



Playing for change: gamification and serious games for a sustainable society

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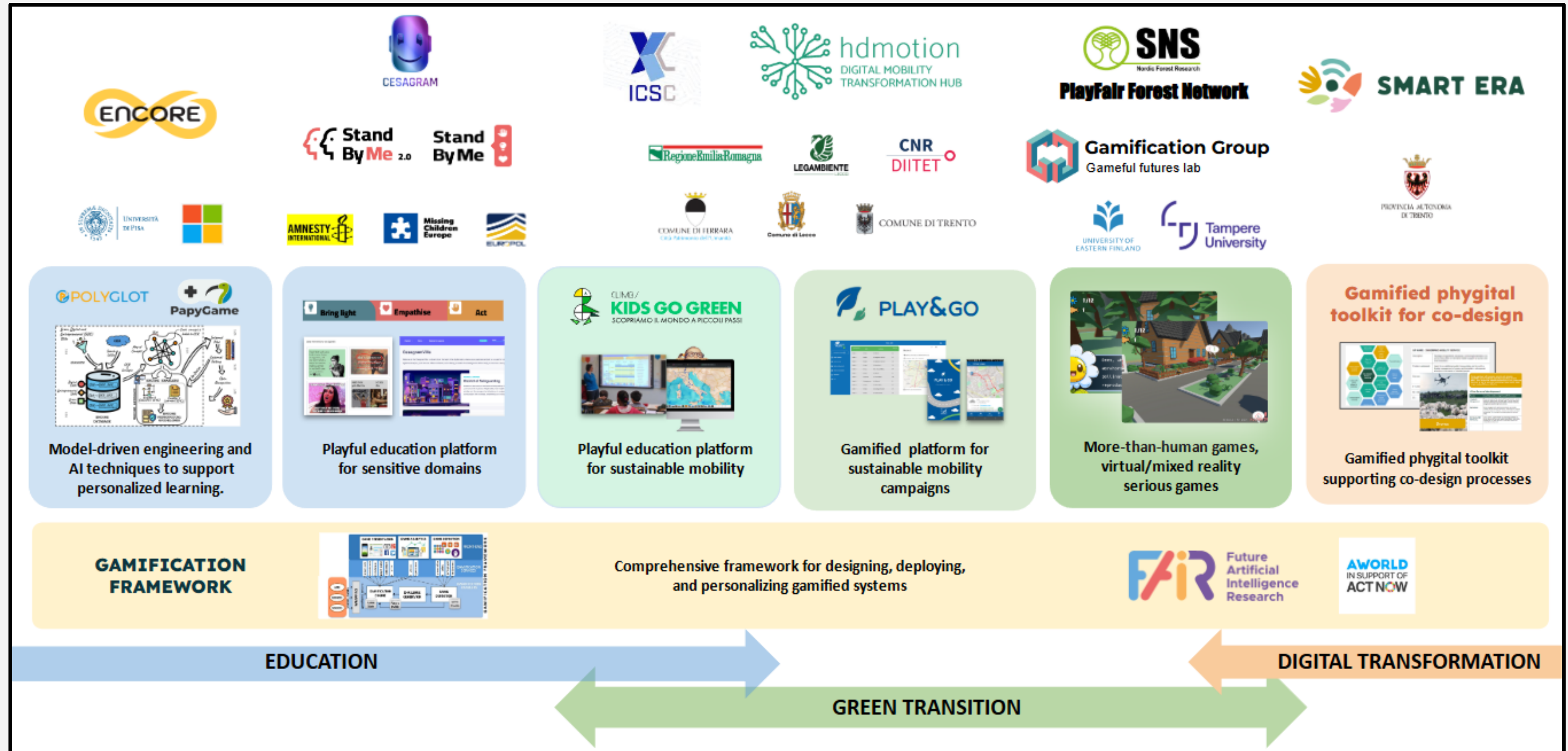
People



Background:

- Software Engineering
- AI
- HCI
- Psychology
- Cognitive Science

Projects overview





Co-funded by
the European Union



SMART ERA

The SMART ERA project

- Develop **smart, co-designed solutions** to face socio-economic challenges in rural Europe, and **empower rural communities**.
- Provide **scalable**, data-driven solutions across Europe's rural contexts.
- **Overcome structural issues** like limited infrastructure and job opportunities.

Piloting

Currently being used in 6 pilot countries:

- **Finland** (Ostrobothnia)
- **Bosnia-Herzegovina** (Trebinje)
- **Slovenia** (Šmarje-Padna)
- **Spain** (Sóller)
- **Italy** (Trentino-South Tyrol)
- **Bulgaria** (Devetaki Plateau)



Question

How do we **engage and guide** people and stakeholders in **co-designing innovation** interventions in a **rural area**?

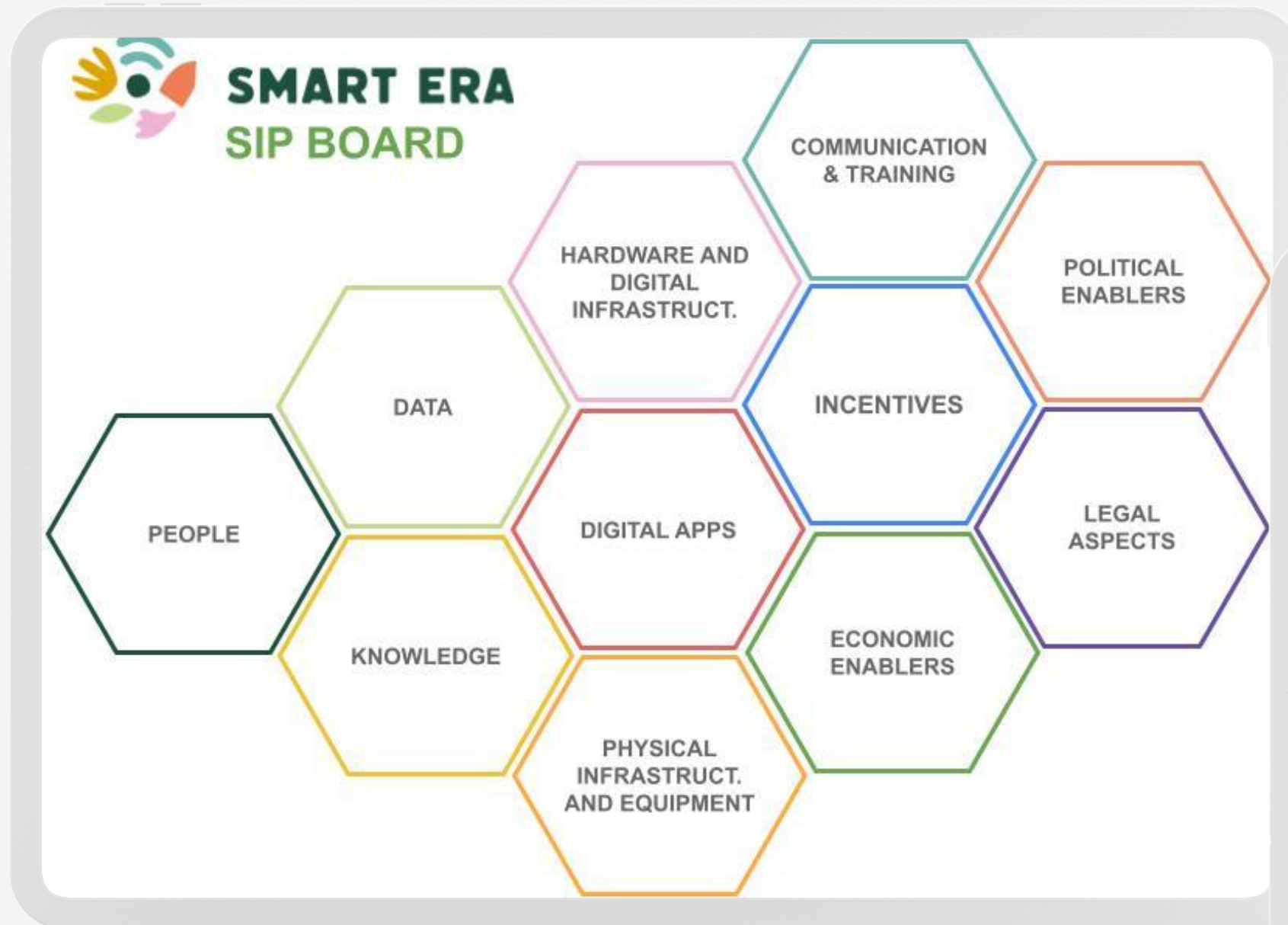
The toolkit



- A **phygital co-design toolkit** developed by two FBK units.
- Meant for co-designing interventions or **Smart Innovation Packages (SIPs)**.
- Structures SIPs as collections of **ingredients**.

Bassanelli, S., Bonetti, F., Gini, F., Leonardi, C., Mencarini, E., Not, E., Marconi, A. (2025). Design and development of a gameful co-design tool for rural interventions. In *Proceedings of the 9th Annual International GamiFIN Conference 2025*, Ylläs, Finland.

The analog toolkit - board and ingredients



Ingredients categories were identified via workshops with **6 pilot** regions, **50 stakeholders**



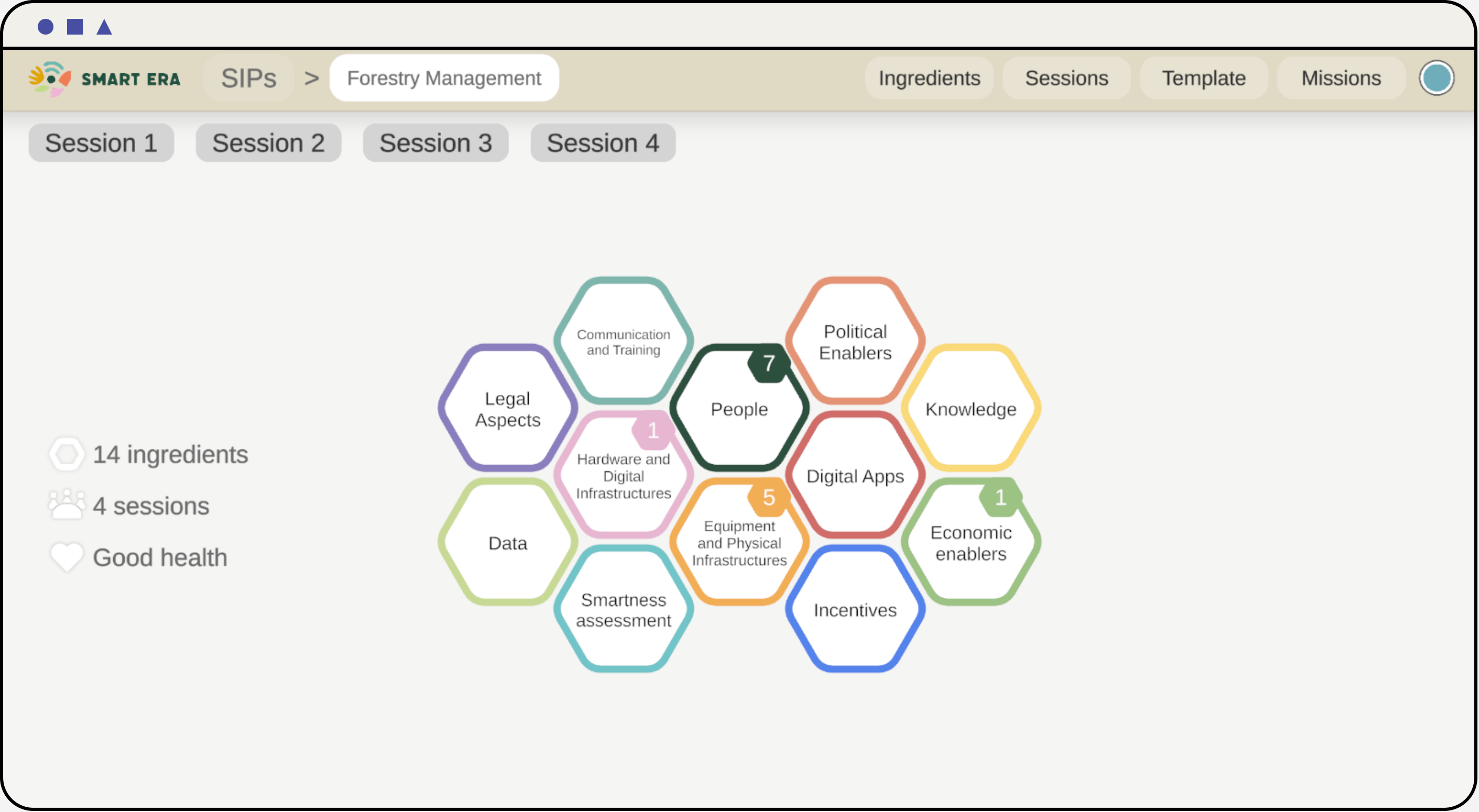
The analog toolkit - ingredient instances



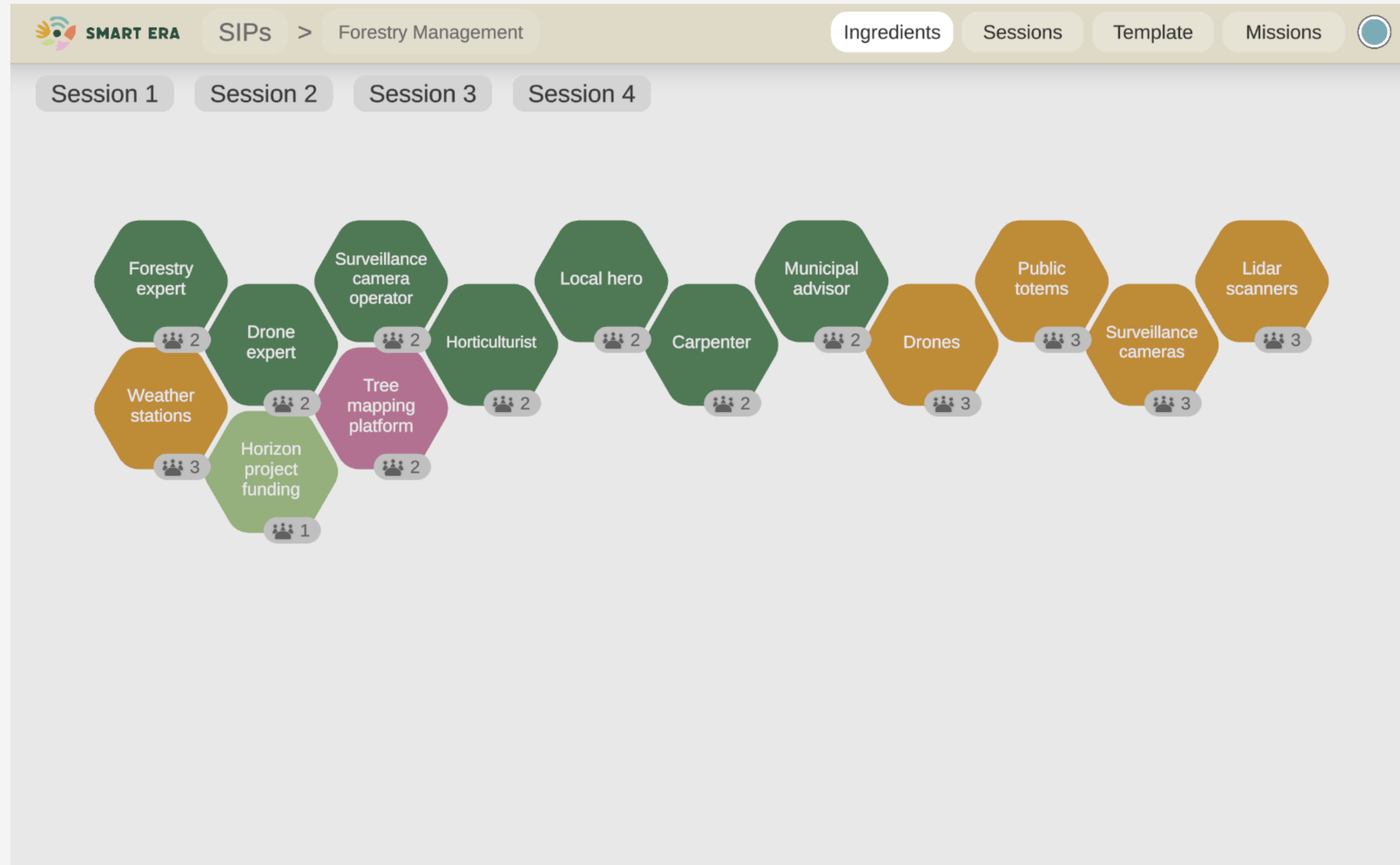
The analog toolkit - ingredient cards



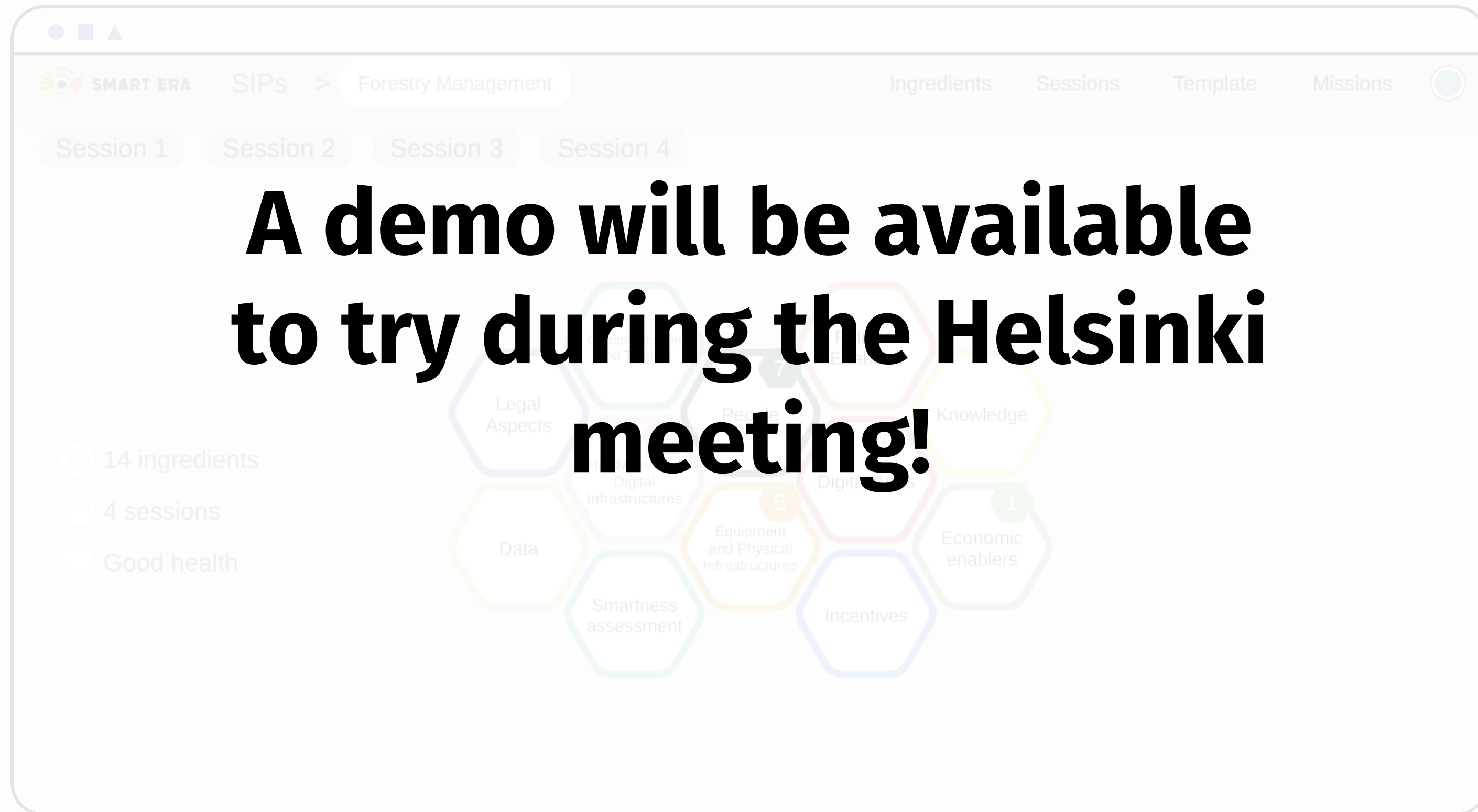
The digital tool - board and ingredients



The digital toolkit - ingredient instances



The digital tool – board and ingredients



Project future

June - 2025

**Feedback implementation
Scientific communication**

July 2026

Open call for 4 micro pilots



“Untitled Bee Game”: A serious game for eco-sustainability education

Bonetti, F., Bassanelli, S., Bucchiarone, A., Gini, F., Marconi, A. (2024). Untitled Bee Game: Be(e)ing Mean to Learn More About Eco-sustainability. In *Proceedings of the 8th Annual International GamiFIN Conference 2024*, Ruka, Finland.

Game loop

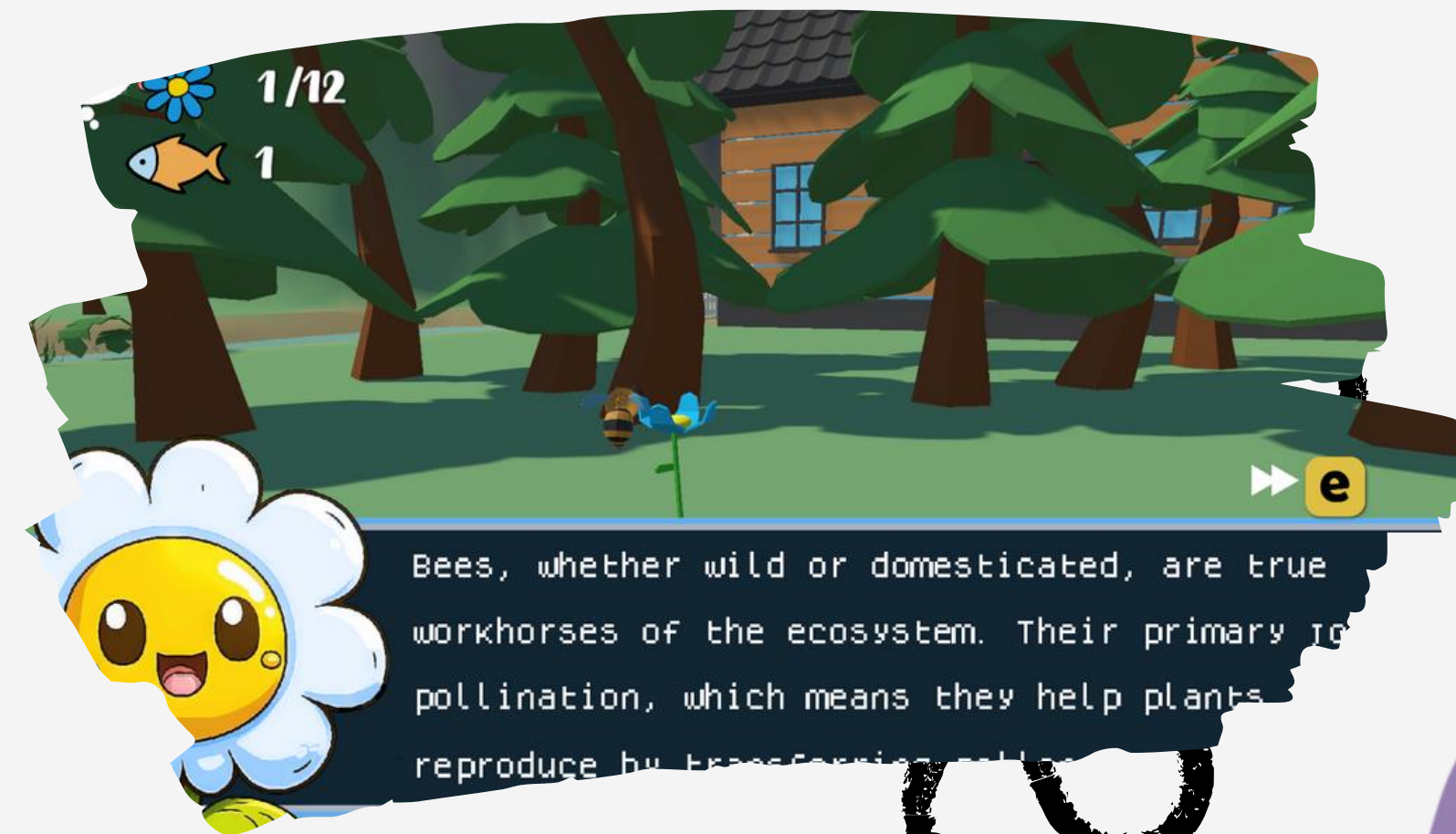
1

EXPLORE AND PUNISH HUMANS WHO
EXHIBIT BAD BEHAVIORS



2

LEARN FACTS FROM FLOWERS



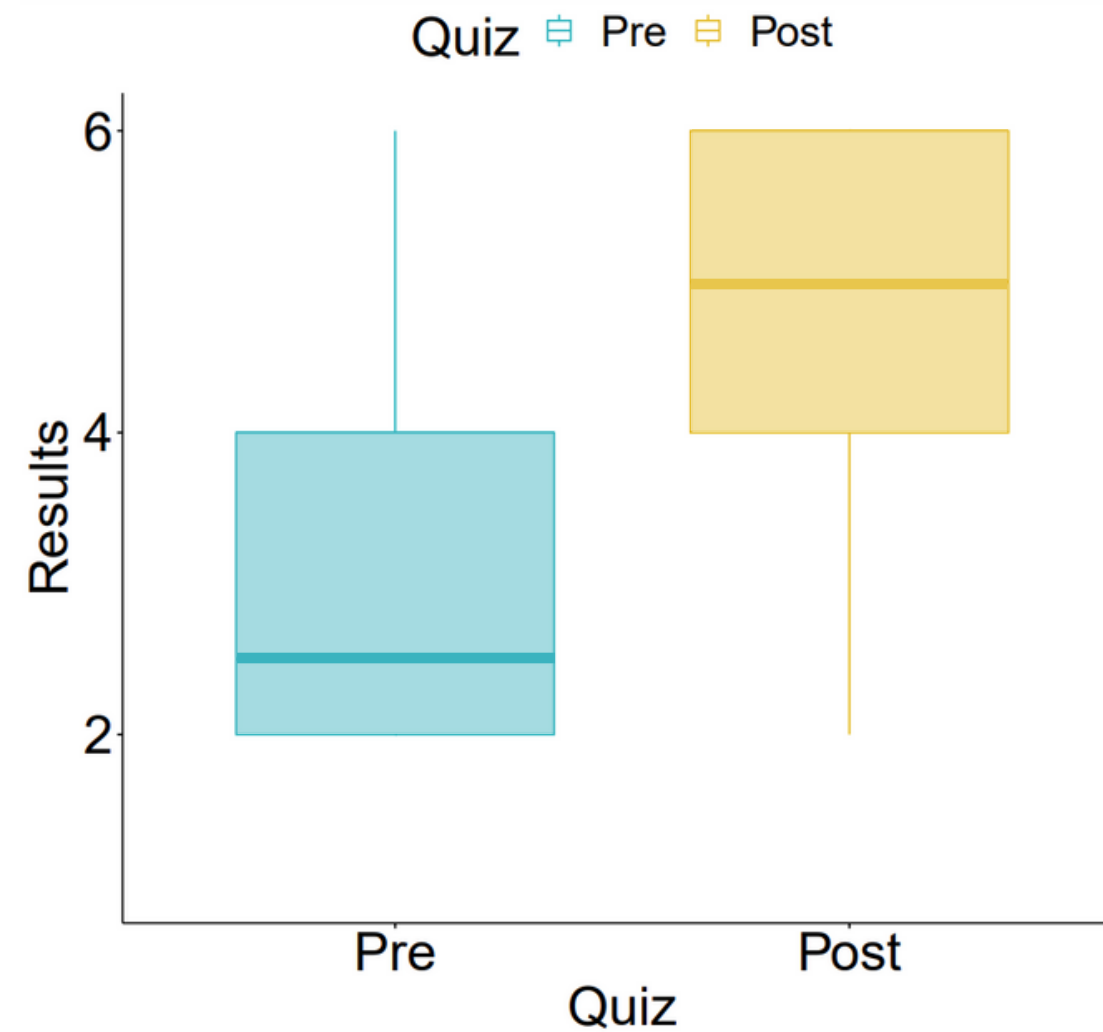


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7

ID (salvalo per dopo): **sbr2l9ok**

ECO-QUIZ



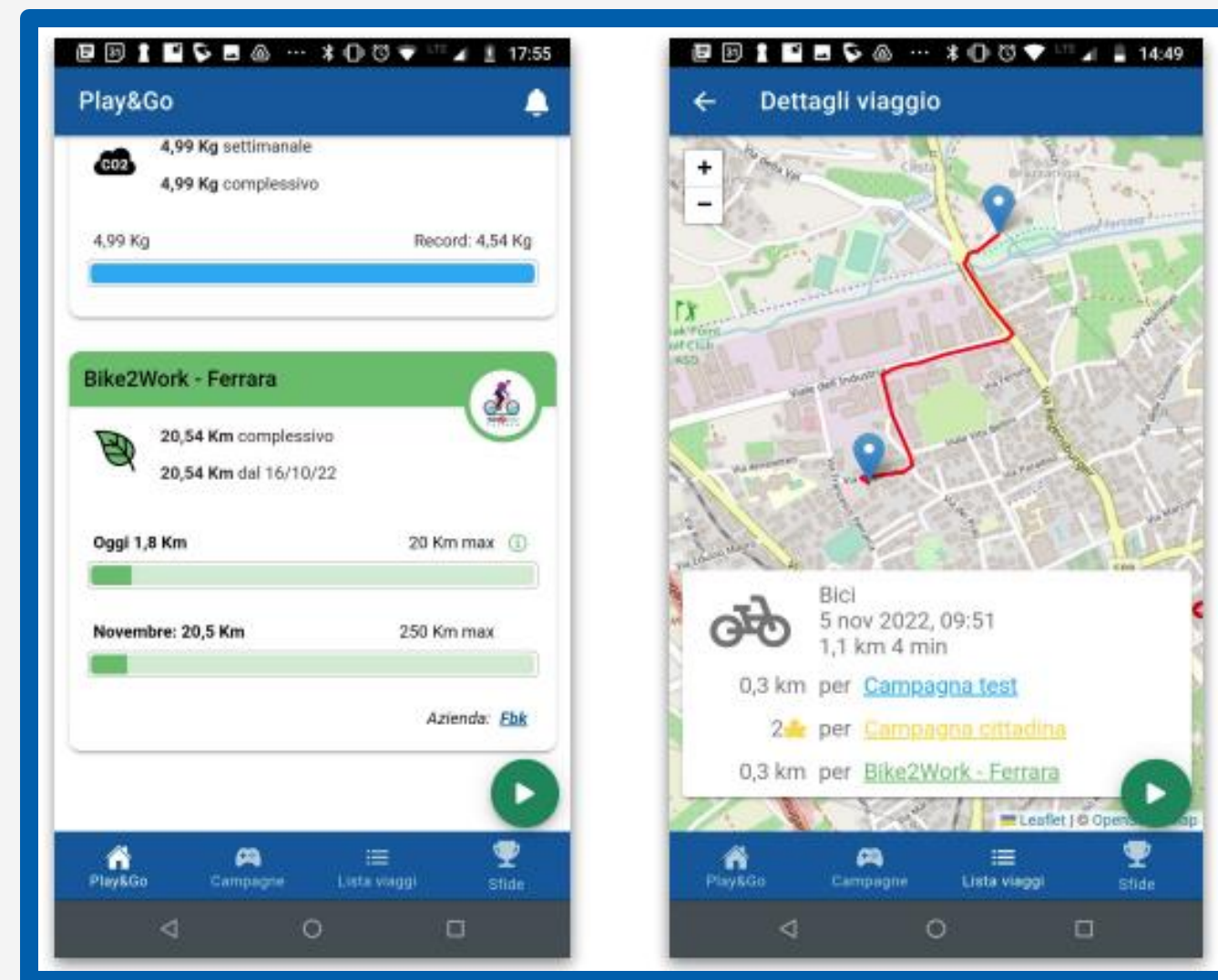
One-tail Wilcoxon signed-rank test: ($V = 11$, $p < .01$)

Other projects

- Green mobility and positive behavior change through gamification

Other projects

- Green mobility and positive behavior change through gamification



Play&Go (Citizens, employees, students)

Almost **250k** sustainable Km and **57t of CO2** saved in 2022 in Ferrara (6 months).
And other cities!

www.playngo.it

PLAY & GO

Other projects

- Green mobility and positive behavior change through gamification



Kids Go Green

Almost **3k** children involved in 2023 and
872k sustainable Km since 2016

www.kidsgogreen.e

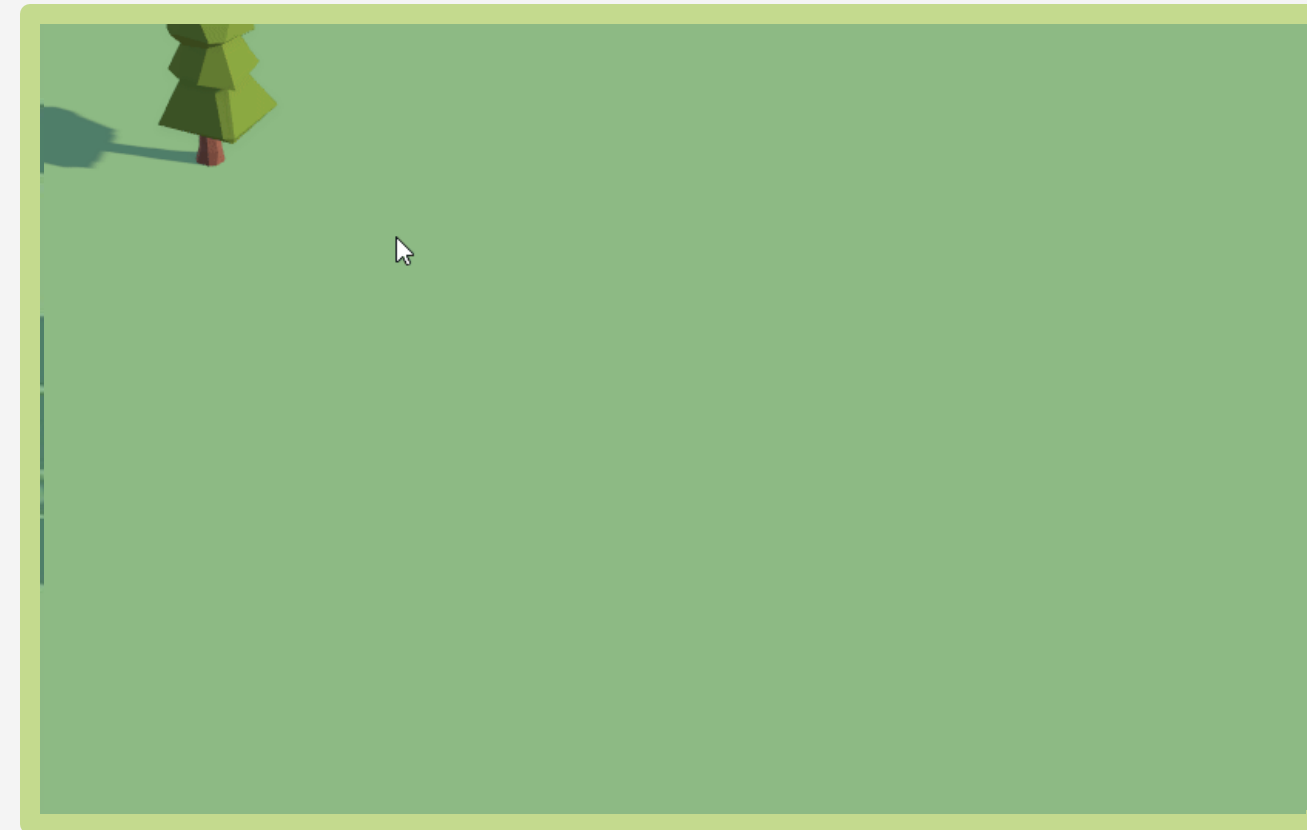


Other projects

- More-than-human themes in serious games

Other projects

- More-than-human themes in serious games



Bark Beetle Game

A video game about managing forest, biodiversity, and balancing different natural agents

Thank you!

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