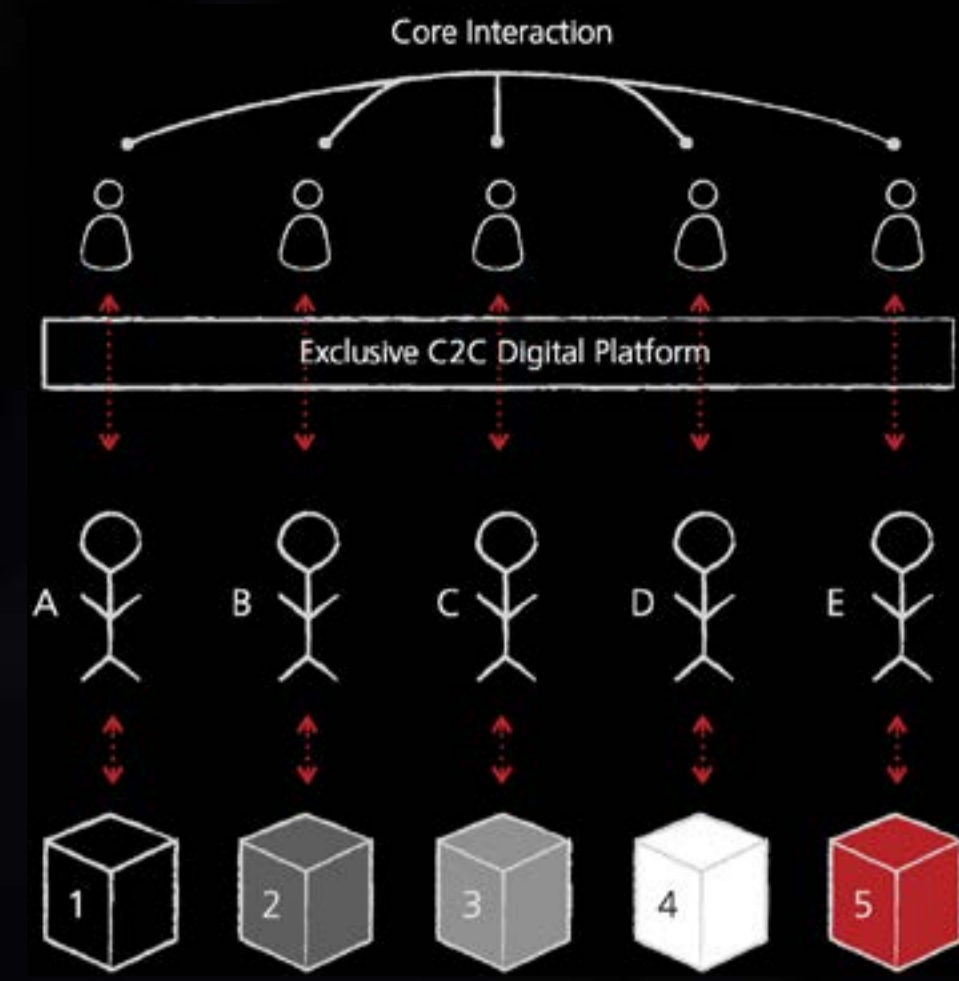


Overview of product-service system structure



#### Introduction

HARMAN Automotive, which is part of the Consumer Lifestyle business division of HARMAN International, designs and engineers partnered branded audio systems for partnered car manufacturers. HARMAN Automotive's 'EPIC experience team' focuses on developing new concepts for their numerous partnerships. Among which, the 'Take Out Sound' (TOS) concept that enables people to enjoy music during their journey and at their destination. The TOS concept is tailored to fit the different partnerships of HARMAN Automotive, among which their partnership with Bang & Olufsen (exclusively the sub-brand 'B&O') and Ford Motor Company.

#### Project Assignment

The graduation project assignment was to design a strategy for the aforementioned TOS case, which is still in an early development stage. This new product category, named 'B&O Beyond', contains two after-sales products for the U.S. market; the 'Beyond 1' for Ford F-150 vehicles (a portable Bluetooth speaker that enhances the B&O integrated audio system when docked in place), and the 'Beyond 2' for Ford Bronco vehicles (a soundbar that enhances the B&O integrated audio system, and that can rotate towards the front and rear of the car).

#### Project Approach

Throughout this graduation project, research was performed on the author's understanding of 'strategy design'. The definition of strategy as a "deliberate search for a plan of action that will develop a business's competitive advantage and compound it" (Henderson, 1989), is used to design a framework, which supports the creation of the conception that provides for "the business's competitive advantage". In the context of this graduation project, the 'B&O Beyond' value proposition represents the conception that is the goal of the new strategy, that will be designed by the author of this thesis for HARMAN Automotive's partnership with Bang & Olufsen's sub-brand 'B&O' and Ford.

The design-driven innovation (D-DI) method (Verganti, 2009, 2016) was used as a tool to update the initial 'B&O Beyond' value proposition, in order to provide for an even more unique goal of the to be designed strategy. Applying this method may support HARMAN Automotive's partnership with B&O and Ford in the long run, as D-DI aims to provide a competitive advantage for the companies involved. D-DI enables the creation of radical new concepts by innovating the 'meaning' (the reason why people use a value proposition) of an exciting concept (image D-DI process below).

This graduation project focuses on the design of an updated concept for the 'B&O Beyond' value proposition, which functions as the new strategic goal for a new strategy. By applying D-DI to the author's framework of strategy design, an approach was designed that (in theory) enables the creation of desirable and unique strategic concepts, that outperform competitors today, and may support the companies involved to together outperform competitors in the future.

#### Initial Concept 'B&O Beyond'

To innovate a concept, research must be performed to understand how the concept came to its being. When evaluating the initial 'B&O Beyond' concept, strengths and opportunities were captured in a design requirement list that provided support during the D-DI process.

#### Building a New Strategic Vision

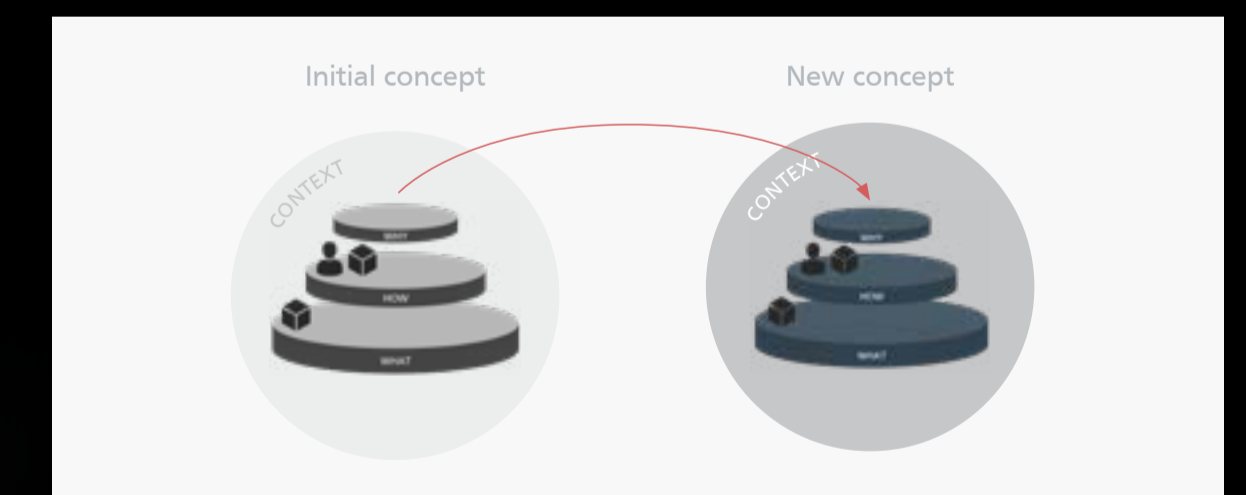
Innovating the meaning of a concept requires building a novel vision, as the new determined meanings are constructs of this new vision. The creation of this novel vision occurred by searching for relevant inspiration, that enabled the design of 4 strategic ideas, which are the fundament of the final design-driven innovation - the updated 'B&O Beyond' value proposition.

#### Updated Concept 'B&O Beyond'

Throughout the development of the design-driven innovation, 'design critique' was provided by the stakeholders of this graduation project in order to guide the evolving design in a direction that would benefit customers and 'fit' with HARMAN Automotive's partnership. The updated 'B&O Beyond' value proposition contained a product-service system concept (structure provided top left corner).

#### Conclusion

This graduation thesis presents the creation of the new goal for a new strategy for HARMAN Automotive's partnership with Bang & Olufsen's sub-brand 'B&O' and Ford. As the noun 'strategy' indicates a "deliberate search for a plan of action that will develop a business's competitive advantage and compound it" (Henderson, 1989), recommendations are provided for HARMAN Automotive to compound "the conception that will develop a business's competitive advantage" - the updated 'B&O Beyond' concept.



Process of Design-Driven Innovation (Radical innovation of meaning)

Isabelle Nielen  
A Design-Driven Product-Service System Innovation for HARMAN International  
06-03-2021  
Strategic Product Design

**Committee** Chair - Dr. ir. Erik Tempelman  
Mentor - ir. Ehsan Baha  
Company mentor - Gorm Haldor Jørgensen  
**Company** HARMAN International

