

UNIVERSITY OF HELSINKI

FACULTY OF AGRICULTURE AND FORESTRY

Janna Pietikäinen, vice-dean, academic affairs and
sustainability

HELSINGIN YLIOPISTO
HELSINGFORS UNIVERSITET
UNIVERSITY OF HELSINKI

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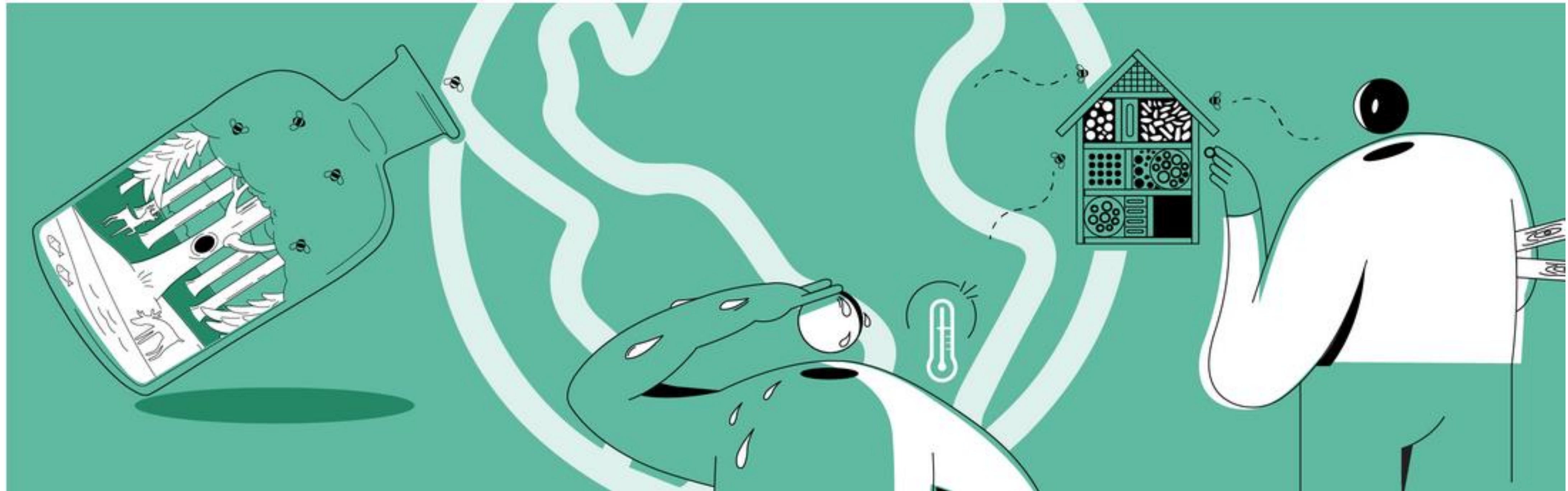




TWO CASE STUDIES

BIODIVERSITY.NOW
MASSIVE OPEN ONLINE COURSE

PALOPURO FARM
- AGROECOLOGICAL SYMBIOSIS
FOR SUSTAINABLE FOOD SYSTEMS

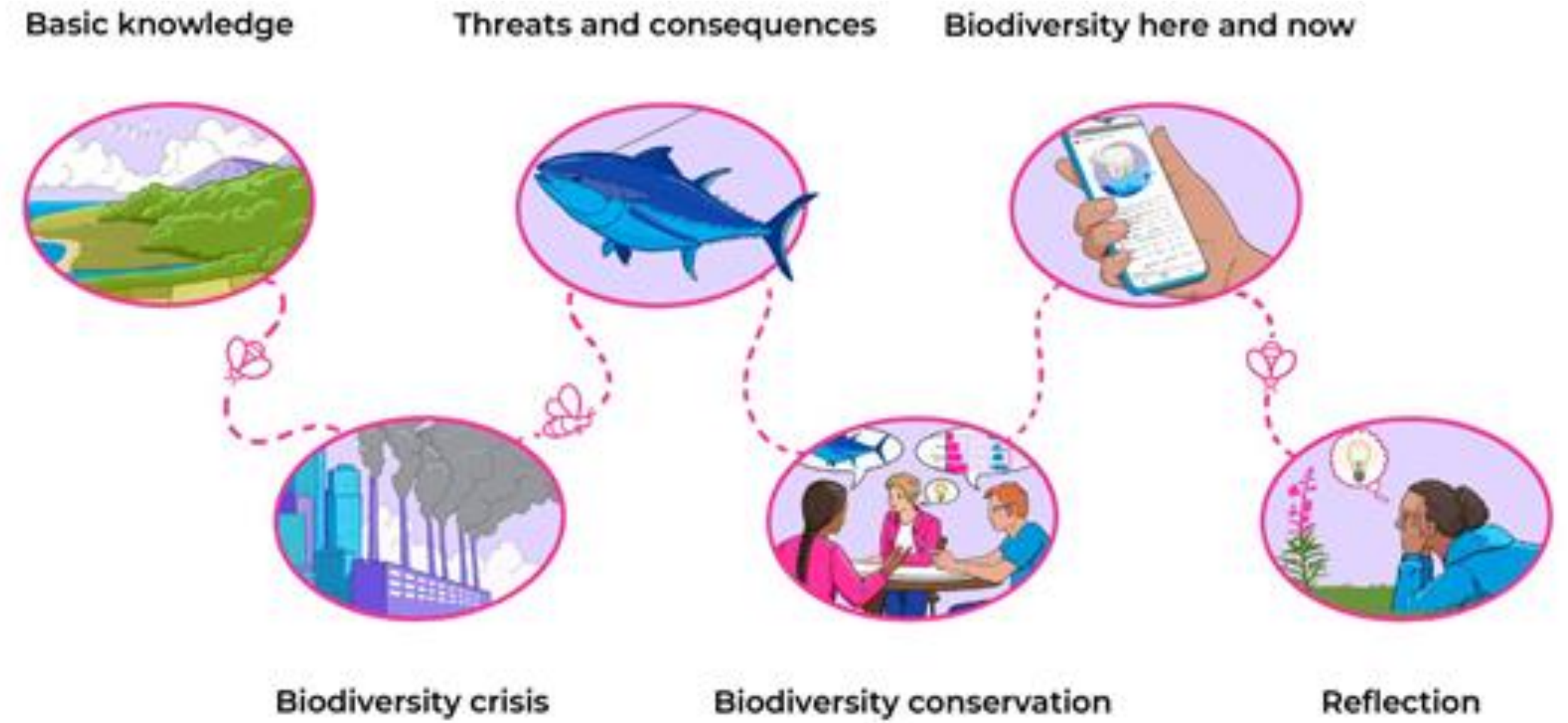


BIODIVERSITY.NOW 2 ECTS

- Massive open online course in Finnish DigiCampus on the reasons for the biodiversity crisis, consequences to society and tools to enhance biodiversity
- Created in wide European cooperation within university networks UNA Europa, Climate University and Biodiversity network
- 2 ECTS MOOC + 3 ECTS project, launched 7.10.2022

LEARNING OBJECTIVES

- Recognize reasons for the ongoing biodiversity crisis and its consequences to the human society and personal life
- Explore own connection to nature and diverse values you assign to it
- Recognize a variety of approaches and tools to protect biodiversity
- Apply the issues to own field of studies and work



Ministry of Education
and Culture



Read more
biodiversityeducation.fi



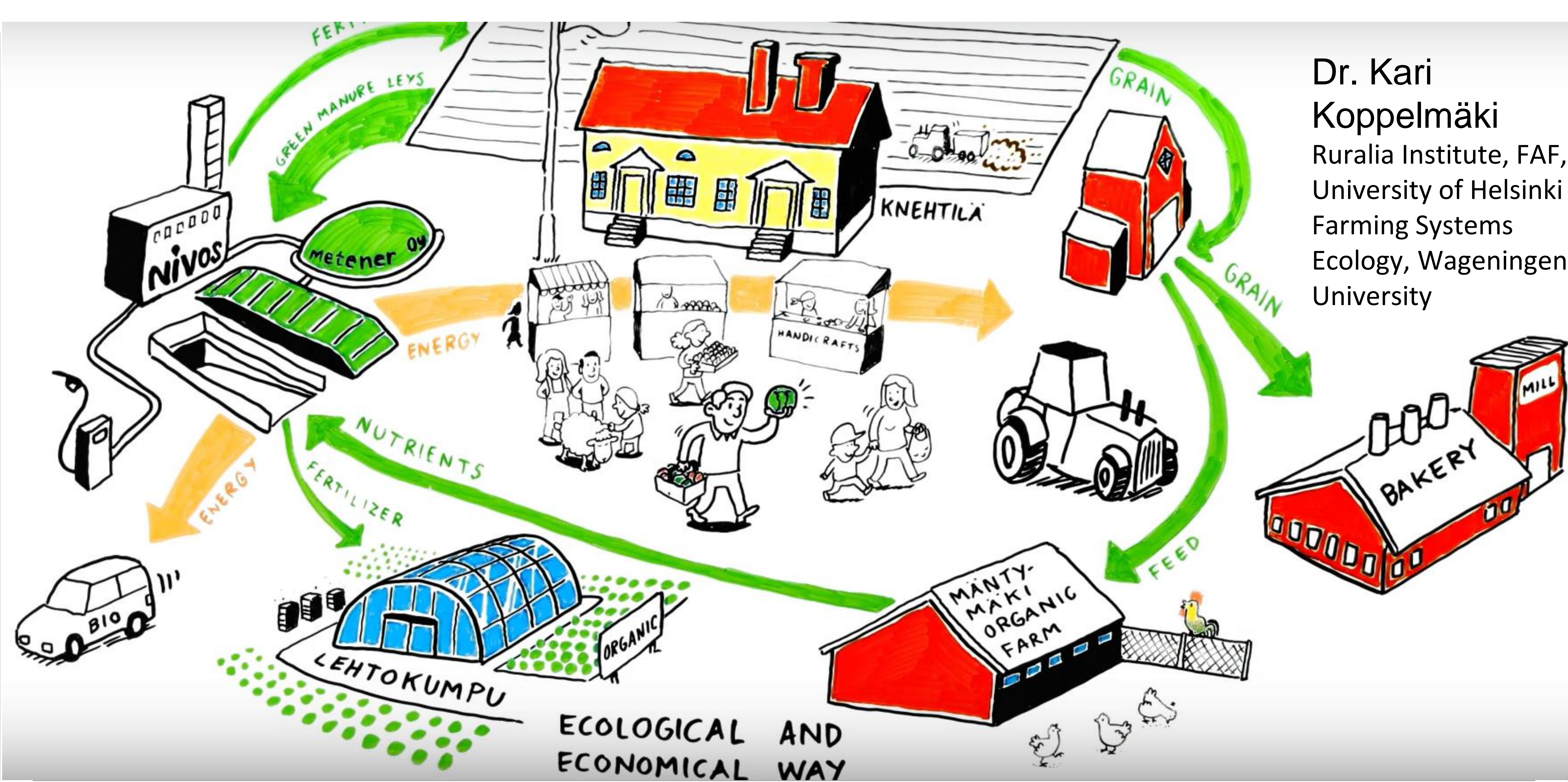
Led by the Department of Agricultural Sciences – brings in applied sciences' perspectives

Additional support: **SITRA**



Part of Micro-credential in Sustainability

<https://microcredential-sustainability.una-europa.eu/>

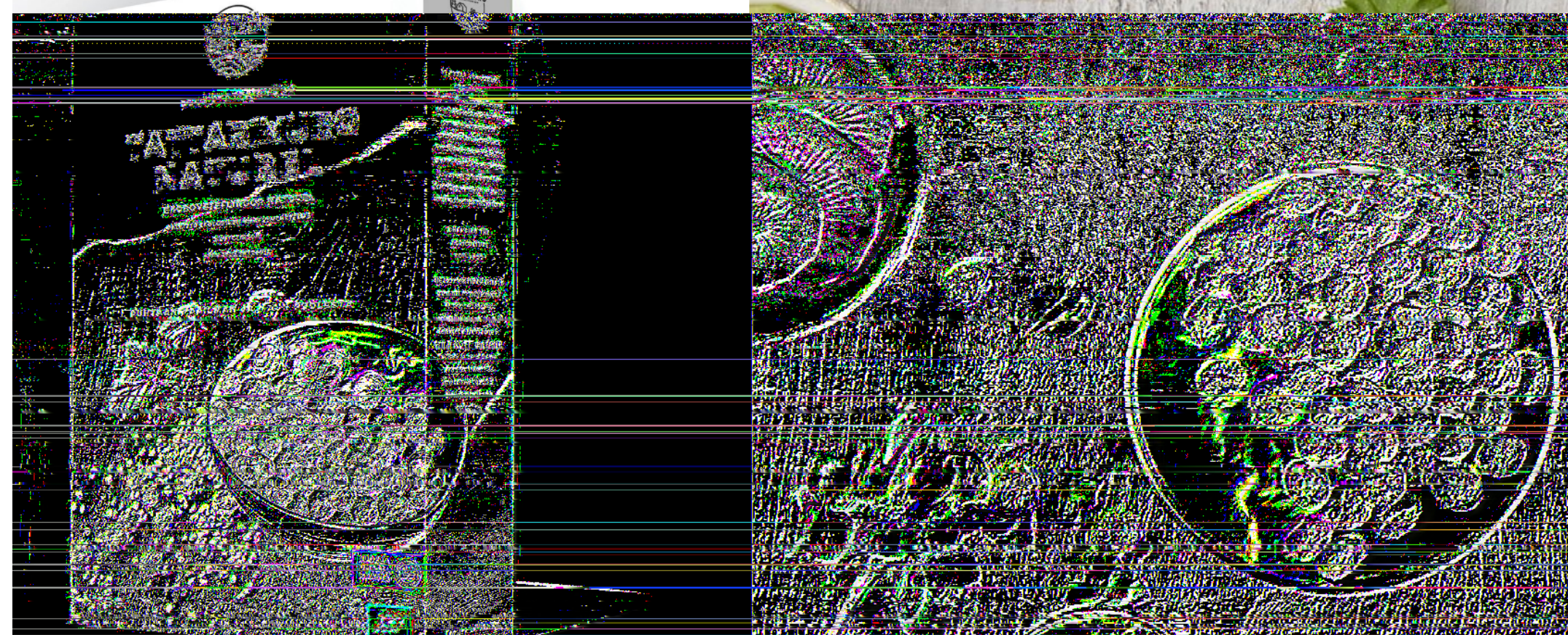


Dr. Kari
Koppelmäki
Ruralia Institute, FAF,
University of Helsinki
Farming Systems
Ecology, Wageningen
University



FOOD PROCESSING

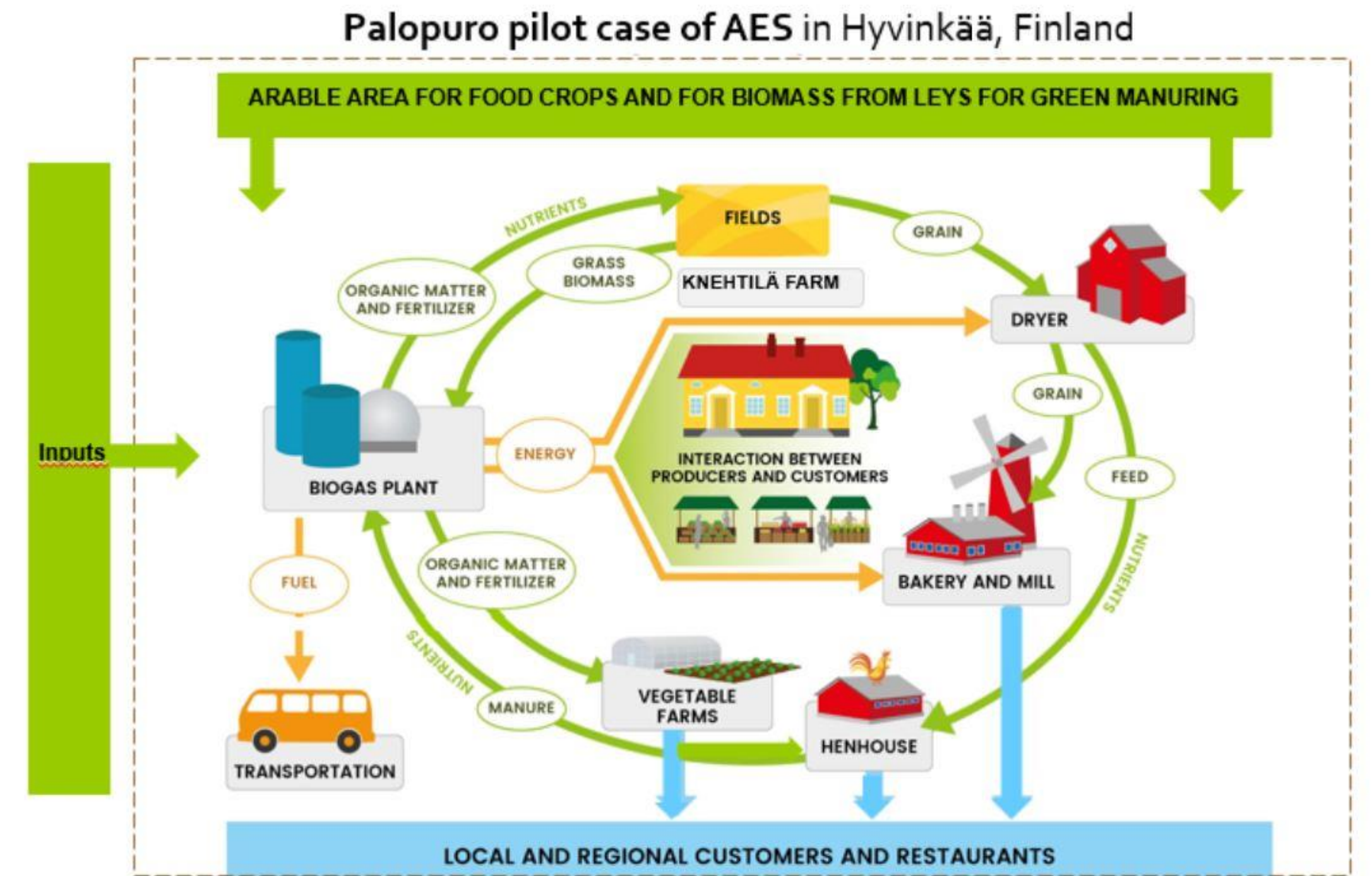
- Knehtilän luomutuote ltd process oats and buckwheat into granola, flakes etc.
- <https://pienipuro.fi/>





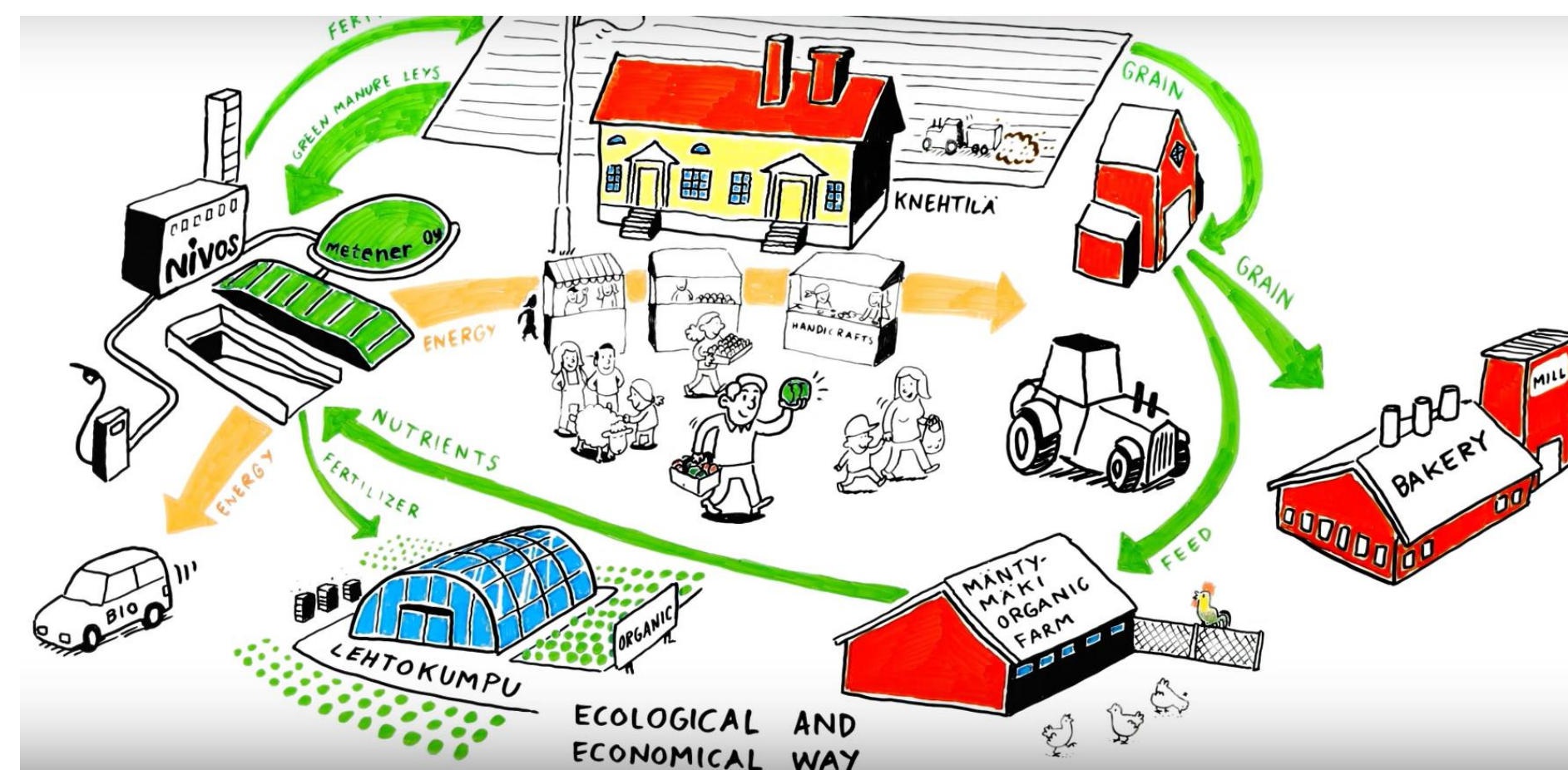
OUTCOMES

- Increased food production by enhancing nutrient recycling within the system
- Substantial reductions in nitrogen and phosphorus losses
- 70% more energy produced than consumed
- Substantial climate change mitigation through reduction in fossil fuel use



MORE INFORMATION

- Koppelmäki, K., Parviainen, T., Virkkunen, E., Winqvist, E., Shculte, R.P.O. & Helenius. J. 2019. Ecological intensification by integrating biogas production into nutrient cycling: Modeling the case of Agroecological Symbiosis. *Agricultural Systems* 170. 39-48. <https://doi.org/10.1016/j.agry.2018.12.007>
- Juha Helenius, Sophia E. Hagolani-Albov, Kari Koppelmäki. Co-creating Agroecological Symbioses (AES) for Sustainable Food System Networks. *Front. Sustain. Food Syst.*, 19 November 2020. Sec. Social Movements, Institutions and Governance <https://doi.org/10.3389/fsufs.2020.588715>





Thank you!

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