urbanXperience

MCube

European Mobility Venture
euMOVE 2025

Next Stop: Munich's autonomous urban Mobility Future

— based on experience from Amsterdam and the Netherlands
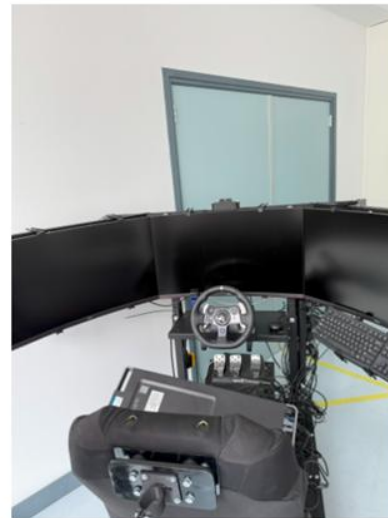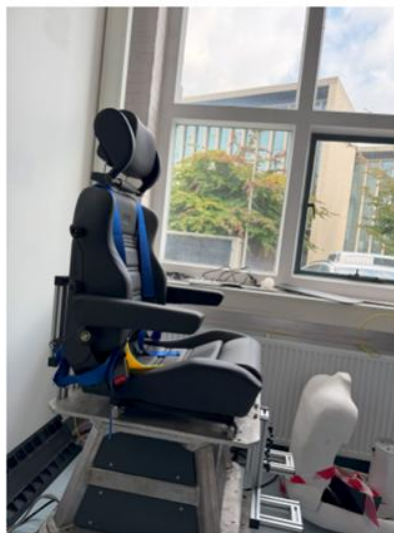
Taylan, Amrutha, Stefan, Longyun

Challenges

Physical Constraints & Policy Tensions

1.**Infrastructure:** uneven, narrow roads, protected from

modification.

2.**Government policy:** "No changes to inner-city infrastructure

for AVs."

Cultural Conflicts

1. **Pedestrian/cyclist behavior** defies traffic rules; informality is

normalized.

2. **Local mobility culture:** "People are not here for traffic rules."

Challenges

Lack of Experimentation

1. **No AV pilot projects** in historic center.

2. **An accident** increased regulatory caution.

Stakeholder Visions in Tension

1. **City planners:** Envision seamless, data-informed mobility systems that are sustainable, scalable, and future-ready.

2. **Residents:** Prioritize place-based identity, quality of life, and continuity of cultural narratives

3. **Tech developers:** Navigate the tension between universal design standards and context-sensitive innovation.
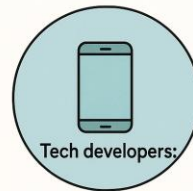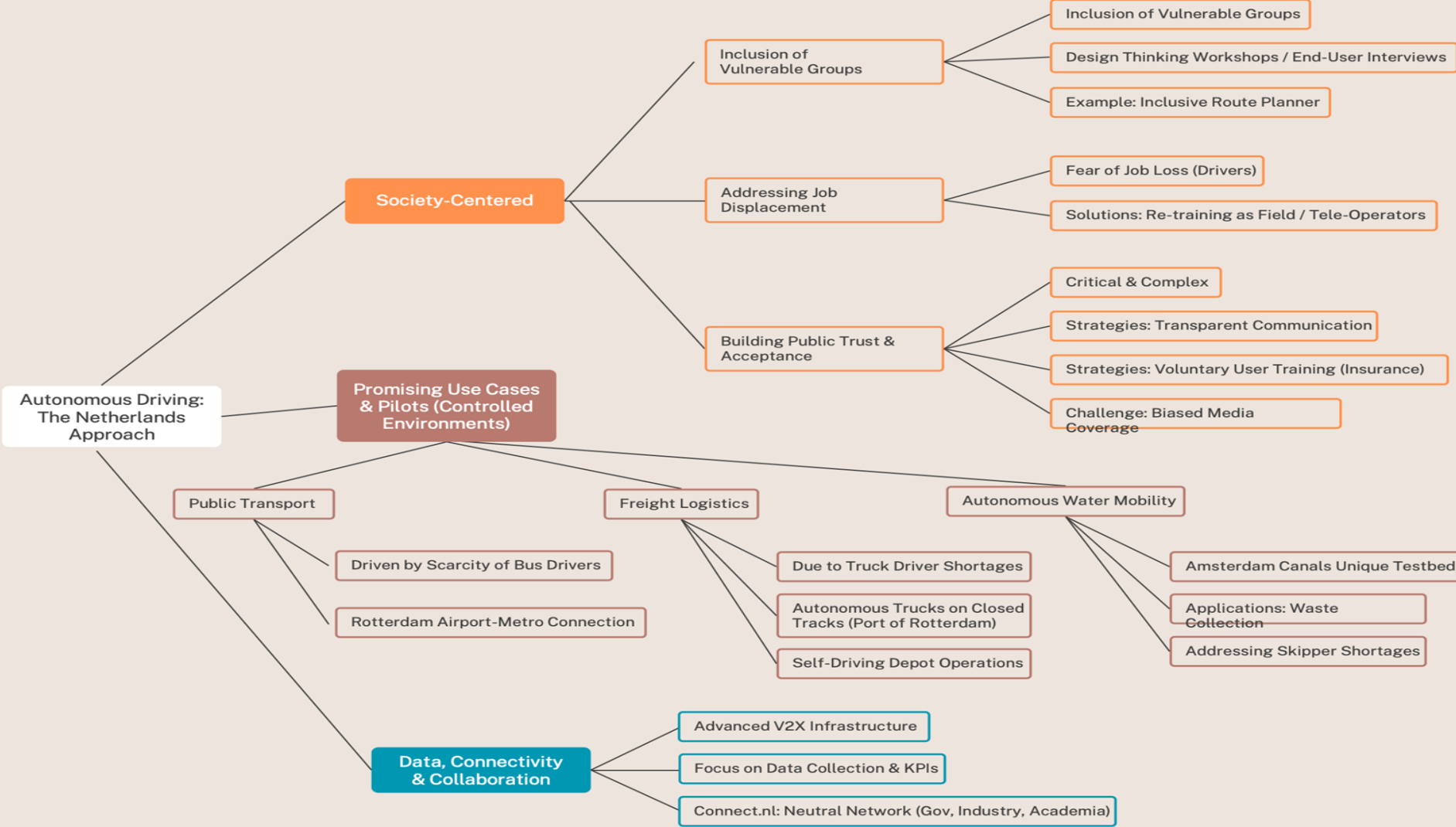

Stakeholder Visions in Tension

City planners:
Smart, sustainable, integrated mobility

Residents:
Heritage, livability, and cultural continuity

Tech developers:
Universality vs. local adaptability

Autonomous Driving: The Netherlands Approach

Society-Centered

Inclusion of Vulnerable Groups
- Inclusion of Vulnerable Groups
- Design Thinking Workshops / End-User Interviews
- Example: Inclusive Route Planner

Addressing Job Displacement
- Fear of Job Loss (Drivers)
- Solutions: Re-training as Field / Tele-Operators

Building Public Trust & Acceptance
- Critical & Complex
- Strategies: Transparent Communication
- Strategies: Voluntary User Training (Insurance)
- Challenge: Biased Media Coverage

Promising Use Cases & Pilots (Controlled Environments)

Public Transport
- Driven by Scarcity of Bus Drivers
- Rotterdam Airport-Metro Connection

Freight Logistics
- Due to Truck Driver Shortages
- Autonomous Trucks on Closed Tracks (Port of Rotterdam)
- Self-Driving Depot Operations

Autonomous Water Mobility
- Amsterdam Canals Unique Testbed
- Applications: Waste Collection
- Addressing Skipper Shortages

Data, Connectivity & Collaboration
- Advanced V2X Infrastructure
- Focus on Data Collection & KPIs
- Connect.nl: Neutral Network (Gov, Industry, Academia)

Urban Symbiosis: Rethinking the Interface between People and Technology

"Our vision is not just about showcasing technology. It's about creating a space where people, machines, and the environment interact — consciously, inclusively, and responsively."
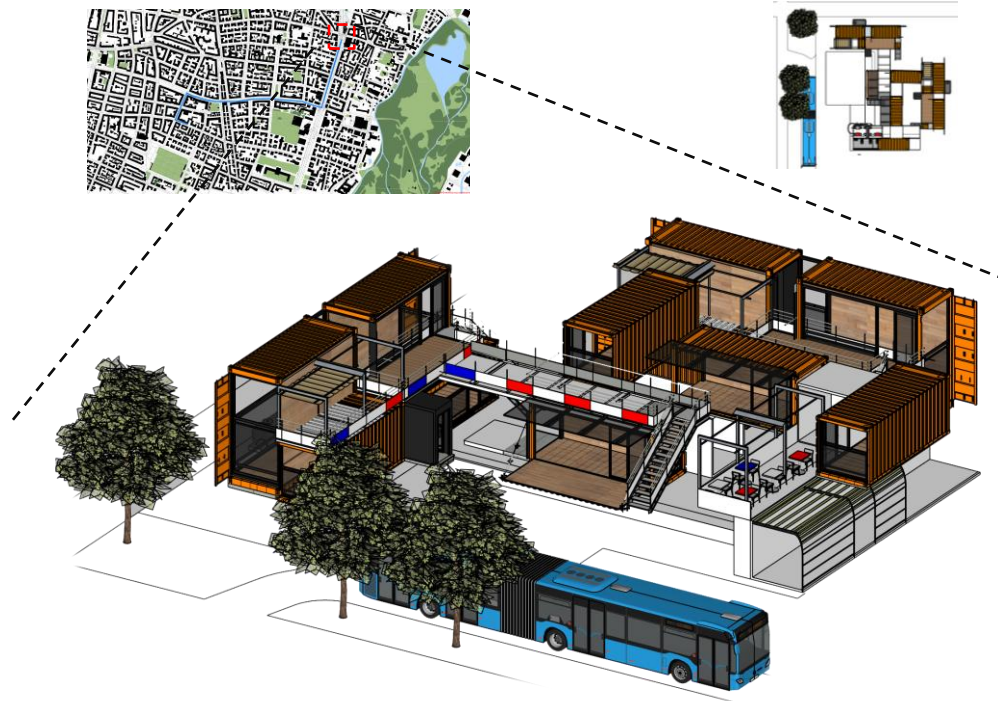
1. Inclusive Autonomous Mobility
2. Urban Ecology Respect
3. Protecting Cultural Infrastructure
4. Equally Understandable for All
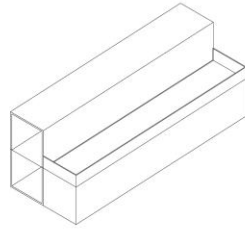5. Co-Creation Platform

Re-thinking AV acceptability – bridging knowledge gaps through experiential spaces

Leveraging public spaces as spaces for knowledge exchange, creating an UrbEx Experience Centre.
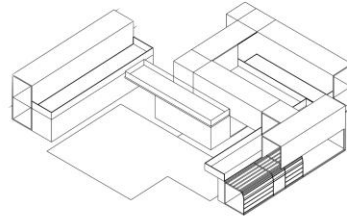
Aimed at being modular, pop-up and easy to construct spaces across different scale. Coupled with a demonstrative AV route between Georgenstrasse and Muenchner Freiheit.

Starting from a module and expanding further
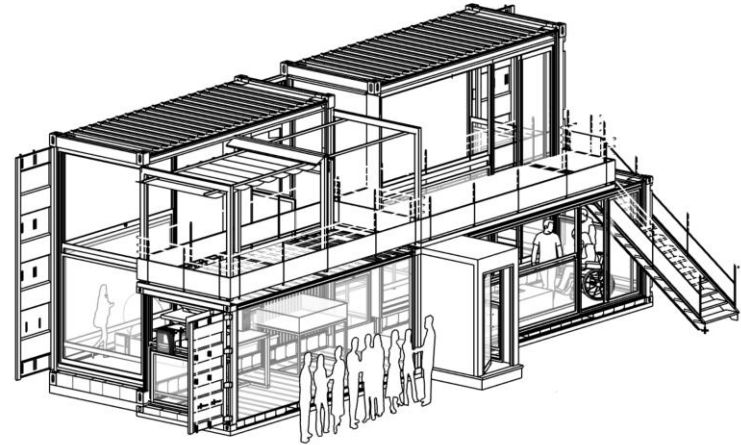

Basic 3xContainer module

Combining modules to create a space

Display space

Innovation space and simulator

So while Amsterdam moves cautiously, Munich can move **consciously** — guided by equity, ecology and empathy. It's not just about moving vehicles, but moving minds — toward trust and a shared urban mobility.

Not racing toward the future, but **crafting** it — together.