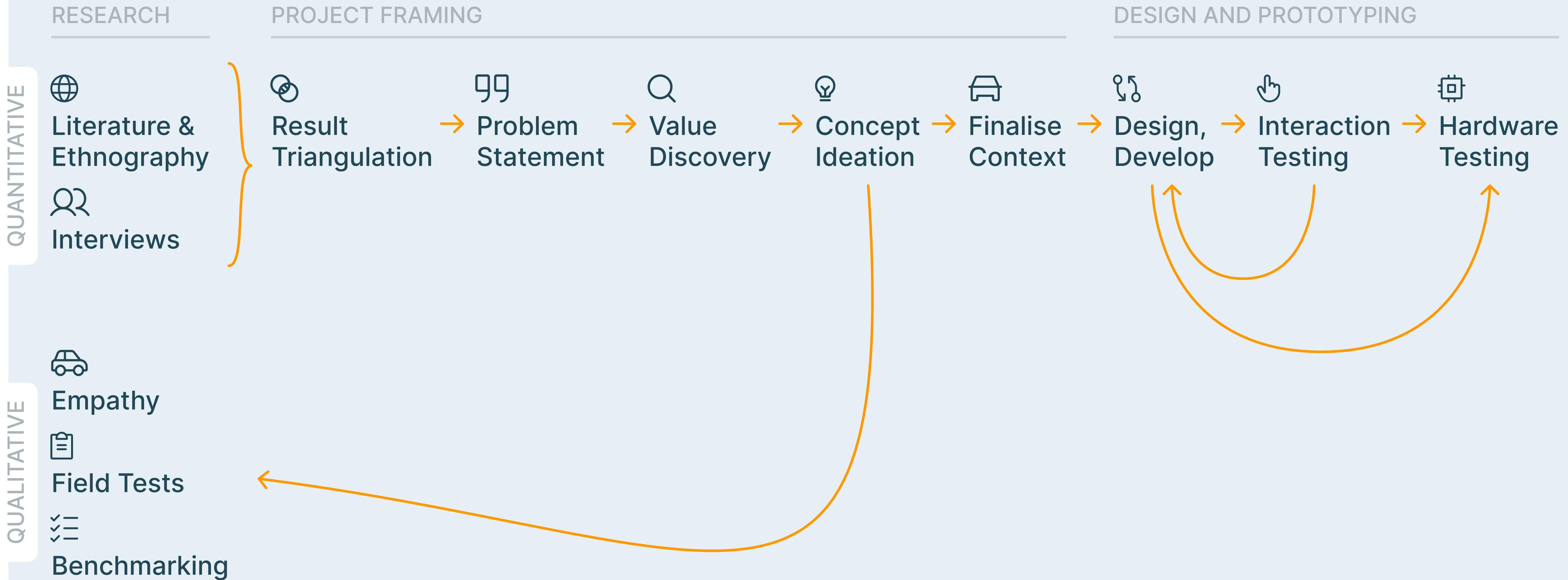


h o r i z o n
LOOKING FORWARD



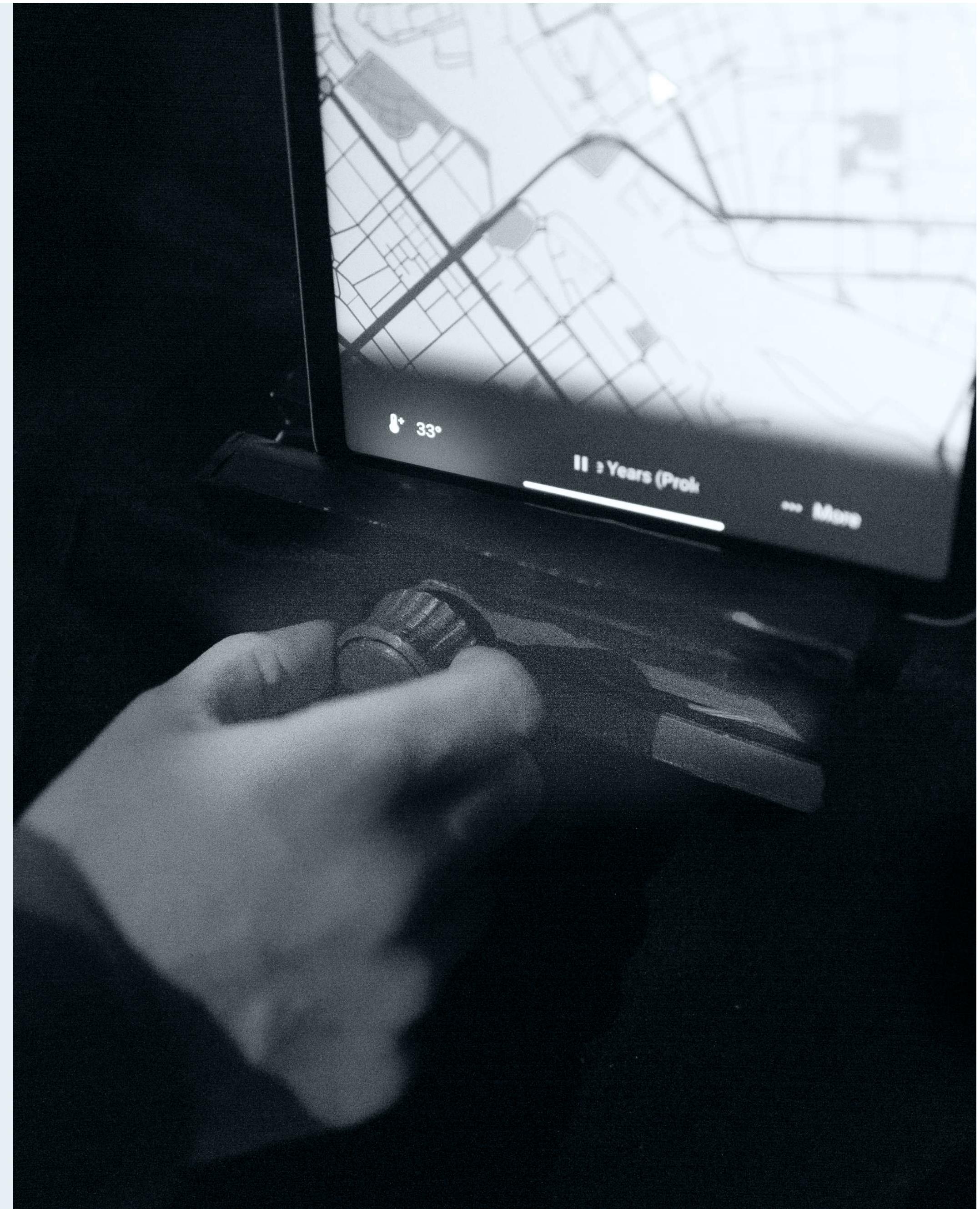
Horizon Design Process



Naturalness in Interaction

- built on human intuition
- provides feedback generation
- utilises everyday life gestures
- gives attention to human senses
- muscle memory is employed

Simon A. Ramm (2018), Goodrich and Olsen (2003)



Primary Interactions



Simon A. Ramm, Naturalness Framework for Car–Driver Interaction (2018)

Secondary Interactions

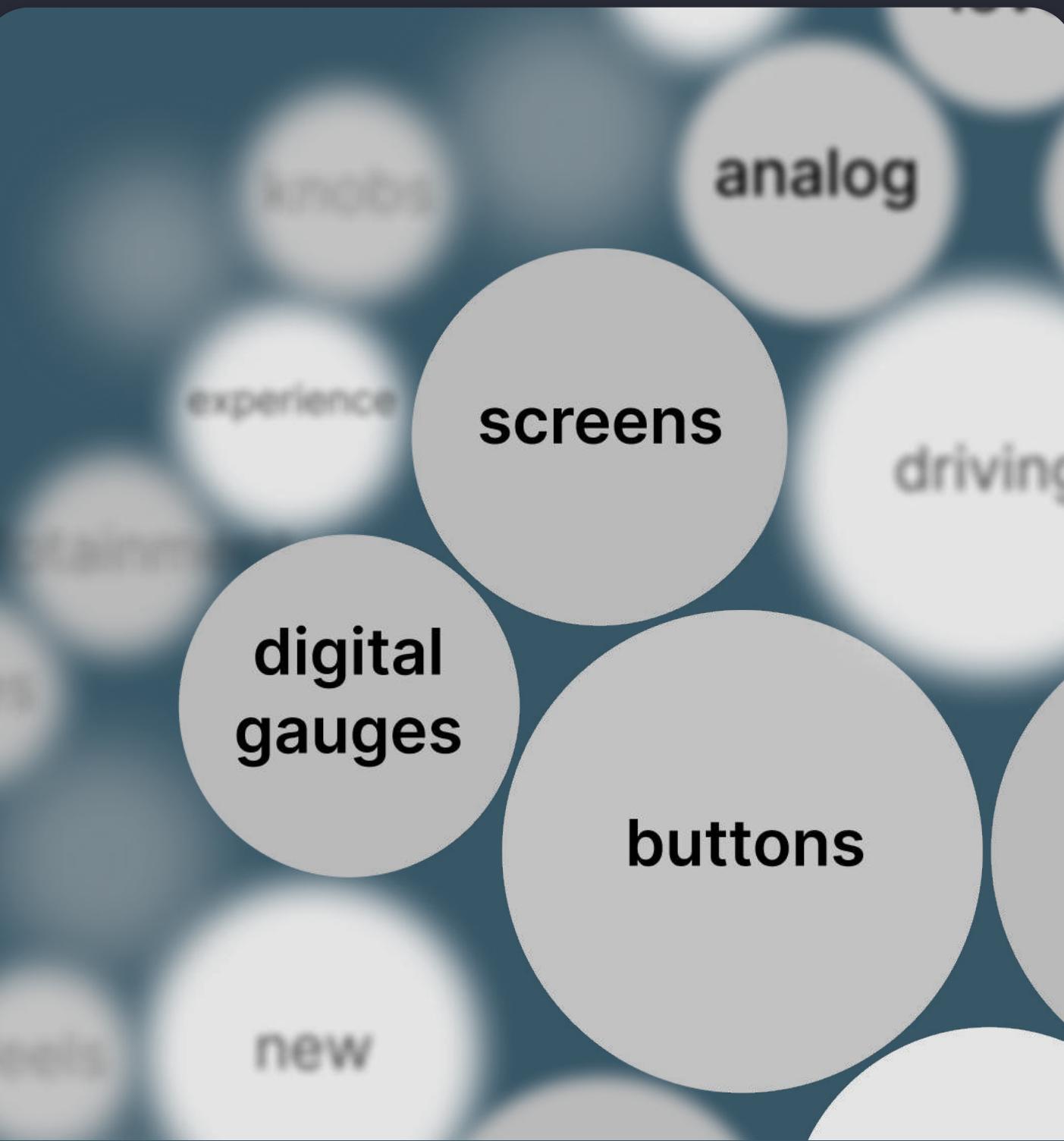


Simon A. Ramm, Naturalness Framework for Car–Driver Interaction (2018)

Research Insights



Interviews

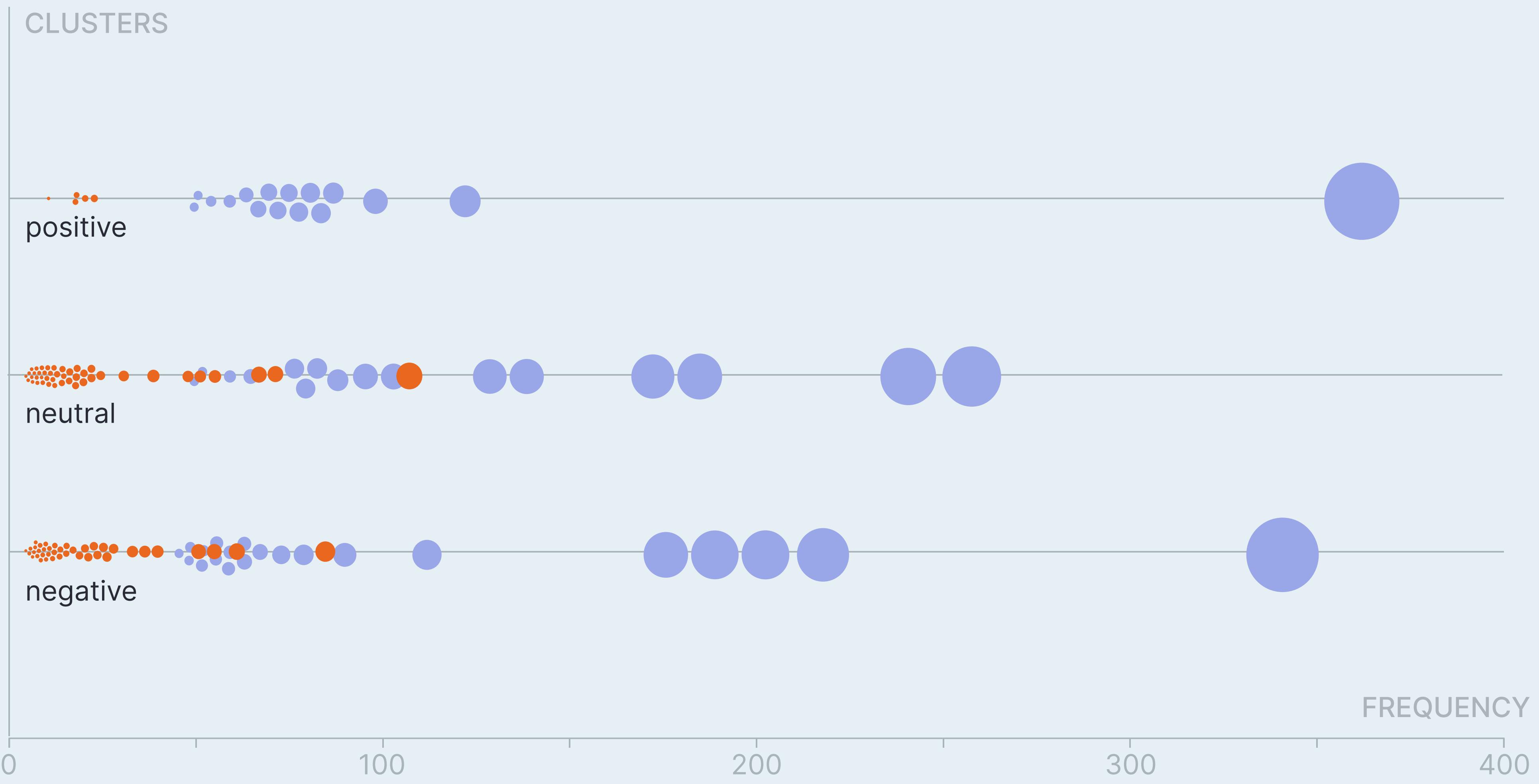


Literature & Ethnography

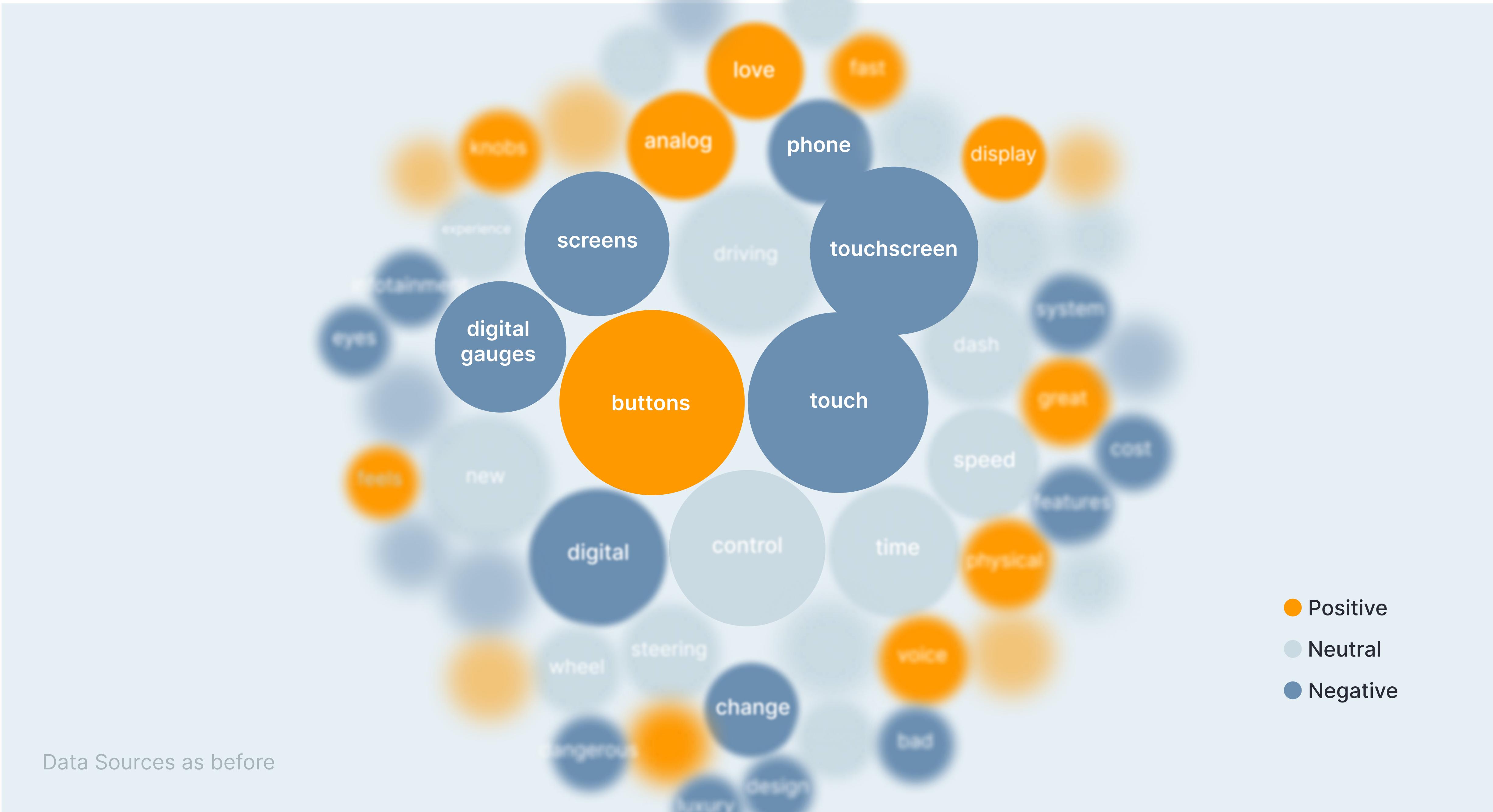


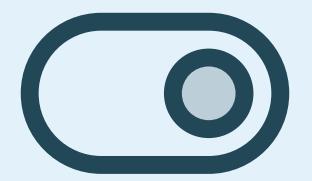
Empathy Gathering

Digital Ethnography



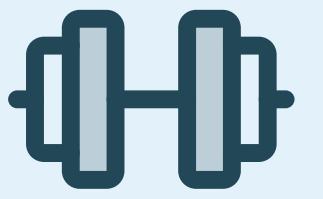
Data Sources: Reddit, YouTube, car forums, customer reviews





Lack of
Control





**Effort and
Time**



Tangible
Interactions



Cluttered
Controls

Project Framing

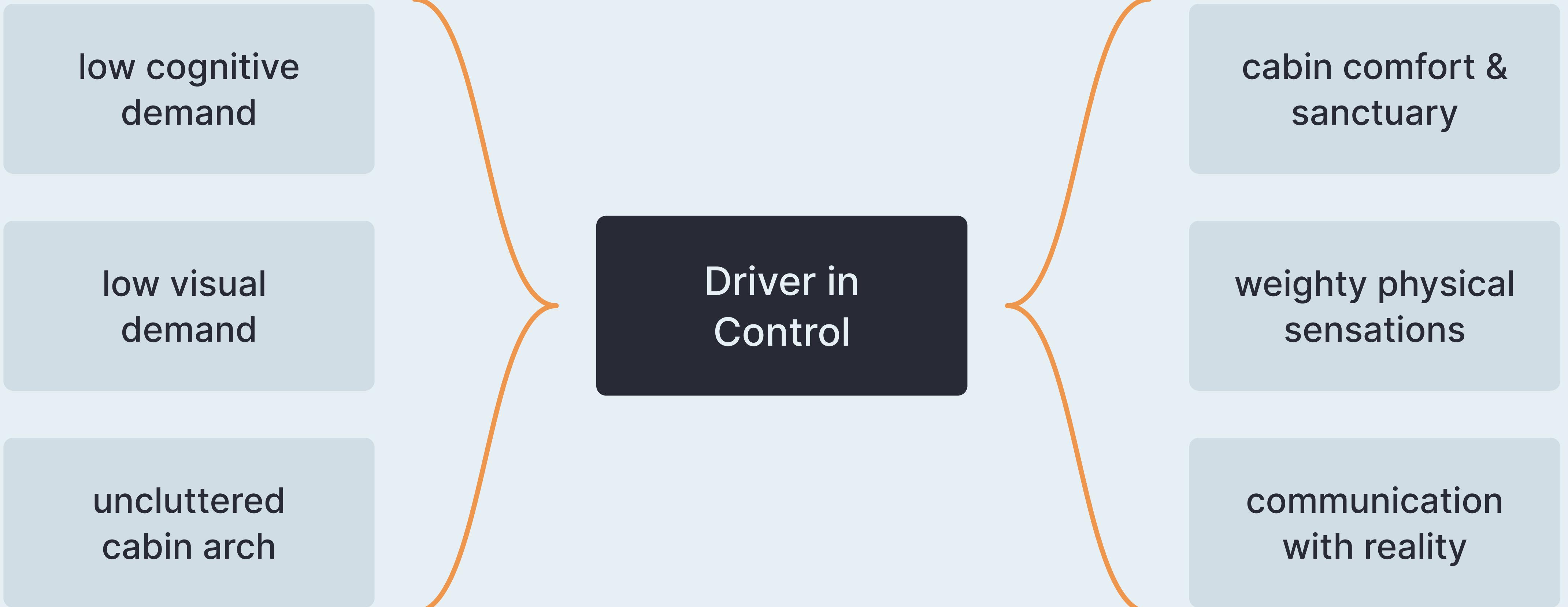
Design a contextual interaction system
that minimises cognitive load and
maximises driver control

Project Framing

contextual interaction

minimises cognitive load

maximises driver control





Concept Goals

contextual interactions

minimise cognitive load

maximise driver control

Concepts

1. Wheelie

- ✓ accessible controls
- ✓ steering wheel placement
- ✓ dot matrix and light feedback
- ✗ focus on primary
- ✗ familiarity with old system

2. Slider Flip

- ✓ familiarity with old system
- ✓ central placement
- ✓ scaleable

3. Puck

- ✓ habitual gestures
- ✓ gearbox placement
- ✓ resting arm accessibility
- ✓ rotary control

Concepts

1. Wheelie

ble controls

g wheel placement

matrix and light feedback

on-primary

arity with old system

2. Slider Flip

- ✓ familiarity with old system
- ✓ central placement
- ✓ scaleable

3. Puck

- ✓ habitual gestures
- ✓ gearbox placement
- ✓ resting arm accessibility
- ✓ rotary control

Field Testing

- task based testing
- placement of solution
- context finalisation

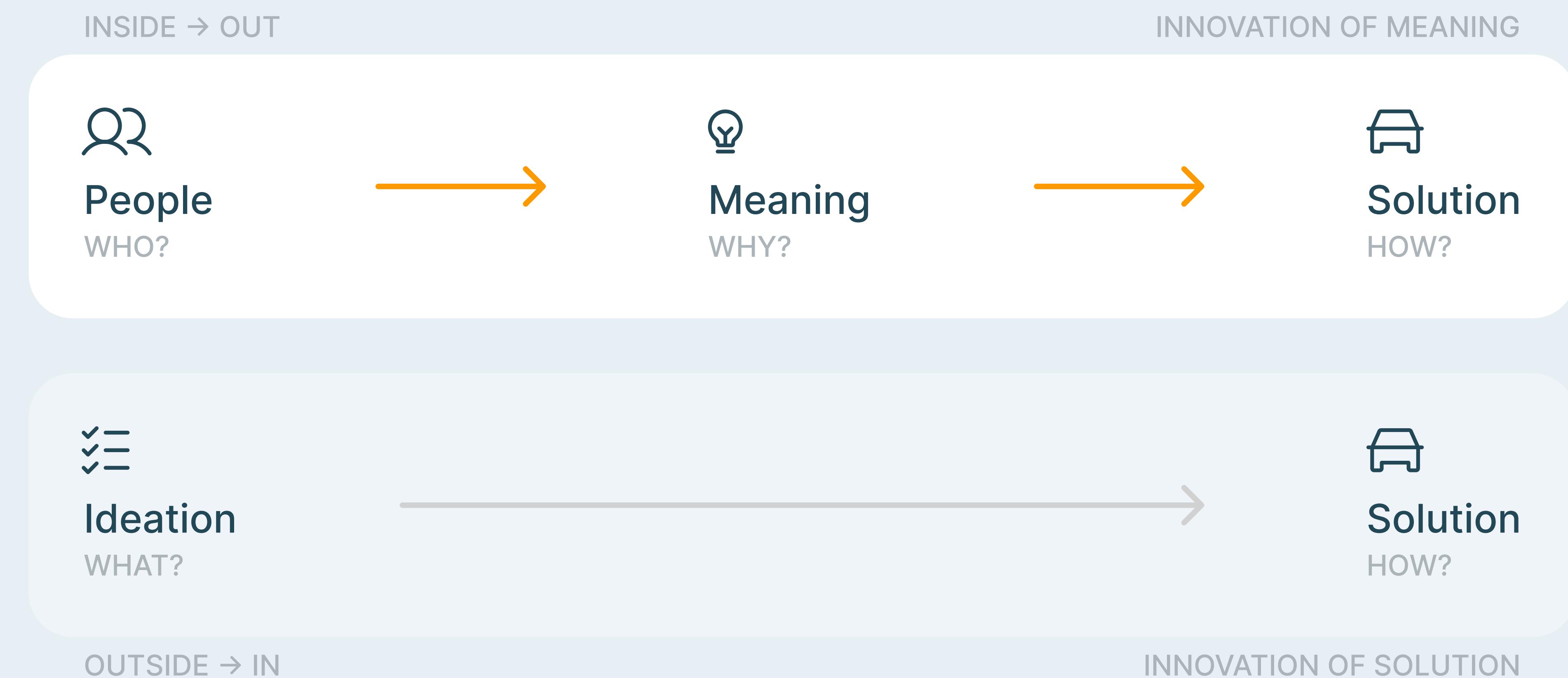


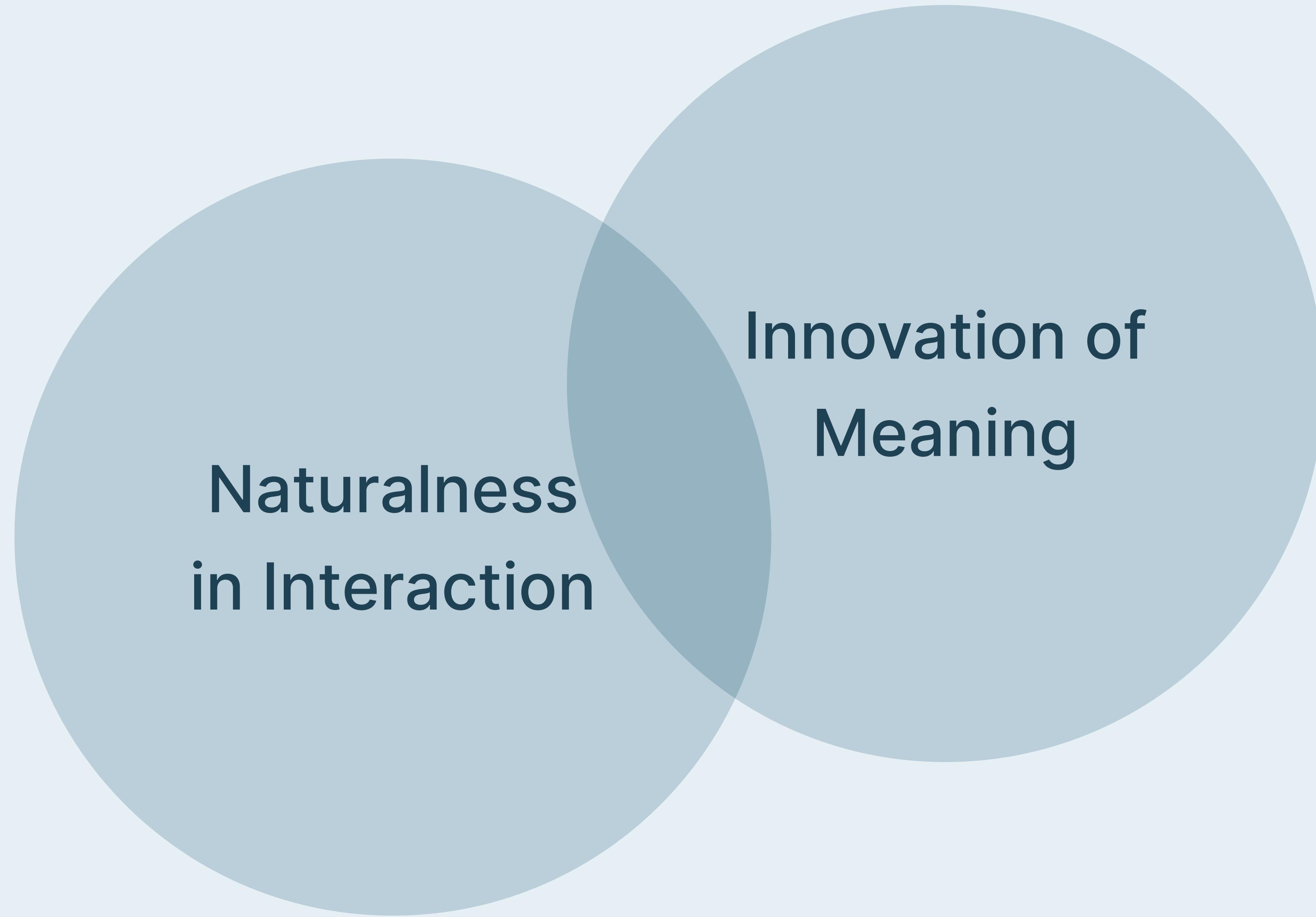
From Minimal to Complex Systems



- primary
- secondary
- physical

Innovation Framework

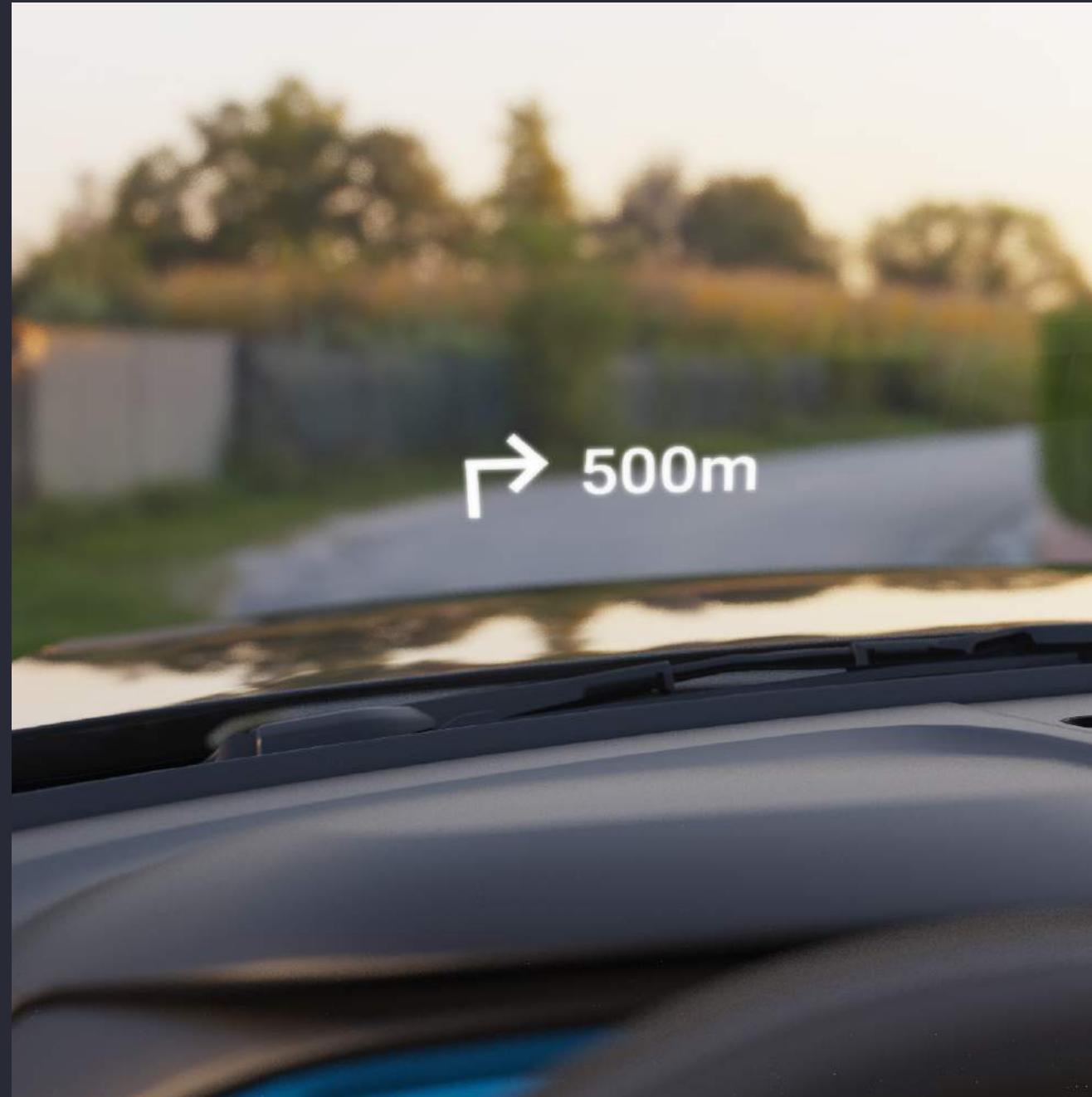




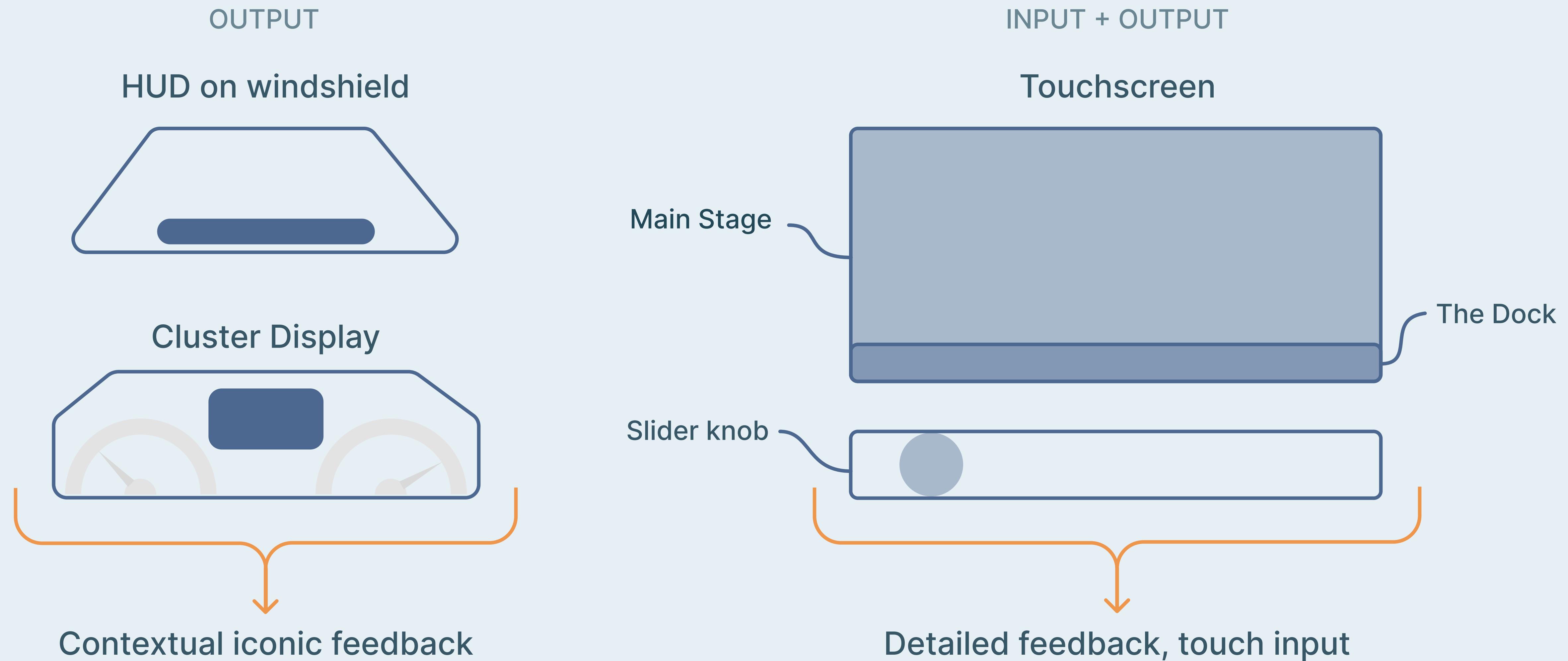


Solution, Experience, Meaning

Horizon is an interactive system
that enables me to value the time I spend in my car
because I love living in the moment



System





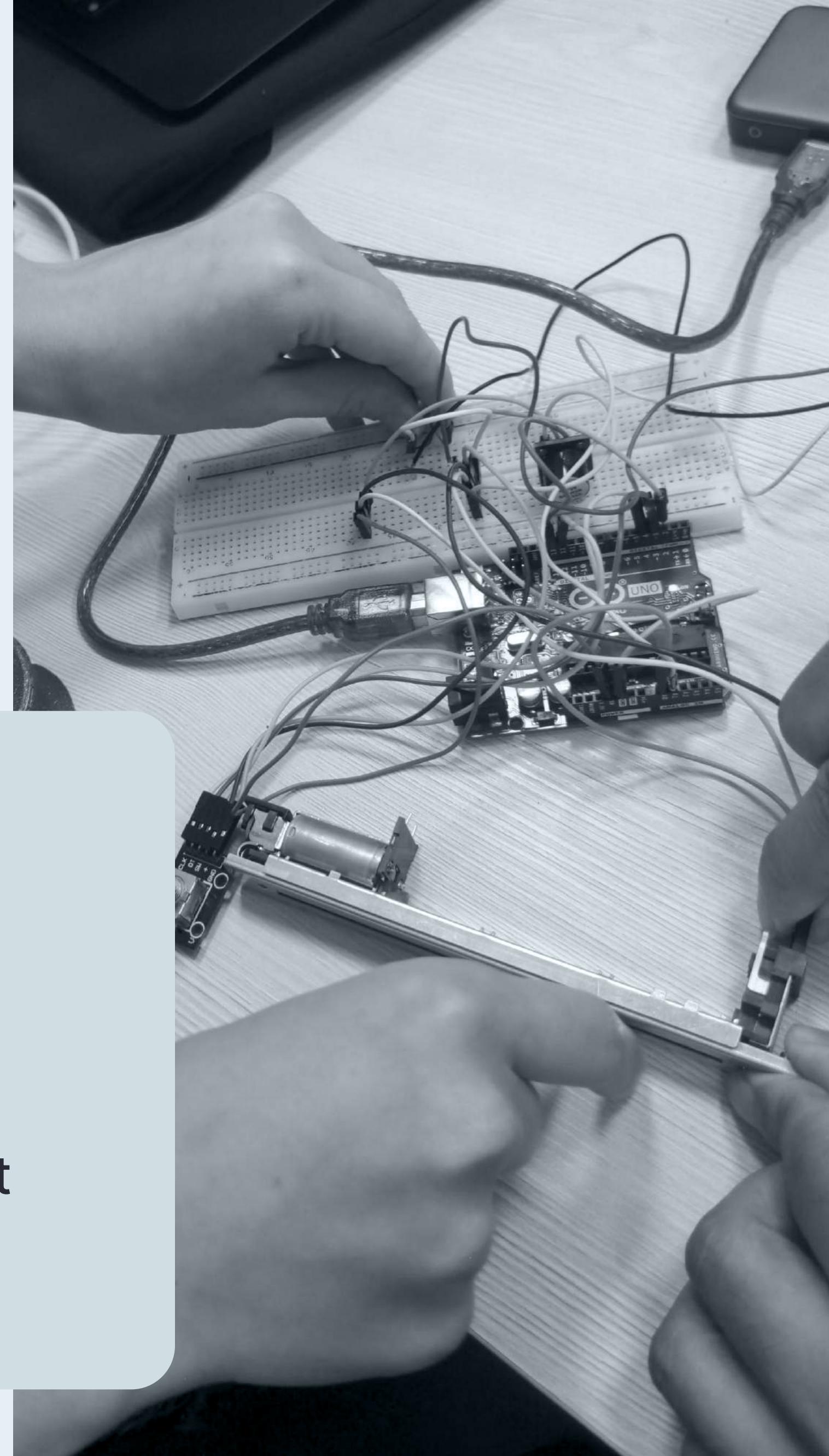
Interaction Testing

- intuitiveness of solution
- audio or voice feedbacks
- sliding interaction
- rotation interaction
- pressing interaction

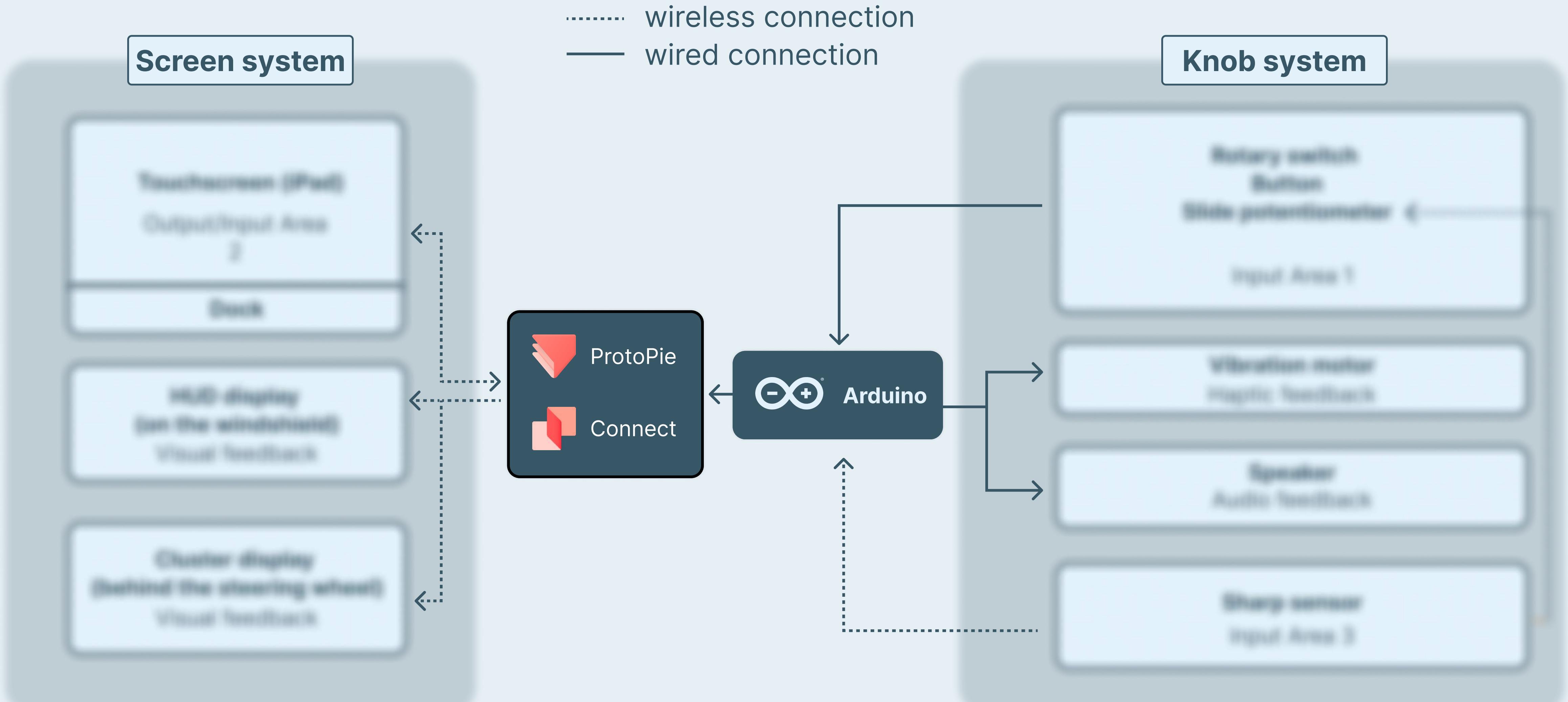


MVP Testing

- knob form (texture and sizes)
- potentiometer sliding test
- HUD film initial test
- haptic feedback recognition test
- rotation switch test



MVP Architecture



Interface



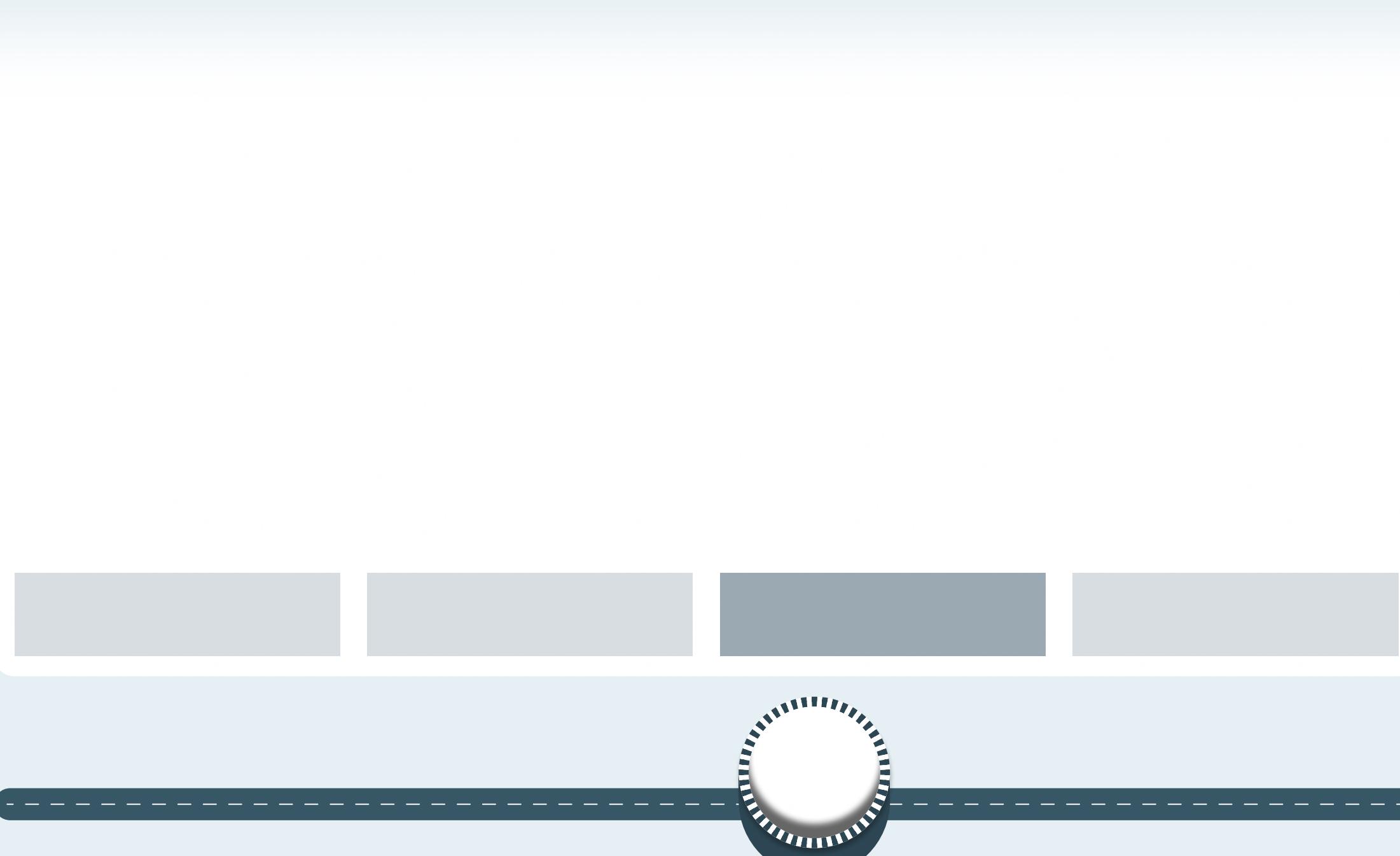
Benchmarking

- layout
- system defaults
- information architecture



System Defaults

- temperature
- fan
- music
- navigation
- more menu







Demo Setup

1 Intro

2 Experience

3 Feedback

