

The design process of correctly sortable coffee creamer portion packaging concepts – Public summary

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The goal of this project was to create coffee creamer portion packaging concepts that can be correctly sorted during the recycling process and fit the user group. For this project, I collaborated with the packaging development department of FrieslandCampina and worked together with the marketeers of Nutroma and Friesche Vlag. Both brands are part of the cooperation FrieslandCampina and sell coffee milk products.

The mission statement of FrieslandCampina, as they describe it on their official website, is *'to strive for better nutrition for the world's consumers, a good living for our farmers, now and for generations to come'* (FrieslandCampina, n.d.). The packaging development department of FrieslandCampina plays an important role in achieving this mission. Packaging provides storage and conservation possibilities of these valuable nutrition and makes it possible to transport it all over the world. To comply with the last part of their mission, *now and for generations to come*, FrieslandCampina aims to have its entire packaging portfolio to be reusable, recyclable or both by 2025 and fully circular without fossil fuel emissions by 2050 (FrieslandCampina, n.d.). I contributed to this goal by looking into alternative packaging designs for coffee creamer portions.

To answer the main research question, *What type of alternative coffee creamer portion packaging concepts can be designed that are correctly sortable in the recycling process and fit the user group*, I first analysed the user group of coffee creamer portions. I gathered information by means of existing User & Attitude research, conducting small user experience research, creating experience maps, and filling in value proposition canvasses. This information resulted in a list of user pains and design opportunities of the current coffee creamer portion packaging sold by Friesche Vlag and Nutroma. The pains and design opportunities were, in turn, translated to a list of requirements. Meeting these requirements ensured that the packaging concepts fit the user group. Next, literature research was performed to analyse current recycling processes. The recycling process can be divided into three steps: Collecting, sorting and recycling (Plastics Recyclers Europe, n.d.). Only when post-consumer packaging can adhere to all these steps, it is considered to be recyclable (KIDV, 2019). Due to time limitations, the project focussed on the first two steps. The collecting and sorting processes practised in Europe are analysed and translated into a separate requirement list. Meeting all these requirements ensured that the post-consumer packaging can be correctly sorted.

After collecting all necessary information and requirements, the design process was followed up by the ideation phase. A small market analysis was performed to analyse and compare existing portion packaging regarding appearance, user convenience, material, and recyclability. Next, I hosted multiple online brainstorm sessions with members of the packaging

development team of FrieslandCampina. The generated ideas were based on the defined requirements and worked out by means of design sketching. These packaging ideas were altered and/or combined to create five packaging concepts. During an online meeting with the marketers of Nutroma and Friesche Vlag, three of those packaging concepts were chosen based on feasibility and how well the concepts matched with the current portfolio of the brands. The chosen concepts were then worked out in more detail. I first defined the dimensions with the help of SolidWorks, a CAD modelling software. The software allowed me to create realistic dimensions for the packaging that met the defined requirements. Mock-ups of the three concepts were created to get a feel for the feasibility and ease of use of the packaging.

During the detailing process, I talked to several packaging experts that helped me with defining realistic features for the packaging concepts. An online meeting with representatives of Tetra Pak, a company specialised in drinking cardboard, resulted in one of the concepts being discarded due to size restrictions. Online meetings with a development specialist of FrieslandCampina provided me with insights regarding material use and production techniques. The chosen recyclable material had specific characteristics which resulted in necessary alterations of some packaging features. After re-designing the packaging concepts based on the insights provided by the packaging experts, the two concepts turned out to be really similar. They featured the same material, production technique, and opening method. Therefore, the two concepts were considered as one. Thus, the main research question is answered by means of one detailed packaging concept. This concept can function as a starting point for future research into recyclable coffee creamer portion packaging.

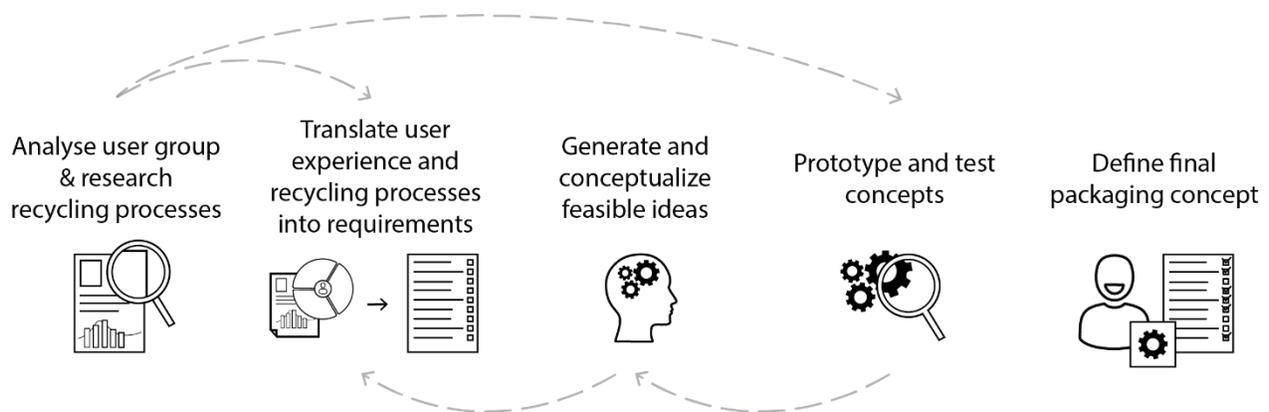


Figure 1. Visualisation of the design process

References

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