

"HECTARE OF THE FUTURE Maximum profit, minimal footprint"

Sustainable management of 1 hectare of farmland in the spirit of local regenerative agriculture.



SHORT CONTEXT

A project for small farms in Central and Eastern Europe, showing how to achieve maximum income from just 1 hectare of land while ensuring:

- **biodiversity**,
- water retention,
- **✓**decarbonization,
- **✓**climate resilience,
- **V**local self-sufficiency





PROJECT ASSUMPTIONS



Area: 1 hectare = 100 x 100 meters (for expl.: 9 strips, each productive 10 meters wide; 3 diversity strip 3 meters)

<u>Layout:</u> strip-based (agroforestry + permaculture)

Goal: multifunctional plant and bio diverse production, climate-friendly and supportive of the local economy

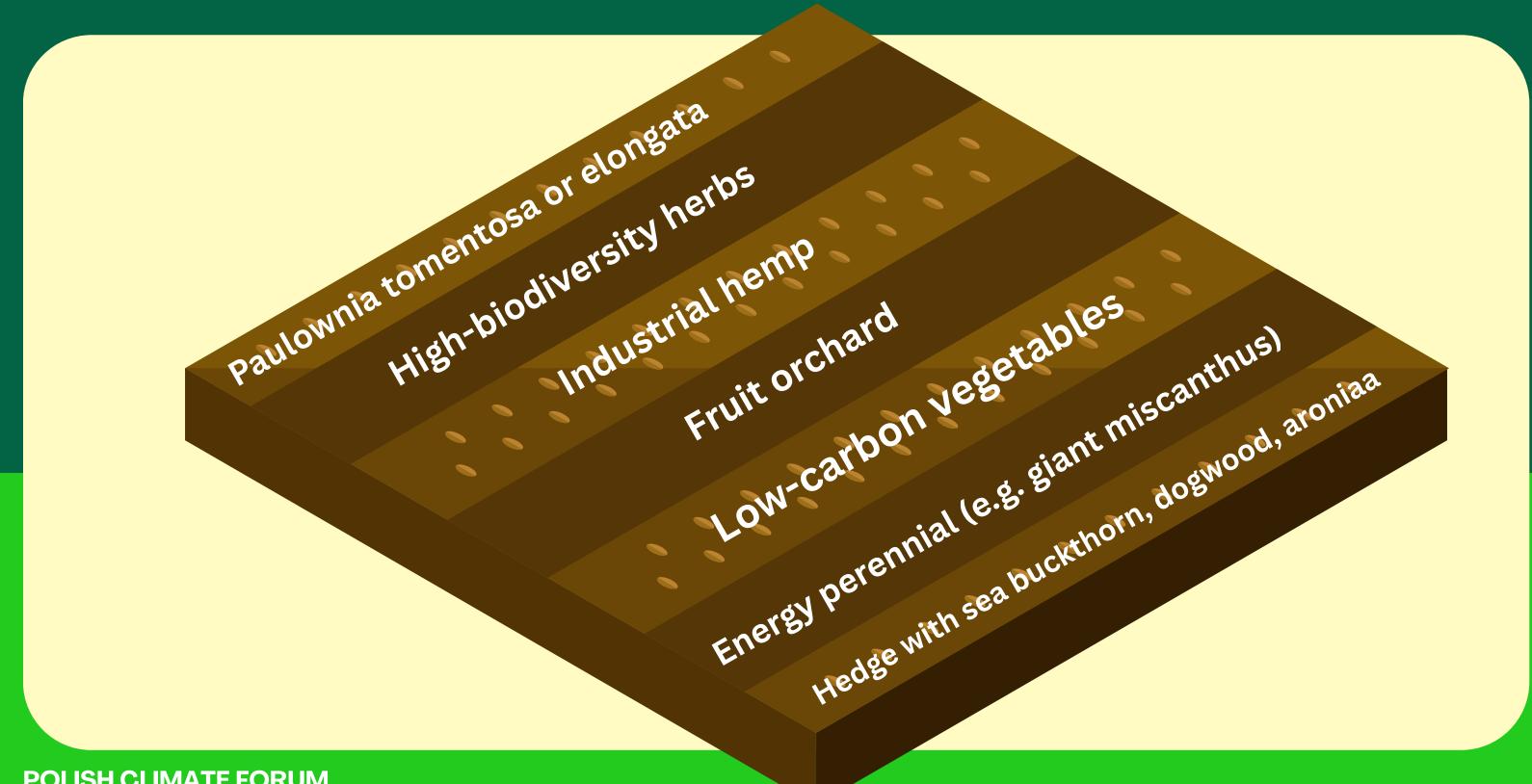


BENEFITS:

- ✓ Income from multiple sources: food, herbs, biomass, beekeeping, timber
- ✓ Lower operational costs thanks to self-sufficiency (water, compost, energy)
- Increased resilience to drought and inflation
- Potential for municipal cooperatives and shared processing
- ✓ Scalable and easy to implement within the CAP, EAFRD, and Horizon Europe frameworks



SAMPLE OF STRIP PLANTING VARIANTS AND THEIR FUNCTIONS





STRIP PLANTING FUNCTIONS

- **☑** Paulownia Energy wood (harvest in 3–5 years), shade, microclimate, water retention
 - ✓ High-biodiversity herbs (e.g. milk thistle, black cumin, chamomile, tansy)

Essential oil production, pollinator food source, income from niche herbal markets

- ✓ Industrial hemp (Cannabis sativa) Biomass, fiber, soil remediation, CO₂ sequestration
- Fruit orchard (dwarf plum, pear, apple trees) Perennial yield, bird habitat, biodiversity + Beehives + nectar plants (e.g. phacelia, melilot)

Beekeeping products, pollination, education

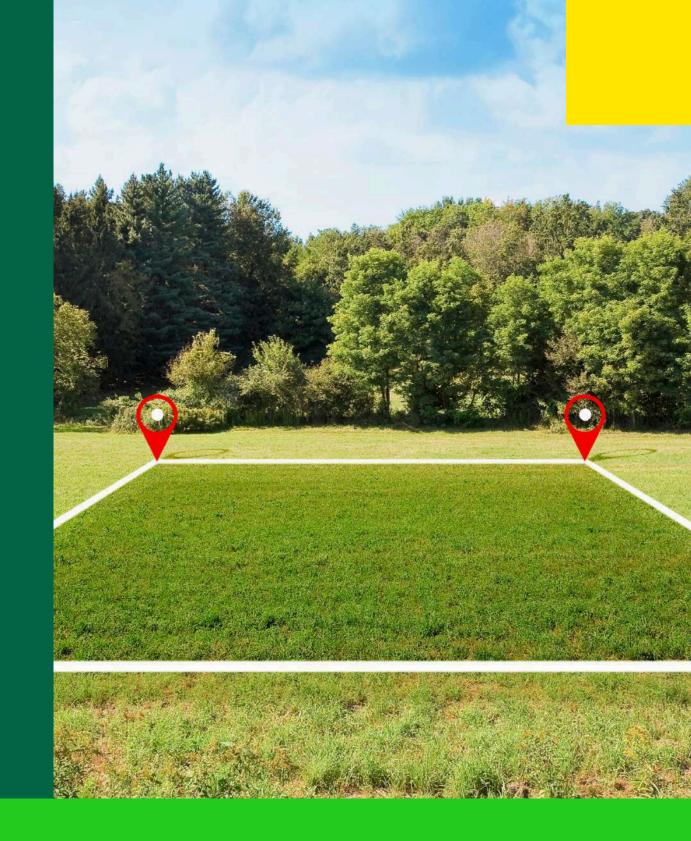
- ✓ Low-carbon vegetables (carrots, parsley, beets, garlic) Food self-sufficiency, local market sales, crop rotation
 - ✓ Hedge with sea buckthorn, dogwood, aronia Functional fruits, soil protection, windbreak
 - Forest mushrooms (e.g. oyster, shiitake) in microclimate under trees Innovative food source, organic matter decomposition, educational value
 - Energy perennial (e.g. giant miscanthus)
 Biomass, soil cover, low-carbon energy alternative
 - **▼** Flower and compost strip Pollinator support, soil enrichment, organic matter recycling



SCALABILITY AND IMPLEMENTATION

The 10x10x10 model (ten 10-meter-wide strips per 1 hectare) offers:

- Simple planning and clear structure
- Easy adaptation to local soil and climate conditions
- Potential for demonstration and educational modules
- Compatibility with EU programs (EAFRD, LIFE, Horizon, Interreg)





"1 hectare can feed, generate income, and protect the climate if we plan it wisely." We need SUPPORT for small farmers implementing model REGENERATIVE MICROSYSTEMS!

This is the future of CRISIS-RESILIENT European agriculture.



- ✓ Agro-photovoltaic installations (e.g. above herb rows)
- **✓** Rainwater harvesting and micro-irrigation systems
- **✓** Municipal composting stations
- **✓** Mobile processing and local market units
- ✓ Educational programs for schools and local communities

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ADDITIONAL ELEMENTS

- WHAT ELSE CAN BE IMPLEMENTED



Great change doesn't always require great investment.

What we need is smart planning, respect for the land, and real support for small-scale farmers.

The Hectare of the Future is ready to be implemented – locally, systemically, and with significant impact on climate, environment, and Europe's food sovereignty.



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CONTACT US FOR MORE DETAILS & CALCULATIONS