

BOMBARDIER



Master's Thesis:

User experience and Balise transponders

Background

Bombardier Transportation is a global mobility solution provider leading the way with the rail industry's broadest portfolio. It covers the full spectrum of solutions, ranging from trains to sub-systems and signaling to complete turnkey transport systems, e-mobility technology and data-driven maintenance services. Combining technology and performance with empathy, Bombardier Transportation continuously breaks new ground in sustainable mobility by providing integrated solutions that create substantial benefits for operators, passengers and the environment.

A Balise is a transponder used as a beacon in many train signal systems in the world, Among them, the European system: ERTMS. This system has been designed for optimal performance and availability. However, some aspects of the life cycle of the product have not been considered like, supply chain, maintenance, installation and end of life.

Objective

The main objective of the master's thesis is to propose a new concept for this product that will take into consideration the whole lifecycle of a Balise from delivery and storage to installation and remove from the railway.

The project will consist in the following tasks:

1. Product journey to identify all the customer needs around balise
2. Ideation
3. Design of concept balises in 3D

One key factor to be successful in this project is not to feel limited by the conservatism in the branch.

Application

Prerequisites:

The candidate shall have studied Industrial design engineering at a Bachelor or Master level. He or she shall be familiar with any 3D CAD program. Knowledge of innovation processes like Human-centred design or Design Thinking is a must.

For more information, contact

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