



D1.7 FINAL REPORT ON LIGHTHOUSE CUSTOMERS AND ADVISORY BOARD FEEDBACK AND ACTIONS TAKEN

Project: Monitoring of Environmental Practices for Sustainable
Agriculture Supported by Earth Observation

Acronym: ENVISION



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Executive Summary

The purpose of the present D1.7 Final report on Lighthouse Customers and Advisory Board feedback and actions taken, is to share within the consortium and the European Commission (EC) the current status quo of the ENVISION Lighthouse Customers (LHC) group and the Advisory Board (AB) members, as well as to present the activities and actions that have been performed during this period with the relevant stakeholders and the AB members.

The D1.7 Final report on Lighthouse Customers and Advisory Board feedback and actions taken is structured around two main pillars:

1. The Lighthouse Customers engagement
2. The Advisory Board engagement

During this period, on the one hand the focus has been placed on the definition of the LHC group members, and on the other hand on involvement of the AB members in the main activities of the project, as well as the feedback received during these approaching - engagement processes.

As it was initially described in the D1.5 Intermediate report on Lighthouse Customers and Advisory Board Feedback and actions taken, an open approach was followed, from informing (reflecting a low level of engagement) through to active participation (reflecting a high level of engagement), understanding the limitation and focusing on building a framework of trust within and with the approached and participating stakeholders.

This holistic approach, the parallel involvement of LHCs and AB members, strengthens the links among actors and ENVISION project, but also engages both groups towards a greater and more fruitful participation, ensuring that the delivered features will respond to the needs and requirements of key stakeholders within a tense and dynamic market environment.

Finally, present deliverable, is deeply interlinked with the rest of the project's activities and the respective deliverables, such as D6.8 Business model validation report. The feedback received from both groups has been taken into consideration in all project's steps and activities.

1 Lighthouse Customers engagement

Throughout the project duration we managed to reach and engage a substantial number of relevant stakeholders (Paying Agencies and Certification Bodies) within Europe.

Specifically, on 17th of November, 2021, the online kick-off event of Paying Agencies and Certification Bodies was held, involving more than 60 participants. The event showcased the ENVISION innovative tools that are being developed for the continuous, large-scale and uninterrupted monitoring of farm management activities with regards to sustainability, in compliance with the CAP agri-environmental objectives.

Following this event, we continued the communication with three relevant authorities (UK, Greece and Denmark). Specifically, for each case, a webinar was organised to further discuss the ENVISION outcomes and the possibilities of a further collaboration within or after the end of the project.

The first webinar was among the UK Rural Payment Agency, DEFRA and the ENVISION team. The focus of this webinar was placed on the ENVISION services and how these could facilitate the new era of the UK policy framework. The members of the UK Rural Payment Agency stated that due to BREXIT, a lot of effort is placed on developing new standards and rules that would facilitate them to the monitoring of agri-environmental objectives. They expressed a special interest in the Soil Organic Carbon service and its results.

The second webinar was among the Greek Paying Agency (OPEKEPE) and the ENVISION team. OPEKEPE actively participates in similar projects and has already incorporated into its workflow the remote monitoring using multi-temporal and multi-source satellite data. During the webinar, a detailed discussion was performed regarding the need of monitoring specific classifiers in relation with eligibility criteria based on support schemes under control (i.e. crop classification, small plot crop classification, etc.) and in comparison with the existing results derived from SEN4CAP.

The third webinar was among the Ministry of Food, Agriculture and Fisheries of Denmark and the ENVISION team. Based on the forthcoming needs of the Common Agricultural Policy (CAP) Strategic Plans, the Danish Agricultural Agency expressed their interest in immediate adoption of services and especially, for the Soil Organic Carbon. However, since the discussion has been performed in the initial steps of the ENVISION project, and the products/ services haven't been developed/ delivered yet, another meeting would be held providing them with the final results of the services.

As a result of the communication and dissemination activities performed by the ENVISION partners, two more connections have been created with the Ministry of Agriculture, Forestry and Water Economy in Serbia and with the central competence center (ZKF) State Management Academy for Food, Agriculture and Forestry (FüAk).

The meeting with the Ministry of Agriculture, Forestry and Water Economy in Serbia was held remotely and the focus was placed on presenting the ENVISION solutions (platform and services). During this meeting, it was clearly stated that the Ministry is in a transitional level trying to transform all the existing workflow with more innovative approaches and technologies. However, two main issues have been raised; the first one is that they are trying to establish a regulation close to the CAP (since they are not in the EU, and therefore they do not comply with the CAP regulations) paving the way to future CAP adaptation and the second one is that as an organization there are not familiar with such technologies, i.e. remote sensing, farm management information systems, etc. They

expressed their interest in the distinction of organic farming practices service as well as to closely monitor the Serbian pilot case in order to obtain a better understanding of how these services work. On the other hand, the meeting with the ZKF was more productive. ZKF is an established centre of competence for area monitoring in Bavaria as part of a federal-state agreement as a unit of the FÜAk with nationwide scope. Being the central point of the FÜAk, they search and explore all the available EO-based solutions, thus, the discussion was focused on the methodologies that they have been applied and the data that have been used within the ENVISION services.

Even though all of the aforementioned connections have many differences in their requests based on their degree of maturity and familiarity with such technologies and approaches, all of them have one thing in common; they need a ready to market solution that offers high reliability and usability. Therefore, ENVISION created a pool of LHCs to demonstrate its results and keep them engaged in order to better address the needs of this market.

To do so, ENVISION has already participated in the 58th Panta Rhei Conference in Bucharest, Romania. Panta Rhei brings together all the EU Paying Agencies and deals with information technologies, aiming at further IT developments, strengthening information security, and adaptation to new CAP requirements. During this event, ENVISION partners communicated the project in all the EU Paying Agencies. However, a more structured and coherent participation will take place during the 59th Panta Rhei Conference to present and discuss the solutions derived by the ENVISION project, that can support the current and future needs of the CAP monitoring in the frame of an automated decision-making system. Specifically, ENVISION will present the results of its business cases regarding the services and the tools that they have been used during the 2-years pilot implementation.

Through this participation, ENVISION aims to address and answer all the questions raised by the LHCs on the reliability and usability of the delivered services and since the project comes to its end, to explore how these services could be integrated to the PAs workflows. The outcome of this event will be presented in the Review meeting technical report.

2 Advisory Board engagement

The ENVISION AB group (as presented below) consists of external experts, aiming to provide advice and guidance for the development of the project and ensure high quality and excellence in achieving the project results.



Dr. Jason Beedel

Dr. Jason Beedel is a director in Strutt & Parker's research department and supports the firm's rural team with information and analysis. Strutt & Parker is a private organisation that manages @ 1.5m acres of land and buildings on behalf of clients in Great Britain. He is a Chartered Surveyor and represents the Royal Institution of Chartered Surveyors on the UK government's external working group on the Rural Development Programme for England. He is a nationally recognised commentator on rural issues, particularly rural property markets and CAP reform. He has led multi-disciplinary research teams on a wide range of subjects, including the rural economy, rural housing, property markets and environmental policies.



Bernisa Klepo

Bernisa Klepo currently work as Certification Manager at Organska Kontrola, EC recognized certification body from Sarajevo, B&H. Her key areas of expertise are organic inspection and certification where she has more than 10 years of experience.



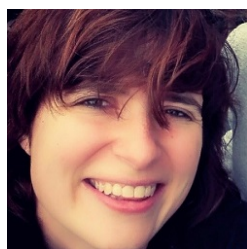
Grega Milcinski

Grega Milcinski is a co-founder of Sinergise, the company best known for Sentinel Hub - their satellite imagery processing service, which handles half a billion of requests every month, distributed to several hundreds of thousands of users worldwide. The company is also focused to Common Agriculture Policy field, developing applications and services used in several member states and candidate countries.



Traianos Terzis

Traianos Terzis is an agriculturalist, manager at Pest and Fertilizers Department of Agricultural Cooperation of Pella. He is also responsible for the implementation of European programs, as well as responsible for the implementation of the quality programs in the two main crops of the cooperative, peaches-nectarines and cotton.



Lies Bamelis

Lies works as a consultant with a focus on innovations and innovative companies. Her engineering and technical background helps her to better implement and understand the legal framework within which her clients have to operate. In general, most of the innovations that Lies supports can be linked to circular economy, reuse of water and agriculture.



Matteo Metta

Matteo Metta is specialised in CAP and its monitoring and evaluation. Currently, he is undertaking his Ph.D. research on digital agriculture and rural sociology. He works for the think tank ARC2020.eu as CAP policy analyst.



Christos Bacharakis

As the Code Contributor Project Manager, he is responsible for enabling members from the wider GitLab community to contribute code to GitLab.

Over this period, three AB meetings have been planned and performed. The meetings were held online, and the goal was to update members of the AB about the progress of the project, initiate a discussion on project deliverables and activities and receive their recommendations and feedback. A summary of recommendations/ important aspects highlighted by the AB members throughout these meetings, are presented in the table below. Their comments are linked to specific mitigation actions that ENVISION project has to offer to the monitoring process. Relevant recommendations have been considered by the project partners in the realization of the project activities.

Recommendation/ Important aspects	ENVISION Actions
Validation of results in pilot implementation as an ongoing procedure	<p>During the pilot implementation phase, all the provided services/ products have been constantly verified and validated, and when it was needed recalibrated in order to achieve the highest possible accuracy and reliability. The validation proves was/ and will be done through the feedback from our business cases users with regards to the results provided to them via the ENVISION platform and mobile application and through the comparison that is performed with other similar products. Furthermore, scheduled business cases meetings are held every month to monitor the progress and the acceptance of the provided services/ products. A more detailed description will be provided by the end of the project in D3.6 Data product validation report (final version).</p> <p>Relevant WPs: WP3, WP5</p>

<p>How do you position your data products to those that already being used?</p>	<p>ENVISION works closely with the end-users and tries to deliver products that be could best fit their needs. ENVISION consortium includes three PAs and a Certification Body, all highly motivated to assist to the verification and validation of these data products. Many of them are actively involved in different similar project, and this is an added value for the ENVISION, since they bring into the project their expertise and know-how. Furthermore, the provided services are tested in comparison with the other existing ones, i.e. SEN4CAP. For instance, in each pilot iteration, NPA provides a table presenting the accuracy of the ENVISION data products in comparison with SEN4CAP and their own algorithms. ENVISION has taken into consideration the lessons learned and the best practices from other projects, worked closely with them and used existing workflows, mechanisms, and tools in order to enhance its products reliability and accuracy.</p> <p>All the relevant collaborations, approaches and data used to enhance/n strength the ENVISION data products are described in the respective deliverables.</p> <p>Relevant WPs: WP2, WP3</p>
<p>Your target groups are PA, certifying bodies, and farmers. Have you thought about CAP evaluators too as concerns your data products that match with Performance Monitoring and Evaluation Framework.</p>	<p>ENVISION targets all the stakeholders that are responsible for monitoring the compliance with the CAP regulations and for setting up the common monitoring and evaluation framework. Therefore, the discussions have been held not only with the Paying Agencies, but also with the respective Ministries as well as with EU initiatives and associations. One indirect goal of the ENVISION is to assist CAP evaluators, and in general environmental and climate policy evaluators, to set policy and programme objectives through measurable outcomes and indicators.</p> <p>Relevant WPs: WP6, WP7</p>
<p>Some of the data products of ENVISION align with CAP eligibility and reporting requirements. Others are not. Others are not covered. Have you mapped them out?</p>	<p>All the final products will be described in detail in the D3.7 Data products final report along with the areas that they address.</p> <p>Relevant WPs: WP3</p>
<p>It is not clear what and how you will monitor in organic farming practices using Earth Observation.</p>	<p>The detailed methodology along with the results, the accuracy and the steps for further improvement will be provided in the D3.6 Data products validation report and D3.7 Data products final report. However, in order to be more accurate, it would better to be stated detection/distinction of organic farming practices and not monitoring. This service utilises EO data in order to produce/ calculate indices (i.e. NDVI and its derivatives) and detect if organic farming practices have been performed in the filled based on predefined acceptance criteria.</p> <p>Relevant WPs: WP3</p>

<p>There is a need for a sustainable business model to address the needs of the market</p>	<p>ENVISION will identify different Business Models that meet the needs and expectation of its core customer groups. Specific focus will be based on the creation of a joint business model that will allow ENVISION to be on the market as a concrete solution under a predefined pricing policy model. This information will be presented in the D6.6 Final Business Plan as well as in other deliverables, such as D6.8 Business model validation report and D6.9 Final exploitation strategy.</p> <p>Relevant WPs: WP6</p>
<p>A limiting factor when it comes to the agricultural sector, is that there is a different level of technological literacy at all levels to adopt such technologies</p>	<p>The ENVISION solution was developed having as a cornerstone its end users in order to provide them with a useful and easy for them to understand tool, avoiding complex technological processes. To support, the different stakeholders' needs and requirements in terms of services, ENVISION allows a modular provision of its services coupled with a modular pricing. Moreover, it is available either as a SaaS or DaaS, giving the users the opportunity to assimilate it into their existing processes.</p> <p>Relevant WPs: WP6, WP7</p>
<p>The pricing strategy should be appealing to the public authorities</p>	<p>In order to establish an appealing pricing scheme, ENVISION actively involves the end-users and LHCs in a willingness to pay survey. Initially established pricing levels are below the price preference levels of the potential customers. In addition, the diversified business models will allow for an ideal matching making of the end-user/customer financial capacity and pricing level. All the relevant information will be provided through the respective deliverable D6.8 Business model validation report.</p> <p>Relevant WPs: WP6</p>

3 Conclusion

ENVISION had the pleasure to expand its visibility and create an extensive network of involved relevant stakeholders where it was presented along with its services/ products throughout its duration. The ENVISION consortium has committed and intends to continue its engagement and reach out activities with all involved stakeholders.





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