Co-funded by the European Union

AgriGREEN

SUSTAINABLE AGRICULTURE FOR GREENER FUTURE

Panel discussion 3 – Digitalization in Agriculture

www.agrigreen.ef.uns.ac.rs

Project acronym	AgriGREEN
Project full title	Jean Monnet Centre of Excellence: Sustainable Agriculture for Greener Future
Project number	101085183
Funding scheme	Erasmus+ Jean Monnet Centre of Excellence (ERASMUS-JMO-2022-HEI-TCH-RSCH)
Project start date	01/09/2022
Project duration	3 years

TITLE OF DOCUMENT	**Panel discussion 2 - Challenges of organic food production**
Work package	WP4 Research and panel discussions for policy recommendations
Deliverable	**D4.2 Panel discussions has been realised**
Responsible Team members	Danilo Đokić, Bojan Matkovski, Žana Jurjević, Aleksandar Vasiljević
Due date	31/12/2025
File name	AgriGREEN_Panel Discussion 3
Number of pages	10
Dissemination level	Sensitive

Abstract	The "Panel discussions (3) has been realised" is a deliverable within WP4 entitled "Research and panel discussions for policy recommendations". This report shows realization of the second of the three-panel discussion which is done in cooperation with academics from the BioSense Institute and bussines representatives.

VERSIONING AND CONTRIBUTION HISTORY

Version	Date	Description	Responsible members
1.0	17/12/2025	Draft	Bojan Matkovski, Danilo Đokić, Žana Jurjević
1.1	18/12/2025	Final	Bojan Matkovski, Danilo Đokić, Žana Jurjević, Aleksandar Vasiljević

DISCLAIMER

"Funded by the European Union. Views and opinions expressed are however those of the author(s) only and do not necessarily reflect those of the European Union or University of Novi Sad. Neither the European Union nor the granting authority can be held responsible for them."

Content

LIST OF ACRONYMS

WP	Work package
AgriGREEN	Jean Monnet Centre of Excellence: Sustainable Agriculture for Greener Future
JMCE	Jean Monnet Centre of Excellence
UNS	University of Novi Sad
MAFWM	Ministry of Agriculture, Forestry, and Water Management of Serbia

INTRODUCTION

The main objective of the Jean Monnet Centre of Excellence (JMCE) "Sustainable Agriculture for a Greener Future – AgriGREEN" project is to disseminate knowledge about the European Union and its policies, with a particular emphasis on EU agricultural policy, the Farm to Fork (F2F) Strategy, and the concept of agricultural sustainability. The project primarily aims to reach students of the Faculty of Economics at the University of Novi Sad (UNS), as EU-related topics are not typically a central part of their curriculum. To ensure openness toward policymakers and the general public, panel discussions are planned in cooperation with the Ministry of Agriculture, Forestry, and Water Management (MAFWM).

Within its activities, the AgriGREEN project envisages the organization of panel discussions to foster dialogue on key elements of the Farm to Fork Strategy and the new Common Agricultural Policy (CAP) reforms between policymakers in Serbia and experts from UNS, in cooperation with European universities. The main goal of these discussions is to formulate recommendations for decision-makers in the context of agricultural policy and the new strategy. It is planned that one panel discussion will be organized in each year of the project. In addition to academic experts, each event includes representatives of the Ministry of Agriculture, Forestry, and Water Management of the Republic of Serbia, as well as experts from European universities and agri-business companies.

The third panel discussion was organized in the third year of the project and focused on the digitalization of agriculture. As a result of this discussion, a set of recommendations for policymakers was developed. Unfortunately, due to the specific political situation in Serbia, representatives of the MAFWM were unable to attend this event.

The structure of the report is as follows: Chapter 2 explains the idea and structure of the panel discussion; Chapter 3 describes its implementation; Chapters 4 and 5 address awareness-raising activities and the evaluation process, while the Annexes provide evidence that all planned activities were successfully implemented.

DESCRIPTION OF PANEL DISCUSSION

One of the aims of the WP 4: Creating recommendations for decision-makers in the context of agricultural policy and new strategy. In focus of the third panel discussion is digitalization in agriculture. It is realised in cooperation with expert form Biosense Institute (Oskar Marko) and business representatives: Miroslav Marković (owner of company AgroBioChem) and Slobodan Tatić (owner of a crop farm).

BioSense, Research and Development Institute for IT in biosystems, is a pioneer in digital transformation of agriculture in Serbia, founded in 2015. Exploring scientific and technological frontiers regarding the application of IT in agriculture, the Institute strives to deliver state-of-the- art digital solutions to the farming sector in Serbia and the world, in order to ensure higher yields with smaller investments. Material science, micro and nano electronics, sensor design, remote sensing, Internet of Things, artificial intelligence, biosystem research, cellular agriculture and bioarcheology are just some of the scientific fields BioSense integrates to make agriculture more efficient and uses science as a backbone for economic growth, social well-being, and employment. Thanks to such a transdisciplinary approach, the Institute has left an indelible mark in the international scientific community. This is proved by the participation in 30 national and around 50 international projects, most of them from the European Union's Research and Innovation Program – Horizon 2020, as well as numerous national and international awards that researchers from BioSense have won. The most prominent project, ANTARES (H2020), supported by the European Commission and the Republic of Serbia, aims to turn the BioSense Institute into a leading European Center of scientific excellence in sustainable agriculture. None of the scientific breakthroughs remain bound within the walls of our laboratories. They are integrated into society and available to farmers, extension services, companies, policy makers, students, and pupils. In March 2018, BioSense launched the first Digital Farm in Serbia that provides all stakeholders with hands-on learning opportunities and showcases how AgTech solutions can be implemented in real-world settings. The virtual part of the farm – the AgroSense digital platform – enables farmers and extension services to monitor crops for free and plan activities using computers and mobile phones, based on the data collected from satellite images, drones, robots, various sensors, and meteorological stations. More than 15,000 registered users are an indicator of successful digital transformation. Due to the partnership with the European Space Agency, BioSense is the only distributor of Sentinel satellite imagery in the country. Also, the impact is spread globally through other collaborations with FAO, EBRD, World Bank and UNICEF. The Institute creates a bridge between science and business and fosters an entrepreneurial mentality in Serbia. The BioSense accelerator provides mentoring, business, and scientific support to innovative local AgTech entrepreneurs, startups, and small businesses in developing new digital solutions and improving the existing ones.

AgroBioChem d.o.o. began as a company with a clear belief: that modern agriculture works best when knowledge, technology, and responsibility grow together. From the very start, its role went beyond simply distributing products. AgroBioChem became a partner to farmers—bringing materials for plant nutrition and protection, while also introducing

modern technologies that make agricultural production more precise, efficient, and sustainable. As agriculture evolved, so did AgroBioChem's sales program. It was continuously refined to follow the latest trends in intensive production, ensuring that farmers had access to up-to-date solutions tailored to real conditions in the field. Behind every product stood an experienced and professional sales and development team, ready to offer practical advice and guide producers in applying solutions correctly, safely, and effectively. The goal was always the same: safe food production and maximum annual crop yields.Over time, AgroBioChem built its reputation on trust and results. Its solutions proved successful across different production systems, combining innovation in conventional agriculture with a forward-looking vision. That vision gradually expanded toward complete, integrated solutions for biological and organic production—responding to growing demand for sustainability and environmental responsibility. Today, AgroBioChem d.o.o. stands as a bridge between tradition and innovation in agriculture, helping farmers grow healthier crops while preparing the sector for a more sustainable future.

REALISATION OF PANEL DISCUSSION

The third panel discussion focused on the digitalization of agriculture and was organized in cooperation with Oskar Marko (BioSense), Miroslav Marković (AgroBioChem), and Slobodan Tatić (owner of a crop farm). The main objective was to enable an expert from a scientific institution to share experiences related to digitalization and the application of new technologies in agriculture, while business representatives presented their perspectives on the challenges of implementation in practice. Oskar Marko from BioSense delivered the keynote address, and the panel discussion was moderated by Bojan Matkovski. The panel discussion was also attended by other members of the project team, representatives of the University of Novi Sad (UNS), as well as third- and fourth-year students of the Faculty of Economics. These students had previously been introduced to agricultural policy issues within the courses Agricultural Policy and Sustainable Development and Agri-food Market. The total number of participants was 83 (Annex A). At the beginning of the session, Oskar Marko delivered an introductory presentation aimed at familiarizing the participants with issues related to organic production and agricultural policy (Annex B)

Picture 1. Agenda

Picture 2. Presentation at panel discussion

After that, there was a discussion that resulted in the creation of recommendations for the creators of Serbia's agricultural policy and conclusions that can be summarized as follows:

Serbia has strong agricultural potential—diverse production, skilled farmers, and a growing IT sector—but digitalization will only deliver results if it is inclusive, practical, and trusted by farmers. Policymakers should therefore focus on three pillars: access, capability, and confidence.

First, access. Precision agriculture depends on connectivity, data, and equipment. Many rural areas in Serbia still lack reliable broadband and mobile coverage, which immediately creates inequality. Public investment in rural digital infrastructure is not optional; it is foundational. At the same time, incentive schemes for precision tools—such as soil sensors, GPS-guided machinery, drones, and farm management software—must be

designed with small and medium-sized farms in mind. Subsidies should favor shared equipment models, cooperatives, and service providers, rather than only individual ownership. This lowers costs and accelerates adoption.

Second, capability. Technology alone does not create value—people do. Policymakers should invest heavily in digital literacy and advisory services. Agricultural extension systems must be modernized to include data interpretation, precision inputs, and decision-support tools. Training programs should be practical, region-specific, and delivered through trusted local institutions. Partnerships between universities, agri-tech startups, and farmer associations can turn Serbia's strong technical talent into real on-farm solutions. Importantly, young people should be encouraged to see agriculture as a high-tech, innovative sector, not a fallback option.

Third, confidence and governance. Farmers will not adopt digital tools if they fear losing control over their data or being locked into opaque platforms. Serbia needs clear rules on agricultural data ownership, interoperability, and privacy. Farmers should own their data and be able to switch service providers without penalty. Policymakers should also support open standards and pilot projects that demonstrate measurable benefits—such as reduced input use, higher yields, or better climate resilience. Seeing results on neighboring farms is often more persuasive than any policy document.

Finally, digitalization should align with broader national goals. Precision agriculture can directly support environmental protection, water management, and climate adaptation—key issues for Serbia's future. Policymakers should integrate digital tools into agri-environmental schemes and climate strategies, rewarding farmers not just for production, but for efficiency and sustainability.

RAISING AWARENESS ABOUT PANEL DISCUSSION

Visibility of the course is achieved through:

- Website of the project;
- Website of the Faculty of Economics;
- Social media of AGRO (Instagram);
- Social media of Faculty of Economics (Instagram).

Also, all activities have been intensively promoted via project Instagram account (agro_efsu) as well as Instagram account of the Faculty of Economics (ekonomski_fakultet_subotica). Based on number of followers on these social media, activities have been visible approximately to 5.200 people.

EVALUATION OF THE PANEL DISCUSSION

The quality of the panel discussion was monitored through the implementation of a participant survey. After the workshop, participants completed a questionnaire via Google Forms; 26 participants responded to the survey. The results indicate a very high level of satisfaction, with 25 out of 26 respondents awarding the highest rating (5) for the overall quality of the panel discussion. Additional evaluation details are provided in Annex C.