



AI boosted User Experiences for Polestar

AI is reshaping all industries and the automotive sector is no exception. What is the future of a driving centered brand like Polestar, in a world that moves towards automation and digital experiences? How can Polestar boost the joy of driving through AI, even in moments when driving is not fun at all? How can Polestar take a proactive stance on AI? This thesis explores these questiones in a strategic way, aiming to guide Polestar's UX Team through this uncertain future.

This project concludes with four outcomes, which function as building blocks of this project. They are aimed at guiding the UX team in future developments of AI boosted user experiences, moving Polestar from having a reactive stance on AI to a proactive one.

The thesis started with research about the brand, where expert interviews were conducted to develop criteria for brand fit. Personas were developed to analyze the user values of current and future customers. Then technology scouting and creative trend research were used to collect insights about the context. These insights were then used together with brand and user values to develop the Future Vision through a value mapping workshop.

In the second half a design space card deck was developed as a tool for the Ideation following up on the Future Vision, followed by a codesign activity – which lead to the identification of three opportunity tracks of AI boosted user experiences Polestar should prioritize and start R&D projects on. All findings were then mapped in a strategic roadmap, combining value drivers, technology scouting and trends with design modules for the three identified R&D projects.

01

Future Vision

Grounding Polestars direction in user values.

Based on identified value drivers and tensions a Future Vision was developed, which serves as a North Star for future Polestar AI developments. It aims to give a strategic reference point to Polestars UX team, and was developed through a value mapping session with the team.

Joy of driving – Polestar cars are great to drive, and should maximize the users performance as a driver.

Time spent – driving is not always fun. The car should facilitate users in making the most out of their time spent.

Polestar enhances the joy of driving and time spent in your Polestar through using context aware and trustworthy AI experiences.

Trustworthy – Polestar stands for honesty and pureness. Users should trust Polestar and trust that they are in control.

Context aware – the key of AI is to make experiences tailored to the users needs, no matter the situation

02

Card Deck

A tool for Ideation in a structured and tangible way.

To explore the design space of "AI boosted User Experiences in the Car", a Card Deck was developed as a tool for structured Ideation. Through this method tangible concepts can be generated based on UX Goals and the capabilities of AI and the given car.

01	02	03	04	05	Generated Concept
Morning commute Weekend Roadtrip Grocery Run Driving abroad New driver Heavy rain ...	Collect data Monitor Systems Visualize Information Massage function Generate UI Perform Action beyond Car ...	Voice Input Rain Detection Driver Presence Google Maps Driver Eye Gaze Speed of Vehicle Google Calendar Time of Day ...	Speakers DIM Widget CSD Widget Massage function Suspension Trunk and doors Wipers Seat position ...	Proactive Reactive Voice-First Visual-First Touch Interaction Haptic Feedback Multi Modal Emotional ...	When <driving scenario>, AI can use <input/sensor> to <AI Action> with <touchpoint> in a <interaction mode> way, in order to <UX Goal>.
Driving Scenario	AI Action	Input / Sensors	Touchpoint	Interaction Mode	"Generated new Idea"
Feeling in control Reduce confusion Enhance productivity Multitasking ...	What can the AI do to help the user?	Which inputs does it need to do that?	What touchpoints will the AI use to do it?	How will that interaction take place?	Result
UX Goal					
What is the Context and what is the Goal?					

04

Roadmap

Mapping the findings across three horizons towards the Future Vision.

A strategic roadmap for internal and external communication was developed that structures user values, technology and trends over three horizons. Design modules were added from the thee identified areas, that scale throughout the horizons.

Value drivers	Trends	Technology	Design Modules
01 Trustworthy Foundations	02 AI boosted drivers	03 Boosting the whole journey	Future Vision

03

Opportunity Tracks

Three tracks to prioritize with R&D projects for Polestar AI experiences.

From the the Ideas generated through the Card Deck the ones most suitable for further exploration were selected based on evaluation – all showing a positive impact on user and brand. These Concepts were then clustered into three Opportunity Areas of AI boosted Experiences, which Polestar should prioritise in the development.

"Confusion Remover"

Confusion remover uses AI to monitor confusion by the driver, and allows it to actively mitigate it through enhanced explanations, visualisations.

"Get to know each other"

Get to know each other is a gamified, contextual onboarding experience. Profiles can be set up before the car gets delivered, enabling a frictionless start. Tutorials explain the car functions in moments where it is useful and non intrusive – enhancing the drivers competence.

"Contextual Zone"

The Contextual Zone Area centers around giving users direct access to GenAI through a dedicated area in the cars UI. Since AI has the capability to do anything a passenger could do, this concept was explores through codesign sessions in further detail.

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