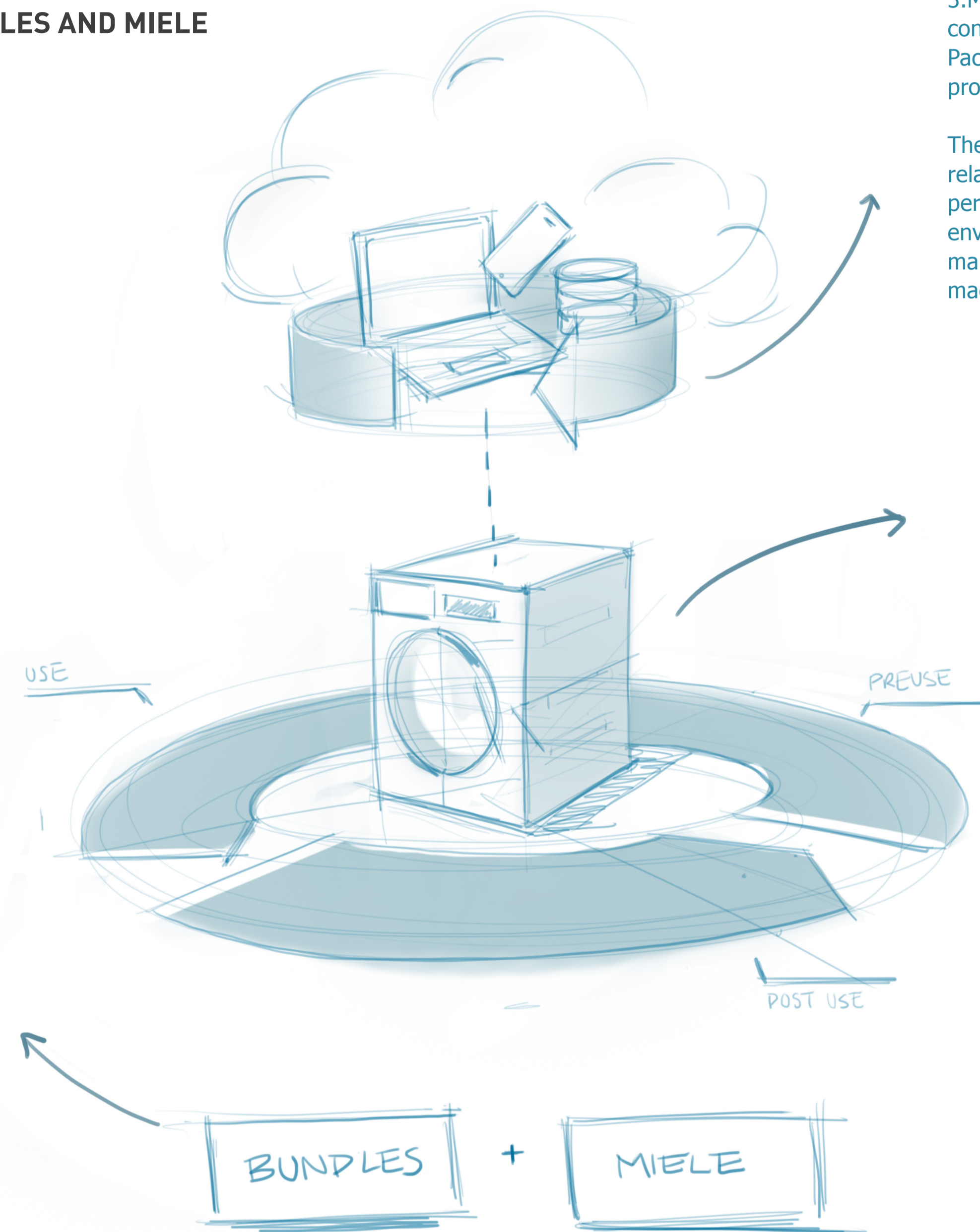


# DESIGNING A WASHING MACHINE FOR THE SERVICE ECONOMY

## DESIGN OF A PRODUCT SERVICE SYSTEM FOR BUNDLES AND MIELE

Bundles is a Dutch company that makes high quality washing machines accessible through subscriptions. Bundles' product service system has the reduction of waste and environmental impact caused by the use and disposal of low-end machines as a goal, and intends to increase the lifetime of their products by submitting them to several use cycles.

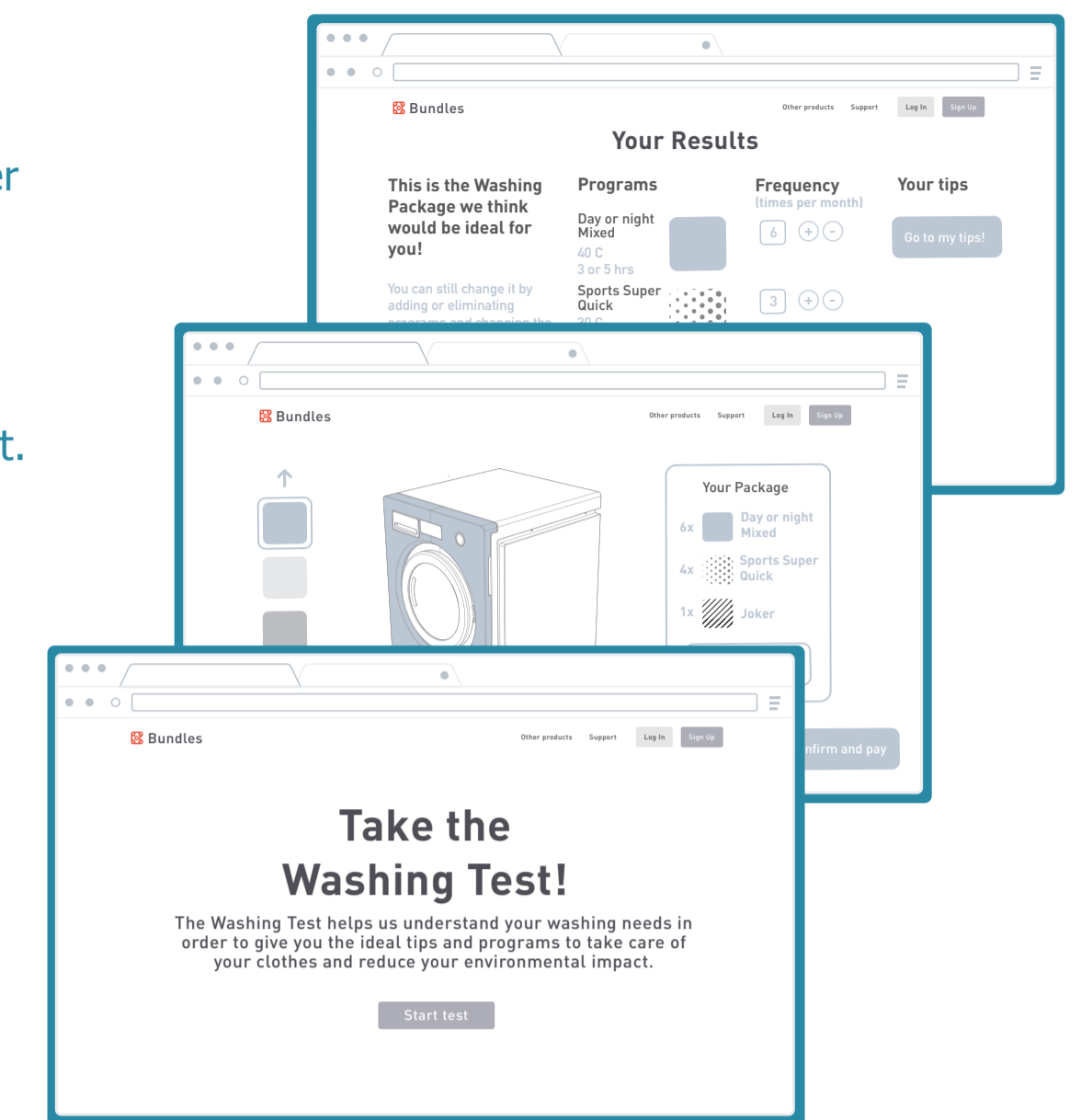
Bundles works with washing machines from German manufacturer Miele due to their high content of recyclable materials, high quality and long lasting characteristics, however, the product represents limitations to achieving having several use cycles and the successful implementation of the PSS, considering the deterioration of the machine, its limited possibilities for refurbishment and having a similar offer to product based business models. Nowadays Bundles and Miele, design and deliver their services/products independently from each other and for different types of business models. The new concept improves the synergy between Miele's product and Bundle's service to enhance the economic, circular and environmental possibilities of the PSS, providing personalized solutions for washing, increasing the perceived value of the user over the PSS and reducing the environmental impact of the use phase, as well as extending the life expectancy of the machine optimizing it for its refurbishment and update.



### THE PLATFORM

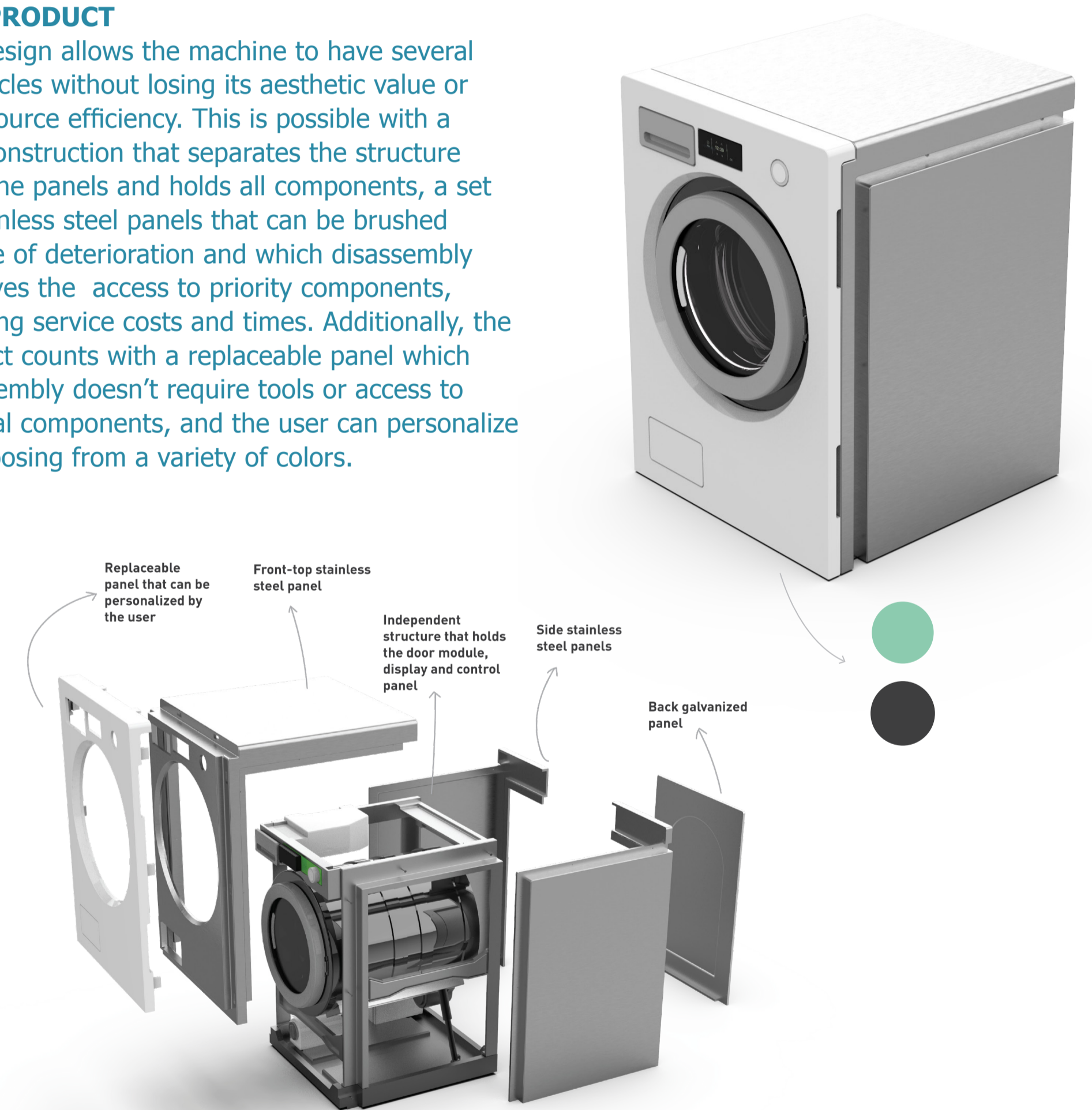
- The platform has the following functions:
1. Capture the needs and behaviour of a customer through the 'Washing test'.
  2. Deliver the user a personalized 'Washing Package' (programs, frequency, tips) that fulfills his or her needs in accordance to the identified recommendations to reduce environmental impact.
  3. Monitor the use and status of the machine to continuously improve and adapt the Washing Package and optimize repairing and refurbishing processes.

These functions aim to generate a closer relationship with the user to enhance the perceived value, support the reduction of the environmental impact of the use phase and maintain control over the status of the washing machine and its components.



### THE PRODUCT

The design allows the machine to have several use cycles without losing its aesthetic value or its resource efficiency. This is possible with a new construction that separates the structure from the panels and holds all components, a set of stainless steel panels that can be brushed in case of deterioration and which disassembly improves the access to priority components, reducing service costs and times. Additionally, the product counts with a replaceable panel which disassembly doesn't require tools or access to internal components, and the user can personalize by choosing from a variety of colors.



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