Playing for Change: Game-Based Solutions for a Sustainable Society

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Motivational Digital Systems

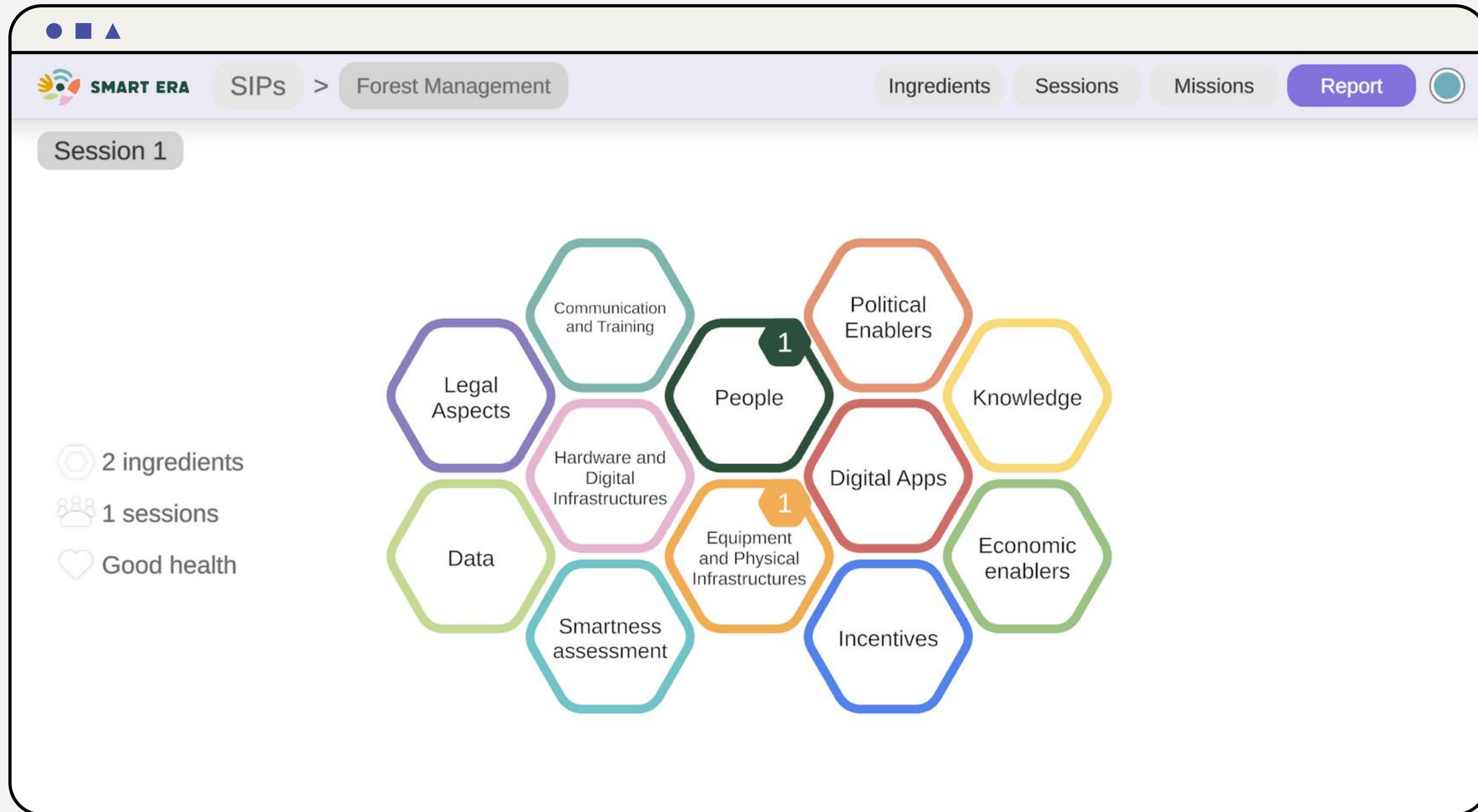fbonetti@fbk.eu

The SMART ERA toolkit

- Develop smart, co-designed solutions to face socio-economic challenges in rural Europe, and **empower rural communities**.
- A **phygital co-design toolkit** developed to face socio-economic challenges in rural Europe.
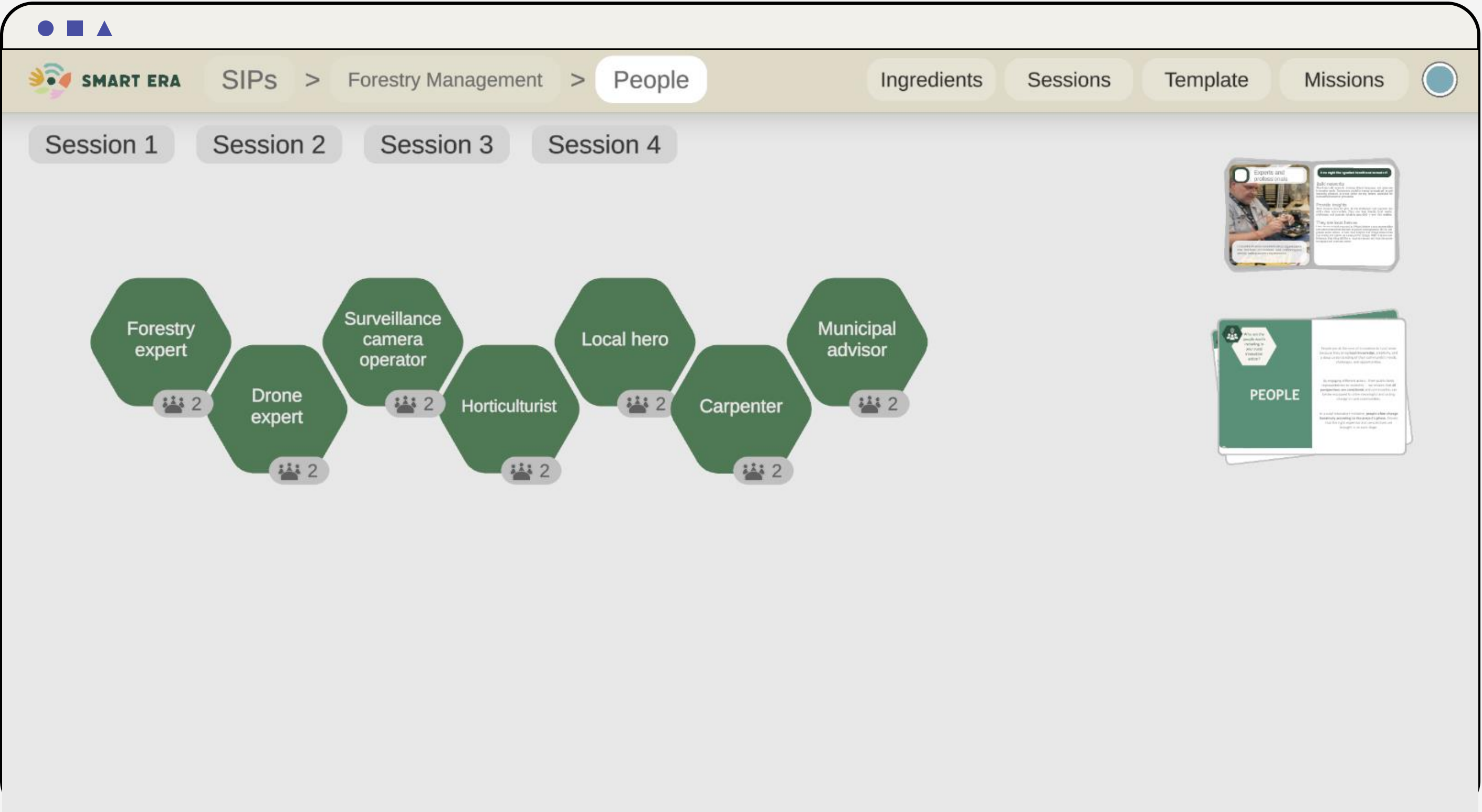- Projects as collections of **ingredients.**

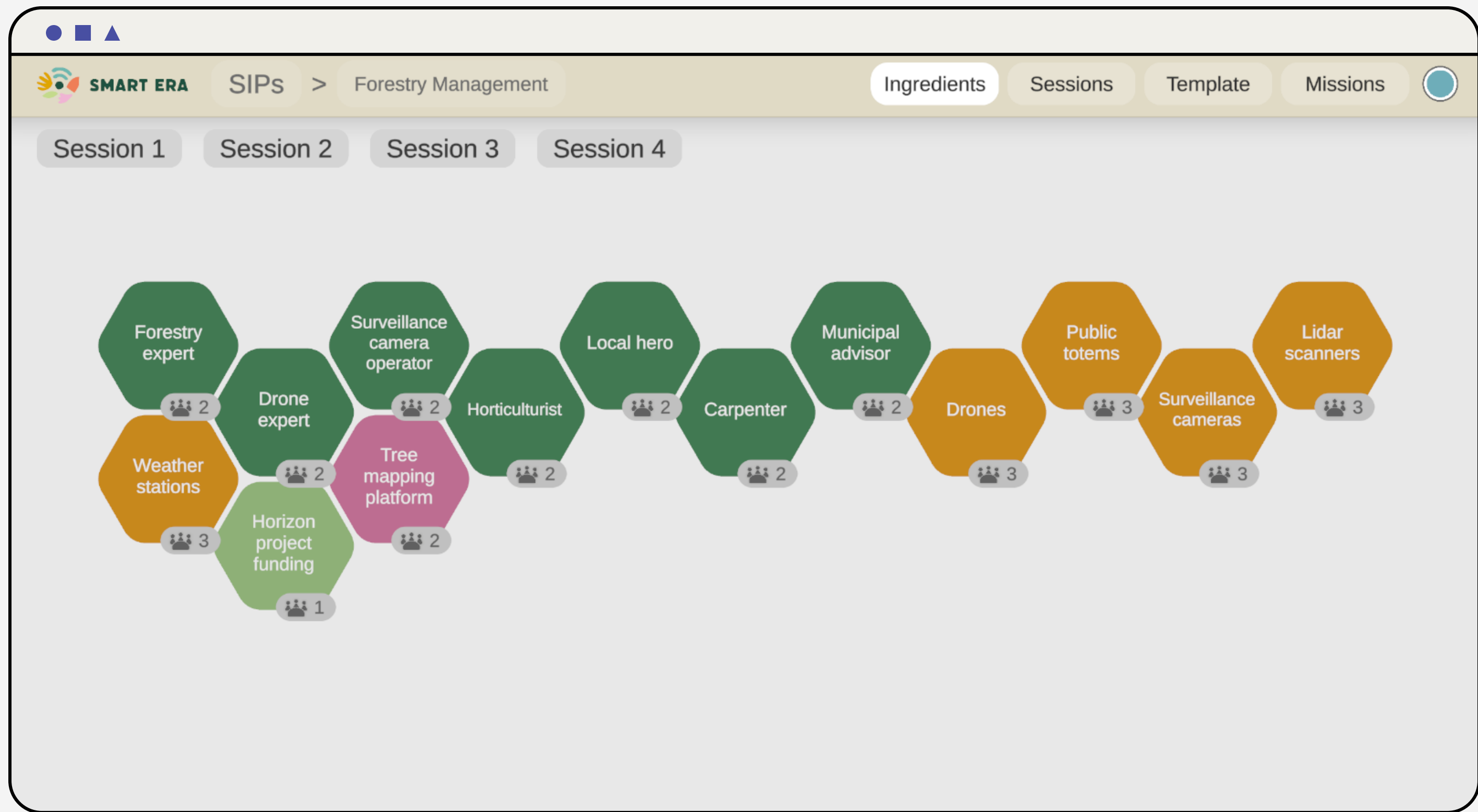# The digital tool - board and ingredients

The analog toolkit - ingredient cards

PEOPLE

Who are the people worth including in your rural innovation action?

People are the core of innovation in r... because they bring **local knowledge**, and a deep understanding of their co... needs, challenges, and opportuni...

By engaging different actors - from pu... representatives to residents - we ens... **perspectives are considered** and co... are better equipped to drive meanin... lasting change in rural communi...

In a rural innovation initiative, **peop... change iteratively according to the... phase.** Ensure that the right expert... perspectives are brought in at each...

SMART ERA

Innovation brokers and facilitators

How might this solution benefit rural innovation?

Build networks
They help build networks, develop shared language, and articulate innovation needs. Brokers are crucial in managing relationships and ensuring effective communication among actors, essential for successful innovation processes.

Mobilise community members
They engage and mobilise community members to participate in development initiatives.

Provide insights
They possess deep insights into the challenges and opportunities within their communities. They can help identify local needs, challenges, and potential solutions grounded in rural life's realities.

Champion innovative ideas
Supporting and promoting new practices, technologies, or business models, they help create an enabling environment for rural innovation.

They are *local heroes*
Local heroes in rural areas act as bridges between local communities and external stakeholders such as government agencies, NGOs, and private sector actors. A local hero inspires and brings ideas to the community and serves as a catalyst for change. With charisma and influence, they bring visibility to important issues and have the power to engage and motivate others.

Innovation brokers are individuals or organisations that facilitate connections and collaborations among various stakeholders.

SMART ERA

The digital tool - board and ingredients

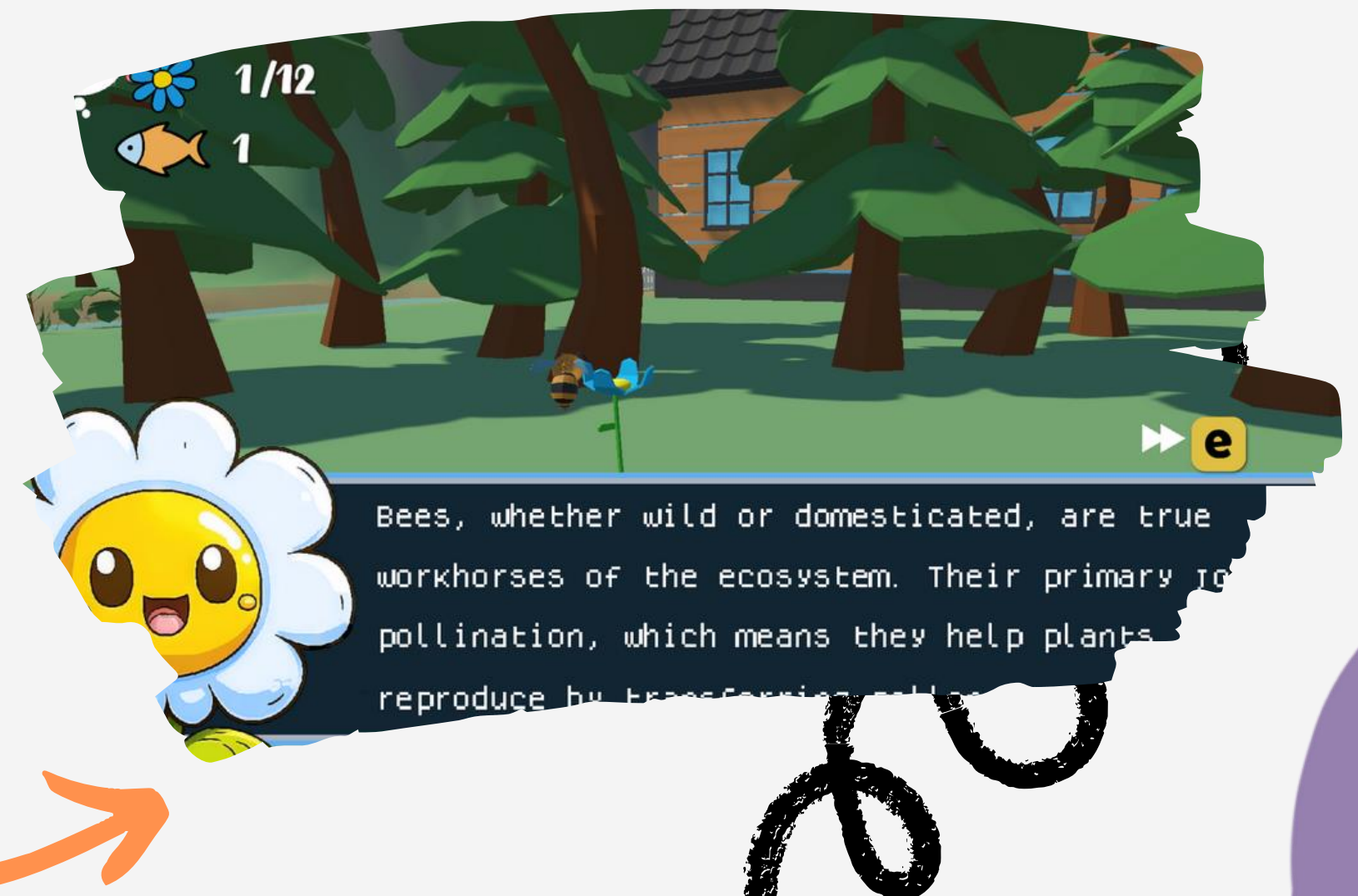# The digital tool - board and ingredients

Serious games

Untitled Bee game

1 EXPLORE AND PUNISH HUMANS WHO EXHIBIT BAD BEHAVIORS

2 LEARN FACTS FROM FLOWERS

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.
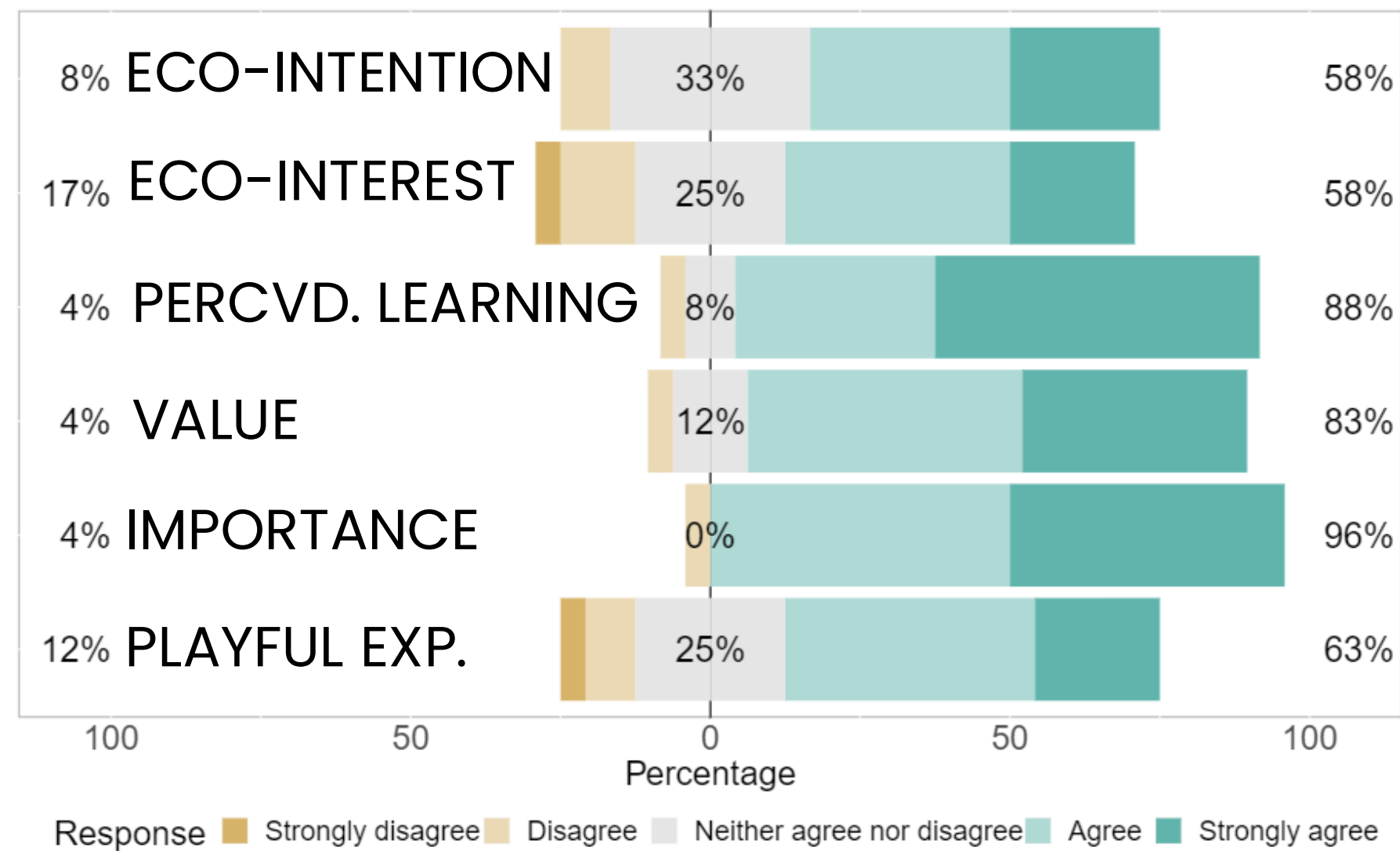
Other projects

Bark Beetle Game

(*In development*) A video game about managing forest, biodiversity, and balancing different natural agents

Other projects

Bark Beetle Game

Could be adapted to:

- **Plan** forests in a virtual environment collaboratively
- **Crowdsource** data and preferences explicitly and implicitly
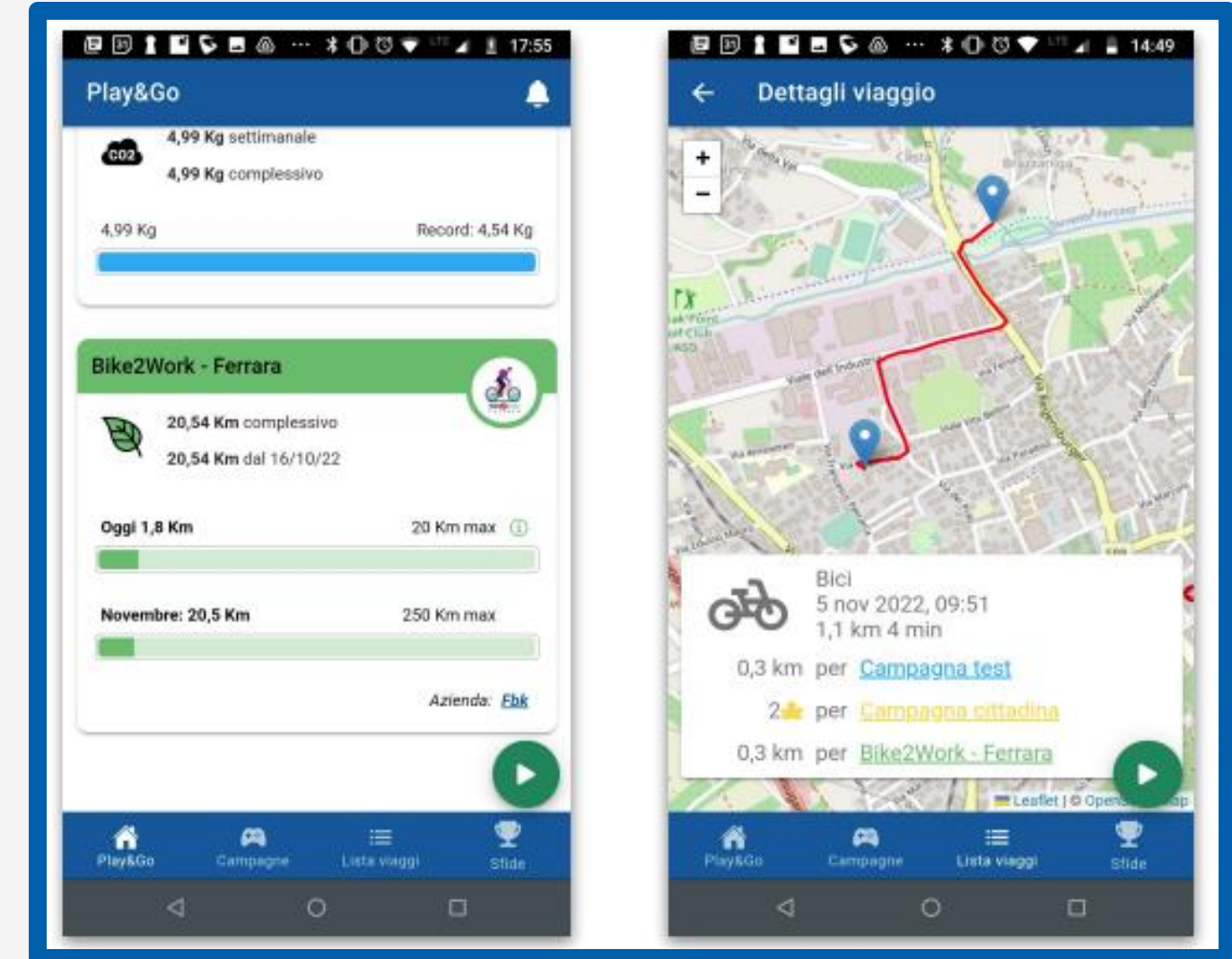- View **statistics/predictions** in real time

Other projects

Play&Go

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

www.playngo.it

More-than-human research in games

Purpose:

- Understanding **more-than-human experiences** in games
- Exploring design patterns to build **awareness and explore new perspectives**
- Bringing **fun** to transformational and educational nature-centered experiences

- **Bonetti, F**., Gabrielaitis, L., Bassanelli, F., Gini, F., Bassanelli, S., Chambers, P., Belliato, R., Gallegos Carvajal, I. M., Buruk, O. O., & Romanzi, V. (2025). Beyond human-centric play: A review of commercial video games to inform more-than-human serious game design. In Engineering educational games for a sustainable society: Play, learn, and transform. Springer. [IN PRESS]

Thank you!

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