OBEYA
association

FROM CONVERSATIONS TO COLLECTIVE DECISIONS: BUILDING HUMAN-CENTERED AI AS A SOCIO-TECHNICAL DECISION SYSTEM

AUTHOR
JÉSSICA GOSS

OBEYA THINKING IS INEVITABLE WHEN THE PROBLEM IS WICKED ENOUGH.

This case shows how Obeya principles can emerge organically through a Wicked Problem Approach: extending alignment, learning, and collective decision-making beyond physical rooms into complex public service systems.

Mijke the Matchbot is a human-centered conversational AI developed within Eindhoven Engine, designed to help citizens with limited literacy skills navigate fragmented public service systems. Its main goal is to match citizens' needs with local social solutions.

It is part of the Met Mij project, which started in 2023 and is developing into a social start-up in the Brainport region.

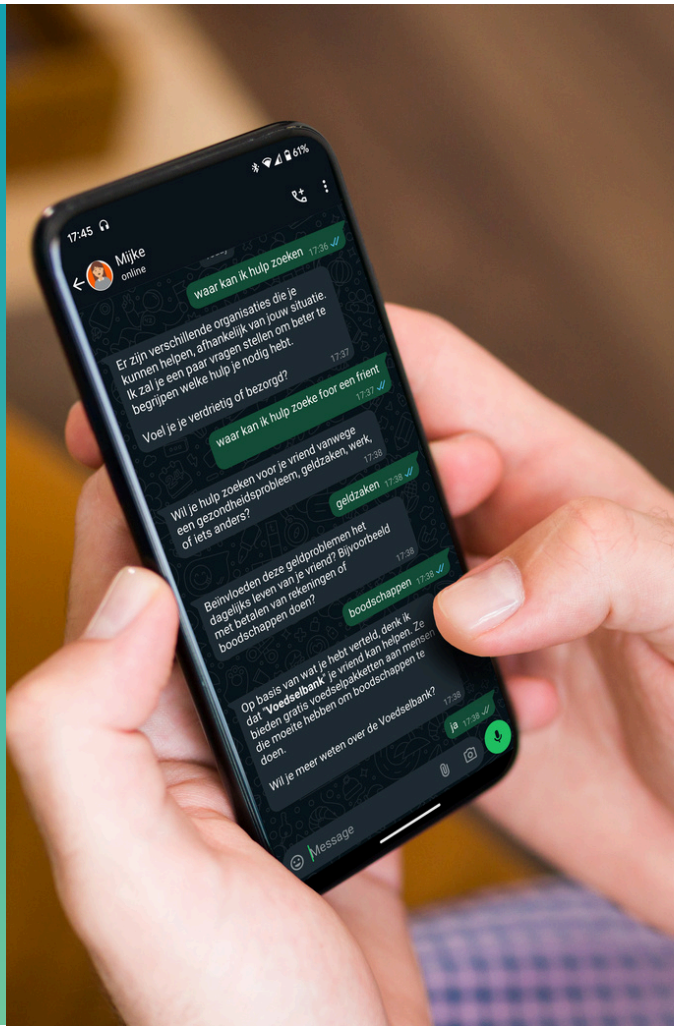
What makes this case unusual is that the team was not familiar with Obeya when the project began. Principles such as visibility, alignment, rhythm, co-creation, and collective learning emerged through practice as a natural outcome of working seriously with complexity, people, and purpose.

JÉSSICA GOSS

Product Lead - Met Mij / Mijke the Matchbot
[Eindhoven Engine],
The Netherlands

Jéssica is the creator of Met Mij as a system and Mijke the Matchbot as its first product. Her work sits at the intersection of human-centered AI, social innovation, and the Wicked Problem Approach, the foundation of the ambition behind Mijke the Matchbot: to advance AI as a shared decision system, making complexity visible, supporting collective sense-making, and strengthening alignment across a multi-stakeholder ecosystem.

EINDHOVEN ENGINE/CASE PROFILE



Eindhoven Engine [Met Mij / Mijke the Matchbot], Eindhoven, The Netherlands

Eindhoven Engine is a collaborative innovation environment founded by TU/e, Fontys, and TNO, dedicated to addressing complex societal challenges through its Wicked Problem Approach, a practice-based methodology grounded in complexity theory, design thinking, and artificial life research.

Mijke the Matchbot was the first concrete product to emerge from this approach within the Met Mij project by the Inclusive Society domain: an AI-supported system that helps citizens with limited literacy express their situation in their own words and be matched with the right local support.

- Industry & sector: Social innovation & public sector
- Team size: 2 core staff + 2-3 rotating interns (within Eindhoven Engine's ~20-person team)
- Structure: Cross-organizational - TU/e, Fontys, TNO, municipalities, and social organizations
- Geographical scope: Based in Eindhoven; national network, international scaling ambition

Social Innovation & Public sector

Cross-organizational ecosystem

Artificial Intelligence + Wicked Problem Approach

National reach
Local anchoring

OBEYA PROFILE

- Implemented since: 2023
- Type: Distributed Digital Obeya - no fixed room; alignment happens through digital tools, recurring meetings, and co-creation sessions
- Purpose & scope: Enable alignment, collective learning, and decision-making across a multi-stakeholder ecosystem addressing a wicked problem
- USP: Citizens with lived experience of limited literacy are embedded as co-designers, not consulted once, but present throughout
- Position: Cross-functional and cross-organizational
- Reach: Core team, student interns, social workers, municipalities, and citizens
- Meeting rhythm: Daily stand-ups, bi-weekly sprints, monthly demos, quarterly social worker workshops, continuous co-design with lived-experience experts
- Accessibility: Open and collaborative, decisions are made with stakeholders, not for them

Implemented since

2023, within Eindhoven Engine's Inclusive Society domain

Purpose & Scope

Collective learning and decision-making across actors

Type

Distributed Digital Obeya replaces a fixed physical room

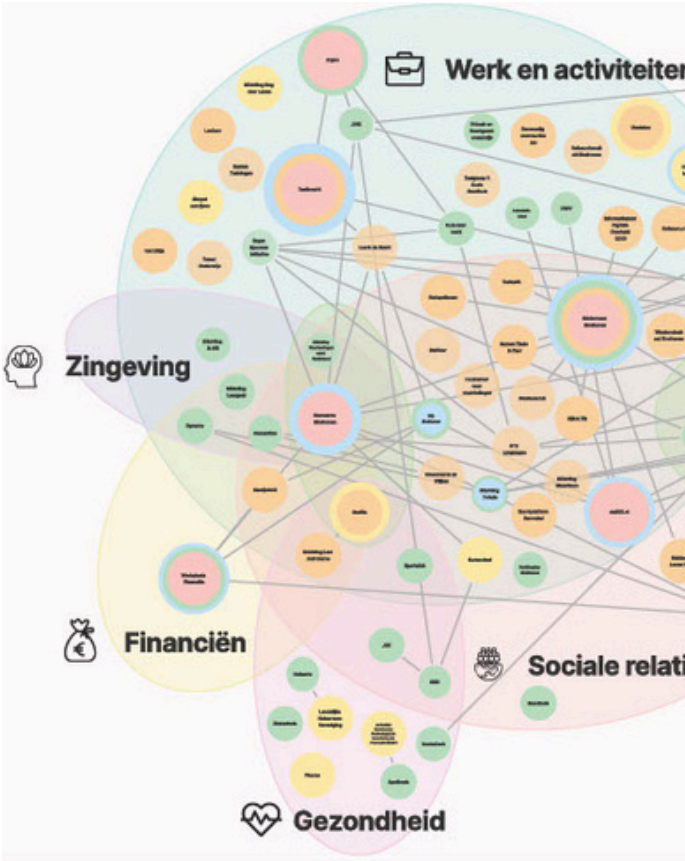
URGENCY & RATIONALE

Trigger

In the Netherlands, 3.1 million adults struggle with limited basic skills, which means that 1 in 6 people has difficulty with reading, writing, calculation, and digital skills. This limitation creates barriers across every area of life (finances, health, social relations, and work) and often leads to missed support, poorer health outcomes, and exclusion from opportunities others take for granted.

Despite over 150 support organizations in the Eindhoven region alone, all eager to help with the problems that emerge from limited basic skills, most people never reach them. Research shows 75% turn first to family and friends, not out of indifference, but shame, confusion, and distrust.

Social systems are fragmented and digital tools are complicated to use. Citizens are redirected between services, forced to re-open their situation each time. The confusion and drop-off that happen before anyone picks up the phone remain entirely invisible to municipalities. And social workers themselves often feel uncertain about the best place to refer someone who knocks on their door, when the right answer falls outside their own organization.



Objectives

- Enable stigma-free, self-reliant navigation
- Support social workers' referral decisions
- Give municipalities visibility into unmet citizen needs

Context

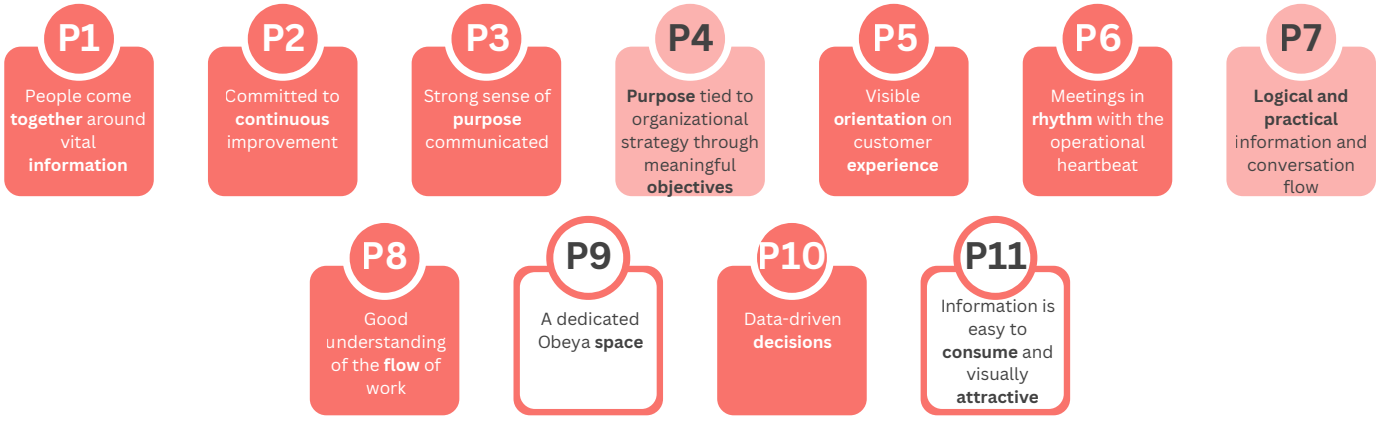
Mijke the Matchbot is not positioned as the solution to a lack of basic skills. It is an enabling system, one that improves access, reduces friction, and makes the invisible visible for citizens and institutions alike. Addressing a wicked problem requires a system continuously shaped with the people it serves: one that learns and adapts over time.

DESIGN & IMPLEMENTATION PROCESS

Wicked Problem Approach

- Design approach: Wicked Problem Approach as core, combined with Design Thinking, Agile/Scrum, and System Thinking
- Stakeholders: Citizens, social workers, researchers, municipalities, student teams from TU/e, Fontys, and Avans
- Change management: Adapted Scrum with sprint cycles, retrospectives, and validation rituals embedded throughout

Obeya principles



● Applied ● Partially applied ○ Not yet applied

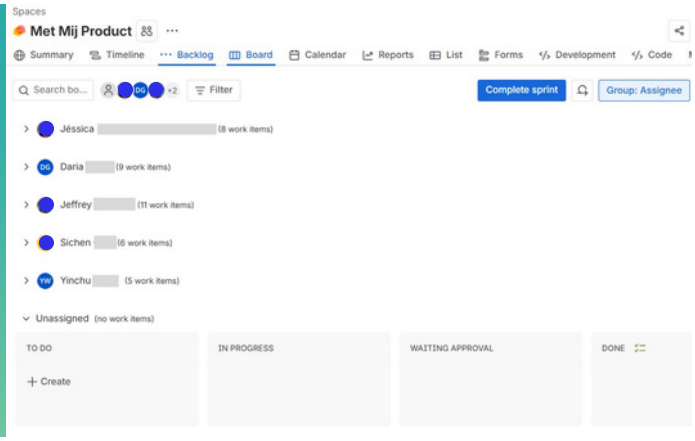
Challenges

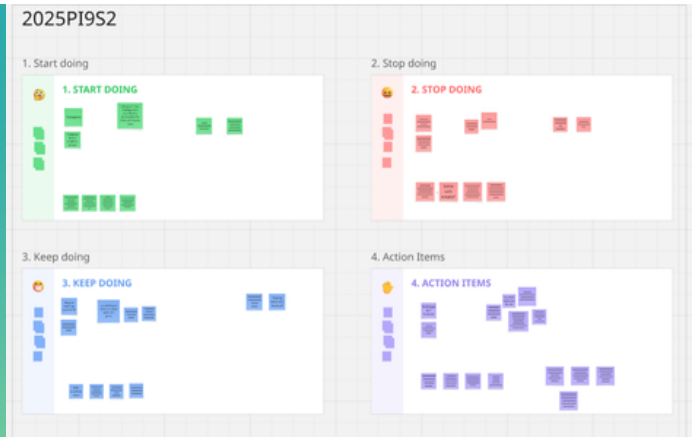
Distributed rotating team; slow public sector timescales; measuring intangible social impact; reaching, recruiting, and keeping new co-designers from the target group engaged.

Enablers

Clear social mission driving intrinsic motivation; Scrum rhythm providing structure without rigidity; hybrid academic-practical model generating continuous renewal; future municipal dashboards strengthening shared situational awareness.

LAYOUT, STRUCTURE & ARCHITECTURE





System Visualization

Mijke itself functions as a form of system visualization for citizens. Through WhatsApp, a widely used application, users can explore support options without downloading an app or navigating an unfamiliar interface. A "One-Question-Per-Turn" principle, co-created with end users and validated via social workers, keeps cognitive load manageable. The result: a system that meets people where they already are, in a format they already trust.

- Physical setup: Distributed digital
- Architecture: Coordination layer via Scrum boards; Validation layer via social worker workshops; Co-design layer via lived-experience experts as team members
- Visual elements: Mijke itself, Miro for retrospectives, architecture diagrams, user journey maps, sprint boards
- Integration: Public datasets + AI-supported evaluation + human validation in a continuous feedback loop

Citizen Visibility — Mijke makes a fragmented landscape navigable

Distributed Structure — alignment through rhythms, relationships, and feedback loops

Human Validation — social workers and lived-experience experts ground every decision

Adaptive Architecture — future dashboards will extend visibility to municipalities

USE IN PRACTICE

MEETING RHYTHM

- Daily stand-ups — core team alignment
- Bi-weekly sprints — adaptive development rhythm
- Monthly demos — shared progress across stakeholders
- Quarterly workshops — social workers review real Mijke conversations via 5 co-defined quality criteria
- Continuous — lived-experience experts shape priorities through testing and co-design

DECISION-MAKING FLOW

Decisions are made with stakeholders, not for them. Citizens co-define what "good" looks like. Social workers calibrate matching quality. The development team integrates these insights into each sprint cycle.

CITIZENS
Co-designers with real influence

SOCIAL WORKERS
Frontline calibration

MUNICIPALITIES
Future dashboard users & primary clients

OUTCOMES & VALUE (ROI)

Measurable impact

- Tangible: Mijke scored above average on both ease of use and how pleasant it feels. Separately, in a pilot of 39 conversations, 62% reached good quality (6+/10), top score 8/10 via AI analysis based on criteria created with social workers.
- Intangible: Citizens repositioned as co-designers; stronger collaboration across sectors that rarely work together; citizens' real experiences made visible to institutions.
- Method: "One-Question-Per-Turn" rule and chatbot evaluation metrics co-created with practitioners.
- ROI: Return on Learning treated as equally important as Return on Investment.

Conversations quality

62% of evaluated conversations scored 6 or above out of 10

In a wicked problem context, where certainty is rare and conditions change continuously, the capacity to learn faster than the problem evolves may be the most valuable outcome of all.

RISKS, THREATS & CONTINUITY

1 OUT OF 6 PEOPLE IN THE NETHERLANDS LACK BASIC SKILLS

Risks and Threats

- Risks & Threats: Sustainable funding; stakeholder continuity (leadership changes, budget shifts); data quality at scale
- Challenge: Knowledge continuity in a rotating team; limited visual management; the wicked problem itself has no endpoint

Continuity

Met Mij is designed to be replicable beyond Eindhoven. Built to reach a group that is hard to reach, it has strong potential to support many more people. A collaboration with local financial and healthcare providers shows that Mijke can be adapted to different contexts, creating domain-specific versions of the system. Both the system and the method are built to scale, carrying Obeya principles with them, not as an imposed framework, but as a natural consequence of taking complexity, people, and purpose seriously.

North Star

100%

100% first-time-right matching. The direction that guides every iteration.