



**AGENT-BASED SUPPORT TOOL FOR THE
DEVELOPMENT OF AGRICULTURE POLICIES**

NEWSLETTER

Issue 2: October 2020

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1. AGRICORE 's Mission



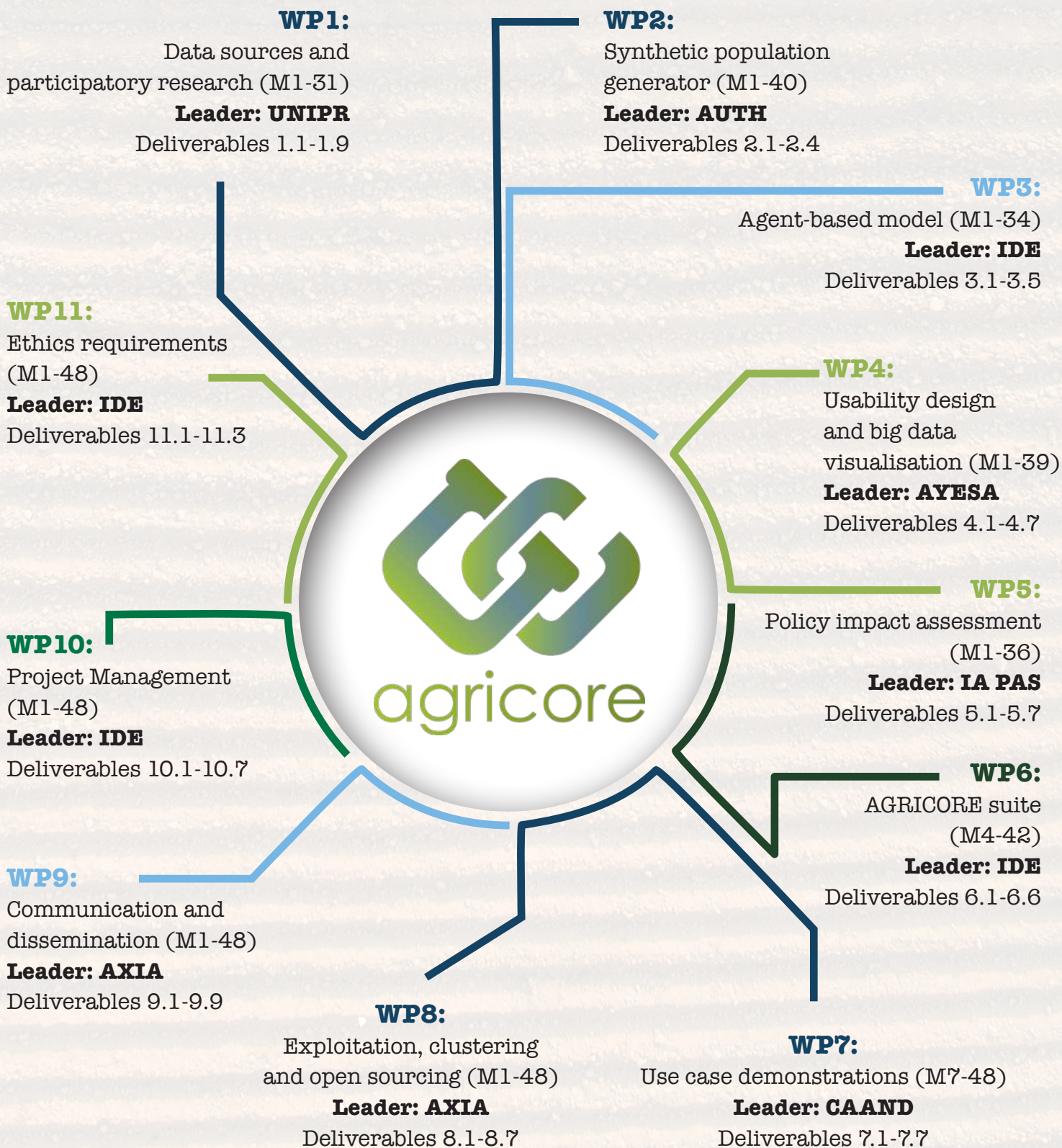
In the last 50 years, the world's population has grown from 3.5 to more than 7.5 billion. This sharp population growth has created a high demand for food. Latest estimations from FAO show that a 60% increase in agricultural production would be needed by 2050 to meet the expected population food needs. Land degradation and water contamination, climate change, sociocultural development, governmental policies and market fluctuations add uncertainties to food security, which is defined as access to sufficient, safe and nutritious food by all people on the planet. These uncertainties challenge agriculture to improve productivity, lowering at the same time its environmental footprint, which currently accounts for the 20% of

the anthropogenic Greenhouse Gas (GHG) emissions.

In order to ensure that EU members could enjoy good food at affordable prices while farmers earn a fair living, the Common Agricultural Policy (CAP) was established in 1963. Since then, the CAP has been reformed several times in order to be adapted to the complex scenario surrounding the farming activities. As agricultural policies continue to be increasingly targeted and more farm specific, the need for more detailed description of their economic and environmental impacts at a disaggregated level (regarding farms and products) and by geographical/spatial scale becomes a central issue for both EU policymakers and researchers.

Within this framework, the AGRICORE suite will provide the means to improve current capacity to model policies dealing with agriculture, related natural resources and food, aiming to improve policy design, impact assessments and monitoring.

2. Workplan





3. AGRICORE's Use Cases- UC1



The partners will apply the AGRICORE suite to the ex-post (2014-2017) and ex-ante (2018-2020) policy assessment of three use cases (UC1, UC2 and UC3), which have been selected to test the tool at various geographic scales (UC1 corresponds to the regional level while

UC2 and UC3 aim to the national level) and for different policy instruments. UC1 policy instrument relates to environmental impacts, UC2 relates to the delivery of ecosystem services and UC3 relates to the socio-economic aspects of the integration of agriculture in rural society.

In this issue we provide you with insights regarding the UC1.

1. UC1 -Andalusia – Environmental Impact (CAAND, IDENER)

Andalusia (NUTS 2 code ES61) is one of the most relevant agricultural areas in Spain and also in Europe. It accounts for 87,597 km² and a population of 8.4 million people, and it is the fourth largest region in the EU-28. Agriculture is key in the region accounting for 9,280 M€ of GVA and employing 268,000 people. Andalusia is the main olive oil world producer with 1.5 M ha of dedicated area producing 1.1 million tons of product per year. The region is considered as a transition one under the 2014/99/EU directive. The selected instrument is the “M11: Ecologic agriculture”, which is included in the national programme (2014ES06RDNF001) and detailed in the regional development plan (2014ES-06RDRP001) for the period 2014-2020. It is derived from Article 29 of the 1305/2013 EAFRD regulation. This measure aims to increase the presence of ecological exploitations, contributing to the fourth national priority “Restore, preserve and improve ecosystems related to the agriculture and forestry”. In particular, the measure has instruments for promoting new ecological exploitations and for maintaining existing exploitations as well. In addition, the measure is divided into two sub-measures, one for olive production and other for the rest of exploitations.

Improvement potential

This AGRICORE use case will analyse the M11 measure influence on Andalusia's olive sector,




focusing on its environmental and climate impacts. The ex-post analysis will be done for the period 2014 to 2017 and the ex-ante analysis will be done for the period 2018-2020. To that end, AGRICORE will use several databases including FADN, FSS, Aquastat, UNIFCC, LUCAS, SIGPAC, the national Spanish Statistical Office (INE), ESYRCE and regional/municipal sources. In addition, participatory research conducted among policy makers, supervising organisms, farmers and agriculture associations will be done for complementing the gaps in the recovered information. The biophysical models to be used will include a dynamic growth model for the olive tree aimed to the calculation of production indicators and to the quantification of the related environmental and ecosystem service impacts.




4. Partners




1. “What were your main reasons for getting involved in the project? What excites you the most about this project?”


 **CAAND:** One of the main reasons why CAAND is involved in the project is the fact that its members and partners are stakeholders of high relevance and consultation value to the effort of reforming the CAP. CAAND will work closely together with the project partners to include aspects of increased importance to the agricultural stakeholders in the AGRICORE tool, such as the crop growth dynamics, environmental and socioeconomic-related impact and more.

 **IDENER:** Our main motivation for starting this project as coordinators was the possibility of transferring our experience in modelling and simulation to the improvement of a fundamental sector such as the primary sector. The most exciting part of the project will be to see how future agricultural policies, designed with the aid of the tools we are developing in the project, generate change for the better for farmers and ecosystems.


2. “What could be the benefits/take-home messages for all stakeholders involved in such an initiative?”


 **CAAND:** We believe that there are many direct and indirect benefits for all stakeholders involved in AGRICORE. In particular, the consortium will benefit a great deal from CAAND’s involvement by gaining direct access to farmers and producers from Spain and having the ability to incorporate their first-hand experience and their perspective in the project. Having that said, the key message that AGRICORE conveys is that of a successful and mutually beneficial multi-actor approach in

agricultural policy reform.

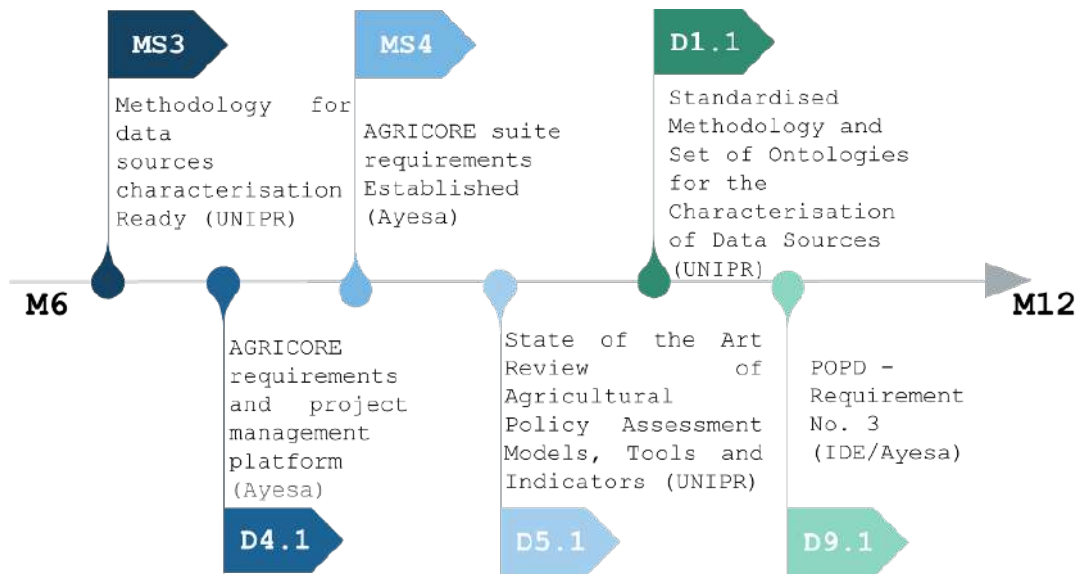
 **IDENER:** The fundamental message is that science and technology can and must be intertwined with the agroforestry sector, not only in the purely productive aspects, but also in other inseparable facets of it, such as the design of public policies, the environmental effects or the social and labour implications of agricultural practices. Therefore, it is a sector that should be considered and approached not only by agricultural universities and large manufacturers of agricultural machinery, but also by technical SMEs that can offer a very varied range of services.

3. “What aspects of the project are you mostly looking forward to seeing come to fruition?”

 **CAAND:** CAAND is really looking forward to the reform and, in some ways, the improvement of the CAP, by means of consideration of geographical particularities and socio-economic characteristics of production. Within this framework, the AGRICORE project is expected to contribute to the identification and visualization of the sector’s needs, having a direct impact on the products’ added value.

 **IDENER:** We believe that the automated generation of synthetic farm populations will be a great advance for researchers in this field to expand the typology of their studies. In addition to that, we are also excited to convince policymakers that agent-based model simulations can be a fundamental tool for comparing the predictable impact of different policy alternatives, and therefore for designing better policies that are more easily comprehensible by affected producers and consumers.

5. Progress



The second semester of the AGRICORE project was a highly productive period. Overall, 3 essential for the progress of the project, deliverables have been submitted and the accompanied milestones have been achieved. In particular, the deliverable D1.1- Standardised methodology and set of ontologies for the characterisation of data sources (UNIPR, STAM) was finalized in M11 where the goal was to develop a standardised methodology, including the set of required ontologies, for the characterisation of data sources that are useful for conducting policy impact assessment in the field of agriculture. In M12 the deliverable D4.1- AGRICORE requirements and project management platform (Ayesa) were defined as a live document that includes, on the one hand, the requirements for the platform and the needs of the end users and, on the other hand, a continuous monitoring process of the technical developments from the point of view of the usability aspect. Furthermore, the deliverable D5.1- State of the Art Review of Agricultural Policy Assessment Models, Tools and Indicators (UNIPR) has been successfully submitted where a review of the extant theoretical and empirical literature on the issues associated with the development of the six modules, namely policy impact assessment, socio-economic impacts of agriculture and its integration in rural society, environmental and climatic impacts of agriculture, ecosystem services, agricultural output and input markets are presented. Finally, the D11.2- POPD - Requirement No. 3 has been prepared, nominating the AGRICORE Data Protection Officer (DPO) but also describing how AGRICORE addresses and manages the ethical implications related to processing personal data.



6. Regional Dissemination Activities



In order to meet the goal of a comprehensive and integrated dissemination strategy, the AGRICORE consortium has published various dissemination materials in Italian, Spanish and Polish engaging potential stakeholders who may not have proper knowledge of the English language.



1. Italian Press release (UNIPR)

Our partners from UNIPR translated our first official press release into Italian.



2. CAAND

Our partner Cooperativas Agro-alimentarias de Andalucía disseminated the AGRICORE Project in the Tierra Cooperativa magazine in Spanish.



3. UTP

Our partners from UTP presented the AGRICORE project along with its mission and objectives in their official website.





7. Events



COVID-19 remark

We are taking Covid19 very seriously. The consortium is made up from partners all around Europe, all of them coping with the current pandemic in the best way possible, considering the health and safety of their people as their number one priority. But this did not stop us from working on our project! All events were transformed into virtual ones and held online with 100% success!

Title	Date	Location
Suprema workshop	26/06/2020	Online
BESTMAP workshop	14-15/07/2020	Online
2 nd EAAE Webinar	09/09/2020	Online
3 rd EAAE Webinar	14/10/2020	Online
Farm to Fork 2020 Conference- Building sustainable food systems together	15-16/10/2020	Online
12M meeting	19-20/10/2020	Online



8. AGRIMODELS Cluster

AGRICORE is part of the **AGRIMODELS** Cluster formed by the three projects funded under the call “Analytical tools and models to support policies related to agriculture and food”.



The **AGRICORE** project proposes a novel tool for improving the current capacity to model policies dealing with agriculture by taking advantage of the latest progress in modelling approaches and ICT.

BESTMAP will develop a new modelling framework using insights from behavioural theory, linking existing economic modelling with individual-farm Agent-Based Models.

Making use of improved possibilities opened up by progress in the ICT area, **MIND STEP** will improve the exploitation of available agricultural and biophysical data and will include the individual decision making (IDM) unit in policy models.

9. Who we are



The AGRICORE project builds on the strong knowhow and expertise of its partners in the addressed scientific and industrial areas. The consortium is comprised of 11 European partners from 6 countries. AGRICORE is a well-balanced project between industry and academia ensuring and speeding up the successful implementation of all the actions towards its fruitful results.



www.agricore-project.eu

4 Universities

(AUFH, UNIPR, AKD, UTP)

4 SMEs

(AXIA, EXE, STAM, IDE)

1 Research and Technology Organisation

(IAPAS)

1 Large Company

(AYESA)

1 regional farmer association

(CAAND)



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