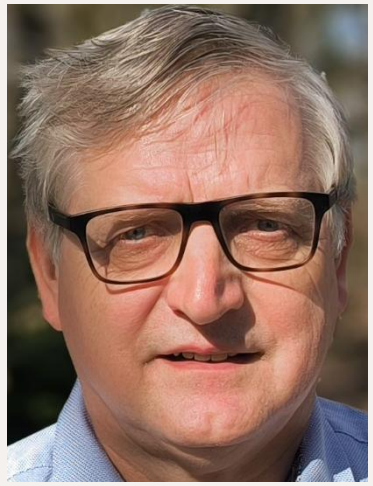
MarginUp Project

Assessing impacts of new cropping systems on Biodiversity and Ecosystem Services



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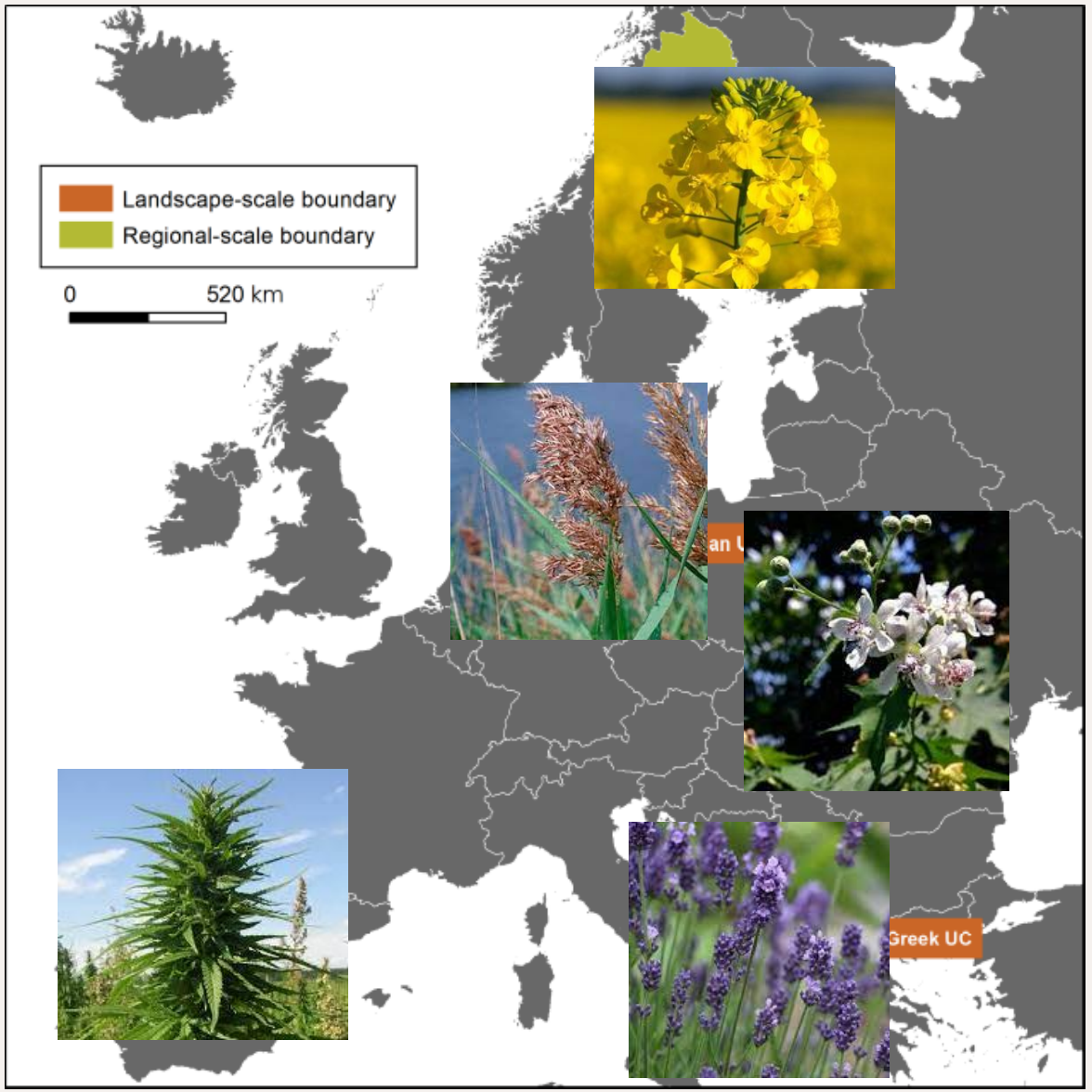
By introducing **climate resilient and biodiversity-friendly non-food crops** on marginal and low-productivity lands, MarginUp! will increase **farming system resilience**, enhance **biodiversity**, and promote **stakeholder participation.**

MarginUp! case studies

https://margin-up.eu/



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Wide range of new cropping systems to be assessed

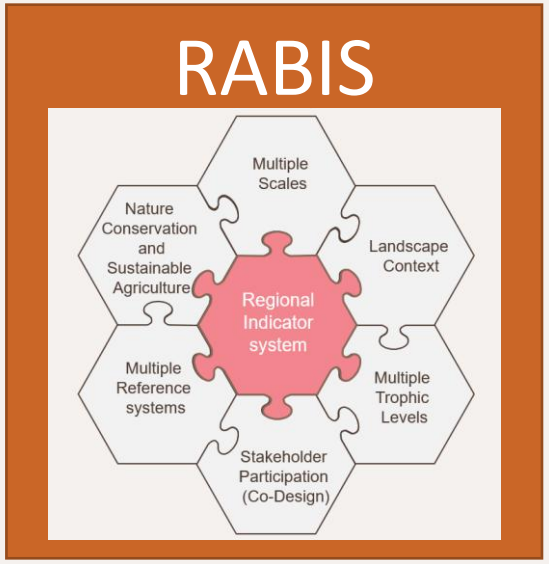
Case studies	Marginality factors	New cropping systems
GR, Western Macedonia	Abandoned, lignite mines	Energy crops (Robinia pseudoacacia) + biocosmetic (Lavandula angustifolia)
GE, Havelluch	Drained peatlands	Paludiculture crops (Phragmites australis, Typha spec.)
HU, Kecskemet	Desertified, abandoned orchards and vineyards	Salix viminalis, Sida hermaphrodita
SW, Norrbotten	Arable land in high latitudes	Brassica rapa ssp. oleifera
ES, Extremadatura	Dry, abandoned, low-fertility arable lands	Cannabis sativa L. Hibiscus cannabinus L.

WP2 Impact on Biodiversity and Ecosystem services

Mirroring species habitat requirements with characteristics of new land use

How to assess the effects of land use changes on wildlife (species)

→ **Mirroring** species habitat requirements with effects of new land use



Regional indicator system RABIS

Study the ecology/Population dynamics of target species

Input from Ecologists

Input from Agronomists

Changes caused by new cropping systems/Land use changes

For every single indicator species

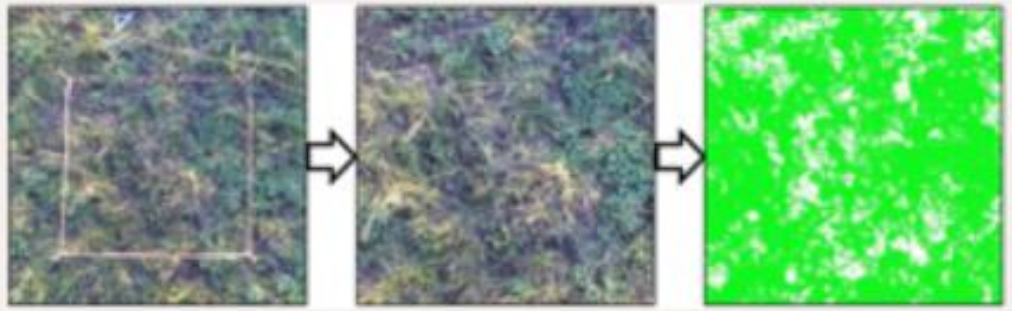
Field Monitoring

Crop stand height

Weed flora composition, using AI tools

Insect predators abundance/biomass

Pollinator nesting activities

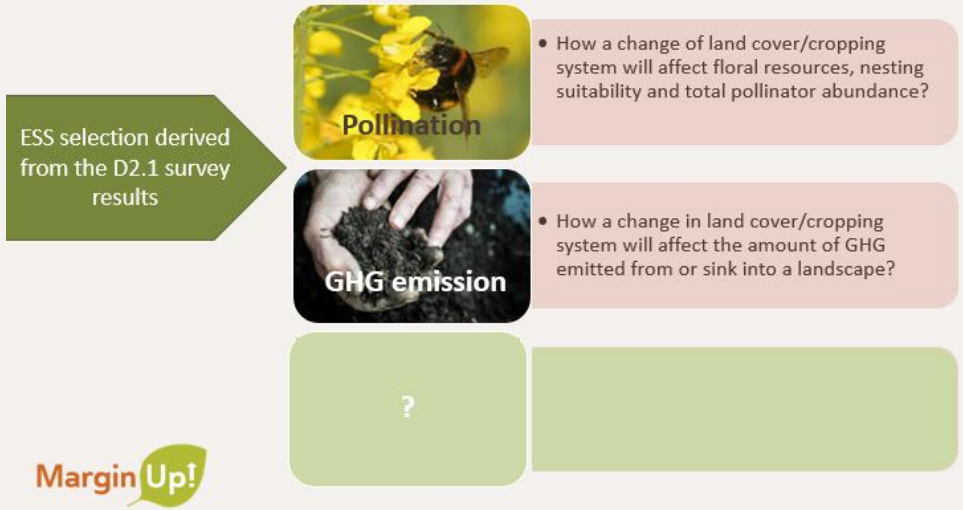


Crop stand/Weed flora coverage, using image analysis tools

Margin Up!

GIS-based ESS scenarios (based on INVEST model)

InVEST
integrated valuation of ecosystem services and tradeoffs



rewetting scenarios for german UC

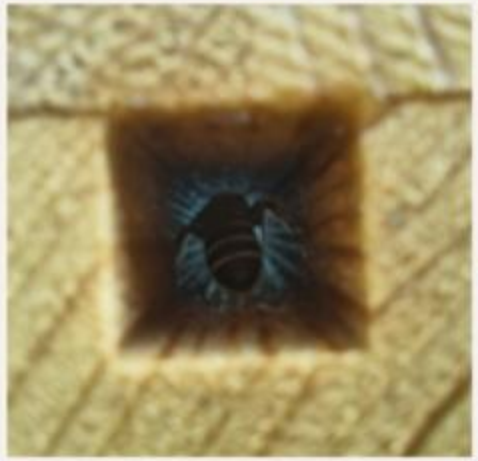
Scenario 0: Baseline (current status)

Pessimistic scenario:
Only 30% of the GHG reduction targets will be met.

Intermediate scenario:
60% of the GHG targets will be achieved.

Optimistic scenario:
Full achievement of GHG reduction targets by 2045.

Thank you very much for your attention!





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