

SenSPa Newsletter - Issue 1, September 2019



Welcome to the first newsletter of the SenSPa Project!

SenSPa stands for **Sen**tinels for **S**ustainable **Pa**sture Management , a 1-year Activity carried out under a programme of, and funded by, the European Space Agency. Addressing activity line 6 "Earth Observations (EO) for Sustainable Development" of the ESA EO SCIENCE FOR SOCIETY PERMANENTLY OPEN CALL FOR PROPOSALS EOEP-5 BLOCK 4 (ESA/AO/1-9101/17/I-NB) call topic, SenSPa aims to **demonstrate the use EO in pasture management and to develop an innovative EO application for sustainable pasture management in developing countries.** The project team is made up of kartECO (Prime Contractor), GMV (Subcontractor) and Democritus University of Thrace (Subcontractor). The project team is collaborating with the local company Integris LLC.

SenSPa is targeting Central Asia countries. The information will be available to local and national public administrations, public and private stakeholders, as well as end-users, via a web-based tool that will be processing continuously updated satellite data along with ancillary data in order to provide useful, up to date information for sustainable pasture management. In order to demonstrate and verify the added value, flexibility and adjustability of the SenSPa services at regional scales, a case study in Azerbaijan will be implemented. The two case study areas are Ismayilli and Shemakhi rayons.



The SenSPa newsletter will be published twice a year. This issue covers the period from end of January 2019 to August 2019 and provides an overview of the progress made so far in the project.

The SenSPa website and social media are fully functional and provide information on the project activities. All interested parties are encouraged to get involved in SenSPa become aware of the project news, progress and outcomes, and participate in upcoming events, trainings and webinars.

Visit SenSPA website at: http://www.senspa.karteco.gr/

Follow us at: https://www.facebook.com/Senspa-ESA-682444158859206 (Facebook),

https://twitter.com/EsaSenspa (Twitter)



Activity carried out under a programme of, and funded by, the European Space Agency.

Content

- SenSPa Kick-off Meeting Teleconference
- SenSPa Opening/Stakeholder Engagement Event
- SenSPa Users Requirements Questionnaire
- SenSPa Field Campaign
- SenSPa is liaising with MoA and IBiS
- SenSPa system configuration completed

SenSPa Kick-off Meeting - Teleconference (January 2019)

SenSPa project has launched!

The kick-off meeting with the ESA Technical Officer was held via teleconference on January 22, 2019.

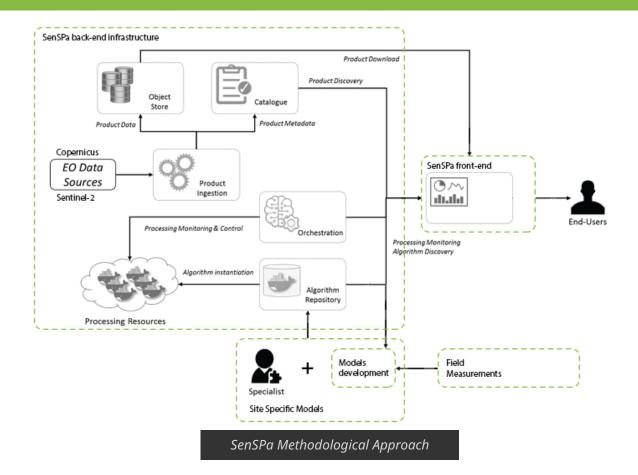
SenSPa Opening/Stakeholder Engagement Event - Baku, (March 2019)

The Opening/Stakeholder Engagement Event was successfully held in Baku on March 6, 2019, organized jointly by kartECO (Prime Contractor) and the Agro Research Center (host of the event). The event was efficient and fruitful, having 27 attendees (team members and local collaborators are not included in this number) from 13 different stakeholders/entities, including:

- Ministry of Agriculture, Republic of Azerbaijan
- Ministry of Finance, Republic of Azerbaijan
- EU Delegation to Azerbaijan
- Food and Agricultural Organization (FAO) Partnership and Liaison Office in Azerbaijan
- United Nations Development Programme
- GIZ, Azerbaijan Office
- Azerbaijan National Standardization Body
- Azercosmos
- Geography Institute of Azerbaijan, National Academy of Sciences.
- Azersun Holding (industry selling agricultural and livestock products)
- IIALD Social Union

The event opened with speeches by Dr. Apostolos Karteris, Director of kartECO, Mr. Togrul Jafarov, Deputy Director of Agro Research Center at the time, and Mr. Rainer Freund, Programme Manager in EU Delegation to Azerbaijan. The 1st Session continued with an introduction of all Stakeholders/Participants and an overview of the SenSPa Project.





During the second Session, the importance of digitalization in agriculture, the use of EO for pasture management and the Azerbaijan grassland mapping project were presented, whereas in the third Session a preliminary analysis of users' requirements was held in the Stakeholders' round table. The event concluded with a teleconference intervention by Dr. Stephen Coulson, Head of EOP-SI at ESA/ESRIN and Technical Officer of SenSPa and a presentation of the upcoming activities and next steps by Dr. Emmanouel Tsiros, SenSPa Project Manager.



Dr. Emmanouel Tsiros presenting the overview of SenSPa

The stakeholder involvement was very positive at the event. More news and photos from the event can be found in the SenSPa Web Portal under the respective section.



Interested to get involved in the SenSPa project? Sign up and become aware of the project news, progress and outcomes, and participate in upcoming events, trainings and webinars. http://www.senspa.karteco.gr/en/interested.html



SenSPa Users Requirements Questionnaire (March 2019 - April 2019)

Following the opening/stakeholder engagement event of the SenSPa project held in Baku and the preliminary analysis of users' requirements, the English and Azeri versions of the **SenSPa Users Requirements Questionnaire** were finalized and distributed to stakeholders through the following links:

- English: https://forms.gle/1vMU4GH6mBaWv8356
- Azeri: https://forms.gle/bvxpB44SWHnuPMMw9

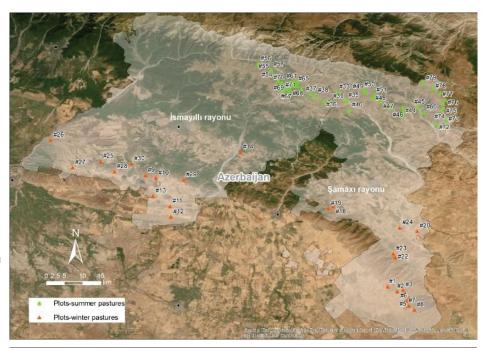


The SenSPa Users Requirements Questionnaire was completed on-line and provided valuable information to fully understand your needs.

SenSPa Field Campaign (April 2019 - August 2019)

The SenSPa field measurements campaign has started with the establishment of plots and grazing exclosure cages in the winter pastures of Ismayilli and Shemakhi rayons. All establishment works were completed until mid April 2019. Field measurements in the winter pastures of Ismayilli and Shemakhi rayons were implemented during May 2019. Plant cover, species composition and forage production were measured based on the field measurement protocols of SenSPa. An assessment of the condition of the pastures was also conducted.

The establishment of plots and grazing exclosure cages in summer pastures of Ismayilli and Shemakhi rayons followed the completion of the field measurements in the winter pastures. The field measurements in the summer pastures were implemented at late July early August 2019. The implementation of the SenSPa field measurements in the summer pastures marked the completion of SenSPa Field Campaign.



Location of sampling plots established in Ismayilli and Shemakhi pastures



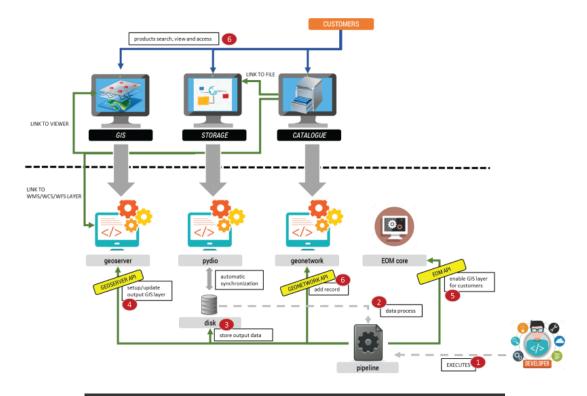
SenSPa is liaising with MoA and IBiS (May 2019)

IBiS (Integrated Biodiversity Management, South Caucasus) is implemented by the Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ) GmbH on behalf of the German Federal Ministry of Economic Cooperation and Development (BMZ). IBiS is developing strategies to support the sustainable management of biodiversity and ecosystem services in the South Caucasus.

GIZ IBiS together with the German Aerospace Center (DLR) supported the Ministry of Agriculture of Azerbaijan (MoA) in the mapping of grassland (grassland/non-grassland map based on Sentinel imagery) and the assessment of productivity of pastures and meadows (based on Sentinel and Landsat imagery). To further enhance the knowledge and accuracy of the productivity and degradation estimation of grassland in Azerbaijan, biomass data from the field (in-situ data) needs to be collected and assessed. Therefore, the MoA, IBiS and SenSPa project agreed to join forces on the collection of biomass in two pilot districts (Ismayilli and Shemakhi) to increase the number of plots and grazing exclosure cages and thus, the total number of field measurements. SenSPa has already developed an implementation plan for the biomass collection field campaign, that will be further supported by IBiS though a supplementary field measurement campaign.

SenSPa system configuration completed (June 2019)

A new independent project (tenant) called SenSPa has been configured in the EOMerlin platform of GMV. The user's needs have been analyzed and converted into specific geo-information requirements and, finally, consolidated. Later, they were used to define the back-end and front-end configuration. The highest priority user requirements are addressed in the SenSPa tool.



High Level Architecture of the processing platform



CONTACT US



Address: Philippos Business Center, Ag. Anastasias & Laertou, Pylaia, P.C. 57001, Thessaloniki, Greece, Box 60824



Telephone: +30 2310365441



Fax: +30 2310365442



Email: info@karteco.gr



Skype: karteco.karteco

Visit SenSPA website at: http://www.senspa.karteco.gr/

Follow us at: https://www.facebook.com/Senspa-ESA-682444158859206 (Facebook), https://twitter.com/EsaSenspa (Twitter)