EIP-AGRI WORKSHOP
'Cropping for the future: networking for crop rotation and crop diversification'
4-5 June 2019 - Almere, the Netherlands

Operational Groups, innovative projects, Horizon 2020 multi-actor projects, Horizon 2020 thematic networks and projects represented at the workshop

update 7 June 2019

funded by European Commission

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This booklet was created for the **EIP-AGRI Workshop "Cropping for the future: networking for crop rotation and crop diversification"**, 4-5 June 2019 in Almere, the Netherlands.

The content for this document was provided by the workshop participants, and does not represent the views of the European Commission.

Agroecological Cover

Cover Agroecologiche – colture di copertura per l'incremento della sostanza organica del suolo e il contenimento delle malerbe

ITALY – EMILIA-ROMAGNA

Starting date - expected end date | 01.08.2016 - 30.11.2019

Operational Group

http://cover.crpa.it

Spring-summer crops (grain maize, soybean) have been cultivated for productive purposes, alternated with autumn-winter cover crops that are kept on the soil surface (not harvested). The proposed agronomic paths are 'pioneering' in our region.
In addition, the effects on soil quality (organic matter, nutrients, structural stability, earthworms and microarthropods, etc.), economic sustainability and carbon footprint are evaluated.
The new cropping system is viable, although with some technical difficulties linked in particular to the management of the cover crops (termination) and the crop protection (slugs). The productions obtained in the first two years were on average with those of the area for the same crops. Overall, the soil quality appears to be increasing from year to year.

Lead partner: **Fondazione CRPA Studi Ricerche (Research)**

Other partners

Research

- Centro Ricerche Produzioni Animali – CRPA SpA
- Università Cattolica del Sacro Cuore (DI.PRO.VE.S.)
- Università degli Studi di Parma (Dipartimento SEA)

Farmers

- Società Agricola Ciato

SME

- Caussade Semences Italia srl
- Emme Emme srl

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Agroforestry with horticultural crops ("Edible Park") Orticoltura e agroforestazione periurbane ("Parco Commestibile") – Un'azienda agricola multifunzionale per gli ambiti periurbani

ITALY – EMILIA-ROMAGNA

Starting date - expected end date | **01.09.2016 - 31.12.2019**

Operational Group

http://parcocommestibile.crpa.it

"Edible Park" was inspired by the Milan Urban Food Policy Pact (EXPO 2015). It aims to realise a model of multifunctional farm in peri-urban areas which is environmentally and economically sustainable, and which has potential for scaling up.
At present Edible Park is a plot of one hectare where 80 mulberry trees were planted in rows, according to the principles of agroforestry, to re-build the traditional rural landscape of the area, giving a contribution to C sequestration and biodiversity. Horticultural crops are cultivated between trees to supply fresh vegetables to the nearby town (Reggio Emilia), favouring manual operations and the inclusion of disadvantaged workers.
"Edible Park" is also the brand used to explore new supply chain models, taking into account the evolution of consumer needs.

Lead partner: **Centro Ricerche Produzioni Animali CRPA SpA (Research)**

Other partners

Research

- Fondazione CRPA Studi Ricerche
- Università degli Studi di Parma (Dipartimento SEA)

Farmers

- Cielo d'Irlanda Cooperativa Sociale
- Società Cooperativa Agricola Ortolani

External collaboration

- Comune di Reggio Emilia

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funded by European Commission

BEST4SOIL
Boosting 4 BEST practices for SOIL health in Europe

EUROPE

Starting date - expected end date | **01.10.2018 - 30.09.2021**

Horizon 2020 Thematic network

www.best4soil.eu

With Best4Soil we are building a community of practice network across Euro¬pe by inter-connecting growers, advisers, educators and researchers. This network promotes knowledge ready for practice on 4 best practices for the control of soil-borne diseases.
Therefore we make videos, fact sheets, and we organise meetings and events in 20 European countries where we exchange knowledge on soil health with our communities of practice.
The main objective of Best4Soil is to maintain, improve or re-establish soil health in Europe. We provide open-access databases with information on the range of pathogens and nematodes that affect vegetable, arable and cover crops to help practitioners to build appropriate crop rotations and innovative control strategies. All information will be provided in 22 European languages.

Lead partner: **Delphy BV (advisory and innovation services)**

Other partners
(research organisations, educational institutions, advisory services, SMEs)

- FiBL Austria, 7reasons Medien, Teagasc, Berner Fachhochschuhle, Landbrug & Fodevarer, IFAPA, Wroclaw University, Stichting Wageningen Research, P.h. Petersen Saatzucht, WBF, Landwirtschaft Grand

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funded by European Commission

BIOBO – Yield performance and soil organic matter built up by reduced tillage and organic fertilisation measures (green manure and organic fertiliser)

Ertragsentwicklung und Humusaufbau über reduzierte Bodenbearbeitung und organische Düngungsmaßnahmen (Gründüngung und organische Dünger)

AUSTRIA

Starting date - end date | **01.03.2016 - 28.02.2019**

Operational Group

https://boku.ac.at

The OG consists of 6 organic farmers, consultants and scientists. The farmers compare farm-specific reduced soil tillage and cover crop systems under on-farm conditions to learn about the influence of these treatments on yield and soil. Within a long-term monitoring project on an organic farm east of Vienna, the effects of different organic fertilisation and tillage systems (plough vs chisel) on plant and soil traits will be further investigated. The aim of the OG is to develop and test systems which can be established in practice on organic farms to increase yield and humus content in the soil, enhance the efficient utilisation of on-farm resources, soil quality and biodiversity and contribute to the adaptation of systems to climate change.

Lead partner: **Bio Austria NÖ, organic association adviser for organic farmers in Austria**

Other partners

Research

- BOKU, University and research
- FIBL Austria, research

Farmers

- Helga Bernold, Alfred Grand, Johann Kurzbauer, Hans Dornmayer, Karl Ringl, Josef Kühböck
- Biobetrieb Rutzendorf, state-owned organic farm

SME

- WPA GmbH

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funded by European Commission

CABIOS – Conservative Agriculture and BIOenergy buffer Strips
Agricoltura Conservativa e Fasce Tampone Bioenergetiche

ITALY – EMILIA-ROMAGNA

Starting date - expected end date | **01.01.2017 - 11.01.2020**

Operational Group

http://cabios.crpa.it/

The project aims to implement an innovative agro-ecosystem management system, based on the integration of conservation agriculture (CA – no tillage, cover crops and crop rotation) in combination with punctual and localised distribution of liquid fraction of digestate, subsurface drip irrigation (SDI), and the realisation of bioenergy buffer strips along the field borders.
The farms involved in the project are four associated farms, involved with each other for the production of biogas. The main objectives are: 1) to improve crop N and water use efficiency and limit the release of nitrates and pesticides in surface and subsurface water bodies 2) to increase physical, chemical and biological soil quality.

Lead partner: **Università Cattolica del Sacro Cuore (Piacenza, Italy)**

Other partners

Research

- CRPA S.p.A. (Centro Ricerche Produzioni Animali) (Reggio Emilia, Italy)

Farmers

- Azienda Agricola Colombarone (Piacenza, Italy)
- Azienda Agricola Eridano Fratelli (Piacenza, Italy)
- Azienda Agricola Maurizio e Giorgio Rossi (Piacenza, Italy)
- Azienda Agricola Serena Tranquillo (Piacenza, Italy

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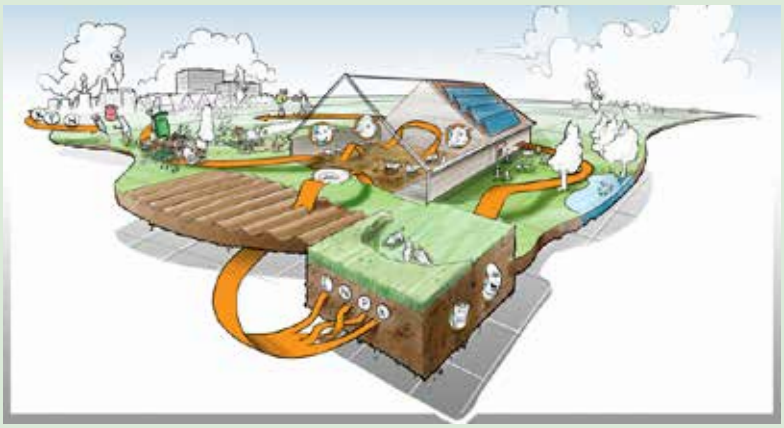
C-Cycle

THE NETHERLANDS

Starting date - end date | **30-03-2017 – 01-04-2019**

POP3 project; knowledge transfer, workshops and demonstrations

www.dlvadvies.nl



The main purpose of the project is to share and gain knowledge about the carbon cycle of a dairy farm. The group consists of 10-15 dairy farmers both conventional and organic. Via workshops, demonstrations and group meetings these farmers gain information about measures which they can take to add extra organic matter in their soil, how organic matter breaks down and how they can hold the existing organic matter level as high as needed. In practice this means, which kind of manure is needed, which grasses or plants help to build up the organic matter level and more. One of the measures which can be taken is to adjust the crop rotation plan. For example, find a solution to have 60% grass (long term, > 5 years), 20% grass-clover (temporary) and 20% corn. Due to this crop rotation scheme, farmers will add extra organic matter and C to their soil.

Lead partner: **DLV Advies**

Project financed by the European Agricultural Fund for Rural Development (EAFRD) and the Province of Utrecht

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funded by European Commission

CEreal REnaissance in Rural Europe: embedding diversity in organic and low input food systems (CERERE)

UK, ITALY, SPAIN, IRELAND, DENMARK, HUNGARY, FINLAND, FRANCE

Starting date - expected end date | 01.11.2016 - 31.10.2019

Horizon 2020 Thematic network

www.cerere2020.eu

CERERE has been a process of knowledge exchange and strengthening of the relationships between European actors active in supporting alternative and diversity-based cereal food systems, characterised by bottom-up and participatory innovation processes.
The project synthesises a multitude of practices and research results dealing with innovative ways of including diversity at farm level (e.g. using landraces, old varieties, mixtures, populations, crop rotations, cover crop), and useful to construct organic and low-input supply chains, based on agro-biodiversity and the empowerment of farmers.
With these aims, CERERE shares, validates and enriches knowledge about existing best practices and co-innovation cases through multi-actor activities, to encourage new Operational Groups within the EIP-AGRI framework, and to disseminate the knowledge accumulated throughout the network's operation to the wider public.

Lead partner: **University of Reading (UK)**

Other partners

Research

- Organic Research Centre (UK) www.organicresearchcentre.com
- SEGES (DK) www.seges.dk
- TEAGASC (IRL) www.teagasc.ie
- INRA (FR) www.institut.inra.fr
- ITAB (FR) www.itab.asso.fr
- University of Florence (IT) www.unifi.it
- University of Helsinki, Ruralia Institute (FIN) www.helsinki.fi/ruralia
- University of debrecen (HUN)

Farmers

- Rete Semi Rurali (IT) www.semirurali.net
- Réseau Semences Paysannes (FR) www.semencespaysannes.org
- Red Andaluza de Semillas (ES) www.redandaluzadesemillas.org

SME

- Formicablu (IT) www.formicablu.it

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funded by European Commission

Cultivation of soybeans without land competition through mixed cultivation in wheat and fodder maize

Anbau von Soja ohne Flächenkonkurrenz durch Mischanbau in Weizen und Silo-mais

GERMANY – HESSEN

Starting date - expected end date | **12.12.2017 - 30.06.2021**

Operational Group

www.soja-on-top.de

The main goal is to enlarge the cultivation of soybean, based on a mixed cropping system with winter wheat and soybean, and maize and soybean respectively. The aim is to increase the security of soybean cultivation without the need for additional land. Biodiversity should also be improved.

Specific objectives are:

1. Optimisation of row spacing
2. Detection of suitable varieties and types
3. Evaluate the agronomic effects, environmental and economic sustainability, with the aim to promote a conscious transfer to farms.

Lead partner: **Justus Liebig University of Giessen professorship of organic farming**

Other partners

Research

- Forschungsring e.V. Darmstadt
- LuV-Gladbacherhof

Farmers

- Weidehof Fam. Kohl
- Pappelhof Preuß Wollinsky GbR
- Hofgut Marienborn, Fam. Förster

SME

- Züchtung Dottenfelderhof

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funded by European Commission

CUVrEN-OLIVAR: Ground covers of native species in olive groves

CUVrEN-OLIVAR Cubiertas vegetales de especies nativas en olivar

SPAIN – ANDALUCIA

Starting date - expected end date | **29.12.2017 - 31.12.2019**

Operational Group

www.cuvren-olivar.es

Through the innovative project CUVrEN, ground covers are sown in olive groves with different types of intensification (traditional, intensive and super-intensive) by using winter annual native seeds with high hardiness levels and adaptation to the agroclimatic conditions of the olive groves.
Other advantages include no-till seeding, a very short cycle, low competition for water, cost reduction, annual self-seeding and improving biological pests control.
This project addresses the questions that may arise from the implantation of native permanent ground covers in olive groves. The comparison of management between native species, commercial varieties, spontaneous covers and bare soil will help contrast different implantation methods.
Furthermore, CUVrEN aims to consolidate the agronomic tools for the control of erosion in olive groves, the conservation of fertile soil and biodiversity, as well as the use of agricultural machinery for the management of the ground covers.

Lead partner: **Semillas Silvestres S.L.**

Other partners

Research

- Campus de Excelencia Internacional Agroalimentario ceiA3
- Universidad de Jaén (UJA)
- Universidad de Córdoba (UCO)
- Asociación Española de Agricultura de Conservación/Suelos Vivos (AEAC)
- SEO / Birdlife
- Asociación Desarrollo del Guadajoz (ADEGUA)

Farmers

- ASAJA Córdoba
- Arbequisur S.C.A. (Grupo Oleoestepa)
- Oleocampo S.C.A.

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funded by European Commission

Development and cultivation of locally adapted cereal populations in Hesse

Entwicklung und Anbau von standortangepassten Getreide-Populationen in Hessen

GERMANY – FEDERAL STATE OF HESSE

Starting date - expected end date | **01.01.2017 - 31.05.2021**

Operational Group

http://www.forschung-dottenfelderhof.de

A hitherto less considered strategy for crop diversification is the development and cultivation of cereal composite cross populations (or CCPs for short). CCPs consist of a diversity of plants of the same species with varying appearances and characteristics. As a consequence of this diversity they can adapt to local agro-climatic conditions and are less susceptible to leaf diseases, among many other agronomic advantages. The following objectives are pursued by the project:

- Evaluation of CCPs in farming systems in Hesse
- Identification of constraints to consumer acceptance of CCPs
- Improvement of breeding methods of CCPs

Lead partner: **Dottenfelder Bio-Saat GmbH**

Other partners

Research

- University Kassel, Department of Ecological Plant Protection
- Landbauschule Dottenfelderhof e.V. (Breeding initiative)

Farmers

- Thomas Goebel, Hofgut Oberfeld Landwirtschaft AG
- Lars Homburg
- Robert Kasper
- Ansgar Vortmann, LWG Dottenfelderhof KG

SME

- Spielberger Mühle GmbH (independent miller)
- MGH Gutes aus Hessen GmbH (marketing company)

Project & workshop contact:

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funded by European Commission

Diverfarming – Crop diversification and low-input farming across Europe: from practitioners' engagement and ecosystem services to increased revenues and value chain organisation

EUROPE

Starting date - expected end date | **01.05.2017 - 30.04.2022**

Horizon 2020 multi-actor project

http://www.diverfarming.eu

With the long-term view of increasing diversification in Europe and fostering sustainable development of bioeconomy, the Diverfarming consortium has come to develop and deploy innovative agribusiness models. Diverfarming will increase the long-term resilience, sustainability and economic revenues of agriculture across the EU by assessing the real benefits and minimising the limitations, barriers and drawbacks of diversified cropping systems using low input practices, and by adapting and optimising the downstream value chains organisation through executing field case studies.

This approach will provide: i) increased overall land productivity; ii) more rational use of farmland and farming inputs; ii) improved delivery of ecosystem services; iii) proper organisation of downstream value chains; and iv) access to new markets and reduced economy risks by adoption of new products in time and space

Lead partner: **Universidad Politécnica de Cartagena, Spain**

Other partners

Research

CREA (Italy), CSIC (Spain), Università degli Studi della Tuscia (Italy), Consorzio Casalasco del Pomodoro (Italy), Universidad de Cordoba (Spain), Wageningen University & Research (Netherlands), University of Portsmouth (UK), Universität Trier (Germany), ETH Zürich (Switcherland), University of Pécs (Hungary), Luke (Finland), University of Exeter (UK)

Farmers and agro-industry

ASAJA (Spain), Consorzio Casalasco del Pomodoro (Italy), Grupo Arento (Spain), Barilla (Italy), Nieuw Bromo van Tilburg (Netherlands), Weingut Dr. Frey (Germany), Ekoboerderij de Lingehof (Netherlands), Nedel-Market (Hungary), Paavolan kotijusstola (Finland), Polven juustola (Finland), Gere Attila (Hungary)

SME

Disfrimur Logística (Spain), Industrias David (Spain)

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funded by European Commission

DiverIMPACTS

Diversification through Rotation, Intercropping, Multiple Cropping, Promoted with Actors and Value Chains towards Sustainability

EUROPE

Starting date - expected end date | **01.06.2017 - 31.05.2022**

Horizon 2020 multi-actor project

www.diverimpacts.net

European arable agricultural systems are often characterised by short rotations or even monocultures, leading to problems such as higher pest pressure, soil erosion, loss of soil fertility, and loss of biodiversity.
In this context, the overall goal of DiverIMPACTS is to promote the diversification of cropping systems, with the aim to improve productivity, help deliver ecosystem services, and support the development of resource-efficient and sustainable value chains.
DiverIMPACTS will develop a range of technical and organisational innovations to help remove barriers all along the value chain from farmers to consumers, as well as create strategies and recommendations to strengthen crop diversification practices in the long term.

Lead partner: **INRA – Institut national de la recherche agronomique**

Other partners

Research
- CRA-W, CREA, DLO, FiBL, FIRAB, Inagro, INRA, IUNG-PIB, ÖMKI, ORC, VTI

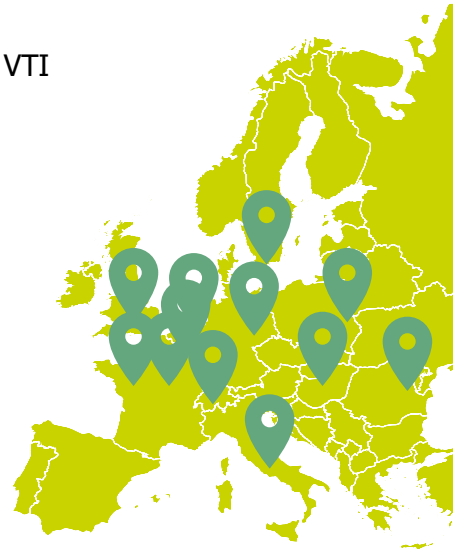
Farmers
- AIDER, BZ, ERF, LEAF, Socopro

Advisers
- ACTA, APCA, HS, LWK

Public engagement
- ASR, Bioforum, Bionext

Education
- ESA, SLU, UCL, UvA, WU

Logistics
- BA, Agrosolutions, MR, Walagri



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funded by European Commission

DIVERSify – Designing InnoVative plant teams for Ecosystem Resilience and agricultural Sustainability

EUROPE

Starting date - expected end date | **01.04.2017 - 31.03.2021**

Horizon 2020 multi-actor project

www.plant-teams.eu

DIVERSify applies tacit and scientific knowledge to real-world challenges **to develop arable and grassland species mixtures or 'plant teams' with improved productivity, pest and disease control and environmental benefits.** Existing expertise on plant team cropping, collated through participatory workshops with farmers, has been used for designing field and modelling experiments to identify crop traits and configurations that optimise plant team performance and define the underpinning mechanisms. Participatory research with farmers is being used to validate plant teams and provide management protocols. Trial data will be released publicly via a bespoke searchable database developed as a decision aid for crop selection and agronomy.

Lead partner: **The James Hutton Institute, Research Institute**

Other partners

Research

Sveriges Lantbruksuniversitet, Uppsala ; Swiss Federal Institute of Technology ; Agencia Estatal Consejo Superior Investigaciones Cientificas, Cordoba ; Kobenhavns Universitet; Universita Politecnica delle Marche; Instituto de Tecnologia Química e Biológica António Xavier, Universidade Nova de Lisboa; Association Groupe École Superieure D'Agriculture D'Angers; Universidad Politecnica de Madrid; Kenya Forestry Research Institute; International Centre for Agricultural Research in the Dry Areas; Canaan Centre for Organic Research and Extension; Westfälische Wilhelms-Universität Münster

Farming organisations and SMEs

Progressive Farming Trust; Linking Environment and Farming; Taskscape Associates Ltd.; Stockbridge Technology Centre; Agro-Know IKE; Økologisk Landsforening; Lantmännen Ekonomisk Forening; Fertiprado Sementes e Nutrientes, Lda; Saatzucht Gleisdorf GMBH; Landbrug and Fodevarer SEGES

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funded by European Commission

DOMINO

Dynamic sod mulching and use of recycled amendments to increase biodiversity, resilience and sustainability of intensive organic apple orchards and vineyards

ITALY- POLAND – GERMANY – FRANCE – BULGARIA - SWITZERLAND

Starting date - expected end date | 02.05.2018 - 30.04.2021

Core Organic Cofund Plus

www.domino-coreorganic.eu

The project DOMINO wants to demonstrate that innovative orchard management can enhance soil fertility, biodiversity and economic sustainability of intensive organic fruit orchards.
The innovations proposed by the project include:

1. the development of new strategies to manage the inter-row with new leguminous species to increase soil fertility and reduce the need of external inputs;
2. the use of living mulches in the row for weed control and for the production of secondary crops (i.e. phytochemicals);
3. optimisation of fertilisation with regionally available recycling organic fertilisers (e.g. biodigestate);
4. evaluating partly closed cover systems to support non-chemical pests and diseases control;
5. Assessing ecosystem services and economic impact of the mixed production systems.

Lead partner: **Universita' Politecnica delle Marche – Italy**

Other partners

Research

- Research Institute of Horticulture – Poland (public body)
- University Hohenheim – Germany (public body)
- Fruit Growing Institute – Bulgaria (public body)
- Laimburg Research Centre – Italy (public body)
- Research Inst. Organic Agriculture (FiBL) - Switzerland

Farmers

- Centre Techinique Interprofessionelle Fruits et Legumes (France)
- Biosudtirol (Italy)
- Associazione Italiana Agricoltura Biologica (Italy)
- SBR Organic (Italy)
- Förderaemeinschaft Ökologischer Obstbau e.V. (Germany)

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FABulous Farmers

NORTH-WEST EUROPE (BE, NL, LUX, FR, UK)

Starting date - expected end date | 11.01.2019 - 10.01.2023

Innovative project / Interreg NWE

www.nweurope.eu/projects/project-search/fabulous-farmers/

FABulous Farmers aims to reduce the reliance on external inputs, like chemical fertilisers and pesticides, by encouraging the use of Functional AgroBiodiversity (FAB), e.g. break the routine of single-crop production. The project assists the farmers in identifying and adopting relevant FAB-methods specifically for their farm by organising networking sessions, demonstrations and kitchen table talks.
The effect of some FAB-measures taken on the farm can be improved further by similar actions in the surrounding area. That is why we are active in 12 pilot regions in which we cooperate with other stakeholders to come to an integrated FAB-landscape-integration plan.
The results of the trial fields and on farms overall will be communicated to European and regional policy makers. In this way the evidence-based lessons learnt in this project can be implemented in ambitious but realistic European and regional agricultural policies.

Lead partner: **Agrobeheercentrum ECO² (BE)**

Other partners

- Hooibeekhoeve APB (BE)
- Natural Environment Research Council (UK)
- Biobestgroep (BE)
- Soil Association (UK)
- Zuidelijke Land en Tuinbouw Organisatie (NL)
- Association des Chambres d'agriculture de l'Arc Atlantique (FR)
- Provincie Antwerpen (BE)
- Lycée Technique Agricole EttelBruck (LUX)
- Eigen Vermogen van het Instituut voor Landbouw-, Visserij- en Voedingsonderzoek (BE)
- National Trust for Places of Historic Interest or Natural Beauty (UK)
- Instituut voor Biodiversiteit en Ecosysteemdynamica / Universiteit van Amsterdam (NL)

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funded by European Commission

Farm CO2Sink – C sequestration and GHG emissions reduction at farm level

Stoccaggio del C e riduzione delle emissioni di gas serra climalteranti a livello di azienda agricola

ITALY – EMILIA-ROMAGNA

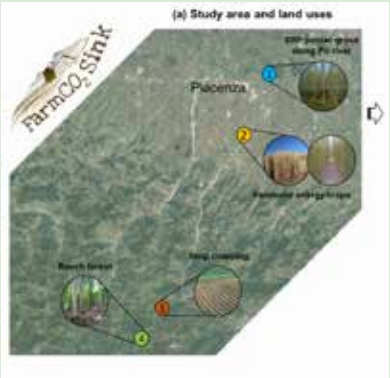
Starting date - expected end date | **01.01.2018 - 01.01.2021**

Operational Group

http://cabios.crpa.it/

The aim of Farm CO2Sink is to quantify the C sequestration potential at farm level and the reduction of GHG related to the adoption of a series of sustainable agricultural practices. Across a latitudinal gradient going from the Po floodplain to the mountainous areas of Piacenza province, the CO2 sink potential will be evaluated for the following agricultural practices:

1. SRF poplar grove along the Po floodplain (during establishment and after re-conversion to arable land);
2. Perennial herbaceous and SRC woody crops (re-conversion to arable land);
3. Contour strip-cropping with miscanthus in underutilised hilly areas
4. Mountain beech forest (conversion of beech coppice to high forest)



Lead partner: **Università Cattolica del Sacro Cuore (Piacenza, Italy)**

Other partners

Research

- CRPA S.p.A. (Centro Ricerche Produzioni Animali) (Reggio Emilia, Italy)

Farmers

- Società Agricola B&B s.r.l. (Piacenza, Italy)
- Società Agricola Buschi Fratelli (Piacenza, Italy)
- Impresa individuale Quagliaroli Andrea (Ferriere, Italy)
- Consorzio Comunalie Parmensi (Borgo Val di Taro, Italy)
- Consorzio Agroforestale Comunelli di Ferriere (Ferriere, Italy)

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funded by European Commission

Half the surface tilled – reduced tillage in organic farming

Halva ytan bearbetad – reducerad bearbetning i ekologisk odling

SWEDEN – ÖSTERGÖTLAND & SKÅNE

Starting date - expected end date | **01.01.2017 - 31.12.2019**

Innovative project

https://www.slu.se/centrumbildningar-och-projekt/ekoforsk/projekt-2017-2019/odlingssystem/

Reduced tillage provides several benefits to the cropping system and the environment. It reduces erosion, increases soil organic matter in the top soil, enhances soil life, reduces the costs and use of fuel related to soil management. However, in reduced tillage systems weeds risk to become a problem and hence these systems often rely heavily on herbicides and are difficult to implement in organic farming. In this project, we study a system design for reduced tillage in organic farming with multifunctional leguminous forage crops and row hoeing. The aim is to optimise the cropping sequence spring cereal – winter cereal with regards to yield, nitrogen use efficiency and weed control under Northern European conditions.

Lead partner: **Swedish University of Agricultural Sciences (University)**

Other partners

Anita Gunnarsson and Per Ståhl, The Rural Ecology and Agricultural Society (Advisory service, Hushållningssällskapet)

Research

- Swedish University of Agricultural Sciences (University)

Farmers

- Magnus Nilsson, Ekogården
- Joel Månsson, Norra Knästorp
- Josef Appell, Appell Agri consulting AB

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Heather Farm

De Heideboerderij

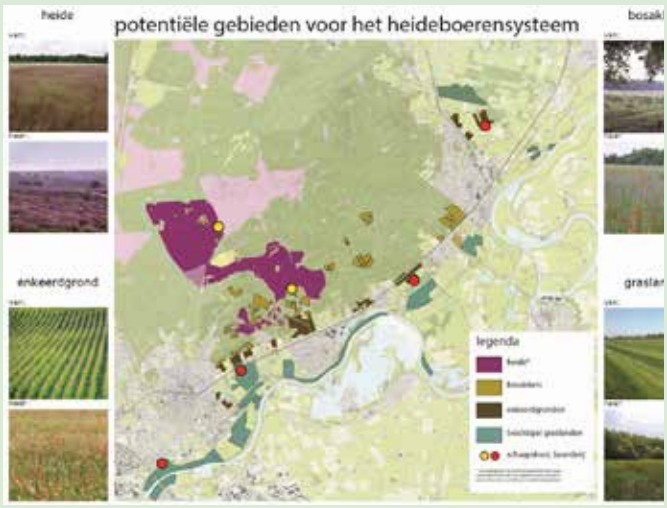
THE NETHERLANDS

Starting date - expected end date | **07.2017 - 07.2019**

Operational Group

www.heideboerderij.nl

The heather farm is a concept that aims for farmer-inclusive nature next to nature-inclusive agriculture. We have the aim to build farming systems on the borders of nature areas in order to create soft transitions from nature to agriculture. We reintroduce cereal growing mixed with endangered field flora on abandoned arable fields within the nature areas and on former maize fields. The Heather farm's goal is to create healthy nutrient cycles from heath and sheep to arable fields but also healthy cycles of products (cereals for bread, local bakeries, breweries, sheep meat etc.). Therefore we seek for well-balanced crop rotations respecting among others soil and yield (economic outcome). Our expected results are an increase in biodiversity in the fields but also around them (insects, birds etc.) and an increase in organic matter in the soils by connecting arable fields (infields) again to waste lands (outfields).



Lead partner: **Stichting Heideboerderij Nederland**

Other partners

Research

- Wageningen Environmental Research

Farmers

- Bart Lubbers, IJsseloord
- Wilco Nieuwenhuis, de Elzenhof

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funded by European Commission

HortInf

PORTUGAL – RIBATEJO

Starting date - expected end date | 01.03.2018 - 31.08.2021

Operational Group

https://hortinf.webnode.pt/

This OG aims to reduce pesticides in weed control of industrial crops like tomato, potato or cabbage. Ribatejo is the most important Portuguese agricultural region for this type of crops. Nowadays the farmers need more solutions to fight the soil toxicity and multiple resistances to the different active ingredients, which were used over time, on weed control, especially in parasitic species such as Orobanche spp. or Cuscuta spp.
To decrease the use of these products (herbicides), which are an important factor in the production cost, this OG wants to develop and apply technologies such as false sowing, mechanical methods, cover crops, increase sowing density or localised application of herbicides (precision agriculture).

Lead partner: **Centro Operativo e Tecnológico Hortofrutícola Nacional – COTHN (interprofessional center)**

Other partners

Research

- Escola Superior Agrária de Santarém (public educational / research school)
- Instituto Nacional de Investigação Agrária e Veterinária, I.P (public organisation)
- CCTI

Farmers

- Sociedade Agrícola S. João de Brito
- FNOP
- Agromais, CRL
- Torriba, S.A.
- António Maria Graço, Lda.
- João Carlos Moisés

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funded by European Commission

HYDROUSA

Demonstration of water loops with innovative regenerative business models for the Mediterranean region

GREECE – ISLANDS OF LESVOS, TINOS AND MYKONOS

Starting date - expected end date | 01.07.2018 - 31.12.2022

Horizon 2020 multi-actor project

www.hydrousa.org

HYDROUSA aims at closing all water loops at local level, taking advantage of local resources, promoting the concept of decentralised water, materials and energy conservation, treatment and reuse. The HYDROUSA concept will be materialised by implementing 13 innovations in six demonstration sites at full scale in three Mediterranean islands (Lesvos, Mykonos and Tinos). The implemented solutions will be complemented with innovative services, based on the formation of new value chains, involving farmer associations and water producers. A 1-hectare agroforestry will be established in the island of Lesvos in autumn 2019 with trees, prioritising local species combined with a variety of crops including some superfood species. The agroforestry will be irrigated with treated domestic wastewater. The system will place emphasis on diversity creating resilient ecosystems.

Lead partner: **National Technical University of Athens, School of Civil Engineering, Department of water resources and environmental engineering**

Partners

27 partners which include

- University
- Research organisations
- SMEs
- NGO
- Municipalities
- Water utilities

Project contact: **Simos Malamis** | 5, Iroon Politechniou st., Zografou Campus, 15780, Athens Politechnioupoli
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Improved forage production and conservation – protein-rich legumes and legume/grass mixtures for adaptation to climate change

Izboljšane tehnologije pridelave in konzerviranja z beljakovinami bogate krme - metuljnice in njihove mešanice za prilagajanje podnebnim spremembam

Slovenia

Starting date - expected end date | **01.01.2019 - 31.12.2021**

Operational Group

www.fkbv.um.si

The main aim is the production of protein-rich forage on six farms aiming for the production of conserved forage, an adaptation to climate change, modern field crop rotation and crop diversification. The production (winter catch crops, lucerne and its mixtures with grasses) and forage conservation include pure sowings and mixtures with high proportions of legumes. Controlled production includes calculation of symb. fixed N, soil Nmin control, the quality and quantity of forage and of the following crops in crop rotation. Silage making includes the controls of feeding value and the fermentation quality. The results will be analysed and presented to farmers and to a professional public as a good innovative practice.

Lead partner: **University of Maribor, Faculty of Agriculture and Live Sciences (research institution)**

Other partners

Research & advisory

- Agricultural Institute of Slovenia (research institution)
- Institute of Agriculture and Forestry Maribor (advisory service)

Farmers

- Karmen KOCUVAN, Daniel LEP, Andrej LAŠIČ, Janez KOPAČ, Bernarda ŽNIDERŠIČ

SME

- JGZ Rinka

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funded by European Commission

Increasing the viability of sown biodiverse pastures through optimisation of phosphate fertilisation

Viabilização de pastagens semeadas biodiversas através da otimização da fertilização fosfatada

PORTUGAL

Starting date - expected end date | **01.05.2017 - 31.12.2021**

Operational Group

www.terraprima.pt/pt/projecto/22

Most Portuguese pastures are poor grasslands on degraded soils. Therefore, some farmers invest in improved and fertilised grasslands, namely sown biodiverse pastures (SBP), which include a mix of up to 20 improved species, mainly legumes. However their economic viability is threatened by production costs, namely phosphate fertilisers.
The main objective is to optimise the use of fertilisers in SBP by using remote data sensing for evaluating pasture nutrient needs and using Variable Rate Technology (VRT) for fertiliser distribution.
So far 52 exclusion cages were installed on 8 farms, preventing grazing. Pasture primary productivity, intake and quality (fibre, protein) were calculated and were related with soil analysis. Drone flights are performed and satellite data is retrieved.
The project parcels will be divided in half in order to test conventional and differential fertilization (VRT), simultaneously.

Lead partner: **Terraprima (Research and advisory)**

Other partners

Research

- Instituto Superior de Agronomia (University)
- Universidade de Évora (University)

Farmers

- Herdade dos Grous - Agricultura e Pecuária, Lda.; Terraprima Sociedade Agrí[illegible]a Lda.; Fundação Eugénio de Almeida; Sociedade Agricola Herdade dos Padres, S[illegible] ZEA - Sociedade Agrícola Unipessoal, Lda; Tapada dos Números, Sociedade Agricola, Lda; Herdade do Azinhal.

SME

- Associação dos Criadores de Bovinos da Raça Alentejana

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funded by European Commission

Innovation for a sustainable and nature-inclusive agriculture in the northern part of the Netherlands

Innoveren naar duurzame en natuur inclusieve noordelijke bouwplannen

THE NETHERLANDS – FRIESLAND, GRONINGEN AND DRENTHE

Starting date - expected end date | **01.07.2019 - 01.11.2022**

Innovative project

Nature-inclusive agriculture (which is also a form of circular agriculture) is new in the Netherlands. Everybody is talking about it, but farmers don't know how to implement it. They already implement a lot of measures but don't know the effects on biodiversity (above soil and in the soil), soil quality and crop production. We start to make an inventarisation of effects on the farms, after that we will start to improve the measures the farmers already implement, and try to add some new measures. For example a higher diversity in crops in time and space. (strip-cropping, see picture). We organise demonstrations, experiments at research stations and on farms, exchange of knowledge and experiences, and we try to find a way to make nature-inclusive agriculture sustainable, profitable and durable for the farmers.

Lead partner: **Delphy (advisory and innovation organisation)**

Other partners

Research

- WUR (PPO)
- RUG (Groningen)
- SPNA (not a participant)

Farmers

- 7 farmers (Mulder, van 't Westeinde, Noordhoff, v. d. Ploeg, Kloppenburg, Eleveld and Huijing)

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funded by European Commission

Innovation in organic plant production

Innovatsioon mahetaimekasvatuses

ESTONIA

Starting date - expected end date | **06.03.2017 - 06.03.2021**

Cluster

www.maheklaster.ee

The overall aim is to improve the competitiveness of Estonian organic plant production as well as its ecological and economical sustainability. Main focus of the project is on testing different agrotechnological aspects in arable and vegetables production with the objective to increase the yield and enhance the yield quality. Main activities include fertilisation with different natural mineral fertilisers and biostimulators combinations (incl. leaf fertilisers), seed treatment with micronutrients and biostimulators, using multi-species green manure mixtures, cash crop growing in mixtures, growing uncommon winter crops in Estonian conditions (peas, beans, vetch); intercropping of green manures with main crop, mulching techniques, treatment of onion and garlic seed materials, treatment of potatoes to control late blight.

Lead partner: **Maheklaster (Organic cluster, farmers' NGO)**

Other partners

Research

- Estonian Crop Research Institute, Estonian University of Life Sciences; University of Tartu; FiBL

Farmers

- Tauno Tattar (Juppi), Harri Ellermaa (EHE Pojad), Kaspar Toomsalu, Tõnu Salu (Agriculture), Jaan Kiider (Riido talu); Mai Tooming (Väljaotsa), Janek Erik (Põlgaste talu), Torben Skov (ABL Baltic Seeds), Margo Mansberg (Erto talu), Margus Lille (Kiltsimäe talu), Tiia Klein (Tarvastu Saariku talu), Ander Konks (Fio), Remek Meel (Heavili), Janek Lass (Mahe Kati)

Other

- Estonian Organic Farming Foundation, Centre for Ecological Engineering, Research Centre of Organic Farming of EULS, Agri Partner

Project & workshop contact:

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funded by European Commission

Integral sustainability of seed potato cultivation

Integrale verduurzaming van de pootaardappelteelt

NETHERLANDS – GRONINGEN

Starting date - expected end date | **01.08.2017 - 31.03.2020**

Operational Group

http://www.louisbolk.org/nl/landbouw/bodembeheer/pootaardappelteelt

The aim of the group is to develop a more sustainable approach in seed potato growing. Using a system approach, soil quality and agro-biodiversity are improved by using a set of combined measures. In addition to the exchange of knowledge and experiences, the focus is on innovations with a practical approach. The knowledge and experiences gained are shared within the group and in a wider context.
On-farm, measures are tested on a field-scale size. Measures include building soil quality by using several levels of compost in different potato varieties. An integrated approach to crop protection is followed by comparing conventional inputs with a mixtures of 50% conventional inputs supplemented with trace elements and an organic-type approach. Also pre-crop effects are tested by replacing wheat as a pre crop in rotation by a sabbatical year growing several green manure mixtures and testing effects on seed potato growing.

Lead partner: **Collectief Midden Groningen**

Other partners

Research

- Louis Bolk Institute

Farmers

- Egge Jan Hommes, Jurjen Oosterhuis
- Jan Wolthuis, Jan Willem Bakker, Pieter Tako Wierema
- Jan Willem Bakker

SME

- Hoogland bv.

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funded by European Commission

Integration of Biological Resources in Horticultural Production

Integració de Recursos Biològics en la Producció Hortícola

SPAIN – CATALONIA

Starting date - end date | **01.11.2015 - 30.09.2017**

Operational Group

www.hortasostenible.cat

Sustainable strategies have been implemented to produce high added-value food and to reduce the use of pesticides, water and fertilisers. The positive effect of ecological infrastructures has been verified to conserve natural enemies in open field tomato, lettuce, onion and artichoke for the application of biological control. The use of companion plants of calendula for the transfer of the predator Macrolophus between successive tomato crops has been tested. The use of fertilisers and mycorrhizas have been optimised to reduce the contribution of nitrogen and phosphorus in tomato and onion.

Lead partner: **AGRÍCOLA MARESME SEGLE XXI (Farmers society)**

Other partners

Research

- IRTA (Research Institute)

Farmers associations

- AGRÍCOLA DE VILASSAR DE MAR (Cooperative)
- AGRÍCOLA DEL LITORAL (Cooperative)
- ADV BAIX MARESME (Plant Protection Advisory Service)

Other members

- CONSORCI PARC AGRARI BAIX LLOBREGAT (Public Consortium)
- SELMAR (Farmer's Plant Protection Advisory Service)
- UNIÓ DE PAGESOS (Farmers Union)

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Workshop contact: **Carmen Biel**
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IWMPRAISE

Integrated Weed Management: PRActical Implementation and Solutions for Europe

EUROPE – PARTNERS FROM SPAIN, ITALY, SLOVENIA, SWITZERLAND, FRANCE, THE NETHERLANDS, UNITED KINGDOM AND DENMARK

Starting date - expected end date | **01.06.2017 - 31.05.2022**

Horizon 2020 multi-actor project

www.iwmpraise.eu

The project aims to support the implementation of innovative and effective Integrated Weed Management (IWM) practices in European agriculture to improve agronomic, economic and environ-mental sustainability. A broad range of IWM tools are integrated and tested in various important cropping systems in the eight participating countries. Crop diversification in the form of more diverse crop rotations, intercropping etc. are important tools of IWM. An important part of the work is taking place in national clusters where farmer organisations, advisory services, SMEs and research institutes design, test on-farm and conduct the preliminary validation of the IWM strategies studied in their country. A full description of the project, including objectives, work packages etc. may be found at the project website.

Photo credits: Donato Loddo, CNR, Italy

Lead partner: **Aarhus University**

Other partners

A total of 38 partners, including

- 11 leading universities and research institutes within the area of weed management
- 14 SMEs and industrial partners
- 13 advisory services and end user organisations.

The full list of partners can be found at the project website.

Project contact: **Per Kudsk** | AU, Agroecology, Flakkebjerg, DK-4200 Slagelse
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funded by European Commission

KLIWA – Climate resilience through water-saving organic farming

Klimaresilienz durch wassersparenden Bio-Ackerbau

AUSTRIA

Starting date - expected end date | **01.04.2019 - 31.03.2022**

Operational Group

In Eastern Austria, an Operational Group (OG) consisting of 7 organic farmers, consultants and scientists was established. The aim of the group is to test strategies to adapt to climate change in arable farming. Machinery and adapted farming strategies utilizing the cover crop-based organic rotational no-till system (CCORNT) will be tested in maize and soybean trials, and cut & carry systems with legume transfer mulch will be investigated in maize and potato trials, all under on-farm conditions. The OG will study the influence of these strategies on yield, soil and crop water demand. Additionally, within a long-term monitoring project on an organic farm east of Vienna, the effects of different organic fertilisation and tillage systems (plough vs chisel) on plant and soil traits will be further investigated. The aim of the OG is to develop and test farming strategies valuable in adapting to climate change.

Lead partner: **Bio Austria NÖ, organic association, adviser for organic farmers in Austria**

Other partners

Research

- BOKU, University
- FIBL Austria, research

Farmers

- Alfred Grand, Thomas Böhm, Walter Klingenbrunner, Lukas Niedermayer, Andreas Wiesinger, Karl Strohmayer, Herrmann Schwarzl
- Biobetrieb Rutzendorf, state-owned organic farm

SME

- Landtechnik Stöckel, Landtechnik Hammerschmied, agricultural machinery manufacturers
- Rodale Institute, USA, research and adviser

Project & workshop contact: **Dr. Gabriele Gollner** | Gregor Mendel-Strasse 33, A-1180 Wien
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funded by European Commission

Lasting Fields in practice

Akker van de toekomst

THE NETHERLANDS – FLEVOLAND

Starting date - expected end date | **2017 - 2021**

Operational Group

This project involves the development and testing of five prototypes of tools for a few operations in a crop. The acquired knowledge and experience is used as a "step-up" to a larger and complete range of tools for mechanical operations such as tillage, sowing, planting, crop care and harvesting.
The basis is a tool carrier to which, depending on the operation to be performed, the necessary modules (machine tools) are coupled. The following possibilities are investigated: strong but especially lightweight constructions; alternative drive systems (electric, by biogas or CO^2 neutral energy) and the storage of energy (battery / battery systems).
Objectves: The development of unmanned / autonomous / self-propelled agricultural tools which are then tested in practice. The purpose of this is:

- realising energy savings
- ensure lower soil pressure
- reduced use of plant protection products and fertilisation
- a vital growth of crops
- an efficient use of labour

This enables large-scale food production to be realised in an ecologically and economically responsible manner.

Lead partner: **Stichting Future Food Production**

Other partners AgroFoodCluster, WUR, Horizon

Research

- Wageningen University Research
- Steverink Techniek

Farmers

- Methamorphosis
- Sturm Landbouw
- Van Campen
- Dibbits
- Poppe

Project contact: **Digni van den Dries**
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funded by European Commission

Life HelpSoil – Helping enhanced soil functions and adaptation to climate change by sustainable onservation agriculture techniques

Life HelpSoil – Migliorare i suoli e l'adattamento al cambiamento climatico attraverso sostenibili tecniche di agricoltura conservativa

ITALY – PO RIVER PLAIN

Starting date - end date | **01.07.2013 - 30.06.2017**

Innovative project / LIFE project

www.lifehelpsoil.eu

HelpSoil was aimed to introduce sustainable soil management practices such as cover crops, crop rotation and no-till farming on the plain of the River Po. Such soil conservation practices improve the quality of the soil and have a positive impact in terms of climate change adaptation. During the project, conservation and conventional soil management practices were compared by monitoring agronomic and environmental indicators for 3 years on 20 demonstrative farms. The results demonstrated that keeping soil surfaces vegetated through diversification of crop rotations and use of cover crops is a key factor to increase vital ecosystem services that are also essential for food production, while maintaining the profitability of cropping systems.

Lead partner: **Lombardy Region; ERSAF – Regional Agency for Agriculture and Forests of Lombardy**

Other partners

CRPA, Veneto Agricoltura and Piedmont, Emilia-Romagna, Veneto and Friuli Venezia-Giulia Regions

Research

- Catholic University of Sacred Hearth – Piacenza
- University of Milan
- University of Turin
- University of Padua

Farmers

- 20 demonstrative farms located all over the Po River Plain and the surrounding hilly areas

Project & workshop contact:

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funded by European Commission

Management of multifunctional margins in dryland farming for a better carbon and biodiversity balance

Gestión de márgenes multifuncionales en secano para un mejor balance en carbono y biodiversidad

SPAIN – ANDALUSIA

Starting date - expected end date | 15.02.2018 - 14.02.2020

Operational Group

www.asajasevilla.es

The project aims to optimise the management of this agricultural practice in dryland arable crops of Andalusia. Multifunctional margins (MFM) are strips of sown vegetation established in farming areas whose usefulness as a source of multiple agronomic and environmental benefits is widely accepted (reduction of soil erosion and organic matter loss, better water infiltration, physical barrier to runoff and decrease of diffuse contamination of watercourses, increase of organic matter and carbon stocks of the soil, increase of biodiversity, especially pollinating insects useful for better pollination of crops, as well as other beneficial insects of interest for pest control). However, this technique is still far from being broadly implemented by farmers. Therefore, the project aims to make practical recommendations to overcome the difficulties of managing MFM and to improve the knowledge base so that MFM may be successfully incorporated into the list of voluntary measures available within the framework of the next Common Agricultural Policy.

Lead partner: Farmers' Association – Young Farmers of Sevilla (ASAJA-Sevilla)

Other partners

- AEAC. SV – Asociación española de Agricultura de Conservación. Suelos Vivos (non-profit)
- SYNGENTA ESPAÑA SAU (business)
- ASAJA-Andalucía (Farmers' organisations federation)
- IFAPA – Instituto Andaluz de Investigación y Formación Agraria, Pesquera, Alimentaria y de la Producción Ecológica (public research centre)
- SAT San Arcadio (cooperative)

Farmers

- Hacienda de Zafra, SL – La Alburrueca, SL – Agrícola Ojén, SC – Lirón Agrícola, SA

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funded by European Commission

MoreSoil

MaisSolo

PORTUGAL – RIBATEJO

Starting date - expected end date | **01.07.2017 - 31.12.2020**

Operational Group

https://maissolo.webnode.pt

MoreSoil was created to develop and expand technologies to improve more quality in extreme used soils by intensive agriculture, namely in Ribatejo, the most important horto-industrial region of Portugal. This region predominantly has monocultures such as tomato or potato to industry. Nowadays the principal enemies present on the soil of this cultures are Rhizoctonia, Fusarium, Verticilum (fungi), Ralstonia, Pseudomonas, Xantomonas (bacteria) or Meloidogyne (nematode).
Traditionally in these cultures, pesticides are the preferred method to control these problems. However, the loss of biodiversity and water quality and many other factors are contributing to the implementation of other technologies to prevent more bioaccumulation besides other problems. This OG was created to demonstrate the benefits of these techniques and have them implemented in the future, using cover crops, rotations, which work as biofumigation or biological pests control.

Lead partner: **Centro Operativo e Tecnológico Hortofrutícola Nacional – COTHN (interprofessional centre)**

Other partners

Research

- Escola Superior Agrária de Santarém (public educational / research school)
- Instituto Nacional de Investigação Agrária e Veterinária, I.P (public organisation)

Farmers

- Sociedade Agrícola S. João de Brito; Sociedade Agrícola das Malhadinhas, Lda
- Agromais, CRL
- Torriba, S.A.
- Fertiprado, Lda.
- FNOP

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funded by European Commission

Multifunctional hedgerows for agriculture and biodiversity in the Region of Murcia

Setos multifuncionales para agricultura y biodiversidad en la Región de Murcia

SPAIN – MURCIA

Starting date - expected end date | 2018 - 2020

Operational Group

www.setosrm.org/

The Operational Group, an association formed by farmers, agro-companies, researchers and environmental associations, is setting up hedgerows composed of a diversity of local plants, shrubs and trees, and optimising its designs to respond to the different needs of the various agricultural typologies of Murcia Region. Thus, the Operational Group intends to give farmers the possibility to maximise the agronomic and environmental benefits of their production, thanks to the introduction of wild biodiversity, through erosion control, nitrate uptake, useful-fauna maintenance (predators, parasitoids, pollinators), CO2 fixation, etc.
Finally, the project aims to give farmers useful tools for a more sustainable agriculture based on the restoration and conservation of ecosystem services.

Lead partner: **Comunidad de Regantes Arco Sur Mar Menor (Irrigation communities)**

Other partners

Research

- Instituto Murciano de Investigación y Desarrollo Agroalimentario (IMIDA) (4Regional organisation of investigation)
- CEBAS-CSIC (National organisation of investigation)

SME

- Casa Pareja
- Frutas García Vargas
- Woldmark Alimentos Ecológicos
- Castillo de Chuecos
- Ecoagrícola El Talayón
- BF Agrícola 4G

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funded by European Commission

OakRegeneration

PORTUGAL - ALENTEJO

Starting date - expected end date | 01.11.2017 - 31.12.2021

Operational Group

www.oakregeneration.pt/en

Objective:
The reassessment of natural regeneration strategies in the Mediterranean scattered-oak woodlands with cork and holm oak in southern Portugal. Detecting and promoting the (natural) regeneration of trees in regeneration hotspots and promoting a successful natural oak regeneration process through agroforestry management practices.

Expected results:
Understand the spatial and temporal dynamics of natural oak regeneration for promoting a secondary forest succession. Prescribe agroforestry management practices through the implementation of agricultural set aside areas, in rotational schemes. Increase the biodiversity, the structural complexity and the land use diversification in scattered-oak woodlands. Maintain the trees through a natural regeneration process as trees are keystones structures for important ecological functions, including the regulation of water and nutrient cycles and soil conservation.

Lead partner: **National Institute for Agriculture and Veterinary Research (INIAV, I.P.) (State laboratory)**

Other partners

Agri associations

- ACHAR - Associação dos Agricultores de Charneca
- ADPM - Associação de Estudo e Defesa do Património Rural e Cultural do Concelho de [illegible] tola
- AFLOSOR - Associação de Produtores Florestais da Região de Ponte de Sor
- ANSUB - Associação de Produtores Florestais do Vale do Sado

Agri enterprises

- Companhia das Lezírias S.A.
- EDIA - Empresa de Desenvolvimento e Infra-Estruturas do Alqueva S.A.

Farmers

- Anta de Cima, Sociedade Agrícola Unipessoal Lda
- Carlos Frederico Abecassis do Amaral Netto
- Cesar Sacadura Mexia de Almeida
- Herdade do Paúl, Sociedade de Gestão Rural Unipessoal Lda
- Pedro Sacadura Teixeira Cabral Duarte da Silveira
- Sociedade Agrícola do Casal das Pombas S.A.

Project & workshop contact:

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funded by European Commission

OG SOLO – Development of an expedited low-cost soil organic matter evaluation method for sown biodiverse pastures

GO SOLO – Avaliação da dinâmica da matéria orgânica em solos de pastagens semeadas biodiversas através do desenvolvimento de um método de monitorização expedito e a baixo custo

PORTUGAL

Starting date - expected end date | **01.08.2018 - 31.12.2021**

Operational Group

www.terraprima.pt/pt/projecto/24

Sown biodiverse pastures (SBP) are a mix of up to 20 high-yield species/varieties of grasses and legumes. The "portfolio effect" generated by the diversification of species in the pasture enables the best adapted plant type to grow at each location (adaptation to geodiversity) and in each year (adaptation and selection for weather diversity). For those reasons, SBP are more productive than spontaneous or semi-natural pastures. Their high yields are also accompanied by increases in soil organic carbon (SOC) and consequently by carbon sequestration. Measuring this latter effect, however, is costly and time-consuming.
The main objective of this Operational Group is to develop an expedited and low-cost method for SOC mapping and assessment of carbon sequestration in SBP. The method will be based on proximal and remote sensing. Visible and Near-Infrared spectroscopy (VNIR) will be collected using field/lab sensors and satellite data. Traditional soil analyses will be made through mechanised soil sampling, and the data will be used to calibrate a model that, in the future, will be capable of estimating SOC in PSB from remote data.

Lead partner: **Terraprima (Research and advisory)**

Other partners

Research

- Universidade de Évora (University)
- Instituto Nacional de Investigação Agrária e Veterinária (Research institute)

Farmers

- Herdade da Machoqueira do Grou; Terraprima Sociedade Agrícola Lda.; Fundação Eugénio de Almeida; Sociedade Agricola Herdade dos Padres, SA; ZEA - Sociedade Agrícola Unipessoal, Lda; Tapada dos Números, Sociedade Agricola, Lda; Herdade do Azinhal

Farmer associations

- Confederação dos Agricultores de Portugal

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funded by European Commission

OK-Net Arable – Exchange knowledge, enhance organic farming

EU-wide project

Starting date - end date | **01.03.2015 - 28.02.2018**

Horizon 2020 Thematic Network

organic-farmknowledge.org

The complexity of organic farming requires farmers to have a very high level of knowledge and skills. But exchange on organic farming techniques remains limited. OK-Net Arable promotes exchange of knowledge among farmers, farm advisers and scientists with the aim to increase productivity and quality in organic arable cropping all over Europe.

Farmer innovation groups share common challenges

OK-Net Arable works with 14 farmer innovation groups, located in 10 countries. OK-Net Arable brought together the common challenges identified by the groups. Data from the farmer innovation groups show a wide range of crop yields. This indicates there is need, but also a clear possibility to improve farm yields.

Knowledge platform for farmers to find organic solutions and exchange knowledge

OK-Net Arable has launched a knowledge platform (farmknowledge.org). Farmers and farm associations can use the platform to find practical organic solutions, and at the same time discuss how it works on the field, in their geographic and climatic conditions.

Lead partner: **IFOAM EU (NGO – European umbrella organisation for organic food and farming)**

Other partners

Research

- FiBL (CH, DE, AT), Organic Research Centre (UK), Aarhus University (DK), CIHEAM-IAMB (IT), ÖMKI (HU), Institut Technique de l'Agriculture Biologique (FR)

Farm associations

- Bioland Beratung (DE), AIAB (IT), European Forum for Agricultural and Rural Advisory Services, ConMarche Bio (IT), Eesti Mahepõllumajanduse Sihtasutus (EE), BioForum Vlaanderen (BE), Bioselena (BG), Agriculture & Food Council (DK)

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funded by European Commission

OPAL-Life – Optimising agricultural land use to mitigate climate change

FINLAND

Starting date - expected end date | **01.09.2015 - 31.03.2020**

Innovative project / LIFE project

www.opal.fi

OPAL-Life aims at mitigating greenhouse gas emissions from agriculture following the principle of sustainable intensification by combining environmental benefits, profitability of the farm and social aspects. The OPAL-Life project will focus on optimising the land use by targeting inputs such as fertilisers and plant protection, towards the land where the response is the highest shifting production away from the non-responsive land. Within this context crop rotation and crop diversification are important. This results in higher yields, better economy and environmental benefits. Optimisation of land use aims at climate change mitigation when the total area of extensively cultivated land decreases and year-round vegetation increases. A land use optimisation tool is developed together with Finnish farmers to ensure farmers' ability and willingness to implement the practices. The project organises seminars, workshops and field demonstrations.

Lead partner: **Natural Research Institute Finland (Luke)**

Other partners

- University of Helsinki
- The Finnish Geospatial Research Institute (FGI)
- The Central Union of Agricultural Producers and Forest Owners (MTK)
- Nylands Svenska Lantbrukssällskap
- ProAgria Rural Advisory Services

Farmers

- 20 pilot farms included

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funded by European Commission

Organic vegetables

OG Biogemüse GbR

GERMANY – HESSE

Starting date - expected end date | 01.01.2018 - 30.06.2020

Operational Group

www.biogemuese-nordhessen.de

The OG wants to integrate organic vegetables in the rotation system and establish them in the North Hessian arable cropping systems, as currently they are barely grown in the region. For farmers this is financially interesting, and it allows better use of existing resources (technology, manure, knowledge). In addition, farmers grow vegetables for a shelter: the washing and packaging of the vegetables sold to supermarkets creates jobs for the disabled.
Results from 2018: Within the arable system, weed and pest pressures were low and an astonishing amount of water was available without irrigation. The development of marketing structures for larger quantities of organic vegetables is much more difficult than expected. Products that need to be sold fresh (e.g. salad) are a particular challenge in this collaboration.

Lead partner: **Treis AgrarKonzept**

Other partners

Research

- Universität Kassel, Ökol. Agrarwissenschaften. FB Agrartechnik
- Petrarca, Europäische Akademie für Landschaftskultur

Farmers

- Biolandhof Krieger, Herstelle
- Diemelhof, Jörg Katzauer, Wülmersen
- Ruhlengut, Familie Treis, Neumorschen

SME

- Hephata Diakonie e.V., Soziale Rehabilitation, Schwalmstadt. Käpplein Bio

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funded by European Commission

Powerful Herbs in Grassland for Better Animal Health

Krachtige Kruiden voor Diergezondheid

THE NETHERLANDS – OVERIJSSEL

Starting date - expected end date | 01.06.2017 - 30.04.2020

Operational Group

The main aim of the project is to reduce the use of antibiotics in dairy farming. To improve the health of dairy cows farmers develop mixed grass-herb pastures. These pastures offer cows diverse grazing (grasses, herbs) and roughage. The assumption is that diverse grazing and roughage improves the dairy cows' health. The project worked on the establishment of grass-herb pastures at two locations (2018). Grass-herb production and feed quality are monitored (2019-2020). The project is also developing a protocol to assess the effect of diverse grazing and roughage on dairy cow health (2019-2020). Initially the protocol was to develop an on-farm feeding experiment. Based on experience and applicability, a grazing trial was set up. During the dry summer of 2018 the establishment and production of grass-herb pastures were above expectations. In the next couple of months the first results will become available.

Lead partner: **Louis Bolk Institute**

Other partners

Research

- Veterinary Knowledge Centre Eastern Netherlands (VKON)

Farmers

- Mts Sierd, Henk en Femy Hornstra, Eesveen
- Gerard en Els Uiterlinde, Deurningen

SME

- Veterinary Practice De Woltberg, Tuk

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funded by European Commission

Predicting and enhancing the Resilience of European Agro-ecosystems to environmental change using Rotations (PREAR)

PREAR
Predicting climate Resilience of European Agro-ecosystems using crop Rotations

EUROPE

Starting date - expected end date | **05.2016 - 06.2019**

EU FACCE SURPLUS

http://projects.au.dk/faccesurplus/research-projects-1st-call/prear/

Crop rotations have economic and environmental impacts that extend across multiple years. The choice of crops used in a rotation is flexible, and managers can adapt in the light of evidence and predictions of future economic and environmental conditions. The aim of PREAR is to devise validated, practical and stakeholder-acceptable rotational systems that assure stable agro-ecosystem service provision and are resilient in the face of climate change.
PREAR is innovative because it considers the series of crops in a rotation, and it trades off the environmental and economic outcomes; change projects typically considered single crops in isolation. It has clear practical impact in supporting feasible changes in arable crop rotations for farmers and providing to policy-makers evidence-based, best practice.

The PREAR Future Rotations Explorer tool for developing novel rotations

Lead partner: **INRA, France. National Institute of Agronomic Research**

Other partners

Research

- Centre for Ecology & Hydrology, UK
- University of Aarhus / University of Copenhagen, Denmark
- Szent István University, Hungary

Farmers

- Thanks to more than 100 farmers from France, the UK, Denmark and Hungary who participated.

SME

- Solagro, France

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funded by European Commission

ReMIX: Redesigning European cropping systems based on species MIXtures

EUROPE

Starting date - expected end date | **01.05.2017 - 30.04.2021**

Horizon 2020 multi-actor project

www.remix-intercrops.eu

ReMIX exploits the benefits of species mixtures to design more diversified and resilient agro-ecological arable cropping systems. Based on a multi-actor approach, ReMIX will produce new knowledge that is both scientifically credible and socially valuable in conventional and organic agriculture. The project is tackling practical questions and co-designing ready-to-use practical solutions. It spans from the specification of end-user needs and the co-design of in-field and on-farm experiments to demonstrations with evaluation of new varieties and practices. ReMIX is contributing to the adoption of productive and resilient agricultural systems.
ReMIX adopts the EIP-AGRI multi-actor approach in order to produce new knowledge that is scientifically credible but also socially valuable for conventional and organic agricultural systems.

(c) Fogelina Cuperus

Lead partner: **French National Institute for Agricultural Research, France**

Other partners

- Swedish University of Agricultural Sciences, Sweden
- Roskilde University, Denmark
- Scotland's Rural College, Scotland
- Wageningen University, The Netherlands
- Louis Bolk Institute, The Netherlands
- University of Kassel, Germany
- University of Hohenheim, Germany
- Aristotle University of Thessaloniki, Greece
- Centre for Agricultural Research, Hungarian Academy of Sciences, Hungary
- Council for Agricultural Research and Economics, Italy
- Research Institute of Organic Agriculture, Switzerland
- China Agricultural University, China
- INRA Transfer, France
- Agricultural Technical Institutes Network, France
- TERRENA, France
- Wageningen Research Foundation, The Netherlands
- Établissement Denis, France
- Institute for Agrifood Technology and Infrastructures of Navarra, Spain
- AGCO, Denmark
- The Agricultural Advisory Center, Poland
- IFOAM EU, Belgium
- Iniciativas Innovadoras, Spain
- French Agricultural Research Centre for International Development, France

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funded by European Commission

ReSolVe: Restoring optimal Soil functionality in degraded areas within organic Vineyards

ITALY, SPAIN, FRANCE, SLOVENIA, TURKEY

Starting date - end date | **01.03.2015 - 30.06.2018**

Innovative project (Core-Organic+ research project)
www.resolve-organic.eu

It is not uncommon that, because of land transformation, soil erosion and compaction, both organic and conventional viticulture can have areas with reduced vine growth, disease resistance, grape yield and quality. The project tested the effects of three typologies of organic agro-techniques, such as compost addition, green manure, and dry mulching with cover crops on soil quality and grapevine health. They will be tested in viticultural areas that have lost their fertility in Italy, France, Spain, Turkey, Slovenia and Sweden.
The project provided protocols and information to European farmers about best practices to restore soil functionality in vineyards, by organic soil management.

Lead partner: **CREA Research Centre for Agriculture and Environment, Florence, Italy**

Other partners

Research

- Bordeaux Sciences Agro, France
- University of La Rioja, Logrono, Spain
- University of Cukurova, Turkey
- Alata-Bkai Horticultural Research Station, Turkey
- KIS Agricultural Institute of Slovenia, Lubljana, Slovenia
- SLU Swedish University of Agricultural Sciences, Sweden

SME

- Vitinnov, France

Project & workshop contact:

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funded by European Commission

SILVPAST – Cost-efficient implementation of silvo-pastoral mosaics of Quercus pyrenaica

SILVPAST – Implementação custo-eficiente de mosaicos silvo-pastoris de carvalho negral

PORTUGAL

Starting date - expected end date | **01.07.2017 - 31.12.2021**

Operational Group

www.terraprima.pt/en/projecto/23

GO SILVPAST aims to test and develop the implementation of silvo-pastoral mosaics, supported by remote sensing tools, that will assist agricultural and forestry activities in areas of black oak. The project targets two levels of intervention: the farm level, where the main actors are the forest managers, and the territorial management level where the main actors are the policy makers.

The main objectives are:

- Test a cost-efficient production process that enables silvo-pastoral activity and guarantees its long-term sustainability through the conduction of natural regeneration and herbivory;
- Support decision-making, and the evaluation and design of agri-environmental policy;
- Promote the restoration of native oak forest, contribute to controlling the risk of fire and strengthen territorial resilience to environmental and socio-economic changes;

The main expected results are:

- Optimise cost-efficiency: enhance pasture productivity, forest restoration, carbon sequestration, soil protection, and biodiversity; reduce management costs, fire risk and soil degradation.
- Support the evaluation of agri-environmental measures and develop schemes for the payment of environmental services.

Lead partner: **Terraprima Sociedade Agrícola (livestock and forestry SME, research)**

Other partners

Research

- Faculdade de Ciências da Universidade de Lisboa (University)

Farmers

- Ápis, Companhia Agrícola e Pecuária, S.A.
- Sociedade de Desenvolvimento da Quinta do Colmeal
- Multinatura, Lda

SME

- ATNatureza – Associação Transumância e Natureza
- UNAC – União da Floresta Mediterrânica

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funded by European Commission

Smart Grass Production

THE NETHERLANDS – PROVINCE OF GELDERLAND

Starting date - expected end date | 01.01.2017 - 01.10.2021

Operational Group

www.smartgrassproduction.nl

AIM :
Development and adoption of BEST AGRICULTURAL PRACTICES for circular production of high quality grass in order to reduce the use of conventional fertilisers and concentrates to zero.

OBJECTIVES :
Pilar 1: 100% adoption of Precision Fertilisation with circular fertilisers from residual streams
Pilar 2: 100% adoption of mixtures of modern long-rooting grass varieties with clover and herbs
Pilar 3: 100% adoption of all practices to keep the soil in an excellent condition, minimising all losses of nutrients to the environment

Lead partner: Landbouwcommunicatie BV, a private advisory service

Other partners
Young Farmers Association & Barenbrug BV - Dutch Grass Breeding Company

Research
- HAS University of Applied Sciences, Den Bosch, The Netherlands

Farmers
- Dairy Farm Hoeve Boveneind, Herwijnen, The Netherlands

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funded by European Commission

SoildiverAgro – Soil biodiversity enhancement in European agroecosystems to promote their stability and resilience by external inputs reduction and crop performance increase

EUROPE

Starting date - expected end date | **01.06.2019 - 31.05.2024**

Horizon 2020 multi-actor project

SoildiverAgro aims to enhance the adoption of new management practices and diversified cropping systems that enhance soil genetic and functional biodiversity to reduce the use of external inputs while increasing crop production and quality, the delivery of ecosystem services and the EU agricultural stability and resilience. The project will analyse farming systems and test innovative methods and practices in various pedoclimatic regions to assess the relationshop between biodiversity and productivity.

Lead partner: **University of Vigo, Spain**

Other partners

Research

Universidad Politécnica de Cartagena (Spain); Kobenhavns Universitet (Denmark); Eesti Maaulikool (Estonia); Eigen Vermogen van het Instituut Voor Landbouw en Visserijonderzoek (Belgium); Luonnonvarakeskus (Finland); Johann Heinrich von Thuenen-Institut (Germany).

Farmers

Rubén Rodríguez Gómez (Spain); Tyynelän tila (Finland); Mattila Tuomas Johannes (Finland); ASAJA (Spain); Pomona (Belgium); Instituto Ourensano de Desarrollo Económico (Spain).

SME

Symbiom, s.r.o. (Czech Republic); Fertilizantes y Nutrientes Ecológicos, S.L. (Spain-Cartagena); Contactica S.L. (Spain); Flächenagentur Rheinland GmbH (Germany).

NGO

Fundacion Empresa Universidad Gallega (Spai); Proefstation voor de Groenteteelt (Belgium); Perunantuotannon tutkimus- ja kehityssäätiö (Finland); INAGRO, Provinciaal Extern Verzelfstandigd Agentschap in Privaatrechtelijke vorm VZW (Belgium); MTÜ Põllukultuuride klaster (Estonia).

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Solutions to reduce soil erosion in hilly and mountain areas maintaining and enhancing agricultural activities

Soluzioni per ridurre l'erosione in terreni collinari e montani mantenendo e incrementando le attività agricole attraverso l'utilizzo di pratiche di agricoltura conservativa

ITALY – EMILIA-ROMAGNA

Starting date - end date | **01.04.2016 – 14.10.2018**

Operational Group

www.soilution.it

In mountain and hill areas, the gradual loss of competitiveness is challenging the farming systems. The objectives of this project were the reduction of erosion, the increase of soil fertility and eventually the enhancement of the farmers' interest in continuing their economic activity in these areas through the adaptation of a conservation agriculture model, the implementation of rotations and the use of cover crops. The project also carried out a multi-criteria analysis in order to evaluate the impact of the models applied and the full exploitation of the newly adopted technology. Despite the problems caused by difficult weather conditions and damages caused by wild animals, experiments showed that the main parameters of chemical, physical and biological soil fertility have improved. We also registered a reduced environmental impact and increased efficiency which, especially in case of adoption of advanced technologies, may favour a profit increase in low-profit crops (such as wheat).

Lead partner: **Open Fields (Technology Transfer)**

Other partners

Agriform (Training agency)

Research

- Department of Sustainable Crop Production (DI.PRO.VE.S.), Università Cattolica del Sacro Cuore (University)
- Consorzio Futuro in Ricerca (Technology Transfer)
- Azienda Agraria Sperimentale STUARD (Demonstration farm)

Farmers

- Alessio Tambini / Azienda Agricola Tambini Alessio
- Pierluigi Dallanoce / Azienda Agricola Casa Rosa
- Mario Marini / Azenda Agricola Ritorno al Futuro

SME

- Open Fields srl

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funded by European Commission

SoMyCo – Enhancing the Yield of the Soy Chain using Mycorrhiza and cold press technology

SoMyCo – Soja rendementsverhoging in de keten dankzij Mycorrhiza symbiose en koud persen

THE NETHERLANDS – "VEENKOLONIËN" PROVINCE GRONINGEN/DRENTHE

Starting date - expected end date | **01.07.2016 - 31.03.2020**

Operational Group

www.somyco.nl

The main goal of this project is to enhance the economical yield of local soy production in the 'Veenkoloniën' region. The soil conditions in this region are relatively 'poor', making crop variation limited. Two specific objectives are researched:

1. Enhancement of crop vitality and overall yield through symbioses of the soy with Mycorrhiza. A granulate is developed to be used together with soy in specific soil conditions. Symbiosis occurs through nutrient exchange between the soy plant and Mycorrhiza;
2. Introduction of a local 'cold press' facility which gives farmers the ability to process the soy for their own use (cattle feed) and thereby improving the economical yield of growing soy.

Lead partner: **Autark Energy Systems B.V. (SME)**

Other partners

Farmers

- Mts. Pol (Uffelte)
- G.G.L Luiten (Vriescheloo)

SME

- Mycelco, Solutions by Nature

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funded by European Commission

Species rich grassland Limburg OG

Soortenrijk Grasland Limburg

THE NETHERLANDS – LIMBURG

Starting date - expected end date | 01.03.2018 - 01.03.2020

Operational Group

Main aim of the project is to develop mixed grass-herb pastures. These pastures offer cows diverse grazing (grasses, herbs) and roughage. The assumption is that diverse grazing and roughage improves the health of the dairy cows, improves soil quality (e.g. increase of soil biodiversity, organic matter, water retention). The project worked on the establishment of a grass-herb experiment with 5 treatments in the replicates at one location (2018) and demonstration plots at two other locations (2018). Grass-herb production and feed quality are monitored (2019-2020). During the dry summer of 2018 the establishment and production of grass-herb experiments and demos were successful. In the next couple of months the first results will become available.

Lead partner: **Louis Bolk Institute**

Other partners

Research

- Louis Bolk Institute, Bunnik

Farmers

- Pieter van Melick, Swalmen
- Thieu Bongers, Kelpen-Oler
- Gerard Kemper, Ell

SME

- DSV seeds, Ven-Zelderheide
- Anthonissen Agrarisch Advies

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funded by European Commission

Spring plowing on heavy clay and wintercovering green fertilisers

Voorjaarsploegen en winterbedekkende groenbemesters op zwaardere klei, kansen voor klimaatbestendige teeltmaatregelen in Flevoland

THE NETHERLANDS – FLEVOLAND

Starting date - expected end date | **01.09.2018 - 01.06.2021**

Operational Group

On heavy clay spring plowing is new. It seems to be a good alternative for Conservation Agriculture (NKG). In combination with wintercovering green fertilisers it gives a long period of covering the soil. This is protecting the soil, especially because in the Netherlands winters have become less intense. We think that we can inprove the soil condition. But still we have many questions concerning time of plowing, type of green fertiliser, type and machines for the other soil treatments. For example, you need a good sowing bed in spring for the crops. What is the effect of this moment of plowing on water storage and water management, etc. We do lots of demonstrations and farm experiments to stimulate exchange of knowledge / experiences.

Lead partner: **Delphy (advisory and innovation organisation)**

Other partners

Farmers

- 5 farmers (Van Beek, Bouma, Klaasse Bos, Vollebregt, v. de Weijden)

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funded by European Commission

SUREVEG – New diversified cropping systems for vegetables

7 EUROPEAN COUNTRIES – NETHERLANDS

Starting date - expected end date | 01.08.2016 - 30.11.2019

Innovative project / Core Organic Cofund Plus
http://projects.au.dk/coreorganiccofund/research-projects/sureveg/

The CORE Organic Cofund project SUREVEG develops and implements new diversified, intensive cropping systems using strip-cropping and fertility strategies combined from plant-based soil-improvers and fertilisers. The aim is to improve resilience, system sustainability, local nutrient recycling and soil carbon storage. This will be achieved by:

- Designing and testing strip-cropping systems in vegetable producing countries at different geographical locations in Europe.
- Developing and testing soil-improvers and fertilisers based on pre-treated organic plant residues.
- Developing and testing smart technologies for management of strip-cropping systems.

Lead partner: **Aarhus University, Department of Food**

Other partners

Research
- Louis Bolk Institute
- Wageningen University, Department of FSE

Farmers
- Hans Rozendaal
- A group of 10-15 interested farmers

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funded by European Commission

SustainFARM – Innovative and sustainable intensification of integrated food and non-food systems to develop climate-resilient agro-ecosystems in Europe and beyond

DENMARK, GERMANY, UNITED KINGDOM, ITALY, SPAIN, ROMANIA, POLAND

Starting date - expected end date | **01.03.2016 - 31.08.2019**

ERA-NET project

http://sustainfarm.eu

SustainFARM aims to enhance agronomic, environmental and economic performance of integrated food and non-food production systems (IFNS) by optimising productivity and valorising woody components, residual wastes and co-products. IFNS are systems in which trees, crops and livestock components are integrated in different ways at different scales (plot-field-farm). The specific objectives are to: a) assess resource use efficiency and design innovative and cost-effective IFNS for optimum productivity, b) develop sustainability metrics to assess agronomic productivity and environmental performance and c) valorisation of the woody components, residual waste and co-products into high value bio-energy carriers and bio-products. The project has assessed locally relevant IFNS, identified innovative means for maximum value addition to woody components and residual wastes and co-products and developed a decision support tool for informed decision making by farmers, advisory services and policy makers.

Lead partner: **University of Copenhagen (Research)**

Other partners

Research

- The Progressive Farming Trust Ltd (PFT), UK
- Philipps-University, Marburg (PUM), Germany
- Universidad de Cordoba (UCO), Spain
- University of Agricultural Sciences and Veterinary Medicine (UASVM) Cluj-Napoca, Romania
- National Research Council (CNR), Porano, Italy
- Institute of Soil Science and Plant Cultivation (IUNG-PIB) Puławy, Poland

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SUSTAINOLIVE

Novel approaches to promote the sustainability of olive cultivation in the Mediterranean

SPAIN, PORTUGAL, ITALY, GREECE, MOROCCO AND TUNISIA

Starting date - expected end date | **01.06.2019 - 31.05.2023**

PRIMA – Horizon 2020 project

www.sustainolive.eu

Olive farming represents a socio-economic asset for rural Mediterranean regions which helps prevent rural depopulation. It is also considered a major component of its socio-economic and cultural life, shaping the natural rural environment and landscapes of many of its regions.
The overall objective of SUSTAINOLIVE is to enhance the sustainability of the olive oil farming sector throughout the implementation and promotion of a set of innovative sustainable management solutions that are based on agro-ecological concepts, and on the exchange of knowledge and co-creation involving multiple actors and end-users. These innovative solutions include the use of cover crop species and rotations that are better adapted to the specific needs of various olive cropping systems.

At the practical level, a network of olive groves and oil mills will be set up for testing sustainable management strategies, as well as for transferring knowledge, methods and techniques in alliance with olive producers, the olive oil processing sector and the society.

Lead partner: **University of Jaen**

Other partners

Universities and Research Centres

Andalusian Institute for Research and Training in Agriculture, Fisheries, Food and Ecological Production, Spain University of Pablo de Olavide, Spain - University of Granada, Spain - Institute of Agrifood Research and Technology, Spain Hellenic Agricultural Organisation "DEMETER", Greece University of Parma, Italy - Mediterranean University of Reggio Calabria, italy University of Bologna, Italy - Italian association for organic agricultura AIAB, Italy University of Abdelmalek Essaadi, Morocco University of Évora, Portugal - Olive grove Institute, Tunisia

Farmer associations

Denomination of origin Estepa, Spain - Agricultural Cooperative of Kalamata, Greece - NILEAS Producers Group Company, Greece- Association Tismonine, Morocco - Cooperative Oumnia Bellota, Morocco

SME

Tekieroverde, Spain Coldiretti UNAPROL, Italy - Esporão Lda ESP, Portugal - Center for studies and promotion of olive oil Alentejo, Portugal

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TRANSAÉ

TRANSition towards Agro-Ecology

FRANCE – WALLONIA - FLANDERS

Starting date - expected end date | 01.01.2018 - 31.12.2021

INTERREG V – France-Wallonia-Flanders project

https://transae.eu/fr

European arable agricultural systems have to implement more sustainable practices in line with agroecology principles. In this context, a special focus has to be placed on soil fertility preservation and enhancement through the support of biological processes.
In this context, the overall goal of TRANSAÉ is to develop and implement a methodology aiming to support participatory research involving outstanding farmers implementing and wanting to share innovative practices to reduce inputs use.
Based on farmer requests, on-farm experimental schemes are set up and followed up through the mobilisation of performance indicators co-defined with the farmers. A special attention, for cropping systems aiming to join low tillage and organic referentials, is paid to the development of adapted cover crops.

Lead partner: **Parc Naturel Régional des Caps et Marais d'Opale (Territorial manager)**

Other partners

Research
- CRA-W, ILVO, INAGRO

Farmers
- APAD62

Advisory
- GREENOTEC, INITIATIVES PAYSANNES

Education
- UNIVERSITE DE PICARDIE JULES VERNE

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funded by European Commission

TRUE – Transition Pathways for Sustainable Legume-based systems in Europe

EUROPE

Starting date - expected end date | **01.04.2017 - 30.03.2021**

Horizon 2020 multi-actor project

www.true-project.eu

TRUE utilises activities from across 24 Case Studies and 9 work-packages (WP) to identify opportunities and barriers **to agri-food and -feed system diversification using grain- and forage-legumes as examples of underutilised crops**. Insight gained is allied to that of multi-stakeholder engagement via TRUE's European
Legume Innovation Network workshops, which help inform environmental-, economic- and policy-impact analyses. These are being used to develop a multi-attribute decision aid model that tests the potential of legume-based diversification strategies to better harmonise the 'Three Pillars of Sustainability' – economy, society and environment.
TRUE comprises nine strategic Work Packages (WP) **WP1**, Knowledge Exchange and Communication; **WP2**, Case Studies; **WP3**, Nutrition and Product Development; **WP4** Markets and Consumer; **WP5**, Environment; **WP6** Economics; **WP7**, Policy and Governance; **WP8**, Transition Pathways; and **WP9**, Coordination.

Lead partner: **James Hutton Institute**

Other partners

Research and universities

Coventry University; Scotland's Rural College; Kenya Forestry Research Institute; Universidade Católica Portuguesa; Universitaet Hohenheim; Agricultural University of Athens; Bangor University; Institut Jozef Stefan, European Social Sciences Research Group, Alfred-Wegener-Institut; Agriculture And Food Development Authority;Trinity College Dublin

Developmental agencies/social enterprises/farmers

Public Institution REDEA; Slow Food Deutschland; Sociedade Agrícola do Freixo do Meio, Lda; Eurest; Solintagro

SME

Stockbridge Technology Centre; Institute for Food Studies & Agroindustrial Development, Processors and Growers Research Organisation, IGV GmbH; Agri Kulti Kft; Arbikie Distilling LtdMeio, Lda; Eurest; Solintagro

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Zero point five tillage – a cropping system with row hoeing, band sowing, band spraying and cover crops

Halva ytan bearbetas

SWEDEN – ÖSTERGÖTLAND & SKÅNE

Starting date - expected end date | **01.01.2018 - 31.12.2020**

Innovative project

http://www.lantbruksforskning.se/projektbanken/halva-ytan-bearbetas-odlingssystem-med-radhackning/

Reduced tillage provides several benefits to the cropping system and the environment. It reduces erosion, increases soil organic matter in the top soil, enhances soil life, reduces the costs and use of fuel related to soil management. However, in reduced tillage systems weeds risk to become a problem and hence these systems often rely heavily on herbicides. In this project, we study a system design for reduced tillage in which multifunctional leguminous forage crops and row hoeing are used to reduce the amount of herbicides applied. The aim is to optimise the cropping sequence spring cereal – winter cereal with regards to yield, nitrogen use efficiency and weed control under Northern European conditions, with only 80% of the normal herbicide usage.

Lead partner: **Swedish University of Agricultural Sciences**

Other partners

- Anita Gunnarsson and Per ståhl
- The Rural Ecology and Agricultural Society (Advisory service, Hushållningssällskapet)

Research

- Swedish University of Agricultural Sciences (University)

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Operational Groups: collaborating to innovate

STEPS IN THE OPERATIONAL GROUP PROCESS

1. Identify the problem or innovative idea
   Find the right partners

2. Make a project plan
   Complete the partnership
   Prepare the RDP funding application

3. Start and run the project
   Share intermediate results

4. Spread final results
   Finalise project administration

COLLABORATING AND NETWORKING CAN HELP YOU IN EVERY STEP OF THE PROCESS

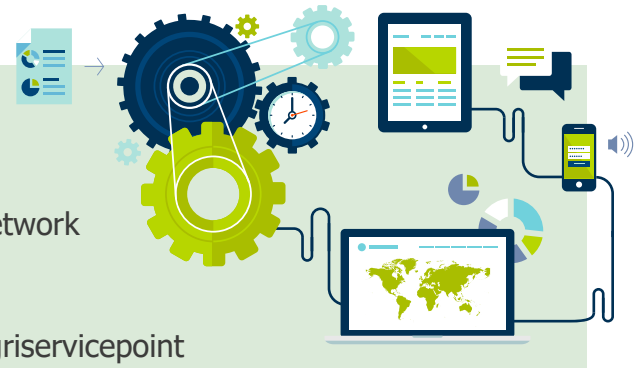
- Get inspiration and new ideas
- Find info and partners
- Find support to make the application
- Learn from the experiences of other Operational Groups
- Exchange knowledge with other innovative projects, and European organisations and networks
- Find new ways to share results directly to the field
- Find useful tools and activities through the EIP-AGRI Network

funded by European Commission

This booklet was created for the **EIP-AGRI Workshop "Cropping for the future: networking for crop rotation and crop diversification"**, 4-5 June 2019 in Almere, the Netherlands.

For more information on Operational Groups, **download the EIP-AGRI brochure on Operational Groups – update 2016** (available in several languages) from **www.eip-agri.eu**.

The content for this document was provided by the workshop participants, and does not represent the views of the European Commission.



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