Development of sustainable legume-based cropping and grassland systems and agri-food and feed chains

TRansition paths to sUstainable legume-based systems in Europe

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Activities planned in TRUE:

A collaborative farm-network is here proposed to promote grain legume cultivation in Mediterranean rain fed farming systems. The aim proposed by Solintagro SL included in the WP2 is to evaluate currently and previously grown grain legume cultivars and landraces for characteristics of importance to sustainable agriculture and to apply novel tools to integrate genetic resistance with other control practices in a concerted manner. Priority is given to the combination of increased yield and resistance to stresses and integrated management thus allowing for the production of leguminous crops of high value in crop rotations of low input and stable yields.
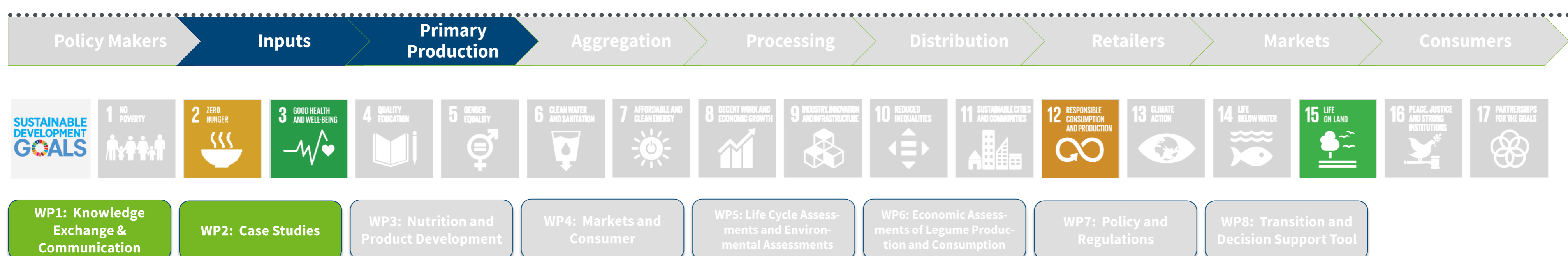

Experimental design and Crop management

Sixty-nine legume accessions belonging to 6 genera agronomically important under Mediterranean conditions (in specific: 5 chickpea accessions, 8 grass peas (*Lathyrus* spp.*) accessions, 16 lentil accessions, 6 white lupin accessions, 21 pea accessions and 13 faba bean accessions) have been provided and sown for Solintagro SL at the end of November 2017 in collaboration with local farmers under field conditions in 3 different locations. Accessions came from elite, traditional and/or local legume varieties from Mediterranean origin that the enterprise previously selected principally for pathogen resistance. Each accession was established on 6-m^2 plots (rows 5 m long, 1.2 m apart) in a completely randomized design, with three blocks. Zero or minimum external inputs were applied, depending on the locality.

Data survey

From the beginning of plant germination, crops were periodically evaluated (at least once a week) for the following parameters: % of seeds germination, plant density, % of soil couverture, time to flowering, pods formation and pod ripening, lodging, plant height, fresh biomass productivity, DM biomass weight, seed production, protein content and plant resistance to naturally occurring stresses, in order to select the most productive and well-adapted to each location.

Policy Makers | Inputs | Primary Production | Aggregation | Processing | Distribution | Retailers | Markets | Consumers

WP1: Knowledge Exchange & Communication | WP2: Case Studies | WP3: Nutrition and Product Development | WP4: Markets and Consumer | WP5: Life Cycle Assessments and Environmental Assessments | WP6: Economic Assessments of Legume Production and Consumption | WP7: Policy and Regulations | WP8: Transition and Decision Support Tool

Contact Information

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Webpage is coming soon.

www.true-project.eu