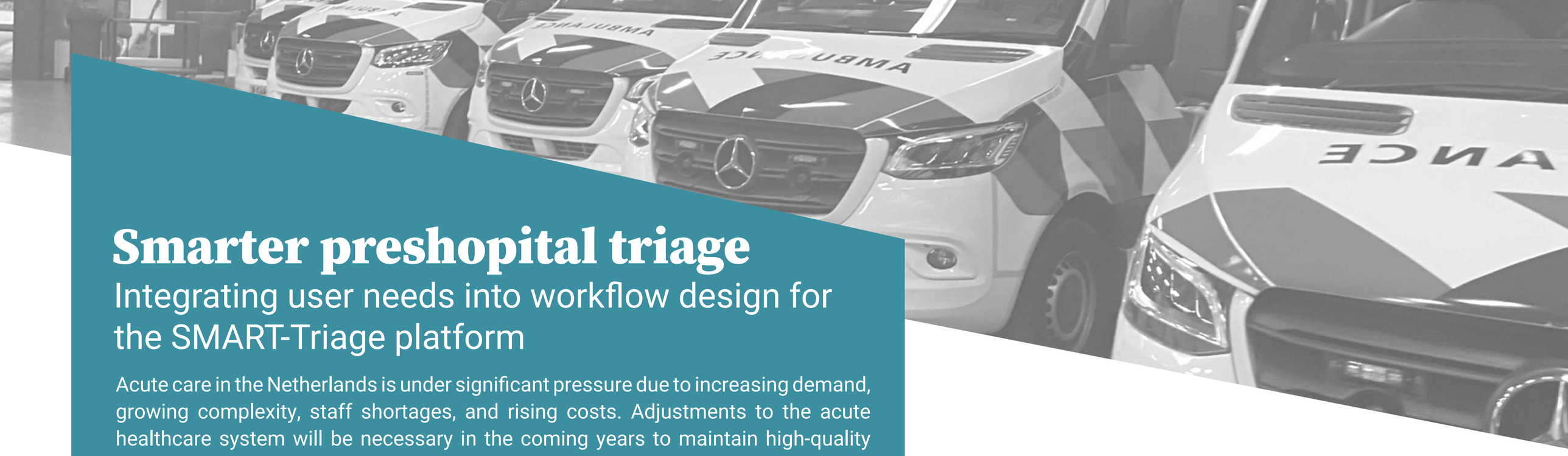


Smarter preshopital triage

Integrating user needs into workflow design for the SMART-Triage platform

Acute care in the Netherlands is under significant pressure due to increasing demand, growing complexity, staff shortages, and rising costs. Adjustments to the acute healthcare system will be necessary in the coming years to maintain high-quality care and reduce the pressure on the system.

In response, the Leiden University Medical Center (LUMC), in collaboration with other hospitals and healthcare institutions across the Hollands Midden region, initiated the SMART Triage project (SMART Medical Applications for Regional Triage Use). This project aims to enable real-time visual and audio communication between ambulance personnel and physicians during pre-hospital triage, aiming to reduce unnecessary Emergency Department (ED) visits and relieve pressure on the healthcare system.

Approach

This project aimed to design a Service Blueprint (SB) that demonstrates how ambulance care professionals can be supported by physicians during prehospital triage via the SMART Triage platform. To ensure the platform aligns with user needs and integrates seamlessly into daily workflows, ten users were interviewed to identify expectations for functionality, usability, technical requirements, and future scalability. Insights from national and international teleconsultation initiatives were also analyzed to learn from previous implementations.

In the design phase, user needs were translated into concrete functionalities and visualized through application interface designs. These prototypes were crucial in validation sessions, where the Service Blueprints and interface designs were reviewed by five users, the IT department, and the head of the Emergency Department (ED). Feedback from these sessions refined the platform's usability, ensured compatibility with workflows, and aligned it with ongoing innovations, creating a foundation for successful implementation.

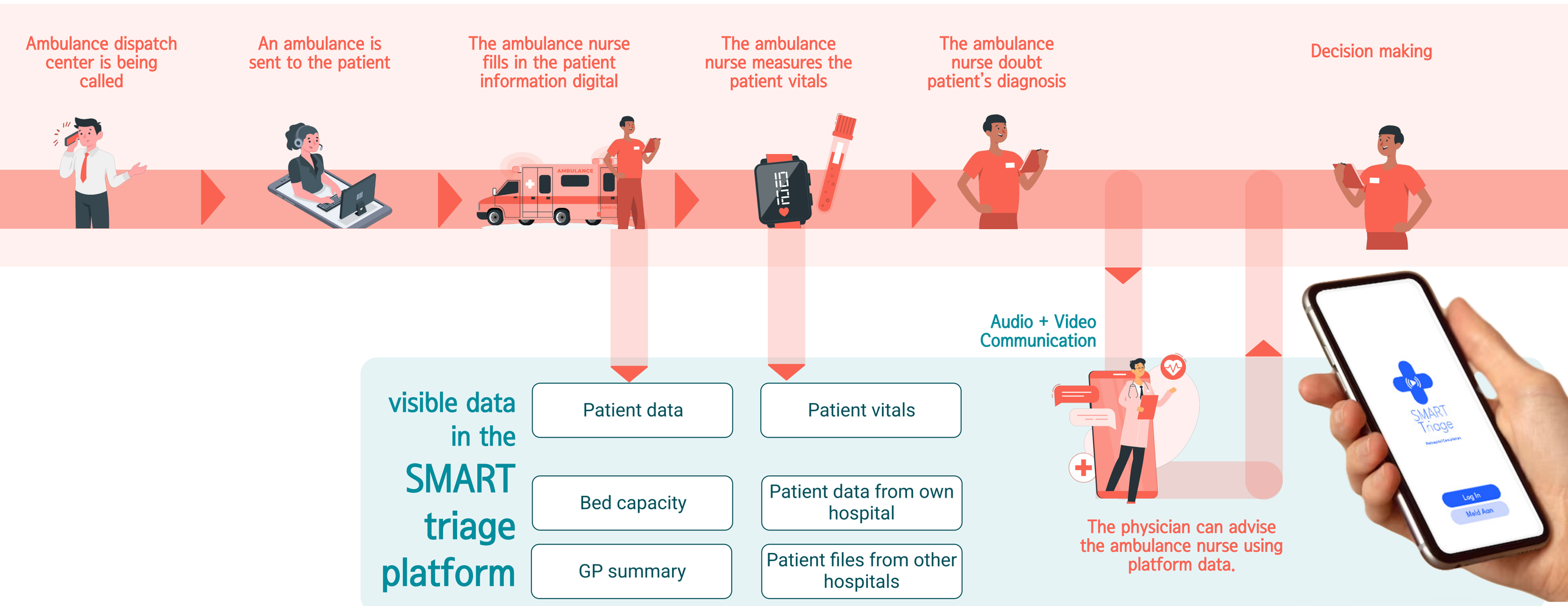
Results

The final Service Blueprint and interface designs reflect the needs and expectations of neurologists, cardiologists, pediatricians, and ambulance personnel for the SMART Triage platform. They clearly describe the user's actions during each step of the triage process, their interaction with the technology, where patient data is stored, and how it can be accessed.

In addition, a roadmap was developed to guide the platform's growth from 2025 to 2030. Over time, the platform could integrate data from GPs and pharmacies, enabling ambulance nurses and physicians to assess patients' conditions in the prehospital phase more accurately. The roadmap also outlines how the SMART Triage platform can be expanded to other regions and healthcare organizations in the Netherlands in the future.

A pilot phase of the SMART Triage platform will begin this year. While the implemented platform won't be an exact replica of this design due to costs and regulatory constraints, the outputs provide a strong foundation for its development. It's exciting to see this project making a real contribution to innovation in Dutch healthcare.

User scenario



Joska Stoorvogel
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Strategic Product Design

Committee Valeria Pannunzio
Fredrik Karlsson Bodell

LUMC Meys Cohen
Sophia Kingma

TU Delft

Faculty of Industrial Design Engineering

Delft University of Technology