Innovation & Entrepreneurship Hub for Educated Rural Youth (SURE Trust – IERY)

SAFENAV – safety promise in navigation

The domain of the Project:
UI/UX

Team Mentors (and their designation):
Ghirri Sudhan (UI/UX designer at metric stream)

Team Members:
GUNDOJU SRUJAN SAI

Period of the project:

6 months

June 2024 to December 2024

Declaration

The project titled “SAFENAV” has been mentored by Ghirri sudhan, organised by SURE Trust, from June 2024 to December 2024, for the benefit of the educated unemployed rural youth for gaining hands-on experience in working on industry relevant projects that would take them closer to the prospective employer. I declare that to the best of my knowledge the members of the team mentioned below, have worked on it successfully and enhanced their practical knowledge in the domain.

Team Members:

Mr. Gundoju Srujan sai
Signature

Mentor’s Name
Ghirri Sudhan (UI/UX Designer at Metric Stream)

Prof. Radhakumari
Executive Director & Founder
SURE Trust

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Executive Summary

This report presents the work carried out during my internship at Sure Trust on the SafeNav project. SafeNav is a safety-oriented navigation and assistance application aimed at improving user confidence while traveling in unfamiliar or potentially unsafe environments. The project involved understanding user needs, defining objectives, and designing a clear and practical user experience. The internship provided exposure to real-world design workflows and professional standards.

- ## Background and Context of the Project

With increasing urbanization and frequent travel, users often rely on navigation applications while moving through unfamiliar environments. However, most navigation solutions primarily focus on shortest routes and speed, with limited consideration for user safety and situational awareness. This gap creates challenges for users who require clearer guidance and confidence while navigating potentially unsafe or unknown areas. The SafeNav project was initiated to address this need by emphasizing safety, clarity, and user-centered navigation.

- ## Problem Statement / Goals of the Project

The primary problem addressed by SafeNav is the lack of safety-oriented design in conventional navigation applications. Users often experience confusion, decision overload, and anxiety while navigating unfamiliar routes, especially in high-stress situations. The goal of the project was to design a navigation experience that reduces cognitive load, improves clarity, and supports users with safety-focused guidance. The project aimed to create intuitive user flows that enable quick understanding and reliable interaction.

- ## Scope and Limitations of the Project

The scope of the SafeNav project was limited to UI/UX design and conceptual planning. The work focused on user research, journey mapping, wireframing, and interface design. Technical implementation, real-time data integration, and backend development were outside the scope of this project. Additionally, the project assumptions were based on generalized user scenarios rather than live user testing, which may limit real-world validation.

- **Innovation Component in the Project**

The innovative aspect of SafeNav lies in its safety-first approach to navigation design. Unlike traditional navigation apps that prioritize speed and efficiency, SafeNav emphasizes user awareness, clarity, and reduced decision fatigue. The project integrates context-driven UX thinking by considering stress, urgency, and environmental factors in design decisions. This shift toward responsible and human-centered navigation design differentiates SafeNav from conventional solutions.

- ## Clearly Defined Objectives and Goals of the Project

- The SafeNav project was designed with the following objectives:
- To design a safety-focused navigation application using UI/UX principles
- To reduce cognitive load and confusion during navigation in unfamiliar environments
- To create intuitive and accessible user flows for quick decision-making
- To prioritize clarity, usability, and user confidence over visual complexity
- To apply human-centered design approaches to safety-oriented use cases
- These objectives guided the overall design process and ensured that the project remained focused on practical usability and real-world relevance.

- ## Expected Outcomes and Deliverables

- The expected outcomes and deliverables of the SafeNav project include:
- Well-defined user journeys and task flows addressing safety scenarios
- Low-fidelity and high-fidelity wireframes representing core app screens
- A consistent UI design aligned with safety and accessibility principles
- A structured UI/UX design framework for the SafeNav application
- Design documentation supporting future development or enhancement
- These deliverables demonstrate the application of structured design methodology and provide a foundation for further technical implementation of the project.

- ## Methods / Technology Used

The project followed a structured **UI/UX design methodology** focused on user-centered design. The process began with understanding the problem context and defining safety-related user scenarios. User journeys and task flows were created to map critical navigation and decision points. Based on these insights, wireframes and interface designs were developed and iteratively refined. The methodology emphasized clarity, accessibility, and reduced cognitive load over visual complexity.

- ## Tools / Software Used

- The following tools were used during the project execution:
- **Figma** – for wireframing, UI design, prototyping, and design system creation
- **FigJam** – for user flow diagrams and journey mapping
- **Google Docs** – for documentation and reporting
- **GitHub** – for project reference and versioned design assets (if applicable)
- These tools supported efficient collaboration, structured design, and clear documentation.

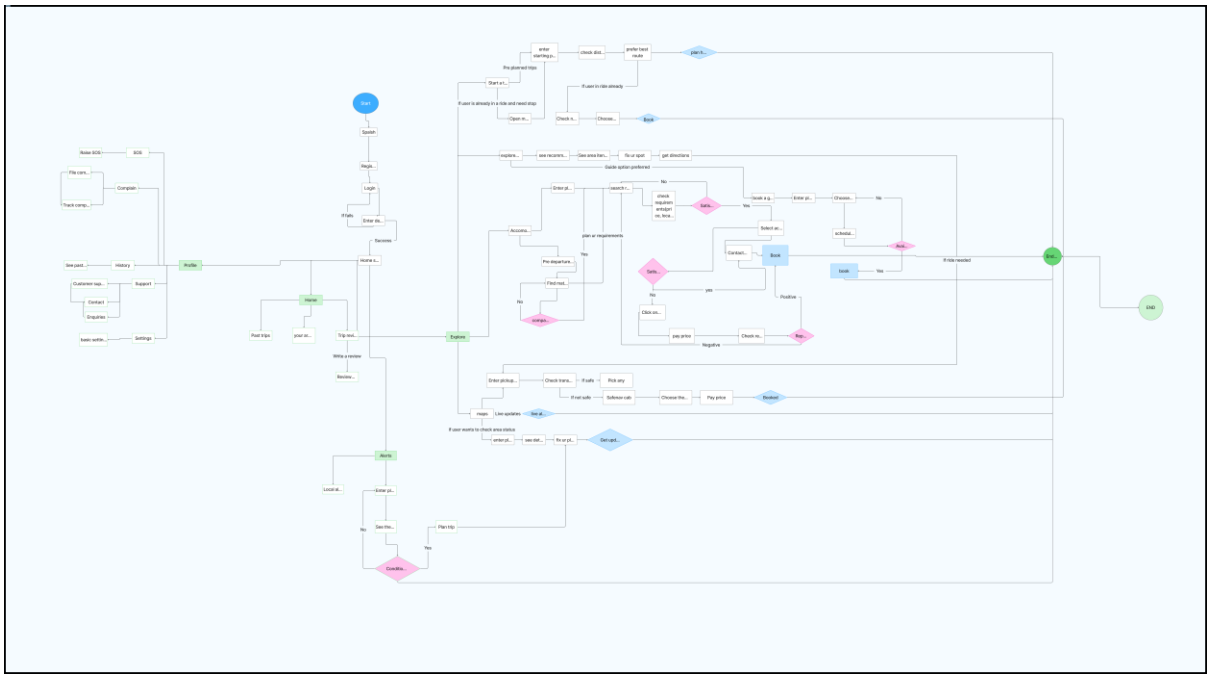
- ## Data Collection Approach (If Applicable)

- Primary data collection through live users was not conducted due to time and scope constraints. The design decisions were based on **assumed user personas**, common navigation use cases, and secondary research such as existing navigation app behaviors and safety-related design patterns. The project relied on scenario-based assumptions to simulate real-world user needs and challenges.

- ## Project Architecture

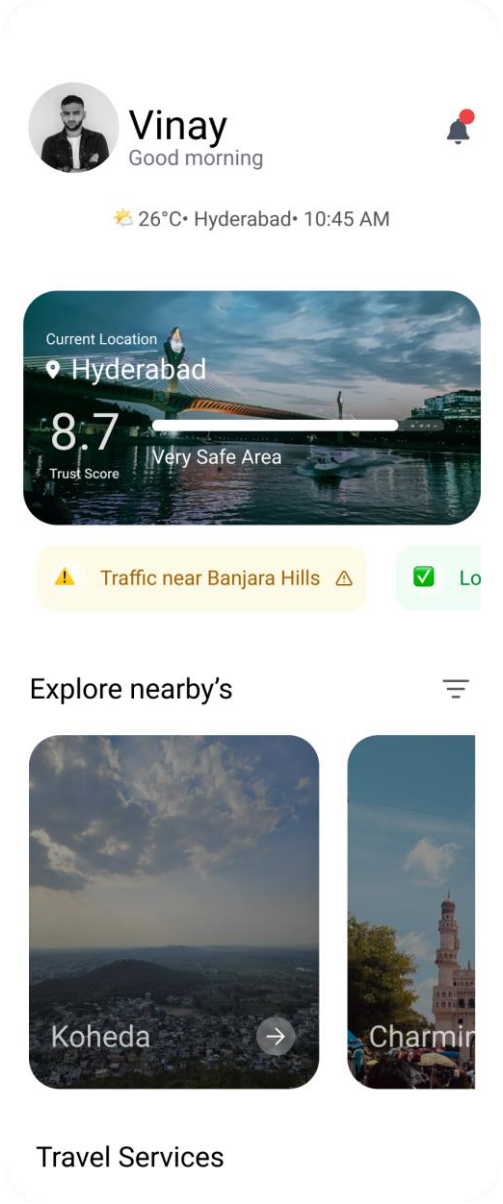
- The SafeNav project architecture is conceptual and design-focused. It follows a layered structure:
- **User Layer:** End users interacting with the SafeNav mobile interface
- **Application Layer:** UI screens including home, route selection, navigation view, and safety assistance features
- **Logic Layer (Conceptual):** Navigation logic, safety prompts, and decision support (conceptual only)
- **Data Layer (Out of Scope):** Real-time location, maps, and safety data assumed but not implemented

- The architecture was designed to clearly separate user interaction from system logic, allowing scalability and future technical implementation.

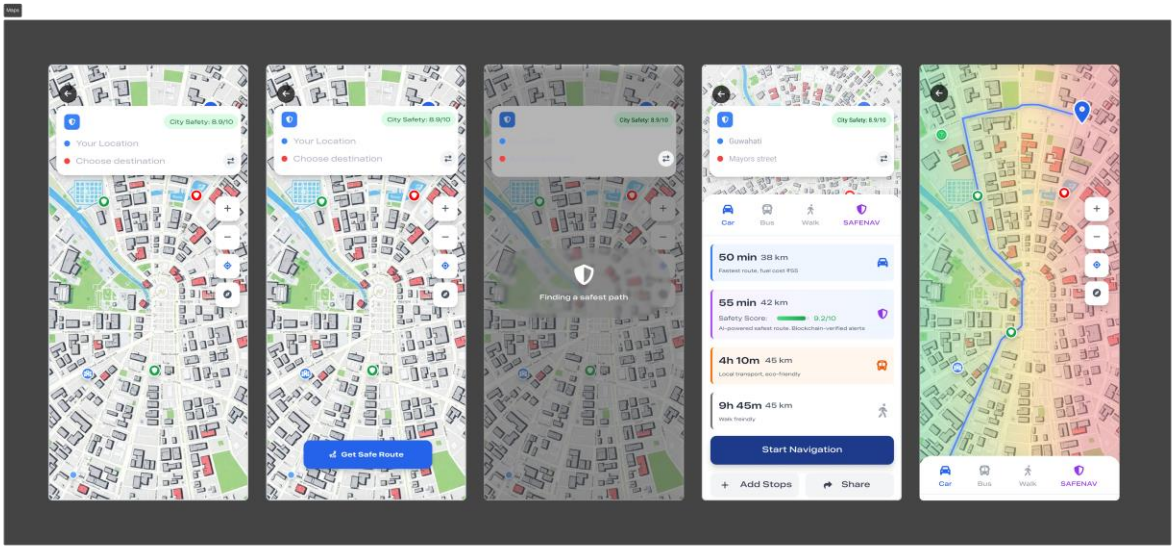


- **Final Project Working Screenshots with Supporting Explanation**

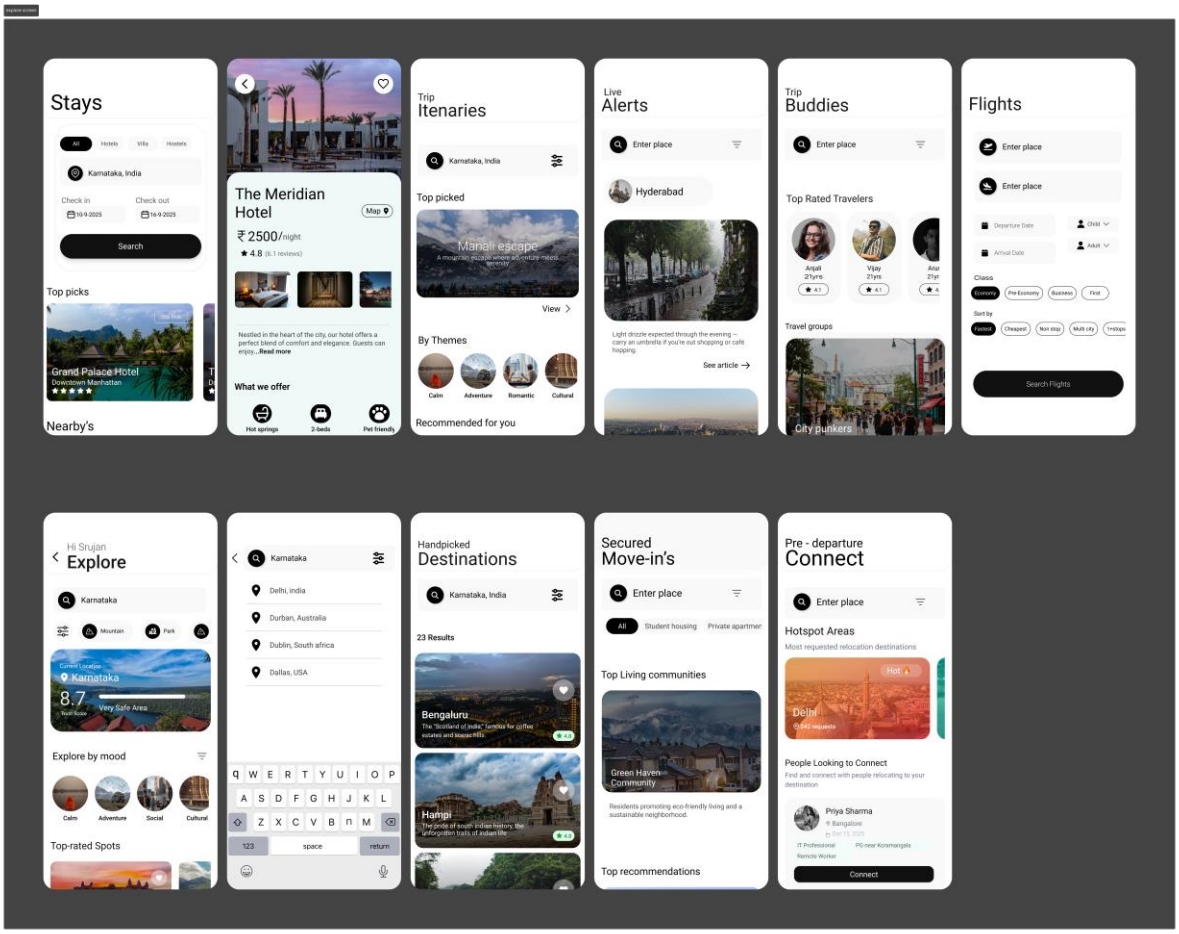
- The final design includes key screens such as:
- **Home Screen:** Provides quick access to navigation and safety-related actions



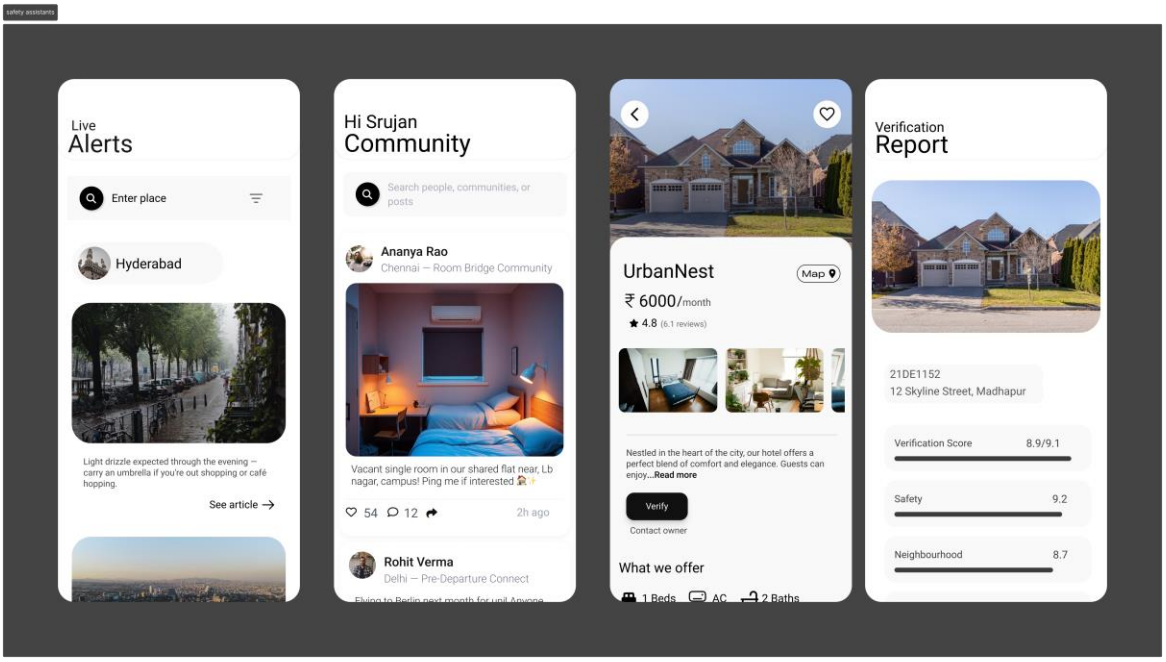
- **Route Selection Screen:** Displays route options with clarity and minimal distraction



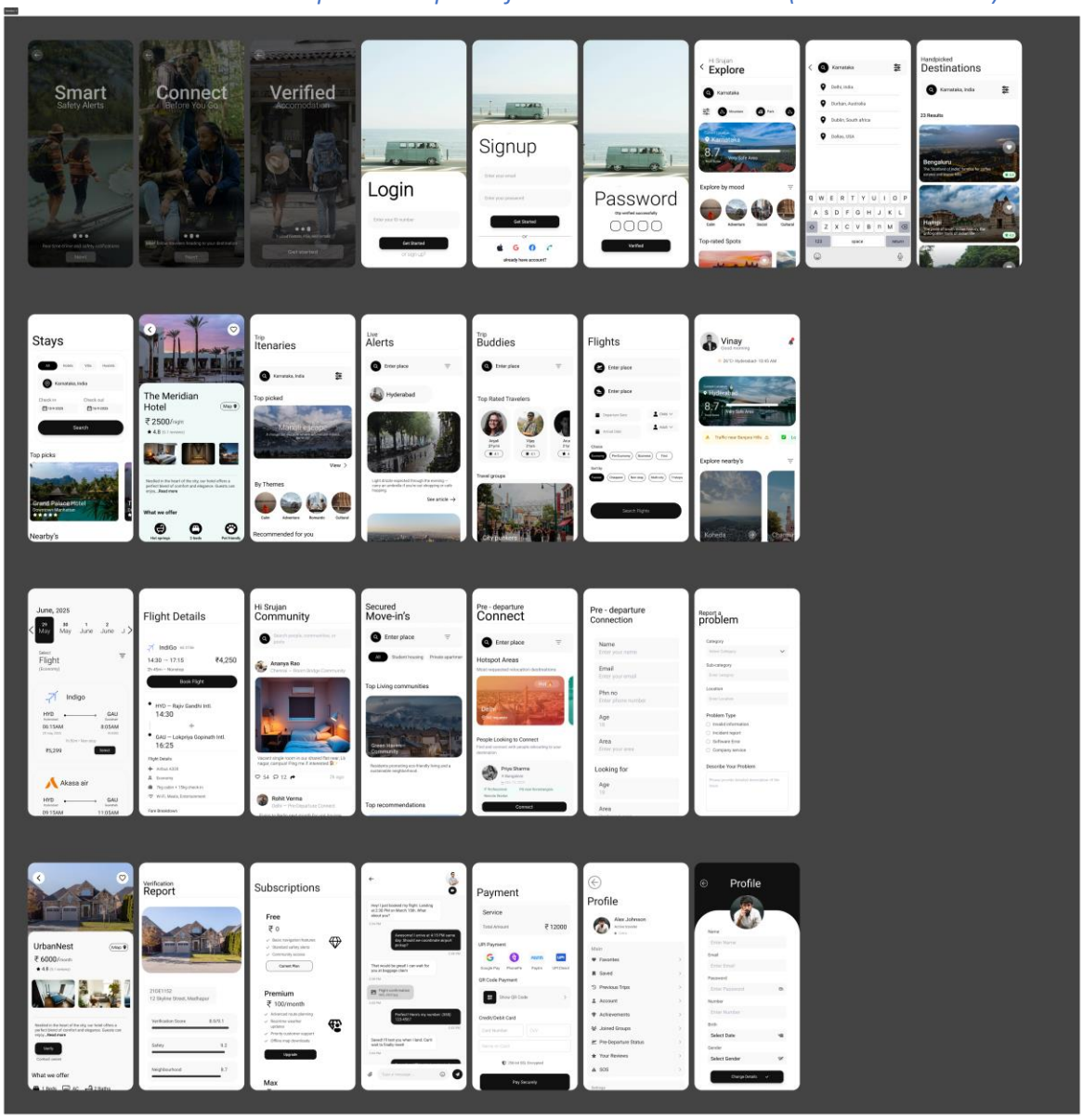
- **Explore screen:** Focuses on travel assitance and creating itnaries and travel updates



- **Safety Assistance Screen:** Designed for quick access during critical situations



- Each screen was designed to prioritize clarity, accessibility, and ease of interaction, especially under stress or urgency.



- **Project GitHub Link**

- The project design files and related references are available at the following GitHub repository:
- **GitHub Link: https://github.com/sure-trust/GUNDOJU-SRUJAN-SAI-g5-ui-ux/tree/main**

- ## New Learnings (Technology, Management, and Professional Skills)

  As the sole team member of the project, I gained hands-on experience in applying UI/UX design principles to a real-world problem. I improved my proficiency in design tools such as Figma for wireframing, interface design, and prototyping. I developed a structured approach to user flow creation, journey mapping, and design consistency through design systems. From a management perspective, I learned to plan tasks independently, manage time effectively, and maintain documentation. I also gained exposure to handling feedback, setting priorities, and aligning design outcomes with project objectives.

- ## Overall Experience

  Working independently on the SafeNav project was a valuable and challenging experience. Managing the project end-to-end improved my sense of responsibility and ownership. The experience helped me understand how real-world constraints influence design decisions and project outcomes. It strengthened my problem-solving ability and decision-making skills. Overall, the project provided meaningful exposure to professional workflows and enhanced my confidence in handling UI/UX projects independently.

Conclusion and Future Scope

- # Recap of Objectives and Achievements

The primary objective of the SafeNav project was to design a safety-focused navigation application using UI/UX principles. The project aimed to reduce cognitive load, improve clarity, and enhance user confidence in unfamiliar environments. These objectives were achieved through structured user flow design, journey mapping, and interface development. The final design outcomes successfully aligned usability, accessibility, and safety considerations. The project delivered a coherent UI/UX framework that meets the defined goals and serves as a strong design foundation.

- # Future Scope of the Project

The SafeNav project offers significant scope for future enhancement and implementation. Real-time safety data integration, live location tracking, and dynamic alerts can be incorporated to improve functionality. Personalization features based on user preferences and behavior can further enhance user experience. The project can also be extended to support wider mobility use cases and integration with existing navigation platforms. With technical development and live user testing, SafeNav has the potential to evolve into a fully functional safety-oriented navigation solution.