





Applying soil-passport approach and precision farming technologies to improve overall soil health and sustainability

Soil health for food production and preservation of nature – Slovenia

Ploutos' Sustainable Innovation Pilot 6 (SIP6) aims at rationalizing the use of fertilizers and phytopharmaceutical products, thus ensuring soil health and the preservation of natural resources.

The Soil Passport can play a crucial role in supporting farmers by providing concrete evidence of the successful adoption of precision fertilization and spraying practices, ultimately facilitating their eligibility for subsidies through the CAP program. Furthermore, the meticulous tracking of all soil management activities, continuous monitoring and comprehensive documentation of soil-related data will open up new avenues of utility for the Soil Passport.

-  **Outcomes:** Smart fertilization service (8 farms, 64 fields) resulted in reduced use of fertilizers in average of 17,3% and maximum up to 30%. Targeted spraying piloted on 14 fields resulting in average decrease of pesticides by 21% and exceed 30% in some cases.
-  **Practical Recommendations:** Careful selection of participating farmers to ensure that the “sine qua non” requirements are met (i.e. equipment with support for targeted applications and fields above few ha area) is very important. Moreover, consistent monitoring of the fertilization and spraying indicators should be carried out.
-  **Problems:** One problem reported was linked to the time-consuming individual meetings held with the farmers to inform them of the technological solutions, to check their equipment and solutions and train them on the use of the machinery.
-  **Outlook:** The farmers that have machinery compatible with variable rate application and fields of size exceeding few ha are very interested. It is estimated that a 3-month period is required for the preparation and the successful replication of the pilot.

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Description of project activities

The Ploutos project will develop a Sustainable Innovation Framework that follows a systemic approach to the agri-food sector, building on three pillars: Behavioural Innovation, Sustainable Collaborative Business Model Innovation and Data-Driven Technology Innovation. The project will deploy 11 Sustainable Innovation Pilots, where using a Multi-Actor Approach, new innovative solutions and methodologies will be implemented, tested, assessed and derive practical lessons learned. A Ploutos Innovation Academy will be established as a vehicle for integrating the know-how, best practices and assessments developed across the project and derived from the Sustainable Innovation Pilots.

Objective of the project

The main objective of Ploutos project is to help rebalance the agri-food value chain and enhance its sustainability (economic, environmental and social) by establishing a Sustainable Innovation Framework that is powered by an innovative combination of behavioral change, collaborative business model innovation and data-driven technological services.

PLOUTOS CONSORTIUM



-  33 Partners
-  11 Pilots
-  10 Countries

