with stores, documentation of the same, can serve as valuable content for both internal and external communication.

Recovery Hub in Barendrecht store

The recovery hub at the IKEA Barendrecht store oversees product flow from the entire store (including showroom and logistics damages) and

customer returns. Currently, the repair methods have only been tried and not shared or formalised within recovery hubs in-store. In the **absence of knowledge and infrastructure for repair in stores, a lot of furniture is discarded on a daily basis**. Furniture, not fit for stock is only re-packaged, prepared and discounted AS-it-IS for re-sale in the Tweedekanshoek or discarded.

A **limited capacity and norms for sorting** extends to identifying damaged products fit for repair. As one co-worker mentioned, *“damages that we (recovery co-workers) think are too big for the product to resell, we let go of the product. We don't have the time or resources to repair. We already run at full capacity in recovery.”*

In which case, damaged products are often discarded for recycling. While many products can be restored or repaired, co-workers during the creative inquiry offered simple advice for repairs, most common being *“replacing the damaged part with a spare part or sewing.”* While two co-workers were quite confident of their repair skills, to offer repairs for customers, others were more wary. Skills such as **basic woodworking, wrapping, fixing issues with assembly or sewing** were evident amongst co-workers, and some even employed for showroom furniture. Though they lacked in-depth product knowledge and information, *“I don't know the internal parts of this chair, if I had information from manufacturing I could probably investigate further.”*



Treatments include cleaning, filling & polishing, re-upholstery and filling, spare parts replacement, tightening of screws & stabilisation and on spot painting

Learnings from tests and concepts

- Methods tested for re-sale of customer returns and office furniture
- Safe second-hand products are developed with external refurbishment partners
- Partners need information on construction & characteristics of products
- Every product can't be refurbished, due to lack of tools & parts.
- Economic viability is dependent on original price, re-sale price and refurbish costs

Missing product knowledge, guidelines, and instructions, prevent building competencies for repair in the recovery.

Furthermore, all co-workers mentioned various infrastructural and resource limitations for repair of customer products. *"I can sew, but we don't have sewing machine yet in the store. Plus, we can't use power tools and even saws."* Limited resources such as equipment, tools, space, and safety guidelines, prevents any actions for repair or refurbish of damaged products in the store.

AS-IS products are offered to customers at the **Tweedekanshoek** at highly discounted prices. These include discontinued items that are gently used, ex-showroom displays, and customer returns not fit for stock or store for instance, damaged and with complex packaging, and furniture from a **Buyback service**. While not new, AS-IS products in the Tweedekanshoek are in extremely good condition, most of the visibly

damaged or worn products are often discarded, without any maintenance, repair or refurbish activities to offer the products a second chance. Recovery co-workers' personal experiences and assumptions of **products as 'second hand' prevents care and attention towards the handling, pricing, and display of products** in the Tweedekanshoek (previously koopjeshoek). This also leads to extremely high discounts, at an average of around 50% for mostly new products.

Exploring repair methods in-store offer scope to add value to AS-IS products and restore damaged products for sale in Tweedekanshoek. Furthermore, repair activities that require personal care and attention towards the products may inspire careful handling and pricing too. The Tweedekanshoek at Barendrecht also offers the **spatial infrastructure for refurbish and repair activities** along with curated displays for care and maintenance of IKEA products.

Challenges towards customer services, IKEA NL

Back-End

- Internal communication channels for knowledge & infrastructure for repair are missing at recovery hubs in-store
- Missing guidelines and instructions for repair, prevent development of competencies & expertise for repair
- Limited infrastructure and resources, such as tools, equipment and space for extensive repairs
- Low-care for AS-IS products, and even slightly damaged furniture is discarded

Intervention opportunities

- Development of internal & external communication channels
- Documentation of repair methods
- Development of product norms and repair guidelines to build expertise

Value for IKEA

- Restoring or adding value to AS-IS products for re-sale

5.3. Activities for care and repair | Inactive and undocumented in NL

Another exploration to enable customers to prolong the life of their IKEA products proposes to offer **fun, social and hands-on workshops where people can learn new skills. Up-cycle or repair workshops** can create value for people and enable them to achieve their ambitions of care and repair of their products. For IKEA, such activities hold potential to generate store visitation, greater social media exposure through “creation sharing” and increased brand awareness and identity.

Workshops to prolong the life of textiles at *IKEA Cardiff*, UK were a success with 79% of customers surveyed, seeing value in the workshops. While workshops generated increased sales of related products at the store, customers also agreed that they learnt a new skill and confidence to revive textiles.

“The social aspect was important to customers, where they could learn new skills in a fun way, while making friends along the way.”

The workshops at Cardiff were **facilitated by co-workers, and dependent on their expertise, interests and skills**. The recovery hub in-store serves as a valuable source for materials and parts for refurbish and up-cycling activities.

Though intended as activities for repair and care, in various stores, the activities have taken shape in the form of **crafting or décor activities focused on customer engagement**. Furthermore, the activities carried out in stores, require extensive co-worker investment, in terms of facilitation experience and refurbish expertise. In case of Cardiff, sewing machines were rented from a local partner, though tools and equipment for repair and refurbish activities for customers pose another barrier to the workshops. While explored briefly in-stores in the Netherlands, the workshops are not yet integrated due to **limited capacities in-store, limited scope of profitability** and lacking expertise for creatively refurbishing and repairing IKEA furniture.

The tweedekanshoek at *IKEA Barendrecht*, offers the spatial infrastructure to inspire and engage customers in activities for repair and refurbish.

Image 7. Efforts have been made to offer inspiration for up-cycling at the Tweedekanshoek, though, these are limited by co-worker capacity (Right)



Learnings from tests and concepts

- Valuable for customers to learn new skills for up-cycling and personalising their furniture.
- A social and fun way for customers to engage with community
- Recovery can be a valuable source of materials and parts
- Workshops were hosted by co-workers, and dependent on their expertise & skills



Challenges towards customer services, IKEA NL

- Risk of turning into plain crafting or décor activities
- Customer-End*
-
- Back-End*
- Extensive skilled co-worker investment for refurbish/ up-cycling and facilitation. Limited expertise for creative repairs
 - Limited tools and equipment in-store to carry out effective repair and up-cycling activities
 - Lacking profitability through activities in-store is a concern

Intervention opportunities

- Facilitation of repair/ refurbish focused activities at the Tweedekanshoek

Value for IKEA

- Creation sharing can boost brand awareness & identity
- Activities can generate visitation & sale of related products

5.4. At-home repair service | Quality Bus and customer relations in store

Research and surveys for an at-home service for fixing IKEA furniture in *Sweden and other European markets* reveals customer desirability of an **affordable repair service from professionals with IKEA knowledge**. Products most commonly requiring help for repair included **kitchens, sofas, armchairs, chairs and wardrobes** in Swedish and Russian markets. Furthermore, tests in several European countries, including the Netherlands reveal the potential of home visits, with resolving 60% of claims by evaluating and repairing on site. Most frequent repairs performed by IKEA co-workers at customers' homes are **worktops, sofas, and assembly issues**.

The national quality coordinator aka Dr. IKEA, responsible for an at-home service at IKEA Denmark provided insights. A team of especially trained co-workers (3 in this case, catering to 5 stores) carry out product inspection and repair at customers' homes when a customer complaint or issue is received at the customer support service. He pointed out the requirements of not only **repair expertise and material skills, but also social skills to interact and engage with customers at their homes**. While the National Quality Coordinator in Denmark takes ownership of training co-workers, even encouraging factory visits, to gain product knowledge, **furniture**

repair and refurbish norms, guidelines and instructions are not documented or formalized yet. This prevents sharing knowledge for repair within IKEA and scaling up competencies. Furthermore, the regional customer support service in Denmark offers channels for customer complaints, communication and evaluation.

He also pointed out the challenges with a chargeable service, *"I think it's our responsibility to provide repair services for furniture still under warranty, rather than simply replace it. Though I wouldn't feel comfortable charging for the service, then I wouldn't know how to ensure quality."* Quality norms and models of renewed warranties for paid repair services are yet to be explored.

Quality Bus in NL

A similar concept in the form of an IKEA quality support bus exists in IKEA Netherlands, though its' **adoption has been partial and missing in IKEA Barendrecht** due to lack of skilled co-workers for various product ranges, a lack of training opportunities and extremely limited capacity of store recovery teams.

Furthermore, for the proposition of an at-home service, two women co-workers mentioned during the inquiry session that they, *"wouldn't feel comfortable or safe to make visits to customers' homes for repair."* At-home services offer customers a convenient solution for repair, though it also requires higher investment by

Learnings from tests and concepts

- High customer desirability, 60% of claims resolved by evaluating & repairing on site, on same day
- Products include kitchen worktops, sofas, armchairs, chairs and wardrobes
- Requires repair expertise, alongside customer relations skills and customer support services
- National quality coordinator takes ownership & responsibility for the team of repair
- Free of charge and only for products under warranty



IKEA, in developing competency and skills for the service.

Customer relations at Barendrecht and Service collaborations

In terms of post-sales services, limited warranties on IKEA furniture, generously support customers with **easy returns and replacement of parts or furniture**. All **damaged parts and products are replaced, and often discarded** without any interventions for repair or refurbish. Currently, IKEA does not have any in-store competencies for repair and refurbish. Only the furniture builders are a related department, though responsible only for showroom furniture assembly.

In this case, **collaboration with other professional services** for the **installation, maintenance and repair of kitchen worktops** allows customers to contact professional service providers, via IKEA for their maintenance and repair needs. The kitchen customer relations back-line at the Barendrecht store provides support for kitchen measurements and acts as a mediator between customers and area-specific external kitchen services. Customer communication with external companies through IKEA, especially for installation, replacement or repairs within warranty avoids miscommunication and delays in process. Regular meetings and communication with external services also ensures maintenance of feedback for customer satisfaction with external services. While the customers can approach the services post

installation, once they've had contact with the external company, **referral information for services is currently not pro-actively provided by IKEA, online or in-store**.

Collaborations with local experts via store offer inspiration and possibilities to develop competencies and services for customers. Furthermore, referrals to experts, handled by the country management, is another route to explore for customer services across NL.

Various forms and platforms cater to the communication and documentation of customer requests, complaints and progress with IKEA and external service providers, interdependent co-workers' tasks and systems at times lead to delays and long waiting times for customers, even up to 3-4 months. Proposal of repair related interventions must consider the **co-worker and systems interdependency** for effective documentation and sharing, for integration within the store and services ecosystem.

Lastly, developing a repair service in-store, as opposed to at customers' home, and for furniture that cannot be repaired at home for instance, poses a challenge of **high costs of logistics**. This is relevant especially for large furniture, both for IKEA and customers.

Challenges towards customer services, IKEA NL

Back-End

- Missing knowledge and instructions for repair prevent development of knowledge and building capacities
- Limited product norms and guidelines for repair quality and post-repair warranties
- Women co-workers' reluctance to make home visits
- Co-workers and systems interdependency can cause significant delays in offering services
- High cost of logistics for in-store services

Intervention opportunities

- In-house Competencies for expert services
- Collaboration with and referral to external experts.

Value for IKEA

- Revenue streams from repair services
- Brand image & customer loyalty

Chapter 6: Conclusions

The urgent and emergent needs of people and planet drive the sustainability initiatives for repair at IKEA. These are further prompted by the changing policies for the customers Right to Repair. Though limited product and repair knowledge in the retail landscape hinder the development and implementation of repair at IKEA NL. Furthermore, linear models of profit from sale of new furniture, still drives the everyday business in-stores. Nonetheless, repair interventions offer many opportunities for customer engagement and ensuring brand value & loyalty by meeting customers' sustainability ambitions. Furthermore, skill development and product development for repair, offer scope to explore profitable services for customers, by building competencies.

The insights from IKEA concepts and country examples offer valuable learnings and inspiration for repair interventions. The learnings were explored in the context of in-store processes at the Recovery Hub, AS-IS/ Tweedekanshoek (Second-chance corner) and Customer Relations at IKEA Barendrecht. These offer inspiration and present barriers to the development of interventions for repair. These were also explored to discover opportunities and scope for customer-end repair interventions at the IKEA Barendrecht store.

A **wide range of spare parts** and some care products are offered to customers online and in-store, as valuable resources for repair and maintenance. Available at the IKEA store, customers often look out for spare parts on offer at the Tweedekanshoek, for their own furniture projects. **Proactive and personalised communication for care and maintenance of furniture can especially support perceived ability to care for and repair their own furniture.**

A limited care range and free spare parts are poorly communicated in NL, and the offering suffers from **limited visibility and accessibility both in-store and online**. Spatial and resource constraints in store further limit the management of an effective inventory. Abundant new parts are

often discarded, while parts of old furniture are unavailable.

Interventions to improve the visibility and accessibility of spare parts to customers can prevent the disposal of valuable and precious resources for repair.

Methods for repair and maintenance are being developed for re-sale of customer returns and office furniture, with external refurbishment partners. Still under testing, the repair and refurbish of furniture is dependent on external partner's access to product knowledge and information. Furthermore, sufficient tools, equipment, space, and economic viability are important considerations for the success of repair methods for re-sale.

Missing internal communication channels for knowledge exchange, result in low product knowledge and limited sorting norms for repairable products, often leading to their disposal. Additionally, lack of documentation, guidelines, and instructions for repair, prevent development of competencies & expertise for repair. These challenges are compounded by infrastructural limitations. And in case of no repair or refurbish interventions, only 'almost new' AS-IS products are offered in the Tweedekanshoek, and still receive low care, and offered at extremely low prices, without any value-addition or restoration.

Development of internal & external communication channels, and product repair norms and instructions offer opportunities for both AS-IS products from recovery. IKEA Barendrecht currently does not offer any advice or guidance for repair of customer products. The only solution for restoring products under warranty is the offer of replacement parts or products.

Documentation of repair and refurbish methods and content for customers, can effectively enable occasional repairers build competencies for repair, and extend the life of their IKEA furniture.

Community activities for repair and refurbish offer scope, especially for occasional repairers, seeking advice and guidance, to learn new skills for up-cycling and personalising their furniture, in a social and fun setting.

Though **highly dependent on the facilitation and up-cycling expertise and skills of co-workers**, the activities in some countries turned into crafting or décor activities, losing vision of prolonging product life. Furthermore, these are limited by the availability and safety norms for tools and equipment in-store. Lastly, limited profitability through activities is a concern for most stores.

Nonetheless, repair/ refurbish activities offer various **opportunities to activate the Tweedekanshoek as an inspiration hub for up-cycling furniture**, driving visitation and sales. Furthermore, creation sharing via in-store activities can boost brand awareness & identity as a People and Planet Positive company.

An example of an **at-home repair service**, while found desirable and convenient for customers, requires considerable investment for sustainable operations that can be scaled. Repair services require technical expertise, alongside customer

relations skills and customer support services to manage customer complaints, communication, and feedback.

While **lacking knowledge, norms, guidelines, and instructions** currently prevent development of in-store repair competencies, **missing norms for repair quality and post-repair warranties** hinder the development of paid services. Furthermore, in-store services face expensive costs for logistics.

Collaborations with and referrals to external professionals were positively experienced by customers for appliances and kitchen worktops in the NL. While collaborations with local repair initiatives and experts offer scope for repair of home furniture as well, a prominent challenge for developing customer channels for repair, is the interdependency of co-workers and systems, that may lead to long waiting times for customers. Development of verified services offers customers options for reliable and convenient repair of their furniture and enables IKEA to build brand loyalty and customer relations over the lifetime of IKEA furniture, and explore new revenue streams.



SPARE PARTS & CARE PRODUCTS

Challenges towards customer services, IKEA NL

- Limited care range and free spare parts offer low scope of profitability and are poorly communicated
- Low visibility and accessibility of spare parts for customers online & in-store
- Extensive co-worker investment & spatial constraints for providing parts to customers
- Abundant new parts are often discarded and parts of old furniture are unavailable

Opportunities for intervention

- Improvement in visibility & accessibility of spare parts online & in-store

Value for IKEA

- Abundant parts can be saved & utilized as valuable resources for repair and refurbish



EXPERT REPAIR SERVICE

Challenges towards customer services, IKEA NL

- Missing knowledge and instructions for repair prevent development of knowledge and building competencies
- Limited product norms and guidelines for repair quality and post-repair warranties
- Women co-workers' reluctance to make home visits
- Co-workers and systems interdependency can cause significant delays in offering services
- High cost of logistics for in-store services

Opportunities for intervention

- In-house Competencies for expert services
- Collaboration with and referral to external experts.

Value for IKEA

- Revenue streams from repair services
- Brand image & customer loyalty



Treatments include *cleaning, filling & polishing, re-upholstery and filling, spare parts replacement, tightening of screws & stabilisation and on spot painting*

REPAIR METHODS (internal)

Challenges towards customer services, IKEA NL

- Internal communication channels for knowledge & infrastructure for repair are missing at recovery hubs in-store
- Missing guidelines and instructions for repair, prevent development of competencies & expertise for repair
- Limited infrastructure and resources, such as tools, equipment and space for extensive repairs
- Low-care for AS-IS products, and even slightly damaged furniture is discarded

Opportunities for intervention

- Development of internal & external communication channels
- Development of product norms and repair guidelines to build expertise
- Documentation of repair methods

Value for IKEA

- Restoring or adding value to AS-IS products for re-sale



IN-STORE UP-CYCLING ACTIVITIES FOR CUSTOMERS

Challenges towards customer services, IKEA NL

- Risk of turning into plain crafting or décor activities
- Extensive skilled co-worker investment for refurbish/ up-cycling and facilitation. Limited expertise for creative repairs
- Limited tools and equipment in-store to carry out effective repair and up-cycling activities
- Lacking profitability through activities in-store is a concern

Opportunities for intervention

- Facilitation of repair/ refurbish focused activities at the Tweedekanshoek

While efforts have been made to offer inspiration for up-cycling at the Tweedekanshoek, these are limited by co-worker capacity

Value for IKEA

- Creation sharing can boost brand awareness & identity
- Activities can generate visitation & sale of related products

Figure 8. Challenges and opportunities identified at IKEA Barendrecht, NL.



Image 8. Creative inquiry with customers Pilot at TU Delft

Image 9. Creative inquiry with customers at IKEA Barendrecht



III. IKEA Customers for repair

The complex and wide-ranging motivations, abilities and actions for distinct customer personas were identified through participatory research and inquiry with customers. Customers being the first point of contact in the use-life of furniture, were identified as one of the main stakeholders to investigate the challenges and needs for the repair of home furniture.

Various forms of inquiry with customers, including desk research, in-store interviews and a survey helped identify customers' motivation to repair their furniture and various personas based on customers' willingness and ability to repair their own furniture. Furthermore, two creative sessions for context mapping and ideation helped identify specific pain points in customers' repair

journey and customers' needs for repair. The investigation of the context was guided by the following:

Research Question for contextual inquiry with customers -

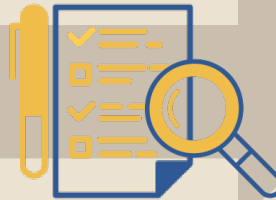
- **What are customers' motivation and capabilities for repair?**
- **What barriers prevent customers from repairing their products?**
- **What are customers' needs for repair of broken IKEA furniture?**

Chapter 7: Repair Inquiry with customers

7.1 Desk research

7.2 In-store customer interviews

7.3 Survey for repair



7.4 Customer Journey and products for repair

7.5 Customer personas for repair

Chapter 8: Co-creation with customers to identify pain points and needs for repair

8.1 Desk research



8.2 Customer challenges with repair

8.3 Customer needs for repair

Chapter 9: Conclusion

Chapter 7: Repair Inquiry with customers

Desk research Questions to investigate:

- Customers' circular behaviour
- Motivation for prolonging product life

From surveys and at-home research in European markets



Interview Questions to investigate:

- Damaged furniture at home
- Actions in case of furniture damage
- Challenges, if any to repair their furniture

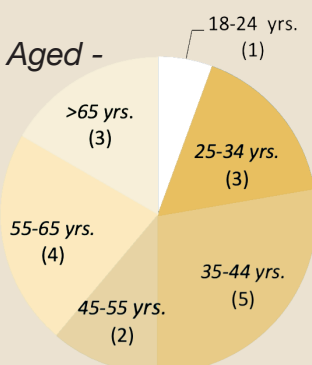
10 interviewees in-store/phone
Aged 24-65 yrs.



Survey Questions to investigate:

- Damaged furniture and value
 - Emotional
 - Functional
 - Price of repair
- Repair actions
- Damage Assessment
- Challenges to repair
- Ability to repair

20 survey respondents



7.1. Market research by IKEA

Recent advances by IKEA to transition to a circular economy has also led to several explorations and initiatives for customers. These include removal, re-sell online and offline, and repair. Customer research through testing in some European countries, Life at Home interviews and surveys in European markets are documented as learnings from various countries on the IKEA toolbox (Refer to Appendix C) for inspiration and further exploration. The insights and learnings specifically on customer behaviour and motivations for prolonging product life through repair and care enabled building the context and case for this project.

7.2. In-store customer Interviews

In-store and at-home customer interviews with 10 people, lasting about 5 to 7 minutes were conducted to understand **customers' attitude towards repair of broken IKEA products as well as skills and capabilities** they currently have or lack, to repair their products. The questions inquired, "what customers would do in case a furniture item breaks down in their home?" And "what kind of challenges they face when it comes to repairing the furniture item?" The interviews were audio recorded, transcribed, and coded for analysis to identify customers' distinct actions for repair, based on the different motivations and varying ability to repair their home furniture. (Miro analysis of interviews in Appendix G)

7.3. Survey for Repair

A survey to investigate customers' repair behaviour was circulated amongst IKEA FAMILY members of the Barendrecht (Rotterdam) PMA. 24 responses from a range of demographics, provided insights into the motivations, distinct actions and challenges that people encounter for their damaged home furniture. (Full survey report in Appendix H)

Findings from the desk research, in-store interviews and the survey enabled illustrating the customers' journey with relation to their home furniture specifically in the case of damage. The various research activities revealed customers' motivations and the many different routes they may take to repair their furniture. Distinct customer personas were developed in resonance with the earlier identified repair profiles. These helped encapsulate the different actions people take for furniture repair.

7.4. Customer Journey and products for repair

Drivers of customers' circular behaviour include conscious consumerism, value and quality for money, preference for sustainable businesses, careful curation and reflection of personality, cost consciousness and functional use; the primary drivers being **sustainability and affordability**. Furthermore, qualitative insights on the needs and motivations of IKEA customers, specifically in the realm of prolonging product life revealed that people don't want to be wasteful, are looking for smart and convenient ways to be more sustainable, people want to be part of a change and are seeing value in the long life of their belongings.

Though other factors such as poor product quality, availability of cheaper alternatives, cumbersome logistics and a replacement culture often constraint people from engaging in circular behaviour.

(Learnings from toolbox in Appendix C)

The various, and often different steps that people take to repair their furniture were visualised as a customers' journey (*Figure 9*) in relation to their home furniture items, specifically in case of damage.

Home furniture is acquired through many channels, it is bought new, or used, and even inherited. At-home, **furniture could be in use, and offer high emotional or functional value**, as one customer mentioned, *"I love my couch, it's the centrepiece of my living room"*, or *"this wardrobe is perfect for my things, but I probably won't bring it with me to a new house, I don't care for it much."* Customers mentioned the functional value and expensive price of their couch or kitchen cabinets, as a motivation to repair;

"It's a very nice couch, I've had it for long, but it is still good, only this one part is broken, and I'd like to get it repaired."

Though furniture could also be inactive in the home, when customers do not use it but, *"keep it just in case"*, or *"do not know what to do with it anymore."* Yet people, may associate material value to furniture or even a desire to *"redesign it, or give it a new look"*, which motivated people to retain the furniture. In case, people want the furniture to leave their home, people are still motivated to prolong its life. For its high financial value, *"I want to recuperate its financial value, I would sell it,"* or social and material value, *"I would give it away, if someone could benefit from it"* or high functional value, *"It works absolutely fine, I just don't need it anymore."* Survey responses revealed customers' damaged products at home, its functional and emotional value and price they would pay for its repair (*Table 1*). Most customers consider their IKEA furniture of high functional value. Customers associate very low emotional value for furniture like beds or wardrobe parts, though high emotional value for kitchens or chest of drawers.

Damages to home furniture may range from **visual damages**, for instance, a small tear in an armchair, to **functional damages**, such as a broken arm rest. Interviews and the survey validated the products identified for repair, ranging from wooden and textile furniture, and facing a variety of damages. Customers interviewed in store pointed out damages to their furniture such as broken hinges of **kitchen cabinet doors, or damaged shelves, water damaged tables, broken wardrobe back, or torn office chairs and couch**.

In case of damage, all customers interviewed in the store revealed a motivation to repair. The motivations ranged from having a mindset and ability to repair, ***"Well, I always fix my stuff, I have the tools and I can find parts at IKEA, so if something breaks, I can fix it"***

to being conscious of buying new furniture, as a customer mentioned, *"I'm very careful with what I buy, I would try to repair it, if it's not possible I will try to get it repaired. I don't like throwing things away."* Most customers would first try to repair themselves and were also willing to

Table 1: Products, value and price for repair

Furniture Item	Functional Value	Emotional Value	Price for repair
	1 (low) – 5 (high)		
Couch	5	3	-
Wardrobe	5	2	-
Coffee Maker Kitchen	5	1	100
Hemne's bed. Bedroom. 20 years old. Wheels crushed. Support slat saggy.	5	1	25
No products that are really broken but use damage to a cupboard or the bed. A few lights that need to be replaced but nothing more.	3	2	No
Nothing is broken at mij in the house	1	1	
Handle less panel for a wardrobe is frayed and damaged. First floor and only a closet for clothes from me and my husband.	5	5	Min
Malmkast	4	4	15
Table leg	4	3	30
Chest of drawers	3	4	30
Kitchen	5	5	
Pax sliding door (part of the sliding door system)	4	1	~25
the sofa has a broken cover. the bathroom furniture is outdated.	5	3	50
Kitchen doors	5	4	500
a sagging sofa	5	3	Min
Bed.	5	1	40
My closet. Old model. More than 10 years old.	5	5	50
none, I fix everything myself	4	2	Nah
Wardrobe bottom	5	2	50
No	4	4	1
Sofa, conversion bed, wall shelf	2	1	60
Cupboard	3	3	-
no	3	3	1
Sofa bed Hemnes	4	4	40

“borrow tools and ask for help” if they can’t do it themselves.

A few customers mentioned the quality of IKEA furniture as a barrier to being able to repair, “well they use this chipboard, and I can’t repair it like wood.”

81% (18 of 22) of the survey respondents thought about repairing their broken furniture items.

Furthermore, 75% of the survey respondents took steps to repair their own furniture. Only 2 out of 16 respondents replaced an old bed or made provisional. And 2 participants did not take any steps yet, or “Looked around on the internet searched end customer service called”. While the motivation to repair persists amongst customers, their journey to repair is complex and dictated by various product and individual factors.

The motivation to repair their furniture in case of damage, leads people to the first crucial step of assessing the damage and evaluating options for

Acquire

At-home use

- New
- Second-hand
- Inherited

Values associated to furniture:

- Functional
- Emotional
- Financial
- Material
- Social

Figure 9. Customer and product journey for repair, in case of damage

repair. This is the moment when customers make the decision of, *“Whether they are able to and want to repair”* the damaged furniture item. This decision is weighed in consideration of several factors, including product related, product use and person dependent. Customers’ actions for repair are triggered or hindered by product related aspects such as affordability and cost of replacement, severity of damage and complexity of repairs; as well as urgency of the situation based on the use of furniture. For instance, one customer mentioned *“the couch is in my living room, and it’s the only one to sit on, so I’ll want it fixed immediately.”* Or on the other hand, customers mentioned, *“It’s a small tear and the chair is in my bedroom, so I would just throw a rug over it.”*

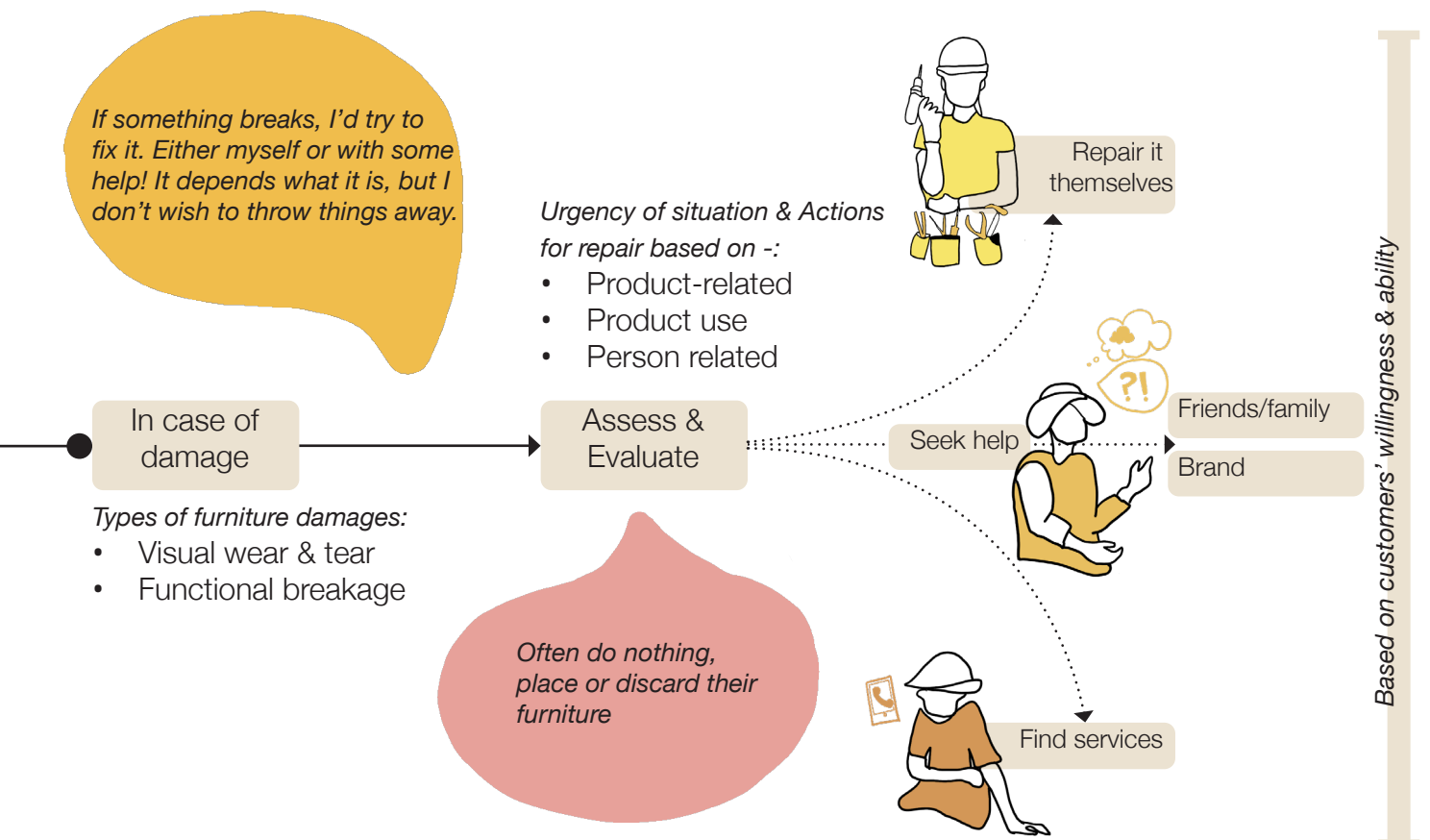
7.5. Customer personas for repair

Various person-dependent factors influence people’s actions towards repair. Survey respondents, interviewees in-store and participants of creative sessions, ranged from elderly couples or individuals and students

inclined to find affordable solutions, willing and able to fix-it-themselves, to working millennial, who are looking for advice on renewing their second-hand or old furniture over the weekend as well as middle-aged members with young families looking for services to repair. The repair profiles of the solitary repairer, occasional repairer and the non-repairer identified by Gorbett et al. (2021) (*Illustrated in Chapter 1.1*) encapsulate the distinct personas identified amongst the many customers of IKEA furniture. The personas signify people’s willingness and ability to repair their furniture.

Customers inclined and able to repair themselves were personified as the **DIY repairer**. These were customers, akin to the solitary repairer, who *“build their own furniture.”* The DIY repairers have or are willing and able to invest time and effort in acquiring the resources for repair and carrying out repairs themselves. As one of the survey respondents mentioned, ***“No furniture is broken, as I fix everything myself.”***

The DIY repairers can assess furniture damage



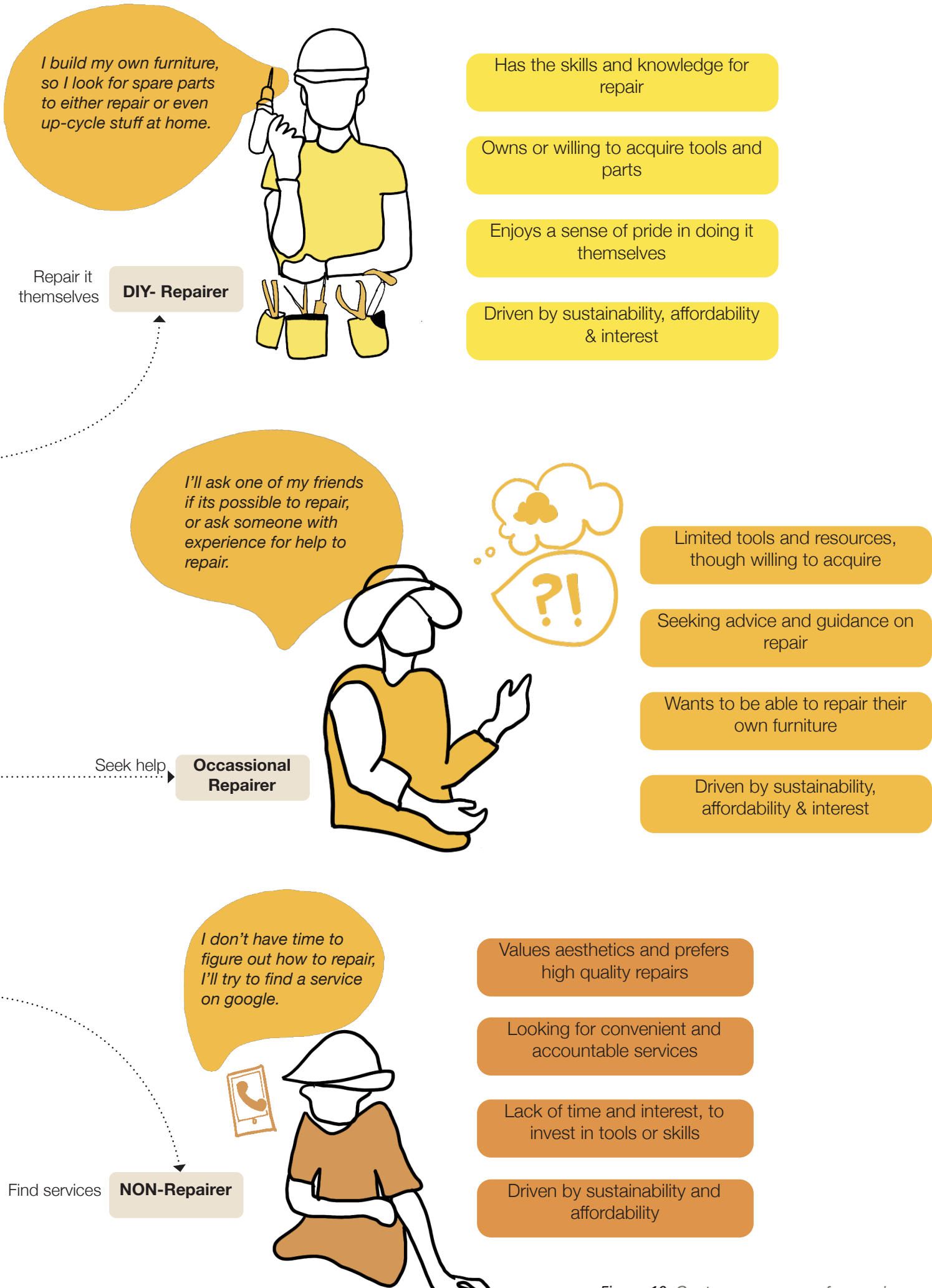


Figure 10. Customer personas for repair

and can easily take actions accordingly, such as *“sanding and painting the bathroom furniture”* or *“calling IKEA to buy the parts themselves.”* They are often on the lookout for parts, tools, materials and sometimes instructions that can support their repair/ refurbish projects.

Another persona identified amongst IKEA customers was the **occasional repairer, or those seeking advice**. As one participant from the creative session mentioned, *“I’ve repaired a few things around my house, but I don’t know if I could fix a big damage like a broken bed.”* Or in another case, a wood expert, may require guidance and support for textile furniture, as they *“don’t know anything about upholstery or sewing.”* Occasional repairers are often looking for support with assessment of damage and guidance for repair.

The last persona, that of the **non-repairer** describes, someone whose *“kitchen cabinet doors are still broken, cause IKEA doesn’t provide the service, and doing it themselves is too complex and expensive.”* Another participant indicated high value for aesthetics and quality, which prevents them from carrying out repairs themselves, *“I wouldn’t dare fix the tear myself, because I might make it worse, I would want it done professionally.”* Other constraints such as *“lack of time due to work hours and young children”* encourages customers to look for convenient, reliable, and easily accessible services for quality repair of their home furniture.

While most customers have the ambition and intention to repair, people choose distinct paths to go about the repair of their furniture. While some would take up the **job themselves, some are looking for guidance on what they could do, and others are looking for repair services**. Identifying the many personas, helped dive deeper into the distinct pain points and different customers’ needs for the repair of IKEA furniture. Many barriers were identified during co-creative inquiry sessions with customers, such as limited knowledge, skills or tools that often-times prevent people to take actions for repair.



Figure 11. Out of 20 participants, an equal distribution of 6 each would either fix it themselves, ask a family/ friend or call a professional service. And 2 indicated otherwise who would try to return/exchange the product or leave it as it is.

Session Intent to identify:

- Challenges for repairing home furniture (Context mapping followed by group discussion)
- Ideas, wishes and needs for repair of home furniture (Ideation in the form of steps for repair of furniture)

Figure 12. Creative inquiry session with customers

Ice breaker: sharing stories about a damaged product with the group.

1

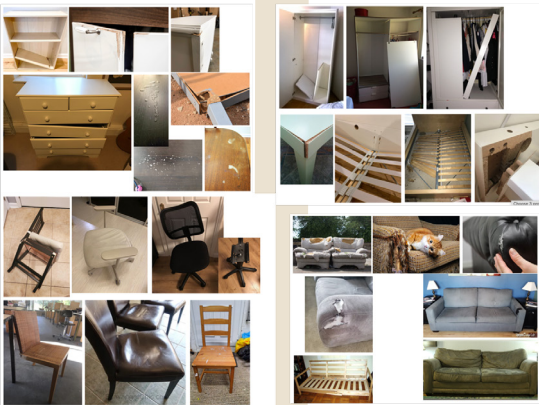
Make up a story for What Happened to this mattress!



Individual On template: Selection of and reflection on products participants would be willing to repair but face difficulty in repairing themselves. Participants were asked to pick products they had prior experience with.

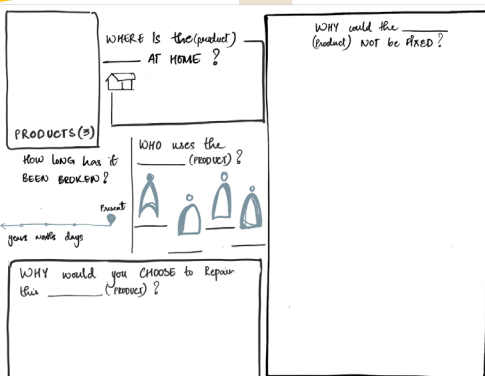
2

Choose 3 products that you would like to repair but cannot do it yourself



3

Describe the context of the product



Co-design Session set-up

Pilot at IDE faculty TU Delft; Session 1 at IKEA Barendrecht; 90 minutes each

Participants

Pilot: 5 participants, Aged 23 - 28 yrs.
Session 1: 7 participants, Aged 24 - 45 yrs.

Group discussion: Challenges customers face with repairing their products

4

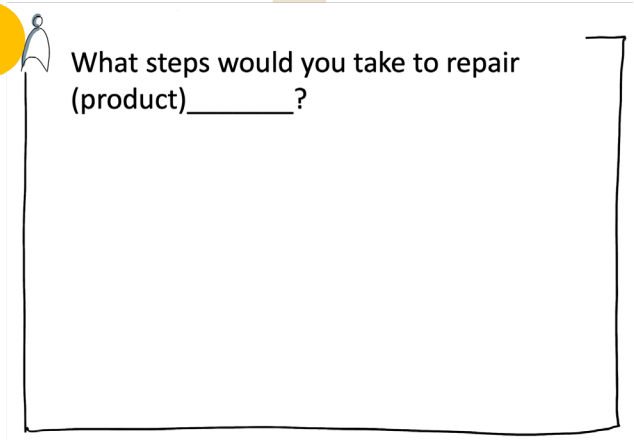
Discuss challenges with group



Individual On template: Actions they would like to take towards repairing their products

5

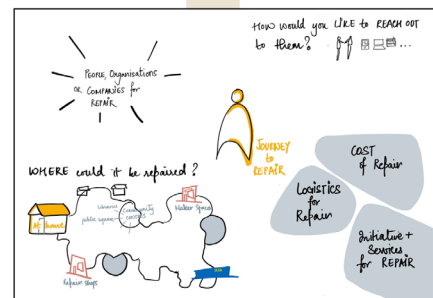
What steps would you take to repair (product)_____?



Group discussion: To come up with ideas for repair

6

Close with group discussion based on prompts



Analysis: To identify needs

Chapter 8: Co-creation with customers to identify pain points and needs for repair

8.1. Co-creative session with customers

Two co-creative sessions, 90 minutes each, including a pilot, were carried out with customers with the intent of diving deep into the specific pain-points and challenges faced by the different customer personas. Semi structured group interviews, and use of context mapping with support of visual aids enabled inquiry of context and ideation. Discussion of current challenges was followed by illustration of customers' wishes and ideas for repairing their furniture, in the form of actions they would like to take to repair their furniture. The many ideas that emerged from the session, were coded and thematically analysed to identify the specific needs of the different customer personas.

8.2. Customer challenges with repair

The repair of home furniture is hindered by plenty of challenges, that often-overcome people's ambition to repair, leading to no effective actions towards repairing their furniture. *(The challenges different customer personas face are illustrated in Figure 13)*

DIY repairers' can assess the damage, and usually take steps such as buying parts, or borrowing tools to repair their furniture. They were aware of repair initiatives, such as repair cafés and expert platforms. DIY repairers, often *"pick up parts at IKEA, and fix it themselves."* Though in some cases **expensive tools or unavailable parts** prevent them from carrying out repairs. As participants mentioned, *"I went to IKEA to look for the parts, but it is an old model, and they don't have parts anymore."* Another challenge was having space for large and noisy repairs. *"I live with house-mates, and if there's too much noise its really not nice for them."*

Customers somewhat inclined to repair indicated **unawareness or inconvenience of sources** to acquire resources for repair. For instance, a participant mentioned, *"I have this broken wardrobe that needs a spare part because that*

side pool needs to be replaced how do I get that and then where can I buy that and, I might have the skills, but I don't necessarily have the tools to assemble and disassemble the wardrobe."

Knowledge of repair initiatives and local repair experts wasn't common amongst the participants. A few DIY repairers mentioned tool rentals, tools exchange platforms, or neighbourhood repair cafés, though this was new information for many.

In case of damage, occasional repairers mentioned **difficulties with assessing the damage**. Firstly, due to **lack of information about the product when in use, and due to lack of know-how and skills** to assess the damage.

"I don't know what this couch is called, I don't know which parts I need or what can be done."
"I don't even know if it is possible to repair this (couch)."

In terms of evaluating options for repair, participants wondered, *"What can I even do?"* or, *"What is the best way to do it?"* Without guidance or advice from the manufacturers, people find it difficult to figure out what needs to be done and how. On the other hand, despite an abundance of content on YouTube and google, people mentioned, *"It takes time to find the right video, and I don't know if I could do it as good"* or *"I have a slightly different damage, I don't if it'll work."* Many participants found it **cumbersome and effortful to acquire the required guidance** and invest the time to repair, *"I have to find the right videos, then make time to get the materials, and then figure out when and where I can do it, and then I just don't do it."*

Lastly, participants expressed challenges of **product-specific repair expertise and skills**, *"I have a sewing machine, but I never use it because I don't have the skills to use it and recover my couch."* **Lack of accessible and handy instructions**, guidance or support prevents customers from undertaking repair activities. **Lack of confidence in one's repair skills** was a prominent barrier for repairers. As

Customer Barriers for REPAIR

- Expensive tools
- Limited/ missing parts
- Lack of space (at times)

DIY- Repairer



- Lack of time
- Poor perception of furniture quality

In-use and case of damage

- Missing product knowledge
- Unawareness of sources for repair resources

Figuring out what needs to be done, how, where to get the tools and most importantly skills!

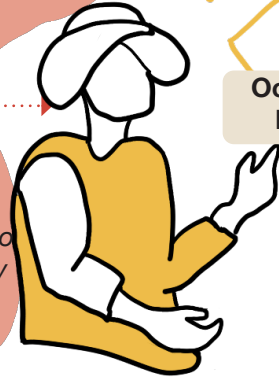


Occasional Repairer

Evaluation and assessment

- Overwhelming options for repair
- Limited Know-how and repair skills
- Low confidence in one's repair skills

The effort was a bit too big for the impact, my value of life doesn't improve dramatically.



▲ Effort and ▼ Impact
Perception of repair

In-use and case of damage

- Limited reliability of online platforms

Evaluation and assessment

- Challenging logistics (large furniture)
- Expensive services

If repair is expensive, I'll probably throw it out, find something way cheaper, and just replace it.



NON-Repairer

Figure 13. Customer challenges and barriers to repairing their home furniture

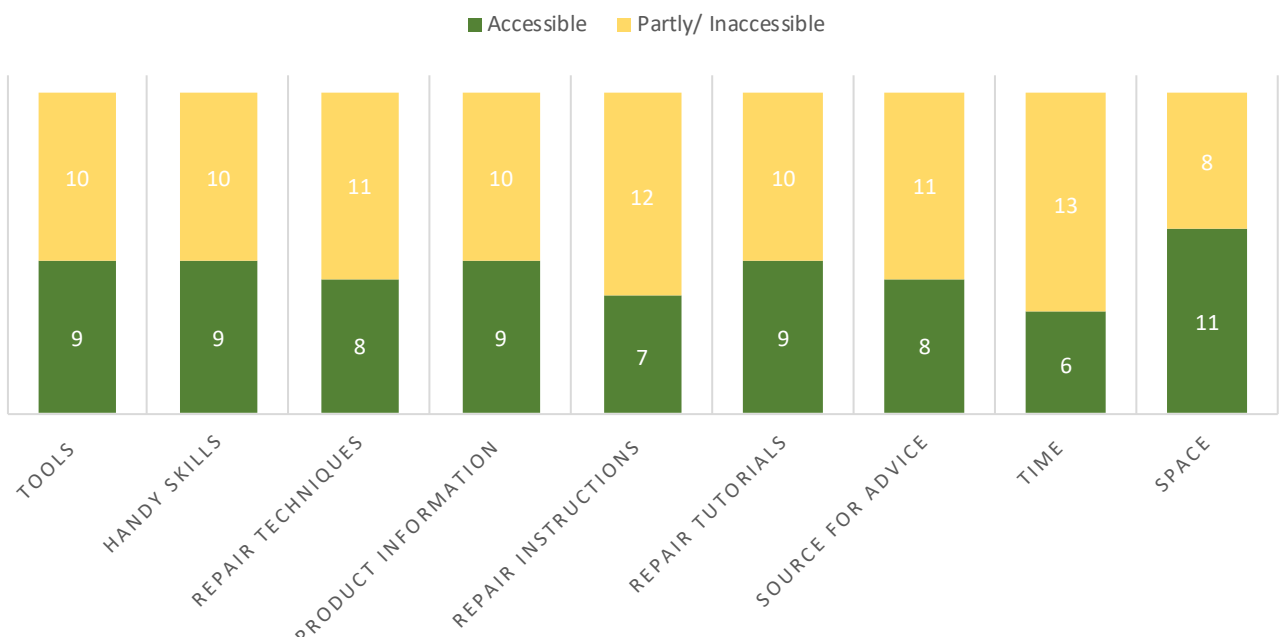


Figure 14. Repair resources are only partly or inaccessible for a higher majority of survey respondents
Page 54

participants mentioned specific to the repair of structural damages,

“If my chair breaks, I’d be scared to repair it myself, what if I sit in it and it falls apart, I wouldn’t be sure of its structural stability.”

And high value for aesthetics served as a critical hindrance for participants to repair their furniture, as multiple participants mentioned, *“I tried several things...to repair myself, but it does not look nice!”*

These challenges are further exacerbated by **lack of time, or perception of “low-quality and low durability of some products.”**

Furthermore, customers tend to ignore or find quick fixes such as *“throwing a rug over a tear in the couch”*, for non-structural or ‘invisible’ damages. And product specific challenges such as *“built-in or too big to handle by oneself or carry for repair”*, or *“too complex or expensive to repair”* pose additional hindrances for the repair of these products.

In the face of missing advice and convenient options and resources for repair often-times, **people tend to get overwhelmed and either do nothing or throw things away**; before taking any actions for repair. The trade-off between the effort and impact of repair, for many customers was perceived much more effortful than impactful leading to not repairing their products, rather buying an affordable replacement.

Accessibility of repair resources such as tools, repair instructions, guidance or skills determines customers’ ability to repair. In the case of the survey respondents from Barendrecht most repair resources are only partly or inaccessible for a higher majority of respondents (*Figure 14*), which may serve as barriers to customers’ ability to repair.

Non-repairers more inclined to reach out to professional services mentioned issues with **accountability of experts and reliability of online platforms** they’ve tried in the past. **“There’s not always response. Not every assignment is taken. And there were also some unnecessary calls I believe. Reliability is an issue there.”**

It was difficult for customers to find a reliable service, that is also **affordable**. While customers were willing to pay to some extent. Participants mentioned, some experts they approached

charged, *“around the same as a new couch, and then they would prefer getting a new couch delivered than having to carry the couch for repair.”*

Non-repairers value convenience, and mentioned difficulties with logistics of repairing large home furniture, **“if they say I must bring it to the store. I cannot bring my couch to IKEA. It’s a problem, especially if I don’t have a car.”**

All customers motivated and willing to repair their furniture, whether by themselves, with some help or through services, currently face some or many challenges for repairing their furniture. While DIY repairers face challenges with expensive tools or finding the right parts, or product-specific difficulties, in most cases they were able to repair their furniture. The occasional repairers, on the other hand, face overwhelming difficulties and questions that leads to premature disposal and replacement of furniture. These range from missing product knowledge and lack of convenient resources for repair to perception of high effort to figure out what and how of the repair process. Furthermore, lack of furniture specific know-how and low confidence in one’s repair skills, compounded by lack of time and poor product quality perception leads people to do nothing or replace their furniture. The non-repairers looking for services on the other hand, lack affordable, convenient, and reliable options for repair. (*Co-creation results to identify challenges are compiled in Appendix I*)

8.3. Customers’ needs for repair

The many challenges customers face for the repair of their products were further explored in the form of customers’ wishes and ideas to overcome the challenges they face. Participants from the creative sessions, illustrated many steps, actions, and wishes for repairing their furniture. Participants’ wishes and actions for repair were analysed to identify the needs and values of different customer personas for repair. (*Customer persona specific needs and values are illustrated in Figure 15*)

DIY repairer needs

Participants inclined to repair their own furniture mentioned starting with, *“Watching some YouTube videos, to gain confidence in their*

skills”, or “renting some tools to carry out the repairs.” They discussed ideas such as, “an online platform where I can save my old searches, sort of a way to organise videos, or content for repair.”

Participants’ actions to look for solutions online, at home when and where the damaged product is, indicated a need for **handy and easily accessible repair information**. Furthermore, many participants mentioned the use of **shared tools and spaces**, customers discussed renting or borrowing tools, that one cannot or does not want to invest in, or even going to maker’s spaces. Customers often look for affordable options for tools and resources for repair.

Occasional repairer needs

While DIY repairers were usually aware of sources for tools, parts and materials or had them at home, occasional repairers discussed interventions to improve the visibility and accessibility of spare parts, components, and tools. For instance, “a spare parts and tools section along with the product on the web catalogue”, or “a new section in the store that augments repair tools and resources.” Participants inclined to repair, but missing resources revealed a **need for preparedness in case of damage**. Participants also indicated a need for advice in case of damage and instructions for repair. Customers seek “advice on whether it is even

CUSTOMER NEEDS & VALUES for REPAIR

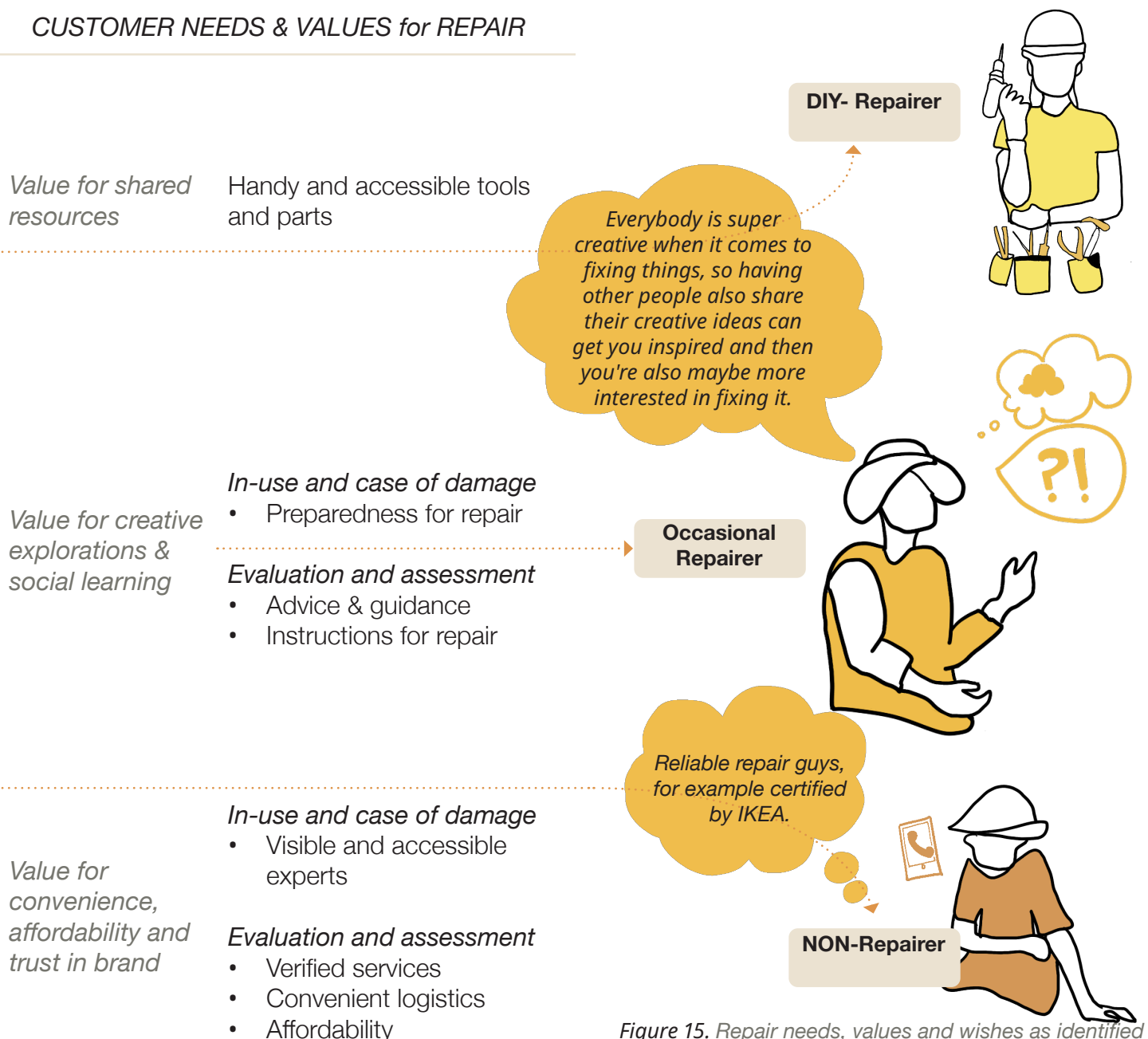


Figure 15. Repair needs, values and wishes as identified from ideation with customers

worth repairing,” or, “what tools will I need to repair this?” Or, “how else could I do it?”

They would first reach out to friends or family for help, either someone, “who has some experience with upholstery and can advise me if this is even worth repairing”, or friends who “just offer one more mind to think with you. And together you’re coming up with how to fix it.” Participants mentioned various actions, that revealed a need for exploring options for repair together. People **value a sense of community and working along** with friends and family to repair, especially one’s home furniture. Furthermore, participants discussed ideas such as, “I could maybe use the good parts, and use it to create some shelves or something.” Revealing **repair as a creative process**, and value for ways to up-cycle their damaged furniture, rather than only restoring it to its original state.

Customers also seek guidance and advice from the brand, as a participant mentioned, “I suppose they’re manufactured there so maybe they can fix or give some guidance or something.”

While currently most customers try to find solutions on YouTube or google, participants discussed solutions such as a “repair and maintenance guide, in the IKEA product assembly manual format.” Or an “IKEA platform that offers possibilities of repair, maybe also refurbish for the most prone to damage IKEA products!” Occasional repairers are often looking for **friendly and curated advice to carry out repairs**.

Non-repairer needs

Lastly, the non-repairers or, for furniture too complex to repair by oneself, participants mentioned approaching local furniture makers, repair cafés or thrift stores for help with the repair of their furniture. Though the awareness of these initiatives wasn’t common knowledge across the group of participants and prompted the idea of a “**platform that can leverage all these grassroots initiatives and makes them more visible and accessible to people.**”

Participants discussed various online solutions, “you put your challenge and there are people... experts, who make some offers themselves.” Or online platforms where one can post a repair

assignment with pictures and description; and “IKEA could certify experts, and freelancers, who can respond to the assignment based on their expertise.” Customers often **seek convenient ways**, usually online to find experts who could repair their furniture.

Furthermore, customers look for reliable services, often comparing and “checking Google reviews from other customers, to find the reliable and affordable services.” Most customers trust the brand to provide accountable repair services for their products, some participants even discussed an “IKEA training school to develop product repair skills in-house.” People look for **verified platforms and seek reliability** both in terms of responsiveness and quality of service.

Participants mentioned “quick, cheap and convenient” services “either at-home”, or “they collect the furniture for repair, and possibly provide replacement furniture, if the repair takes long.” While most customers value affordability, respondents from the survey mentioned what they would pay, from 500€ for kitchen cabinets, to 40€ for a bed or 50€ for a couch. Participants were **willing to pay for a convenient and reliable service, and for expensive furniture** like a couch or kitchen cabinets.

DIY repairers look for affordable options for repair resources and find value in models for sharing tools, or spaces. They also revealed a need for handy repair information online, that is easily accessible at home, where the furniture is in use. Occasional repairers face many challenges along their journey to repair, which point to various needs, right from a sense of preparedness through visible and accessible resources for repair. They are also looking for friendly advice, curated possibilities, and instructions for repairing their furniture. Customers value the sense of community around repair and creative options for repair. Most customers trust brands to offer advice and guidance for repairs. Lastly, non-repairers looking for services revealed a need for convenience in terms of finding experts and logistics for furniture, and reliability in terms of responsiveness and quality of service. Affordability was also a concern, though participants were willing to pay to some extent especially in case of expensive furniture. (Co-creation results for user needs in Appendix J)

Chapter 9: Conclusions

Many drivers including conscious consumerism, value and quality for money, preference for sustainable businesses, careful curation and reflection of personality encourage customers to engage in circular behaviour to prolong the life of their home furniture. Furniture at home maybe actively in use, and usually holds high functional value for customers, and some emotional value as well. Even when inactive, high financial, social, and material value of furniture prompts people to retain it, sell it or give it away to someone who may need it.

Desk research at IKEA, in-store interviews, a survey, and co-creative sessions with customers, all indicated a **motivation amongst people to repair their furniture**, in case of damage. Furniture damages may range from simple, visual damages to complex, functional breakdowns. With the motivation to repair, customers first assess the damage and evaluate options for repair based on various product and use factors, including **affordability, severity of damage, complexity of repair and urgency of situation**. Furthermore, many person related factors, such as **willingness and ability to repair** by oneself, also based on availability of resources for repair, dictate the distinct actions customers take for the repair of their furniture. While the motivation to repair persists amongst customers, their journey to repair is complex and dictated by many individual factors.

Customers may take distinct routes to repair based on their inclination, motivation, and ability to repair. Developing distinct repair personas of the **DIY repairer, occasional repairer and non-repairer**, helped encapsulate the various steps customers may take to repair their furniture. Though a plethora of challenges prevent effective actions for care and repair of home furniture. The many pain points, along customers'

journey, enabled ideation of solutions for repair and revealed various needs and values that customers have for the repair of their furniture.

While **DIY repairers** face some challenges with expensive tools or finding the right parts, or product-specific difficulties, in most cases they were able to repair their furniture. DIY repairers look for affordable options for repair resources and find value in models for sharing resources like tools, or spaces. They also revealed a need for handy repair information online, that is easily accessible at home, where the furniture is in use.

The **occasional repairers**, on the other hand, face overwhelming difficulties and questions that leads to premature disposal and replacement of furniture. These range from missing product knowledge and lack of convenient resources for repair to perception of high effort to figure out what and how of the repair process. Furthermore, lack of furniture specific know-how and low confidence in one's repair skills, compounded by lack of time and poor product quality perception leads people to do nothing or replace their furniture. In the face of many challenges, occasional repairers revealed various needs, right from a sense of preparedness through visible and accessible resources for repair. They often seek friendly advice, curated possibilities, and instructions for repairing their furniture. Customers value a sense of community around repair and creative options for repair. Most customers trust brands to offer advice and guidance for repairs.

The **non-repairers** looking for professional services lack affordable, convenient, and reliable options for repair. They revealed a need of convenience in terms of finding experts and logistics for furniture, and reliability in terms of responsiveness and quality of service.

CUSTOMER CHALLENGES for REPAIR **CUSTOMER NEEDS & VALUES for REPAIR**

- Expensive tools
- Limited/ missing parts
- Lack of space (at times)

- Lack of time
- Poor preception of furniture quality

In-use and case of damage

- Missing product knowledge
- Unawareness of sources for repair resources

Evaluation and assessment

- Overwhelming options for repair
- Limited Know-how and repair skills
- Low confidence in one's repair skills

▲ Effort and ▼ Impact
Perception of repair

In-use and case of damage

- Limited reliability of online platforms

Evaluation and assessment

- Challenging logistics (large furniture)
- Expensive services

Handy and accessible tools and parts

Value for shared resources

In-use and case of damage

- Preparedness for repair

Evaluation and assessment

- Advice & guidance
- Instructions for repair

Value for creative explorations & social learning

In-use and case of damage

- Visible and accessible experts

Evaluation and assessment

- Verified services
- Convenient logistics
- Affordability

Value for convenience, affordability and trust in brand



DIY- Repairer



Occasional Repairer



NON-Repairer

Figure 16. Customer challenges, and subsequent needs and values for repair of home furniture



IV. Repair for Customers by IKEA

Concepts and tests by IKEA currently being explored at global and in some countries, reveal many possible routes to repair for both customers and IKEA. The identified learnings also resonate with the needs of the different customer personas identified through creative inquiry (*Chapter 8*). The customer needs were further explored in the context of the various customer and back-end challenges identified at the IKEA Barendrecht store, to discover opportunities for interventions to enable the repair of customers' IKEA furniture.

The opportunities were explored in the form of various ideas for repair interventions and developed into three distinct concepts for repair and care by IKEA, to enable the many customers to prolong the life of their IKEA furniture. The

concepts were developed based on ideas for different customer personas and in consultation with stakeholders. Within the scope and timeline of this project, an initiative to facilitate repair and care workshops for customers in-store was selected for further exploration and prototyping.

Chapter 10: Value-action gaps and opportunities for repair

Chapter 11: Ideas and concepts for repair by IKEA

11.1. In-store activities to enable and inspire repair and refurbish

11.2. Digital catalogue, blog, and consult

11.3. Expert services

11.4. Selection and scope of prototype at IKEA Barendrecht

Chapter 10: Value-action gaps and opportunities for repair

Needs of the DIY repairers, occasional repairer and NON repairers, were outlined with respect to the various learnings and initiatives already underway at IKEA. Specific customer-end and back-end challenges at IKEA Barendrecht point out shortcomings in IKEA's infrastructure that prevent customers' from taking effective actions towards repair. The identified shortcomings resonate with customers' value-action gaps, that **deter effective actions for repair, despite having the motivation to do so**. Customers' value-action gaps for repair were explored as opportunities for interventions that can stimulate customers' perceived ability to repair their IKEA furniture. The identified opportunities hold potential for both customers and IKEA to embrace a culture of repair rather than replacement.

These range from improving visibility and awareness of parts and care products for the DIY repairer; repair consult and advice via repair content and in-store activities for the occasional repairer; to expert repair services for the NON repairer.

Parts and products for DIY repairers

The DIY repairers' need for handy and accessible tools, is partially met by the wide spare parts offering by IKEA at the Tweedekanshoek in-stores. These are not very visible or easily accessible in store or online. Many participants from inquiry sessions weren't aware of IKEA's free spare parts offering. The online access to parts is messy and often redirects to a store's main page

for any further actions.

Co-workers were positive to further explore triggers to motivate customers to repair themselves,

“IKEA has a huge spare parts offer, that should be more reachable to customers.”

Improving visibility of spare parts, through better communication both online and in-store, can support DIY repairers carry out furniture repairs and refurbish projects. Furthermore, abundant new parts, and furniture remains currently discarded from the recovery can be saved & utilized as valuable resources for repair and refurbish of furniture.

Repair methods and activities for the occasional repairer

The occasional repairers' search for repair resources and a sense of preparedness for repair, could be met with the **proactive and personalised communication** of care products. Their need for advice and guidance, still requires development of repair knowledge and channels for exchange of knowledge within IKEA and for customers. Though various forms of **repair consult** in the form of in-store or at-home **advice and guidance for IKEA furniture** were discussed with co-workers, for instance,

“at the customer service desk, content at the Tweedekanshoek or through email and images of damaged products.”

This was also valuable for IKEA to gather relevant product use data to propose future repair services. Co-workers saw value in building competencies for repair for both in the form of *“instructions for customers”* and, *“training for co-workers based on the most encountered damages.”* **Documentation and content for**

repair methods offer opportunities to scale up channels to exchange repair knowledge, digitally and for many customers.

In-store activities for care and repair in the short run can offer occasional repairers the perfect opportunity to **learn new skills together**, in a community setting. The activities can play a relevant role in proactively developing customers' sense of preparedness in case of damage. Facilitated activities, also offer scope to meet occasional repairers' need for friendly advice and guidance when it comes to repair and refurbish. These can boost awareness & identity of IKEA, for repair and also enable streams to explore **possible repair methods for IKEA furniture**.

Services for the NON repairer

Lastly, expert repair service by IKEA co-workers, possibly at -home effectively meets the non-repairers' requirements for a convenient, reliable, and affordable service. Though **lacking competencies and missing norms & guidelines for repair quality and post-repair warranties** have hindered the development of repair services at IKEA NL, so far. Furthermore, limited infrastructural capacities, high cost of logistics for furniture and interdependent co-workers and systems, all pose challenges to develop repair services for customers. **Building in-house capacities** still requires lengthy processes for development and sharing product and repair knowledge, such as training and skill development programs for co-workers. Though **collaborations and referral to external experts** offer scope of providing expert services to NON repairers.

Customer NEEDS for REPAIR

VALUE-ACTION gaps to overcome

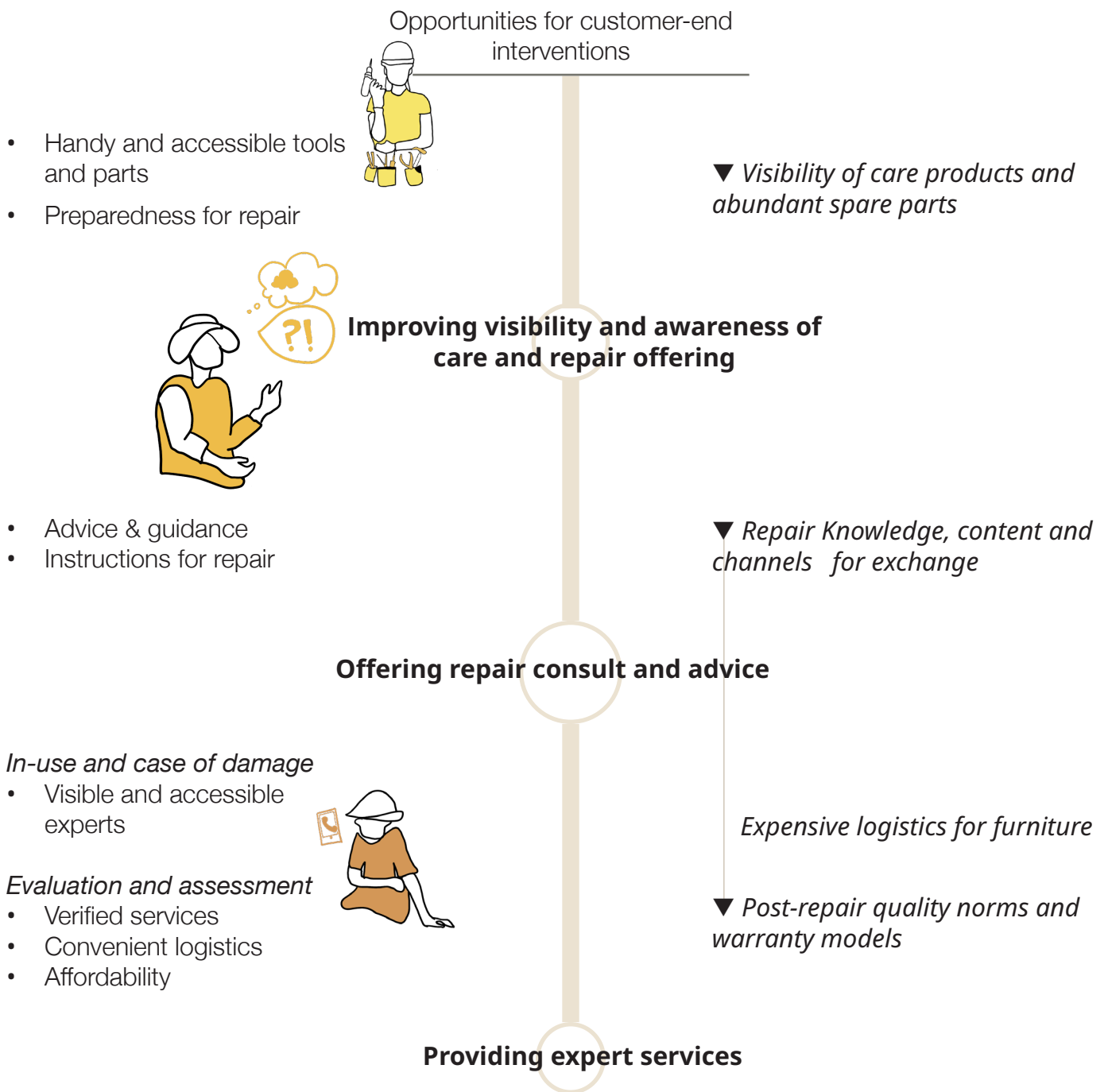


Figure 17. Customer needs for repair and correspondingly identified value-action gaps at IKEA point to different opportunities for customer-end repair interventions by IKEA

Chapter 11: Ideas and concepts for repair by IKEA

Repair interventions were informed by customer needs and the opportunities identified for IKEA to enable furniture repair. These are explored as proactive measures by IKEA to enable the many customers to prolong the life of their IKEA furniture. Various ideas also based on those that emerged during co-creative sessions were conceptualised into 3 distinct concepts, for **in-store, digital and at-home repair interventions**, that can serve the many needs of IKEA customers, and maximize the repair of IKEA furniture.

The various ideas to **improve visibility and awareness of parts and care products** and offering **repair consult and advice** for both DIY and occasional repairers, were developed into two distinct concepts. The first concept is envisioned to build awareness and a culture for repair in IKEA store for customers. While the second one focuses on digital solutions, in the form of online care and refurbish catalogue and blog, with digital consult for repair. Lastly, services for non-repairers are illustrated as an **in-store repair hub or an at-home customer service** dependent on developing internal or external competencies. The various ideas are presented in *Figure 18*, and the two developed concepts are described below.

Within the scope of this project, repair and refurbish activities in-store were selected for prototyping, to build awareness and a culture of repair for IKEA furniture.

11.1. In-store activities to enable and inspire repair and refurbish

Communication strategies and activities in-store are envisioned as initiatives to **build awareness and improve visibility of repair** and repair resources at IKEA. The initiatives hold potential to enhance occasional repairer's sense of preparedness and search for resources to repair and refurbish their own furniture.

Low profit from care and repair products, and a persistent conflict between prolonging life of furniture through repair and with the sale of furniture currently, has resulted in low communication efforts so far and subsequently, low visibility of furniture care and repair at IKEA.

Though bolder and louder communication for care and repair of IKEA furniture has valuable potential for customers to view IKEA as a desirable brand that is actively adopting sustainable measures to overcome the environmental crisis. And for IKEA to repair rather than replace and gear up their efforts in developing resources and infrastructure for repair. **Curated communication can especially inspire and trigger** DIY repairers, to make use of abundant spare parts in-store, or based on different product categories, such as *mix-and-match wardrobe parts to personalise your PAX*; Targeted communication for available and abundant parts, can effectively support creative furniture repair and refurbish projects, and inspire a new life for IKEA furniture. Furthermore, repair and refurbish activities in-store strengthen the **message of a longer and personalised life of IKEA furniture**.

Activities to engage customers in **collective and collaborative repair activities**, can encourage knowledge and skills exchange amongst members of a community. Learning together and engaging in creative interactions with community members can generate positive social values for repair and motivate customer to participate in repair.

Interactions in the store, over repair and refurbish activities also offer scope for **personal advice and guidance to customers**. Workshops facilitated by experts enable customers to develop repair competencies, and confidence in one's repair skills, increasing their perceived ability to repair their own products.

Customer Wishes

Interventions for repair (Ideation)

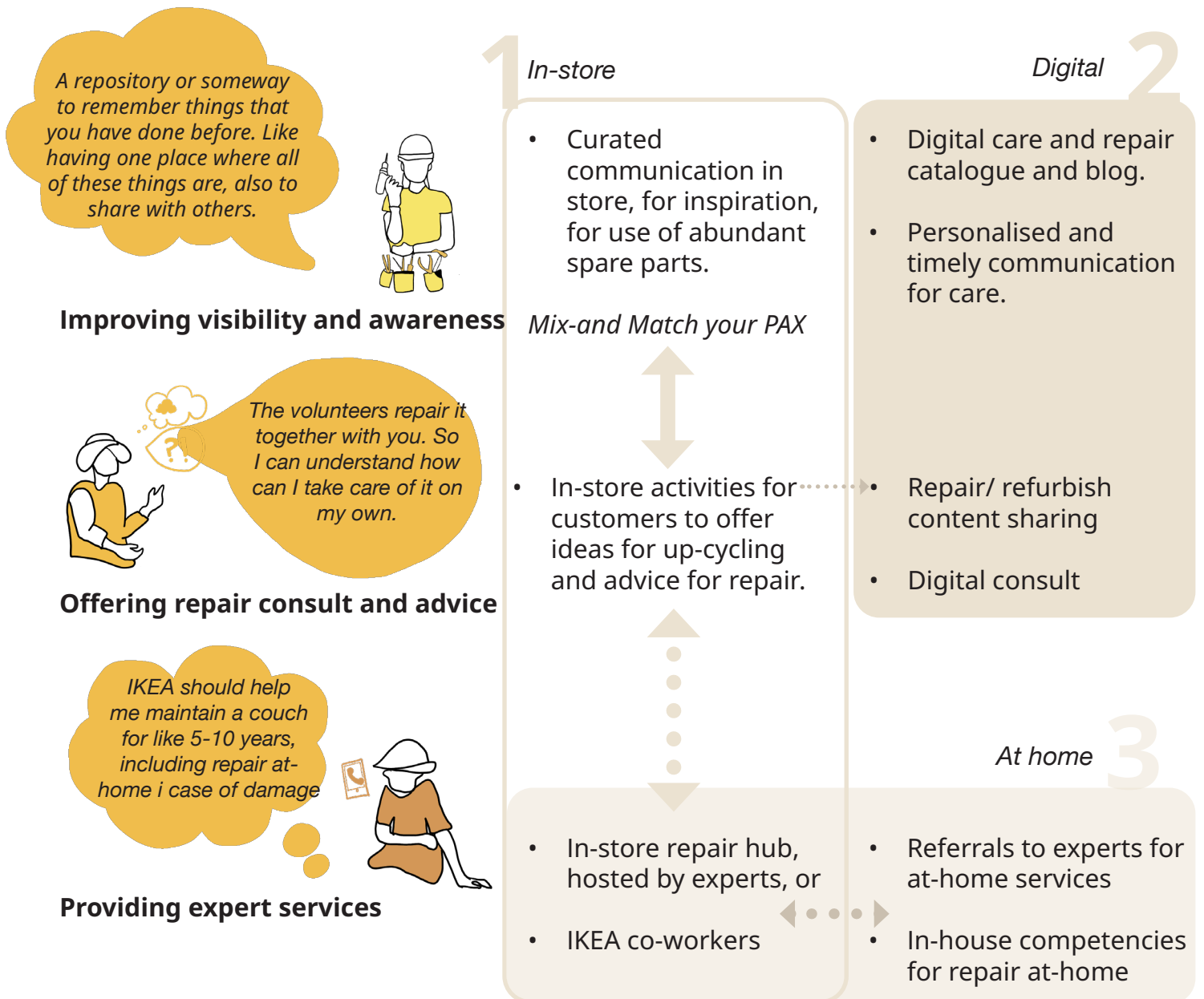


Figure 18. Ideas for in-store, digital interventions and services at home or in-store, resonate with customers' wishes and opportunities at IKEA. These were discussed with stakeholders at IKEA, to develop concepts and proposal for repair interventions at the Barendrecht store. (Ideas discussed and voted for by stakeholders are presented in Appendix L)

Sharing content from the repair and refurbish activities in-store can generate positive brand value and identity. It also holds potential to share valuable content for repair, that people can follow along at-home.

Activities in-store in the past have been dependent on co-worker facilitation expertise and skills for repair and refurbish. Though external **collaborations with local furniture experts for workshops**, offer potential to overcome the limited co-worker capacities in IKEA, NL stores. Collaborations with furniture experts also offer opportunities to explore product repair/ refurbish possibilities for IKEA furniture, that can provide valuable repair knowledge for both IKEA and customers.

To avoid the risk of workshops turning into crafting and décor activities, workshops should integrate **repair specific guidance and advice to customers**. Further development of channels for repair consults for IKEA furniture, in case of damage can enable customers to overcome the challenge of evaluating and determining the worth, scope and possibilities of repair. And offer scope for IKEA to proactively **gather product use data** that can effectively inform the development of competencies and repair services by IKEA.

The vision and intent of in-store activities is illustrated in Figure 19.

11.2. Digital catalogue, blog, and consult

Initiatives to provide **curated, handy, and accessible** care and repair instructions, tools and parts offer opportunities to trigger and enable customers willing to carry out repairs themselves, to repair their own furniture.

Digital catalogues and blogs by IKEA can enable both DIY and occasional repairers develop a sense of preparedness in case of damage to their furniture. **Digital care and repair catalogues alongside product categories**, for instance, supported by instructional and inspirational blogs for care and repair of furniture. Digital catalogues also offer scope to showcase and increase sales of product specific tools, parts, and choice of add-on elements such as fabrics, or left-over side boards, to add a unique touch to one's home

furniture.

As an extension to IKEA's sustainable living sections on their website, a **blog focused on product care, repair and refurbish** offers potential to showcase home furniture in a new light. Additionally, personalised emails for occasional repairers can provide timely communication and content for care and maintenance, to enhance customers perceived ability to care for and repair their products in case of damage.

A limited range of care products and free spare parts offering, currently hinders the development and provision of an extensive care and repair catalogue to IKEA customers for their furniture. Though development is at IKEA inter is underway and products for care are slowly being added to the retail range.

Furthermore, **curated content for care and repair in the form of instructions, guides or videos** for repair/ refurbish of IKEA furniture is still very limited. The development of product specific content and media to communicate repair and refurbish instructions for all of IKEA furniture remains a mammoth task before the realisation of IKEA repair catalogues and manuals.

Digital solutions can also offer customers a convenient **tool to assess their damaged product at-home based on photos and description of damage**. Platforms, iteratively trained on product use data, can enable customers to find curated advice in the form of multiple options and opportunities for repair. Options for repair based on customer preferences such as proximity to repair service, inclination to DIY, etc. can offer **personalised possibilities** such tools for rent or nearby communities for repair, or experts in the area based on reviews.

A web platform for care and repair consult, catalogue and inspiration illustrated in Figure 20.

Within the scope of this project, stakeholders from IKEA digital were not included. Digital interventions for care and repair were not explored further, given the absence of the necessary stakes and perspectives of the digital project leads.

IKEA furniture as grounds for PLAY

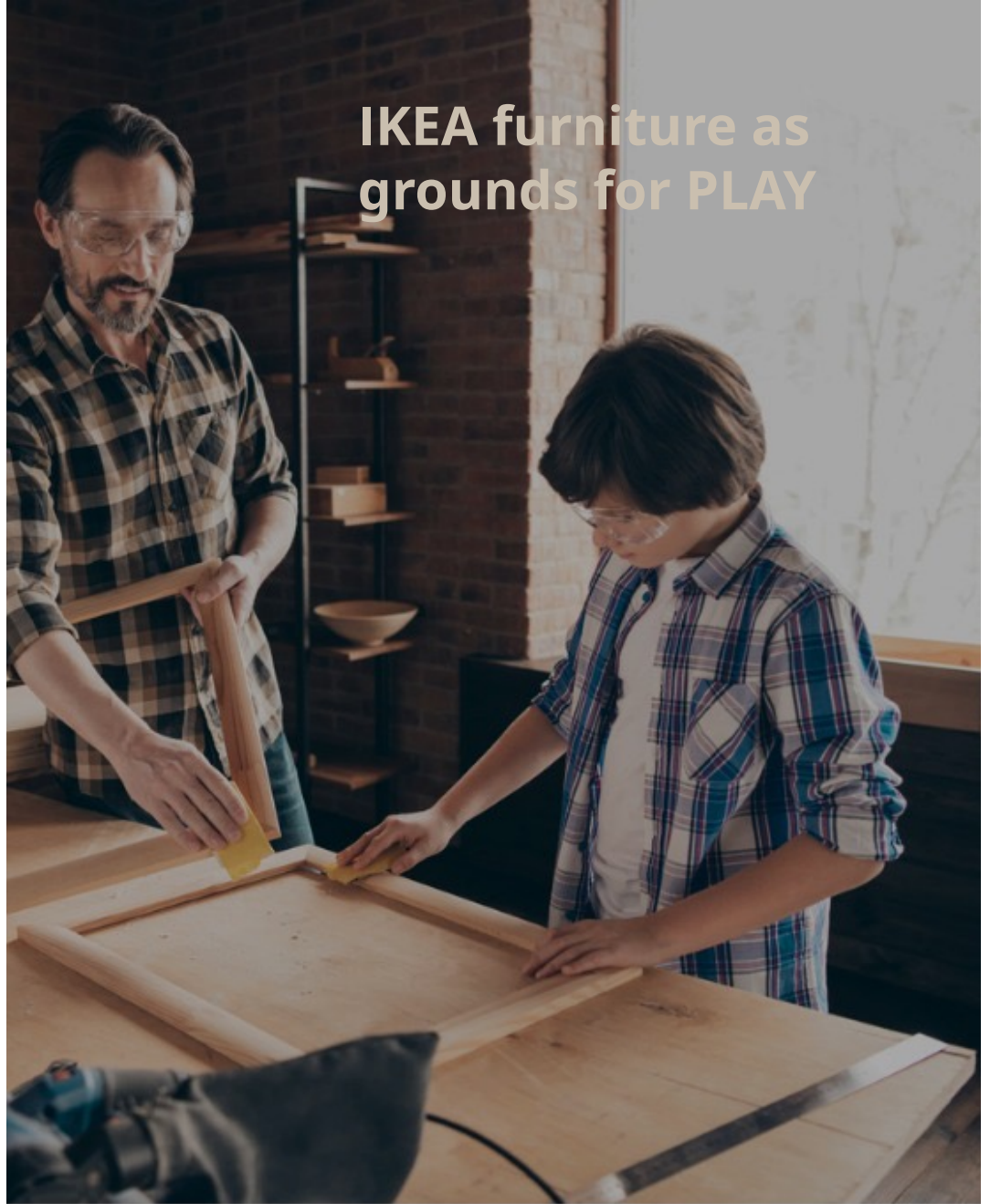


Figure 19. Concept 1 illustration
In-store repair and refurbish activities to enable exploring second life of IKEA furniture

In-store activities to enable and inspire creative repairs

- Creative exploration of repairing IKEA furniture
- Social value of learning together
- Expert advice for repairs and refurbishment



Activities in store proposed to inspire, motivate and enable customers to creatively repair their IKEA furniture.

Offering advice and exploring creative repairs with local experts in-store, offers scope to build awareness and a community for repair of IKEA furniture.

Give a new life to your home furniture

Care, refurbish and repair range and advice for your IKEA home furniture



Tips and tricks for your home furniture

Find curated advice and guidance for upgrades, refurbish or repairs of your home furniture

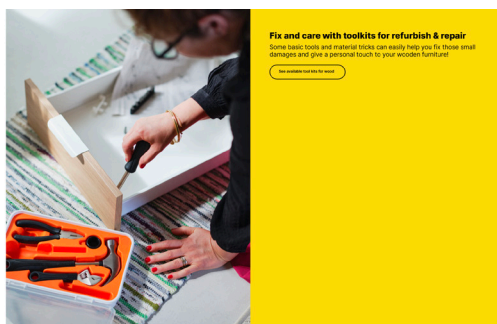
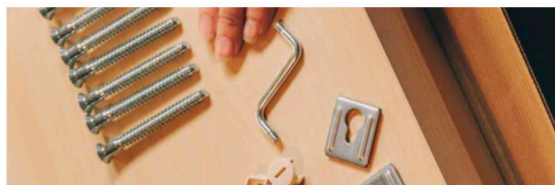
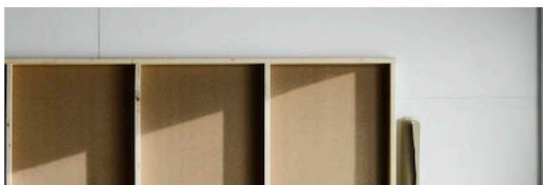
Enter product/ damage description & photo



Many parts and fixtures to replace and play with

Use these parts and components to swap damaged pieces of your shelves, seating, cabinets drawers are more!

See spare parts and materials

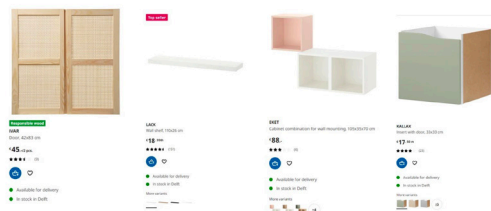


Fix and care with toolkits for refurbish & repair
Some basic tools and relevant tricks can really help you fix those small damages and give a personal touch to your wooden furniture!

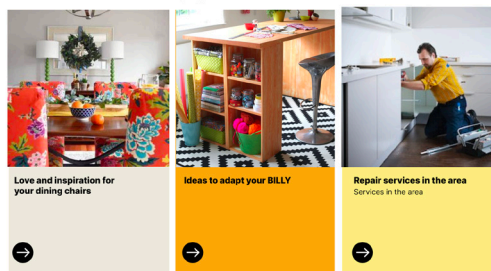
See additional kits to build

Care and repair necessities for your home

All the care and tools for your furniture can inspire a long life for your beloved belongings.



Throw out? Never! Let our care stories inspire you.



Many ways to stylize and personalise

Find inspiring guides and ideas with tips, techniques and instructions to personalise your home furniture.

Go on to repair care & repair

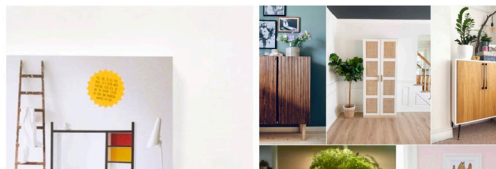


Figure 20. Concept 2 illustration
Digital intervention to enable creative repairs at home

Digital consult, catalogue and blog

- To offer advice and guidance in case of damage;
- Tools, parts and materials to enable repair; and
- Ideas and instructions to inspire and motivate customers

Offering consult offers IKEA the opportunity to gather valuable product use data, and offer curated advice and services to both DIY and occasional repairers. vv



11.3. Expert services

For the customers not willing or able to carry out repairs themselves, repair services by IKEA co-workers or those certified by IKEA could support NON repairers' aspirations to repair their furniture conveniently, reliably, and affordably.

A **repair hub in-store** either operated by IKEA co-workers, or through expert collaborations, offers scope to restore and refurbish AS-IS furniture for sale and inspiration at the Tweedekanshoek. While a local repair hub could also cater to customers' furniture that can be carried to store, costs of logistics especially for large furniture, are a heavy burden for both customers and IKEA.

Services that take shape at customers' home by **experts verified by IKEA, or trained co-workers from IKEA** could prevent high costs of logistics. Furthermore, based on services being carried out in Denmark, trained co-workers could assess and solve customers' furniture related issues in 80% of the cases at their home, in a single visit.

Apart from logistics, *repair quality norms and guidelines, and models for post-repair warranties are yet to be developed* for the provision of professional services by IKEA. Development of repair expertise in terms of training co-workers and developing competencies in-house are long-term processes requiring development of knowledge and channels for exchange. However, developing competencies in the form of an **external network of experts, and referral systems** offer viable opportunities to shape repair services by IKEA, that also leverage the upcoming and fast-growing initiatives for repair in NL.

11.4. Selection and scope of prototype at IKEA Barendrecht

The various ideas, opportunities, and concepts were discussed with the steering stakeholders, within the given project scope of customer-end and in-store interventions. Repair and refurbish activities were selected as the concept to prototype at the Tweedekanshoek of the Barendrecht IKEA store, also based on a voting session carried out with the steering stakeholders

(Appendix L). **Activities to inspire, motivate and enable customers to repair their own IKEA furniture** were proposed for further exploration. The activities were to be explored also in their capacity to offer expert advice and guidance, and inspiration through refurbished/ up-cycled furniture. These were also proposed as first step to evaluate competencies for repair services - in the form of expert collaborations, and in-store infrastructure for customer repair/ refurbish services.

Digital solutions were not explored within the scope of this project given the absence of relevant stakeholders.

While there are still many steps to go until future customers' Right to Repair for furniture can be realised, a proactive approach and investment in development of knowledge, channels of exchange and building competencies for furniture repair can enable IKEA to sufficiently serve the emergent needs of the people and planet. Though these also require a structural and integrated approach in the form of mandates from global and policies, in the face of rigid linear business models.

The proposed activities are a small step in **enabling and exchanging knowledge for the repair of IKEA furniture, in-stores.**



Second-chance Workshops at IKEA Barendrecht

20/01/2023 at 17.00-19.00
Visible repairs and care for your textile-based furniture

22/01/2023 at 12.30-14.30
Tools & techniques to refurbish wooden surfaces & door edges

28/01/2023 at 12.30-14.30
Patchwork and embroidery for your textile-based furniture



Open for All, Limited Capacity.
Scan QR Code for sign-up or
go to <https://www.ikea.com/nl/nl/stores/>



Wij geloven in tweede kansen

Steun bij de Tweedekans hoek te kopen,
help je repareren iets af te brengen,
is er nog een grote deel ook.



Tweedekans Workshops bij IKEA Barendrecht

20/01/2023 at 17.00-19.00
Zichtbare reparaties & onderhoud

22/01/2023 at 12.30-14.30
Houtreparaties en opknappen

28/01/2023 at 12.30-14.30
Textielreparatie en opknappen



Open for All, Limited Capacity.
Scan QR Code for sign-up or
go to <https://www.ikea.com/nl/nl/stores/>



V. Creative repair workshops at IKEA Barendrecht

Repair and refurbish workshops to build awareness and a culture for repair in-store for customers, were proposed for prototyping at IKEA Barendrecht. The workshops offer scope for customers to engage with the second-chance corner as a hub for inspiration to refurbish and advice to repair IKEA furniture.

These explore the opportunities of improving visibility of repair and care at IKEA and offering repair advice and guidance to customers in-store, through collaborations with furniture experts.

The design for the workshops was informed by various criteria based on customer needs, learnings from activities at IKEA Cardiff and challenges encountered at the Barendrecht store. Within the scope of this project, the social and individual value of community repair activities were considered while developing the prototype

workshops. Creative repair workshops were co-created with 3 external experts, including wooden and textile experts, to cater to the wooden and fabric range of IKEA furniture. The design of the workshops is proposed in the form of its goal and intent for customers and IKEA as well as the quality and vision of the relevant interactions. The intent, value and vision of in-store creative repairs workshops for customers were described. The creative repair workshops are further formalised in the form of a services blueprint, outlining the customer journey with respect to the front-end and back-end processes by IKEA and a services canvas (*Appendix M*), to give an overview of the workshops in terms of its desirability, feasibility, and viability. Furthermore, the workshops in the form of a services blueprint offered grounds for iteration and provided a valuable lens for the evaluation of the prototype workshops and subsequent recommendations for the future.

Chapter 12: Workshop Prototyping

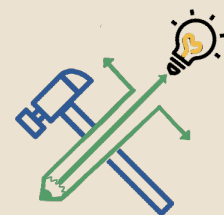
12.1 Design criteria for in-store creative repair workshops



12.2 Value of community repairs



4.3 Co-creating creative repair workshops with experts



Chapter 13: Design Proposal for in-store creative repairs Workshops

13.1. Workshop intent and vision

13.2. Creative repair workshops as a service

Chapter 14: Prototype workshop outcomes

Chapter 12: Workshop Prototyping

The design criteria for the workshops were defined based on aspects of **customer desirability emergent from customer needs, values**, and learnings from activities at IKEA Cardiff. In-store **opportunities and challenges identified at the Barendrecht store** were considered for the design of feasible workshops in-store, through expert collaborations. Lastly, the value and viability of the workshops for IKEA are outlined, though not measured within the scope of this project.

Social values for repair were further explored based on a brief review of recent literature that highlights recent initiatives such as repair cafés and the value of **collective repairs**, both for individuals and society. The prototype workshops for customers were developed in collaboration with wooden furniture and textile experts, to explore **creative repairs** for IKEA furniture and enable hands-on activities in the store.

12.1. Design criteria for in-store creative repair workshops

The workshops were designed in terms of customer desirability, emergent from the needs and values specifically of the occasional repairers seeking advice and skills for repair. **Customer needs** helped identify the intent and interactions of the workshop, also in resonance with learnings from up-cycling activities at Cardiff.

Collaborations with local furniture experts were identified to explore creative repairs of IKEA furniture. Expert collaborations specific for repair, enabled overcoming challenges of limited capacities in-store. Furthermore, these enabled exploring repair as a creative process with furniture experts and customers.

The feasibility of the workshops was subsequently, defined in terms of the store **infrastructure** and opportunities for enabling **community repair** spaces through visibility, materials, and parts. Criteria for viability of the workshop are outlined, based on the offer of refurbished and **value-added products for inspiration and sale**. Though viability was not explored within the scope of the project,

recommendations for the future are presented. *The design criteria alongside learnings and insights are illustrated in Figure 21.*

Customer Needs and values for in-store workshops at IKEA

The in-store repair and refurbish workshops are targeted at customers, who are occasional repairers and aspire to repair their own furniture. While they have the motivation and willingness to repair, and possibly refurbish their furniture, they are often seeking advice and guidance for repair. Several challenges including missing know-how and low confidence in one's repair skills, pose barriers to customers' actions for repair. The workshops particularly cater to the occasional repairers' needs for a **sense of preparedness and friendly advice & guidance for repair**. The workshops were collaboratively developed to offer inspiration through demonstrations and products, engagement in hands-on activities to practice techniques and advice & guidance from experts for repair and refurbish of furniture.

Learnings from up-cycling activities at IKEA Cardiff, and insights from customer research point to customers **value for social setting to learn new skills, and desire for creative explorations**, were explored in the form of in-store community spaces, and creative repairs of IKEA furniture with furniture experts.

Creative repairs with furniture experts

Learnings from textile up-cycling workshops in Cardiff, highlight customers' desire for personalisation and creativity. Customers often **value up-cycling or personalising** their furniture, also in case of damage. The learning also resonates with the strategy of enabling appropriation through care activities (Ackermann et al., 2021) as motivating factors for consumers.

While earlier efforts have been made to offer **inspiration** for up-cycling at the Tweedekanshoek, via product displays, these were limited by co-worker capacities and product knowledge in-stores. Furthermore, activities in the past have often turned into crafting and décor activities, losing vision of a second chance and

longer life for IKEA furniture.

Collaborations with furniture experts and crafts persons, enabled exploration of repair specific techniques (for wood and textile in this case), that also enable personalisation and adding one's own touch to their furniture. Creative repairs focus on personalising and adding value, specifically to damaged or worn-out furniture. Experts were also identified based on their experience of **facilitation**. While the recovery hub and Tweedekanshoek provided materials, parts, and furniture to repair and practice on, experts provided the required tools and equipment for customers to practice with.

In-store workshops for community engagement

The Tweedekanshoek (second-chance corner) in the IKEA Barendrecht stores, provided an ideal location for initiatives and activities for giving a second chance to home furniture through repair. While located at the end of the customer's store journey, right before the cash counters, many customers visit the **Tweedekanshoek** in search of discounted furniture, parts and replacements. Activities in the Tweedekanshoek, hold potential to inspire a second life for IKEA furniture, and make use of abundant spare parts and AS-IS furniture from recovery.

Customers value for a social setting to engage with community are explored in the form of workshops at a front corner of the Tweedekanshoek open on two sides and accessible to customers in-store (*Image 11*). The corner at the Tweedekanshoek, was envisioned

as an inspirational space for **community members and experts to engage over skills and techniques for creatively repairing their IKEA furniture**. The location of the workshops offered a social setting for customers, to engage with one another, and with the Second-chance corner of the store.

Furthermore, its **proximity to the recovery hub** and aspirations of the recovery manager to reduce waste generated provided the opportunity to make use of abundant space parts and damaged furniture in recovery.

While damaged furniture could be repaired with added value by experts for inspiration and possibly sale, parts, and materials destined for disposal, could serve as valuable resources for customers to practice on.

Value and viability

The workshops offer many opportunities for IKEA to build **brand loyalty** and long-lasting relationships with customers and local experts. Furthermore, creative exploration of **ways to repair and refurbish furniture** can inspire and enable a second life for IKEA home furniture and prevent furniture from being discarded. Though, the economic viability of the workshops is dependent on the cost of the workshops versus their capacity to draw **visitation, and subsequent sales of value-added products, care products and tools**. While not tested within the scope of the prototype workshops, parts and furniture saved from disposal and paid workshops are relevant to explore for future viability of the workshops.



Image 11. 'Inspiration corner' at Tweedekanshoek, IKEA Barendrecht

Customer challenges

- Missing product knowledge
- Unawareness of sources for repair resources
- Overwhelming options for repair
- Limited Know-how and repair skills
- Low confidence in one's repair skills

▲ Effort and ▼ Impact
Perception of repair

Customer needs and values

- Preparedness for repair
- Advice & guidance
- Instructions for repair

Value for creative explorations & social learning



Based on learnings from past activities at IKEA in other countries, in-store activities were found

- Valuable for customers to learn new skills for up-cycling and personalising their furniture.
- A social and fun way for customers to engage with community

Customer Needs and values for in-store workshops at IKEA

Learnings from past activities at IKEA, other countries

- Risk of turning into plain crafting or décor activities
- Workshops were hosted by co-workers, and dependent on their expertise & skills

In-store challenges

- Extensive skilled co-worker investment for refurbish/ up-cycling and facilitation. Limited expertise for creative repairs
- Limited tools and equipment in-store to carry out effective repair and up-cycling activities

Opportunities identified at Barendrecht

Strategy to enable appropriation through repair

- Expert collaborations offer the opportunity to overcome the limited capacities in-store, and build a network for repair
- Focus on repair techniques that also enable scope of personalisation and customisation



Creative repairs with furniture experts

Resources for customer-end interventions

- Recovery can be a valuable source of materials and part. Abundant new parts are often discarded.
- Tweedekanshoek has the spatial infrastructure to host a group of people in-store

Strategy to enable social connections for repair

- Inspiration for creative repairs in the form of products and demonstrations
- Hands-on activities to engage and enable customers to build confidence
- Offering repair consult and advice, through in-store customer interactions

In-store workshops for community engagement



Identified value from past activities at IKEA, other countries

- Creation sharing can boost brand awareness & identity
- Activities can generate visitation & sale of related products

Future Scope

- Value-added products for sale and inspiration
- Prevent discard and waste of valuable parts and furniture
- Expert collaborations to explore forms of in-store or at-home customer services

Value and Viability for IKEA

12.2. Value of community repairs

Repairs have recently been explored as community initiatives in the form of repair cafés, and recent literature reveals its value in shaping collaborative practices for care and sustainable circular transitions.

Meißner (2021), points out the value of collaborative practices in repair cafés, for its potential to enable both individuals and society to engage in collective processes of repair and care. Furthermore, community repairs can enable building social relations and practicing non-consumerist forms of citizenship (Bradley et al., 2022).

Though various perspectives on repair, different roles based on who is to perform it, with what skills and for what purposes and different ambitions of citizens and amongst organisations create a complex and intertwined landscape for repair. As Moalem et al. (2021), points out

“aims of the people involved in repair cafés may span from altruistic and strategic, over personal gains to critical consumer, financial and educational aims. The aims of the people involved are complex, and their expectations lack alignment, both vertically and horizontally.”

Within the scope of this project, collaborations amongst stakeholders from the commercial organisation of IKEA and local furniture experts are explored, with a focus on repair and refurbish of home furniture. The collaborations offer opportunities to inform **new and collective forms of furniture repair** that can meet the sustainable ambitions of customers and shape the circular models of IKEA.

12.3. Co-creating creative repair workshops with experts

Collaborations with local furniture experts were identified to explore creative repairs of IKEA furniture. These enabled exploring repair as a creative process for customers. The workshops focused on **repair specific techniques and skills**, such as *spot repairs for wooden surfaces or patchwork for fabric chairs*, that also enable **personalization and value-addition** specifically to damaged or worn-out furniture.

Lastly, experts were also identified based on their **experience of facilitation**. While the recovery hub and Tweedekanshoek provided materials, parts, and furniture to repair and practice on, experts provided the required tools and equipment for customers to practice with.

A collaborative approach for the repair of IKEA furniture also offered an opportunity to explore future possibilities of customer services.

Workshop A

A workshop focused on wood repairs, was developed with **Buurman**. They are a wood workshop and circular shop for reclaimed building and other materials, located in Rotterdam and Utrecht. They also facilitate furniture building courses and workshops from beginners to expert level. Driven by a circular vision and intention, they were enthusiastic about exploring possibilities of inspiring a new life for IKEA furniture through creative repairs.

Based on the common damages identified for wooden IKEA furniture, they proposed various ideas from, *piece rather than part replacement for chipping edges or broken parts, to spot repairs for water damaged tables.*

A concern with wooden repairs was the limited possibility of using tools such as hand saws, power drills or jigsaws, which are essential for certain repairs, and open possibilities to explore many repairs and refurbish techniques. In the case of wood repair workshops for customers at Barendrecht, activities such as **edge plastering**

and **banding, spot repairs and painting** were included, to avoid the use of the heavy tools.

Workshop B

A local textile and furniture expert/ crafts person was identified through the BlueCity network of Rotterdam NL for circular businesses. **Evelyne is a textile expert**, with experience in crafting leather bags and re-upholstery and repairs for couches and armchairs. She is a craft persons, artist and activist at heart, who believes that furniture and textiles can live, and deserve a much longer life, than they currently see in a consumption driven society.

She designed a workshop that focused on techniques of **visible mending** that allow people to repair their chair or sofa, while **enabling love for their furniture**. Techniques like weaving or patchwork, offer many opportunities to add a personal touch or even a sense of humour and play to their furniture. She focused on simple techniques that required minimal tools, like needles, thread, and frames and which she would provide herself.



Workshop C

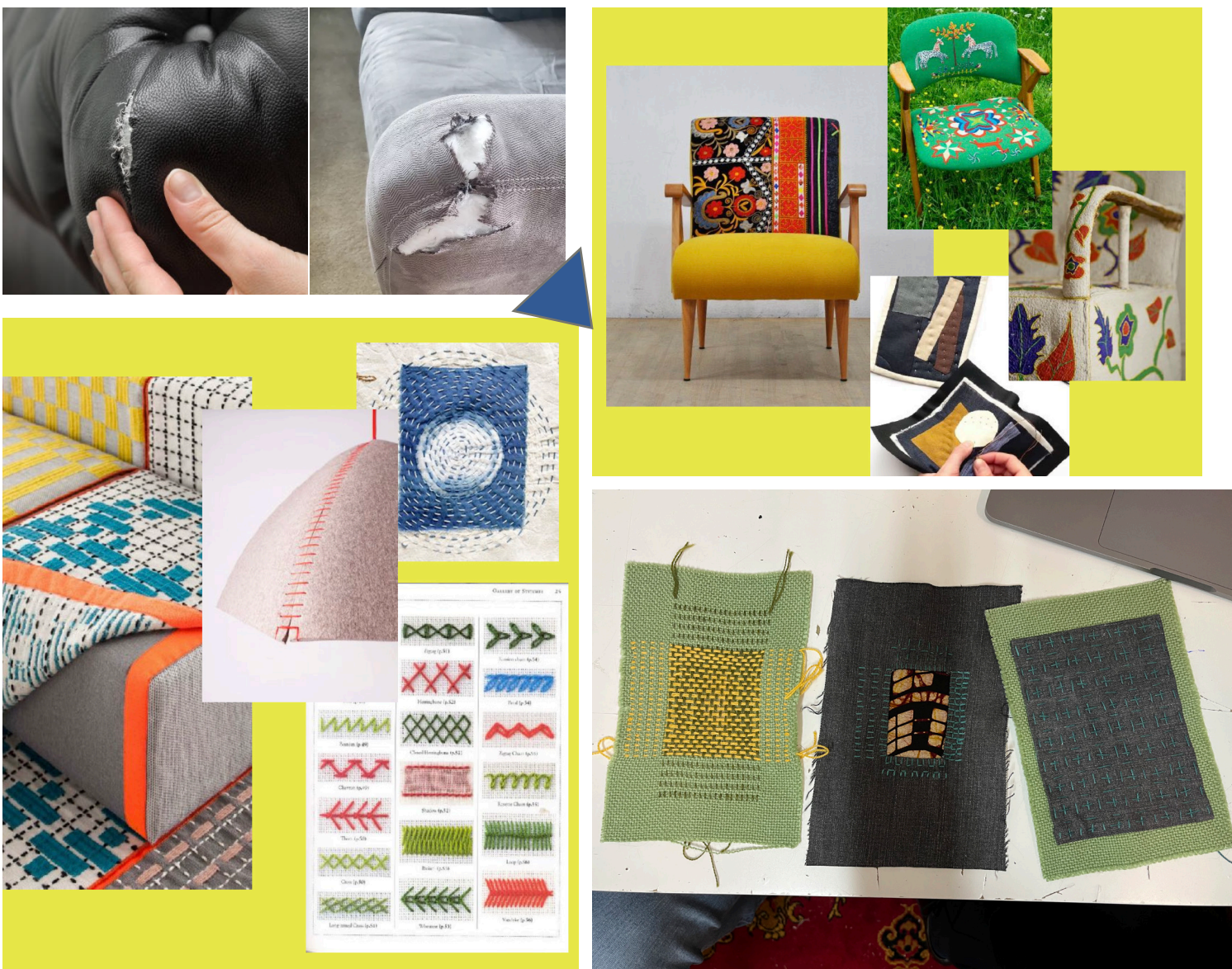
Another workshop was developed in collaboration with sister initiatives **Makers Unite and United Repair Centre**. Makers unite is a textile based creative agency with a social focus, of providing training programs to newcomers and distant from the labour market, to work independently or with them on partner assignments. The United Repair Centre is a repair service provided to customers, in collaboration with partners such as Patagonia and Decathlon. Additionally, their experience in facilitating beginners' textile repair workshops to illustrate the value of repairs for internal communication in different organisations, and enthusiasm for exploring textiles in the realm of furniture, offered ideal opportunities to collaborate. Both to develop workshops for customers and explore possibilities of creative repairs and refurbish services for customers.

Experts from Makers Unite suggested various techniques and ideas for repair, refurbish and up-cycling of new furniture, with personalised textile additions. To maintain a focus on repair,

techniques of **patchwork in combination with embroidery** were selected for demonstration and practice during the second-chance workshops. They were also enthusiastic about the possibility of offering **sewing expertise, so that people can get a patch sewn and take it home**.

All the workshops' content and techniques were selected based on their **focus on repair and ample scope of creative exploration**. Also keeping in mind, that the techniques can be applied at home and by beginners as well.

Figure 22. Compilation of creative repair techniques selected for customer workshops, based on commonly observed textile and wooden furniture damages



Chapter 13: Design Proposal for in-store creative repairs Workshops

13.1. Workshop intent and vision

The workshops were envisioned as a collective space in IKEA stores, where furniture experts and customers engage in **creative explorations and collective innovation** to prolong the life of IKEA products. The workshops were proposed to inspire creative **repairs and refurbish through demonstrations and products** repaired by experts.

The intent of the workshops was to **engage customers in creative and hands-on activities** and offer **advice and guidance** on repair techniques and skills. The activities were envisioned as social gatherings to inspire collective learning and development of skills for repairing and up-cycling at home.

Lastly, the prototype workshops offered the opportunity to explore expert collaborations for creative repairs of IKEA furniture and future repair services through reference or in-store.

The goal of the workshops, to **Motivate, inspire and enable customers to add value to their IKEA furniture at home.**

This was envisioned through various interactions (*Image 11*), focused on creative repair of IKEA furniture.

13.2. Creative repair workshops as a service

The service blueprint (*Figure 23*) enabled illustrating the interactions for the creative repair workshops at IKEA, with respect to the customer journey, front-end and back-end processes by IKEA, both for **service to customers and maintain channels of expert collaborations**. All the interactions are focused on the in-store, expert hosted customer workshops that in the current exploration were two hours long.

The **customer journey** for the workshops is described from the moment of discovering the workshops to applying the learnt technique at home, and continuing the journey by actively looking for workshops in the future.

The **store touch-points** are described in-terms of the *actions* required for service to customers and the responsible *actors*. *Tools and technology* describe the means to enable the service interactions, such as social media channels or in-store displays. The actors were identified based on existing capacities in-store. Though these are currently limited, especially for communication and pose difficulties for future viability.

The **back-end actions are those, which enable the store touch-points**, yet not visible to customers directly. These are carried out at the services end at IKEA. And include digital communication, approval of safety and risks standards and documentation of the workshops.

Other **back-end actions include those relevant to organise and maintain local expert collaborations**. Expert collaborations for creative repair workshops are specified in terms of collaboration and workshop criteria for partners. While these are one form of their longevity, there is abundant scope for exploration in this regard. Some being currently explore at the IKEA Barendrecht store.

The services blueprint offered grounds for iteration and provided a valuable lens for the evaluation of the prototype workshops and subsequent recommendations for the future form of workshops.

(Both the evaluated overview of the blueprint and the revised version for recommended workshops can be found in Appendix P and Q, respectively)



Image 12. Prototype workshop at IKEA Barendrecht

Design goal

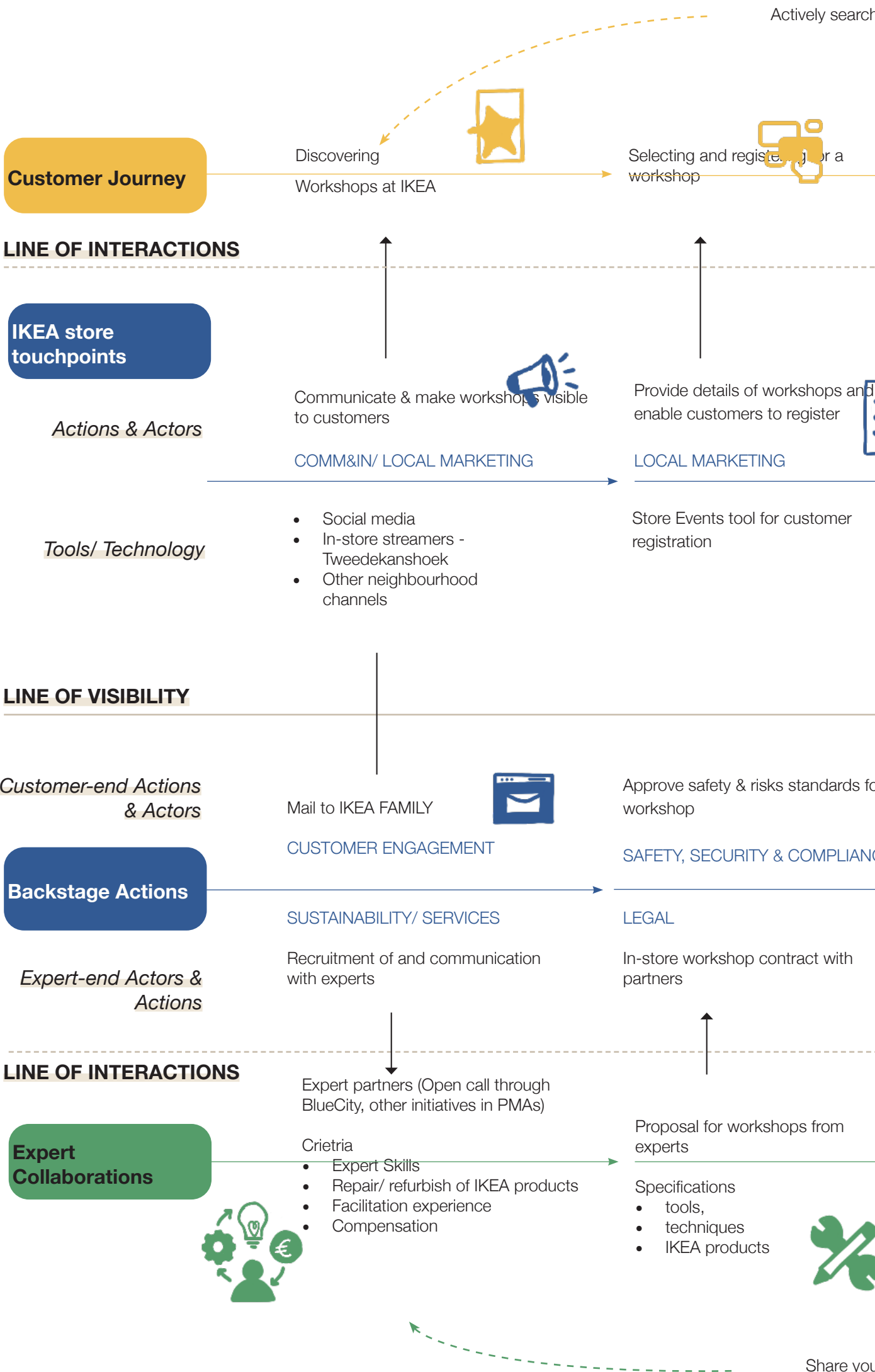
“To motivate, inspire and enable customers to add value to their IKEA furniture at home.”

Value through repair, refurbish and up-cycle

Envisioned Interactions

- Products and demonstrations to **inspire a sense of play & creativity** with IKEA furniture
- **Hands-on, creative engagement** with materials and furniture to learn repair specific skills and techniques
- Space to work **together with other people**
- Personal **advice and guidance from experts**, for repair projects at home

Figure 23. Service Blueprint to illustrate the customer journey, store touch-points and back end actions for in-store store repair and refurbish and expert collaborations.



Min. 2 hours In-store workshops

Showing up and participating in the workshop



Reflection and Evaluation



Apply to furniture at home



Value addition to life and IKEA products

Space to carry out demonstrations and hands-on activities safely

RECOVERY HUB



Provide Damaged products and parts for repair/ refurbish

Activation of Tweedekanshoek

To inspire, motivate and enable people to repair themselves

Test commercial viability through

- Paid workshops
- Sale of value-added products
- Sale of related materials, parts or furniture from AS-IS



Documentation



EXTERNAL PARTNERS

Evaluation and iteration of workshops

SUSTAINABILITY/ SERVICES



For Store

- Prepare product for demonstration

Ideas to make furniture repair playful!

For Customers

- Facilitate the workshop in their unique style!
- Offer advice and creative ways to customers



Add-value to IKEA furniture & enable customers to do the same!

Chapter 14: Prototype Workshop outcomes

WORKSHOP A

Facilitated By:

Buurman, Rotterdam

6 participants

Aged 24, 30, 33,36 and 64

WORKSHOP B

Facilitated By:

Evelyne, local expert from Rotterdam

5 participants

Aged 27, 30, 54, 59 and 64

WORKSHOP C

Facilitated By:

Makers Unite x United Repair Centre

8 participants

Aged 24, 25, 26, 29, 35 and 43

Evaluation Criteria

Desirability | Customer Experience

Motivation factors

- Inspiration
 - Demonstrations
 - Products
- Customer Engagement
 - Scope of creativity

Ability factors

- Competency for repair
 - Confidence with skills
 - Scope of applying at home
 - Advice for repair

Feasibility

- Space and location of workshop
- Safety and risks standards
- Products and parts for repair and practice
- Dependency on other systems and co-workers

Three prototype workshops were facilitated at the Tweedekanshoek, IKEA Barendrecht, by a **local textile and furniture expert, Evelyne, Buurman and Makers unite**. The workshops saw an intimate gathering of customers and experts. Participants at the workshops found them through WhatsApp groups, Instagram, the IKEA website, in-store announcements, or they were invited. Most people joined because they were just curious, wanted to learn new skills for woodworking, stitching or sewing or wanted to be able to repair their own furniture.

The workshops were intended to evaluate customers' experience and desirability, in-store feasibility and explore expert collaborations for IKEA furniture repairs and refurbishment.

But mostly, they were intended for customers to engage in hands-on activities to learn skills with others, for creative repair of their furniture, with the help of experts.

Here's how they went!

14.1. Workshop A - Summary

Creative wood repairs with an active, on and about group of 6 participants

The workshop facilitated by Buurman, was hosted by two facilitators, for 6 participants, starting with demonstrations for creatively refurbishing and repairing common damages to wooden furniture. The workshop focused on **wooden edge plastering and banding techniques, and spot repairs for wooden surfaces**. Following the demonstrations, customers were encouraged to try out the different techniques of their choosing using the materials and tools provided by Buurman, such as edge banding, wood filler, paint, and iron, on discarded wooden parts and pieces from recovery. Instructors showcased possibilities of creative repairs and prompted participants to explore the techniques in their own creative ways. They responded to many queries and questions regarding home furniture repairs and demonstrated possible techniques and provided

guidance based on customer requests during the workshop.

The wood repair workshop was a hands-on and active affair with **much laughter and conversations** amongst the participants. Participants shared stories and difficulties with repair, exchanging inspiration and knowledge with experts and one another. While the participants all found the techniques and skills new and valuable, some mentioned it would be a good idea, to bring one's furniture for repair.



One of the participants who was super enthusiastic for the wood workshop asked several questions and received guidance for repairs at home. They were very engaged in trying out all the techniques demonstrated during the workshop and found them new and innovative. In a post workshop interview they mentioned repairing their wardrobe at home that very week, using the techniques they learnt during the workshop.

Image 13. Prototype wood workshop at IKEA Barendrecht - Participant practicing edge refurbishing technique

14.2. Workshops B - Summary

Visible mending for textile furniture with an intimate group of 5 participants around a dining table

The workshop was facilitated by a local textile and **furniture expert and crafts person, Evelyne**, for a group of 5 people. The workshop opened with a short narrative by Evelyne, on the value of refurbishing with hands, also as a form of loving your belongings and furniture at home. The workshop space was organised with materials such as scraps of fabric, and instruction booklets, and tools such as needles, thread, and frames for customers to practice weaving techniques. Refurbished office chairs (*Image 19*), for demonstration of techniques for visible mending offered inspiration and ideas for refurbishing furniture with a personal touch.

Customers were encouraged to try out the weaving technique using colours of their choice

to visible mend the prepared textile pieces. Throughout the activity Evelyne responded to various individual questions and queries and helped customers out with their weaving techniques.

The workshop witnessed an intimate and informal atmosphere amongst customers, engaged in handy skills, conversations and sharing stories with people.



One participant joined when he saw the office chair prepared by Evelyne with visible mending over a tear in the seat. They had the exact same problem at home and wanted to figure out how they could fix it. He was very engaged in the workshop and curious to learn how to fix his office chair at home. He found advice for their many questions, and especially appreciated Evelyne's explanations of the intent for repair, and ways to fix our furniture lovingly.

Another participant who joined on the spot, on the other hand, was extremely glad to have reconnected with the thread and needle after years. She used to practice weaving during school years and now at 54 was happy to have been able to get back to it. She was positive of continuing the same at home.

Image 14. Prototype textile workshop at IKEA Barendrecht - Materials and Participant getting all the guidance they want, to repair their chair at home

14.3. Workshops C - Summary

An engaged group of 8 participants on patchwork, embroidery, and furniture trials

Another textile workshop, was facilitated by 4 experts from Makers unite, including a sewing master on a sewing machine. The workshop was set up into three workspaces for customers, to **embroider at the table in the centre, practice on furniture parts at the far end or get their assembled patches sewn** in the front end of the workshop. Experts prepared refurbished furniture with customised patchworks, during the hour before the workshop. Materials such as fabric scraps, pieces, cushion covers and discarded sofa parts, collected at the recovery prior to the workshop.

The workshop opened with an introduction by the founder of URC and Makers Space, describing why repair is important and their social mission. An on-furniture demonstration of

sewing techniques to repair tears in fabric, and patchwork was followed by an open practice session where participants were free to try their hands on the techniques of their choosing.

While all participants started with embroidery at the table, eventually all participants expanded their scope of creative exploration. All participants tried their hands on sewing tears and patching pieces of furniture, or composing patches for furniture, but also their clothes or shoes to get them stitched by the master. All participants were engaged until the end, and left wanting a longer workshop, some even mentioned as a recommendation to host day-long workshops.



One of the participants found the workshop on the Instagram channel of Barendrecht. It was the first time they were trying out the techniques presented at the workshop and appreciated the creative engagement with young people and the possibility to practice hands-on. Though they would have liked a longer workshop, to properly try out all the techniques. They mentioned in the post-workshop interview, about planning to repair a stuffed toy from IKEA, using the techniques from the workshop once they got all the material.

Another participant mentioned, how they thought “embroidery was very hard, but it really wasn’t.” They were glad to have joined the workshop and discovered also the recreational and calming effects of embroidery, “This is a really nice activity, I’m looking forward to doing more of it, I even have all the materials at home.”

Image 15. Prototype textile workshop at IKEA Barendrecht - Practicing hands-on, gave participants a feel for repairing their own furniture at home



VI. Evaluation & Way-forward

Three prototype workshops were facilitated at the Tweedekanshoek, IKEA Barendrecht, by external textile and furniture experts. The workshops prototyped at IKEA Barendrecht were **facilitated by external furniture experts for customers to engage in hands-on activities and learn new skills and techniques for creative repair** of their wooden and textile furniture at home.

The three prototype workshops were evaluated based on customer desirability and feasibility for IKEA (Table 2).

Customer experience and desirability of the workshops was evaluated to investigate competencies for repair, in terms of tools and materials for practice and repaired furniture for inspiration. Experience with expert instructions, advice, and guidance for repair and scope of application of skills for repairs at home. Furthermore, customers' experience was evaluated based on the social value of the workshops and scope for creative personalised explorations.

Feasibility in terms of in-store infrastructure was evaluated based on the space available for the workshops, safety and risks aspects, materials, and parts available for repairs and practice. Furthermore, interdependencies amongst co-workers and systems and scope of expert collaborations were reflected upon for feasibility concerns.

While customer desirability was high, and participants experience positive, various challenges currently hinder the feasibility of the workshops. These include space and safety concerns, limitations of repaired/ refurbished products for inspiration and high interdependences amongst co-workers and systems. These challenges are further explored as learnings from the prototype workshops, to propose recommendations for a viable model for repairs in-store.

Economic viability was not tested within the scope of the prototype, recommendations for future viability of the workshops are proposed based on the learnings from the 3 prototype workshops. (*Customer feedback forms are attached in Appendix O*)

Chapter 15: Workshop Evaluation

Chapter 16: Recommendations

Table 2: Evaluation criteria for in-store customer workshops for creative repairs

Customer desirability and experience:

<i>New skills & techniques</i>
<i>Confidence with techniques/ tools</i>
<i>Inspiration for repair (products and demonstrations)</i>
<i>Advice and solutions</i>
<i>Fun & engaging (social)</i>
<i>Scope of creative personalisation (individual)</i>
<i>Documentation for 'creation sharing'</i>

Feasibility – In-store infrastructure

<i>Spatial provisions</i>
<i>Safety and Risks</i>
<i>Spare parts and products for repair</i>
<i>Systems and co-worker interdependencies</i>
<i>Expert collaboration and compensation</i>

Economic Viability

<i>Re-sale of value-added products at Tweedekanshoek</i>
<i>Sale of care products, related products from CH</i>
<i>Amount of saved (instead of discarded) spare parts</i>
<i>Paid workshops/ services in-store</i>

Chapter 15: Workshop Evaluation

The three workshops carried out with Evelyne, Buurman and Makers Unite were evaluated based on **observations during the workshop, feedback forms filled by participants at the end of the workshop and brief post-workshop phone interviews** with participants and experts.

The prototype workshops were evaluated for their **desirability** amongst customers, in terms of their value for offering inspiration through repaired furniture and demonstrations and building competencies for repair – participants' experience with the techniques presented at the workshop, confidence with the skills and scope of applying at home, and experience with advice and solutions for repair challenges at home. Lastly, the workshops were evaluated for their scope of offering a fun and engaging social setting and creative, personalised explorations.

The **feasibility** of the workshops was evaluated in terms of the spatial infrastructure for the

workshops, and corresponding safety and risks regulations, parts, and products available for repair from the recovery and interdependencies amongst co-workers and systems. (Presented in Table 2)

Various challenges identified for the feasibility of in-store workshops, alongside consideration of economic viability are captured as learnings; to provide recommendations for models of in-store repair and refurbish of IKEA furniture.

Image 18. Prototype wood workshop at IKEA Barendrecht - Everyone trying their hands at a technique they'd like to practice. (Below)

Image 19. Demonstration by furniture expert from Buurman (Right)

Image 20. Visibly mended chairs prepared by Evelyne to inspire and demonstrate techniques to participants (Right)



15.1. Evaluation: Desirability | Customer Experience

The workshops were all experienced positively by participants, with **high desirability** to attend more workshops at IKEA. Participants appreciated the time they spent at the Second chance workshops, as they found inspiration to creatively repair products and enjoyed the easy-going and social atmosphere to practice hands-on techniques and learn new skills. Furthermore, participants also found personalised advice from experts, that enabled them to even carry out repairs at home.

Inspiration for creative repairs, from products and demonstrations

Expert stories of **why repair is valuable and how one can make it personal** and loving for furniture were especially inspiring for customers. Participants mentioned they truly appreciated the interaction and enthusiasm of the experts, and particularly valued, ***“the stories of furniture repair, and the goal of repairing it by yourself.”***

The refurbished chairs and on-furniture demonstrations (*Images 19 & 20*) during textile

workshops were inspiring for participants, to visualise the techniques they were practicing in their final form on a piece of furniture, furthermore, to relate to the furniture damages they face at home. One of the participants mentioned, *“I have this exact same chair with a tear in it. I could totally do this for my chair.”* While refurbished wooden furniture was not displayed, the facilitators’ demonstrations of various possibilities to creatively refurbish wooden edges or surfaces inspired many explorations, and even repair projects at home.

Further to the tips and tricks to repair, participants were inspired and enthusiastic about *“how creative it can be.”* All participants were busy selecting colours, patterns, and forms while practicing the techniques. Participants appreciated the possibility of ***“customizing furniture, with a hint of their handy-work.”***

Hands-on skills & techniques in a social setting

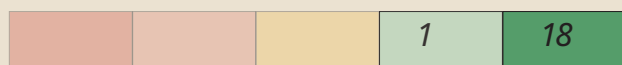
Most participants strongly agreed that they learnt a new skill or technique at the workshop and discovered new possibilities to revive their furniture (*Figure 24*). Most techniques and



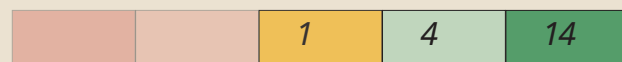
Strongly Disagree ← → Strongly Agree



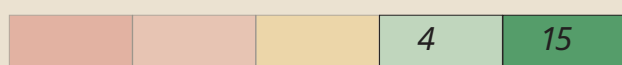
Workshops were engaging and fun



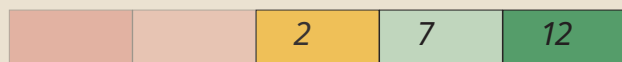
Discovered new possibilities to revive furniture



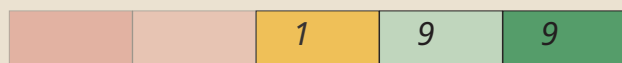
Learnt a new skill/ technique



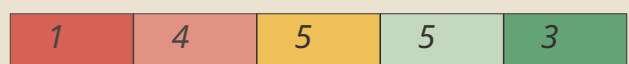
Confident to try at home



Eager to try at home



Have the tools at home



Can find the tools at IKEA

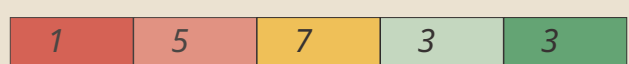


Figure 24. Customer feedback from workshops - customer experience based on engagement and competency for repair (Feedback forms in Appendix N)

tricks for repair, such as weaving to mend fabric furniture, repairing chipboard surfaces with filler and paper, or sewing a patch onto a chair, were **new and innovative for the participants**.

It was especially valuable for participants to try the **techniques hands-on and get a feel** for the tools and techniques. While refurbishing wooden edges was totally doable with some banding and an iron at home, participants were not entirely sure of being able to weave a big tear in their chair. Participants discovered the scope and possibilities of repairing furniture, and the ease or complexity of repairing it by themselves.

Customers truly appreciated engaging in hands-on activities to **practice techniques over conversations with others**. Most participants valued the group setting of the workshop in-store and being able to meet and talk to different people.

Advice and solutions

All participants had many questions and doubts, that were **personally addressed by furniture experts**. Customers' inquiries ranged from finding out possibilities to use the textile weaving or patchwork **techniques for other products** like clothes and shoes, to **guidance for furniture specific damages**, such as broken hinges or damaged surfaces in case of wood.

Textile experts offered guidance and tips to all customers, throughout the workshop, and had even prepared **printed instructions** for the different techniques for customers to carry back home, along with the practice patch or piece. In case of the wood workshop, guidance for specific furniture damages, was supported by **on-request demonstrations** of possible techniques.

Customers are looking for ways to creatively repair their furniture by themselves, they need advice and guidance on what they can do themselves and how. One of the participants from the wood workshop even mentioned, to share requests upfront before demonstrations, so experts could offer guidance and advice also relevant for people's specific challenges with repair.

Confidence with techniques & tools to apply at home

Most participants somewhat agreed that they were confident and eager to try out the techniques they learnt during the workshop at home (Figure 24).

Two participants revealed in the post-workshop interview, that they even **repaired their damaged wooden wardrobes using the techniques** and guidance of the experts from the workshop. In case of textile-based furniture, most participants were positive about trying out the techniques at home. Though for textile garments, stuffed toys, or shoes, they were not very confident they could repair a couch or an armchair as good. Textile furniture was perceived more difficult to repair than wooden furniture in this case. Some participants even claimed having no experience with the techniques at all, yet they were enthusiastic about practicing and engaging with the techniques they learnt during the workshop, at home, for both textile and wood.

The workshops were **highly desirable and valuable for customers**. Expert stories demonstrations, and refurbished products all inspired customers to engage with techniques for creatively repairing their furniture. The creative explorations and scope of customisation were especially valuable for participants. The ability to practice hands-on, on furniture, over conversations with different people was a desirable setting to learn new skills and engage with community members.

Customers need for guidance on repairing damaged furniture at home, was met by plenty of advice, tips and tricks offered by the experts. The workshops also enabled a sense of confidence amongst participants to try out techniques and repairs at home.

15.2. Evaluation & Recommendations | In-store Feasibility

The feasibility of the workshops was evaluated in terms of its **organisation and implementation in-store**. The location of the workshop, in terms of size and safety concerns posed challenges for large groups and wood repairs. Furthermore, damaged furniture is discarded daily and not repaired or refurbished. This poses a challenge to developing inspiring products that have been creatively repaired to illustrate repair techniques for customers. And many interdependent systems and channels required to organise and manage expert collaborations and customer communication alongside concern for cost-neutrality, hinder the feasibility of in-store workshops for customers.

Spatial provisions, Safety and Risks

The corner at Tweedekanshoek, where the workshops were held offered visibility and interaction with other store customers. While this was **desirable to spread the message of refurbishing IKEA furniture** and build awareness amongst curious store customers, its open nature, accessible to all customers in store, limits the scope of extensive repair activities. The workshops required the use of electricity for certain tools, which was a big hassle to bring to the front of store, in the form of plug points for tools. This was especially the case for wood workshops, which may require the use of tools such as hand saws, drills or irons that pose a safety and hazards concern in-store. **Extensive wooden repairs or refurbish were not possible at the front of store**. Though textile workshops were more appropriate in the space, given the use of basic tools and manageable in-store safety measures.

The corner at Tweedekanshoek, where the workshops were held, can sufficiently accommodate around 15 participants, along with experts, furniture, and work benches to practice, while allowing access to the products at the corner, for other in-store customers. Though a larger group of participants would require more space than available. Furthermore, many participants faced difficulty in finding the workshop, at the Tweedekanshoek. As one of the participants mentioned, *"We got lost and didn't*

find the spot for 20 minutes.” Communication of the workshop thus needs to be supported with clearer details of the workshop location in the store.

Spare parts and products for repair

Parts and materials discarded at the Recovery Hub, sufficiently supported the hands-on practice for customers. Though **spatial constraints limit the collection of specific materials before the workshops** at the recovery hub.

The furniture items at the Tweedekanshoek are usually in extremely good, almost new condition, and there are limited damaged or broken products at the recovery since most are currently discarded daily. This prevents the development of refurbished/ up-cycled products for display and inspiration at the Tweedekanshoek and during the workshops. **Channels to explore expert repairs/ refurbish of damaged furniture from recovery** are required to develop a creatively repaired range that can inspire and motivate people with many possibilities for repair and refurbish of IKEA furniture.

Systems and co-worker interdependencies

The organisation and management of in-store workshops for customers requires **many interdependent channels and systems**. Communication, collaboration with experts, safety and compliance agreements and contracts as well as documentation, all require co-worker engagement from IKEA stores and services office, and with external partners (*Detailed overview is as presented as a services blueprint evaluation in Appendix O*).

Communication efforts for customers, require extensive planning and co-worker engagement to reach a wide and appropriate audience for the workshops. While safety agreements and contracts can be standardised with one-time investment, workshop organisation requires **consistent communication and preparation with external partners**.

From provision of materials for refurbish, ensuring a safe in-store workshop, to communication of workshop content from expert to customer, many stakeholders require consistent communication and collaboration. Given the current landscape of rigid and non-agile systems within stores

and services at IKEA, it is complex to integrate communication strategies or safety agreements, without top-down mandates, from IKEA concept or policies.

Compensation and cost-neutrality of workshops

Even though customer desirability is high, and participants were willing to pay between nothing, 25 € or even 80 €. They mentioned possibilities of repairing their own furniture or being able to take back something they could use, in case of a paid workshop. Furthermore, paid workshops even up to 50€ do not cover the costs of expert facilitated in-store workshops, requiring extensive co-worker engagement and compensation for experts (between 1500€-2000€ in this case).

From a cost-neutrality perspective, the workshops in this format require high investment and offer low returns.

Subsequently, receiving a low buy-in from most stakeholders to be implemented as a pilot.

Many challenges prevent the feasibility of in-store creative repairs workshops for customers. These include spatial limitation and safety regulations for use of tools, extensive repairs, and large groups. Furthermore, a limited range of expert repaired and refurbished products, to offer inspiration to customers and several interdependent channels to organise customer workshops, facilitated by external partners pose a hindrance to the success of the workshops. Lastly, scope of cost-neutral workshops is limited and pose a challenge to the viability of in-store workshops for customers.

Recommendations of viable models, based on learnings from the prototype workshops are presented as the way forward for in-store repair and refurbish at IKEA.

15.3. Learning and Insights from the creative repairs Workshops

The workshops were experienced positively by all customers, who attended. There was high desirability amongst customers to attend more such workshops.

- **Expert stories of why repair yourself**, and products and demonstrations of how one can be creative and make it personal and loving for furniture, is especially inspiring for customers.
- Customers value **social engagement and learning new skills**. Customers truly appreciated engaging in hands-on activities alongside conversations with others.
- Customers are looking for ways to repair their furniture by themselves, they often **seek advice and guidance on what they can do and how**. Expert interactions enable customers to find the curated guidance they are looking for.
- The workshops facilitated by experts, generated a **sense of confidence** amongst participants, even those who hadn't tried the techniques ever before. As all participants were enthusiastic about trying these at home, and even mentioned repairing products at home after the workshop.

Despite high desirability and positive experiences of customers, various aspects challenge the feasibility and viability of in-store workshops for customers.

- The **front of store**, accessible to all customers, while visible is not ideal in terms of safety to carry out extensive repairs or refurbish of products, especially in case of wood, that may require using heavy tools and electricity.
- While **abundant parts** and furniture are being discarded in the recovery hub in-store, these are **not effectively catered to through brief workshops with customers**. Channels in the form of expert collaborations, or in-store

competencies need to first be developed to creatively repair IKEA furniture. Also, to develop a range of creatively repaired products that can inspire customers.

- Engaging with customers and experts requires **communication and coordination across various stakeholders**, which is difficult to integrate within the current infrastructure of IKEA stores and services.
- The workshops in their current format, require **high investment both in terms of co-worker engagement and compensation** for experts and offer low monetary returns.

To serve customers' needs and wants of repair, **exploration for a second life of IKEA furniture is first required. Both in terms of competencies and products.**

The following chapter offers recommendations for a more feasible and viable **model of creatively repairing IKEA furniture in-store**.

Chapter 16: Recommendations

Recommendations are outlined for customer engagement, feasibility, and viability of in-store repair workshops for IKEA furniture. The learnings and feasibility drawbacks of in-store customer workshops point towards a **shift of focus from customers to the furniture for repair**. And towards a workshop that is not a brief engagement with customers, but present at the store – **a creative repair hub in-store**, that offers a second chance to IKEA furniture and inspiration to customers. Recommendations presented here are based on participant suggestions and needs for more extensive repairs; spatial feasibility in-store, and expert collaborations to enable creative repairs of IKEA furniture currently being discarded at the recovery hub as well as customers' furniture. Viability of the workshops is based on the return value of the creatively repaired furniture and possibly from offering expert repairs to customers in-store.

Recommendations for customer engagement

Some participants mentioned the scope of being able to bring their own furniture for repair, and others suggested *“a little shop-in-shop for repairing items”*, or *“a department to repair.”* Furthermore, they also mentioned longer workshops, *“maybe a day long” where one could repair something fully, or practice different techniques properly.* An in-store repair hub focused on creative repair of furniture can appropriately enable DIY repairers and experts to repair furniture, and **visibility to customers** offers scope to observe and learn as well as interact with experts for advice and guidance. On the other hand, while the social and physical setting of the workshops is valuable, sharing the workshops 'live' on social media or other digital channels, can enable a much wider audience to participate in creative repair activities. This also holds value for IKEA to boost brand awareness and identity for repair and long life of IKEA furniture. **Documenting repair and refurbish content** can enable many more people to repair their furniture at-home, with accessible and handy instructions. Documentation of furniture repairs is also more valuable than small in-store

workshops, to scale up competencies and build knowledge for repair both customers and IKEA.

Recommendations for in-store feasibility

In terms of spatial provisions, a space, non-accessible to customers, yet visible could be designated for use of heavy tools and equipment and facilitate a creative repair hub in-store. An active space dedicated to the repair and refurbishment of IKEA furniture can allow a second life for the abundantly discarded furniture from the recovery and customer furniture that they can bring to the store.

While abundant parts and damaged furniture are discarded in the Recovery Hub and offer valuable resources for repair workshops. These are not effectively cared for through brief workshops focused on customer interaction. **Channels to explore creative repairs of damaged and AS-IS furniture should first be developed.**

To enable creating inspiring products and developing knowledge of creative repairs that can be then shared with customers through digital channels or workshops in-store. As one participant mentioned, it would be great to have more examples of repaired IKEA goods. **Creatively repaired products are valuable to inspire and activate the Tweedekanshoek as a hub for second chance IKEA furniture** and possibly future workshops for customers. The creative repair hub can be hosted by local experts or trained co-workers. **Collaborators from the prototype workshops are willing and enthusiastic to explore possible models** with IKEA, to prolong the life of IKEA furniture.

Recommendations for viability

The repair and refurbish of damaged and destined for disposal furniture from the recovery offers IKEA the opportunity of **saving, rather than discarding valuable spare parts and furniture and selling creatively repaired, value-added products** at Tweedekanshoek (keeping true to its name).

Furthermore, repair of customer products at the recovery hub, offers the opportunity of exploring **new revenue streams** from in-store professional repairs.

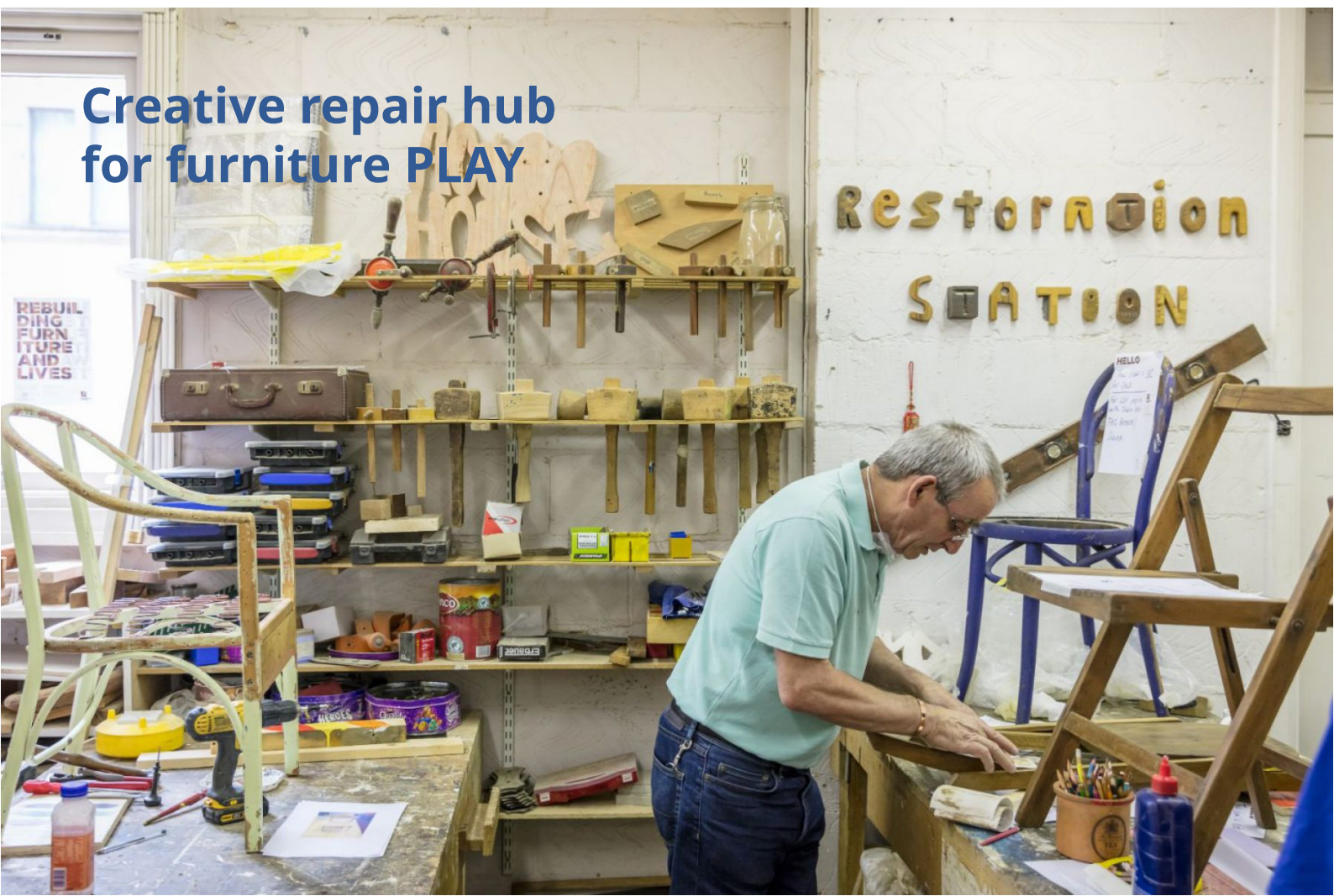
The recommendations proposed for customer engagement, feasibility and viability of in-store repair and refurbish of IKEA furniture pointed the way to alternate models of collaborations focused on furniture repair rather than customer engagement. An in-store space dedicated to creative repair of furniture, hosted by experts and visible to customers provides the opportunity to add value to otherwise discarded furniture from recovery hub. Furthermore, a creative repair hub hosted by experts can offer inspiration, advice and repair services to customers in-store. (Refer to Appendix Q for revised service blueprint supports the formulation of the in-store creative repair workshop)

To enable feasible and viable repairs for IKEA furniture,

A dedicated creative repair hub, hosted by experts and visible to customers is recommended.

To develop a range of creatively repaired furniture for inspiration and sale. Furthermore, the repair hub could offer repair services to customers who can bring their furniture to the store. Customers can sign up to bring their products to the hub, or just observe and learn how they can do it, with expert advice.

Figure 25. Future recommendation: A creative repair hub in store, hosted by experts and visible to customers, to inspire a second life for IKEA furniture





Ladder stitch

25 €
IKEA GIFT CARD
Ladder stitch

Ladder stitch

Tweedekans
IKEA GIFT CARD
25 €

Smile

Flower

Discussion

Transition from linear to circular

IKEA recognises the need and urgency for transition to circular models of economy, as do the individual stakeholders. Yet the operations in-store are dictated by linear models of profit making from the sale of new furniture. This impedes explorations and prototyping for circular solutions in-store. Compounded by limited infrastructure for agility, iteration, and adaptation, since actions are dictated by stringent norms, rules and guidelines that require many approvals and checks. This is also pertinent in the physical reality of stores where safety, risks and hazards are of utmost important, and presents a conflict with the emergent need to face and accordingly adapt to complex challenges.

The resolution of this conflict is not within the scope of one project. Yet the outcome of this project, insists on shifting the focus from top-down customer services to the furniture and people handling it. This points to broadening the scope of consumer-oriented retail to product-person relationships, that not only offer the opportunity to enable viable services, but also focus on the needs of the planet.

Participatory intent and inclusion of stakeholders

For the purpose of this research, stakeholders from IKEA - the services leaders, store management and store front co-workers, were included as relevant perspectives to explore the after sales life of IKEA furniture. Despite varying degrees of autonomy amongst the various stakeholders, a hierarchical decision-making process persists. Each stakeholder is ultimately dictated by their role and persistent regulations from the top, despite their sustainable ambitions. In this scenario, despite efforts for co-created solutions, store front co-workers' needs and wishes are lost, in the obligations, guidelines and functions of store operations. The ever-present bias of a top-down approach, losing sight of those at the bottom.

Within the scope of this project, the limitations of in-store co-workers, prompted exploration of external capacities and collaborative services. Development of future services should take into consideration the needs, interests, and competencies of store front co-workers, such as those interested in furniture building or the

pros at sewing, or even the reluctance to make home visits, to build in-house competencies and training programs.

Customer behaviour for furniture repair

In the realm of customer research, creative inquiry that also engages participants to 'do' and 'make' (Sanders & Stappers, 2012) can reveal much more. The methods used in this research, used group interview techniques, and context mapping with support of visual aids to enable inquiry of context and ideation. Engaging customers in activities that involved interacting with actual damaged products or role playing in case of damage, could reveal more nuanced behaviour aspects with respect to repair of furniture.

While in-depth inquiry of customer behaviour was not covered within the scope of this study, relevant insights from this study, offer scope of future explorations. Behaviour specific to furniture repair revealed a prominent barrier of overwhelming options present and available for repair, yet sparse 'advice or guidance that is verified or curated.' Leading to a perception of high effort to repair ones' furniture. This is compounded by people's extremely varying skill set, confidence, interest, and creativity to undertake the repair of home furniture.

There is scope for further investigating people's creative actions for repair, which may point to new forms and ways to repair home furniture.

Repair as a creative and social process

As an outcome of this project, creative repairs of IKEA furniture will possibly be explored in-store with local experts, at a creative repair hub! While efforts are being made by Inter IKEA (concept) to formalise channels and services for repair, collaborations with local initiatives offer many opportunities. Repair in collaboration with local experts and grassroots initiatives allows development of valuable, and currently extremely limited knowledge for repair of IKEA furniture. Furthermore, collaborations enable building networks and a community for repair, where knowledge can be both created and exchanged amongst the many members. New forms of collaborations and community engagement may ultimately point out routes to adaptive systems that can face the complexity of emerging realities.

Conclusion

Initiated by the sustainability team at IKEA NL, the research and design project explored ways to prolong the life of IKEA furniture, through customer-end interventions or services at the IKEA Barendrecht store.

Contextual inquiry with multiple stakeholders from Barendrecht store, IKEA NL, and learnings from past explorations at IKEA globally, helped establish the landscape of repair at IKEA. In terms of the infrastructural capacities, shortcomings, and subsequent opportunities for customer-end repair interventions by IKEA. A range of care products & spare parts, some repair methods and examples of in-store activities and at-home repair services offer resources, learnings, and insights for repair at IKEA, relevant for the many customer personas for repair, including the DIY, occasional and non-repairers. Though many shortcomings from poor accessibility and visibility of spare parts online and in-store, to limited resources and competencies for repair of IKEA furniture, currently prevent effective interventions for customer-end repair interventions. Furthermore, channels to exchange knowledge of repair methods are currently missing both internally between product development and stores, and externally for customers.

Customer behaviour in the realm of care, and specific to repair helped identify many motivation factors for repair of furniture. Various furniture and person dependent ability factors and missing triggers in case of home furniture point to scope of interventions that could prompt people to take actions for care and repair of their products. Customer behaviour was further explored based on insights gathered from desk research and through interviews, survey, and co-creation sessions. Specific to those seeking help to repair themselves, customer challenges of missing awareness of resources and overwhelming options for repair, in which case customers often seek advice and guidance for repair. The effort

of figuring it all out leads to a high effort and low impact perception of repair. Often resulting in no actions for repair, replacement, or disposal of furniture. In this regard, customers revealed a need for a sense of preparedness when it comes to repair home furniture, and value for social and creative options to repair.

The opportunities to build awareness and visibility of repair at IKEA, offer repair consult and advice in case of damage, and services to customers were explored in the form of many ideas also based on customer needs. These were conceptualised as in store activities for care and repair, to enable customers and IKEA to Do-it-Together; digital consult, catalogue, and blog to enable and support Do-it-Yourself customers; and expert services for the non-repairers.

Within the scope of the project, in-store repair and refurbish activities for customers were explored as prototypes in collaboration with external experts. This also enabled overcoming the limited repair resources and competencies at IKEA Barendrecht, while making use of abundant parts and interactive space at the Tweedekanshoek. The activities explored repair as a creative and social process. Creatively repaired products, demonstrations, hands-on engagement, and advice from experts were evaluated to investigate customer experience and desirability of the workshops.

While customer desirability was high, and participants experience positive, various challenges currently hinder the feasibility of the workshops. These include space and safety concerns, limitations of repaired/refurbished products for inspiration and high interdependences amongst co-workers and systems. These challenges captured as learnings from the prototype workshops, make ways for new forms of collaborations - for in-store repair and refurbish of IKEA furniture with local experts, first from the recovery hub itself, before service to customers!

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Appendix

Project Brief

Part I

- Appendix A: Mapping and selection of product range

Part II

- Appendix B: Right to Repair proposition by IKEA*
- Appendix C: Learnings from toolbox*
- Appendix D: Front Days inquiry outcomes
- Appendix E: Outcomes from inquiry with store co-workers
- Appendix F: Opportunities recognised with services co-workers

Part III

- Appendix G: In-store interview outcomes
- Appendix H: Survey report
- Appendix I: Customer consent form format
- Appendix J: Outcomes from inquiry - customer challenges & actions for repair
- Appendix K: Transcribed and coded quote samples

Part IV

- Appendix L: Concept development and stakeholder voting for idea selection

Part V

- Appendix M: Creative repairs workshops as a service - overview on canvas

Part VI

- Appendix N: Customer consent form for workshops
- Appendix O: Customer feedback forms
- Appendix P: Evaluated service blueprint for creative repair workshops in-store
- Appendix Q: Revised service blueprint for recommended creative repair workshops in-store

* Included in the confidential appendix report.

IDE Master Graduation

Project team, Procedural checks and personal Project brief

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

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

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

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

STUDENT DATA & MASTER PROGRAMME

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



family name _____

initials _____

student number _____

street & no. _____

zipcode & city _____

country _____

phone _____

email _____

Your master programme (only select the options that apply to you):

IDE master(s): IPD Dfl SPD

2nd non-IDE master: _____

individual programme: 01 - 09 - 2022 (give date of approval)

honours programme: Honours Programme Master

specialisation / annotation: Medisign

Tech. in Sustainable Design

Entrepreneurship

SUPERVISORY TEAM **

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

** chair Dave Murray-Rust dept. / section: HCD/HICD

** mentor Ruth Mugge dept. / section: DOS/MCR

2nd mentor Chiel van Leeuwen

organisation: IKEA

city: Haarlem country: Netherlands

comments
(optional)



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



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



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

APPROVAL PROJECT BRIEF

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

chair Dave Murray-Rust date - -

signature Dave Murray-Rust

Digitally signed by Dave Murray-Rust Date: 2022.09.23 11:23:14 +01'00'

CHECK STUDY PROGRESS

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

Master electives no. of EC accumulated in total: 27 EC

YES all 1st year master courses passed

Of which, taking the conditional requirements into account, can be part of the exam programme 27 EC

NO missing 1st year master courses are:

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

name C. van der Bunt date 27 - 09 - 2022

signature C. van der Bunt

Digitally signed by C. van der Bunt Date: 2022.09.27 11:20:18 +02'00'

FORMAL APPROVAL GRADUATION PROJECT

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

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

Content: APPROVED NOT APPROVED

Procedure: APPROVED NOT APPROVED

comments

name Monique von Morgen date 04 - 10 - 2022

signature _____

Participatory Design of a Repair Service with IKEA and customers 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 01 - 09 - 2022 31 - 01 - 2023 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 exploratory design + research project is situated within the retail landscape of IKEA's franchise store at Barendrecht, NL. The project falls within the scope of IKEA's aim to transition towards a circular economy; and focuses on extending the use life of IKEA's products by enabling customers to repair products broken in use. IKEA's retail landscape and customers' behavior in the context of product care and repair, pose several challenges when it comes to repairing broken products. These challenges pave way for the exploration of opportunities for repair of broken products, as described in the problem definition.

A lack of infrastructure and system capabilities in the current business models of IKEA for retail pose a challenge to a repair service. For instance, current policies and regulations for product returns, compliancy and quality are all relevant for the products capacity for retail though not for its potential for repair in identification of damages or damaged products. Specific home furnishing ranges and subsequent repair activities require specialised skills, equipment, and expertise. These are currently lacking in IKEA stores. The spare parts, fittings and tools offered by IKEA support repair only by swapping the damaged parts of IKEA furniture with new parts from the available inventory. While the offer of spare parts enables customers willing and able, to repair, it does not cater to a larger segment of IKEA's customers who may not be able or willing to carry out repair themselves.

The customers who use the product play an important role in the product's lifetime, specifically in identifying a broken product and initiating any acts of repair to prolong its life. Customer research from IKEA conducted in European markets revealed people's motivation and barriers in the context of caring or repairing their belongings. People generally don't want to be wasteful, people value their belongings, and they also want to be part of a change. People are looking for smart and convenient ways to be sustainable. While people express a willingness towards repair, certain barriers prevent actions of repair. These include a lack of skills, tools, knowledge, or inspiration, and in some cases a lack of convenient and trustworthy options for repair or the price of repair. Oftentimes, people simply become overwhelmed and either do nothing or throw things away.

Ackermann et al. (2018) point out customers may be motivated to care for products given the product's functional, aesthetic or emotional value or their concern for sustainability. They may even be motivated enough to acquire the tools and knowledge for care, although triggers to push people to take care of their products are often missing, specifically in use.

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introduction (continued): space for images

COMPLETE CARE & REPAIR RANGE

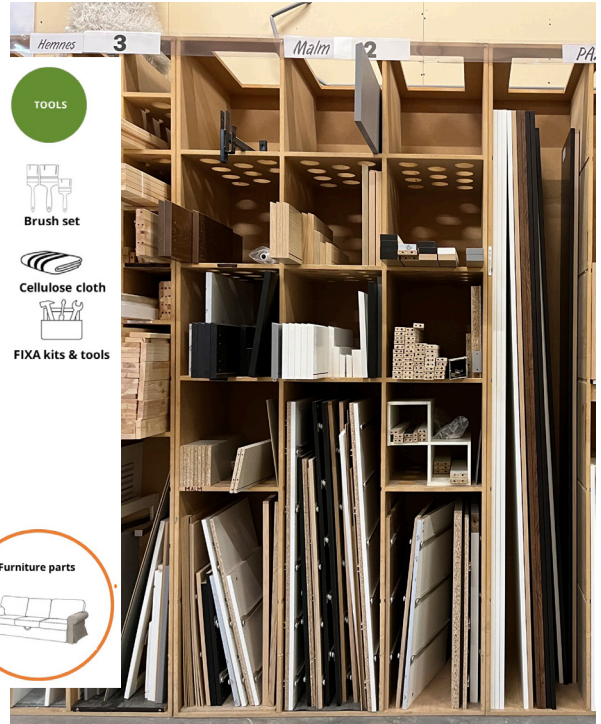
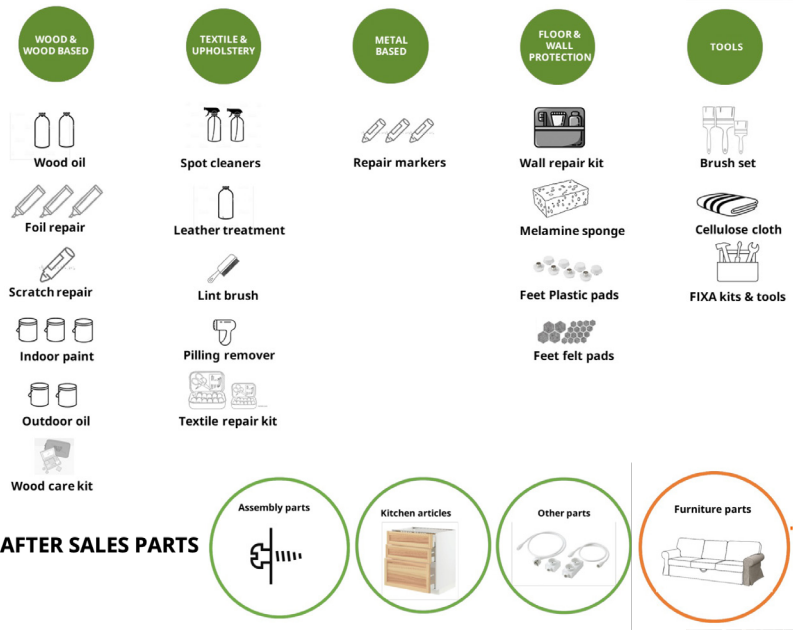


image / figure 1: IKEA's current care and repair parts and tools, that are lacking adequate channels for repair.

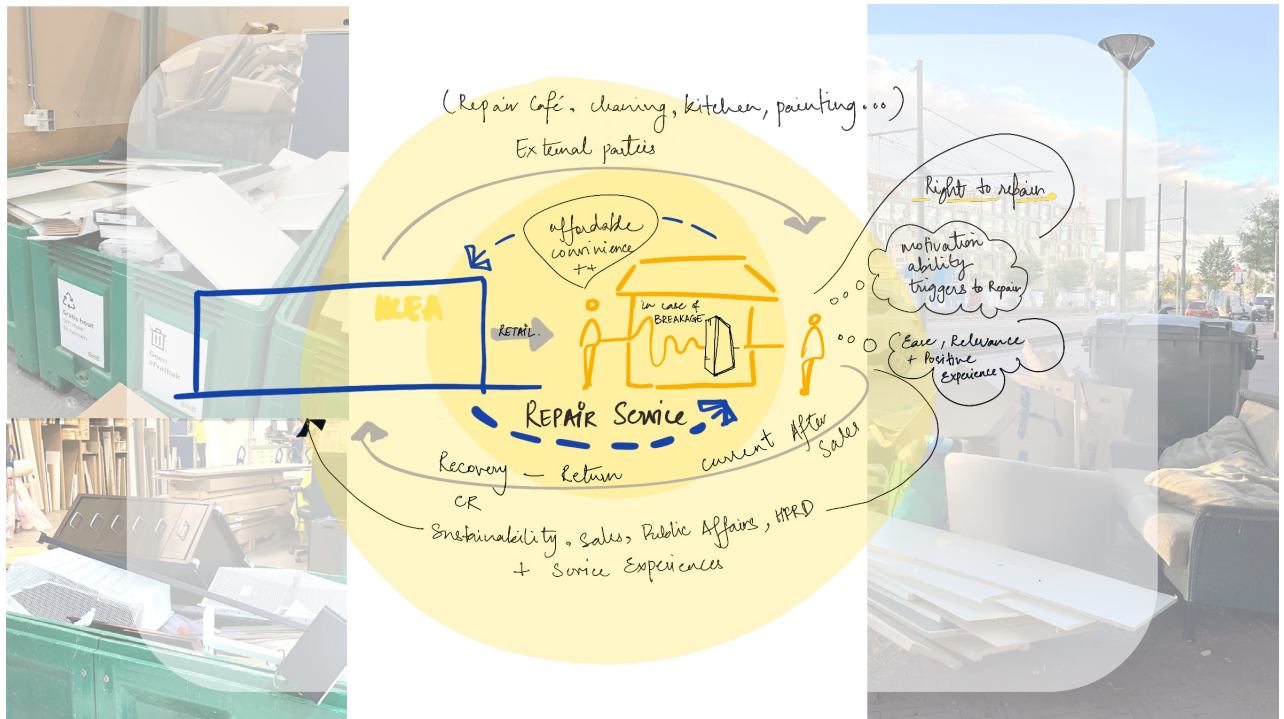


image / figure 2: Context definition for the repair service based on the involved stakeholders

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.

IKEA products broken in use and capable for repair are often discarded for recycling or disposed out on the street as waste. To prolong their home furnishing products' life in use, IKEA's goal is "to set up a repair service that enables IKEA and their customers to care for broken products in circular ways". The project explores, across different phases of the project timeline, "What service interactions between IKEA and customers can enable repair of IKEA products broken in use?"

The research questions that guide the participatory sessions and analysis within each phase are as follows:

1. What are customers' and IKEA's current capabilities, motivations and needs towards repair? What challenges and opportunities in the identified context can trigger repair of broken IKEA products?
2. What service interactions between IKEA and customers can enable repair of broken products? What are the criteria for defining successful interactions for repair?
3. How do the proposed service interactions enable repair successfully?

ASSIGNMENT **

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

The project aims to design new service interactions for repair amongst the identified touch-points within IKEA and _____ customers of IKEA products, broken in use during ownership.

1 → Identify the current context of broken products - consumer relationship with the product, Ikea's post retail role in the product's life cycle and relevant repair services and capabilities currently available in the identified context.

Deliverables: Current Business Model Canvas with challenges and opportunities, Current customer and service journeys and selection of product range.

2 → Generating design ideas for service interventions with store and customers.

Deliverables: Design ideas for testing and evaluation criteria

3 → Testing and evaluating design ideas to iteratively develop design concepts.

Deliverables: Design proposal for pilot, analysis criteria for pilot planning and implementation

4 → Analysis of pilot and compilation of project report.

Deliverables: Project report and documentation

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 1 - 9 - 2022 31 - 1 - 2023 end date

Calendar week	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55		
Project Week	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23		
	Kick-off at IKEA		01 Sep - 30 Sep			1 Oct - 31 Oct					1 Nov - 8 Dec				9 Dec - 31 Jan										
	Project start			Uni Kick-Off: 16 Sep					Break																
Contextual Inquiry	●			●																					
Co-design											Mid-term: 15 Nov														
Testing + Evaluation											●														
Evaluation/ Compilation																			Green Light: 7Jan		Graduation: 31Jan				
	<ul style="list-style-type: none"> Desk research Expert Interviews Front Days interaction Context mapping Sessions with 4-5 users Surveys to IKEA Family 					<ul style="list-style-type: none"> Session preparation: Challenges and opportunities to trigger wishes, ideas and solutions + session materials + documentation Co-design sessions: With co-workers and customers Expert Session Analysis: Design outcomes and criteria for testing and evaluation 					<ul style="list-style-type: none"> Testing and evaluation preparation: Developing design ideas into concepts for testing with relevant participants. Formulating testing and evaluation strategy and criteria. Testing and evaluation sessions in store and in studio. Analysis of testing outcomes and evaluated ideas to develop design concept. 					<ul style="list-style-type: none"> Pilot planning, implementation and evaluation Further recommendations for service integration and sustainability Project compilation with learnings for participatory design research 									

The design is enabled by participatory research and co-design with IKEA co-workers and customers of IKEA products broken in use. Co-workers represent all of IKEA stakeholders including services' expertise and store touch-points, in the context of repairing broken products. All stakeholders participate in the project both as design informants and co-designers. The wide range of stakeholders and customers that make up the landscape of broken products each present their own range of expertise, abilities, motivations, wishes and challenge; alongside personal and collective needs, wishes and ideas of the future. A participatory approach to research and design is adopted, where users participate in the conception, design, and implementation of the service. Implementation and evaluation of participatory design methods by engaging various system capabilities and users offers scope of identifying and improving upon ways of including users at every stage of the design process. To enable sustainable and situated solutions.

The co-design + research activities are carried out in three phases, followed by the planning and implementation of the pilot, during which period evaluation of the pilot service offer and research outcomes would be finalized and compiled. Each phase is supported by a period of preparation for the sessions and analysis of the session outcomes to drive the design of the pilot and document the research outcomes.

The first phase identifies system and design capabilities, customer motivations and abilities as well as challenges and opportunities in the context of repairing damaged products post retail. The second phase includes the first round of co-design sessions with IKEA co-workers and customers to generate ideas for service transactions. The third phase includes development of the ideas into design concepts for testing and iteration into a pilot proposal.

MOTIVATION AND PERSONAL AMBITIONS

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

As an interaction designer, I'm professionally curious, to get people with their wide and varied expertise to come together to design for their and our collective futures. Having experienced participatory design from various perspectives in prior academic and professional experiences, I was now motivated to explore the realm of retail and consumer behavior to enable participatory change (/or learnings). While large parts of societies, including myself are driven by consumption patterns that exacerbate the linear use of products and pressure on resources, I'm curious to explore circular practices of care, to enable a shift from 'the more and more' consumption patterns. Lastly, I look forward to exploring the project from the perspective of damaged products, as relational and situated objects within a system of interactions. A means to care for our own damaged products, may just point us towards care for the collective and More-than-Human beings and planet too.

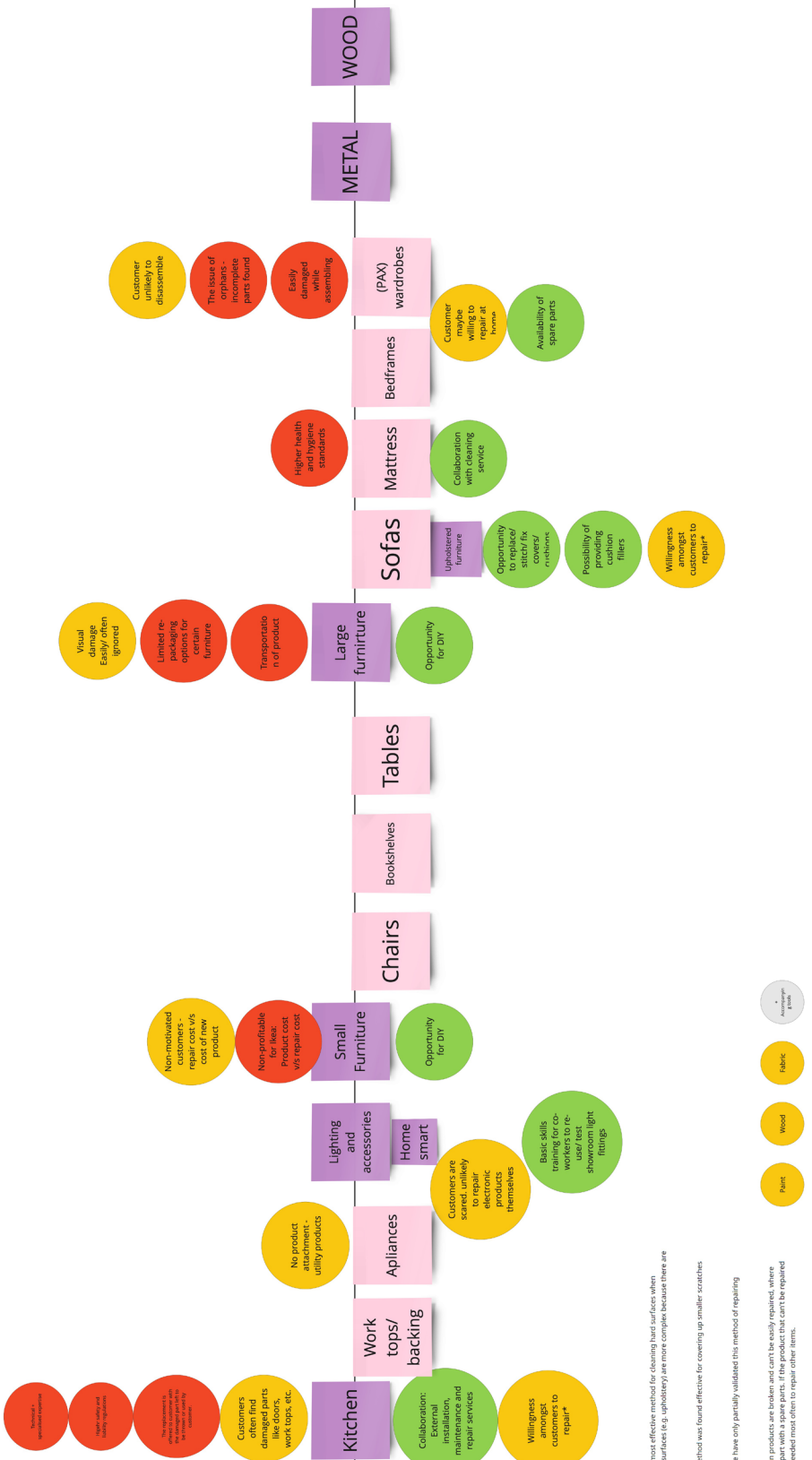
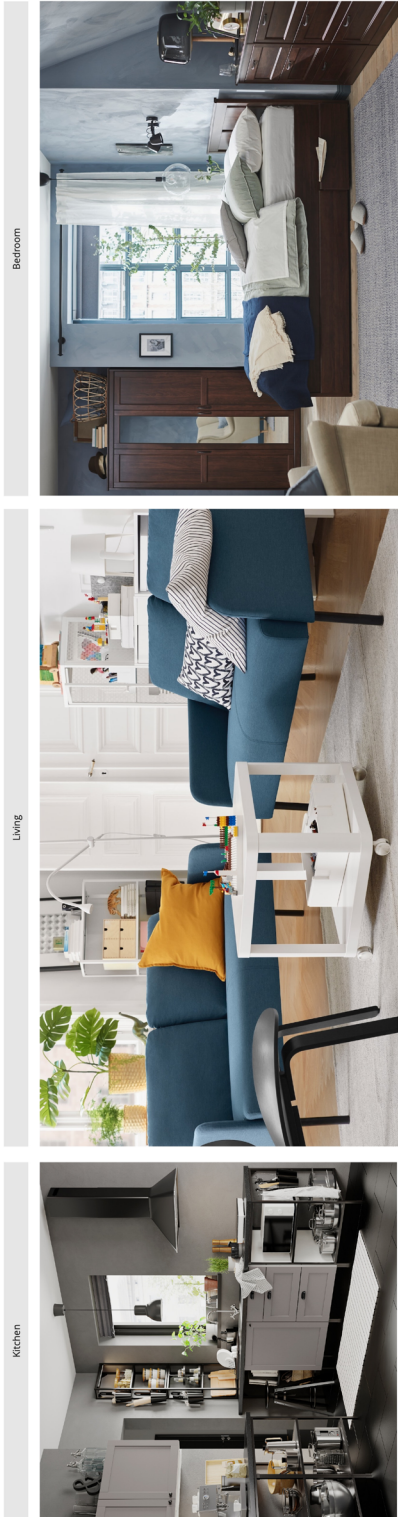
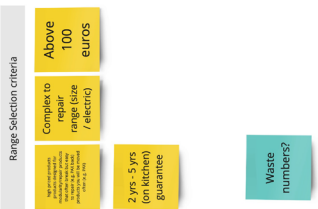
FINAL COMMENTS

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

The project is currently in its first phase of contextual inquiry, details to the brief have been added based on the findings from this phase.

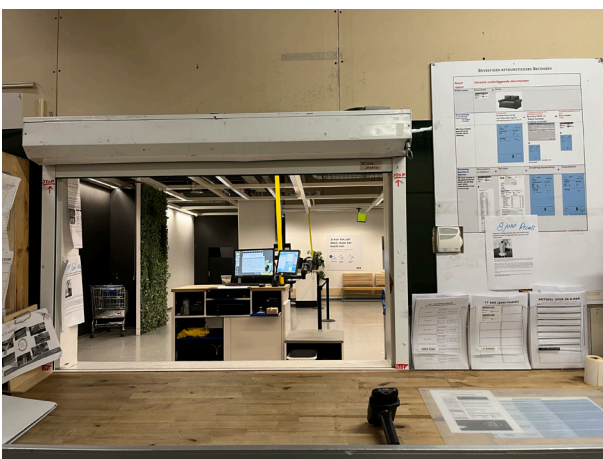
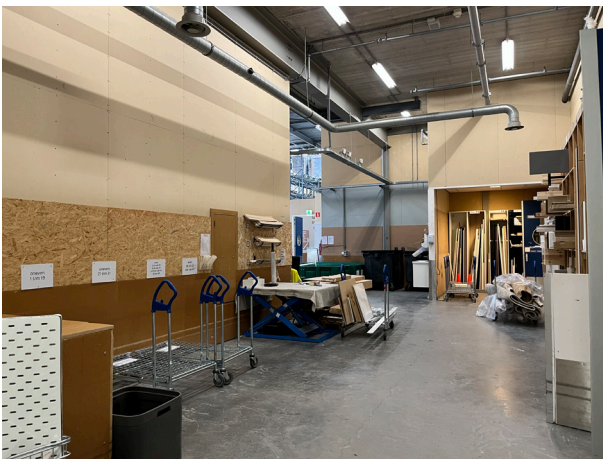
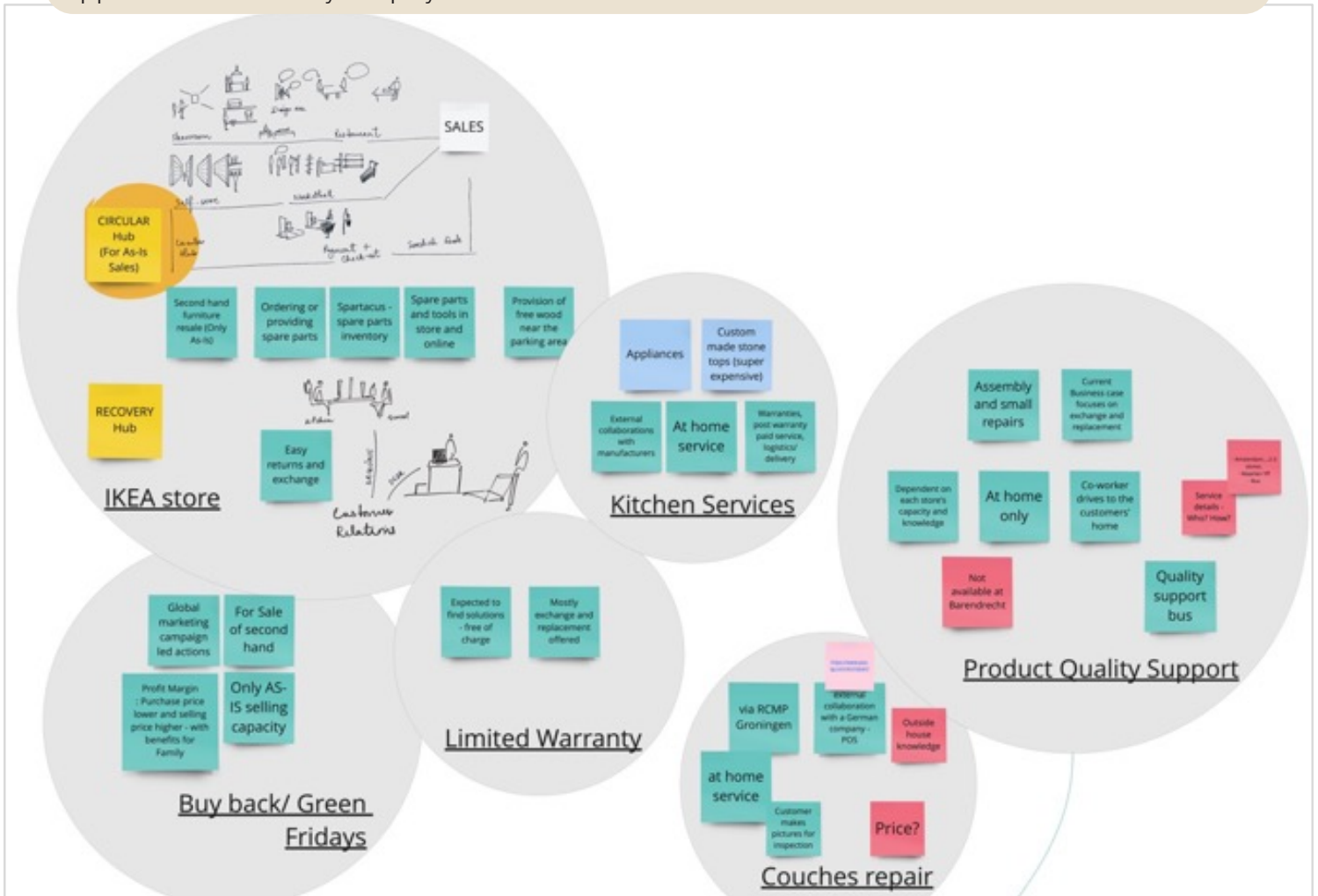
Part I

Appendix A: Mapping and selection of product range



Part II

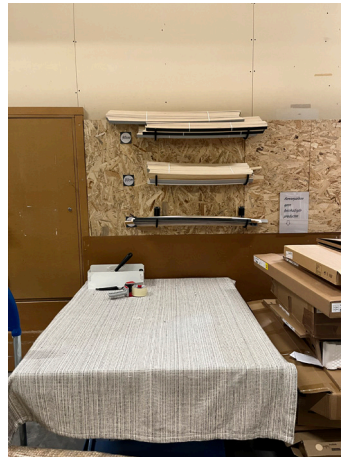
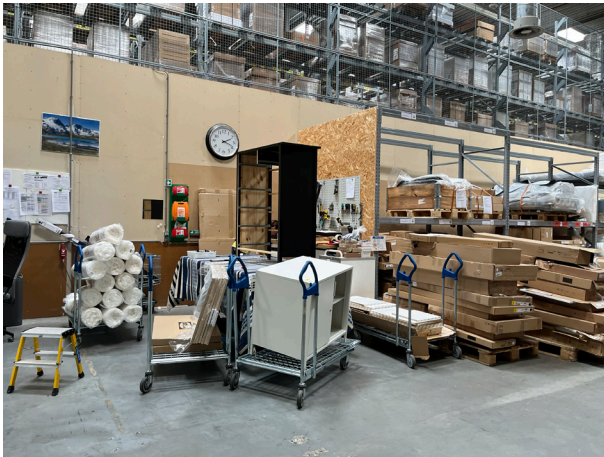
Appendix D: Front Days inquiry outcomes



1,2. Sorting and customer returns at the Barendrecht recovery Hub.

3. Customer returns window to recovery

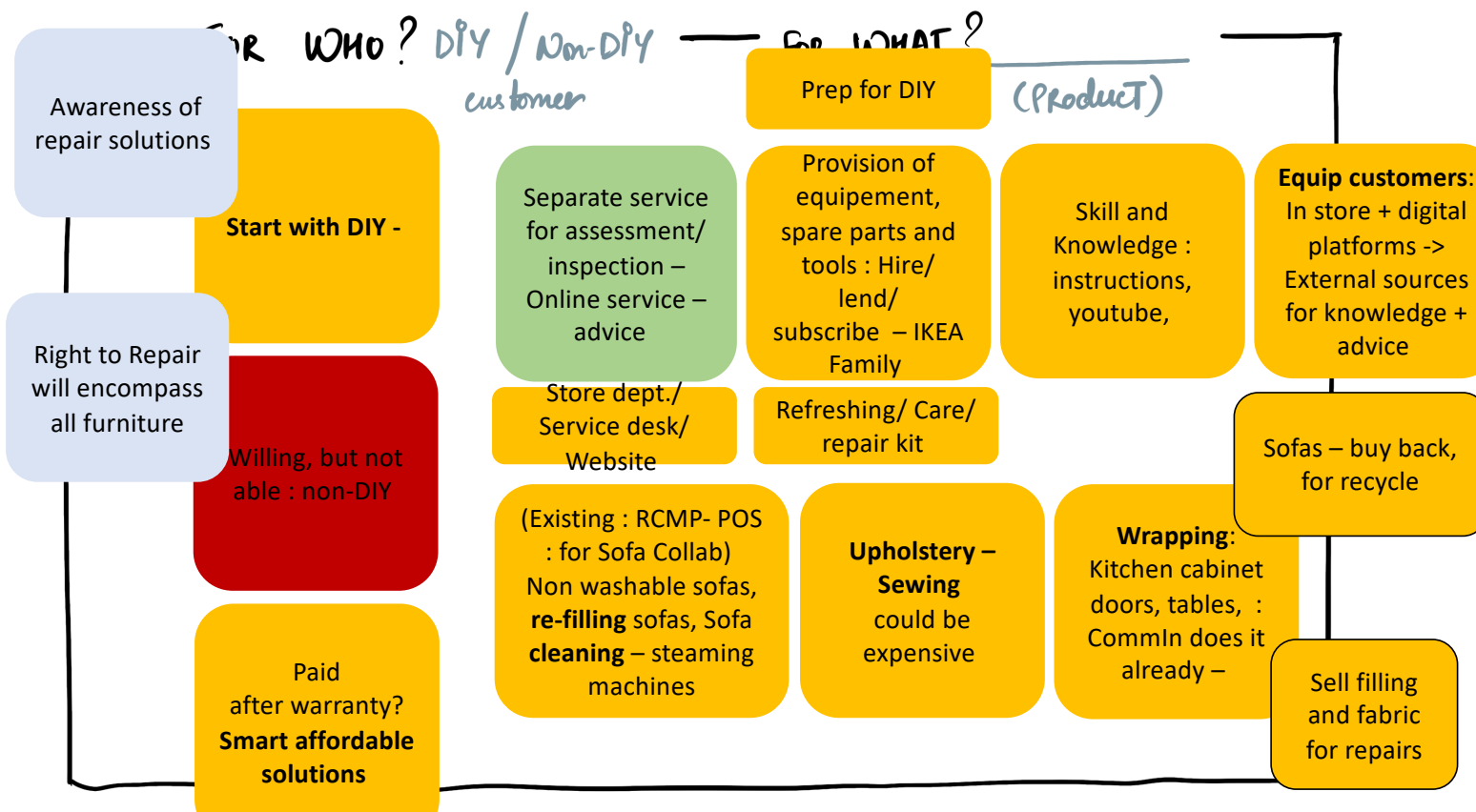
The recovery is already overloaded with the current operations and flow of products.



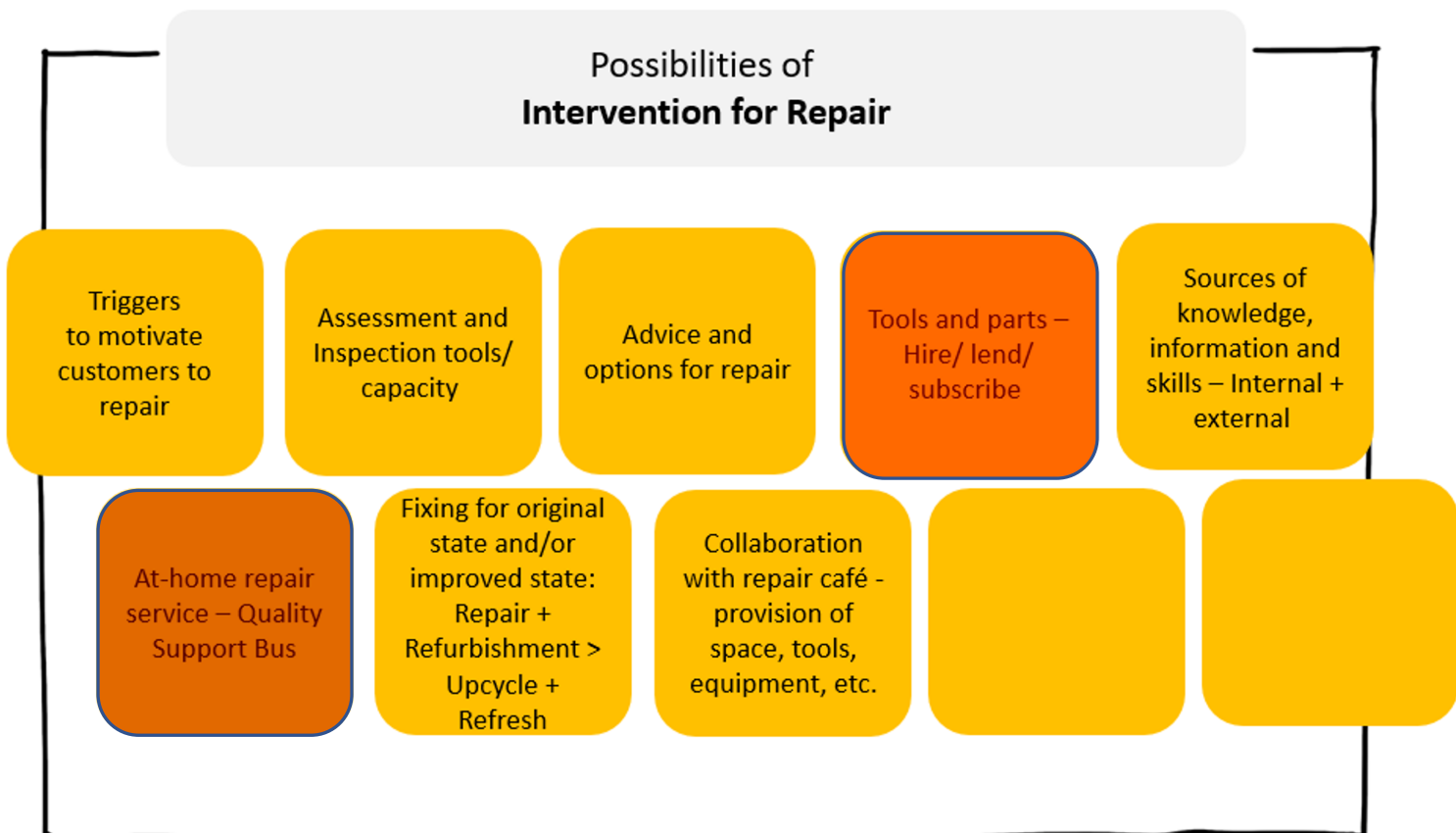
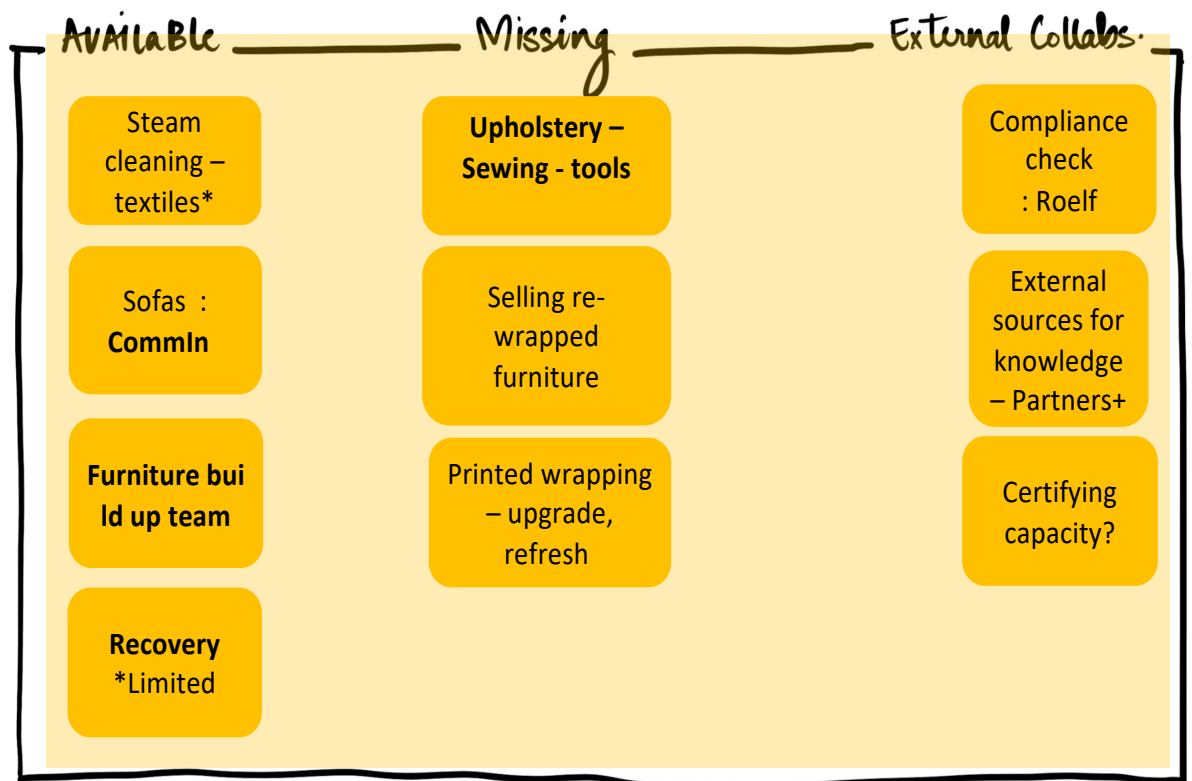
- Various processes that take place at recovery.
1. Returns from logistics and self-serve.
 2. Re-packaging
 3. Furniture building for Tweedekanshoek
 4. Small item re-packaging

Part II

Appendix E: Opportunities recognised with store co-workers



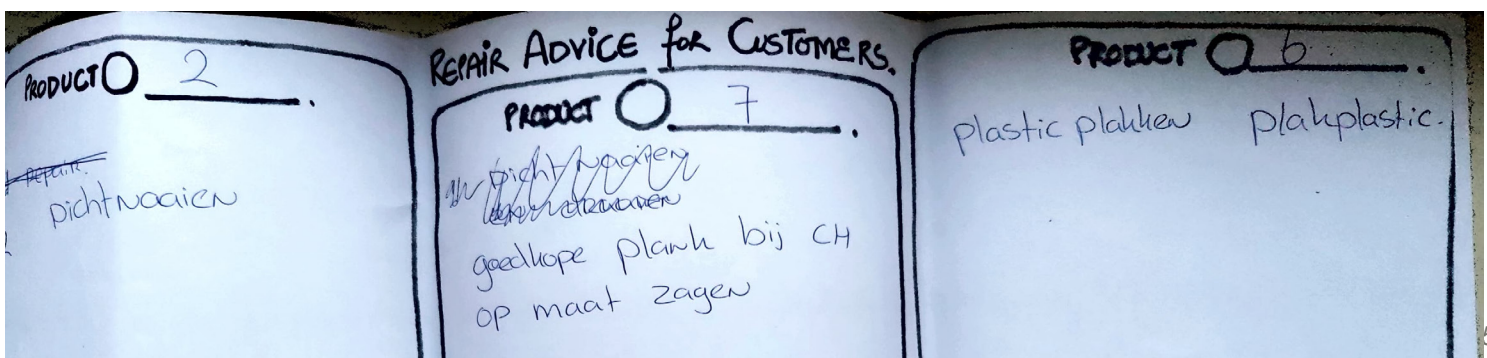
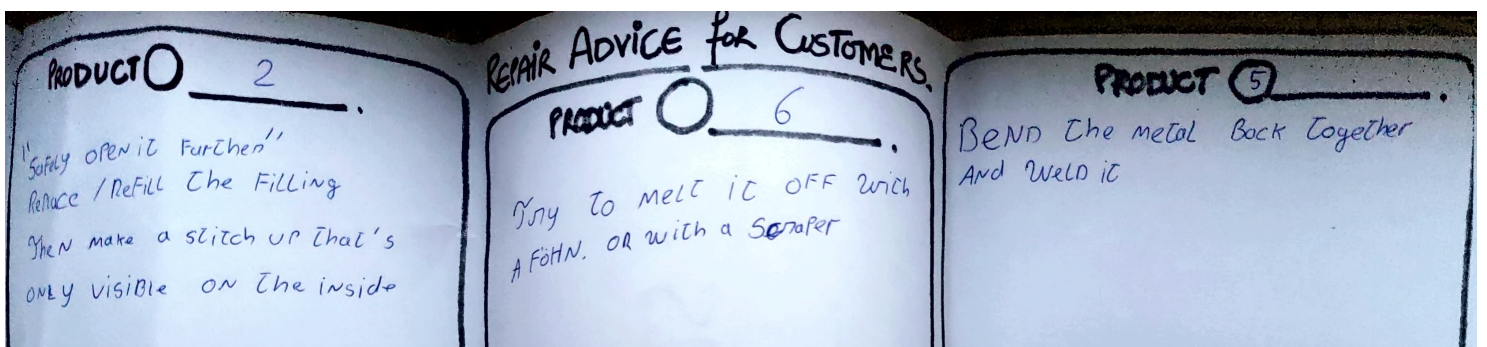
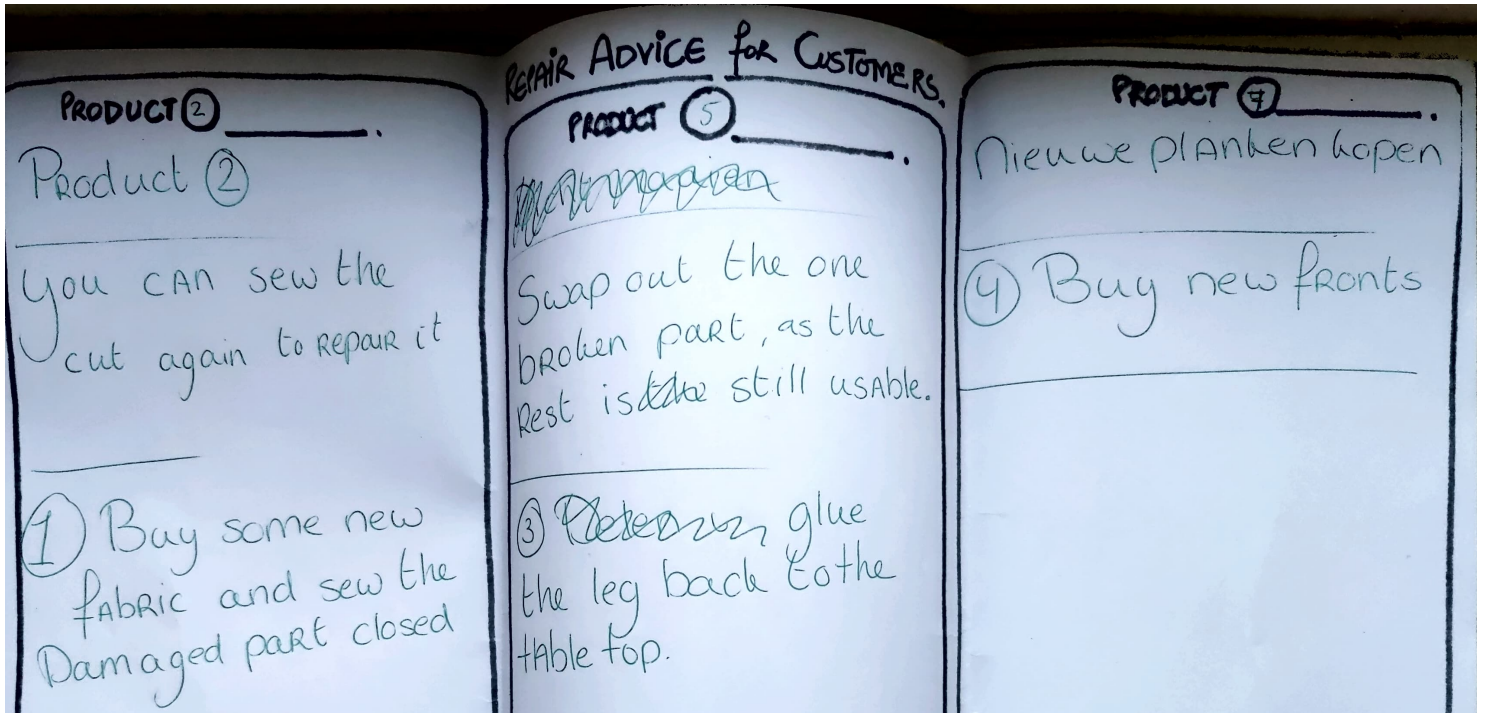
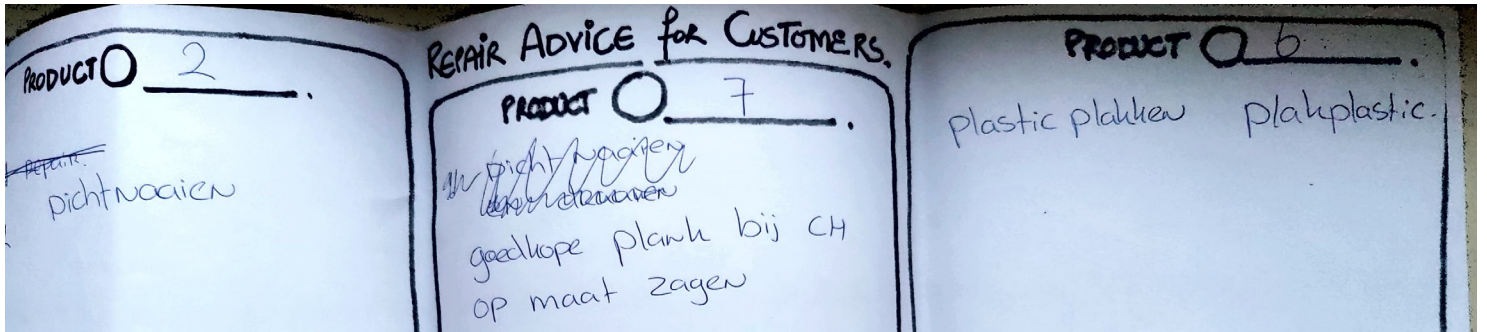
Who and what is needed to meet customers' repair needs?



Part II

Appendix F: Outcomes from inquiry with store co-workers

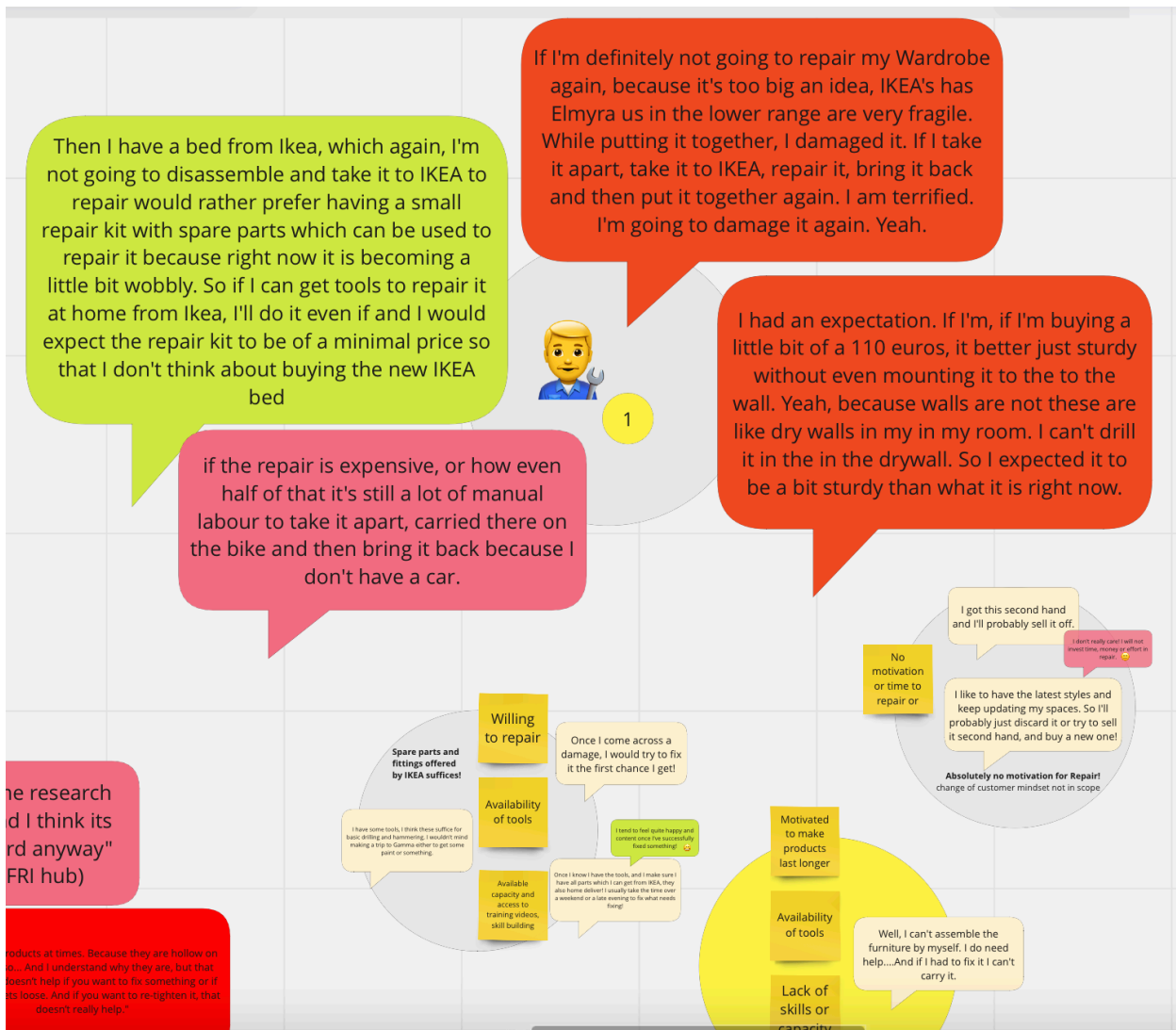




Part III

Appendix G: In-store interview outcomes

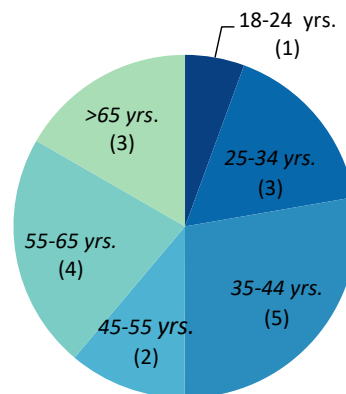
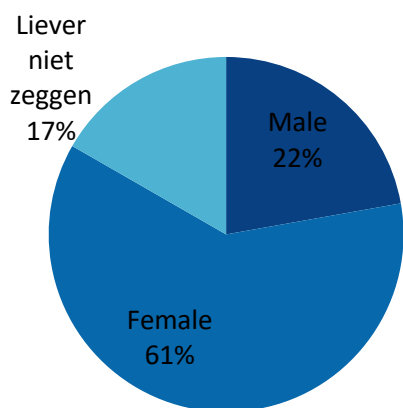




Part III

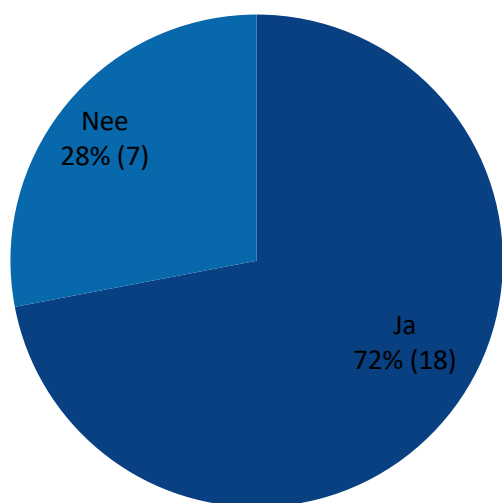
Appendix H: Survey report

Participant profile:



1.Name broken pieces of furniture (preferably from IKEA) in your home that you would like to repair but can't.

2.Have you thought about repairing the product?



3.What steps have you taken?

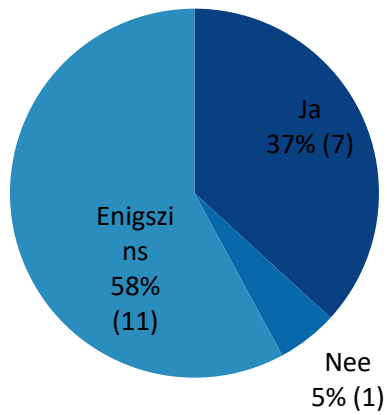
ResponseID	Response
5	Tried it yourself
6	No bed 20 years old so replaced
9	No
10	Not yet

11	Hardware store, family
12	See if I can buy the parts separately
13	Contacted head office Bon wanted not found unfortunately
14	Checked whether there were any loose parts for sale
15	I could sand and paint the bathroom furniture.
16	Looked around on the internet searched end customerservice called
17	looked at what could be
18	Research into steam cleaner,
19	Called Ikea and brought the parts themselves.
20	parts ordered from ikea or from the old parts
21	Replacement of broken piece
22	?
23	Look at what's needed
26	made provisional

4. What is the value of the product to you?

	1	2	3	4	5	
	Count	Count	Count	Count	Count	Count
Functional (Low 1 - High 5)	1	3	4	6	11	25
Emotional (Low 1 - High 5)	6	4	6	5	4	25

5.Are you able to assess the damage yourself in such a way that you know what options you have to repair?



6.Why is the product difficult to repair?

ResponseID	Response
5	Electra
6	Wood torn by that support slat is bent
7	For use damage I don't think it's so necessary and I have to come and get the lights once but I don't live so close to an ikea to go by quickly for a few lights.
9	It is a special coating and color.
10	I'm not sure if it's fixable or if it's old age
11	Balance table
12	Drawer guides need to be replaced.
14	Because it is a small part that Ikea does not sell separately
15	the cover of the sofa is not repairable. the cabinet costs the necessary time and investment.
16	You keep seeing it
17	you demolish more that it is repaired

18	No need for time and desire.
19	The parts no longer exist.
20	Na
21	Whole closet has to be taken apart
22	Cost too high and I don't know who I could ask.
23	Holes for the screws are "drained"
26	The rod is bent and not available separately

7. Who would you have the product repaired by? Through:

8. In to be filled if different:

9. What do you think of repairing as an activity for yourself

	1	2	3	4	5	Responses
Easy (1) OR Difficult (5)	2	5	4	4	4	19
Necessary (1) OR Unimportant (5)	4	6	8	1	0	19

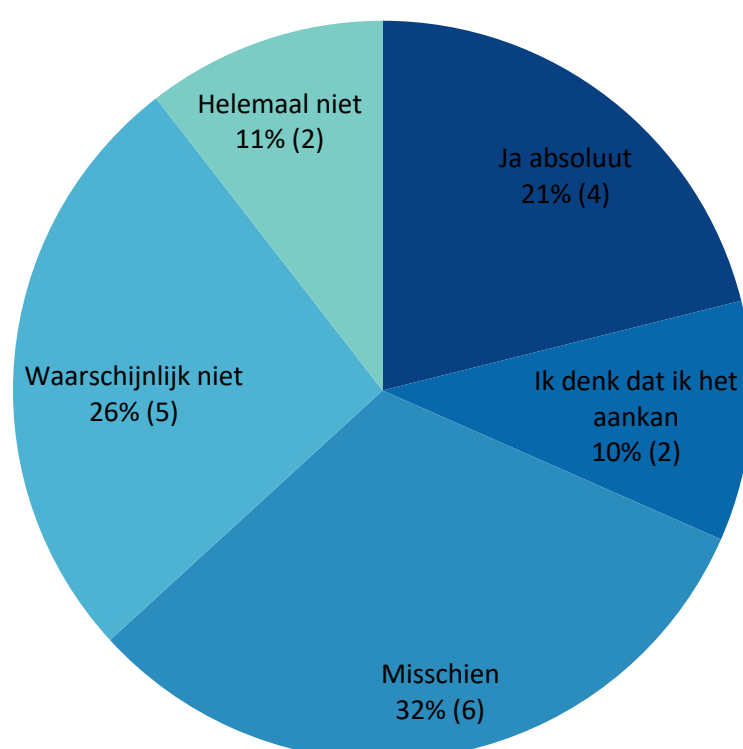
10. What means to repair do you have at your disposal? That is, do you have yourself or in your immediate environment

	Accessible	Accessibile	Partly accessible	requires effort	lack of access	Responses
Tool	5	4	3	5	2	19
Useful skills	3	6	4	3	3	19
Repair techniques	3	5	4	4	3	19

10. What means to repair do you have at your disposal? That is, do you have yourself or in your immediate environment

Product	1	8	4	2	4	19
Repair instructions	0	7	5	2	5	19
Repair tutorials	1	8	5	2	3	19
Family members or friends who can repair	3	5	1	4	6	19
Time	3	3	8	4	1	19
Space	5	6	4	2	2	19

11. Do you think you are able to carry out the repair yourself:



Part III

Appendix I: Customer consent form

Consent form for Participatory Research and Design for a Repair Service

(as part of a Graduation Project at the faculty of Industrial Design Engineering, TU Delft, in collaboration with IKEA)

Please tick the appropriate boxes

Yes No

Taking part in the study

I have read and understood the study information dated 13.10.2022, or it has been read to me. I have been able to ask questions about the study and my questions have been answered to my satisfaction.

I consent voluntarily to be a participant in this study and understand that I can refuse to answer questions and I can withdraw from the study at any time, without having to give a reason.

I understand that taking part in the study involves active participation which involves drawing and communication with the researcher. The session would be audio and video recorded. The answers, materials produced would be used only by the researcher for analysis and future insight generation and ideation.

Use of the information in the study

I understand that information I provide will be used for preliminary research and for presentation material as part of the project.

I understand that personal information collected about me that can identify me, such as [e.g. my name or where I live], will not be shared beyond the study team.

I agree that my information can be quoted and materials created by me, presented as part as research output.

Future use and use of information by others

I understand that the data that I provide is for the specific purpose of the project and may benefit future research and aid the design of a pilot service at IKEA.

Signatures

Participant Name & Signature

Date

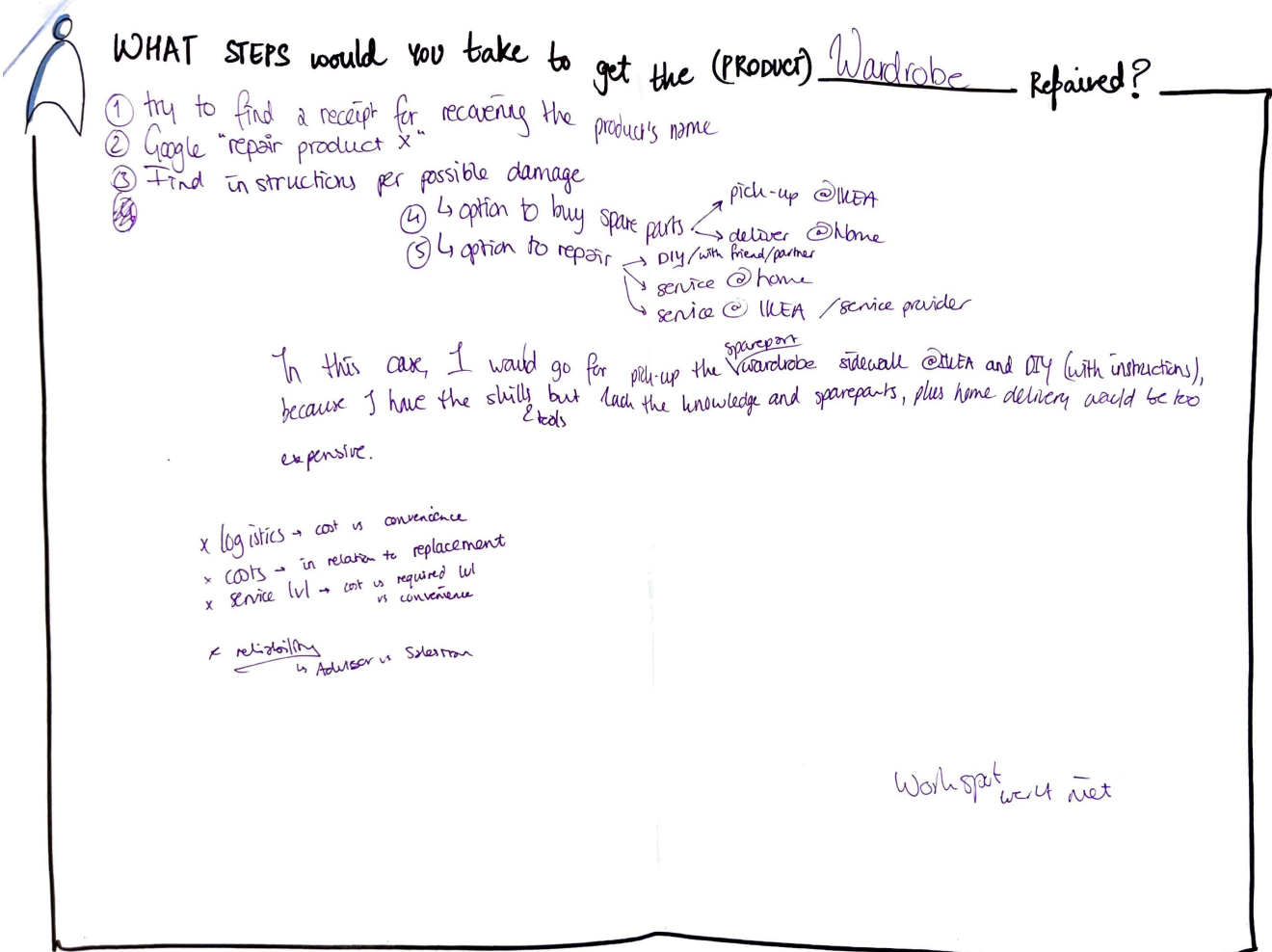
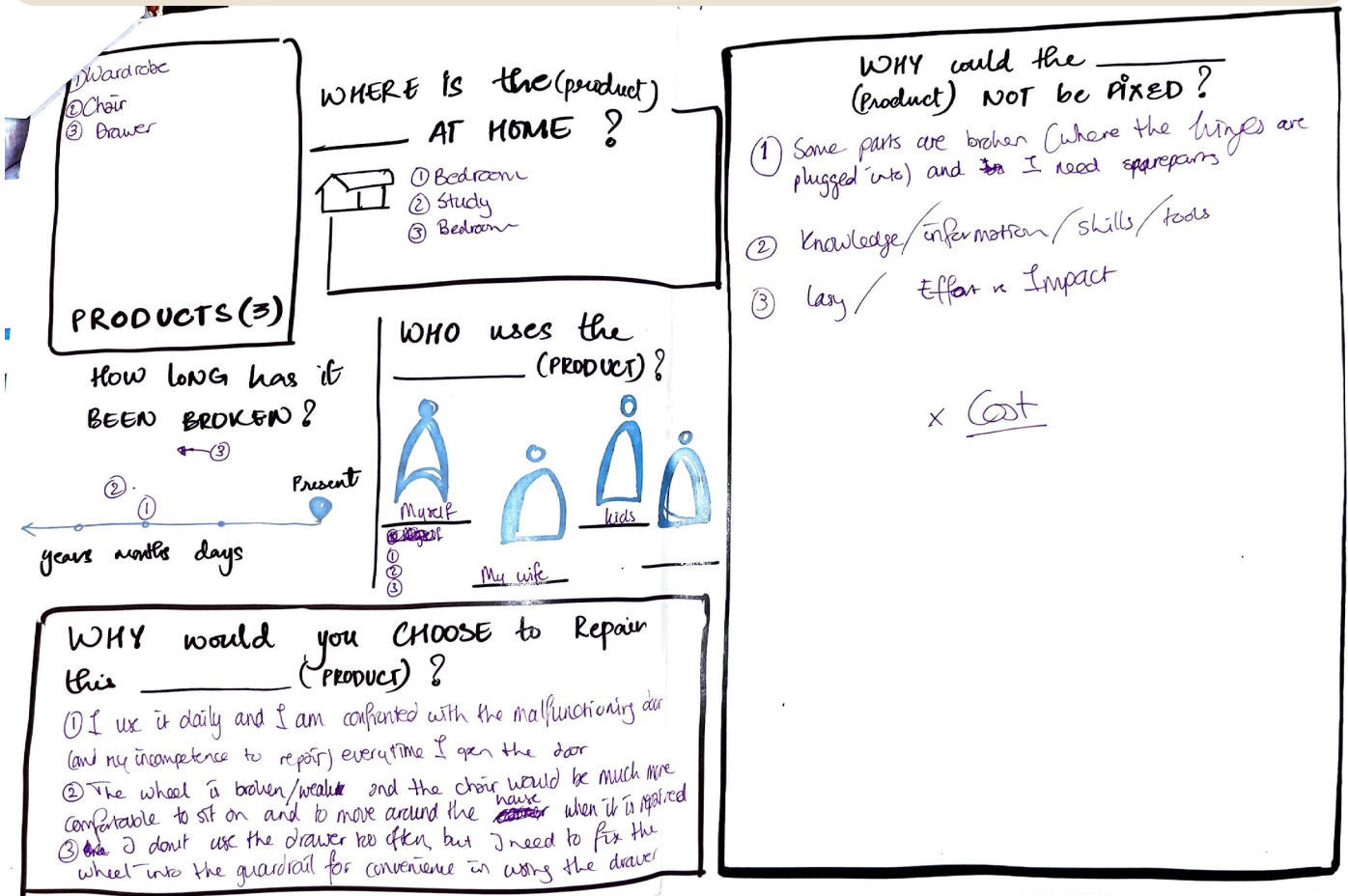
I have accurately read out the information sheet to the potential participant and, to the best of my ability, ensured that the participant understands to what they are freely consenting.

Annie Aggarwal

14.10.2022

Part III

Appendix J: Outcomes from inquiry - customer challenges and steps to repair



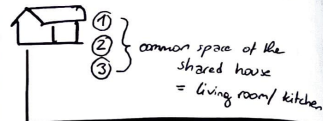
- massive wood table ①
- couch skallet ②
- old cozy couch ③

PRODUCTS (3)

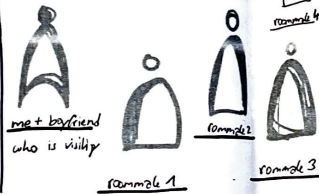
How long has it BEEN BROKEN?



WHERE IS the (product) AT HOME?



WHO uses the (product)?



WHY could the (product) NOT be fixed?

GENERAL REASONS

- o not having the right tools
- o not having the skills to do so
- o not having the space to repair + trash, noise might be a problem for neighbors
- o not knowing where to get the right materials from + missing parts (e.g. fabric, screws)
- o not having the time (work-life-balance)
 - ↳ a lot of personal limitation in skills & space

PERSONAL REASONS

- o sometimes a furniture doesn't match the style of my taste anymore → I want to give it to someone else but not sure if the effort is worth it
- o I wonder if it is worth to put in energy & resources in a low quality furniture → it won't last long anyways.

WHY would you CHOOSE to Repair this (product)?

- ① it has good quality and is worth to be kept and maintained. Once it is in a good state it will last long.
- ② it has a lot of potential to be a nice personalized furniture, it can be converted to a bed (for guests). It seems to be massive wood = good quality = durable
- ③ it looks super cozy & nice - just needs to be refreshed



WHAT STEPS would you take to get the (product) Repaired?

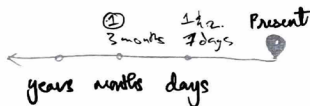
- go to a repair cafe? → similar concept like "Fahrradküche" in Germany/Austria to support volunteer experts help you & you learn from them
 - ↳ service where they help with transportation → IKEA service
 - buying furniture like the fairphone (with experts, tools & platform to help)
 - open source platform to repair things → look it up online + order there the missing part
 - neighbourhood help
 - ↳ shared tools & space & expertise
 - tool rental system
 - expert repair system/service with expert volunteers
 - monthly repair gatherings with friends
- question is how much can I do & when do I need an expert?

Example massive wood table:

- ① Understand the problem + inform myself on what needs to be repaired → understand that a workshop is needed
- ② look for local repair initiatives e.g. repair cafe / reach out to friend who know how to repair this
- ③ figure out transportation
- ④ in consultation find the needed materials (online)
- ⑤ transportation + get materials delivered
- ⑥ repair it with help + learn from them → in a workshop space the tools are needed to sand and repair broken parts
- ⑦ bring it back home + oil it there
- ⑧ be happy

- PRODUCTS (3)**
1. CLOSET
 2. WORK CHAIR
 3. TABLE

How long has it BEEN BROKEN?

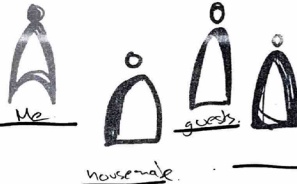


WHERE IS the (product) AT HOME?



1. Living room
2. Bedroom
3. Living room/dining area.

WHO uses the (product)?



WHY would you CHOOSE to Repair this (product)?

1. It's what I've been using for the last two years. ↳ nice to have it.
2. I need to repair it to work from home.
3. Shared table - nice to extend its life.

getting a kitchen/new ones are expensive

I don't know how to get rid of it appropriately.

WHY could the (product) NOT be fixed?

1. The wood is completely damaged so it affects the structural stability.
2. The parts are not available to replace.
3. I don't have the tools to fix it.
4. I don't know how to fix it.
5. I may get a cheaper alternative ↳ from a thrift store.
6. ~~There~~ I don't know the name of the product - to get the parts.
7. I can't do it by myself.
8. It could end up looking shabby.
9. I don't have the time to fix it.
10. Parts are too expensive / materials for repair cost too much.

WHAT STEPS would you take to get the (product) repaired?

SCENARIO 1

THE PRODUCT IS BEYOND REPAIR DUE TO STRUCTURAL DAMAGE

- > use the raw materials for other things ↳ basic guide to woodwork, metal work etc.
- > I'd like to know what I could use it for → Ideas on DIY projects.
- > where I can rent tools for this
- > sell the raw materials or give them away.

- GAMMA rents tools out
- Thrift stores take furniture.

SCENARIO 2

THE PRODUCT IS FULLY REPAIRABLE AND I WANT TO KEEP IT.

- > clear instructions / guidance on how to repair it ↳ create it in my own house or somewhere else to rent.
- > workshop spaces → tools to rent.
- > Easily accessible parts and materials.
- > handy man service at a reasonable price → they can come to my home and do it. ↳ weekends?

SCENARIO 3

THE PRODUCT IS FULLY/PARTIALLY REPAIRABLE BUT I DON'T WANT TO KEEP IT.

- > Reclaiming centre where they fix it or use it.

Potential to repair with new owners? or connect with new owners who are willing to repair and purchase it

keuken kast deur.
Eettafelblad
Bed

PRODUCTS (3)

How long has it
BEEEN BROKEN?
hoe lang is het
5 maanden (keuken)
eettafel 1 week
Present
years months days
10 jaar Ikea Bed

**WHERE IS the (product)
AT HOME?**
Nereede? waar staat het

Keuken
woonkamer
slaapkamer

WHY could the (product) NOT be FIXED?
waarsom kan het niet gerepareerd worden.

Wat ik gedaan heb is niet mooi geworden
(mijn reparatie) Keukenkast deur.
Het is een dure tafelblad ik wil het niet verpesten?
Vaak gerapereerd door mijn man maar blijft kapot
gaan? (bed)

WHO uses the (product)?
wie gebruikt het
Wij allemaal

Bed

WHY would you CHOOSE to Repair this (product)?
waarsom zou je kiezen

Het ziet er lelijk uit?
Hoe ik ben bang dat de scheur groter wordt (Eettafelblad)
ligt niet lekker (bed)

WHAT STEPS would you take to get the (product) Keukenkastdeuren repaired?

Mijn keuken ziet er nog mooi en stevig uit. Alleen een aantal minkeventen die door een professionele reparateur gemaakt kan worden.

Het ideale situatie zou zijn dat een keuken vakman deze deuren zou komen repareren bij ons thuis.

- 1 Ik zou graag via internet afspraak willen maken met fotos, van wat gerepareerd moet worden.
- 2 Een telefonisch intake afspraak om het prijs te bespreken.

Tussen de 200, en 1000, euro zou ik voor over hebben om het te laten repareren!

Part III

Appendix K: Transcribed and coded quote samples

Challenges

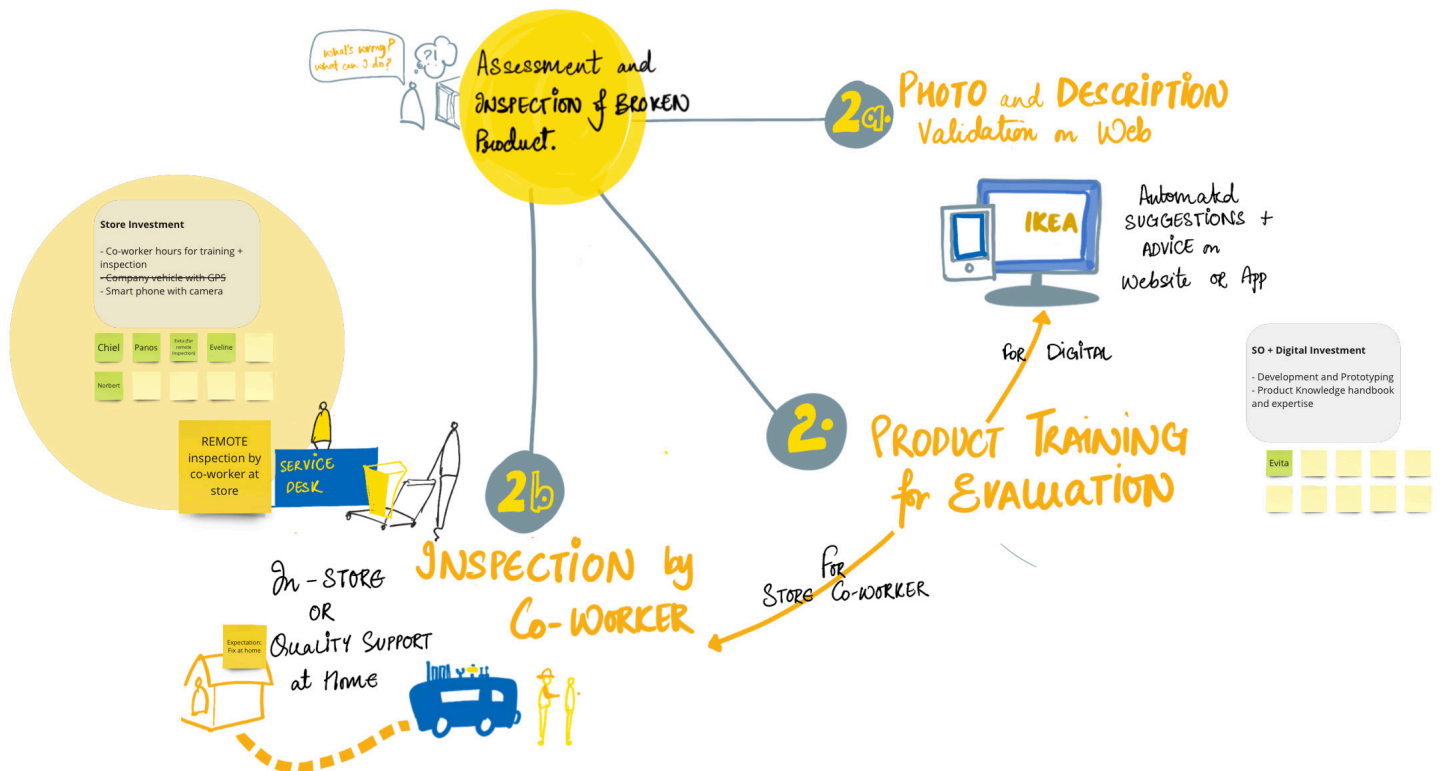
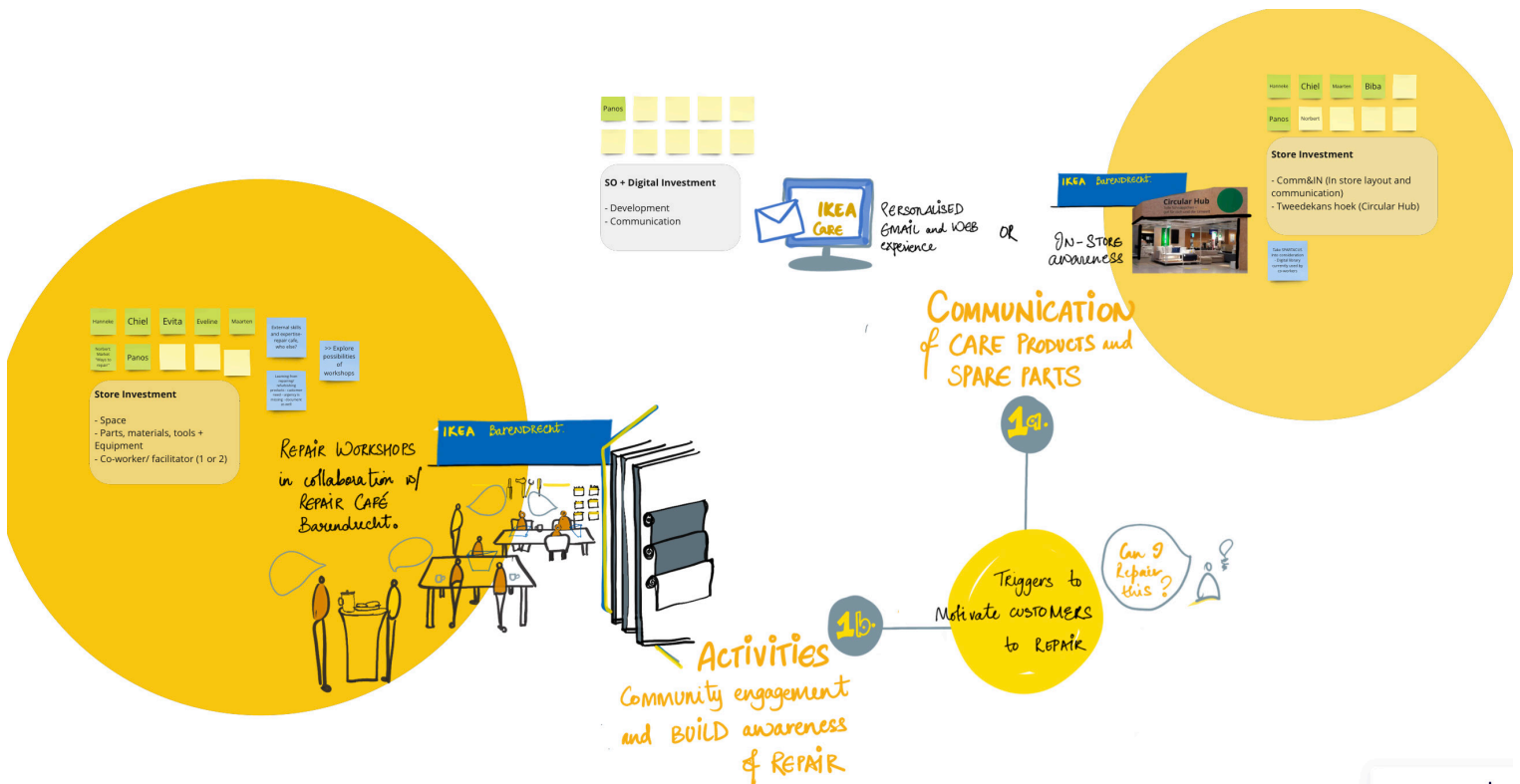
14	you have to repair your own things right because then it can for us it's nice it's a pleasure because we learn something yay but for other people it's actually a burden	
15	1- 3 months process. I look at it and then I'm frustrated and then I make a decision. I put it in a spot where it doesn't bother me	Challenges: Effort, Process
16	If I think concretely, I know there will be 10 different ways to do it. And then I decide for one, and then I have to get the materials, then I have to have the mental space and the capacities to get this. Then its there, then I have to make a whole afternoon and a daytime. So this whole knowing that its making the decision, but the whole process, that there are so many unknown factors that it will make the whole thing take longer.	Challenges: Effort, Process
17	This self-informing is a big problem.	Challenges: Effort, Process, Challenges: Knowledge and Skills
18	my value of life doesn't improve dramatically	Challenges: Effort, Process, Product specific
19	I don't know how to sew about the knowledge or skills	Challenges: Knowledge and Skills
20	skills are very important. Tools you can manage but skills because even if you have a sewing machine. I have some machine but I never use it because I have not the skills to use it	Challenges: Knowledge and Skills
21	repair herself, but it does not look nice!	Challenges: Knowledge and Skills
22	A lot of these things you can't do it by yourself. Like big furniture. So you need somebody anyway.	Challenges: Knowledge and Skills
23	how do I get that and then where is where can I buy that	Challenges: Source for repair resources
24	There's this one table that I came to buy but didn't find it anytime. If they have to maintain stock, they don't know which parts are needed in the stock for a long time.	Challenges: Source for repair resources
25	didn't know about repair cafes.	Challenges: Source for repair resources
26	yeah first thing is that I don't have all the tools that I need,	Challenges: Tools
27	don't necessarily have the tools to assemble disassemble the wardrobe	Challenges: Tools
28	i think this is a big problem that sometimes you have to buy something for €150.00 and you know you need it only this one time for this	Challenges: Tools
29	I can't fix it myself and probably need a spare part and it has been like that for months now and didn't fix it frustrates me cause I should be able to do it myself but I'm unable to do it myself	Challenges: Undecided

Ideas and opportunities

Text Content	Codes
furniture makers, and they do make furniture for much cheaper than what IKEA sells	Opportunities: Undecided
small scale services, website in the Netherlands where you can post like these little assignments	Opportunities: Undecided Ideas, Opportunities: Undecided
specialist reading that and they some offers themselves, Werkspot	Opportunities: Undecided
fixed it watching YouTube movies, YouTube you can find anything!!	Opportunities: Undecided
would say about half of the original price.	Opportunities: Cost of repair
my kitchen much more expensive yeah if your place, she says I would like to spend between 200 and 1000 euros thousands. Cause kitchen cost really 1000s.	Opportunities: Cost of repair
I take a lot of pride when I fix something so I would even if it's like a not properly done thing I take some pride in it that I did it myself.	Opportunities: Undecided
I would go to like a local store, where you pay like 60 cents for a new hinge and find a way to get it hinged so it functions. Cause nobody except me is going into my closet. I don't care if it's two different hinges as long as they open the same.	Opportunities: Undecided
a few 1000 euros is maybe a bit much, but a 100 Euro maybe you're willing to invest.	Opportunities: Cost of repair
put their their van out for like 30 forty €50 for a day and like you just you know kind of like this I need this to help a friend move, when can I get it?	Opportunities: Undecided
new revenue model right	Opportunities: Cost of repair
KEA employers or are you going to rent them?	Opportunities: Undecided
product is easily repairable for example if IKEA uses a type of screw that is easily found in the shop, so this is just an example here so if this is done it becomes really convenient for users, customers to repair things on their own	Ideas, Opportunities: Undecided
a replacement car, I need somebody to come take the code give me a replacement couch you know a lender it's OK that's a bit banged up it's one of the like showroom models I don't care it's only like for the week or something	Ideas
IKEA help me maintain a couch for like 5 to 10 years	Ideas
IKEA training school, where they hire repairmen.... So they can say "yes I'm certified."	Ideas
product is easily repairable for example if IKEA uses a type of screw that is easily found in the shop, so this is just an example here so if this is done it becomes really convenient for users, customers to repair things on their own	Ideas, Opportunities: Undecided
They don't grab you and say you must cut only IKEA can fix this	Ideas
She says I would like to post a picture with the site who has whose reviews of course like I-care. that they call me back and tell me the solution if I can fix it myself if they can if they must come if they, provide me the solution	Ideas
So IKEA gives many solutions,	Ideas
You mean you can order only the door of something, only only the part that you can pick on the online, on the website where you can see the couches, that you also can pick the Spare parts	Ideas, Opportunities: Undecided

Part IV

Appendix L: Concept development and stakeholder voting for idea selection



Desirability

Users

1. Users

Customers inclined to repair themselves or require support and guidance for repairs.

GenZ interested to learn skills and upcycle their furniture.

Involved seniors

Budget driven tenants

Barendrecht PMA

3. Channels

In-store workshop space:
Close to recovery hub, preferably designated area in Tweedekanshoek.

Online store Registration Tool:

Communication channels:

- Social Media (Store Instagram, linkedIn,....)
- Email to FAMILY members
- In-store streamers at Tweedekanshoek
- Neighbourhoos channels

2. Service proposition

CREATIVE REPAIR WORKSHOPS:

Contract local experts* to facilitate in-store workshops for customers, to inspire, motivate and enable customers to repair their IKEA furniture with a personal creative touch. (*10 participants/ expert)

Repair/ refurbish damaged IKEA furniture using the demonstrated techniques for display at Tweedekanshoek.

4. Usage

Finding creative ways to give a new life to IKEA furniture

Learning techniques and skills for repair & refurbish together in a social setting.

Activation of Tweedekanshoek to explore IKEA furniture as grounds of play, through creative repair workshops and resources.

Feasibility

Service de

5. Actors

EXTERNAL:

Repair/ refurbish e
experience in faciliti

IN-STORE:

CommIn

Recovery Hub/ Twe
safety and Risks

OTHERS:

For Documentation
For Evaluation & Fe

Key Resources

- Space to condu
- AS-IS products t
- Spare parts to u

Risks

7. Challenges

Dependent of findi
right partners. Lim
resources in NL, le
demand and high
resources

Decision of fair con
repair& refurbish e

Limited capacity of
recovery and local
store

*Added from the Business model canvas

Delivery

Experts with
tation

Tweedekanshoek

Feedback

*
Workshops (in-store) safely
to repair/ refurbish
use for workshops

ing the
ited expert
ads to high
costs for skilled

mpensation for
experts

f CommIn and
marketing in

6. Key activities

Preparation: Repair/ refurbish
of damaged product

In store - Demonstration and
facilitation of activities to ena-
gage participants in store

Provide advice and guidance for
challenges at home

Documentation for internal &
external communication

Evaluation to improve the offer
for customers

8. Competitors

Repair cafe - Volunteer organisa-
tion

Buurman - Offers wood working
and furniture building workshops

Maker's spaces - Offer space and
resources to carry out your own
DIY project.

Viability

Performance

9. Return on investment

Brand loyalty and building
long-lasting relationships with cus-
tomers and local experts.

Saving on failure costs of damaged
products and abundant parts.

- Sale of value-added products in
Tweedekanshoek
- Sale of related tools, parts, etc.

Inspiring and enabling a second
life to IKEA home furniture.

10. KPIs

Consent form

Participation in Pilot Workshops at IKEA Barendrecht

You are being invited to participate in Pilot Repair and Refurbish workshops, at IKEA Barendrecht. This pilot is also part of a Graduation Project at the faculty of Industrial Design Engineering, TU Delft by Annie Aggarwal, in collaboration with the sustainability team, IKEA NL. The purpose of this pilot is to **evaluate the workshops based on customers' experience, and its value for prolonging furniture life through repair, refurbish and care.**

Your participation in this study is entirely voluntary **and you can withdraw at any time.** You may contact the corresponding and responsible researcher for any further information, queries or doubts at annie.aggarwal@ingka.ikea.com.

Please tick the appropriate boxes

Yes No

1. Taking part in the pilot

I have read and understood the information dated 27.01.2023, or it has been read to me. I have been able to ask questions about the pilot and my questions have been answered to my satisfaction.

I consent voluntarily to be a participant in this pilot and understand that I can withdraw from the pilot at any time, without having to give a reason.

I understand that I participate in the workshops **at my own risk**, and IKEA will not be held liable for any damages or harm to products or persons during the workshops.

2. Photography and video consent

I understand the session would be **audio and video recorded for the purpose of research**. All the data will be anonymised before sharing. If you do not wish to be recorded, please tick No.

I understand that the session will be photographed, and the **photographs maybe used for external communication** by IKEA. If you do not wish to be photographed, please tick No.

3. Participation and use of the information for research

I agree to **participate in feedback interviews (30 mins online)** after the workshops to share my experience. Any data that I provide may benefit future research and aid in improving workshops experience for customers.

I understand that information I provide maybe quoted and used for workshop evaluation and presented as part of research output.

I understand that personal information collected about me that can identify me, such as [e.g. my name or where I live], will not be shared beyond the study team.

Signatures

Participant Name & Signature

27.01.2023
Date

I have accurately read out the information sheet to the potential participant and, to the best of my ability, ensured that the participant understands to what they are freely consenting.

Annie Aggarwal

27.01.2023

Part V

Appendix O: Customer feedback form

Second-chance Workshop at IKEA Barendrecht

Saturday , 27 January 2023

Workshop:

- 1. Why did you join this workshop?
 - a. I was excited to learn skills for _____
 - b. I would like to be able to repair my own furniture
 - c. I was just curious (and invited)
 - d. Others: _____

2. Was the workshop worth your time?

Absolutely. Somewhat. Umm.... Not really. Not at all!!

3. What did you like?

4. What could be improved?

5. Indicate to what extent you agree with the following statements:

	Strongly disagree	Somewhat disagree	Neutral	Somewhat agree	Strongly agree
The workshops were engaging and fun					
I discovered new possibilities to revive my home furniture					
I learnt a new skill/ technique at the workshop					
I'm confident I can try out the techniques at home by myself					
I'm eager to try out what I learnt, at home					
I have all the tools required and a piece of furniture to repair/ refurbish at home					
I can find all the parts and/ or tools at IKEA					

6. Where do you buy tools and/ or parts to carry out furniture projects at home?

7. Do you have any input or suggestions for future workshops at IKEA?

1	
2	
3	
4	
5	

8. How likely are you to recommend this workshop to friends and family members? Scale 1-10 (10 is best)

1 2 3 4 5 6 7 8 9 10

9. Would you join another workshop at IKEA?

- Yes
- No

10. Age: _____ 11. Occupation _____

12. How likely are you to repair your damaged furniture (couch, armchair, etc.)

	Very Likely	Somewhat likely	Maybe	Somewhat Unlikely	Very unlikely
By yourself					
Ask someone for help					
Call a service (by IKEA)					

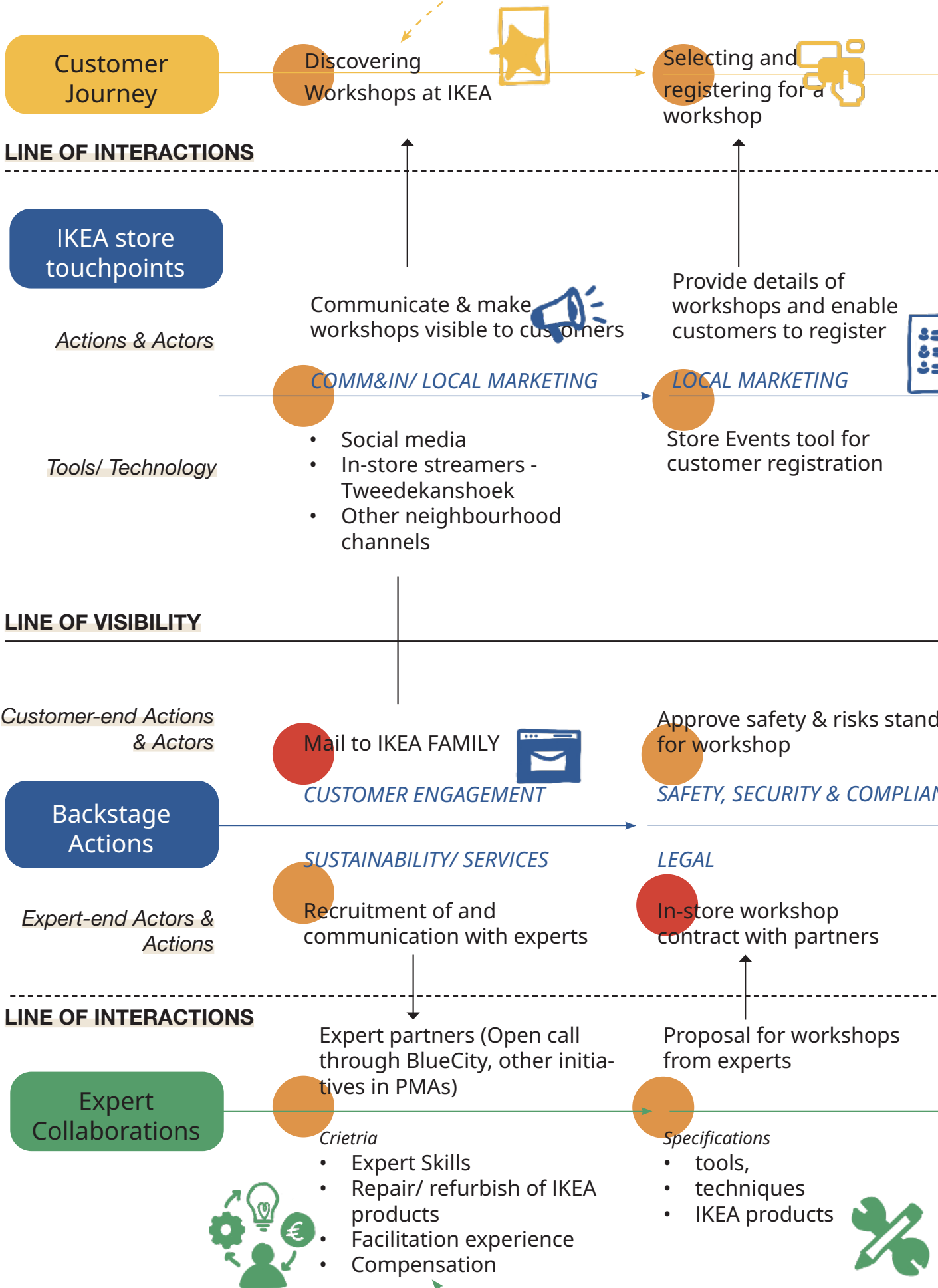
13. Any other suggestions or comments for repair at IKEA....

Thank you for your time and participation! Enjoy a 25 Euro gift voucher to spend at the Second-chance corner, IKEA Barendrecht

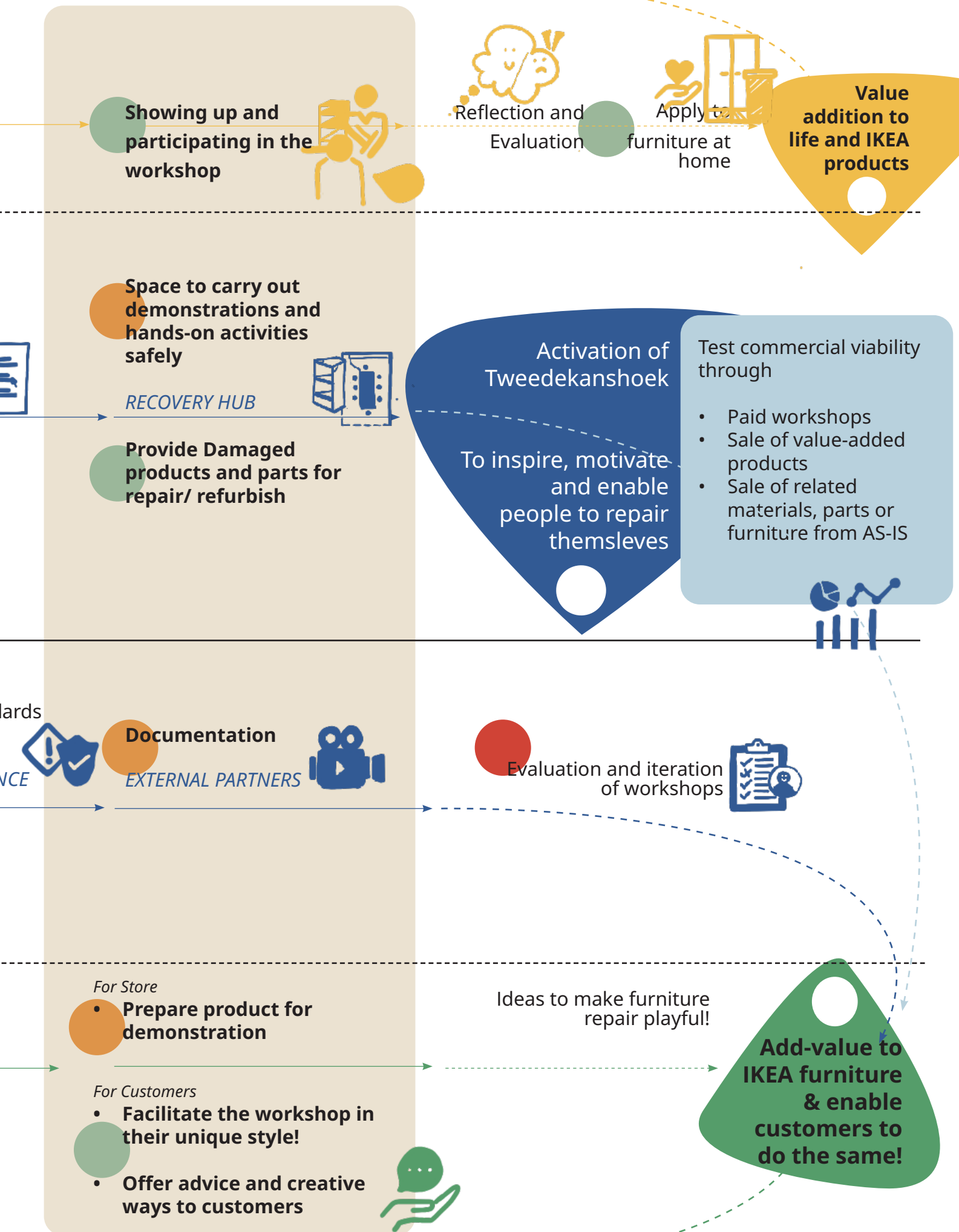
Part VI

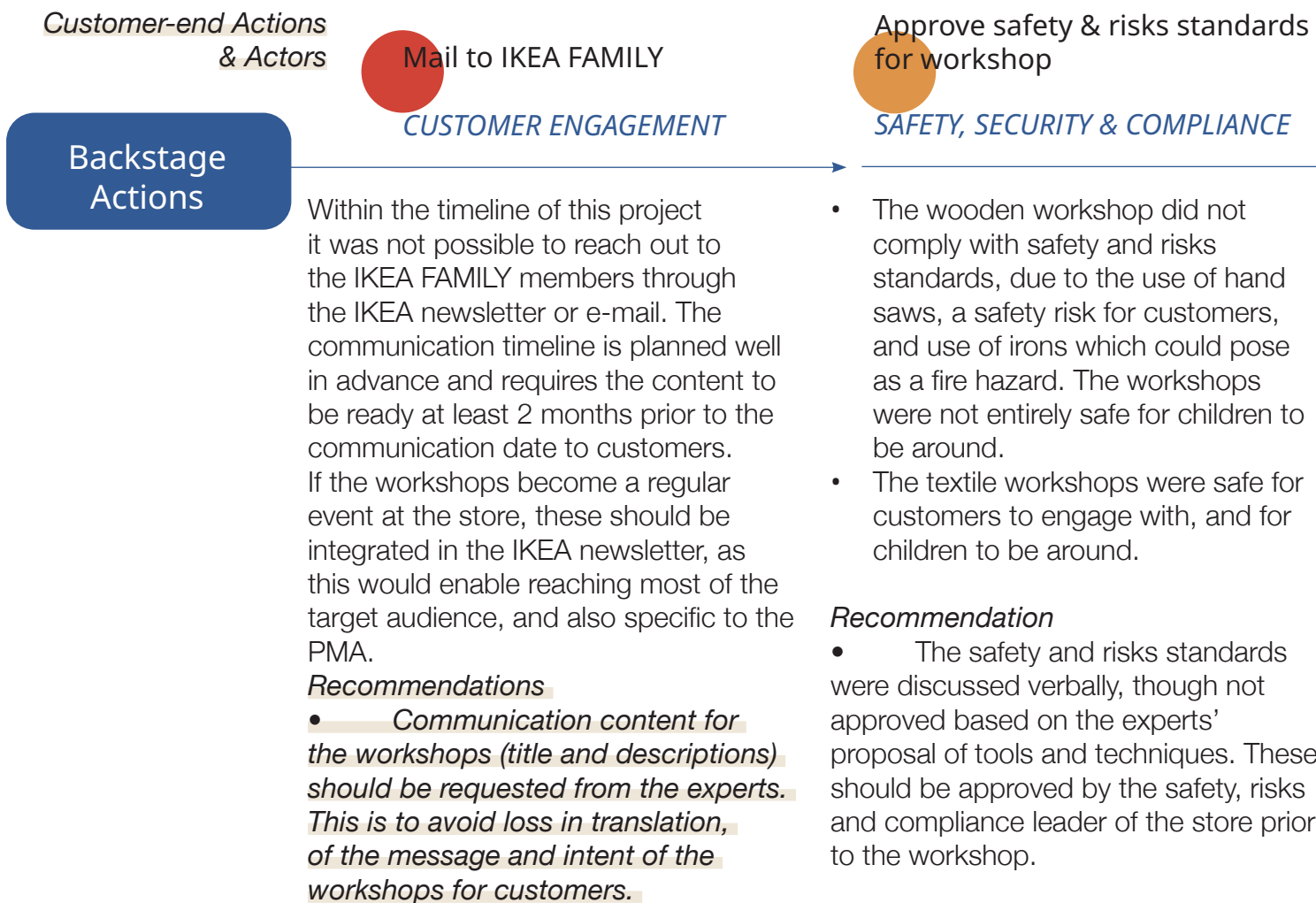
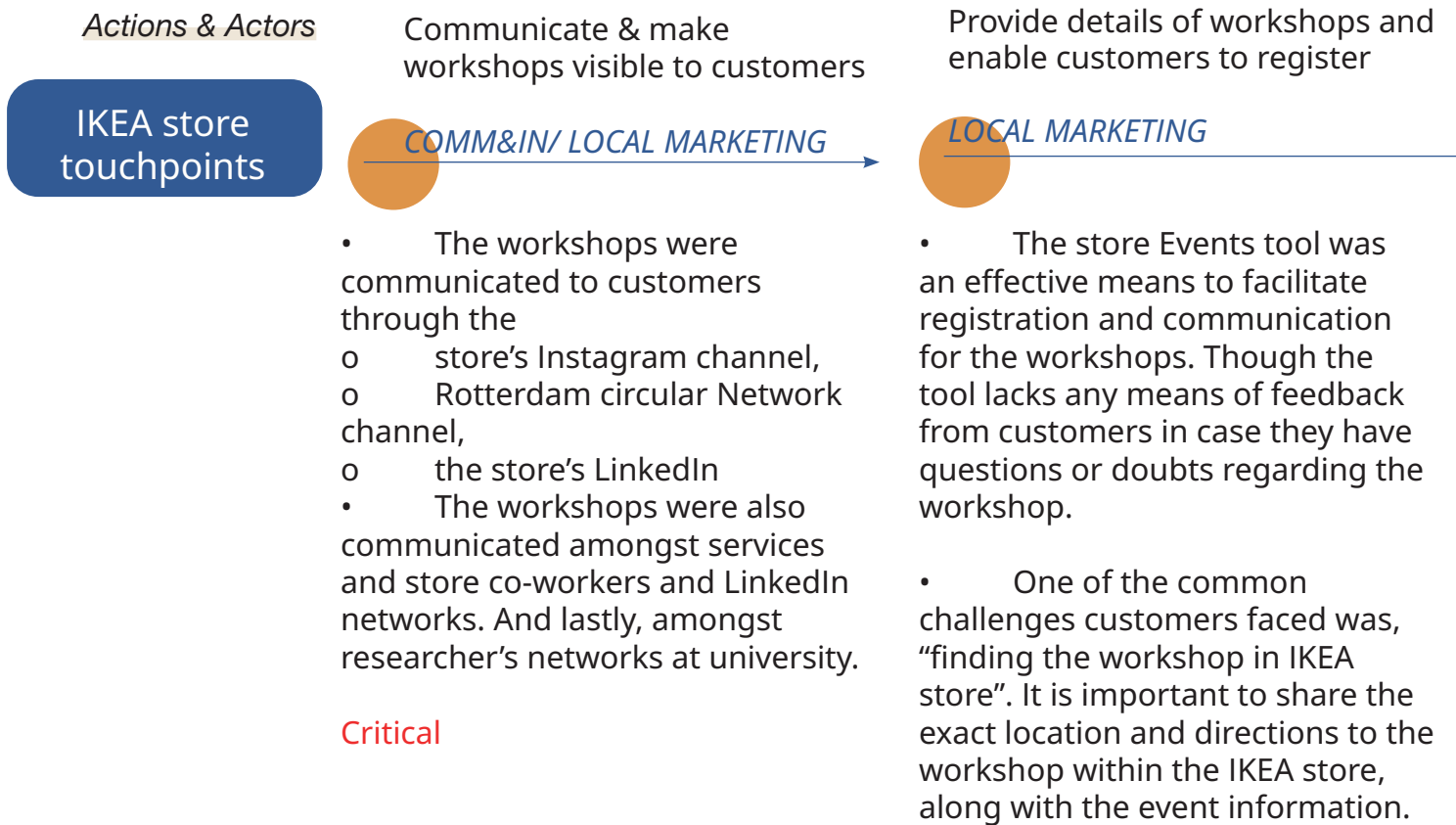
Appendix P: Evaluated service blueprint for creative repair workshops in-store

Actively searching a



SERVICE EVALUATION





Space to carry out demonstrations and hands-on activities safely

RECOVERY HUB

- Electrical requirements of equipment such as sewing machine, iron required wiring and arranging an electrical spike and extension at the front of the store. This required a co-worker having to bring the ladder out from recovery and fix wires up in the grid for regular workshops.
- The textile workshops were safe to carry out within the store, the wood workshop, apart from very basic techniques of painting or plastering, requires equipment (such as saws, iron, hammer, or drill) that may not be safe to use in the store premises.
- The Tweedekanshoek was a good location for the workshop, given accessibility to furniture, spare parts and materials to practice and repair on. Furthermore, it's location engaged passer's by in the store. The space could comfortably accommodate 10 participants, with 2-3 experts along with the workspace and furniture to work on. Though the corner itself, while appropriate for display of refurbished and repaired products, was not the most suitable for a workshop with many participants, as it interfered with the store visitors wanting to buy/ take a look at tools and other items on display in the corner.

Recommendation

It would be more feasible for to have an area within the Tweedekanshoek dedicated for workshops, where permanent electrical arrangements can be made. A dedicated workshop area could also solve the issue of in-store customers' safety with extensive tools for woodworking.

Provide Damaged products and parts for repair/ refurbish

- Some parts and material such as wood shelves, or damaged pieces and textile scraps, or cushion covers were selected from the discarded/ recycling pile from the recovery a week or even a day or two prior to the workshop. These served as appropriate parts for customers to practice on.
- The Tweedekanshoek served as a source for slightly damaged or work furniture that experts could repair.
- At the recovery, saving damaged furniture for experts or participants for over a week poses a challenge due to spatial limitations.

Recommendation

- Experts should be encouraged to repair and refurbish using abundant/ discarded parts or damaged furniture to inspire customers and demonstrate the possibilities with IKEA products and parts.
- A few customers indicated they would like to carry their own (small) furniture to the workshop for repair or refurbish. Customers could be encouraged to bring their furniture if they take responsibility of its logistics and care in-store.

Backstage
Actions

SUSTAINABILITY/ SERVICES

Recruitment of and communication with experts

*Expert-end Actors &
Actions*

- The three partners we tested with are enthusiastic and open to future collaborations*. Furthermore, BlueCity would offer support in connecting with other possible partners, for sustainability, repair/ refurbish initiatives at IKEA.
- One expert can effectively cater to 10 participants for a span of two hours.

Recommendation

- Organising open calls for local experts from the area to register as facilitators could support sustainability of the initiative, and with the right partners to inspire, enable and motivate a repair mindset for furniture and more.
- Workshops focused on the repair of IKEA furniture can be explored at existing local hubs for furniture building like Buurman, that can cater to a larger number of participants.
- Lastly, the IKEA can offer customers references to experts from workshops, for the repair and refurbish of their IKEA furniture.

Expert partners (Open call
through BlueCity, other initia-
tives in PMAs)

Current collaborations:

- Evelyne: Continue the repair and refurbish workshops on a bi-weekly or monthly basis at the same compensation of 900 euros, irrespective of the number of participants (5-12)
- Buurman:
- Maker's Unite

EXTERNAL PARTNERS

Documentation

Documentation of the workshops is extremely valuable to share the value, intent and experience of it with both customers and co-workers.

- The prototype workshops were only photographed to capture customer and expert experience and engagement. Specially with tools and different techniques for repair and refurbish. The purpose was to communicate the value of the workshops and inspire stakeholders and possible customers for future workshops. Therefore, these were intended for both internal and external communication by IKEA.
- The documentation partner was referred by the
- The workshops were not video recorded. The techniques and the entire workshop set-up were being tried for the first time and in-store setting rather than studio. The set-up was not ideal to develop repair content that could possibly be shared on the website. Therefore, it was decided not to invest in professionally recording the workshops yet.

Recommendations

- Video recording the workshops, especially the expert demonstrations and advice could be explored as sources 'content sharing' and online/ virtual/ live workshops for many customers of IKEA, beyond the boundaries of the PMA.

Not evaluated. Out of scope.

LEGAL

In-store workshop contract with partners

The workshops were conducted as in-store prototypes. The legal department at IKEA Service office will handle the contract and agreement with external parties.

Evaluation and iteration of workshops

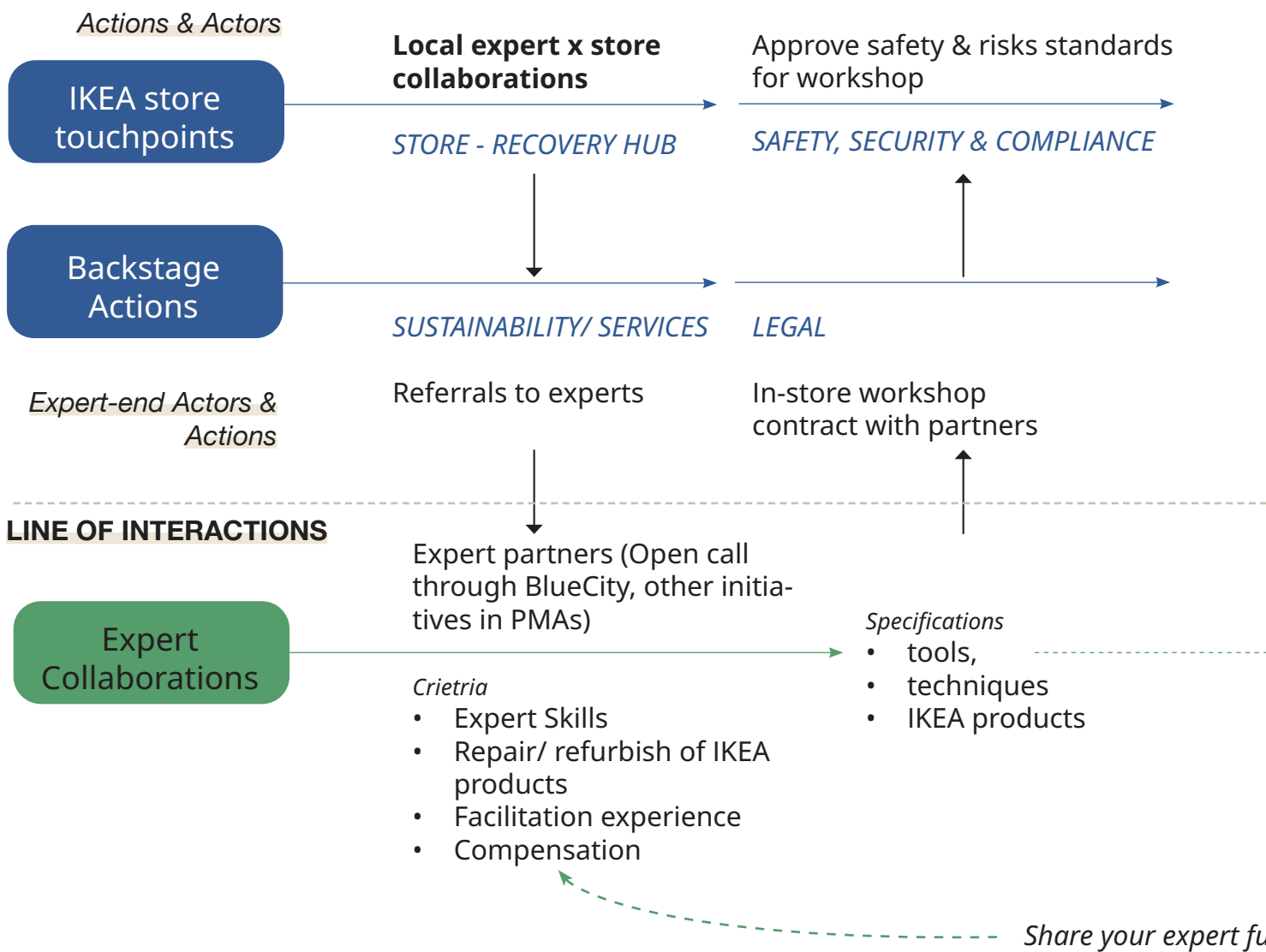
In this case, the workshops were evaluated by the researcher, the services experience leader and business developers will have to specify KPI's to evaluate the value, iterate and sustain the workshops for the future.

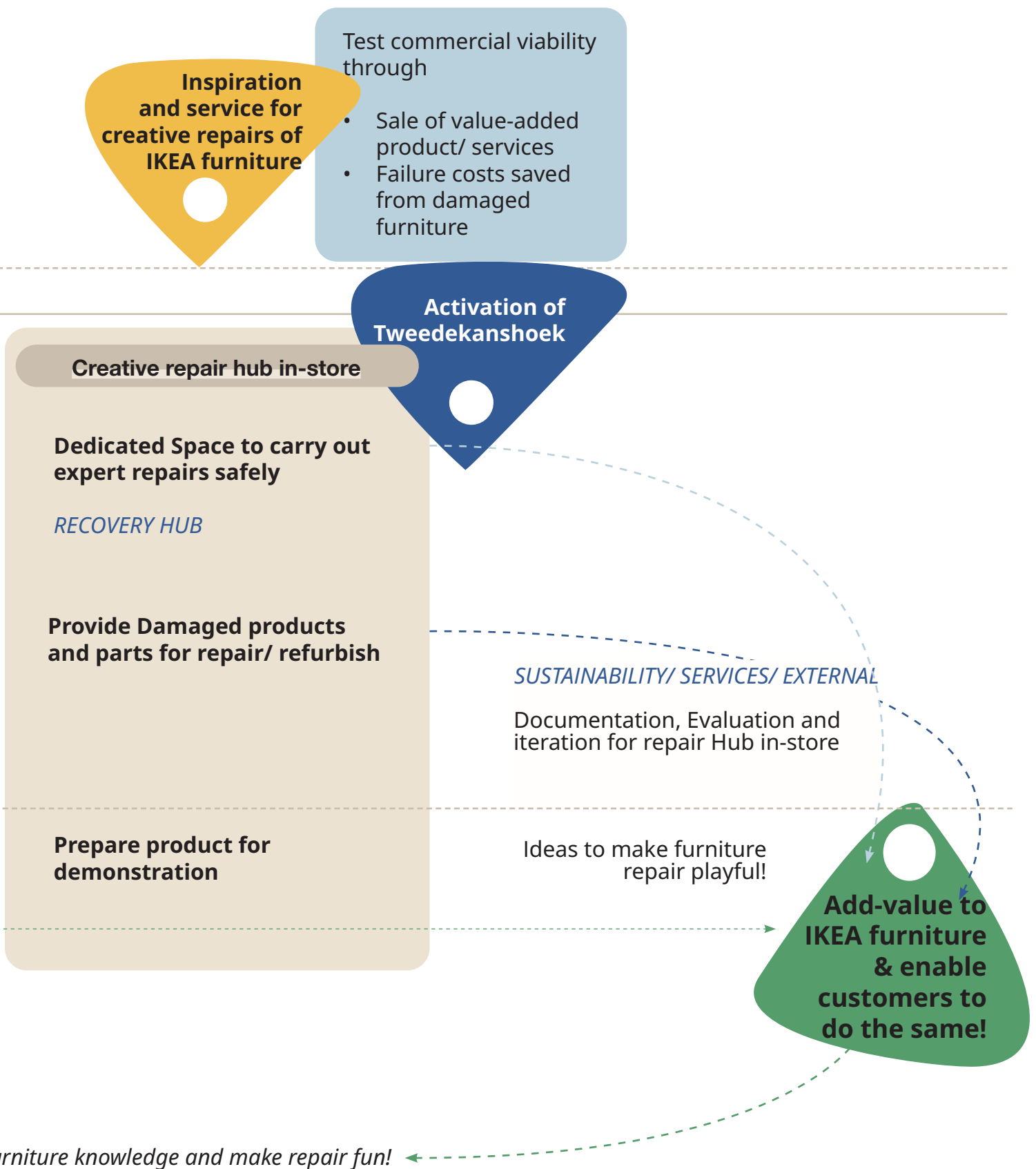
Part VI

Appendix Q: Revised service blueprint for recommended creative repair workshops in-store

LINE OF INTERACTIONS

LINE OF VISIBILITY







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Report Date: *February, 2023*

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