

## Outcomes of the International MARS Conference

**The 25<sup>th</sup> international MARS conference was held in Prague on 26 – 28 November on the topic: How new technologies are changing the EU's Common Agricultural Policy (CAP). The conference was co-organized by the State Agricultural Intervention Fund (SAIF).**

Almost 400 guests attended the MARS conference, including prominent figures from the European Commission (DG AGRI, DG ENVI, DG JRC), the European Court of Auditors, representatives of the paying agencies and ministries of Member States and Czech and foreign companies dealing with new technologies in agriculture. The agricultural community was represented by Copa-Cogeca, an association of European farmers.

The conference was co-organized for the first time by the Czech Republic. It focused on the use of technologies to make the CAP more efficient in the new programming period. Participants shared experiences and discussed new knowledge and innovations, especially those that emerged from European space programs, which have opened up new opportunities for agriculture.



What are the outcomes of the conference? The future CAP must be based on a new model of subsidy policy. Modernization and implementation of new technologies is one of the main priorities of the future CAP. It is necessary to change the way we think about setting up the grant system as such. The integrated administration and control system, which monitors the applicant's eligibility for the subsidy, should in the future be primarily a preventive system and a tool that will help to improve the performance of the CAP. The transition to the new system is inevitable. It will be based on a systematic collection and analysis of available data on the use of agricultural land and its sharing with the agricultural community. More active involvement of the farmers' public is therefore another necessity for a successful change to the CAP system.

It is clear that this is a fundamental change, but worries are not justified. Experience from Member States that have already deployed the new system has shown that the automated analysis of Sentinels satellite data has reduced field controls. Moreover, the error rate of grant applications was reduced thanks to proactive communication with farmers. Member States intend to continue and further develop the new control method in the future.



Various technologies and commercial solutions were presented at the conference in an enormous number. In summary, compared to 2018, technological advances have been made not only to improve the accuracy of automated analysis, but also to design comprehensive solutions for paying agencies and farmers in data sharing, online communications, automatic data processing and evaluation (e.g. automatic photo evaluation).

According to a representative of the farmers union Copa-Cogeca, a new form of control based on automatic analysis of satellite data is a convenient way to focus on controlling irregularities and not on minor errors that occur in the tens of square meters.



The rich content of the MARS conference has shown that innovation and new technologies are moving incredibly fast and they will be beneficial not only for the paying agencies but also for the farmers themselves.

Since 2015, the SAIF has been involved in several projects (CzechAgri, Sen4CAP, DROMAS, etc.). It was a great honour for the Czech Paying Agency to organize the MARS conference. Moreover, the SAIF won a third place in the competition of professional posters for the use of new technologies for the agenda of the EU CAP (see the picture below).

# Benefits of Sen4CAP project for the SZIF (CZ Paying Agency)

Renáta Bodnárová<sup>1</sup>, Vladimír Hofman<sup>1</sup>, Lucie Šavelková<sup>1</sup>, Jakub Veverka<sup>1</sup>  
<sup>1</sup>The State Agricultural Intervention Fund

## INTRODUCTION

The Sentinels for Common Agricultural Policy - Sen4CAP project aims at providing to the European and national stakeholders of the CAP validated algorithms, products, workflows and best practices for agriculture monitoring relevant for the management of the agriculture policy. The project pays particular attention to provide evidence how Sentinel derived information can support the modernisation and simplification of the CAP in the post 2020 timeframe. The overall approach of the project is user-oriented to ensure responding very concrete user needs and requirements. Sen4CAP user group includes Paying Agencies from 6 selected Pilot Countries, the State Agricultural and Intervention Fund (SZIF) is one of them.

### Crop Diversification (L4A)

Information about the crop type observed by remote sensing over each parcel registered in LPIS and/or declared in GSAA.



This information is then combined at the holding-level to answer the question whether the crop diversification rules have been fulfilled by the farmer or not.



### Grassland Mowing (L4B)

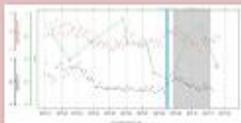
Product consist of:

- The dataset of LPIS/GSAA parcels;
- The description for each parcel;
- The number of mowing events for defined period;
- The event characteristics.

The product provides information about grassland mowing practices applied at the level of LPIS/GSAA polygon.

### Agricultural Practices (L4C)

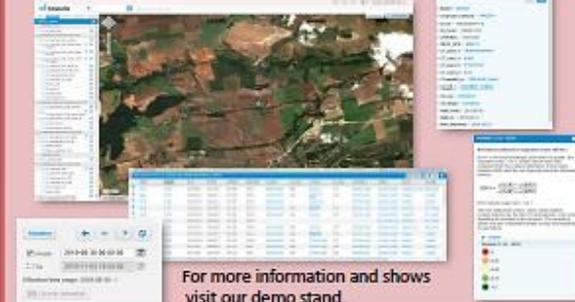
The product provides information about crop harvesting (or clearance) events, as well as on presence of catch crops, nitrogen fixing crop and fallow practices on the field.



Dataset contains:

- the LPIS/GSAA parcels that were monitored;
- describing the assessed markers (week of harvest, degree of compliance).

### Visualisation Tool



For more information and shows visit our demo stand.

### VALIDATION DONE BY the SZIF

Validation was carried out by using in-situ data collected by:

- SZIF staff during dedicated Sen4CAP field visits;
- Farmers providing filled-in questionnaires (pre-defined by SZIF) on frequent basis during the whole campaign period.

Collected data are analysed and feedbacks are provided to Sen4CAP team for further fine-tuning of algorithms, methods and best practices.



### FURTHER OUTPUTS

Beyond the Sen4CAP developed products the generated data could be further used by SZIF for analytical purposes and for supporting the CAP decision makers.

Example of multi-annual crop rotation at national scale.



### CONCLUSIONS

The outcomes of Sen4CAP project confirm that the concept of checks-by-monitoring (CbM) is feasible and achievable by the SZIF in the future, in respect of the implementation of CAP 2020+ reform. The developed Sen4CAP products are user-oriented, clearly visualised and fulfilling the project's objectives, showing on concrete use cases the potentials of Sentinel derived information to support the management of CAP. The Sen4CAP project strongly supports the SZIF in building the knowledge about the challenges and needs associated with the checks-by-monitoring (CbM) and Area Monitoring System.

### Sources

- [www.gisopedia.world](http://www.gisopedia.world)
- [https://apps.sentinel-hub.com/web-browser/](https://apps.sentinel-hub.com/sentinel-hub.com/web-browser/)
- Sen4CAP - User Guide documentation

