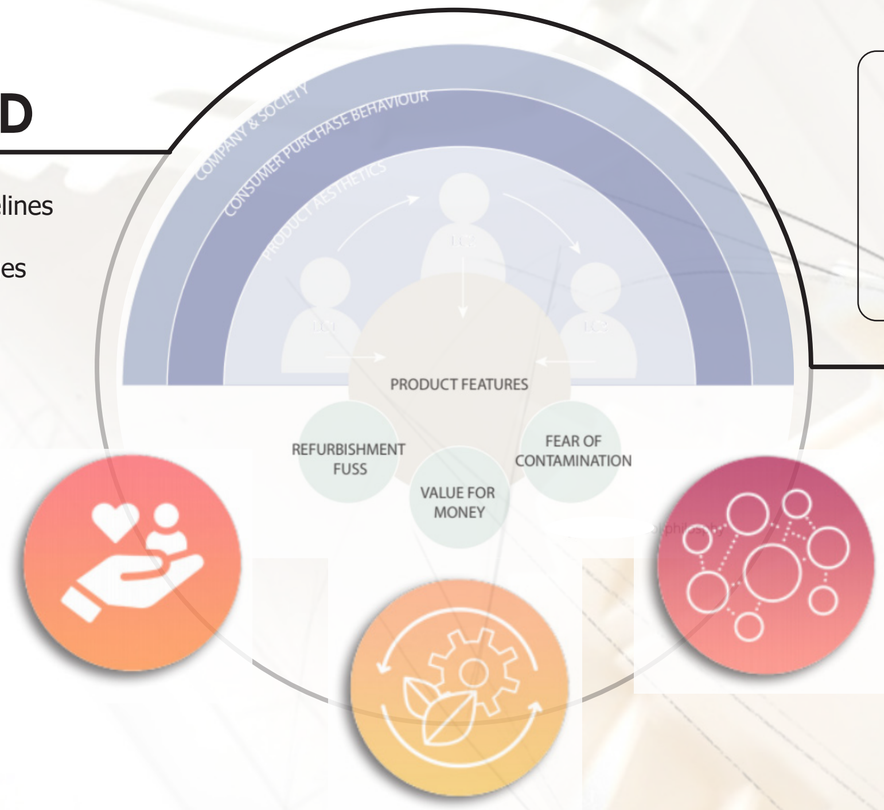
DESIGNING THE USED.

Enhancing the consumer acceptance of **refurbished luxury personal care products**; *a Philips Lumea Prestige case study.*

SKILLS DESIGNERS NEED

Design for refurbishment is not a quick fix. Every product and context is unique. There are no guidelines or rules to follow which apply in every situation. Circular design should be a mindset that encourages new ways of exploring opportunities and solving problems. To do so, designers should develop the following skills:



1. CONSUMER EMPATHY

The ability to understand your consumer, which is crucial to increase the acceptance of refurbished products (Bakker and Mugge, 2021). Different lifecycles have different target consumers that all want a satisfactory product that fits their needs. **Designers should look beyond the first consumer and consider consumers needs and desires from multiple cycles in their design process** (van Weelden et al., 2016). Designers should understand the consumer's expectations and perception of value and manage those over time (Moreno et al., 2016).

2. PRODUCT LIFETIME MANAGEMENT

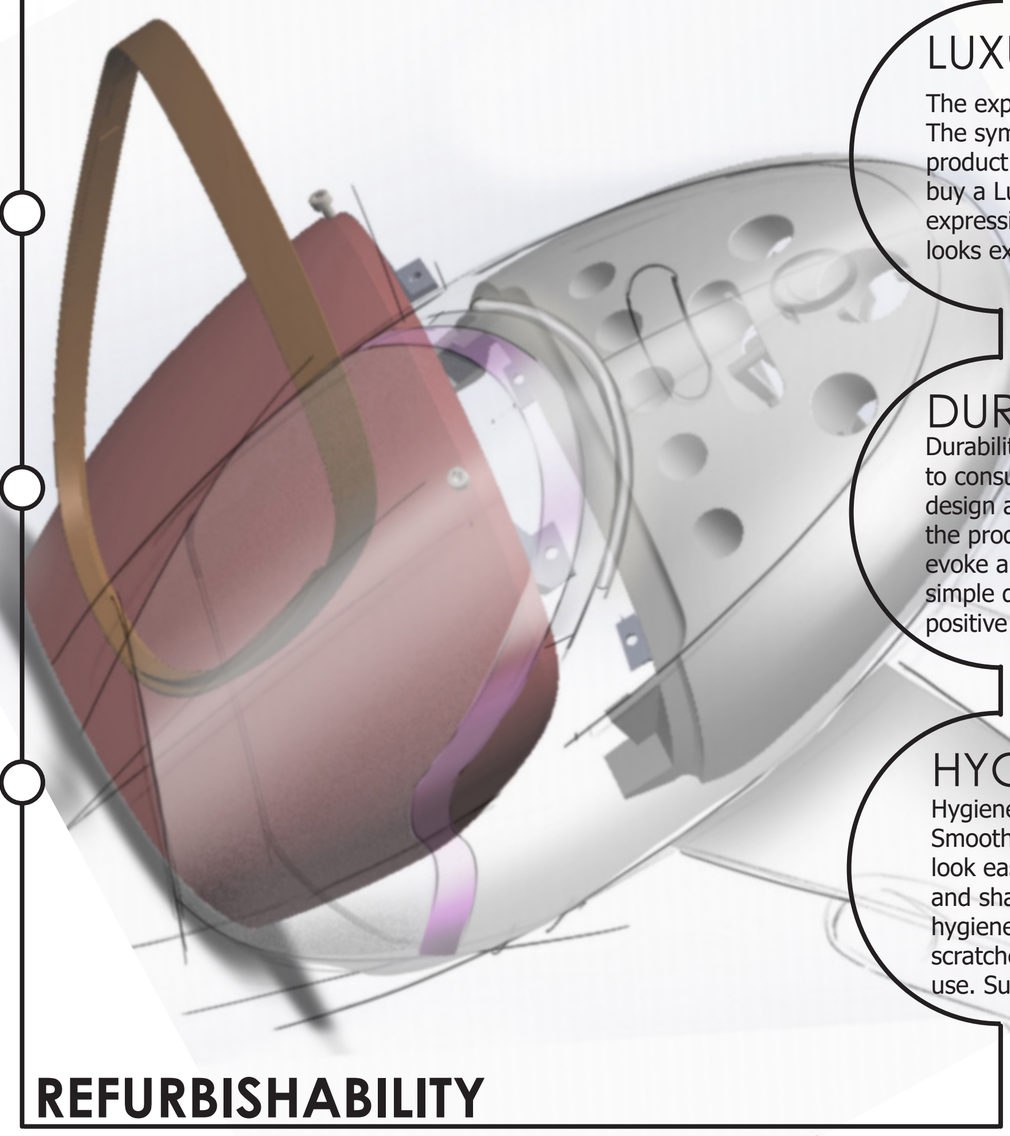
Regulations or technological developments in later product lifecycles may demand design changes. Instead of a static product design, designs should be timeless with room for upgradability. This adds extra complexity to design decisions since they can impact different points in time. Therefore, designers should anticipate **how the product will evolve over multiple lifecycles** (Moreno et al., 2016; Sumter et al., 2018). This ability does not only require consumer and context empathy. It also requires **technical insight** in component wear and tear and how to create a durable product for multiple lifetimes.

3. ECOSYSTEM THINKING

Ecosystem thinking is a key skill for designers to implement refurbishment in their design process (Breuer et al., 2018). Refurbishment involves multiple target consumers, stakeholders and service models that should all be understood. As design is rarely an individual practice, designers are used to working with various stakeholders on one project. However, refurbishment requires focusing on product design while keeping the complete circular business model in mind (Sumter et al., 2018). The company and consumers now have shared ownership of the product. Therefore, designers should be able to facilitate collaboration between internal and external stakeholders who play a role in operationalising refurbishment (Sumter et al., 2018).

GET STARTED!

Do you want to implement refurbishment in your design process? Or train the skills? **Scan this QR code** to access the Design for refurbishment canvas and questions to consider!



REFURBISHABILITY

CLUSTERING CRITICAL COMPONENTS
Increase ease of repair by clumping components together, and move the clump to the top of disassembly map.

INCREASED REACHABILITY OF BATTERY& CAPACITOR
The capacitor and battery are the most valuabla components in terms of sustainability and finance. Therefor, these components can now be replaced in 5 steps instead of 10.

DROP SAFETY
By performing droptests, the angle of impact could be determined. This angle was used to determine the direction of the fasteners and ensure consumer safety.

EASE OF OPENING; INITIAL STEPS
safety concerns. The housing had to be broken to an unrepairable state, making the product unfit for refurbishment. The redesign has adjusted snapfits and fasteners to enhance the ease of removing the housing.

INFLUENCE OF AESTHETICS

LUXURY
The expression of luxury is one of the Lumea's raisons d'être. The symbolic meaning of investing in a luxurious self-care product is, together with the functionality, the main reason to buy a Lumea Prestige. This can either be achieved via material expression, like shiny materials, or via a distinctive design that looks exclusive or unique.

DURABILITY
Durability can be expressed by a timeless design; not sensitive to consumer trends and stays relevant over time in terms of design and technology (upgradability). Or via a sturdy look; the product does not break easily. A sturdy, and 'weird shape' evoke a feeling of trust. Durability can also be achieved via simple design styles. Research suggests that simplicity has a positive effect on the willingness to buy refurbished products.

HYGIENE
Hygiene can be found in the finishing and details of the design. Smooth surface finishing and light colours make a product look easy to clean. Also, little complexity in terms of splitlines and sharp corners contribute to this. Shiny parts do not fit the hygiene description. They are contagious to fingerprints and scratches, which evokes negative associations with previous use. Suggesting that associations are about visuals cues.

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