Built for the field. Designed for tomorrow.

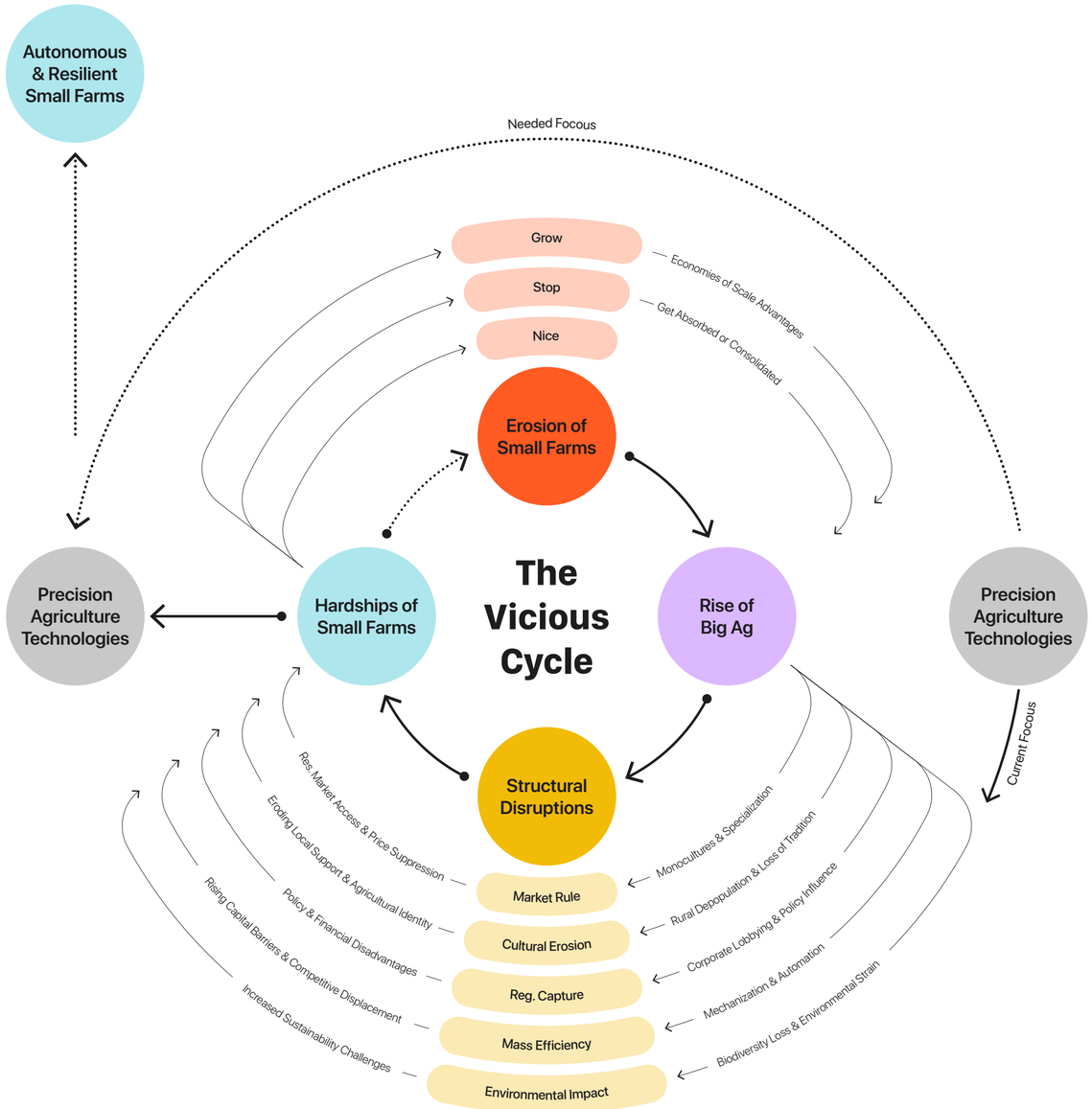
CROPKIT

A Smart Field Robot for the Small Scale Farming of tomorrow.

Small farms are essential for Europe's food, biodiversity, and climate resilience. But they're disappearing fast. Industrial farming may be efficient, but it often harms ecosystems, promotes monocultures, and weakens rural communities.

This project explores how Precision Agriculture Technologies (PATs) can support - not replace - small-scale farmers. Instead of just focusing on efficiency, it asks: How can these tools help farmers stay independent, sustainable, and strong? Many current technologies mainly benefit big agribusiness. They create new dependencies and overlook the real needs of smallholders. This thesis challenges that model and looks at technology as a social tool - not just a technical one.

The result is CropKit:
An open-source, modular farming system built with farmers. At the heart is the CropKit Base - a compact, flexible micro-tractor with smart controls and swappable tools. It's designed for different tasks, different farms, and different levels of tech comfort. CropKit makes it easier for farmers to adopt new tools at their own pace - while staying in control of their land and work.



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Facilitating Precision Farming Adoption in Smallholder Agriculture
24.06.2025
Integrated Product Design

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