

DIGITAL CONGRESS PROCEEDINGS



**7th PANHELLENIC
CONGRESS
ON THE DEVELOPMENT
OF GREEK
AGRICULTURE**

Friday
**6 November
2020**

The CAP in the Green Deal era:
**The opportunity of the green & digital transition
for the sustainable development of Greek agriculture**



Funded by the IMCAP Programme of the European Union



Editing:

Dimitra Chouchorelou, Project Management Department, GAIA EPICHEIREIN S.A.

Athanasia Adamopoulou, Head of Marketing and Communication Department, GAIA EPICHEIREIN S.A.

Aikaterini Bratsou, Art Director, GAIA EPICHEIREIN S.A.

All rights reserved. No part of this publication may be reproduced, distributed, or transmitted in any form or by any means, including photocopying, recording, or other electronic, media or mechanical methods, without authorized permission by the publisher (LAW 2121/1993 Copyright, Related Rights And Cultural Matters).

© Copyrights 2021, GAIA EPICHEIREIN S.A.

«The content of this publication represents the views of the authors only and is their sole responsibilities.

The European Commission does not accept any responsibility for use that may be made of the information it contains».



Funded by the IMCAP Programme of the European Union



Message from the President



The Future Common Agricultural Policy, as well as the European Resilience and Recovery Plan, put at the center of national planning, the dual challenge and opportunity of the green and digital transition. The 7th Panhellenic Congress has served as a platform of dialogue and exchange of views, contributing to this direction. After seven years of dynamic and successful course in the national agri-food business sector, I think that it wouldn't be an exaggeration to say that GAIA EPICHEIREIN is leading the green and digital transition of Greek agriculture. We have been the first, not only to put on the national agenda the strategic priority of the digital transformation for the primary sector, but also to apply it in practice from the beginning of our efforts through the big range of the services and support that we are providing Greek farmers and their cooperatives, always based on knowledge and technological innovation.

Christodoulos Antoniadis,
President,
GAIA EPICHEIREIN

Message from the CEO



In the Green Deal Era the productive world needs technological solutions to achieve environmental, social and economic sustainability. It is an era of complicated challenges, where a farmer needs more than ever high-efficiency digital services that will provide solutions both as a professional and as citizen of rural areas. This is our political agenda in Greece and in the European Union in 2020. This has always been GAIA EPICHEIREIN's agenda since the beginning of the previous programming period in 2014. When in order to serve our vision for a sustainable and competitive primary sector based on innovation, we created throughout Greece a network of 123 centres to respond to the needs of our farmers, the so-called Farmers' Service Centers. In other words, we created a private network of service centers, offering during the last seven years digital services based on cloud technologies to hundreds of thousands of producers, allowing us to state that, as far as we are concerned, current political targets are already a reality for several years. And we serve these targets quite remarkably.

Ioannis Mavroudis,
CEO,
GAIA EPICHEIREIN

CONGRESS PROGRAMME

Friday November 6 2020

09:30 Congress Opening

09:35 Welcome speech **Christodoulos Antoniadis**, President, GAIA EPICHEIREIN

Welcome address **Christiane Lambert**, President, Committee of Professional Agricultural Organisations (COPA)

Welcome address **Ramon Armengol**, President, General Committee for Agricultural Cooperation in the European Union (COGECA)

Welcome address **Georgios Handjinikolaou**, President, Piraeus Bank Group

10:00 – 12:00 Opening Session

The CAP and the primary sector in the Green Deal era: EU guidelines and national planning

KEYNOTE SPEAKER: Mavroudis Voridis, Minister of Rural Development & Food

Speakers: **Vasileios Kokkalis**, Member of the Hellenic Parliament, SYRIZA

Tassos Haniotis, Director, Strategy, Simplification and Policy Analysis Directorate, Directorate General for Agriculture & Rural Development (DG AGRI), European Commission

Svetlana Edmeades, Senior Agricultural Economist, World Bank

Alkiviadis Alexandrou, Deputy General Manager, Agribusiness Sector, Piraeus Bank

Alexandros Kontos, President, Association of Agricultural and Cooperative Organizations & Enterprises of Greece (SASOEE), former Minister of Rural Development and Food

Ioannis Mavroudis, CEO, GAIA EPICHEIREIN

12:00 – 12:15 Coffee Break

12:15 – 13:30 1st Thematic Session

Smart Farming – Smart Advice: the digital catalyst for a more sustainable and competitive agriculture

KEYNOTE SPEAKER: Georgios Georgantas, Deputy Minister of Digital Governance

SPEAKERS: **Fotis Chatzipapadopoulos**, President, NEUROPUBLIC

Jens Elbaek, Director, Crop & Environment Innovation, SEGES (Denmark)

Yannis Maniatis, Professor, University of Piraeus, former Minister of Environment, Energy & Climate Change

Ioannis Chaniotakis, Senior Director, Agricultural Sector Operations Development, Piraeus Bank, Board Member of GAIA EPICHEIREIN

Manos Sdrakas, Director, Novaplan

Moderation: Elli Tsiforou, Director General, GAIA EPICHEIREIN

13:30 – 14:00 Lunch Break

14:00 – 15:30 2nd Thematic Session

Simplification and modernization for producers and public administration: the IACS in transition towards a new era

KEYNOTE SPEAKER: Evangelia Mourmoura, Team Leader, Implementation Support and IACS Unit, Sustainability & Income Support Directorate, Directorate General for Agriculture & Rural Development (DG AGRI), European Commission

Speakers: **Christos Barlias**, President, Association of Agricultural Cooperatives of Corinth AES SA, Vice President of GAIA EPICHEIREIN

Costas Giannopoulos, General Manager, Union of Agricultural Cooperatives of Thessaloniki (EASTH)

Giannis Pazios, General Manager, Agricultural Cooperative "Union of Messinia"

Lorenzo Belcapo, Technical Responsible for Farmers' Assistance Centers, Coldiretti (Italy)

Dimitris Kapnias, IACS Project Director, GAIA EPICHEIREIN

Moderation: Elli Tsiforou, Director General, GAIA EPICHEIREIN

16:00 – 17:30 Coffee Break

16:00 – 17:30 3rd Thematic Session

Green and Digital investments in the primary sector

KEYNOTE SPEAKER: Eduardo Baamonde Noche, President, Cooperative Bank Cajamar Caja Rural (Spain)

Speakers: **Athanassios Vlachopoulos**, General Manager, Corporate & Investment Banking, Piraeus Bank

Konstantinos Kiltidis, President, Agrifood Partnership of the Central Macedonia Region

Dr. Georgios Zalidis, Director, Laboratory of Remote Sensing, Spectroscopy and Geographic Information Systems (GIS), Aristotle University of Thessaloniki (AUTH)

Efthymios Efthymiadis, Vice President, Agrotechnology Group Efthymiadis

Moderation: George Avatangelos, Director, Agricultural Entrepreneurship Centers, Piraeus Bank

CONGRESS OPENING



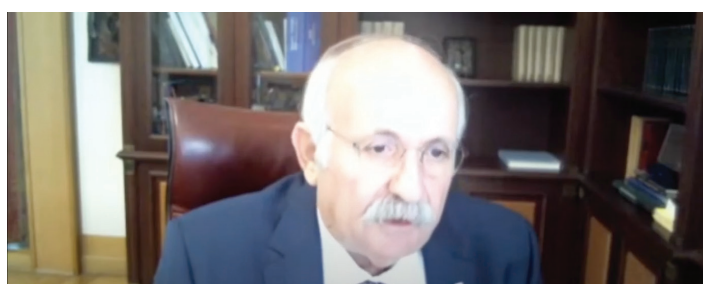
Elli Tsiforou

Director General, GAIA EPICHEIREIN

Ladies and gentlemen, dear delegates, good morning. My name is Elli Tsiforou, I'm the Director General of GAIA EPICHEIREIN and I would like to welcome you to the 7th Panhellenic Congress on the Development of Greek Agriculture. Our topic «The CAP -the Common Agriculture Policy- in the Green Deal Era. The opportunity of the Green and Digital Transition for the sustainable development of Greek Agriculture». Our Congress this year is held online for self-obvious reasons. You can watch us through the online platform that we have created with the help of our partners especially for this event. You can also watch us through the online news portals of the websites “news247” and “Ypaithros Chora”, which are among our communication sponsors that we would like to warmly thank, as well as all the sponsors and supporters of our Congress.

Before getting started, some practical information to share: You can watch the Congress in Greek, but also in other three languages, English, Spanish and Italian, by clicking on the corresponding buttons on the upper left side of your screen for the language of your preference. Having said that, I would like to take the opportunity to also welcome the delegates that are watching us remotely from Brussels and other countries of the EU.

Without further ado, I think that we can directly give the floor to the President of GAIA EPICHEIREIN, Mr. Christodoulos Antoniadis, to officially to officially open the 7th Panhellenic Congress. Mr. President, you have the floor.



Χριστόδουλος Αντωνιάδης
Συμβούλος Διοίκησης Εμπορικής & Αγροτικής Τραπεζικής, Τράπεζα Πειραιώς - Πρόεδρος, GAIA ΕΠΙΧΕΙΡΕΙΝ

Christodoulos Antoniadis

President, GAIA EPICHEIREIN

Good morning to everyone. Dear Ministers, former Ministers, and Members of the Parliament, dear Mr. President of the Union of Greek Banks and of Piraeus Bank, dear speakers of the 7th Panhellenic Congress for the Development of Greek Agriculture, dear partners and delegates, dear friends, dear farmers, partners of GAIA EPICHEIREIN and colleagues, I would like to welcome you to the 7th Panhellenic Congress of the Development of the Greek Agriculture focusing on the topic “The CAP in the Green Deal Era. The opportunity of the Green and Digital Transition for the sustainable development of Greek Agriculture”.

With a high sense of responsibility and being fully coordinated with the requirements set by the State to confront the sanitary crisis of Covid-19, this Congress is held for the first time online. The difficult situation we are all experiencing, did not make us for a moment doubt the necessity of holding this Congress, taking advantage of the possibilities offered by modern technology. This is because the political momentum is particularly critical both at European and national level. A few days ago, the two co-legislators, the European Parliament and the European Council, reached their respective positions on the future CAP and quite shortly the trilogues between the different European institutions will start, and hopefully that will lead to a political agreement about the new CAP that will be implemented from 2023.

At the same time, national authorities are in the process of drafting the national CAP Strategic Plan of the CAP, in which each country is called upon to adapt the objectives of the new CAP, the state of play and the needs, as well as to make the best possible use of the different tools offered. At the same time, our country, together with the other Member States of the European Union is called to submit by the end of the year an integrated national recovery and resilience plan taking into account the needs of the primary sector as an indisputable pillar of our national economy.

The thread linking these three parallel activities is very simple. It is none other than the Green Deal, which is the European Union's horizontal growth strategy for the upcoming decades, putting forward the the green and digital transformation of the European economy and society.

European and Greek farmers, as main land managers, since over 77% of the European territory is classified as rural, I'd say that they are the major protagonists of the green growth, having as their ally, the digital technology factor. The future CAP, as well as the European Recovery and Resilience Plan demand to place the twin challenge of the green and digital transition at the center of our national strategies. This is exactly the aspiration of our 7th Panhellenic Congress, to open a forum of dialogue and exchange that will contribute toward this direction.

Ladies and gentlemen, after seven years of a successful course in the national agrifood sector, I believe that it wouldn't be an exaggeration to state that GAIA EPICHEIREIN is indeed a leader in the green and digital transition of Greek agriculture. We have been the first, not only to put on the national agenda the strategic priority of the digital transformation for the primary sector, but also to apply that in practice from the beginning of our efforts through the big range of the services and support that we are providing to Greek farmers and their cooperatives, always guided by knowledge and technological innovation. Sincerely, we feel optimistic and confident for the praise that we have received from high ranking European Union officials and experts who seek to our work for good practice examples, and often invite us to convey our expertise across the EU.

Ladies and gentlemen, at this point I would like to repeat something that I mentioned at last year's Congress and I never cease to repeat. GAIA EPICHEIREIN is itself, on its own, a paramount example of innovation, bringing under the same umbrella the Agricultural sector, represented by cooperatives, the Banking sector, represented by Piraeus Bank, and the IT sector, represented by Neupublic company. GAIA EPICHEIREIN is a model of synergies and business development that is fully aligned with the European Union's priorities. **These three pillars together - agricultural, banking and IT sector - can guarantee the financial, economic, environmental sustainability of Greek farming. It's not a coincidence that these synergies that we were the first to envision and implement, are essential for the future. And this is echoed in the tools of the CAP and the European Green Deal. For us the future is already**

here, but in no case does this mean that we can mitigate our concerns or decrease efforts vis-à-vis the pathway that we have ahead.

The 7th Panhellenic Congress, as all our conferences, is a landmark, since it is an opportunity to communicate with all of you, to listen to your views, to your concerns, to share ideas, but also to provide you, as well as to all the interested parties, information regarding the recent developments in the European and national primary sector. Throughout these years, our presence in Brussels has allowed us to do that with a great sense of responsibility and quality, owing to distinguished speakers that we host on an annual basis who, I would like to sincerely thank for their participation.

I would like to warmly thank the European Commission and the Directorate of Agriculture for their support once again through the implementation of CAP3D program, in order to convey to all stakeholders, the diachronic role and the contribution of the CAP to the sustainable development of Greek agriculture. I would like to deeply thank our sponsors, because once again they are standing by our side in this effort. Last but not least, I would like to deeply thank all of you, who are watching us online this year. I wish us all a happy, fruitful conference, expressing the hope that we will be able to meet in person next year person next year. Thank you very much.

Elli Tsiforou: Thank you very much, Mr. President of GAIA EPICHEIREIN, for introducing us to the very important topic of this Congress. Now let's proceed with the welcome addresses coming from three eminent speakers from the European Union and Greece. We will start with two video messages from the presidents of European organisations COPA and COGECA. Starting with Mrs. Christiane Lambert, the President of COPA, that is the Committee of Professionals Agricultural Organizations, that represents the professional farmers in Brussels. Mrs. Lambert honoured us by sending the following video message.



Christiane Lambert

President, Committee of Professional Agricultural Organisations (COPA)

Dear friends and delegates, I would like to thank you for inviting me to your 7th Panhellenic Congress, and also to congratulate you on focusing on digitalization in your country through this public event. **The integration of digitalization is a great opportunity for the agricultural sector, as the digital era and the different digital tools offer significant opportunities for the agricultural sector. To be able to improve our profession, our working conditions, to improve our efficacy, our competitiveness, while achieving the ecological and climatic transition, which we have set as a goal.** We have a modern vision of agriculture. An agriculture that will aspire to a new future, including new technologies. We are able to collect more data in fields, in vineyards, in orchards, but also in stables from our animals, to rationalize our interventions, to have better knowledge and to be able to intervene with a vision in the short, medium and long term. We have the ability to respect and protect the soil, the air, the water, which are our daily concerns as farmers. It is also a modern

way to improve the agricultural profession, proving that we are connected with modern tools to meet current and future challenges. A significant number of farmers use already these technologies and the different possibilities offered, but we also want them to be able to get assembled into larger sets in order to benefit from the rationalization of our interventions. Nonetheless, we should be vigilant that the data resulting from these applications will remain in the possession of the producers. At Brussels level, European Commission is also working to protect our farmers and their data. Technologies, enable even further the producer to manage time, to better perform their agricultural tasks with less effort. We are convinced that all these elements can lead into a better future for the professional farmer. Today, in agricultural schools, young people are discovering these possibilities and will use them more effectively in the future. Already today a significant number of producers are facing challenges related to environment, public health, traceability, connection with processors and consumers, thanks to the new tools that we have and thanks to the new possibilities offered by data. It is very important to go in depth and provide farmers and other rural stakeholders with the necessary skills and knowledge. I wish you success in today's discussions, and I would be very pleased to be informed of the conclusions you will reach. I also hope that we can use them in our work at COPA. I wish you a good Conference, good luck, and congratulations on your readiness to make the ecological and climate transition faster with the help of digital technology. Thank you.

Elli Tsiforou: I would like to warmly thank the President of COPA, Mrs. Lambert, on behalf of GAIA EPICHEIREIN. I would like to thank her for all the interesting messages she conveyed to us. We will keep in mind these messages throughout the discussion that we will be having today. I would like also to assure her that we will send her the conclusions of today's discussion, so that we can actually contribute to the work of COPA. At this point I would like to emphasize the fact that Mrs. Lambert, who was elected in September as head of this important organization called COPA, is the first woman to emerge as its leader. And this is very important both for women farmers as for women in general.

Now let's move on to the second video message, from Mr. Ramon Armengol, President of the General Committee for Agricultural Cooperation in the European Union. Let's listen to the video message he sent to us.



Ramon Armengol

President, General Committee for Agricultural Cooperation in the European Union (COGECA)

Dear President Antoniadis, Dear Mr. Voridis, Minister of Rural Development and Food, Dear Leaders and Members of Agricultural Cooperatives Schemes of Greece, Dear speakers and participants of the 7th Panhellenic Congress on the development of Greek agriculture. It is a great honour to welcome you with this short video message and to apologize for not being able to attend under the circumstances. The theme of this event is of great importance for our cooperative enterprises, it is perfectly in line with the policies

discussed in Europe, as well as with the strategic priorities of our cooperative organizations. **In this context, I would first like to thank the Greek agri-food cooperative organizations for their work and their involvement in COGECA, an organization that represents 22,000 European agricultural cooperatives and which I have had the honour to chair since January 2020. It is very important to be able to count on your cooperation because by working together, COGECA can consolidate its influence at the European level and we can achieve much more for cooperatives.** I have been a livestock farmer and a member of a cooperative in my area for 45 years, so there is no one more convinced than I am of the benefits that being under the umbrella of my cooperative has brought to my business. Moreover, I have to confess that at this juncture I would be literally terrified if I had to face, on my own, the many challenges European farmers and stockbreeders are facing. **At COGECA we never tire of repeating that cooperatives are companies with rigid values: solidarity (because we treat all our members equally), responsibility (because we are committed our people and our land, and don't relocate) and social cohesion (because we provide value and services to rural areas).** We put people at the centre of our strategies. And what we already know and adopt, we need to remind national and European institutions every day, so that they take it into account when they legislate, recognising our key role. When I mentioned earlier the new challenges, I was indeed referring to the Green Deal and the reform of the CAP. We need to adapt to the new policies, and I hope that this transition towards sustainability will offer us some opportunities at the same time. At this point, I believe that agricultural cooperatives are in a privileged position to lead initiatives in the circular economy and the bio-economy. There are already quite a few examples of investments and business models designed to meet the new Sustainable Development Goals, and I'm **excited to see that Greek cooperatives are making various investments and developing various business models that can play a pioneering role in these circular economies.** I am convinced that innovation and digitalization are the key to moving towards this green transition. We are also aware of the significant progress made in Greece thanks to GAIA EPICHEIREIN. I encourage you to continue along these lines and let me stress again, that agricultural cooperatives require a favourable legislative environment to further develop these types of innovative business models. We cannot achieve the sustainability goals demanded of us without financial and technological support. That is why we must continue to work together to promote our cooperative model, which is key to a future with a more sustainable but also stronger and more competitive cooperative agri-food sector. Thank you very much. I wish you an excellent Congress.

Elli Tsiforou: We warmly thank Mr. Armengol, the president of the COGECA, a very significant organisation representing over 22,000 agricultural cooperatives from all over the European Union. We thank him for all the important things he shared with us and for his kind words. We would also like to keep his basic message that the agricultural cooperatives in this new era opening before us, the era of Green Deal, will play a decisive role by preserving their traditional mission, which is the protection and support of the individual farmers, but also by becoming catalysts of a digital and green transition, under the condition of course, as he told us, that they receive the necessary support. Now we will proceed to the next speaker. We have the honour and the pleasure to have with us the President of Piraeus Bank Group, Mr. Georgios Handjinikolaou. Mr. Handjinikolaou we would like to thank you warmly for accepting the invitation to address this Congress. You are leading a very important bank group that plays and will continue to play a very important role in the development in the agri-food sector and not only. Mr. Handjinikolaou we will listen to you with great interest, you may have the floor.



Γεώργιος Χατζηνικολάου
Πρόεδρος, Τράπεζα Πειραιώς

Georgios Handjinikolaou

President, Piraeus Bank Group

Ladies and gentlemen, it is with great pleasure that I address the 7th Panhellenic Congress on the Development of Greek Agriculture, organised by GAIA EPICHEIREIN. At this critical juncture, in the era of Covid-19, the growth of the Greek economy is at the forefront as never before, and is directly intertwined with the transformation and modernization of the rural economy. Especially with regard to the agricultural sector, we are facing enormous challenges. A change that was born within the European Union, as the new Common Agricultural Policy, it now called upon to comply with the European Green Deal. This affiliation is expected to be the basis of the national strategic plans that the Member States will prepare for the agricultural sector. What are our tools? We have the European Green Deal and the Declaration on the transition of the European Union to sustainable development. At least 40% of the Common Agricultural Policy total budget should contribute to actions that enforce initiatives taken regarding climate change. This objective is indeed a major challenge. But the question is how we are going to turn climate change and environmental challenge into an opportunity for the development of agricultural sector and for the economy in general. **It is time for the primary sector to change and to take on an even more important role, -to establish a modern viable version of agriculture economically, environmentally and technologically advanced, friendly to healthy food system. This is to formulate an approach that allows the implementation of the strategy "Farm 2 Fork", through farmers' cooperation.** The European and the Greek farmers are called now to become an eminent factor for the implementation of this policy. The "Farm 2 Fork" strategy will boost sustainable food consumption and will ensure that all citizens will enjoy healthy, affordable food.

Ladies and gentlemen, the future is already here. The pandemic has accelerated developments. The agricultural world has to seize the opportunity and take immediate action, by modernizing crops, methods and techniques. It needs to become competitive in the international environment that exercises even greater pressure, to meet the needs of the market, and thus be able to reap the added value of the products produced. The decision is yours. The agricultural world must make the first important step, which is related to the adoption of modern technology. In other words, of solutions such as smart farming, rational utilization of machinery, proper use of resources, full utilization of arable land, but also promotion of renewable energy sources. Moreover, the agricultural world needs to open up and support the cooperatives schemes that create economies of scale, in order to have a stronger bargaining power. In addition, to become more competitive, the agricultural world has to learn how to respond to the emerging challenges, and to adopt modern targeted marketing techniques that are based on the branding that promotes and utilizes the uniqueness of the Greek land and the Greek products. **The Piraeus Bank Group, the largest strategic financier of the primary sector, is here in order to support you in every step of this path. We actively support Greek**

farmer, agri-food businesses and cooperatives of farmers. In what way? Through actions and initiatives at all levels, such as high quality banking, and the provision of advice and specially designed products. We have a complete range of products for the implementation of investments, such as:

- grant loans,
- investment loans,
- letters of guarantee for a discount on part of the grant, as well as
- loans for photovoltaics to create alternative, additional income

A prerequisite for all the above is the adoption of "smart farming". With our help, intelligent agriculture can help the agricultural sector function more efficiently. It is, and must be, the ally of all, in the implementation of the new Common Agricultural Policy. I mentioned the need for cooperation in the agricultural sector. Cooperation is a force and a factor of development, especially in the Agri-food sector of our country with the large number of small and medium-sized businesses. Piraeus Bank is, and will be, next to the Producer Organizations. We are by their side, offering them a development perspective, through specialized solutions, on a functional, productive, and commercial level.

Your goal is also our goal at Piraeus Bank. That is, to enhance your efficiency and competitiveness.

Ladies and gentlemen, Piraeus Bank, the Bank of the Agri-food Sector in Greece, is here today to support its transition to tomorrow.

As the foremost Bank of the agricultural sector, we continue, and will continue to play a leading role in the recovery of our national economy and the agricultural sector, supporting sustainable entrepreneurship and sustainable investment. To build innovative roads with perspective, to create value, and to provide high quality products and services to our customers. For the benefit of our customers, the environment, society, and our economy.

Thank you very much and I wish you a successful Congress.

Elli Tsiforou: Thank you very much, Mr. President, for accepting this invitation. Thank you for what you said, for putting emphasis on that are of great importance, sustainability, innovation and of course cooperation. Cooperation between farmers, but also between the stakeholders in the agri-food sector. It's the only way we can move on in terms of sustainability and development.

Prior to getting into the opening session of this Congress, I would like to invite to the podium the CEO of GAIA EPICHEIREIN, Mr. Ioannis Mavroudis, in order to introduce us to the different topics, the very important topics that we are going to discuss today from our perspective, from the perspective of GAIA EPICHEIREIN.



Ioannis Mavroudis

CEO, GAIA EPICHEIREIN

Good morning. I would like to welcome you to the 7th Panhellenic Congress of GAIA EPICHEIREIN, a conference that has become an institution for the agrifood sector in this country. Once again, we are having eminent personalities from Greece and Europe. Participants

today will present their views on the future CAP, especially on the political and technological developments that are expected to bring significant changes to the primary sector of the European Union and Greece and drive the developments during the new programming period. However, I would like to firstly refer to the trajectory of GAIA EPICHEIREIN, which has been parallel to this programming period. GAIA played a key role in the best utilization of the support offered by the CAP, both in the framework of the first and the second pillar to the benefit of the productive world of our country. In 2014, when we started our course, we created this coalition that is unique at EU level, at least until now. A powerful alliance between the Primary sector, represented by 71 out of the most productive and dynamic agricultural cooperatives of our country, the Banking sector, through the subsidiary of the Piraeus Group, Exelisi S.A., and the IT sector, represented by Neupublic S.A., the leading company in the development of digital solutions in agriculture.

GAIA started from an idea, continued as a vision that was served by continuous and meticulous work to turn it into a reality, being today but also in the future the leading body for the modernization of Greek agriculture. So we started from an idea that in order to shape and materialize it, months of consultation between shareholders were required. An idea that, when first presented, it brought a revolution in the way in which we perceive the primary sector and the dynamic role of involved stakeholders, opening the field for synergies that until then seemed unconceivable. An idea that brought revolution even in the vision on Greek agriculture, by putting forward as key priorities, in a punctual way, notions like knowledge, innovation, sustainability, entrepreneurship, digitalization. We are all very proud about it, GAIA EPICHEIREIN and all the shareholders as well as our partners, because both the European Union and the national authorities today have set a cross-cutting priority, digitization, acknowledging it as a precondition for our transition to the new era, the so called Green Deal Era. The productive world needs technological solutions to achieve environmental, social and economic sustainability. This is an era of complicated challenges, when a farmer needs more than ever high-efficiency digital services that will provide him with solutions both as a professional and a rural citizen. Please allow me to make a small distinction here: farmers, need more services, because the farming profession is quite difficult and demanding, leaving no room for bureaucratic adventures. **This is the political agenda of Greece and the European Union in 2020. Actually, this has already been GAIA EPICHEIREIN's agenda at the beginning of the previous programming period in 2014, when, in order to serve our vision for a sustainable and competitive primary sector based on innovation, we created throughout Greece a network of more than 100 centres to serve our farmers, the so-called Farmers' Service Centres. In other words, we created a private network of "citizen service centres", offering for seven years digital services based on cloud technologies to hundreds of thousands of producers, allowing us to say and prove that to us current political targets are already a reality that we serve with remarkable results.**

Let's take a brief look at what we have achieved per sector of our activity. At the end of the year, the first cycle our work as **Coordination & Technical Support Agency of the Application Reception Centres** in the context of assisting farmers in completing and submitting the Single Aid Application to the IACS. During the seven years completed this year, we have been the operational and technological arm for the implementation of one of the most important projects carried out on an annual basis in the country, as it concerns direct subsidies of over 2 billion euros to 650,000 beneficiaries, as well as payments at 40% of the Rural Development Program. Let

me remind you, therefore, that in the context of this project, we coordinated the largest network of technological services' provision in the country with 468 Application Reception Centres and over 3.500 simultaneous users serving annually more than 650,000 farmers for their regulatory obligations, without any other burden for the Greek state, with transparency, specific methodology and through the use of the most advanced technological tools. Nothing more is required than an internet connection for the user to be able to serve the Greek farmers. We have provided technological services, even in the midst of the pandemic, enhancing the transparency of transactions with farmers, providing e-invoicing tools to our partners, providing the most advanced debugging software to partners and implementing training programs for their partners as well as workshops on CAP implementation.

We performed all the above with absolute success, contributing decisively to reach the payment of the beneficiaries by 99+%. So, this should be acknowledged to all and mainly to the protagonists and invisible heroes, that are, the employees of our network.

During the current programming period we were also present in the second pillar of the CAP, the Rural Development Programme (RDP), this very important development tool for the primary sector in Greece. Up to now, 98 cooperatives and businesses participate in the Rural Development Programme 2014-2020, through the GAIA EPICHEIREIN network, offering consulting services to farmers and drafting files to submit proposals that are tailor-made. Approximately, 15,200 aid applications were submitted, in the framework of the RDP, with a success rate of integration and implementation reaching 91% out of the submitted proposals. We also offered regulatory and technical support to more than 4,000 producers participating in these actions, and approximately 115,100,000 euros out of the RDP resources, were absorbed through the network.

We didn't stop there, though. In 2014 we introduced the term "smart farming" in the Greek agricultural sector. At the time, many claimed that "this is absurd and not needed, farmers will never use these tools", that "farmers know better what to do in their fields, compared to any technological tool offered". In spite of all reactions, internal and external, **the shareholders of GAIA were quite consistent in their objective for the digital transformation of Greek agricultural production. Today we all feel proud and recognized, because the digital transformation of European agricultural production is a cross-cutting priority for the new CAP and the Green Deal.**

The primary sector from 2023 onwards will have to comply with the objectives of a greener and more climate friendly agriculture. Thanks to the implementation the implementation of Gaiasense, a "smart farming" system based on the know-how of the strategic partner from the IT field, Neuropublic, we already have the tools needed by Greek producers in order to adapt to the new era. Following four years of the Gaiasense program implementation, we have already presented very significant quantitative results that demonstrate its contribution to the sustainability by reducing inputs, fertilizers, pesticides and water, reducing production costs for the farmer, increasing productivity and improving the quality of the final product. For this work we have been praised by the European Commission and we have presented our work in Brussels and different European states.

However, we are present in the business development of the rural and cooperative world, apart from subsidies or aid schemes, by participating in agri-food synergies, to support the qualitative local products, through substantial support of agricultural and cooperative businesses and their integration into the new development law and the restructuring of their bank loans. By participating in the creation of innovative business schemes for the cooperative development, like the very recent example of the company LaSitia SA. On this case,

we joined forces with the company Inspiring Earth and RAIDESTOS Group to support a historic cooperative with high quality products, contributing to the repositioning of Sitia Olive Oil in the market on a healthy basis.

Last but not least, our high technocratic knowledge and our presence throughout the years in Greece and Brussels, was a catalyst in terms of information and support, first of all for our shareholders, agricultural cooperatives, but also it has been a catalyst to update and well document the developments in the primary sector of our country for all shareholders. We draft publications to this end, we organise many informative events, workshops and daily conferences, as well as this Congress, that is, for the seventh year in a row, the crown jewel of our efforts when it comes to the public debate on Greek agriculture.

Concluding this brief review of GAIA's activities, I would say that GAIA and its shareholders are ready for the future CAP, being powerful and ready to drive the new era of primary production, holistically supporting Greek producers, giving them all necessary tools for the implementation of national and European targets, as well as for responding successfully to their regulatory obligations.

I would like to come close by saying that the future CAP will be implemented in 2023, but this does not mean that we should not stay vigilant. The next two years will be a transition to the new era. A necessary transition, where we must be prepared by introducing new policies and tools that we will be invited to implement in the near future, being close to farmers, updating them about the challenges, opportunities and raising awareness about new tools. In this direction the enhancement of investment and policies supporting the development of innovative advisory services and digital solutions for the primary sector is a huge opportunity for this country, which should be seized already from now in the framework of the national Recovery Plan and Resilience Plan, as a necessary prerequisite for sustainable development for Greek agriculture, as a necessary preparation for the future CAP.

So, I wish us fruitful exchanges for the future for the primary sector in Greece. Thank you.

Elli Tsiforou: My warm thanks to the CEO of GAIA EPICHEIREIN, Mr. Ioannis Mavroudis. Seven years of continuous successful work and we keep moving forward.

OPENING SESSION

The CAP and the primary sector in the Green Deal era: EU guidelines and national planning

Elli Tsiforou: Let us now proceed to the opening session of the day, entitled 'The CAP and the primary sector in the Green Deal era: EU guidelines and national planning'. We are pleased and honoured to have as our keynote speaker the Minister of Rural Development and Food, Mr. Vouridis. At a very important moment, when the negotiations for the future CAP are under development. As the President of GAIA EPICHEIREIN told us a little earlier, we will soon have the trilateral discussions in order to reach a final agreement for a new CAP to be implemented from 2023 onwards. However, there are certain things that we need to do as of now, such as to draft the national strategic plan of the CAP and to provide support for the primary sector in the framework of the National Recovery and Sustainability Plan. All these very important topics are going to be discussed in this session. Therefore, I would like to firstly invite to the panel the speakers who are present here at the studio, the Minister, Mr. Vasileios Kokkalis from the opposition party, SYRIZA, and Mr. Alkiviadis Alexandrou, Deputy General Manager of the Agribusiness sector of Piraeus Bank. I would also like to welcome the speakers who are with us remotely, starting with Mrs. Svetlana Edmeades, Senior Agricultural Economist at the World Bank, Mr. Tassos Haniotis, Director of the Strategy, Simplification and Policy Analysis Directorate of the Directorate General for Agriculture & Rural Development and Mr. Alexandros Kontos, President of the Association of Agricultural and Cooperative Organizations and Enterprises of Greece (SASOEE) and former Minister of Rural Development and Food. We are ready to start. Minister, all eyes are on you. We are eagerly waiting to listen to what you have to say. You have the floor.



Mavroudis Vouridis

Minister of Rural Development & Food

Thank you very much for inviting me to this Congress. This Congress, organised by GAIA EPICHEIREIN, has become an extremely interesting institution, in the context of which we are given the opportunity to share and exchange ideas in an area of interest to all of us, and also see which what are the developments in the primary sector, see, in other words, what are the developments in the agriculture, livestock and fisheries, both at national, a European and international level. The topic I will develop today is how the Common Agricultural Policy is evolving. There have been two very important moments in the immediate past that concerned issues of the CAP. The first is when the Summit came to an end in the multiannual financial framework. There, you all know and remember that we were very anxious, because the European Commission proposal for our country provided for a cut in spending on resources for the CAP. We expected that there would be a reduction and that it would bring

us down to about 18.2 billion. These negotiations led to an extremely positive result for us. I would like to thank the entire Greek negotiating team of Greece for this, but first and foremost I would like to thank the Prime Minister, because he himself gave great weight and political priority in ensuring stable resources for the Common Agricultural Policy. So, we secured an amount of 19.3 billion. This is actually a very small reduction of less than 3% for direct payments and a significant increase of 8% for the Rural Development Programme. This, in any case, is within the general direction of the government and its philosophy, which wants to strengthen the investment environment, investments, mechanization, the digitization of Greek agriculture and the tool to do this is, first and foremost, the Rural Development Programme. So we have good news. It is important that we no longer feel this apprehension, thanks to the conclusion of the negotiations, and this allowed us to proceed to the second negotiation phase, which has now reached the Council of Ministers.

The Council of Ministers reached an agreement after many hours pertaining to major and central issues of the Common Agricultural Policy. What was the stake? What did we have to negotiate? What were the Ministers discussing? On the one hand, the very high environmental ambitions, that have been repeatedly articulated, and the need for the primary sector to contribute to the overall effort they are making – which is making the planet tackle the climate change. Therefore, these environmental aspirations had to be integrated in a practical way in the Common Agricultural Policy. The starting point of the German Presidency proposal, but to some extent also of the European Commission, was - and these were the two major points of negotiation - whether the so-called ecological schemes, the eco schemes, they had to be mandatory in 1st Pillar, ie direct aid pillar or not, or they had to be optional. They are optional for our producers anyway. Whether they should be optional for the Member States as well, so that the option remains open for the States whether to apply these ecological schemes to Pillar I. The second question was whether a specific percentage of direct payments should be determined, which should be binding on these green actions, and what that percentage should be. The proposal of the German presidency was that it should be 20% and the regimes should be mandatory. I want you to know that the Council of Ministers is not alone in this debate. The Council of Ministers takes a position and then we have to go to the trilogies. The trilogies are the debate between the Council, the European Commission and the European Parliament. I also want you to know the political context in which this debate is taking place. Because in the political environment, for example, the group of the Left in the European Parliament supports mandatory ecological regimes in the amount of 40%, and therefore of direct payments. To know exactly what this means let me elaborate, it means that if this 40% is not implemented by our producers, who optionally may or may not implement it, we will have a loss of 40% of direct payments. This, then, is the stakes of the debate and, as you can see, it is huge. It is huge in financial terms because it has a huge, heavy impact on the level of support of our producers. The position of the German presidency was at 20% and the question arose, which was the core of the negotiation -regardless of the starting positions of each Member State-, what will happen if this 20% cannot be "caught"? If in the end our producers are not interested in implementing such ecological actions. Will this percentage be lost? So will we have a 20% reduction in direct payments? There was a big, difficult and hard battle. That is why the negotiation lasted a long time, because the request of the Member States, but also the request -and the position with which Greece came-, was that flexibility had to be given. What does flexibility mean? Flexibility in case it is not possible to achieve the 20%

target, to transfer this amount to Pillar II, that is, in the development pillar. Or vice versa. **If Pillar II provides a higher percentage for environmental actions, "green" investment actions, then this additional percentage should be deducted from the percentage of the compulsory activities in Pillar I.** This was the point of a positive balance, in my opinion. A second point of great negotiation pertains to what will happen to small farmers. Therein, **the main argument is that small farmers need to be excluded from the compulsory character of these schemes, and the conditionality associated with them. Therefore, small farmers should not have to deal with this bureaucratic burden of complying with these obligations.**

There is a commitment that for small farmers there will be a special, far simpler procedure, with which we will have the identification of these actions and therefore, to a very large extent, small farmers have a much more flexible and much more efficient, for their own strengths and capabilities, shape, so they do not have to worry. This was another success of the negotiation. There are other interesting points that are more technical and that had to do with this negotiation, but in the end the Council concluded with this result at that time. Now, I believe that Greece has every reason to feel satisfied with the outcome of the negotiations in the Council. Of course, the negotiation hasn't finished yet. We still need to see how the debate at the European Parliament will go. I have to admit that the European Parliament is far more ambitious when it comes to environmental issues, so we are waiting to see exactly how it will balance and end this issue. And of course we have to put all this in a time frame, because the programming period on 31/12/2020 ends. We need to start the next programming period. It is certain that a transition of 2 years will be required. We will therefore have a transition of two years, from one programming period to another. It is important to come up with the transitional regulations in order to see exactly how we will operate in these two years.

Let me make one last remark. Discussion is now held about the "Farm to Fork" policy. About what the relation of the Green Deal with the agricultural policy, which goes through the "Farm to Fork" strategy, and where do we stand in this concepts. This strategy incorporates even more ambitious ideas about the environment: reducing the use of plant protection products, reducing fertilizers, increasing organic farming, and these objectives have been quantified, but only at European Union level. Thus, a very big question arises, which remains to be clarified in the future. Are the objectives set at Union level uniformly implemented in the Member States? There, for example, when we talk about the use of pesticides, reducing the use of plant protection products, will we take into account the different climatic conditions that require a different approach to plant protection? I do not think we can do otherwise, it must be taken into account. Will we still take into account the intensity of nitrate pollution in the soil, in order to decide our fertilizer policy? Greece does not have an acute problem of nitrate pollution compared to other regions in Europe that have much larger. So how exactly are the goals going to be structured here? This is a second, very large debate, which is ongoing, and it remains to be seen. What we have said in the first place, is that these targets cannot be converted into compulsory percentages, therefore they don't have regulatory character. There is, however, a second discussion, a position of the Commission, that these objectives should be integrated into the evaluation of the Strategic Plans. The reaction of the German Presidency, and of Greece, is that non-regulatory nature does not conform to compulsion, and cannot be taken into account for the evaluation of Strategic Plans, because in fact this is a technique to put compulsory character of the schemes through the back door. That is, in fact, in the Strategic Plan it tells you that "yes, these percentages are not mandatory, but I will still assess them and evaluate what you have done". Indeed, but that's how they were incorporated into the discussion. So, without resolving all these issues, I find it absolutely impossible to integrate and incorporate in our strategy the ambitions of the "Farm to Fork" strategy. However, in this strategy there are certain things that are of great interest to Greece.

Of course, we are interested in the environmental ambition, but I emphasize that there are two dimensions that need to be evaluated and taken into account. On the one hand, we need to proceed to a greener agriculture, but on the other hand, it is clear that we should never undermine the productivity and the competitiveness of farms. Undermining competitiveness and productivity, will signal, if we are not careful, a risk to our food safety. Therefore, all this must be done in a balanced and careful way.

And this brings me to something that is of interest to the private sector and of course to GAIA EPICHEIREIN that has taken the initiative, but also to other businesses, which are on the front line of digital technologies in the primary sector, because in reality what are we called to do? We are called to serve ambitious environmental objectives without jeopardizing the productivity, sustainability and competitiveness of the agricultural sector. That sound a bit like "mission impossible", doesn't it? That is, we are trying to do the impossible. But, in order to be successful and do the impossible, we need to extend and increase our technological capacities. So in fact, there are some critical and important things that the private and the public sector have to do jointly, which mainly means that we need to invest in research, agro-technology, digitalisation of agriculture, invest in smart and digital agriculture. And why am I saying this? Because the way that we are going to achieve all these, is based on the assumption that the pest management businesses will produce products that are both effective and more environmentally friendly. The same stands for safe and careful management of water resources, something that we had the opportunity to talk about with Mr. Kokkalis, which means that we need significant investments in irrigation infrastructure. All of this, is linked with the digital technologies in the field, which, in turn, maximise productivity and use of all inputs. All of this, is linked with the training of our farmers, so that they can respond to this changing environment, but also with the investment in research. All these together compose our strategy for the coming years.

I have repeatedly said - and so far I haven't been proven wrong, even when we talk about financial results - that Greek agriculture has a bright future ahead. This year, and I want to be just and fair, all the last decade has been a decade in which agriculture has been evolving in a positive way. Urban myths such as "we import everything and produce nothing" are collapsing. From a deficit of agricultural balance of imports-exports of agricultural products of the last decade of 2009 which was at 2.6 billion we have passed in 2019 to a deficit of 600 million. We covered 2 billion. This year I estimate that it will possibly close with a deficit of 200-250 million. If we continue like this, maybe next year we aspire to have a balanced agricultural balance, which proves that Greece is constantly improving its productivity. That is why I say I am optimistic that, if we continue on this path and serve this strategy, Greek primary production, in all its individual forms, our agriculture, our livestock, and our fisheries has a bright future ahead. Thank you very much.

Eli Tsiforou: We warmly thank the Minister. You have put us at the heart of the issues in terms of current affairs and background in Brussels, but you have also given us a very clear position on the strategic priorities for the immediate future. I would like, if it's possible, to ask you a question immediately, on the occasion of what you said and it caught my attention. First of all, I would like to ask you if in the next period of the trilogies, you estimate that there may be an issue that directly concerns Greece, a stake, a point of attention that we must support, and on the other hand, coming to internally - you mentioned that we have a two-year transition - what do we do during this transition period? You mentioned very important strategic priorities, such as the digital transformation and the green transformation, obviously always respecting the balance between economy and environmental, climate targets. What are we going to do in these two years to prepare the country's rural world to enter the new era of the Green Agreement? We also have the National Plan for Recovery and Resilience plan which gives a great opportunity to make investments towards the direction you mentioned.

Mavroudis Voridis: Look, as far as the trilogies are concerned, this discussion will take place. Our presidency will represent us - I'm talking on behalf of the Council of Ministers. Our presidency will represent us in this negotiation. The Council has a specific position, as already described. There is always this discussion that I put before you, and we will find it in front of us and in the trilogies. On the one hand, the high environmental ambition - of course, we all share that view and this is reflected in the fact that we accepted the obligation of ecological regimes and accepted the ring-fencing of 20%. But at the same time - and I believe this is quite rightful for the Council - we have an obligation as Ministers of Agriculture, as Ministers of Rural Development. We have to be cautious, on the one hand, on how our primary production will contribute to tackling climate change, but on the other hand, I repeat, we must not undermine, we must not adopt a strategy that will undermine productivity, competitiveness and sustainability of agriculture. We have to do both. It is not one way or the other. So, here we need a good dosing of aspiration and ambition. That is why, if we are excessive in that, we will end up undermining the objective of sustainability.

The second big issue that I would like to raise in this discussion, and I think that this is of big importance and is also highlighted in the position and the conclusions of the Council of Ministers, is that when the European Union negotiates agreements with third countries, and thus it gives to their products access to the common market -let us mention Turkey as an example of third country, but there are similar other countries-, then we must set the same prerequisites about the way products are produced in the third countries. That is, to be clear, we demand specific environmental standards from our own producers, and this is quite rightful, because we want them to follow good agricultural practises, follow all obligations. But we cannot demand from them to follow these standards for the environment and for more qualitative products, when we cannot open up our market to products from places where their own producers have not complied with any of what we claim for our own, because these standards mean a cost. These products are rendering our own agriculture less competitive - of course much more qualitative, much more aspirational, much more demanding and thus qualitative, yes; but quality means cost. So, on the one hand, these products may not compete with other products which do not abide by any such prerequisites. **This should be embodied, this should be incorporated as a general rule in all our agreements with third countries. Any country that will want to import their products in Europe, should have respected all these good standards of agricultural production and these environmental prerequisites.** So, I think that this is clear.

Now, when it comes to the transitional character and the transition. It remains to be seen what will be included in the regulations of transition. I would argue that in reality the general principal of this transition would be something like this: New money to old measures, but not new measures. So what are we talking about? That there will be money, but we are not going to take new measures, because new measures will take some time work and to be agreed upon once we have our national strategic plan. Let me comment on our strategic plan piece, I have already written to the Committee of Production and Trade of the Parliament, to discuss the first phase, and maybe the second one which I believe will be ready as well, of our strategic plan. The first phase is a SWOT analysis, that is, the analysis of strength and weaknesses in the Greek production. This analysis will give us a possibility to understand what direction we want to take in the future. I would like the Parliament to see this analysis, comment on that, participate and negotiate on that, since it is a crucial factor until we reach the final strategic plan. I need that to become a broader essence. In any case, there is a process of wider consultation on the strategic plan. The spread of Covid19 virus had stopped us for a while, because we cannot attend physical meetings and talk to them in person. It is one of the difficulties we face. But at least in the Parliament we would like to do so and I think that in this analysis we will find very interesting things about Greek agriculture.

It is an analysis that has been made by our counsellor in this strategic plan, the Agricultural University of Athens. Therefore, this is one of the steps to get into a positive framework. During these two transitional years, we are going to inject money into measures that we, more or less, know that will exist in the next Rural Development Programme. So, on one hand we shall finance measures that are already running with new money, but on the other hand measures we shall finance measures that are under development.

Elli Tsiforou: Thank you very much for these very useful pieces of advice and clarifications.

Now, let me give the floor to Mr. Vasileios Kokkalis, former Deputy Minister of Rural Development and Food, and Member of the Parliament for Larissa. You come from a region, from a prefecture, that has left its own historical trace in Greek agriculture. You have the floor, sir. We are listening to you.



Vasileios Kokkalis

Member of the Hellenic Parliament, SYRIZA, former Deputy Minister of Rural Development and Food

Thank you. Thank you for this invitation. First of all, I would like to deeply congratulate the organizers. You know, the title is quite eloquent, "The Opportunity of the Green Digital Transition for the Sustainable Development of Greek Agriculture". This is, I should say, to the point, and quite timely. But also it is very useful. Because farmers will be updated, they will be updated about the challenges brought upon by the European Green Deal. Of course, this is a duty of the State, what is going on today, such a conference, that is, in spite on the difficulties, of the pandemic. Public consultation and negotiating with the people of the primary sector should never stop, so that farmers, livestock breeders know the challenges.

Prior to commencing my speech, I would like to mention a brief poll that I carried out due to your Congress. Out of ten farmers, two didn't know anything about the European Green Deal, five knew the phrase, but it was something distant and unknown in their mind, and only three out of ten knew exactly what this was. What does this mean? Since we have the Minister with us, let me tell you. **Of course, the strategic plan should be brought to the Parliament, but it should be also brought to a real public consultation, so that our farmers, people who produce products, should get to know the new landscape which will be shaped shortly, and will be different compared to the one that existed 15 or 20 years ago.**

We should be crystal clear about it. It is an aspirational programme, the European Green Deal. And it sets very specific objectives to the benefit of the environment, and for tackling the challenge of climate change. In a nutshell, the objectives are: the reduction of pesticides by 50%, the reduction in the sale of the anti-microbial products for agriculture and animals, 25% of the cultivated land should be organic. Let me remind you that only the 8% of cultivated land today in the EU are covered by organic crops, thus producing organic products. The big question that arises and is on our lips: how can we, in Greece, be able to succeed? We must include all that in our strategic plan that will be submitted to the European Union.

Is it an opportunity for us, due to our country's obligation for this strategic plan, to prepare a national plan on Greek agriculture, on the primary sector? Wouldn't it be an opportunity, also due to the pandemic to set a priority without any political cost and talk first about the strategic assets of Greek agriculture and the necessary reforms that should take place? Isn't it high time we started a productive model for farmers, which has nothing to do with the obsolete model that exists in the past?

The new CAP, the European Green Deal demand a new model. Instead of being the last and the least, let us be the first. And let us set the model that will serve these aspirational and very interesting objectives of the European Green Deal. There are concerns, there is scepticism coming from the Member States, and our country, because the particularities - the climate, for instance, the soil - are different in each Member State.

Allow me to mention some key principles that should be included in the new CAP. The principle of the minimum guaranteed agricultural income, as a main priority for CAP. **The principal of connectivity and enhancement of aid schemes to production.** Minister, I think that we should clarify that, and I shall express the view than indeed there is a risk with this possible mandatory character of ecological regimes to affect negatively the aid schemes in case that all commitments cannot be met. Our country should and must submit the national plan on the primary sector, a national plan which will define, will stipulate, will take good care of farmers in 2030. Let us not forget that we are interested in new generations. The obligation and the duty of the State is to formulate policies about the next ten, twenty, thirty years. We must and we should, and I am concluding with that, carry out a timely and open update of the challenges in the agricultural sector, jointly shape a national plan on the primary sector, with basic principles, such as support for small farmers, small and medium-sized agricultural holdings. Allow me to congratulate GAIA EPICHEIREIN, and I wish you all the best with your conference, which indeed contributes, as I said, to these public consultations, so that the people in the primary sector world will be aware of the challenges ahead of the new CAP and the European Green Deal. Thank you very much.

Elli Tsiforou: Thank you very much, Mr. Kokkalis, for accepting our invitation. I would like to underline the basic message of your intervention, and that is that priority should be given to the update and provision of information to the primary sector world. This is actually the main objective of this Congress. Of course, other initiatives and more efforts will follow, both here but also in the Parliament.

And now, we will give the floor to the next speaker, Mrs. Svetlana Edmeades, Senior Agricultural Economist at the World Bank. If the other speakers allow me, I would like to thank even more Mrs. Edmeades, because she is connected with us from Washington, where all the eyes of the world are turned to. I understand there is a huge difference in time, but still, I would like to thank you very much for accepting our invitation for attending our Congress. We are eagerly awaiting what you have to say..



Svetlana Edmeades

Senior Agricultural Economist, World Bank

Good morning Mr. Vouridis, colleagues. Thank you very much for inviting me to participate in this conference on the development of

Greek agriculture. It is a great pleasure and honor to address the audience but also to be with the other speakers and share some thoughts about the future of agriculture, as well as the general context of the agricultural sector. Today, I will focus on the implementation of the process for the development of the strategic plan as well as on some points that we have observed in the context of our analysis of the European Union.

We are looking at the Green Deal and biodiversity strategies, such as "Farm to fork", and their targets will align with the objectives of the CAP strategic plans and how all of this heavy regulatory framework will be implemented on the ground in Member States, and now also how the Recovery and Resilience plans can provide necessary stimulus in the short term. Strategic planning process is complex, we all know this, but even more so in a context of changing regular frameworks and external shocks, such as the pandemic we are all experiencing. Striking a balance that has income smoothing, sustainability promoting and growth stimulating effect is extremely challenging.

In this context, I would like to address several critical points. **First, how can a balance be struck between incentives and compliance? How can sustainability targets be more effectively pursued and achieved through deprivation of incentives that can change both producer and consumer behaviour?** The strategic plan design framework is rightly focusing on performance and results, but it is difficult to reconcile that with the focus on impacts and broader targets of the Green Deal framework, especially when it gets to the level of the producer. One can ask and will ask what does this mean to the Greek producer, for example.

The challenge for us is to bring all these frameworks to the producer and support their ability to ensure sustainable production but also a decent income. At this point, at the core of all frameworks, is the availability of adequate environmental data that can be combined with agricultural production data to make the right inferences of formulation of both incentives and investments.

Also, at the heart of discussions and contexts, is **a shift in mind-set, of how the new green architecture can be utilised as a good business proposition, rather than as an obligation.** How the diversity of agro-ecological areas of the different Member States and their unique characteristics can be mainstreamed into sustainable production processes, recognising also the differences in the typologies, needs and requirements of producers.

And that brings me to the second point. For all this to be achieved, **we need to shift our thinking and policy formulation processes away from perceiving agriculture only as one sector to focusing on agriculture as a wide system where production decisions are driven by demand and respond to market and food security needs. When we look at agriculture's broader agri-food system, sustainability can be more effectively addressed.**

One might ask, how can we do that? One way of doing it is by effectively including small, diverse producers into value chains. **In our analytical work in Europe, we have found that small producers are among the most technically efficient producers.** Of course, so are many large ones, which is not surprising, due to economies of scale. However, **the critical element here is that the ability of small producers to scale up and grow and effectively link to value chains is very limited** and we observe what we call a "missing middle", lack of middle-sized producers to connect to the supply chain. This further exacerbates the problem of fragmentation. However, fragmentation is often used as an excuse rather than as an opportunity, especially when small producers are concerned. In the context of digital agriculture, where geographic distances are overcome through digital links. This is where the dynamic of aggregation lies that holds tremendous potential to ensure that there will be added value for products, but also even more opportunities for producers. **Producer organisations are critical for managing**

this process, for bringing together technically efficient small producers and enabling them to jointly access diverse markets and add value to their practice and activities, to create scale through aggregation. But, for this to become reality, not only a change of mind-set but also enabling conditions are needed. Some of these critical enabling conditions are, for example, public spending that recognises and promotes sustainable production at different scales and as a continuum. In other words, as part of an agri-food system. A private sector willing to access different financial instruments and innovate. A risk management framework that effectively ensures for the producer sustainability and resilience to risks and challenges. **Strong agricultural knowledge and innovation systems that responds to producer needs, that's demand-driven, not only as primary producers but also as entrepreneurs and environmental stewards.** This system will recognise that our producers have different roles and functions and not only do they produce, but they also sell, they also safeguard the environment. Therefore, they need the knowledge to perform all these tasks successfully. In order to do so, there is the potential that digital agriculture brings for effective communication but also for significantly reducing transaction costs. And all these have never been more critical than today, with continuous disruptions of our food supply chains due to Covid. We certainly need to rethink the value of short supply chains and the role of the agri-food system as a whole in the future.

I will conclude by saying that expenditure on the agricultural sector is necessary and should be increased. We need to wisely invest in sustainable agri-food systems to achieve the structural transformation and value addition potential of the sector and create diverse jobs along the supply chain and not only on-farm. And the potential that Greece holds is enormous. Thank you for the opportunity to make this brief intervention, and thank you for the opportunity to listen and support the Ministry with their strategic planning processes. Thank you.

Elli Tsiforou: We would like to thank you. I have personally kept in mind so many messages from your intervention. You have told us things that we all need to keep in mind in the times we live in, not only in Greece, but in the European Union, in general. You have a long experience, you have sophisticated methodology that you use in the World Bank, which actually gives the World Bank the opportunity to examine wider frameworks and systems. I kept note of the balance that we need to keep between incentives and compliance, the necessary change of mentality and mind-set as you said, but also the necessary conditions that we need to establish, in order to make agriculture more sustainable, by placing it in a wider system that we call agri-nutrition. And I would like to ask you a question, based on the role and the relation that you have developed with the Ministry of Rural Development, and based on your contribution to the drafting of the strategic plan for the new CAP. Can you actually give us an example of how all these are translated in an investment, in the direction that you described? In other words, direction that supports the agricultural revenue, but in a more long-term logic through more comprehensive interventions, in which the public and the private sector are involved? What could we do? Could you give us an idea?

Svetlana Edmeades: I am sorry, I could not hear the question in English.

Elli Tsiforou: It is a question I eagerly want to ask you. We listened to what you told us, the overall suggestions you made. You talked about the necessity to become more sustainable not only as an agricultural sector, but also more sustainable, in terms of the support we give to the private sector. A viability which, however, must be ensured in a broader vision, the agri-food chain. This is also a proposal of the European Commission through "Farm to Fork" strategy. I would like to ask you, based on the work that you have performed so far in collaboration with the Ministry of Rural Development and Food, if you can translate everything that you told us before into a concrete

example on how we could act towards this direction.

Svetlana Edmeades: If I understood correctly, your question concerns our cooperation with the Ministry of Agriculture, we are very grateful for the opportunity to work with the Ministry of Rural Development and Food of Greece. The object of our engagement, as the Minister mentioned, is the SWOT analysis. We will be doing the ex-ante evaluation of the CAP strategic plan, obviously jointly with the consultant, which is the Agricultural University of Athens. We will be doing diagnostic work on the agricultural sector in Greece, as we've done in other countries. We focus a lot on the efficiency, effectiveness and equity of spending. We examine the acquis, we look at the competitiveness of the sector to substantiate our guidance to the Ministry of Rural Development and Food through the development of a green investment plan. How do all these frameworks that I mentioned in my speech come together? All elements are important and must be combined, "Farm to Fork" strategy, bio-diversity strategies, CAP strategic plans and the essence of these concepts in terms of prioritization of investments in Greek agriculture. These are some issues, which we are examining in cooperation with the Ministry of Rural Development and we hope to offer all the necessary support. We understand that it is not easy to mobilize all the necessary investments. For this reason, some priorities need to be set in the short and long term. We should also consider approaching small producers, integrating them into the wider system. All this is a process that does not stop and we hope to continue the cooperation with the Ministry, which started two years ago. We hope to offer some helpful guidance regarding data and analysis. Thank you.

Elli Tsiforou: Thank you very much for your answer and for your participation. We look forward to get the results of your work through, of course, the Ministry of Rural Development. I would like to thank you once again, and now as we are about to connect remotely with the next speaker, Mr. Haniotis, I would like to seize this opportunity and ask the Minister and Mr. Kokkalis two questions coming from the participants watching the Congress online. First of all, the first question has to do with the provision of the information to the farmers, regarding the new CAP and if there are any relevant actions. You mentioned before the debate in Parliament, but I am assuming that the question regards specifically informing the farmers. What will happen in the immediate future, even in Coronavirus situation? And the second question regarding forestry, which is now eligible in the 1st Pillar in the context of ecological regimes. How are we going to include that in our new national agricultural policy?

Mavroudis Vordis: With regard to your first question, I said that within the very concept of the new CAP and the drafting of the strategic plan, we have ensured consultation with the farmers. We have had several meetings. I remember at least six or seven meetings that we had already organized with the farmers, and these meetings actually were very well attended. Of course, some of the meetings had to be postponed due to Covid-19. I hope that they will take place in the future. If not, we will need to find other ways such as, tele-conferences which, however, if we want to be honest, are rather limited, especially when we want to have a broad consultation. The ones we have held in the past, as I said, were quite large, there were over 100 or 150 participants in each. Everyone was very interested in the topics of extensive discussions. Now, this scale cannot be ensured in the context of a tele-conference. The capacity of tele-conference is limited. So, we face a dilemma whether we will have to wait for the virus spread's limitation to continue the thread from where we left it, or find some other new innovative ways.

Now, with regard to your second question. All the measures pertaining to agro-forestry as well, will be considered in the context of drafting the new strategic plan. So, we will have time to discuss about each measure, in order to see what we can include and with what budget. It is a very crucial and interesting debate. I would also like to say that we have drafted an agreement with the World Bank, which has a character of international agreement. It will be promoted by the

Ministry of Foreign Affairs, so as to be ratified in the Hellenic Parliament, and this will allow us to use the support provided to us by the World Bank, in order to assess the national strategic plan. It is something that will improve greatly the quality of our national strategic plan, and these are services that we want to use – of course, on the condition that it will be approved by the Hellenic Parliament. This is something that will happen in the immediate future. I hope that we will finish with the ratification process in the Greek Parliament by the end of the year.

Elli Tsiforou: Thank you very much for your answers and for this useful information. Mr. Kokkalis, would you like to add something?

Vasileios Kokkalis: I'm glad to hear that the first question has to do with actions taken for the information of farmers. I consider this is a major issue, Minister. Information to farmers, to stock breeders, and to all people in primary sector about upcoming challenges, is extremely important. Understanding which the challenges are, what they have to change, what they have to do in the coming 7, 8, or 10 years. And this can only be done by means of responsible actions, and of course with coordination by the Ministry. That's why I said that this Congress is very important. Because it is in this direction.

Elli Tsiforou: Let us resume, we have with us Mr. Tassos Haniotis. Good morning. Thank you for being here in this critical timeline to discuss about what's going on in relation to the CAP, the Green Deal, the agri-food sector in general. I think that there's no more appropriate person than you to put us in the European landscape and then let us have a correlation, as you are also an excellent expert on development in Greece, with the current situation and what Greece should do. We listen to you. You have the floor.



Tassos Haniotis

Director, Strategy, Simplification and Policy Analysis Directorate, Directorate General for Agriculture & Rural Development (DG AGRI), European Commission

Good morning. I'm very glad to participate even in remote connection. I listened very carefully to the Minister, Mr. Kokkalis and Mrs. Edmeades, with whom I also met yesterday at a conference on these issues. Let me start the same way that I started yesterday. There are currently two parallel important procedures that will set the tone on the discussions we have about the future of the CAP. Yesterday, the Prime Minister in his speech about the new measures and restrictions due to Covid19, talked about a worldwide crisis, both a sanitary one and a financial one. This highlights a holistic framework of discussion that is being challenged by a large part of the world. Unfortunately, a part much larger than it should be, is challenging knowledge and science. Why do I mention this? I'm bringing this issue before starting, because I think this is one of the elements that we must take into account. We should also take into account what you mentioned earlier, what's going on the other side of Atlantic. In Washington and Georgia, where I got my PhD, developments are crucial. One of the first statements done by Mr. Biden, was that upon his first actions as elected President will be bringing the U.S.A. back to the Paris Climate Change Agreement. What does this mean? It brings us back to another critical issue, polarizing people, which is

related to science and knowledge and that is the climate change.

The direction of the previous CAP was based on a data analysis implemented at a successful level of economy and social cohesion. In fact, the World Bank demonstrated these data through a survey in our own analyses. Furthermore, clearly we have talked about these sectors, where there was, to a large extent, a problem and some steps backward. These were exactly the sectors of the environment and of climate change. In the proposal we made in 2018, the main axis of the CAP direction was to acknowledge the sectors where we were successful and the sectors where we were lagging behind. Based on that, we would like to set specific priorities. This type of analysis doesn't only concern CAP or just the agricultural sector. **All developments over the last five or six decades are showing that financial and social development were to the detriment of the environment. What we have tried to do is to set some targets, nine specific targets, that is, environmental, social, financial ones. Through their own strategic plans, each Member State could enable a flexibility of implementation in politics towards a common direction, common as per the targets but also as per the measures available to Member States.**

What the Green Deal did, and what the "Farm to Fork" strategy did, was to quantify some of these targets but it didn't change our initial orientation. It linked more closely other policy and legislative provisions related to climate, environment or health, with the CAP, and set these targets at central European level. Minister was absolutely right when he said that we had to take into account the trigger point for each Member State, and we have clearly stated that this is what we are going to do. Not everybody is facing the same problem with nitrate pollution, emissions, diversity; but all Member States have the same need, i.e. to increase their ambition and their efficacy in these sectors. That is why our opinion has always been that, much more than the budget and percentage of an A or B measure that shall be offered to each Member State, what counts is what we can see in practice. When we are going to measure the consequences of these policies on soil, on land, on earth, on water, or bio-diversity. Exactly this is the essence, in which there are current discussions along with tripartite negotiations and differences between the Council, the Parliament and the Commission. We all agree at a general direction, but there are some partial differences when it comes to where focus should be given on. What are the challenges, especially in a country like Greece? When talking about agreements with third countries, we must clarify exactly what we want. Why? Because, when it comes to the safety level of the products that are being distributed in the EU, there should be no doubt that: whatever is on the EU market, is abiding by the same rules of European Union. However, when we are asking other Member States to respect our own criteria in a series of factors, these discussions should be more specific. And yet, it should be done, following these terms, according to which we must convince that climate change is a global problem that wants a global solution. There are number of other European Union's strategies in this direction.

What matters is that, when we see challenges especially in the recommendations we are preparing for the Member States on their strategic plans in late 2020, we should focus on these elements that are showing a positive direction and highlight them for each Member State. And then we must highlight where we are lagging behind, for instance use of antibiotics in livestock breeding and animal production. Animal welfare and compliance to the latter rules may not be a crucial challenge for every Member State, because obviously each country has its own offset. That also stands for the starting point for covering the gap in knowledge, implementation and perception – different starting point for each country. Later on this day, a female colleague of mine is going to talk, and I am highlighting her gender because one of today event's characteristics is that it shows how male-dominated the sector is. So my colleague will share with you about a number of facts about the use of new technologies in CAP controls. **A policy that wants to decrease the importance of controls and increase the importance of measuring**

performance, how can it use these new technologies so that the knowledge offered will enable producers to fill this gap.

Allow me here to mention some other elements that took place for the last two-three weeks. **There is no need for a Nobel Prize to understand that we have to find ways to associate the economy with the environment. But a Nobel Prize did remind to us that this matching raises tensions over food safety issues.** It's not a coincidence that this Nobel Prize was awarded to the World Food Organization and its World Food Program on humanitarian aid. It is also no coincidence that the Nobel Prize for Chemistry went to two female researchers who are developing new genetic techniques that not only help potential issues of human health, but also of plant and animal health.

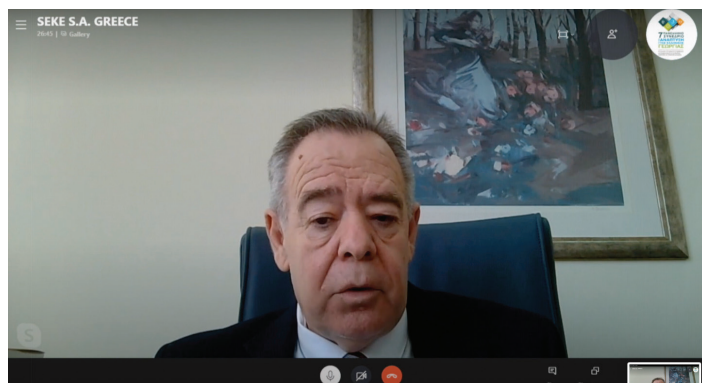
The connection of this knowledge that is already being produced with the practical implementation is a big dilemma we have. Because there is a series of producers who have already started entering the precision farming in all sectors. **Precision farming is not necessarily conventional farming, it is both agroecology and organic farming.** A number of methods and good practices that exist. But the main question: "What should the average producer do to implement these technologies?" is a tangible one. This question needs to be turned to something much more specific. Tomorrow and the day after tomorrow we are going to talk about specific measures in Greece. For example, if you want to send a text message, you must use a mobile phone, probably a smartphone. How many producers have applications on these phones today, applications that can give them the possibility to use these technologies? If they do not have these applications, should we blame them? Obviously, no. Should we blame the lack of an effective counselling system that will enable them to enter this process of transition to new knowledge? And exactly how all Member States – because it is not just Greece lagging behind in this field – will give the possibility to producers to understand why this process of increasing environmental ambition and the efficacy of agricultural sector, can be done simultaneously with an increase of their economic efficacy? Specific examples that exist – not broadly speaking on another planet, but in the European Union and in Greece – have been given repeatedly in our many conferences. What is missing is the dissemination of this information, so that everyone could make the best use of these new features. In this direction we have made a proposal to turn this software system of data, when it comes to agricultural businesses, into a network that will offer advice to producers, a system that will include new data on the environment and will better link these data to the provision of information towards the producers and to the provision of data towards researchers. Thank you so much for your attention.

Elli Tsiforou: We would like to warmly thank Mr. Tassos Haniotis. I would like to dwell upon the last point you raised, with regard to the network of data information. This is a very good example of solutions that will be beneficial to both producers and public administration. And I believe that this is just one example. There may be other ways to utilize the data in which producers and public administration can benefit from each other. I would also like to ask you something. We know that the Commission is currently processing deeper recommendations that will support the Member States in the effort they are making to elaborate their national strategic plans for CAP, among these Member States is Greece of course,. Based on what we know, we are very close to communicating this information to the competent Ministries. May you have something to share with us, with regard to how Greece should proceed with these recommendations?

Tassos Haniotis: I will start with the second question. What Greece should do with these recommendations, we will have the opportunity to discuss once the recommendations are issued. I also believe that no one should expect that the Commission will surprise us with these recommendations. The starting point is the identification and the analysis of the different data from the Member States, an analysis that is based on 9 specific targets that we have set for the CAP. We know which the

developments with regard to revenue and competitiveness are. I was glad that the Minister referred to the significant reduction of the trade deficit in Greece. I don't know if some of you may remember, but the first time that this change in trends appeared, I had presented it at a conference in Thessaloniki a few years ago. This trend now lasts 6-7 years, and it is clear that it is evolving. This is something to be attributed to the positive conclusions that must be drawn, in a country like Greece. In the future, Greece may have a very positive trade balance. Then we will have to examine what is happening in soil, in emissions, in biodiversity, in the use of antibiotics in animal feed or in herbicides, in a series of social indicators. On this basis, we will try to show to the Member States the areas which we deem as priorities. **Because if we are to make a copy-paste of the Commission's general announcements for the 27 Member States, it is obvious that we cannot possibly talk about national strategic plans.** So, the first important element is to find the right analysis, the so-called SWOT analysis – in Greece conducted by the Word Bank and the Agronomic University of Athens – and what they illustrate. This is where the discussion will take place. The second stage following these recommendations, is, of course, the public consultation that must take place in the first half of next year, when it would be clearer where the CAP is headed. I hope that we will reach a comprehensive decision, to see how the Member States will include the priorities in their national strategic plans. The most important element is, in my opinion, not talking about whether the A or B objective set by the European Commission is binding or not. The question is, does Greece want to increase the production of organic products? Does Greece consider that the fact that Greece is in better position regarding nitrate pollution –comparing to other Member States- gives the advantage of developing the sector more than others? This should be the topics of discussion and not whether this percentage should be A% or B%. Now, with regard to your first question, this network of data information. We have 80,000 agricultural enterprises representing 90% of the agricultural production in the European Union, already collecting data on their economic performance since a long time. The concept is fine. We are able to see what they are doing in the different agricultural sectors, such as breeding or production, and we also know whether they increase their economic efficiency. Shouldn't we be able to see what they are doing in terms of their environmental impact? We need to use 4 or 5 indexes that will be added to the available data and which will allow us to use them in order to clearly analyse the impact of the various policies we have to the goals that we set at the European level. We want that farmers can use on their own the advisory network -that differentiates from one Member State to another- and be able to compare themselves to the European average and see what they have to do in order to reach, or even exceed, the average. Moreover, researchers should be able to access that data and see what we need to change in our policy issues. This is a goal and an action that I hope will go ahead, in spite of the many objections met regarding the privacy of personal data. **In conclusion, I would like to clarify one thing regarding economic data. Protecting personal data is an indisputable right of every citizen. But when it comes to environmental data, this is a public good already provided by satellites. So I think this debate revolves around a fictitious dilemma.** Thank you very much.

Elli Tsiforou: We thank you for the further information you gave us. You also provided us with some useful clarifications. Now, we will give the floor to the next speaker, Mr. Alexandros Kontos, who is President of the Association of Agricultural and Cooperative Organizations and Enterprises of Greece, former Minister of Rural Development and Food. I would like to welcome you Minister. Thank you very much for being with us here today. You are a person with deep experience on the agricultural sector of Greece, both from the business side but also from the political side. In this particular panel, your intervention plays a very important role, because through that we can listen to the voice of the cooperative world. You have the floor. We are eagerly awaiting to hear what you have to say. You have the floor. We look forward to hearing from you.



Alexandros Kontos

President, Association of Agricultural and Cooperative Organizations & Enterprises of Greece (SASOEE), former Minister of Rural Development and Food

Thank you very much. I would like to thank GAIA EPICHEIREIN, because you had the courage to organize this Congress in this difficult conjuncture. This conference is very timely, because it is happening just a step before starting a new agricultural policy. A new agricultural policy that is a challenge. And the issue is how this challenge will turn into an opportunity. Let me tell you that each agricultural policy and each policy, broader speaking, is important once it can become practice for the people to whom it is addressed. In this case, it is very important for farmers themselves, and their organizations, feel the results of this policy. The new Common Agricultural Policy comes into a very important era, an era of big challenges. Quite rightly the European Green Deal becomes a priority, because we all live, we all experience and have experienced what climate change meant and means. We have seen extraordinary circumstances, volatility in international markets and, of course, we can see that there is a big trend of desertification of rural areas. So, first things first. Climate change, extreme weather conditions, this year and the previous ones, these were experienced by our rural production. Rural productivity was destroyed, people became despaired, cooperatives and other agricultural businesses couldn't work, markets perished. So, here lies the big challenge, how we can submit an integrated plan, on the one hand, through active protection activities, to protect our own production -either this is air cover or ground generators or hail nets to protect against weather conditions-, and then how can we strengthen the wages of farmers and how can we support different organisations in these conditions. So, our country should submit a strategic plan about how we can protect ourselves against the adverse conditions coming due to the climate change. Since we are talking about the climate change and the environment, here we should say that what should be seriously strengthened is infrastructure in the agricultural world. When we are talking about infrastructure, we refer mainly to water, because let us not forget that Greece is a country in which large quantities of water are poured into the sea. While at the same time, we have hundreds of thousands, or even more, drillings that are causing a huge environmental destruction.

A very big issue then, is to enhance our infrastructure. The respective activities, in the framework of the new project, should finally run. In the previous programme, there were no activities to use our water resources, so I believe that since we are talking about the environmental protection, it is of paramount important to look into the measures related to the use of the water resources. Since we are talking about the environment, let me raise another issue that we, as a business, do implement and that is smart farming. We have succeeded, in the two years we apply it, to have less fertilizers for our farmers, less pesticides while we use our water resources to a much smaller extend. Moreover, and this is very important, there was a timely update for our farmers, so that they can prevent adverse consequences due to weather conditions, either rainfall and cold, or extremely high temperatures. Let me also tell you that we must pay attention to the organic farming, not just to protect the environment, this is of course very important, because qualitative organic farming mean protection of the environment. It also means protection of the consumer, protection of the producer and, because more and more we have a big market, that it becomes bigger and bigger, an international market. Our

own products may get a bigger added value since they are certified. So, yes, our direction is qualitative farming, organic programs, integrated management, certification, and this must be one of the directions given and set in the agricultural production.

Allow me to say something more. We must pay attention to the new CAP and issues relating to packaging, standardisation and promotion of our agricultural products, because we must never forget that a part of our agricultural products unfortunately still are exported without proper packaging. They are exported in big packages, they are bought by other countries, which distribute them with their own brand name, using their own identity into the markets. So for sure, the different programs should run in relation to the creation of standardisation, packaging, industry, transformation, processing, so that our own products properly packaged and standardised may get into the international markets.

Furthermore, let me stress something of equal importance. The ones that should be supported through the different actions of the new CAP are the farmers who are producers. We must pay attention to production. And of course, we must strengthen new young farmers, younger farmers, because in Greece we have many farmers at a small scale. We must enhance those producing at a mountainous region, or at insular regions. Young farmers are the future of Greek farming, of Greek agriculture. Thus, we must have swift approaches, supporting these young people, through EU money, but also through special projects. We must enhance the liquidity of these people, and of course this is a task that should be undertaken by the Greek banks.

Finally I would like to make a special reference to the cooperatives, the producers groups, the collective schemes of farmers. If we need to implement smart farming, if we need to implement programs of qualitative farming, if we really can penetrate the market, then a necessary prerequisite is to have a volume production-wise proper qualitative products, standardised products. Here lies the role of cooperatives, of collective actions. The State should realise, that if we do not support cooperatives, if we do not enhance collective actions, and efforts in farmers, through proper policies on behalf of the state, then what we are discussing is quite difficult to implement and it's very difficult to have a substantial result. I know that errors were committed in past. But right now, there are powerful cooperatives which truly support our agricultural production. And let me tell you something more. They support the Greek economy, because even the last kilogram of agricultural product conveyed through cooperatives, transferred through cooperatives, is transferred in an absolutely legal way. So, through European Union programs, through different activities of the Greek authorities, we must enhance the collective actions of farming. Because I have always believed that this is a way out for the support of the Greek anonymous small farmer.

In this framework, and having shared these thoughts with you, I would like to thank again GAIA EPICHEIREIN for its effort. I think that this Congress has a lot to offer. It is a very difficult economic conjuncture, and I wish quite shortly that we shall have the opportunity all the things that we are discussing, many of which are difficult to comprehend, to be realised by Greek farmers. I wish that we will be able to convey that to Greek farmers, so that the new CAP, as I said before, from a big challenge to become a true opportunity with specific, measurable, positive results in favour of Greek farmers living in rural areas to the benefit of the Hellenic economy. Thank you.

Elli Tsiforou: Let me deeply thank Mr. Alexandros Kontos for your substantial contribution to this discussion. Obviously we do agree with you with the very last message that you convey to us which matches the message that was sent to us from Spain by the President of COGECA, Ramon Armengol. Cooperatives, collective schemes are a catalyst, so that we can transfer all these difficult in their approach priorities to the producer, to the level of a small-medium producer. So, there is a diachronic meaning to enhance produce and there is a dynamic role to play in the future. Thank you so much.

Now, let us proceed to the next speaker, Mr. Alkiviadis Alexandrou, who comes from Piraeus Bank. Mr. Alexandrou is Deputy General Manager in Agribusiness Sector of Piraeus Bank. The President of Piraeus Bank was with us this morning. We are in an era of sustainable banking.

So, it would be very enlightening to listen to you, so that you can explain to us what sustainable banking means and what this means for your bank specifically. That is new era, the era of the Green Deal, which is our topic. You have the floor, sir.



Alkiviadis Alexandrou

**Deputy General Manager, Agribusiness Sector,
Piraeus Bank**

Good morning. In turn, I would like to thank GAIA EPICHEIREIN for the invitation to address this Congress. It is a great honour to be here today. My intervention is the last intervention of this session and the objective is to provide answers to the basic questions, pertaining to the Common Agricultural Policy, the European Green Deal, the international relations in the agri-food business, and of course our own neighbourhood, our own country, our own farmers and agricultural cooperatives, and all the pillars related to the primary sector. We are here today to try and attempt to provide answers, and also explain to us our own approach. I will show you some slides, because I believe that pictures are very useful. I have divided this intervention into two parts. The first part will provide you with some information about the general framework, information on what's going on in the financial sector. We will also focus on Greece. We will see what the producers and the farmers need to keep in mind and what they need to talk about with the Greek banks in order to have an advantage compared to the other countries. And another part, which is more practical and which is part of the Recovery Fund and also of the interventions that have to be made in the future, what does Piraeus Bank suggest, so as to continue playing a decisive role in the developments, and to reach all together to a result that will be beneficial to the Greek the economy and to all interested parties.

So, I would like to start with the first slide. So, on this first slide, there are not a lot of things to say. There have already been covered by the previous speakers, and I don't want to repeat the same things. Basically, here you can see the depiction of the European Green Deal, and what we should keep in mind is that there will be a financial transition.

So, apart from the public sector, that will play a role in the future, it is clear that the private sector will also play an important role. It is clear that we need to set the foundations for sustainable investments. These foundations have to be strong. Corporate governance will play an important role, with regard to that, and we have to keep this in mind, when we talk about agricultural schemes. It is not easy to ensure corporate governance, but as we proceed to the future, we need to keep this in mind, so as to establish a sound corporate governance. Also, the private sector will meet a lot of challenges pertaining to the climate change, and all these challenges will have to be included in the financial system. In other words, we need to see how a bank can contribute to the management of this type of risks and challenges, how ready the banking system is to do that, and how easy does the banking system convey these messages to the farmers and to the interested parties.

Here, you can see the second slide. Here you see how difficult or easy it is to find funds. Where can we find those funds? We all know that right now liquidity is at a very high level. However, we need to see that there are different parties involved. This is a slide that I got from a presentation given to Mr. Antonio Guterres, General Secretary of the United Nations, by 8 big businesses that had to provide answers about the future with regard to climate change. And we can see all the different parties, be it investment companies or mutual funds or private businesses or credit rating agencies - in other words, the agencies that actually say whether a company is

doing well in terms of credit- and of course the recipients of the funds, the businesses, the agricultural cooperatives, and the different associations, and it is important for all to agree on a sound utilisation of funds. Since we are talking about a sustainable future of the European economy, the only way that we can assure the sustainability, is by ensuring a sound utilisation of funds. We all have a role to play. That is why we need to identify the roles. So we have to ensure that, and we will see how.

Let's see now, how the financial system perceives the different parties in the agricultural sector whether they are farmers, commercial enterprises or retail businesses. And of course, this shows that the access to financing is difficult for farmers and agricultural associations, because it is, it has great risk. Of course, this is not true. Because we know that by implementing the right practices, both the agricultural business and the banks get better score in terms of assessments.

Now, the different fund providers, which are the risks according to them in the agricultural sector? What do we examine and why should we all give our best in order to find the right solutions in terms of financing? How can we actually reassure those who are financing the agricultural sector, so as they don't feel threatened by the risks of production, commercial risks or fluctuation risks. Because all these are theoretical risks, these are the risks analysed by banks and creditors. But, we also need to make this analysis, in order to be able to provide solutions, both in terms of funding but also in terms of trade and of business. We need to be able to have a small agricultural association, for example, or a small farmer informed about these risks. They need to be aware of the different risks and challenges, they need to be aware of everything that pertains to everyday life. And we need them to be able to deal with the challenges that emerge.

Now, with regard to the Common Agricultural Policy, today and tomorrow, what do we need to remember? We need to remember that 2014 to 2020, or rather to 2022, as it has already been said, the Common Agricultural Policy aims at the provision of direct payments and subsidies, on the basis of the agricultural criteria that have been set. Essentially, Pillar II has more or less application in our area of interest. It is up to us to shape the next day. The point is that in the future, we need to be focused on performance. We need to use indicators pertaining to revenue and performance. And we need to embrace these indicators. We shouldn't be afraid of them. These are the indicators used by different actors, like the banks. These indicators allow us to have a clear idea of what is needed and of what we can do in order to assure a sustainable agricultural policy.

In addition to the cross-sectoral goal of innovation, digitization and knowledge, the so-called AKIS (Agricultural Knowledge & Innovation System) previously mentioned by the World Bank representative, the goals of the future CAP are more or less the same. So, apart from this general goal that concerns us all, we set specific goals - more specific goals will probably come in - which will be proven to be achieved through some indicators. Take, for example, support for sustainable agricultural income and resilience across the Union to enhance food security. That's a goal, a bit abstract in theory. Practically, though, what do we want to see? What is the percentage, which is expressed through an indicator, farms holding risk management tools of the Common Agricultural Policy? So, we prepare for what is to come, we work on it and knowing that more or less something like this will be asked, we seek to find how we will have the highest percentage of achievement. How can we catch the highest number, which will of course come through the continuous improvement of our daily lives.

Some other indicators, are in the next slide. I'm not going to give you too many details, I'm just going to touch upon the attraction of young farmers. We are basically talking about the future. What do these young farmers ask from us? What is the number of these young farmers? What is the support they need from the common agricultural policy? All these are factors that we take into account and that we analyse, in order to be ready in 2023.

Thank you very much. I would like to thank GAIA EPICHEIREIN.

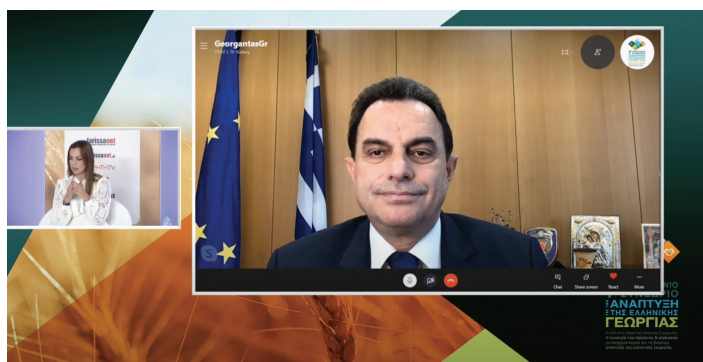
Elli Tsiforou: We would like to thank you. I think you put us in the middle of the Bank's rationale, which is fully prepared for the new era, it seems. We hold these proposals. Unfortunately we do not have more time for discussion. To warmly thank all the speakers. I think we could not have a better introduction to the topics that will follow and that will focus a little more specifically on all these big topics that we developed this morning. We close here, thanks again. In a few minutes we start with the first thematic unit.

1st THEMATIC SESSION

Smart Farming – Smart Advice: the digital catalyst for a more sustainable and competitive agriculture

Elli Tsiforou: Dear participants, we are back for the first topic on "Smart Farming – Smart Advice: the digital catalyst for a more sustainable and competitive agriculture". I think it became clear to all those who attended the opening of the conference, that smart farming, the digitization of the production process is the catalyst for us to achieve the very ambitious goals of the Green Agreement which the Greek producer will be called upon to implement through the future Common Agricultural Policy that is quite close to us. To discuss all these issues we have a panel of very prominent speakers. Initially, in a very short time, we will be remotely connected with our keynote speaker, the Deputy Minister of Digital Governance, Mr. Georgios Georgantas. Next to me, in the studio, is Mr. Fotis Hatzipapadopoulos, President of NEUROPUBLIC, one of the strategic partners of GAIA EPICHEIREIN that brings to the fore the technological dimension and especially the know-how of smart farming. Next to me is also Mr. Ioannis Haniotakis, Senior Director of the Agricultural Sector Operations Development at Piraeus Bank and member of the Board of Directors of GAIA EPICHEIREIN. We will soon be connecting remotely with Denmark, with Mr. Jens Elbæk, Director at the Crop & Environment Innovation Centre, SEGES. And we will also be remotely connected with Mr. Giannis Maniatis, professor at the University of Piraeus, former Minister of Environment, Energy and Climate Change.

We are ready to welcome and listen to the Deputy Minister of Digital Government, Mr. Georgantas, after thanking him warmly for accepting our invitation to be the keynote speaker in the first thematic session of our Congress. Mr Georgantas, you have the floor.



Georgios Georgantas

Deputy Minister of Digital Governance

Good afternoon. I would like to thank you for inviting me to the Congress and I would also like to congratulate the organizers on its organization. All the previous interventions have been excellent, of very high-quality, and I'm sure that all of us will become more knowledgeable after the end of this congress. And we will thus be able to ensure the digital transformation of the country, digital transformation of the agricultural production and of the primary sector in general. And this digital transformation will allow us to make up for lost ground and make the Greek agriculture, fishery and livestock more competitive and more efficient for the producers and for all. In a very difficult global conjuncture, there are certain conditions that are unique for a country. These conditions have created a unique opportunity, an opportunity that has been realized by all, by the government, by the institutional bodies, by the producers themselves. And this opportunity has made clear that now we need to play our role, so as to change the production model of our country. And of course, we need to change the primary sector, the sector that is the main driver of growth, the backbone of our economy and of our countryside. We need to strengthen our primary sector, so that it can play the role that it can.

In this major effort that we are making, and that we will continue to make in the coming years, an important role will be played by our own Ministry, the Ministry of Digital Governance. Our Ministry is called upon to contribute to all the operational plans of the different Ministries, to all the different aspects of the Greek economy, just because it has this central and guiding role that is absolutely necessary in order to create these conditions that will allow the digital transformation of the public administration and of all the production processes. So, in a smooth cooperation, with the Ministry of Rural Development and Food, that has the operational responsibility for all the actions, we are trying to play our part, by providing the necessary information, the technological infrastructure, so as to ensure the added value needed in order to **create the necessary conditions, that will allow us to meet the objectives, on the basis of the three axes.**

The first axis has to do with the simplification, with the redesign of the administrative processes pertaining to agriculture, livestock and fishery, and with anyone that operates in these sectors. It is known that the public administration has many bureaucratic problems and that creates a lot of difficulties, and also a lot of administrative burden that makes the lives of the citizens difficult, in this case those who are operating in the primary sector. All these bureaucratic problems are actually a waste of time, of energy and of resources. That is why we have designed, along with the Ministry of Rural Development, several platforms, and we will develop certain registries that will simplify the administrative processes and will reduce the administrative burden for everyone involved. Later I will mention some specific projects that have already been developed for the short term and the long term, always, as I said, in cooperation with the competent Ministry.

Apart from the administrative burdens, there is the need to support every effort that is being made to use the best practices, which are absolutely necessary, since they allow us to provide the producers with the information they need, so as to minimize the cost and improve the result in the production process. It allows them to get the specialized information they need, in order to have better management of the energy, better utilization of fertilizers and better utilization of all the available information and data, so as to improve the quality of the production process. **This is an approach that concerns not only the big holdings, as some may mistakenly think.** Undoubtedly in big holdings, in farms, it is easier to provide added value on the basis of these practices. But, apart from the big holdings, we have the small holdings, which are a characteristic of the Greek primary sector. The contribution of technology and science is absolutely important and useful, as we can have information that will probably change the direction of productive action, the direction of the type of cultivation, the way of cultivation. So, it is imperative to ensure the best utilization of the available tools.

In order to allow farmers understand how useful technology is, I use a specific expression. It is as if a farmer can walk across the farm 100 times a day, in order to identify the points where interventions need to be made or the plants that require certain medicines or plants that require more watering. **What our grandfathers used to do themselves, walking around the fields and knowing every single plant, exactly where and what type of special care was required by each plant. Of course, this cannot be done today, due to the large size of the farms and the holdings. New technology has taken this responsibility now. Technology allows the farmer to have a clear view of the holding, of the different needs and, by doing so, the farmer can make the smallest intervention and get the best possible result – and, therefore, a truly competitive rural economy.**

The third sector where these platforms are very useful, as is the technology which has already started and intervened in the process, is the sector of standardization and promotion of the products. So, we have three very important fields, where the dig-

ital transformation, the collection of data and its dissemination to the producer or to the trader play an important role. There is the sector of the administrative processes, of production processes and then of manufacturing standardization and marketing.

Our Ministry is currently drafting the so-called "Digital bible". Very shortly, the competent Deputy Minister, Mr. Grigoris Zafiropoulos, along with Minister Kyriakos Pierrakakis and myself, will present this digital bible, which shows clearly the forecast and planning for those necessary digital projects, which will create the necessary infrastructure and will help or contribute decisively in this direction that our country is obliged to take.

We are talking about 28 projects that have already been designed for the primary sector. The Ministry of Rural Development and Food has the responsibility, of course. We work with the Ministry of the Rural Development in order to provide all necessary support but at the same time we have taken our own initiatives, especially with regard to administrative processes, which is the main scope of our Ministry. Please allow me to mention some of these projects, so that everyone understands the magnitude of the effort and the direction that we have taken. We all need to accelerate the processes and the efforts, since we have some time limits. We need to accelerate our processes for the digital transformation that will allow the change of the production model of the country. The time is limited, the needs are many, and the distance separating Greece from the other European countries is unfortunately great. The financing tools are available now, so we need to make the most of them and manage in the best possible way the opportunities that arise.

So, some of the projects that have been designed and will be implemented in the short term or in the long term are, first of all, with the redesign of the processes followed by the Ministry of Rural Development and Food. It is absolutely necessary to simplify these processes so that anyone that wants to use the available financing tools can do that easily, so that farmers will not feel excluded from these processes or unable to follow them. In this context of administrative processes, there is the necessary digitalization of the processes followed by the Ministry of Rural Development and Food. And, of course, another project that aims at the creation of a hub for the collection of geospatial information -a repository for the agricultural sector-, is the project for the development of the digital system of primary geodata.

This will make it possible to make real use of the infrastructure and agricultural backgrounds of the national digital map and to make the necessary interfaces to create the tools that will transform existing management processes and utilization of agricultural information, upgrading the services provided and making management more efficient and effective.

As we approach the productive process itself, there will be a pilot, online tool for smart farming advice to producers. The proposal for the new Common Agricultural Policy stipulates that by 2024, at the latest, farmers who are beneficiaries of subsidies and payments should be provided with these online advice tools on the sustainable use of nutrients in crops, with a view to protecting the environment. To this end, an online tool tailored to the profile of each industry should be made available to producers. The European Commission has already designed and made available an implementation model that could be implemented for this purpose, gathering the necessary data and calibrating relevant features for the development of farms and balances of nutrients.

Please allow me to mention the digital charter of the agro-nutritional wealth of the Greek countryside, which envisages the creation of a repository of the agricultural wealth of the territory with emphasis on the top products, the PDOs and will have as main goal the highlighting of local peculiarities but also the value of local and traditional products of agricultural production of each region. Very important, I think, which can be done in combination with the needs we have in relation to tourism in our country. Of course, many actions are related to the digitization of the activities of ELGO-DIMITRA for the provision of the best services. These projects that I mentioned to you are indicative, there are 28 in total projects that have already been planned. They are going to be implemented in

the near future. These projects are absolutely necessary for the competitiveness of the Greek economy.

We can no longer talk about a positive course, both for the economy and for the producers of the Greek primary sector, if we cannot combine these practices, if we cannot achieve the best results at the lowest cost, if we cannot utilize science and technology and information technology in this age, which is being created.

I know that for many, at least for those who are not very familiar with what we are talking about, it sounds rather strange to hear that technology can play a decisive role and can assist the agricultural economy, the farmer, the producer, the cattle breeder. I believe that those who are truly and enthusiastically involved in these activities are convinced that this is an absolute necessity. The young farmers, I believe, have the skills that are necessary for them to serve this objective, but, in any case, the enhancement of digital skills, for those who haven't developed them as much, is a priority of the central administration. And there will be specific projects that will ensure this enhancement of this digital skills. But the point is also that each farmer has to leave aside this obsolete production model and understand that in the effort they are making to get the possible result, they have technology and information and science as an ally.

So, I believe that this is a bet that we need to win as a country, a very important bet, a national bet. And if we want to win this bet, we need to include all the interesting parties. The institutional bodies, the market, anyone that is involved in agricultural production. And, I would also like to say that actions like today's Congress contribute a lot to this effort, since they allow the dissemination of ideas, of knowledge and information. And, I believe that, by the speakers that I had the pleasure to hear, there have been some interesting points raised, and I can see that there we do conclude on what is the path we need to follow. The path we need to follow is specific, so what we need to do is to find the best practices and the right speed to proceed on this same path in order to ensure a better future.

Thank you very much for the invitation. I would like to mention once again that our cooperation with the Ministry of Rural Development and Food is truly efficient and productive for both sides and I'm sure that in the near future we will have the opportunity to have more targeted, more focused discussions in person. Thank you very much.

Elli Tsiforou: We also warmly thank Mr. Georgantas, the Deputy Minister of Digital Government. I think -if you will allow me this comment- that we will all agree, that it is very symbolic that a representative of the Ministry of Digital Governance proposes such concrete solutions for the rural world. It expresses the spirit of the times, the European Union has taken this direction. We see that agricultural policy and digital policy meet. They meet under the objectives of the Green Agreement and the CAP and we are very pleased with the position of Mr. Georgantas and that we heard some first information from the projects that we are going to see in favor of the primary and wider agri-food sector in the Digital Transformation Bible. Let me pause for a moment to start the discussion, in the three pillars mentioned by the Deputy Minister. The first pillar of governance: in the next thematic session we will have the opportunity to focus on the issues of governance and the simplification of bureaucratic procedures for producers and for public administration. In this session, however, we focus on the second and third pillars, especially the second, on how to digitize the production process itself and consequently the agri-food chain. Unfortunately, there is currently no technical possibility to ask questions to the Deputy Minister, we will come back later.

So we move on with our next speaker, Fotis Hatzipapadopoulos, President of NEUROPUBLIC, our strategic partner in the field of information technology. He will tell us about our many years of experience in the development of intelligent agriculture through the Gaiasense intelligent agriculture system, a system which, without wanting to "bless our beards", is known throughout the European Union. We have been invited many times to present it, not only for its business conception, for the fact that it answers the big puzzle of how to bring smart farming close to each producer, but also for the fact that it has brought concrete results. Fotis, you have the floor.



Fotis Chatzipapadopoulos

President, NEUROPUBLIC

Thank you! Thank you for this introduction! It is the 7th Congress of GAIA. It is a very big moment, and the conditions for Greece, but for all the world, are different, are very extreme. But, maybe this could be a pretext to accelerate our work, our developments. I have some slides that will allow you to understand better smart farming. We have heard a lot about smart farming today by the different speakers who have taken the floor. What I would like to touch upon of everything that has been mentioned about how we approach smart farming, is the business model, that we have called smart farming as a service. It is an innovative model. The characteristics of this model are: first, that it enables even small farmers to implement smart farming without the complexity and the financial risk often associated with it. So, this is a bet that we have won in Greece. We have created the necessary infrastructure so as to provide smart farming as a service with a rather small subscription cost. What I would like to underline in my intervention right now is another characteristic, the hybrid characteristic of our service, which I believe is crucial and important, if we want to overcome certain obstacles that pertain to the assimilation and effectiveness of the service by the producers themselves. But let's move on.

Smart farming has a main objective, to help the producer increase the profit and at the same time ensure the reduction of the environmental impact of their activities and maximization of the quality of the agricultural product. In other words, three in one. How can they do that? First of all, in intervening in two crucial processes of the productive activity. The first one pertains to decision-making. Which are the decisions taken by the farmer in the field? The second, how are these decisions implemented correctly in the field? Smart farming uses three different categories of technologies to ensure the two objectives mentioned. First of all, the technology of the utilization of the available data and the available scientific knowledge, and technologies that have to do with the precision of the implementation of decisions in the field. So, three different types of categories.

In the market, there have been two terms that are commonly accepted, smart farming and precision farming. Precision farming places emphasis on technologies that have to do with the precision in the implementation in the field, and it is an emphasis that has been placed, especially for big farms and big holding. And then, there is also smart farming, that places particular emphasis on the improvement of decision-making. And this pertains to all sizes of holdings and countries like ours, of the southern European area, where we have this great fragmentation of the agricultural clergy.

Now, with regards to the data collection process. Data collection is ensured by different ways. With sensors in the fields, with the utilization of software, with equipment on the different machines. But at the same time it is done with the utilization of agronomists and scientists, who can collect data from the farm that cannot be collected otherwise. This is exactly what we are doing with Gaiasense. In other words, when it comes to data collection from the field, we use not only the technological means, but also people. And these people use specific tools, so as to give as a more precise and correct picture of what's going on in the field.

This is the first stage of the smart farming process: data collection. The data that is collected gives us a complete view of what's going on in the field. This very useful information both for the farmers, and the agronomists and the farming advisers. Because, based on this information, they can make the best possible decisions. It is an information

that is extensive, information that wasn't available before these technological advancements. So, by achieving this first stage of process -collecting information and data-, the next thing that must be done is to utilize this data information in the best possible way.

The decisions that a farmer has to make are made on the basis of different time periods. The farmers need to take decisions before the cultivation period, during the cultivation period and after the cultivation period. All the decisions taken throughout the different stages are particularly crucial both for the financial profit, but also for other objectives that have to do with the environmental impact and quality of product.

The technological possibilities provided to us by technology and science are of paramount importance, meaning the available technology and science -at an operational rather than a research level-, are limited to their contribution to a part of decisions, critical decisions, but a part of them that is called to take producer during the growing season. For example, when to water, when to spray to protect plants, and when to fertilize during the growing season.

This is the part that Gaiasense's service covers in a mechanistic way, in an automated, algorithmic way, and the knowledge management technologies are fully utilized to reach these recommendations produced by the producers.

However, there are other decisions that the producers need to make in order to get the best possible results. An important role is played in these decisions by the farming advisors. The farming advisers have all the necessary data and information that allows them to give the best recommendation to the producer. And then the producer not only makes the best decisions, but also implements them correctly in the field. You know, when there is advice, a recommendation provided by a system or by a scientist, and this has to be implemented. There are usually some practical issues that need to be resolved. For example, someone says that the best chemical formula is this one. But this chemical formula may not be available on the market. So, what's the alternative? How can they adjust this recommendation, coming from the scientist or from an information system, to the real needs?

In this process, the role of the agricultural consultant is crucial, since they guide the producer to do, what we call, a practical transformation of the recommendation into what is practically applicable in his field and after that implementation, to give feedback to the system with the results of this action. If this cycle does not close, then the decision-making process is really meteoric and usually does not lead to the desired result. This is something that Gaiasense takes care of and we have included it in our design and that is why we characterize the service as a hybrid, because it focuses on how to make the best possible use of the technological possibilities with the scientific possibilities of professional consultants, so to provide a comprehensive service that will give the best result in practice.

Moreover, the role of the farming advisor is crucial in helping the producer understand the importance of information collected by the system of smart farming, but also of the recommendation that it produces. Because, you know, it is not easy for the producer to trust an automated system. The farming advisor can play a role in this direction and convince the producer about the usefulness of the system. In Gaiasense, up to the moment that is, we have developed this service that we have been providing for years now. It gives recommendations, it doesn't confuse the producers with technological processes and terms, it is an integrated service provided by Gaiasense to producers. And from the beginning of next year, we will start introducing two additional levels to the Gaiasense service that aim at facilitating the assimilation of this process by all producers.

So, at Gaiasense, so far, we have synthesized this service that we have been providing for years now, producing effective recommendations without burdening the technological producers with the complexity, nor with the financial risk that this investment entails. This is the current level of service that Gaiasense provides to producers. We plan, however, and from the beginning of next year we will start introducing two additional new levels in the service of Gaiasense that aim to help exactly this assimilation of the decision-making process in the new way, the new example, all the producers.

So the first level, that we already have almost ready and will start from

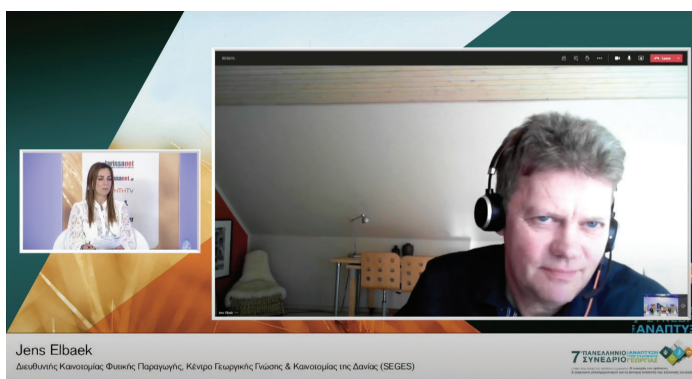
the beginning of next year, is a more "light" - let's say - level of service from Gaiasense, which will be available for a very small amount of money, really at subscription level, to all producers, wherever they are in Greece and regardless of what crop they grow, will give them a digital information picture of their plots. Thus, it will be offering them the opportunity to start seeing what is happening in their field, to begin to interact with the digital information collected in their field, to understand it and thus begin to assimilate the basic concepts of intelligent agriculture. This will also be the vestibule to get acquainted with a consulting process, aiming to maximize their profits. This will be a step to reach further their goals.

This will be followed by the third level of completion of the Gaiasense service, which is the provision of a specialized farming advisor with the service. **The farming advisor will utilize all the information available from the intelligent farming system, will be specialized to be able to interpret it correctly and will complete at all levels of decision making the automated system to give comprehensive advice to the producer, in order to maximize the its result. In this way we consider that Gaiasense continues to be a pioneer and innovator, at European level in the field of intelligent agriculture. Based on the current acceptance of the system by Greek producers, but also on the possibilities offered through financial tools in the next programming period, I really believe that during the next seven years, Greek agriculture may be characterized as one of the most pioneers in the digital transformation in the whole of Europe.** Thank you very much.

Elli Tsiforou: Thank you, Mr. Fotis Chatzipapadopoulos. We have now delved into depths of smart farming and we are moving towards that direction. We have questions raised by our delegates but we will be able to answer them as soon as we conclude with a small round of speakers.

We proceed to the next speaker Mr. Jens Elbæk, who is Director of Crop Production Innovation at the Danish Centre for Agricultural Knowl-

edge and Innovation of Denmark (SEGES). I would like to welcome you, to thank you warmly for accepting our invitation. Apart from the excellent relation we have with our Danish colleagues and also the Danish Agriculture and Food Council with the excellent work Denmark is doing for the producers; we consider Denmark as a pioneer, when it comes to Agricultural Knowledge & Innovation System (AKIS). We look to your example and are really eager to hear what you have to say about the innovation tools that you provide to Danish producers. You have the floor.



Jens Elbæk

Director, Agricultural Knowledge & Innovation Centre, SEGES (Denmark)

Thank you for your kind words. And greetings from Denmark. As mentioned, my name is Jens Elbæk and I am Director of the Innovation & Plant Production Department of the Danish Centre for Agricultural Knowledge & Innovation, SEGES.

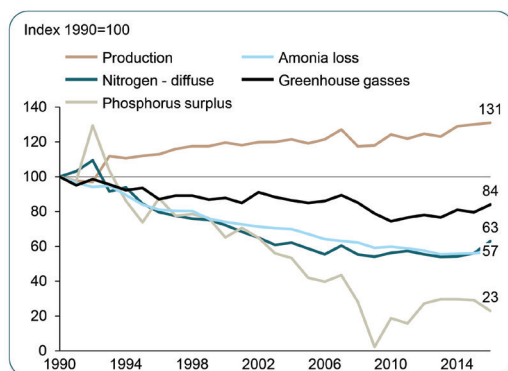


I'll try to share a short presentation, starting by showing where I am. I imagine many of you work from home today because of the coronavirus. So here I am. I live in Denmark and you can see some pictures of what Denmark is like today.

Denmark is a small, green and very wet agricultural country, where we mainly produce meat, milk, cheese, grass seeds, barley, potato

starch and other agricultural crops. We are mainly an exporting country but we also import a lot of fruits, which we eat in Denmark. SEGES, where I work, is the R&D Department of the Danish Agriculture and Food Council, so we are owned by the farmers. That means we contribute to the development of cultivation and we support our farmers because agriculture is very important branch for our country.

Larger production with less input and impact (1990-2014)



Source: DCE rapport nr. 205 og 206 (2016); DCE: Agriculture (<http://envs.au.dk>); UNFCCC: National Inventory Submissions 2016; Danmarks Statistik Nationalregnskab; EIONET, Central Data Repository; Inventories for the Convention on Long-range Transboundary Air Pollution.



SEGES



For the last 20 years, we have been focused on producing more with less. That means that we like to increase the production while reducing the consumption of fertilizers, pesticides, herbicides, and generally reducing the impact on the environment. The figure here

shows in the period, from 1990 to 2014, we have significantly reduced herbicides, phosphorus, ammonia, while reducing and improving greenhouse gas emissions. So, our goal is still to produce more by spending, using less fertilizers and pesticides.

Our goal: To produce more with less...

To make data create value and to create value through precision

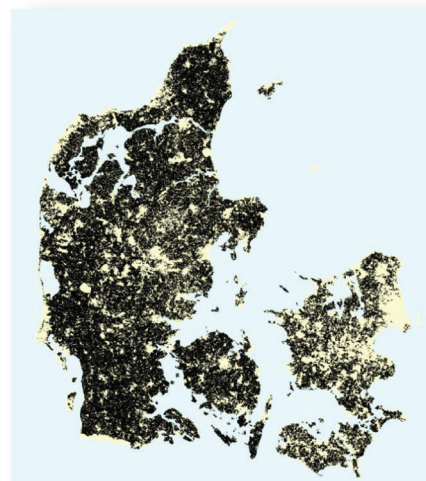
Thanks to our FMS systems

We have a lot of data...

We cover 99 % of the cultivated area



SEGES

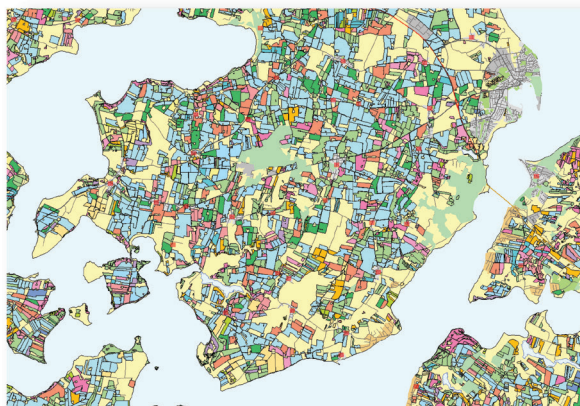


We have collected a lot of data. As you can see here, on the slide, we have focused on this goal for the last 20 years and have built a data

collection center. Today we have databases in Denmark with data from all over the country. We therefore cover 99% of Denmark's arable land.

Detailed information at ground level

- Area, geography
- Crop, rotation, crop variety
- Soil treatment, sowing,
- Fertilization
- Soil samples
- Plant protection
- Yield
- Livestock, stable type etc.
- ...



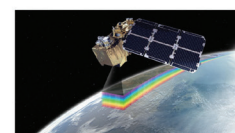
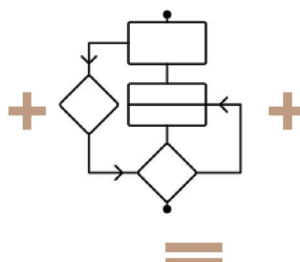
SEGES



We have detailed data at cultivation level, i.e. key elements such as geographical location, crop rotation, crop varieties, fertilization, soil samples, whether there is high sowing or not, variety of crop species, soil content of fertilizers, we have soil samples, data for protection of cultivation, for the crop for animal husbandry, animal feed and so on.

Here you can see from above the country and the arable lands. We have the ability to combine this data to extract useful information utilizing our databases. Our goal is to design models based on all this data, so that we can suggest tools and models that will benefit farmers.

We will make precision farming "mainstream"



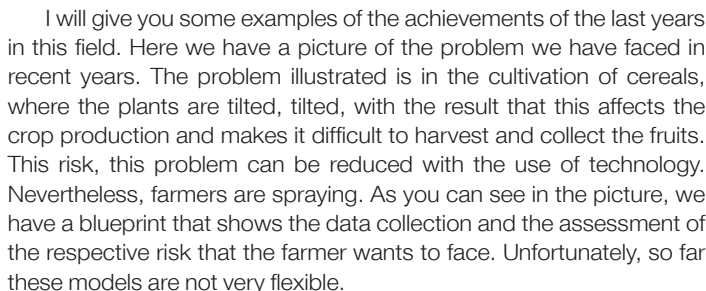
- **To do precision farming must be as easy, as not to do precision farming.**
- **If you must be a nerd - we've failed**

SEGES



At the same time, it's important for us to make models that are easy to use and with this in mind must be designed. Ideally, it should be easier to use our programmes and our models than it is not to do it. Of

course, one does not have to be an expert in technology to be able to use this data and, as we say, if you have to be a nerd, we have failed.



databases concerning the varieties, the cultivated varieties and so on. Based on this program, the risk of the specific crop and the specific area can be assessed and, as you can see, in red shade is the crop area which has a higher rate in terms of a specific risk that has been calculated in contrast with areas of moderate risk which are yellow shaded.

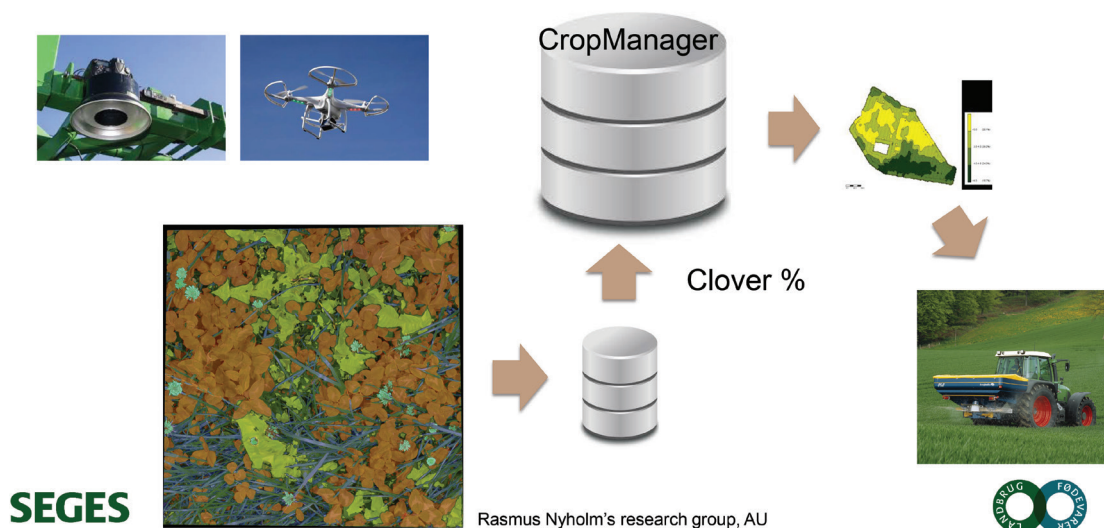
On the right of the screen, the farmer can see which data has been included in the calculation, or in the calculation model, and can check the correctness of the procedure followed. The farmer cannot spray on the red area unless he takes on his own risk and the consequences, which is not always easy. Some farmers, especially large farms, decide to spray because they want to have zero risk.

SEGES

In this context, we have worked with an insurance company, which has undertaken to cover this insurance risk. The farmer who wishes, then, presses the button at the bottom of the page and is transferred to the page of the insurance company and there can choose to make an insurance policy to cover this risk. Everything is automated. Receives an offer, the cost and can immediately proceed to the purchase of

the insurance policy. Premiums are low and usually amount to 200 euros per hectare on average. The damage is calculated automatically based on aerial photographs or satellite photographs taken. We have, therefore, replaced the insurer and the mediator, who assessed the damage. That of course facilitates also the insurance companies.

Fertilization according to Clover Ratio

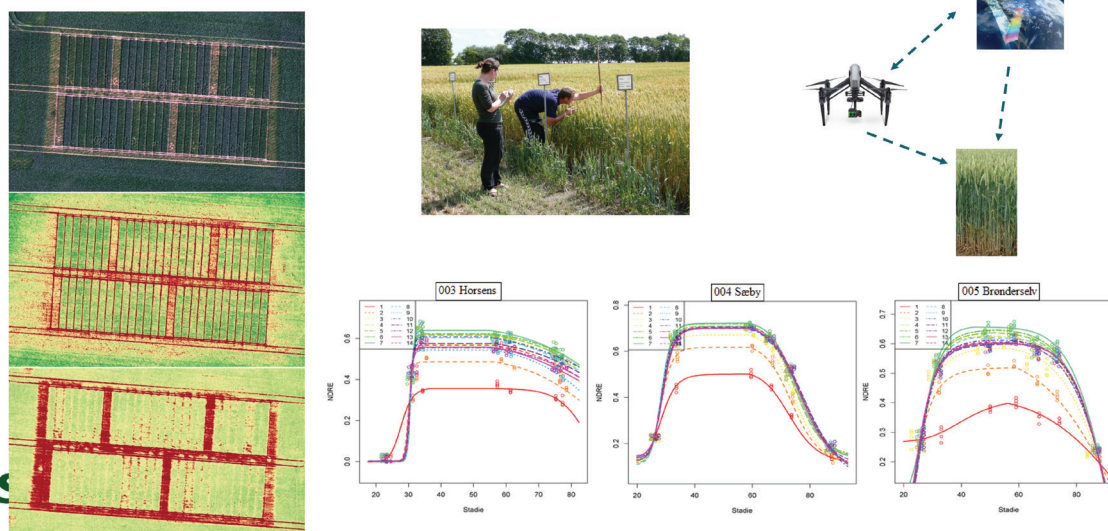


Another example is a model we made for optimizing nitrogen supply to grass. In Denmark, we feed a large number of cows with a mixture of clover and grass, grown together. The challenge here is that grass has a big need for nitrogen, while clover feed nitrogen from the air. Therefore, the fields with many clovers have a low nitrogen requirement, while fields with few clovers have a large nitrogen requirement. Nitrogen is needed here and this nitrogen for the crops is provided by aerial spraying. Together with the University and another company, we made a tool that, based on these photos taken with a drone or with a camera mounted on the mower, can calculate a clover

percentage. It's all based on digital technologies: machine learning and image recognition.

We have an algorithm that recognizes grass, in red colour, it recognizes clover, in yellow colour, and it recognises wheats, in green colour. Based on the percentage of clover we propose, a number comes out, a percentage based on which we propose the optimal cultivation methodology to the producer, to the farmer. This data can be used immediately and is easy to interpret. But it is relatively expensive and troublesome to fly with drones, or to maintain the camera on the machine.

Knowledge based on new technology - and 100 years of field trails



We have an algorithm that recognizes grass, in red colour, it recognizes clover, in yellow colour, and it recognises wheats, in green colour. Based on the percentage of clover we propose, a number comes out, a percentage based on which we propose the optimal cultivation methodology to the producer, to the farmer. This data can be used immediately and is easy to interpret. But it is relatively expensive and troublesome to fly with drones, or to maintain the camera on the machine.

For us the next step will be to use all this data and combine it with satellite data to improve and reduce the overall cost. As I said before, this model and this data should be easily used by farmers. It is an easy tool, of course, the one I just presented to you, but not easy enough for farmers. We hope that in a few years we will be ready to present a new tool much easier to use. The new technology is based on data collection and this data is enough. This volume of data is very important. We have been collecting data for many years. We have done a lot of testing and collection, on-site research on cultivated areas. From these records have emerged these graphs that are based on our own knowledge, but also on the data and knowledge of other scientific disciplines, technology in particular, that can contribute to the creation of these models.

Today our database includes data on over 600,000 cultivated areas, farms. The next step is to use artificial intelligence to develop these models. Thank you for your attention.

Elli Tsiforou: We like to thank you, Mr. Elbæk. We will soon have the Minister once again. I would like to ask him two questions on behalf of the participants. In the meantime, I would like to ask a question to Mr. Fotis Chatzipapadopoulos. We saw on the screen that the producer will have a physical connection with the adviser or only online consultation?

Fotis Chatzipapadopoulos: We believe that physical connection, physical contact, in-person contact, is absolutely necessary in order to develop a relation of trust and confidence, but also in order to have meaningful interaction between the two. Because this is the only way that the problems faced by the producer can be resolved. At the same time, we also believe that the digital communication between the two is very important. The digital communication allows the continuation of flow, but also the participation of more than one farming advisers. We have seen that this is necessary sometimes. There are some experts who are specialized in specific sectors of agriculture and also in specific crops, and these experts can actually help in the resolution of certain problems, but in other cases more experts are needed. That is why the interconnection online allows for the participation of different experts, the development of a network, if you like.

Elli Tsiforou: Ok, thank you very much. And now, I would like to come back to Mr. Georgantas. Mr. Georgantas, I would like to thank you very much for your first intervention. I already said it in the beginning, that it is very important to see this connection between digital policy and agricultural policy. You actually come from an agricultural region, you have deep knowledge of the matter. I have two questions that I want to pose to you on behalf of the participants. When do you believe the projects will be announced, the projects included in the Digital Bible? And the second question raised by many of our delegates: all the digital tools require a certain level of knowledge, a certain training. Are trainings initiatives foreseen, for all those involved in the utilization of these tools?

Georgios Georgantas: I would like to thank you once again for the invitation. Now, since you asked me these questions, I would like to tell you the following. In our Ministry we decided to do the following. There was in the past a strategy for the digital transformation of the country. We have kept many elements of this strategy, and based on the changes that have been made, we have added some more elements and some more projects. In other words, now we have projects that will allow for the implementation of the strategy. We have a detailed specific description of the infrastructure project, as well as of all the other necessary interventions, that will allow the completion and implementation of the digital strategy. We are going to announce the projects, projects pertaining to the Ministry of Rural Development, smart farming within the year. Meaning by that, by the end of December. And, of course, we have made all the necessary preparations that will ensure the sound implementation of these projects. So, it is a very good conjuncture the one that we are in. We have the plans,

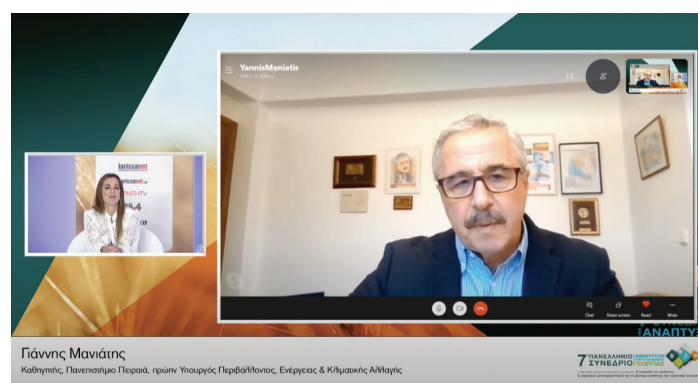
we have the financing tools, we are ready to proceed, and I'm sure that all the interested parties will make the most of this opportunity.

In regards to your second question and since you mentioned my city of origin, what we have to do in the near future is to make accessible to the producers and to the farmers and to everyone interested the opportunities that technology and IT provides to them. That is why we are going to develop training programs, in cooperation with the Ministry of Rural Development. Of course we can use an already existing platform in order to increase the digital skills of the producers and farmers. The farmers can actually access this website and make a self-assessment of their digital skills. And then, by attending free classes that are offered through this platform, they can upscale their skills and capacities. But, of course, apart from that, there will be specialized and targeted programs for our farmers. The farmers should not be afraid of testing these new practices. They shouldn't be afraid of technology and science. So, I would like to invite all the farmers to embrace technology and to understand that this is the only way for us to have a development of the agricultural activity in the country.

Elli Tsiforou: We totally agree with you Deputy Minister. Thank you again for your honorable presence in this session and in our Congress. I think that the interest of the producers is proved by the many questions we receive. However, I would like to address a question to Mr. Jens Elbæk, if he can hear us. I would like to ask you upon the example you presented that actually showed that the knowledge and innovation system can operate in a holistic way that includes all stakeholders, like businesses, Universities, cooperatives and farmers. According to you, what is the secret of your success, what is the key that ensures the provision of information to the farmer?

Jens Elbæk: I think that one of the most important factor is that Danish farmers are used to sharing data. They are not afraid to share. And I also think it means something that the data stored by us -and to remind you we are owned by the farmers- are safe. They know that we handle their data in a good way. I'm not sure if they would share the data in the same way with either public authorities or the private sector.

Elli Tsiforou: Thank you, Mr. Elbæk, for your answer. Now, we ready to give the floor to our next speaker, Mr. Maniatis. I would like to welcome Giannis Maniatis, Professor at the University of Piraeus, former Minister of Environment, Energy and Climate Change. Mr. Maniatis, welcome to our congress, thank you very much for being with us, even from a distance. You are someone who can actually give us the bigger picture of what we have been talking about, thanks to your experience, bit also thanks to your current involvement with the post-graduate degree, that includes among others the subject of smart farming. You have the floor.



Giannis Maniatis

Professor, University of Piraeus, former Minister, of Environment, Energy & Climate Change

Thank you very much for the invitation. I would like to congratulate you on the organization of this Congress. I would like to start by using something that one of the previous speakers, Mr. Elbæk from Denmark, said. It reminded me when I was teaching, 20 years ago, **Remote Sensing**, at the Aristotle University of Thessaloniki. Remote sensing, is the interpretation of satellite images in order to see what was going on with the environment and with agricultural production. We wanted to connect

with the GIS, the **Geographical Information System**. Since then science has evolved greatly and I'm happy to see the new applications that have been created. The sad thing is that very, very few of these things are widely used by the Greek farmers. And I believe that the effort that you are making needs to be supported, so as to be known to more farmers.

My second observation has to do with what you said about the post-graduate degree at the **University of Piraeus «Climate crisis and Technologies of Informatics and Communication»**. You know, in the post-graduate degree we took an enormous risk. We launched this post-graduate degree program in October 2020. It's a fresh program. And the context of that, we tried to combine the two basic pillars of the great change that needs to be made in the country, after we get the €32 billion by Recovery Fund. We tried at the level of post-graduate degree, to combine the digital transformation, the digital revolution, that is Artificial Intelligence, machine learning, Internet of Things (IOT), all of these things, with another universe, that is, the universe of environmental protection and of energy transformation.

These are two worlds which are combined at the level of the market, but not yet at the level of academics. So, this is what we try to do in the context of the post-graduate degree at the University of Piraeus, and we have four directions: **smart farming, smart energy, smart transport and logistics**, and the fourth, that is actually related to today's discussion, is **smart cities, smart public administration and smart communities**. The European Union not only talks about smart cities only, but it has started talking about smart communities, even smart agricultural communities, so along with the smart farming the daily life of the farmer in the village will be modernized. So, these were a few words about the post-graduate degree.

Now, something related to what Mr. Georgantas said. Indeed, there is a serious effort made to combine digital transformation with the agricultural production. And with regard to that, I would like to tell you that since 2014 in 2014 we made an effort at the Ministry of Environment, Energy and Climate Change to marry agricultural production through TOEB, the Local Land Improvement Organizations, which is around 400 in Greece, with 250,000 - 300,000 Greek farmers as members, with the energy offset, through decentralized photovoltaic systems owned by TOEB now, not of each farmer separately.

So, we gave the priority on the basis of the law of 2014, to combine the infrastructure of the decentralized photovoltaic with the PPC grid so as to support the Greek producer, who on average gives 2,000€ to 5,000€ to the PPC for the power that they consume. And I would like to tell you that with regard to that exactly, there is an international estimate that 50% of the renewable energy sources in the future will come from the centralized systems, like the one I mentioned earlier. In other words, there is the estimate for the same use needed by others sectors, not only the agricultural one which is also of course included, that in the next five years there will be 500 to 600 gigawatts around the world. Which actually represents half of the installed capacity of the United States.

I would like now to take a step back and try to explain to you what we want to achieve. Through the Green Deal we want to produce more for the global population, and for Europe of course, **with less**. With less environmental cost, a financial cost, and at the same time we want to **follow a sustainable strategy, like "Farm to Fork"**. Now, how can we make all these a reality for a country like Greece? Allow me to touch upon some crucial points.

I personally call it the **great national change in the Greek software and hardware**. In other words, what is the national software? The way that the country is being managed by the central Ministries, by the central government and by the regions. Unless we change this, so as to ensure decentralization of competences from the state to the local authorities, and unless we provide the possibility for outsourcing, then we will not be able to make a serious change and ensure a sustainable future for the state and for the economy. What we are currently talking about, about the provision of information and knowledge to the Greek producers, is a typical example of what I'm saying. I would also like to remind you that we have certified auditors, we have energy supervisors. We need to use them, we need to promote also the partnership between public and private entities, who are certified and who can do the job quickly and effectively.

My **second observation**, and this may sound strange, has to do with the American elections and with those who voted for Donald Trump. President Trump was voted by more people compared to 2016. Why? Because he managed to convince the ones that we call left-behinders. In other words, those who feel they have been left behind. So, for the farming population of Europe and mostly for the farming population of Greece, we have the obligation to convince the Greek farmers that they won't be left behind. But, on the contrary, that they will take part in this great positive development that allows us to get better results, that they will be able to use technology in order to increase their revenue.

I would like to add a **third dimension**, the **pandemic**. The pandemic has changed the shape of supply chains of all products, including agricultural products. So, what do we do? What is the transformation that is taking place in terms of logistics. What do we see unfolding? We see that priority is being given once again to the production of products as close as possible to the place of production. So, the Greek farming and the Greek quality product can now get a comparative advantage compared to products that we import from Latin America or from distant areas. So, this is another positive development, another way that we can help the Greek farmer.

Fourth observation, waste of food. I don't know how many of us know that one trillion dollars, that is, 30% of global food production is thrown away either because it wasn't consumed or because it was damaged during transport. At the European level, the study that has been conducted, had shown that on an annual basis Europe throws away food amounting to 143 billion dollars, at the same time when entire countries and large groups of people are starving. And since Greece is rather high in the list of countries that throw away food, we need to convince our society to buy the good-quality products and minimize waste.

Another observation. What we propose is to the benefit of competitiveness, and in order to ensure competitiveness, fair competition and fair competitiveness, we need to ensure that all the stakeholders, all the players, will abide by the same rules. You cannot possibly impose restrictions and certain rules on the European producers, and at the same time allow other countries, third countries that do not respect of these rules. These third countries do not have to comply with the rules pertaining to the utilization of pesticides and fertilizers, and this is not fair for the Europeans. So, **Europe has started thinking that it would be best to impose certain "burdens" on imports from third countries**, from countries that do not abide with strict environmental standards.

And I would like to conclude with two observations, which are also recommendations. I have the impression that in our times, when energy is a very important issue, it is actually the blood that flows in the veins with the national economies and, of course, of the agricultural production. **The decentralized installation of photovoltaics for the Greek countryside should be strengthened and should be perceived as part of the public infrastructure, just as is the case for land improvement projects**. It is important to have water in order to have agricultural production, but it is equally important to have cheap energy, because we no longer operate in a period when power is offered at a low cost. So, this is something that we need to take into account in the new programming period. And I mean by that how we can support the decentralized renewable energy sources, so that this energy can be used by Greek producers and by cooperatives. In other words, by collective associations, by collective schemes.

And my second proposal is, and by the way I was impressed by the Danish example, **to develop an agri-gov.gr**, in which there will be data of the national cadastre, of the national secretary of IT systems, meteorological data, so that all this serious that is being done in the context of GaiaSense, and which I believe is one of the best examples at European level, can get an additional single registry.

And I would like to finish with something that we tend to disregard, when we're talking about agricultural issues. And I'm talking about the protected areas, Natura 2000. **Natura 2000** represents 30% of the Greek territory. In Europe, the Natura areas create 200-300 million euros of revenue and they create 4.5 million jobs. In Greece, on the basis of study conducted by the competent centre, we can have revenues of 2 billion annually and the creation of 15,000 jobs.

With these thoughts, I would like to thank you for the invitation. It is

a pleasure to listen to so many interesting interventions and I would like to congratulate you on this congress.

Elli Tsiforou: Thank you very much for your participation and for your kind words. You have given us new dimensions, as we assumed at the beginning of our discussion. I would like to hold on, until we connect with the next speaker, Mr. Sdrakas, the national software and the national hardware. The national software in terms of education, knowledge, change of mentality and the national hardware in terms of infrastructure projects that need to be done to support this whole transition. In 2018 at our Congress we had presented the proposal of the then government. We see now that the current government is also preparing, has such interventions in the works.

We are all waiting with great interest to see what will follow in the case of the digital transformation of the primary sector in Greece. We see from the many questions we accept on the platform the interest of the people. This proves that the issue has started to rise higher on the agenda. I am informed that we have with us Mr. Sdrakas, who is a director of the company Novaplan, a company providing agricultural consultants with great experience, on the side of the farmer for many years. And in recent years, Mr. Sdrakas correct me if I am wrong, with experience in providing advice related to smart farming. We listen to you. Thank you very much.



Manos Sdrakas

Director, Novaplan

Thank you very much. I'll try to be as concise as possible, and I'll start by my presentation, a short presentation focused on two subjects. The first one concerns smart farming, competitiveness and environment, and the second part, the production of smart products and the role of farming advisors.

Starting by stating that all the participants, the parties implicated, must do very good work, and for us we have to have an aim. Everyone should be satisfying this chain. So, the consumer is the main part of this chain, has he determined the processes in this chain. As we can see in Greece, in the chain production, we can see that Greek producers, Greek farmers are left behind in this subject. And they consider the last consumer as a competitor and not as a counsellor, as an ally.

Smart farming can help the first part of this chain that means the producer, the farmer. I consider that smart farming can help also the other parties implicated in this chain, through the dissemination of information and data. All through this chain it is important that through smart farming everyone can profit of this knowledge, of this know-how. Very recent examples I've heard is of a big farming company that export fruits in Japan, hasn't exported any fruit in Japan, as they haven't any information about spraying. And this is due to last year's hail, absent of information. In fact this fruit hasn't been sprayed last year, but this created bad reputation for the company.

A second point that shows the necessity, for me, of smart farming in the agricultural sector is to see a proportion of the sums given by the country to investments. In particular, we would see that too many billions have been given to infrastructure, that is, to packaging plants, to the purchase of agricultural machinery equipment. All right and necessary, but on the other hand, to improve the knowledge of producers on key issues almost nothing has been given, that is, the amount there is close to zero. I think this is a big mistake. Why? Because the product that everyone eventually sells to the consumer - the agricultural product - is al-

most the same, meaning it does not change. Once a product is produced incorrectly, it does not improve within the chain. So, it's very important that the first link produces correctly, so that the next links in the chain can sell the right product. Otherwise we have to compare what we would like to sell: a perfect product from a mediocre packaging plant or from a perfect packaging plant a mediocre product? Obviously we would prefer the former and it's time to see how we can achieve this.

As for smart farming and counselling on smart farming, how can we improve that? Imagine that you are a farm counsellor and you want to inform, for instance 200 farmers with a big variety of product cultivation and with different country exportation. And this is a very simple example. Let's say that you want to counsel a small cooperative in Greece. Is that possible? I can say that this is impossible in Greece, impossible to do it and it should be done, as it should be done. Many counsellors today give only general information and counselling, to be sure that the product will be produced first. But this is not our aim. Our aim is not to produce only, but to have good products. And all this information we can get through smart farming and farming advisors, makes it possible to ameliorate our services in this production chain.

One other problem is to guarantee the advantages of our product. Many export companies have a collaboration with some food chain supermarket and have access to many stores, super-markets in Greece. But this is not sufficient. The big problem is to have a product with specific standards, in order for the product to be accepted by the consumers.

So, here I would like to say that in agricultural production a problem that exists is to ensure the specifications, to ensure the advantages that our agricultural products have. In fact, we do not have a problem with quantities, i.e. many export companies of fresh products have partnerships with one or two supermarket chains, which means practically access to 30,000 to 40,000 supermarket branches throughout Europe. This is a huge market, which no one in Greece will ever cover. However, there is a big problem to be able to make a product with specific specifications, so that these chains can accept it. This production with smart farming can be done much more easily there.

So, in conclusion, I would like to emphasize that the benefit for producers is both primary and secondary. Primarily, as developed before and before the previous speakers, through the reduction of pesticides, rational fertilization, rational irrigation, things that we all understand, but also secondarily with the dissemination of this information that occurs in production throughout the chain and in the consumer.

Moreover, smart farming ensures the dissemination of an information quickly and effectively. The speed at which we learn about the development is an important part in production. Smart farming also provides composite and complex information taken by the different links of the supply chain. Since it is a system, an organized system and not something that happens accidentally, it can be assessed on a regular basis. And for me personally, based on what I have seen, smart farming has characteristics of synergies and of self-updating of information. In other words, all the interested parties are in constant cooperation, so as to ensure improvement of the system, and then the system to improve the work of all the interested parties. Thank you very much.

Elli Tsiforou: We thank you very much. Thank you for being so substantial, but also concise and targeted. You have given us a very important dimension that proves that the digitalization of the productive process plays a decisive role for the smooth operation of the entire supply chain up until the final consumer. Thank you very much for your participation in the discussion.

And I would like to close with the next speaker, Mr. Giannis Chaniotakis Senior Director, Agricultural Sector Operations Development from the Piraeus Bank and member of the board of GAIA EPICHEIREIN. Mr. Chaniotakis, we have heard many things. We also got a taste by the previous sessions with regard to the role of the Bank. I think that you will give us a more targeted information regarding the topic of our discussion, how Piraeus Bank will serve these sustainability goals and, possibly, in relation to smart farming. We listen to you.



Ioannis Chaniotakis

Senior Director, Agricultural Sector Operations Development, Piraeus Bank, Board Member of GAIA EPICHEIREIN

Thank you. It may sound a bit strange for a bank to participate in a panel, whose topic seems to be technical. However, I personally believe, and this has also been proven by previous interventions, that it is at the same time an extremely economic subject. Being the last speaker on this section, I will try to manage the problem of any repetition with clear answers to some specific questions.

The first question is what you already mentioned: why is Piraeus Bank interested in the sustainable growth of primary sector? The strategic choice of the bank to contribute meaningfully to the sustainable growth of the national economy stems from its long and know-how experience and the high interest it has been showing for so many years. For that reason, it has two specialized departments of environmental and sustainable banking, staffed with specialized people. At the same time, and in direct relation to the aforementioned, it is also a strategic choice of the bank to support the agricultural sector, a sector that is experiencing significant changes and challenges. Changes and challenges that have an economic dimension, but now more than ever, they have also a social ecologic and environmental dimension. Therefore, these changes and the dimensions of sustainability concern them substantially and collectively. **So, in order for the primary sector to function effectively in such an environment, what is needed is cooperation, vision, plans, continuous monitoring of the developments, adaptation, coordination and of course support. Support that Piraeus Bank declares to be firmly present to offer.**

The second question is related to whether the development of the agricultural sector is sufficient or whether something more is needed. In my opinion, it is necessary to validly realize that growth alone is not enough. It also has to be sustainable. After all, the role of agriculture in the context of operation of the value chains, mentioned earlier by those preceded, in terms of sustainability is decisive. Both, because it is the starting point for the production of their products, and because, objectively, it has a significant environmental footprint with a direct impact on the sustainable footprint of the final product that will reach the final consumer. Therefore, the production methods chosen have similar effects on climate change, on water sufficiency, on deforestation, but also on a number of other processes. However, what is the importance of sustainable growth for the European Union, and which are the initiatives that the European Union is taking? The Minister referred to them in his speech earlier this morning, and it has become clear that the European Union no longer perceives farmers simply as producers of safe and quality products, but also as custodians of the environment, of the natural resources. At the moment, the Common Agricultural Policy constitutes an important tool for the implementation of policies and changes that will be in this direction. The new CAP 2021-2027 adapted to the Green Deal, and especially to "Farm to Fork" strategy, is expected to change important aspects of the sector and the production of "more with less" will be one of its main priorities.

That is why more emphasis will be placed on sustainable growth, and there will be a turn to technology, to automation, and rewarding farmers on the basis of achieving predetermined commonly accepted goals. All these actions will be soon specialized, as Mr. Voriadis said, through the national strategic plan for the Greek agricultural sector. But, how can smart farming facilitate the connection between the farmer and the market? The preference for quality, safe, certified and environmentally friendly food – that through technology and traceability provide more information about the farmer and the production

methods, is growing significantly as a consumer trend globally. Smart farming can create the background for this information that the consumers are looking for, and can provide the supply chain to become more competitive.

At the same time the retailers are looking for such products to place them on the shelves, in order to satisfy their customer. How can smart farming be implemented on the country? Listening earlier to Mr. Chatzipapadopoulos, I made a small research of the European market. Jacob Van den Borne, a Dutch producer with 5,500 hectares of potatoes, 3,000 hectares of corn and 500 hectares of sugarcane. Using enormous amounts of data, collected from all kind of sensors that were at his disposal, he manages to use them in the most effective ways on his land. His farm is like a testing ground for technology that will help redesigning agriculture. At the same time, he has acquired all the necessary equipment and has recruited agronomists, to advise him and support his production. When reading about this example, the spontaneous question is, how could the Greek farmer get similar results?

The answer to this question was given by Mr. Chatzipapadopoulos, actually, and his presentation. The Greek farmer, most probably with far smaller lots than his Dutch colleague, can actually have at his disposal the same technology and the necessary advice through an alternative way. The Greek farmer needs access to integrated smart farming services in order to minimize the maintenance cost, to get all the necessary geotechnical advice, and to have significant benefits as no investments are required, nor equipment maintenance costs, nor software updates. **The geotechnical advices offered within the service context, while the cost is adapted to the size and nature of the farms. That is why I believe that the smart farming as a service is the most sustainable service and model that can be used in the Greek agricultural sector.**

In conclusion, I would like to answer to the question raised by you, Mrs. Tsiforou: what is the position of Piraeus Bank vis-à-vis smart farming? **We consider Piraeus Bank to be the Bank of the agricultural and agri-food sector in Greece and supports its transition to the future. Piraeus Bank believes that the utilization of smart farming services by farmers, but also by cooperatives, is extremely important.** Actually, through financial products and capital Piraeus bank already finances the use of smart farming services, while through investment loans the bank facilitates the purchase of the necessary equipment. At the same time, Piraeus Bank examines the possibility of offering specialized financial solutions that would accelerate the adoption of smart farming to the benefit of Greek farmers. Additionally, in the context of contract farming partnerships, the bank believes that smart farming can create added value and strengthen the relations of trust and confidence between the producers and the businesses, whether private or cooperative. As a result, we believe that the integration of smart farming services in the program of contractual banking will be of great interest.

Closing with a view to the future, at Piraeus Bank, we monitor and actively participate in developments, we have the necessary experience, know-how and willingness to support the agri-food sector of the country so that it acquires a sustainable perspective. That is why we support innovative, credible and sustainable initiatives, such as smart farming. Thank you very much.

Elli Tsiforou: Thank you very much for what you have said, for the concrete answers you have given to us, anticipating the questions raised by online delegates, regarding the tools proposed by the banking sector. You have already answered us this questions. Thank you very much.

Unfortunately, we do not have more time for new questions to discuss. I promise that we will see and will soon answer to your questions through the Congress platform. Some of them actually have already been answered by the speakers. We receive many questions about whether the Congress will be available for you to see again in the coming days. It will be, stay connected. Visit the website of GAIA EPICHEIREIN, our YouTube channel and the platform - all Congress speeches will be uploaded in the coming days. Please one last comment from Mr. Hatzipapadopoulos before closing this session.

Fotis Hatzipapadopoulos: As I have noticed there are questions about the Gaisense system, so let me briefly mention - because we do not have time - that we will soon have announcements about the various new services' levels of Gaisense, and many of these questions will be answered. Stay tuned.

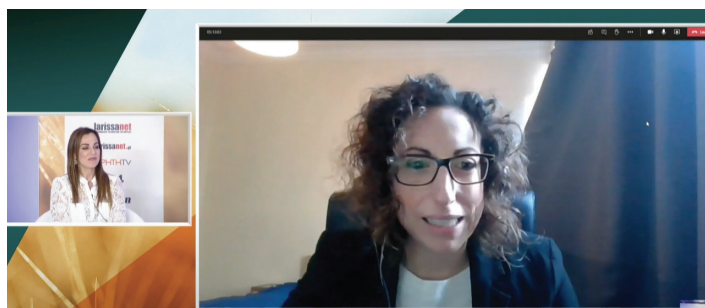
Elli Tsiforou: Very nice, thank you very much for this clarification. Let's take a break and in about five minutes we will continue with the next thematic session. Thank you very much.

2nd THEMATIC SESSION

Simplification and modernization for producers and public administration: the IACS in transition towards a new era

Elli Tsiforou: Dear delegates, we return with our second thematic session: "Simplification and modernization for producers and the public administration: The Integrated Administration and Control System (IACS) in the transition towards a new era". For those who attended the previous sessions, we have discussed that digital transition does not only concern the production itself, which is the central part, but it also concerns all administrative processes linked to serving the producer, mainly when regarding the submission of the single aid application and the whole integrated enhancement through CAP context, the so called IACS, which is also entering the new era. To elaborate on this very interesting subject, this very interesting dimension that we decided to integrate in this thematic section of our Congress, we have with us as the keynote speaker Mrs. Evangelia Mourmoura, who is Team Leader of the Implementation Support and IACS Unit, Sustainability & Income Support Directorate, Directorate General for Agriculture & Rural Development (DG AGRI), European Commission. I would like to welcome you and thank you for accepting this invitation.

We are more than happy to host you for the first time in our Congress, and I wish that this will be the start of a fruitful collaboration that we shall extend to other events that we are preparing. You are the keynote speaker for this panel, you have the floor. We listen to you with great interest.



Evangelia Mourmoura

Team Leader, Implementation Support and IACS Unit, Sustainability & Income Support Directorate, Directorate General for Agriculture & Rural Development (DG AGRI), European Commission

Good evening from Brussels. I hope that you can all see me and hear me. First of all, I would like to thank you for this invitation and the opportunity you gave to me to address through your Congress about the simplification and modernization of IACS for producers and public administration.

So, as mentioned before in the morning by Mr Haniotis, we work together in the Directorate General for Agriculture at the European Commission. I personally work for the Implementation Support and IACS (Integrated Administration and Control System) Unit. I'm here online, as many of us, due to the difficult conjuncture. And here is a role of technologies and how they can help us today. I'm here to talk to you about the role of IACS in the current, but also in the future CAP.

In essence, a policy that is increasingly called upon to contribute to a broad range of objectives, such as climate and the environment, as has been said so far. To meet these goals, one of the many prerequisites is the modernization and the simplification of the policy's implementation, both for producers and public administration.

New technologies are a very powerful tool because, as we have already said so far, the use of smart devices on behalf of the farmers will change significantly the primary sector. Already today, and for the

last many years, the field of agricultural production is relatively well advanced in the field of digital technologies, using already the technologies of European and Global Navigation Satellite Systems, as well as geoscopy technologies. More specifically, these satellite systems concern the Galileo and EGNOS systems, which are very important for the development of agriculture. There is also the European Union's Earth Observation Programme, Copernicus, with Sentinel satellites, which can offer a lot of data and services pertaining to what is really going on in different parcels. It has been said many times so far, how digital technologies will meet the demands of citizens for environmental efficacy of agricultural practices. Technologies can actually provide us with data to evaluate the state of land and crops. Then, all these data may be used in order to reduce, for example, the consumption of chemical compounds. Another example that has not been yet brought up, is how we can actually use sensors to improve the animal welfare, by i.e. continuously recording and evaluating the health parameters of livestock, so that the farmer may have the proper information, the proper data, in order to act in case of a problem.

Finally, through the use of the aforementioned technologies, the administration of the agricultural policy is substantially transformed. The recent enhancement in the availability of new technologies and even more in the willingness to implement them in the short and medium term, allow us to change the conditions of management and control procedures. This also allows us to have a CAP that will be simpler, more modern, even more modern and closer to farmers and citizens. Of course, this shift, this transition of the IACS plays a key role in this digitalization and also abiding by the direction that we already set.

I think we all know that IACS is a reliable system that has been introduced since 1992 in order to properly manage and control payments to the beneficiaries of CAP. We know that IACS covers all steps, as mentioned, from the submission of aid application by the farmer until the final payment of this aid.

The IACS, ever since 1992, has evolved greatly. All its components, all systems that are part of IACS such as the processing of applications, the Land Parcel Identification System (LPIS), the register of beneficiaries, etc., all these systems are based on information and communication technologies. In fact, in 2015, the application with geolocation data was introduced, which not only offers a geospatial depiction of the parcels, but is already supplemented with data owned by public administration and thus has further simplified the farmer's work on submitting his aid scheme. This geospatial scheme has also offered assets when it comes to payment authorities, in order to facilitate the audit procedures.

At the same time, the remote monitoring techniques, some of which Mr. Maniatis mentioned earlier, are widely used in the IACS. These techniques may be used to update the Land Parcel Identification System (LPIS), but mainly these techniques are used to replace field-based audits, pertaining to the eligibility criteria, with "Checks by Monitoring". In fact, in many Member States, Greece included, these audits replaced, up to 100% in some cases, the on-site controls. Of course, if there is any ambiguity or doubt about the interpretation of the images and of these data, there may be a physical autopsy later on.

In spite of this wide use of technologies, there is still a margin for more steps when it comes to the modernization of the IACS and its simplification. In the current CAP already, we do not have to wait for the future CAP, the main incentives for this change is a more effective process of applications by the administration, the increase of efficacy in controls, but also the fact that we can save time for payment authorities and for farmers.

Furthermore, let us not forget the cost-saving for the payment authorities, as all these controls essentially replace the on-site controls. And let us not forget that throughout these years, this transitional period that lies ahead, we must see that as an opportunity to prepare the ground for the future CAP, which is a policy based on performance. All these systems of IACS, all the applications developed, we rightly saw these examples, if all these IACS systems, all applications developing –as described earlier through examples– do not cooperate, then we shall not guarantee the performance that we need for the future. European Commission has already made a number of legislative changes, allowing steps towards this direction.

Since 2018 and onwards, the use of Sentinel data coming from Copernicus programme, is allowed. Then there is the use of data from drones, which is also allowed. The administration may also accept data, geotagged images and other information from the various satellite systems. Moreover, another innovation from 2018 onwards, is that the Commissions allows the Member States to initiate controls with remote sensing, that is, checks by monitoring, in order to replace the classic on-site controls. These checks use monitoring techniques, based on geodata, and they are a process of regular and systematic observation, of identification of eligibility criteria, of commitments, which can be monitored by Sentinel satellite data or other data which of equivalent value. They can be also determined by the public administration. This monitoring is done during a specific and appropriate time period which allows for the proper conclusions to be drawn.

So, there is an automatic check of different cases vis-à-vis the eligibility criteria and, of course, these checks do presuppose the creation of tools for communication with the beneficiaries, for warnings, but also for evidence that they might need to send during these checks. In essence, with these checks and this system, a first step is taken to change the relationship between public administration and producers.

Of course, there is no need to mention again that with this system we do have an increased compliance with the rules. We already highlighted that this control system can contribute to reduction of cost, of time, etc. **However, the important thing is that the producer becomes a partner in this system where warnings play a key role in compliance with the rules. In essence, this leads to a correction of the application without any sanctions because there is some flexibility towards the beneficiaries to modify their application and substantially change any irregularities.**

Since 2019, five Member States have gone ahead and implemented this specific system. They continue to do so for 2020. A good example was actually presented to us today, the case of Denmark, who are pioneers, even with this system, and they are paving the way. Furthermore, next year there will be even more Member States that will move on with this system because it is also a type of preparation for the future CAP, as we shall see later on.

The benefits of these controls do exist for the payment authorities, since the automated process of data leads to a more effective administration by the competent authorities, with costs being reduced. But there are also many benefits for farmers as well, because the process of communication with the authorities leads to fewer errors or penalties, thanks to the warning systems and to the precautionary effect.

All these efforts done for the modernization of IACS are the basis for the future CAP. There, the full embodiment of the new technologies and digital tools in the IACS is promoted. And this modernization will lead to the necessary simplification, which will be assisted by the subsidiarity given to the Member States in the design of different control and sanction systems. That is to say, it is up to the Member States to lay down the rules for calculating payments, for applications deadlines, etc., of course abiding by the lines existed up to now. Let us not forget that these rules, regardless of whether they are planned at a national level or not, should be respected by everyone. Of course, the competent authorities should check compliance.

So in future CAP, let me briefly say, the main components of the IACS remain: the land parcel identification system, the geospatial

application, the registers, etc. But a new system is coming, the area monitoring system, which is an evolution of the check monitoring system, and will cover a bigger volume of processes. As said, this system covers for a period of time all different parcels of an area and collects data. This data, when used in conjunction with data from other IACS databases, will have multiple benefits. For instance, we can either build an automated system for exponential measures, the claimless system, which exists as a possibility in the future CAP. Administration will also be able to use these data to identify cases of force majeure. There will be data available to substantially support the farmer in meeting eligibility requirements and conditions. And of course, all this data will support the obligations of the Member State to monitor the indicators in the required reports. At the same time, all this data that will exist in the IACS, in combination with other sources of data, can and should be used by the administration not only to the benefit of the authorities, but mainly to the benefit of the farmers. We have seen some examples up to now and IACS is a rich database that should be used properly and, as rightly said by Mr. Jeans Elbæk, a farmer should not be afraid of sharing his/her data, since there is the proper protection of this data.

Last but not least, allow me to come to the end of this presentation with an example that brings us a little closer to the future. We are all aware of the situation due to the COVID pandemic. This situation will affect us all on a personal and professional level. Of course, the agricultural sector could not be unaffected by this. From March onwards, the Member States are facing difficulty when it comes to controls, payments, applications, claims, mainly due to the traffic limitations. Thus, the European Commission has taken a series of measures and has facilitated the work of administrations pertaining to the deadlines for payments and has offered a certain level of flexibility in terms of controls over rates, schedules, but mainly through the use of alternative methods, for instance, geotagged photos, satellite images, documents, video conferences. This example amidst the pandemic has shown that new technologies do offer sustainable alternatives instead of the natural and in-person audits. The possibility to replace the in-person and on-site audits became not only the framework of direct subsidies, but also one of the agricultural development and of Common Market Organization (COM). From now on the beneficiary has turned into a partner, actively involved in application management.

By way of conclusion, I would like to highlight that all these initiatives pertaining to the adoption of new technologies in the administration of agricultural policy is of paramount importance for the monitoring and operation of CAP. They offer a multiplier effect, both for farmers and administrations, as modernization is the means to simplify the implementation of a policy, can guarantee the performance of CAP, but -most important- we are moving towards a preventive approach vis-à-vis the rules, whereas at the same time we do redefine the relationship with the farmer, who from now on becomes a partner. Thank you very much for your attention.

Elli Tsiforou: We thank you warmly for your participation and for what you said, giving a very clear and understandable tone to the discussion. Let us keep the very important notions that you mentioned, the beneficiary collaborator, the beneficiary partner. The fact that the IACS in its long-time course, and the integration of new technologies in it, becomes a tool that can serve the producer beyond solely the application. You gave to us a very important, tangible example towards the direction. Please stay with us for the continuation of the discussion. If your schedule allow you to stay with us, it will be very interesting to listen to next speakers and let us then come back towards the end for some questions and concluding remarks. Now, let me give the floor to Mr. Dimitris Kapnias, IACS Project Director of GAIA EPICHEIREIN. Dimitris Kapnias is the person who, during the last seven years during which GAIA EPICHEIREIN was the certified Coordination and Technical Support Body of this project -this significant project that absorbs more than 2 billion euros per year-, he was the leader of all the work we did as GAIA EPICHEIREIN. Dimitris, you may have the floor.



Dimitris Kapnias

IACS Project Director, GAIA EPICHEIREIN

Good evening. Unfortunately, this year, we can't see each other. If you want, apart from your questions, you may also send your greetings online in order we have a better contact. Before starting, I should say that the presentations I have heard until now are very important presentations. I even wanted to applaud Mrs. Mourmoura, it's the best presentation I've heard from the European Union in the last few years, and believe me I've heard a lot. For those who haven't heard her presentation, I'll invite you to go to our website to seek this presentation because she really said things very specifically and in their dimension.

This time I will have no introduction. What is IACS? IACS is the Integrated Administration and Control System. Adminstrating and controlling what? The payments to farmers in application of the CAP, the Common Agricultural Policy. So what is the CAP? The CAP are targets and many times they are targets, which may be a bit contradictory. I will come back to this later, such as the sustainability of greenery and the sustainability of farms. So, after defining the goals of the CAP, each time, then we have the tools. Tools are the measures. With which arrows will we hit the targets we have set? To do all this, we need producers. It is the producers who will implement these measures and after we implement them in the end we will measure for each goal what the result was. At the heart of all this is what we call the Integrated Management and Control System. And for those who do not know that: for producers all over Greece - I do not know exactly what happens in other countries - the IACS is intertwined with subsidies. It is their door to subsidies. The IACS, then, for them, is their communication with the whole system of subsidies. At the moment, the subsidy system is working roughly, we simply have the submission of application, the control and the payment. The producers are not the same, some of them are bigger, some smaller, there is a huge range of differentiation. IACS tries to see them all as if they were the same. What the new CAP tries to do is, instead of adapting producers and farmers to CAP, we have to adapt CAP to farmers and producers. And I should say that GAIA EPICHEIREIN is working on that many years now. That's why I want to start in my presentation with what we have done until now.

And I start from 2016. In a presentation in 2016, at an OLAF event, which is the European Anti-Fraud Office, we talked about how to fight corruption in regimes and I was addressing to judges. We had talked then about drones, we had talked about automation, we had talked about full-scale monitor, that is, about crop monitoring, fully in all crops and in all fields. So these in 2016, and in fact in another meeting of the JRC of the European Union we were the first to talk about preventing controls, that is, preventive controls, controls that will help the producer to make his statement correctly, before we even reach the stage of controls carried out by the paying agencies. In 2018, we talked about what I told you before, how the process is right now. Mrs. Mourmoura said it before, I will not say it again: submission, check, payment. And we said that we are going to a new model, where now these clear stages are breaking and we

are going to a perpetual cycle, where the controls, the submission and the payment will not be the same for everyone, but it will be more personalized, the everyone in the subsidy system from what they do, what they produce, when they produce it and what their needs are. This, is something we said and worked since then.

What do we do this with and why do we do this? With all these technologies mentioned by so many speakers before, whether they are political or technical, I will not dwell on that at all. So later, again in 2018 or 2019, we talked about innovation and "sustainability squared" and "sustainability squared" meant that the producer was being asked to help the environment, to help the sustainability of the environment and that would probably conflict with sustainability of his exploitation. And we said that technology will provide the solution to this, it will actually help to tie these two things together - we will see later. And we said that rational input management could help reduce the environmental footprint, the reduction of the cost production and better value of product, added value of product.

At the Pancyprian Congress in the same year, we presented what we said at our own Congress on intelligent fertilization, water management, intelligent irrigation, warnings, weather, risk-management, which is increasingly important in the new CAP.

And at last year's Congress, I presented this equation, an equation that has been mentioned three times today, first by the Minister, and this equation says that farmers are invited to produce more and better with less natural resources. This, then, is a central point in the new CAP, it is a great challenge for producers. And what did we say then? We used to say that farm sustainability and environmental and climate sustainability have so far been two conflicting concepts. But now comes what we call digitization to help us solve this equation. And what is digitization? It's science, it's knowledge, it's technology, it's know-how, innovation, consulting and possibly also other things.

So we said, what will we achieve in this way? Modernization of the production process, but also - what we were saying today - more efficient management and reduction of administrative costs, which is important for the Member States, because this is what allows them to be more efficient towards producers.

Here you can see that we have a system of farming recognising, which is an automated system, very performing and few successive photos. We conceive, we elaborate profiles and thanks to these profiles we can see in each step the situation. That creates a system at the end of supporting decision, a system which is of value for financing organisations, but at the productive level it is very important, it is a system very helpful for farmer, that it helps farmer to have an idea of the situation of this plot of his farm. We need so information, we need interaction.

So what is our vision of what the IACS of the new era will be like? I have said before that for us it is an IACS++ and its concept is that technology should now have the producer at the centre, and not the systems at the centre. For a small producer, as Mrs. Mourmoura said already, the system works more advisory and less punitive. This is the logic of the new CAP. That we do not wait for the producer at the counter opposite to see how much money we will cut them out; but we try in the whole productive process to help him, so that when he goes to the cashier, he gets the money he deserves. And I present to you an example that was discussed before and is called monitoring. We have developed our own crop identification system, which operates almost 100% automated, with very high success rates. What do we actually do? From the analysis of successive photos of lots that we use, we make profiles, in which we can see in each phase of each crop what image it presents. So what does this create in the end? What we said earlier, it creates a decision support system, a system that has a value for paying agencies, because it controls, sees if the cultivation process is what it should be. However, at the level of the production process it has

a huge value for the producer as well, because this technology can be used by the producers themselves. They will be able to see the image of their fields, in what condition they are, what they should do and what they should not do. But all this needs information, it needs interaction, that is, we go to a system where the producer, either alone or through his consultant, should be able to be informed and interact with system. They should be able to see and manage the data from their fields. This is already something we have done and proposed in the past years. A producer will be able to take a photo of his field and with this to prove that this is his field, this is his cultivation at the moment. So this, as you understand, saves the administration from on-site audits, but it also allows the producer himself to defend his declaration or prevents this producer - who can think slyly - from thinking slyly. And there are such applications that can interact with the system and help document the aid applications of producers. The producer being able to digitize his field himself simply by walking it or entering its centre and giving a tracking point. GAIA EPICHEIREIN has been providing this to the IACS system since 2017 and although it was not supported, as much as it should, by the public administration, it is an application that is fully functional and can help in many cases the correct location of the parcels. It is a functional application, which has been operating since 2017. However, I would like to go one step further and say that this kind of interaction and this kind of system, there is no reason to keep them only at the regulatory level, we have to apply to the productive level as well, because they are the same technologies. All we need to do is use them differently. That is, the producer being able to see, for example, the health index of his crop is an element, which comes from the same data, which are used to check. The algorithms are different, the approach is different and in this area for GAIA EPICHEIREIN is the biggest priority, because it concerns the heart of the work done by each producer. That is, the producer being able to see, for example, the health index of his crop is an element, which comes from the same data, which are used for monitoring. The algorithms are different, the approach is different and in this area for GAIA EPICHEIREIN is the biggest priority, because it concerns the heart of the work done by each producer. different and in this area for GAIA EPICHEIREIN is the biggest priority, because it concerns the heart of the work done by each producer.

But what should these applications look like? Producers, in Greece at least, are not people who are very familiar with technology. We need to find smart ways, friendly applications, to be able to gradually build this kind of interaction, this kind of communication that will allow them to do things they want more easily. And it will allow also us also to us, and everyone involved in the sector, to be able to give them the information and advice they need. We have worked on an application, which starts with simple information to the producers, such as sunset or sunrise. It proceeds to a weather forecast, which may gradually become more detailed, increasingly useful for the producer. And we are targeting the production, as Fotis Hatzipapadopoulos said earlier, but aiming at the production with information about the image, the health of the fields, about whether it needs to be irrigated or not, if at that time should or should not be fertilized. It is obviously a long process, but it is a process that is at the centre right now and we are really happy to be at the centre right now, because when we started our course, I want to tell you that it was not easy at all, it was often lonely and many times we found ourselves in a hostile environment or even ridiculed, for our belief that this kind of applications are the frontline of the digitalization of the agricultural sector.

I will close with two slides that I used about a year and a half ago at an event of "Citizen Mediator", where the subsidy system was more or less called to apologize, because there were some cases of producers, who - as I said - fell in the black hole of the system, as is logical. So I said we were on our way. There is a big improvement. We have achieved a lot in the last 7 years that this framework exists.

The payment of basic payment entitlements is not an established one, it is not an automatic procedure. The elimination of the imposition of fines on the country by the European Union is also not a statute and it was not something that happened automatically and the reason we had - if you remember the older ones - all these charges was, because we didn't have the appropriate control system according to the European Union.

In the first slide is my favourite chart: Greek producers appear in a report of the European Commission as the happiest in relation to others, from countries such as Sweden, Germany, Spain, Italy, in terms of their contact with the IACS. That is, what we have achieved as a country over the last seven years has been to absorb a much greater administrative burden than other countries, in which the dissatisfaction of producers is much greater - are the red bars you see in the chart.

In the second slide, also from this event, I had summarized the huge progress we have made. I said that the framework of assistance must be strengthened with strong supervision and respect for producers. I said that we must step on what we have built, to go to the next step. I said that the evolution of technology infrastructure and tools is the only way for the Payment Agency to succeed because that was what it was all about, to be successful in a complex project - that only in an automated way can we control all this data we now have at our disposal and we are called to monitor. And of course I said that the more accurate the data that enters the system, the less administrative burden for the Payment Agencies when they are called to audit the data. In this way, maybe there will not be any producers who, as I say, fall into the black hole, that is, those who make a big mistake and - precisely because sometimes this is more than what a paying agency can manage - they lose their money or their money is delayed. And the money of a producer for the system of 650,000 may be one out of 650,000, but for him it is one out of one.

What I want to say in closing is that the time has come - in our opinion - to get on the wave. There are two ways to deal with a big wave: either to ride the wave and go with it, or to try to get under it holding your breath. What I mean is that things have to be done today. In my opinion - valuable time has already been lost, already a lot of what Mrs. Mourmoura mentioned earlier have not been done yet, although there are specific solutions and proposals on the table. So we need to make up for lost ground in this area right now. What is needed, then, is an ambitious and clear plan and framework for where we want to go the IACS of the new era, what goodwill we want to create from the data, what data interconnection do we need as to create this added value. For our part, I really want to say that we are proud of the work we have done all these years, we are ready - in my opinion - to help in this and I hope that next year we will not say again what to do, but we will we will be happy to say what we have already done. Thank you.

Elli Tsiforou: Thank you so much, Mr Kapnias. No further comment, I think that through the presentation of Mrs. Evi Mourmoura and yours, we reached a really high level of understanding what a modern IACS means in its multiple dimension for serving the producer. Riding on the wave, surfing, is a common practice in the digital world, and it's high time that we took this ride, I agree with you.

We move on to our next speaker coming from Italy, from Coldiretti. Coldiretti is one of the most important organisations that represents farmers, not just in its country but also across Europe, with millions of farmers-members. Mr. Lorenzo Belcapo, whom we are pleased to host today, is the Technical Responsible for Farmers' Assistance Centres, on behalf of Coldiretti. He has a similar role in the national landscape of Italy with the one that Dimitris has here in Greece. We are very happy to have him with us. I welcome him and we look forward to your presentation, to hear what he has to say as a witness from another European country on this very important issue. Dear Lorenzo, you have the floor.



Lorenzo Belcapo

Technical Responsible for Farmers' Assistance Centres, Coldiretti (Italy)

Good evening to all. Thank you so much for this invitation to your Congress, in a framework of different exchange, of different views. Technology has entered all Member States and we must try to use that to the benefit of the farmers. I am here representing Coldiretti, who had organised an important conference on exactly discussing and presenting the experience of ours. When in 2018 the actual use of satellite monitoring for the implementation of the CAP began, as mentioned earlier by Mrs. Mourmoura, following the amendment that introduced these legal innovations, we decided to implement it experimentally, to see the impact that this would have for the producers. Because IACS was of our concern, merely pertaining to the impact that this could have for the Italian farmer, cultivator. We are talking about producers with a fragmented lot, with a very small number of hectares, about 10 hectares area. In this framework, it was a choice to experiment immediately with these new technologies. In 2018, a first experimental implementation was made in a single Italian region. It was about one producer and one region, which is very important and echoes the status of payment. It seemed to us the better way to approach. I will briefly present you how to implement and use these new technologies, which each Member State will be called upon to decide in the future to adopt.

From 2018's experience, which concerned the basic payment scheme, we moved on gradually and managed to overcome the crucial point, crucial difficulties of these new technologies, because the Italian territory presents diversity, has mountainous and lowland areas, while also the schemes themselves involve different types of control than the basic payment scheme. Since 2018, this upgrade took place throughout the Italian territory on the level of basic payments and schemes, in our best efforts. There are 17 provinces under surveillance, where all the direct payments to farmers, under support schemes within the framework of the CAP (1st Pillar), exist. How do we now decide to use these new technologies in Italy? We thought of identifying some indicators, some milestones, based on the images that we had and are linked to European Copernicus programme. I am talking about activities regarding land, cultivation, or the harvest of products. All these data may be more or less easily detected by the satellite monitoring systems we are using. This monitoring system is very useful in practice and actually serves to replace all on-site monitoring systems. The comparison was not easy and in fact there were not many huge differences. The detail levels that were given to us by the European satellite monitoring systems verified fully the results of the regular on-site controls in the fields. There also special indicators, like for instance for wheat. An indicator has been identified that can detect, at a practical level, whatever is captured by the satellite when it monitors sowing, growth, and harvesting. This was given to the producers. The reactions of the producers stayed at a certain level. Producers initially did not fully trust these data. They understood ex post, through dialogue, that monitoring was followed at the level of each producer by something more tangible, as the central

administration allowed rectifications and this was a great incentive for the farmers to understand that this model did work in their favour and it would facilitate the whole bureaucratic burden that existed in the past for all Italian farmers. Indeed, scenarios and choices are opening up for Italian farmers that are extremely interesting, and it was immediately stated by the public administration that all this info remain at a purely administrative level and that no third party has access to this data to make use of it.

What we learned along the way as Coldiretti, the next step that came out almost spontaneously, is that **the same pieces of information used by the Italian public administration in order to execute controls, can be at our members' disposal, at the service of producer to develop their farm.** We believe that every agricultural business should be aware that all these possibilities exist. Therefore, as Coldiretti, from the beginning of this unfortunate year of 2020, we have been trying to find more ways to communicate with our farmers and members, given the difficulties presented in 2020, so that they can take advantage of these opportunities. We are now able to contact all producers, regardless of the size of their farms, of their crops. So, we have the possibility to use satellite indicators and also a technology that allows these farmers to have access to some data. Furthermore, this allows us to help them in order to approach these new technologies. We have 7 satellite indicators covering a large part of Italy. Moreover, we shall be able to use all the measures that you mentioned before, and develop more tools that will enable producers to use these new technologies with better success and efficacy. Thank you very much.

Elli Tsiforou: We would like to warmly thank Lorenzo Belcapo for his presentation. You shared with us the Italian experience. We see that we are not that far away, both at the level of producers and at the level of actors cooperating with producers. We have the same concerns and the orientation is exactly the same. Thank you so much for your intervention.

We have very limited in terms of time and unfortunately we cannot have a Q&A session. Now, please let us continue with those directly interested in this concerns and in this thematic session, the producers themselves. We have three producers' representatives today and we are happy to host them today, both in person and remotely. Let us start from Christos Barlias, who is the President of the Association of Agricultural Cooperatives of Corinth and Vice President of GAIA EPICHEIREIN. Mr Barlias, you have the floor, please.



Christos Barlias

President, Association of Agricultural Cooperatives of Corinth AES SA, Vice President of GAIA EPICHEIREIN

Good evening. We are used from previous congresses being in a big room with a lot of people. Unfortunately, here today we are alone, but as I've been informed we have a very big participation, which is two or three times bigger than the previous years, and I think that this is very satisfactory information for all. It means that this subject is very interesting for farmers, for many people, and

we hope that at the end of this Congress, all our conclusions will be the basis for the next steps in our country. You've asked me to speak after Mr. Dimitris Kapnias, my partner since I am the vice president of GAIA EPICHEREIN. He has covered most of IACS and of course I agree with him. Still, I would like to make with some remarks.

And first of all, let me start with the position of Mrs. Mourmoura from Brussels, who I believe gives an answer to the paraphilology and to the Kassandres who have been saying for some time now, "What are you doing at GAIA EPICHEREIN as a coordinating body?" How do you manage IACS?". Certainly, her position says that in order to go to the new CAP we need this tool that we have, which, although it gave us a lot in the previous period, but we need to modernize it even more, to adapt it to the new data and, in the end, to surf - as Dimitris said. So, it is a fact that with the electronic declaration, that is, with a computer and a line on the internet, we have gone to another era. We went through this, seven years have passed and we have reached today. It is a fact that the producer embraced it, because we see that the producer's participation in our KYDs exceeds 98%. So, already this became the multi-tool, which - from what it seemed - at first took it as a tool to get only the subsidy, but in the end it was a multi-tool. **The previous speakers also said that the new CAP, since we have the knowledge of the previous one, should be able to contribute, so that the producer can produce quality products, which are environmentally friendly, competitive on the shelf and the producer to make a living from them. It is a fact that this is why some people were inspired to make GAIA EPICHEREIN, they were inspired and made Gaiasense, which answers all of these, that is, we made the right tools, which if the producer uses them, will be able to meet the challenges we all face today: environment, quality, competitiveness and to make the right profit - otherwise we will not produce.** So, we did anticipate that too. Which, together with the agricultural consultant, will be a suitable tool, so that in the new CAP we can be optimistic that the producer will be able to achieve his goals. With the new IACS, that is, to receive the subsidies, to produce the products that must and have the financial result that must. In order to do this, the public administration - that is, the state - must put its hand deep in its pocket and the programs for the agricultural innovation, for the agricultural advisors, must begin to unfold, because the producer is currently in dire financial straits, he is scared. We cannot persuade him to invest and pay for these technological tools on his own, which will bring him this result.

So the longer we are late and through the bureaucracy we put obstacles and locks, the later we will go to the result, which we will have to combine, as I said, for production, but also for subsidies.

Now, in order not to go into too much detail and because I was covered by the previous ones, **the new CAP must be discussed with the production base. At the moment when each Member State is given the opportunity to present its model, this has not yet happened. In other words, 10 scientists cannot be locked in the office of a Ministry - or I do not know where else - in Payment Agencies, and present the new model of the seven years. There must be a long dialogue throughout Greece, to gather the conclusions, to hear the views, the concerns, and, in the end, to make a model that the producer is not afraid of.**

What Dimitris said: the producer is skeptical. Why? Because it does not have the satisfactory result it should. So, we have to look at his concerns, find the problems and, in the end,

These were my thoughts, since I agreed on the IACS with everything that Dimitris Kapnias said and I hope that at the end of the conference safe conclusions will be drawn, which the state

should take into account, so that we can go through the new CAP with confidence, with optimism, but also with an economic result for the Greek producer. Thank you very much and I will be present throughout the Congress.

Elli Tsiforou: Thank so much, dear President of the Association of Agricultural Cooperatives of Corinth, Mr. Vice President, Mr. Barlias. Very important messages were conveyed. Of course, the point of view of producers, the ones that are more interested, is very important. Since we are out of time, I would like to get connected again with Mrs. Mourmoura, if she wants to be released from the panel. Do you have any comments on what was heard so far, before saying goodbye and thanking you deeply?

Evangelia Mourmoura: Hello again. I hope that you can all hear me. The presentations were to the point by Mr. Kapnias. As a final remark, I would say that there is this three-fold dimension rules, subsidies, production and then efficacy. This is a three-fold dimension that should be guaranteed for the future CAP. The one may not exist without the other. There is a chance lying ahead, the systems should be there not just to guarantee the rules, but also as we said before, help farmers and the Member State at the end of the day, if we need to achieve goals set in the strategic plan. This was an issue set by Mr. Kapnias talking about indicators. If there is no technology, if there are no systems, indicators will not exist, results will not be proper, figures will not match. So, this is a three-fold dimension. You cannot have one without the other. I wish you fruitful proceedings. Thank you again, thank you indeed, for this initiative.

Elli Tsiforou: Thank you, wishing you all the best.

Let us move on with two more speakers, again from the field of producers and cooperatives. Now, we have with us Mr. Costas Giannopoulos, the General Manager of the Union of Agricultural Cooperatives of Thessaloniki. He is going to share with us, and we thank him for that, his experience vis-à-vis this very important tool called IACS on behalf of cooperatives and producers. You have the floor, sir.



Costas Giannopoulos

General Manager, Union of Agricultural Cooperatives of Thessaloniki (EASTH)

Good evening from me too. Good evening from Thessaloniki. I would like to thank you for this honour to be one of the speakers of the 7th Panhellenic Congress of GAIA EPICHEREIN. For sure in the previous years, in the previous conferences of GAIA EPICHEREIN, we wanted to meet, we have gotten used to meeting each other. And then we wanted to exchange ideas with speakers, participants and all other stakeholders. The pandemic deprives us of this possibility this year and we have to be present remotely, taking away from us the right to get together, convene and be together with all these exquisite speakers you have yearly. So, unfortunately, we are going to talk remotely. Let me start with a wish. Next year, we must

be all healthy, and of course let us be in person next year. These conditions are unprecedented so we are invited to patient enough, mature enough and trust the scientific community.

Up to now, we heard very interesting views by the previous speakers, but allow me to speak about something that was not heard or uttered. I would like to mention some institutional issues about IACS and its management throughout the last years. Let me make a historical background about how we reached that level. Since under normal conditions, this year, in 2020 already we should be talking about the new CAP and from the next year onwards already we should be in the first year of the transition period until from January 1st, 2023 we enter the new programming period officially. Since 2016 onwards, our country paid resources, financial resources and made a huge effort to develop a modern IACS which was based in its majority to the unions of agricultural cooperatives in Greece, through PASEGES, through the Confederation support and the guidance of the payment authority managed to overcome many barriers which many times seemed to be not able to overcome. At this point, allow me to remind you that sometime our country had drafted an action plan in agreement with the European Commission for the LPIS and due to the lack to implement it or due to difficulty to implement it, there was a foreseeable decrease of 10% of all subsidies. Nevertheless, cooperatives, different associations, the Confederation PASEGES, but then the payment authority, OPEKEPE, managed to overcome the barrier. Thus, we reached 2014, where we had an IACS which was credible, with geospatial data that guaranteed the normal inflow out of the total of producers for all European economic subsidies. Entering the current programming period, the Rural Development Ministry had a tender. They gave the possibility to all participants to participate and become authorized as Application Reception Centres until 2020. These prerequisites, the initial prerequisites, let me remind everybody, the initial prerequisites were particularly strict, so all candidates should have 2 ISO certificates, 27002 and 9001 on the safety of IT systems, they should also have a 5% of signature from the producers of every productive region, they should have hired scientific personnel with the obligation to keep it and all these meant an added cost. Until now, all is good but from that point on, year after year, in spite of the fact that we have been talking about the exact same project, about the exact topic, different gateways were added without meeting all necessary prerequisites. So here we understand that there was no sound competition. Thus, we reached a certain level of having hundreds of Application Reception Centre out of which some were certified with strict criteria, some others with less strict criteria, some others with zero criteria, reaching thus a point of having a maze of systems with big dissemination which is not homogeneous.

In all this endeavour, GAIA EPICHEIREIN, taking the role of a coordinating body, helped us a lot and everybody accepts that, because you rationalised the price-list when it comes to the service offered to the farmers and many times you were there to support different projects. Each time, each project has certain particularities, as you all know. I believe that all technocrats at the panel may verify that in order to perform a project, you must have some certain pillars to be based on. Each year, we are invited to manage a project without any stable point. For instance, starting date, one year February 28th, the other year April 29th, or next year March 31st. This hinders the coordination of the project and the project itself. So, when we are talking about the transition to the next programming period and in view of a new choice to select the IACS demands on behalf of the Ministry of Rural Development, let me highlight that, it is necessary for the whole procedure that will be

followed to verify and guarantee equal terms for participants and prerequisites for participation should be binding for each year until the end of the next CAP.

Now, when it comes to the simplification and modernisation of procedures in the IACS for the producer, first messages that we have for the next reform show us that instead of simplification there will be a more difficult procedure by the farmers, so that the farmers can fill in the demand. Now, we must open a debate: how the public administration might enrich the possibilities for farmers to submit an application in order for them to meet the high demands that will be imposed by the next reform?

At this point I would like to make it clear to everyone - because sometimes we who sit in offices seem to forget it - that farmers and livestock breeders spend most of the day in their fields and stables, without often having the knowledge techniques and capabilities, even though a new generation has it, - of valid and timely information. Therefore, it is good not to take it for granted that all this technological development easily reaches the farmer and the livestock breeder. Here, then, comes the role of Application Reception Centres. Here we can say that their role is crucial in terms of information, but also the general service of producers, in order to properly receive the Community aid and to carry out all their other work. I therefore firmly believe that healthy cooperatives should once again have a privileged position in this field.

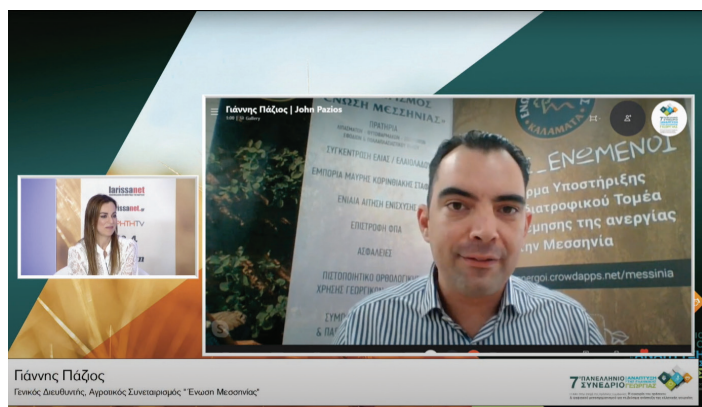
The history has shown to us, when it comes to IACS at least, that big dissemination did not help into a smooth management. I firmly believe that our beacon from now on should be the first years of the current CAP, that is, 2014 or 2015, when different bodies and cooperatives had been certified under strict criteria, abiding by all standards that guaranteed a smooth submission of the IACS.

At this point, I would like to avoid any misunderstanding, I stress clearly that I am against any exclusion and I'm in favour of an open procedure. But what would be this procedure like? Equal terms, strict prerequisites that will guarantee a smooth flow of European subsidies.

I could elaborate on that longer, but let me respect the fact that we are now at an advanced time. I wish you all to stay safe. I wish you fruitful Congress and the conclusions will play their role when it comes to the agricultural debates. I agree with Mr. Barlias, consultation should include all stakeholders. I believe that we are in delay when it comes to that, because the primary sector's view, the cooperatives' view and the views of the institutions should be added to any reform that might take place for any following CAP. I'm at your disposal for any clarification. Thank you.

Elli Tsiforou: We thank you a lot, Mr Costas Giannopoulos. Dear Costas, you were to the point, you were quite substantial, and you set different dimensions. I'm pretty happy for the complementarity of this panel, which allows us to have a panorama, I would say, of the whole problematic, the whole question that we can discuss in the next time period. Of course we need dialogue, of course we need consultation, mainly with cooperatives and producers. They are the ones immediately concerned and this is what we try to do in this limited timeframe with this panel and this conference. Let me stress here, let me tell you that we have thousands of people monitoring us remotely, we are deeply touched by your interest which justifies our efforts to organise this conference amidst difficult conditions.

We have, last but not least, Mr Giannis Pazios, the General Manager of the Agricultural Cooperative "Union of Messinia". Dear friend, Giannis, welcome, thank you for being here, thank you for accepting this invitation. You have the floor.



Giannis Pazios

General Manager, Agricultural Cooperative "Union of Messinia"

Good evening from Messinia, from sunny Kalamata. Thank you for this invitation made to me by GAIA EPICHEIREIN and the honour to be the speaker and, more specifically, the last speaker, in such an important panel.

So, here for Agricultural Cooperative of Messinia, after so many speeches and interventions, I think that we can take into account that IACS works with a lot of farmers in Greece but in Europe also. From our point of view, I would like to take the relay on the exploring of new services and I would like to say that we have done already a lot of things. I represent a cooperative with 22,000 applications of producers, it's very difficult to respond on time, it's difficult to guarantee their subsidies on time, to do this work with the 14 people who are working here, in our centre, and in general we have 50 to 60 workers. So, for a project like us, one of the bigger cooperatives in Greece, if I'm not wrong, with the cooperative of Heraklion, it was a big bet, because we have to make the transition from the previous period to the new one with GAIA EPICHEIREIN, with the new data, with service, with phone services and advice, all these services that was very useful for our work. Because what is IACS? **It is the passport for the farmer to ask for subsidies, for payment, for financing, to show that he's a farmer, to testify, everything that testifies he's a farmer.** And all that can certify that the farmer is a professional farmer and that he has access to the services, to the provisions of the second pillar.

In an area that has neither a land registry, nor forest maps, it was very important that our system reflect all that information with very detailed, in a detailed manner. And it was a way to create a passport, to integrate it in regulations fixed by the European Union and by national authorities. We needed time and a lot of work. And here GAIA EPICHEIREIN has interfered as coordination agency. It was our partner to go to the next step, to help farmers quickly, to make our life easier because the previous period's problems were many. This is thanks to GAIA, thanks to tools that GAIA EPICHEIREIN created. Before us we have a new programming period, with its own tools, with its own rules. And the aim is not to follow, but to be a forerunner. We have started a few years ago a new project with GAIA sensor. We monitor a lot of farms in the region with the aim to produce more with less, of course, and using the new tools. So, this new tool of IACS can help us to go further, to make the next step, and make us to do the transition to the new era, thanks to the strategic role of GAIA EPICHEIREIN. After so many interesting suggestions we have heard, and unfortunately farmers cannot follow this conference as they used to be in their farms, in the field, but

because farmers are facing other problems, these problems make them reluctant to these new tools and to the digitalisation our aim is to see how we can simplify all that to each farmer in order to take advantage of all this information, satellite information, GPS information, and make the farmer easily understand all that. And IACS is in the centre of all that.

To make the transition with the next programming period, we think that it is very important to end with the past, to start a new era, a new chapter, as we need transparency. GAIA has secured that, its transparency in the project and in the next programming period we can take advantage of that, because as you know we have to have on-time payments, we have to have security and protection of all the data. During the previous lockdown, we had to ease the problem and to manage demands of 12,000 farmers, which was not easy. All the changes that are integrated, that are fixing the next context, the framework for the next programming period of the CAP, they will determine who is going to be paid, to be subsidised. We have to see how we can leave all the "black holes" to the past.

And, as a conclusion, I would like to mention the problem of evaluation, and that has been said. We have to put some order. We have the framework for this evaluation, the work of IACS gives wealth to our areas, to farmers who can easily understand the volume of wealth for the society as a feedback, but with GAIA EPICHEIREIN we work together to put in place the rules, in order to have evaluations framed. And, of course, we have the duty to prepare our farmers for the next period, to prepare all the scientists in order for them to give smart advice and without giving the opportunity to people from the past to take advantage of this project that has a lot of aspects during these very difficult times for our country. I wish to everyone to keep safe in this lockdown period and coronavirus pandemic period.

Elli Tsiforou: Thank you. It was our honour. Very substantial was the information that you sent as a way of complementarity with the others. Unfortunately, we ran out of time. I apologise for that and I'm doing so in front of the next speakers, because it took us half an hour more, but we had a very important agenda to tackle and very important presentations. So, this is the end of this thematic session. Please stay with us, because in the next few minutes we're going to have the last session, the last but not least session, 'Green and Digital Investments in the Primary Sector'. Please stay with us. Thank you. Stay tuned.

3rd THEMATIC SESSION

Green and Digital investments in the primary sector



George Avatangelos

**Director, Agricultural Entrepreneurship Centers,
Piraeus Bank**

Ladies and gentlemen, good evening. My name is George Avatangelos and I am the Director of Agricultural Business Centres of Piraeus Bank. I have the honour and pleasure to present the last thematic session which is, as mentioned before, as important as the previous ones, focusing on green and digital investments in the primary sector. The guests-speakers cover a wide range of academic, regional authorities, entrepreneurship, and of course the banking sector. Let me start by welcoming our keynote speaker, Mr. Eduardo Baamonte Noche from Spain, who is the President of Cajamar Caja Rural, the biggest Cooperative Bank in Spain. Mr. Baamonte, your participation in the 7th Panhellenic Congress for Development of the Greek Agriculture, hosted by GAIA EPICHEIREIN, is a great honour and pleasure for us and we would like your thoughts, your positions regarding the issues that are primarily related to the green and digital transition in the agricultural sector. You have the floor.



Eduardo Baamonte Noche

**President, Cooperative Bank Cajamar Caja
Rural (Spain)**

Thank you so much. I hope that you hear me well in Greece. It's a great pleasure and honour to be here with all of you. It is a great opportunity that even remotely I can really be with colleagues from Greece, with whom I have met in Brussels. We participated in so many joint meetings. I would like to convey my deepest thanks and I would like to thank you all from Spain. I was asked to refer to our own vision on green transition, digital economy, digitization of the agri-food sector, and refer to what we are doing in Spain. What is the vision of my own organization vis-à-vis the future of the agri-food sector? I will therefore mention the main points which, in our view, have led to the improvement of the situation in Almeria, south Spain. The

future of the agri-food sector in Europe should be based on sustainability, financial, environmental and social sustainability. This will be feasible only if this is based on these three pillars that are knowledge, innovation and cooperation.

I hope that here you are going to see an overview of what we have done lately in Spain, and how my own organization has contributed to the enhancement of this sector, especially in southern Spain. First of all, I would like to say that Cajamar is, in essence, a synergy of more than 40 cooperative banks. Some banks are more local, some others regional, and others are at wider scale. It started 20 years ago, in 2000. This process allowed us to reach the actual situation, the actual status of today. We have approximately 53,000 million assets, which means that the European Bank monitors us directly. We are a very important part of the financial sector in Spain. We have a corporate capital of 3.1 billion euros, and we also have many partners/members, almost 1.5 million people who are cooperatives schemes and farmers. We have about 3.5 million clients and we work through a network of offices which are more than 1,000 all around Spain, with about 5,500 employees.

Let me now explain you how it all started. In the '60s we started from the poorest region in Spain, Almeria. You can see here that it is a very deserted area and many western films were shot in the area as it looks like the Sahara dessert. It is a deserted area with traditional agricultural practices. Furthermore, in this region during the '60s we had a big financial crisis and a huge wave of immigration. There were almost no natural resources. All the terrain was very mountainous. Then, a programme of the Ministry of Agriculture was launched during the Franco dictatorship. The aim was to create a more developed agriculture, aiming to feed Spain back then. At that time, we couldn't have imagined, that we could export agricultural products. So thus we started a national development plan in Almeria with a target for some farmers from the mountainous regions to start cultivating traditional products in an area really close to the sea that had better climate conditions. The limitations, however, were that the soil was not that fertile, and there were intense climate phenomena. We could only cultivate cereals, potatoes, and what we wanted more was to cover the local needs – not to export goods or to create wealth. Through the new technologies offered in the '60s, we started to mingle the fertile ground with sand, in order to cultivate other fruits and vegetables. The objective was to create greenhouses, to be protected against the wind back then. Thus started the first greenhouses, as you can see in the slide. Very basic technology with wood and cables, built by the farmers themselves. This was the beginning of this new technology, and farmers saw they could cultivate products like tomatoes, peppers, cucumber, fruit, and vegetables. And then, thanks to the greenhouses, production level was doubled or tripled. And as cultivation took place in winter, the prices were higher, sometimes they became even 10 times higher. In the '60s the construction cost of greenhouses was extremely high. One hectare in Almeria had a cost of 180 euros back then, and it was very difficult for farmers to guarantee the credits they would receive. So there was no credit institution that would finance farmers, who did not have guarantees for the loans they were asking. Thus started Caja Rural de Almeria, which is essentially a cooperative, where the farmers themselves were its members, with a financing back then from the Bank of Spain. Credits were given to some farmers who didn't have the necessary resources, and they wanted to start the new procedures with new cultivation that they did not know. Funding was of primary importance, but it did not suffice. Why? Because farmers had no knowledge and the (then) new technologies were not adapted to the reality of Almeria and the climate of South Spain. In 1974, with the first income of this

cooperative, Palmerillas Experimentation Centre begins. In fact, this centre had a dual objective. First, investigate and adapt new technologies into the needs that existed in Almeria, mainly in cultivation of fruits and vegetables and products that did not exist back then in Spain, but were imported by other countries, like Israel for instance. We hired researchers. A bank created an experimentation centre and the objective was to research new technologies and to educate and train farmers on these. We are doing so still.

We are currently offering training to farmers on new technologies and we are investigating to find more sustainable cultivation systems. Research is of primal importance, but even more important is to convey knowledge. In the slides you can see some photos from last year. This year, this March, we didn't manage to offer training. We offered that remotely, I should say. But we can see how interested farmers and businesses are, and how much they want to get informed about and trained on new and more sustainable technologies for their cultivation.

Producing efficiently and using new technologies of production, are not enough. We came to realize that it was equally important to organize producers, so that they can together, collectively, market their products.

In the '70s we helped with the creation of the first cooperatives in southern Spain. Later on, we helped with the creation of cooperatives in the '80s and '90s. We are now following a different strategy; helping cooperatives form synergies with agri-food businesses. So, we understand that thus we are giving to farmers the possibility to market their products and work together. What we have been doing in recent years, through training and education offered to producers and cooperatives, is to create new partnerships, to create economies of scale and tackle the global trade, the global market. The result is impressive. You see here, from the very first centre of experimentation in Almeria, the production of fruits and vegetables there was multiplied and it even quadrupled, as you can see.

It is also important to see the development of exports. We can see that since the '80s -we were not in the EU back then- and up to 2019, exports have multiplied by 35 times. You see here some other export results. Let me present you an example of how we started with a desert, a desert with people of no knowledge, no resources, and we managed to cultivate in an effective way and finally create knowledge and innovation. Here you can see an aerial photograph from the '60s. In Almeria there was nothing. You can see that the landscape used to be a desert. But, in this photo you can see something different. All these white spots are the 35,000 hectares of greenhouses. Maybe you know that greenhouses are the only thing built by humans that can be seen from space. What does this mean? **In the '60s, this area used to be a desert. Technology, innovation, knowledge, labour, and effort, created this miracle. By covering 0.24% of the agricultural area in Spain and using 1.8% of our water resources, Almeria produces 8% of the whole Spanish production and 24% of the fruit and vegetable production in Spain.**

Without technology we wouldn't be able to do that. Here are some examples. Almeria is the second largest exporter in cucumbers and peppers, and fourth largest exporter in tomato - you can see here the data. In 2019 we exported 3.6 million tonnes of fruits and vegetables. In spite of the pandemic we manage this year, to increase our exports by 10%. Whereas the remaining economy was paralyzed in our country, thanks to technology, the agricultural sector managed to do even better compared to the previous year. Here you can see a research and experimentation centre in Valencia, where we have been partnering with organizations there.

Let us now see our vision about the future. How do we approach the agri-food sector? There are research centres focusing on four main priorities. The first two are nutrition and health. To have as much possible healthier food. The third one is bio economy which is very important. It is important to have an environmentally friendly agriculture as possible and to phase environmental problems. We were amongst the first that organized conferences on bio-economy and

circular economy. This opened up great possibilities for our farmers. The fourth priority is sustainability of farming, how you can produce more with less and how we can save water, which is a major problem in our area. Many actions are taken towards this direction. We do combine renewable energy sources using photovoltaics. We are focusing on greenhouses. We are trying to replace pesticides with organic compounds.

I would say that we have managed to create a community of knowledge for the agri-food sector. You can see here our agencies located all over Spain. There is a big community of knowledge. We believe that all knowledge should be conveyed in this field, and this is why we have drafted some publications. Through our publications we inform farmers, we can evaluate the whole situation in the agri-food sector of Spain yearly, and take into account a comparison with the European Union average. Here are some of our publications for each sector. We are currently accumulating all these knowledge onto a digital platform available for all in our sector, and that is a project that will be presented this December. The objective is to share knowledge and enhance sustainability in the agri-food sector. Sustainability exists only in its all three dimensions: financial, social and environmental sustainability. This has allowed us to finance 15% of our national agricultural production. This is because not only do we finance the sector, but -and this is equally important- we can enhance the use of new technologies, in order to become more competitive and at the same time sustainable. You can find the data presented on ADN AGRO, on our website, and I do invite you to come to Spain, to come to Almeria, to get to know our own experience in our centres of research and experimentation. Warm greetings and stay safe. I know that things are difficult healthily in Greece as well. I wish the best to my colleagues from Greece. Thank you.

George Avatangelos: Thank you so much. Thank you indeed for this exquisite presentation, and let me underline the fact that you presented to us some best practices, which at the level of cooperatives - and on the condition of knowledge, innovation, technological orientation and partnership - may lead to economic development, social cohesion and consequently a sustainable character in the future. Thank you so much for that and we do hope that we shall have the chance to see again soon. I wish you all the best.

Now, let us come to the second speaker of this thematic session. Mr. Athanassios Vlachopoulos from Piraeus Bank. Mr. Vlachopoulos is the General Manager, Corporate and Investment Banking, and with in his portfolio of responsibility there is also sustainable banking. Good evening, Mr. Vlachopoulos.



Αθανάσιος Βλάχοπουλος
Γενικό Διευθυντή Corporate και Investment Banking

Athanassios Vlachopoulos

General Manager, Corporate & Investment Banking, Piraeus Bank

Hello to everyone, I would like to thank you GAIA EPICHEIREIN for this invitation. I must say that this discussion is very interesting and all the speeches, interventions have given a clear idea about the Green Deal and the CAP, Common Agricultural Policy. I was saying that the previous speeches, interventions, have given a degree of clarity on the

Green Deal, the Common Agricultural Policy, and all the intervention for the transformation of the primary sector.

I would like to talk about the recovery fund, which was put in place by the European Commission in 2020. Before talking about that, I would like to remind us what happen last ten years in our country. The last ten years we have seen a great recession, loss of jobs, many jobs were lost, and it was only the last year we've seen new start for growth. But everything has changed since the pandemic, and 2020 will be remembered as the year with the greater recession. In this context, in this environment and uncertainty, the promotion of sustainable development, growth is very difficult. This moment is a great opportunity for our country, is a great opportunity to put in place measures and policies for the new economy. We are convinced that the 32 million for the economic recovery will go to this direction.

The first slide shows the recovery mechanism and resilience mechanism. This is a mechanism of the European Union to support its members to tackle difficulties, to help them in the context of public investments. This mechanism has 1, 8 trillion euros and aims to support Member States' economies. This should be defined until 2023, whereas payments that will take place should be finalized until 2026.

Now, let's move on with the next scenario which we would like to focus on. Let us is what is the part about Greece. In Greece for the recovery fund we will get 32 billion euros, and out of those, 19.5 billion will be subsidies and 12.5 will be loans. Here we must mention that these amounts of money are not huge, but we should say that this is a doubling of the public investment program. 6 million euros used to be the number yearly. And the ratio that was achieved for Greece is important, is quite high. Let us say that Greece has a big part of its economy in that and it should have got and the 5% of resources from the recovery fund. This capital is a huge opportunity for our country, and perhaps it is a unique moment for the productive reconstruction of our country, reform the model of our economy. The recovery fund will also contribute to enhance the growth rate, creating new jobs and creating social resilience. We are so much in need of that besides.

Moving on with the next slide, I would like to tell you that we have tried to decipher things, decipher how these funds will be channelled. This is about 32 billion euros, as I told you before. The focus will be on the green economy and transition, transition into the digital world. Quite indicatively, let me mention the energy upgrade of buildings, the different irrigation projects, infrastructure of irrigation, RES, interconnection with islands and the mainland, the creation of logistic centres.

And let me give an overview, a first budget. About the upgrade of buildings will amount to 7 billion euros. When it comes to infrastructure and irrigation it will be 200 million euros. The irrigation project, the land projects will be 2 billion euros. But this stays at a level of discussion still, this stays at the level of discussion, and within November and December the Ministries should submit their own plans, so that these may go to Brussels in order to be finally approved.

What are we doing at Piraeus Bank? At Piraeus Bank, taking into account the different pillars, we have moved on into a recording of the proposals, because we are talking about use of resources. The recovery fund is at the heart of our efforts, and we have focused on this specific sector. How did we record our proposals? Taking into account what we hear from our clients, which is our experience, and what is the knowledge vis-à-vis this endeavour.

Indicatively, let me mention some first thoughts. Diversification of the productive model in our country. Then investment in innovative reforms in the productive process, already we are talking about farming. The enhancement of the production of products of high added value. Then the further enhancement of extroversion with specific goals. The modernization and upgrade of the industrial entrepreneurial installation, and of course, the development of logistics centres, and then different projects per territory. For instance, not a big logistics centre in a big urban area. They can be local hubs,

to avoid this overconcentration.

Moreover, I would like into the next slide and mention that at Piraeus Bank we don't only work on that, but we have already included many tools with, through European programs, in order to be able to further enhance the agricultural sector. I will indicatively mention two, two main projects, the guarantee fund and the fund of bio-economy.

Especially for the European Agricultural Fund for Rural Development, I would like to highlight that it is, we are the first systemic bank that has included this program in the services that we are offering. We have 50% of the program, the size for Piraeus Bank might amount to 200 million euros, but there can be financing of farmers and cooperatives or producers or teams of producers. Obviously, this means coverage of assets and investment plans.

The same goes for the latter program, bio-economy. We'll be shortly ready to offer that to all our clients. And this reaches, this amounts to 100 million euros, as a portfolio. This is 50% of the program, and it's about financing on bio-economy, with a main access the modernization of production and the increase of exports. We mentioned two main tools, two main programs that will run in parallel and will run hand by hand, side by side with recovery fund.

It is very important to mention that as Piraeus Bank we can see that green economy is very important. We can see the model of sustainable development both of the agricultural world and green economy. Let me remind all participants that Piraeus Bank started in 2004, the first bank in Greece adopting the policy of environmental management. Since 2006 we have been the first bank that had green products, talked about green products. I don't mean to tire you any further, but the next slide shows our course, our pathway, how we manage these days.

I don't mean to tire you any further with the milestones, you see them here, but let me mention that in 2019 Piraeus Bank was the first bank, the unique bank in Greece that co-shaped with other 29 banks, the biggest banks in the world, an effort under the aegis of United Nations Environment Programme Finance Initiative, the world institutions, we talked about responsible banking. What does this mean? There was an aim. The aim was the financing of these projects and these plans in order to gradually go into that tradition, a more sustainable economy that will respect the environment and will take good care of the well-being of the society. We are talking about big credits within this framework. We are the first bank that has financed under criteria of sustainable development. The substantial contribution of the policies on sustainability and the entrepreneurial model will include or includes many of the businesses of the agricultural sector.

So, this has been a very brief overview about how we've come here, how we've come into that model of sustainable development, what we can offer both from the recovery fund and our own tools. Here, I would like to come to the end by saying that we believe at Piraeus Bank that this is a historic chance, a historic chance to grasp in our country. This recovery fund is possibly one of our latest chances and possibilities to channel investing capitals that will enhance our adequacy and our self-sufficiency and will limit our dependency on third countries.

So, all together at Piraeus Bank we work on three main axes, the support of investment, directed towards productions. Second, support businesses that right now, in this critical period, help the recovery of our economy and extroversion offering service and products of added value and criterion of an economic sustainability, environmental footprint with a clear-cut, with a clear destination.

Thank you very much for your attention, and I hope that next year we can meet in person sound and safe to discuss the implementation of the recovery fund and the transition of the agricultural sector. If there are any questions, I'm at your disposal. Thank you for your attention.

George Avatangelos: Thank you, Mr. Vlachopoulos, for this excellent presentation. I underline that the recovery and resilience fund

is a fund of 5 billion euros, and that the bank is here with services, products and know-how, experience related to loans, to the green loans. But in general it is also here to support all the viable, sustainable products. We can go now to our third speaker, Mr. Zalidis, Professor Zalidis Director of the Laboratory of Remote Sensing, Spectroscopy and Geographic Information Systems (GIS), of Aristotle University of Thessaloniki (AUTH).



Dr. Georgios Zalidis

Director, Laboratory of Remote Sensing, Spectroscopy and Geographic Information Systems (GIS), Aristotle University of Thessaloniki (AUTH)

Good evening. Well, I'm the last and perhaps the most unlucky, but also the luckiest since I have the opportunity to close and summarize things that have already been said.

In the digital green investments I will focus on sustainability and conditions, in order that these green investments, as has been said by the previous speakers, and thanks to the financing of innovation, and I'd like to see with you if this can be sustainable, and under which conditions. So, sustainability of this financing in technology is the main point here. After a brief presentation, we will see the advantages and the synergies of all that, and we will see how this can work as a national ecosystem of observation for the beneficiaries, I mean for farmers. You've seen the means thanks to which we can collect data from satellites, for airborne drones, and thanks to the investments on people with the counsel, farmer, through telematics, to create this big data. So, the system of assistance has all the data. And thanks to the integration of all data collected from space and even from the farm, we can transform that into services and with algorithms give them to the farmers, to the final beneficiaries. All these services will support the farmer for a better management of his farm and to go "from the farm to fork", this will help analyse all these cycles, not only in the primary sector, but all throughout our food chain. These services use a new sensor, use a hyperspectral camera that we can have mounted on our tractor, and thanks to all the certification, we can collect all the data, offer services to the farmer that will help him to better fertilize and protect his crop. This system of irrigation, thanks to a system of sensors and through an online connection, improve irrigation for farmers.

We have also the satellite system and satellite data, which is integrated in the geo-part and it is important to see how we profit from this data. We've seen by the previous speaker the benefits of all this information, and thanks to the datacube, we can have easily the analysis of big time series of satellite data in order to help the beneficiary of our services, which is the farmer, of course.

Essential component of this effort is to develop national libraries both for our lands and for every crop and phenological stage. The application of datacube, agriculture in association of satellite

data, either from Italian or Israeli satellite, give us information that associate with the field data and with all the data of the other tools. Different cultivations related to farming is necessary for a farmer to get to know, in order to manage the soil and timely prediction of productivity.

Last but not least, I will analyze that further, what is named the balance of carbon, because we cannot sell products that do not have the lifespan recorded on them. We see that an integrated approach of geo-spotting with different tools give us nowadays, I don't mean to tire you with the technicalities, this is for another audience, because we are part of entrepreneurship, but what we need here is how to maintain, how we can finance and how we can keep not only at the level of the producer, but also how we can protect the primary sector as a whole and the agro-food chain, how we can maintain this system, so that, at the end of the day what is said here, said here by GAIA EPICHEIREIN, that is, remote consulting, consulting services through a control system could go to the final beneficiary, and Mr. Kapnias before mentioned, Mr. Kapnias before mentioned exquisite ideas about how we could copy the service that exists today by the payment authority and lastly reach the farmer.

We forgot that, but it's equally important to talk about our livestock breeder, our different lands, that provide all of those people with respective services. Last but not least, the three resources, the three factors point. This is a system on which development depends, soil, water, bio-diversity. Having the same approach, we can nowadays monitor, but also this monitoring, you know, will contribute to calculating the footprint of carbon in different types of soil, different cultivations, investigate the different data and get into deep knowledge and, of course, transfer certified services of earth monitoring in the ecosystem of agro-advice. Any service, if we don't put at the heart the cultivation reference, if we don't have any certified effort, then this will bring no added value to final result that will go into the shelf. And of course, there is the background of that, we must create the spectral libraries for the footprint of carbon. Another big part of agriculture is bio-economy, which is about the use of land waste, to create macro-elements, in order to take the necessary energy part from agriculture, so that waste may create an energy equivalent.

Last but not least, another sector is the production of protein, another bio-active substance again from the residues, from the waste of agriculture. We all know what we can get from the different residues of wineries. **In northern Greece along with Neuropublic and the Aristotle University, we created for the first time an innovative system to define the footprint of carbon through the Ag-Cluster, which from the beginning of this month has started its operation for the whole region of central Macedonia. This will greatly contribute to the decrease of inflows, the protection of the environmental footprint per climate zone, and of course this will extend throughout the country. It's the first time that we are having a synergy between the CAP and the Green Deal, reduction of the CO2 emissions, mitigation of its impact for the climate change, recording with a scientific and experimental way of the environmental parameters and consequences to shape a large-scale strategy. The objective here is to trace policies to tackle climate change, improvement of the producers positioning, because the final product will be named and it can be branded very easily, increased benefits for the consumer, timely certification the market vis-a-vis the competition, increase of level, increasing jobs in scientific personnel, upgrade of competitive advantages in Greek products, because you know many of those have a low carbon footprint. And last but**

not least traceability, so that we can know where these products came from.

I said before that there are technologies, but in a structured way and in a way that will be sustainable, they should be financed, so that they can truly be a legacy, so that smart farming can be a reality, and different services gotten by our producer will be enjoyed and indeed will be the ones that will increase competitiveness versus other products. Structured flow services towards the final users are very important. The documentation lots, where are we going to have certified services, the part of agronomists, consultants, which is of paramount importance to me as a human factor, because it will bring innovation to what we name a cluster, A cluster of innovation, that is.

Indeed in northern Greece we have more than 8 cooperatives, along with the Aristotle University, along with Neupublic and along two or three other companies, local companies, to shape the first innovative cluster with a specific direction giving to our country a decreased footprint carbon-wise. Now, the data for land observation is a sine qua non and is the backbone of our effort, other we are talking about land or satellite or UV or any other type of data. This is a very important part of the whole service that we need to offer.

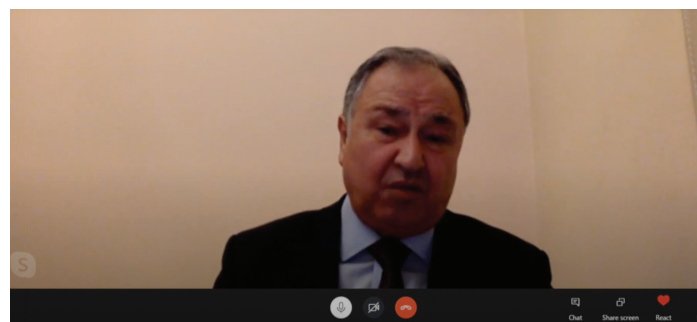
We have a specific question: how is this going to be feasible, and how can we guarantee the continuous operation of such a system? The reply, first reply that I can give you is that to maintain that, having experiences what maintenance of telemeter means, we need a PPP, partnership between the public and the private sector, so that this infrastructure of open and public data could be maintained. A necessary prerequisite is the creation of an infrastructure, of offering rather open data, that will guarantee the operation and the maintenance of it with the participation of the private sector, and of course I agree with Mr. Vlachopoulos, when he talked about this transition, this shift of agriculture, which is a sine qua non. Services to final users is of paramount importance equally.

Last but not least, I will come to the end with this slide, that is how can I turn all these prerequisites that I mentioned before into operational objectives that will be lined up through these five axes, development of skills, networking at a local and global level, so that our data, our people, who will offer this data, will guarantee the part that, the fact that, rather, data is safe, credible to provide our services. Initiatives, projects for development implementations, sustainability through financing mentioned. Strategic planning for the big national infrastructure, maintenance of the strategic planning for infrastructure and update of data. Development of new by-products in the agricultural field, based on new techniques, that I already mentioned to you, which is equally important and last but not least provision of credible services, certified services though the hub of data and through the merging of data.

I would like to thank you for your attention, it has been my pleasure to be with you to present the prerequisites of sustainability when it comes to the different types of innovations, if we really need to include that in our agro-food chain. Thank you so much.

George Avatangelos: Thank you, Mr. Zalidis, for this excellent presentation. We keep that digital transformation and all the needed infrastructures are the prerequisites. It's not sufficient, but we need further steps to create a holistic value chain, as you have presented it. Thank you very much for your participation and this speech.

Now, I will give the floor to the former Deputy Minister of Rural Development, Mr. Konstantinos Kiltidis. Since 2016, he is the President of the Agrifood Partnership of the Central Macedonia Region in Greece.



Konstantinos Kiltidis

President, Agrifood Partnership of the Central Macedonia Region

Good evening from Thessaloniki, Macedonia. I have avoided the slides so that you can see me perhaps better and to present the thoughts that I can submit and concern policies, obviously, that must be implemented. I am particularly satisfied, honestly, not as a figure of speech, because I will speak at a conference organized by two of my main collaborators, Giannis Mavroudis and Christodoulos Antoniadis, pillars and supporters of the Agrifood Partnership of the Region of Central Macedonia, of course through GAIA EPICHEIREIN.

To understand each other, we must apply what Antisthenes said in ancient times. We have to understand, so first we have to know what are the smart policies, smart farm and are they beneficial for society, for the environment. There are two parameters that are the base of our discussion. In your title, you mentioned two investments. We are very coherent. Transformation and digital sector. This is very important in favour of sustainability, for health, for the primary sector and the secondary sector. But we have to have in mind two main concepts. Two concepts I have concluded after having studied Aristotle, is ecoctonia and poronomia. Ecoctonia meaning that to kill the environment, something we have to avoid it, to not, meaning ecocide, not to kill our environment. And poronomia meaning to preserve our environment, our economy, is very important after the intensification of farming. I think that these policies have a great value.

As European Union but also as a Member State of the European Union, we have to achieve this regulation to have the reform. In our country, we speak about reform without regulation. So, the precondition is to have the regulations, in order their reforms, we are talking about in the agriculture, can bear fruit. Green policies are quite clear, and experience is showing so, that they are embedded when they can be linked to payback. Because, precursor policies of the greens, and this conviction of mine is quite satisfactory, that either as sound practices or as rational or integrated management, cultivation breeding have been an establishment. The payback, when it comes to the new CO2 policy, I was fortunate enough, you know, as an Alternate Minister our behalf our homeland, to sign in 2008 and submit to the international community highlights and a reality that should be promoted. And it is right, a right of our farmers and of cultivations.

I'm so amazed that the contribution as a CO2 sink was exceeding 60% that is the total output of forests. It is something that it is an asset, a leverage, a powerful leverage for the Greek reality, which should be turned into practice, that is, these discussions heard about this topic change of CO2 and the payback that should follow. Environmental practices and green policies when it comes to cultivation should find a way. A powerful parameter is, of course, the circular economy and the interlinked management.

Here, let me talk about breeding, because this interlinkage should be linked to energy. And of course, as my dear friend, Mr. Zalidis said before, we must use residue, waste, the use of those two

may deliver, when it comes to breeding, which is, how should I put it, which is the most cruel one, the most cruel type when it comes to the environment. Thus, we should develop policies of paramount importance pertaining to green development.

Now, digital implementation and digital applications. As I said before about reforms, likewise I feel the need to declare that if we need to implement digital applications and make that happen in the Greek reality, we must develop a national strategy with an executive branch, the regional authorities which should be modified, they should turn into real local governments, not just local administrations. A wishful thinking is to see new collective efforts, new efforts in the rural area, in the agrifood sector pertaining to new teams, new efforts, that will not remind us of the obsolete past. I think that then these new digital applications coming from a national strategy or from new collective efforts may deliver in the agricultural world, in cultivations, in forestry as well. Why not.

Unfortunately, precursors and previous infrastructure have not been in place, so that we can talk about the implementation, to talk about the application that I have just mentioned to you. Let me give you an example, because this is quite timely. How may we implement in irrigation projects the PPP's when right now we have no proper installation, when right now the majority of Greek farmers may not meet the cost of energy, the operation of units. In other words, we must send a message through this conference, that there is a need to create a new starting point, like in the past, with an effort that will transcend political parties, we must support rural areas, and we must support regions. And of course, the ones who serve rural areas, that is farmers, should be served. This must be a top priority for all authorities. The State, of course, direct or indirect, or either through European or national support, the state must support rural areas and provide all farmers with digital applications. Otherwise, I think that we can just keep on dreaming. We believe that we shall keep on talking about very useful things, very appropriate for other advanced countries, other modifications that have taken place in other countries, but I think that we shall mimic the example of the Chinese philosopher, that the train will be lost and we can never catch it. So, there will be no implementation of these policies.

In a nutshell, I was as brief as possible and I managed to highlight, politically speaking, what was going on. I think that green policies can cause the interest of producers. This has been proven, that is. If this is combined to competitiveness, then I'm pretty sure that it can be applicable, and it can be environmentally friendly. Digital ones must be fully supported at a central or regional level and planning. Otherwise, we will not be happy enough to see that result, the result that we want, and any investment made obviously will not meet the new resources, will not meet the standards that we want. As a political figure, you know I served this field, I don't want to revive this era with tremendous studies, with numerous studies that were never fruitful and never applied in practice. I think that making baby steps with the actual personnel, the efforts that we are making here at a regional level, with Mr. Antoniadis, and of course with the assistance of GAIA EPICHEIREIN, along with the scientific personnel of the Aristotle University of Thessaloniki and all others, we can bring the result that will be tangible and measurable. Thank you so much for your attention.

George Avatangelos: Minister, thank you. We keep the practical approach of your presentation, and as a central understanding, as a main understanding, you are proposing a new deal at the level of central administration, regions and all stakeholders in this transition period pertaining to digitization of the primary sector. Thank you so much. Thank you.

And we now come to our next speaker, last but not least. Our last speaker, Mr. Efthymios Efthymiadis, who is Vice President of the Agrotechnology Group Efthymiadis, member of the administra-

tive committee of the Industry Association Northern Greece and a pillar of the recently shaped scheme, a synergetic scheme that is, La Sitia. You have the floor, Mr. Efthymiadis.



Efthymios Efthymiadis

Vice President, Agrotechnology Group Efthymiadis

Good evening. As the last speaker, I hope that you can hear me well and you are not too tired. I wish to everyone to keep safe in these difficult conditions of pandemic.

Here we are in a sector, which is not so much affected by the pandemic. The sub-sector I will present you is the new model of Greek agriculture, the action we have taken, the partnerships that overcome, that go further the food and agriculture chain. As a group our mission is very simple, is very clear: it is to support the agriculture sector, but also to satisfy the needs of consumers. Our main objective is to contribute to the development, to the production of products in relation to the standards of health and security, in hygiene standards. And with this respect to the environment. We have 4 branches of activity. The first and mainly related to the production and marketing of agricultural supplies, e.g. seeds, fertilizers, plant protection, second sector related to the development of production of special materials, that is seeds and plants. Third one, lab tests that is soil, land and water analysis and analysis of food quality, and fourth one, production and commercialization of agri-food products. We are here since 1935, my grandfather Efthymiadis from a small store of commercial products at 27, Tsimiski Street, Thessaloniki, and after 85 years we have reached a pretty good point I would say.

I have gotten some data of 2019. 81 million turnover, we have 140 permanent employees, 6 productive units in Greece and 1 in Cyprus. We have a powerful presence in the Balkan region and in crisis we had a reverse course compared to what happened overall. We improved our income, we have created more than 80 new labour posts in our group lately, very, many new investments. We had some strategic alliances. We are not afraid of alliances, we are not afraid of giving a part of our business, if this will help us towards a good development, and we keep our headquarters in Greece. I believe that in our 85 years this means some values that have helped us to survive. The human face, the human façade of ours known in the market. The absolute and clear way of carrying out transactions, the quality of our products and the faith in what we are doing. Of course, today we are active, and we should be active in the new model of Greek farming, which focuses on quality, standardization and the fact that our products become known. We are targeted into production in combination with a rational use of resources on safety and the environment. I believe that there is a closer partnership and interconnection of all links in the productive, commercial and financial chain.

As a group for the last ten years, we have turned our face towards these partnerships. That is, we have focused on the so-called

contracting farming for the production of agro-food product of high added value, in a targeted way. I don't only mean high quality, because quality is a misunderstood phrase. Because the perception of quality differs from one speaker to another.

Let me give an example, the beer. Beer, the beer based on maize depends on different types of proteins. So, this means that the varieties for beer are not suitable for the other use of barley. And let me tell you that each interested party has its own prerequisites and standards. We, as a group, we are developing activities in three ways. First, contractual farming, to cover a different need in the industries as a raw material, that is barley for beer, cereal for flour, durum wheat for other purposes, etc. And the second pillar is what we are calling the agro-food synergies for the production of branded Greek products. Using the know-how of our group, we believe that we can intervene across all stages of the chain that is from the field, with the choice of the proper protection, proper field, to the self, that is proper targeting and commercializing of any agricultural product. Thus, we link producers to the final user, the consumer of these products, and, as a final result, we want to have a more fair financial delivery for all stakeholders. That is in practice and after many years, I would say, of efforts, we have ended up with the following. The model that might have a bigger lifespan in Greece, should be based on some main values.

Both sides, producers and private businesses should have rights and obligations. We must all have something to lose, to put it simply. So, we believe that the most appropriate schemes are synergies, through cooperation initiatives. An example of such a model is, as used before, La Sitia. La Sitia is a company to manage and commercialize olive oil, where was the participation of ours, along with other two companies, and La Sitia. It's not a simple company to commercialize olive oil, it's more than that. It is an iconic scheme talking about a PPP, which links at the same time the local society, the different farmers with the international and Greek good entrepreneurship under a common umbrella, a common vision, that is restore the local olive oil, the virgin olive oil, this very good product and bring it back to true value. One might say, why did you do it? Why were you involved with other companies in Northern Greece? We believe that olive oil is an exquisite product, which is not properly used in Greece. We only know that there is much olive oil sent in Italy and bulk, not standardized that is, yet it remains an iconic product for Mediterranean cuisine, for Greek cuisine. So, people want it. In Sitia, for example, we do produce 8,000 to 12,000 tonnes per year of extra virgin olive oil, in practice there is no business that standardize olive oil in Sitia. That is, not only more than 50% of the olive oil leaves for other countries in bulk, but even the one standardized in its majority goes away from Sitia. We need to intervene, support our union, rent and use the premises that we have now and give a way out to our farmers to the mills, that is, bring olive into the heart of the local debate, use these local products. What could be the outcome of that? Good prices, reasonable prices, excellent quality. We can guarantee the maximum added value remains a benefit for Sitia area. We can give some labour posts to people who live remotely and live based on oil. And our main objective was to standardize in some years' time the totality of this quantity produced in Sitia. I'm talking about the extra virgin oil, virgin olive oil of Sitia. Furthermore, through our joint venture we can offer assistance to producers. We are already thinking of contractual farming, producers that can contribute to our effort and expertise, so there will be some tangible results for the ones that will collaborate with us from the next period, because now we are starting our period. And, if this becomes successful, this can be repeated in other areas. Not just for olive oil. I believe that this is a model, this is a model that can be

followed, through an association, through different unions, we can understand what the meaning of a market is. We can trust the fate of some products to a well-structured private company, which will also participate in the venture. We want how to standardize, commercialize, and be present in the international competition, especially when we are talking about the extra virgin olive oil of Crete. That was all. Thank you so much for your attention.

George Avatangelos: Thank you, indeed. Thank you for your participation. Let me keep only one phrase for you, a very substantial phrase, which is practical, because your intervention was practical as well and comes from the everyday experience. The project La Sitia has all the elements of sustainable investment, activity, given that it guarantees the continuation of production in the Sitia region at the level of olive oil and olive tree, and financial delivery, efficacy and social cohesion. Thank you so much. Thank you for your participation. This thematic session has come to an end. However, the Congress will come to the end by Mr. Ioannis Mavroudis, the CEO of GAIA, who has directly the floor. Yiannis, the floor is yours.

Ioannis Mavroudis: I think that we have come to the end of a very fruitful day, a day that had very fruitful discussion throughout the panels, with brilliant speakers that submitted their proposals on the new CAP. They submitted their ideas about how the future of the primary sector will look. I think that now it's up to us to truly implement these policies, to take the necessary actions and move forward in our primary sector. Let us not forget that amidst the pandemic, it has been one of the main pillars that helped us stay strong. We developed exports and I think that in the coming year things will be better for all our farmers and for the totality of our primary sector, in spite of difficulties. Coming to the end of this conference, I hope that next year we will have overcome the pandemic and meet in person.

I would like to convey the greetings of the President of GAIA EPICHEIREIN, Mr. Christodoulos Antoniadis. I would like to also thank the speakers, eminent personalities, the DG AGRI of the European Union, which supported us in the framework of the CAP 3D program, in order to implement this dissemination and update the public on the CAP policy developments. I would also like to thank the personnel of GAIA EPICHEIREIN for their dedication in organising this excellent conference. I would like to thank our sponsors, and our communication sponsors, because once again they stood by us, as well as our collaborators from the technical team. Along with the external partners, all outsourced services, because they helped us a lot. I would like to thank the delegates, the interpreters, we thank you as well. Let me tell you that the minutes will be available shortly, speeches and different excerpts of this day will be on our platform and will be also uploaded online to our website. And I wish us all that next year we can meet in person. Thank you so much. Thank you.

George Avatangelos: Ladies and gentlemen, I wish you all the best. Have a nice evening.



More than

7.500 single **users** visited the congress **platform**
gaiacongress2020.c-gaia.gr

Representatives of cooperatives
Agricultural advisors
Policy makers & Local and Public authorities
Agri-food businesses
Academics
Researchers
Students

1.200
online delegates

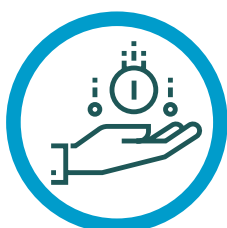


8 hours

of total content with valuable information on **CAP**
recent developments related to the challenge
and opportunity of the **green** and **digital transition**



30
speakers



8
sponsors



9
communication
sponsors

GOLD SPONSORS



PREMIER SPONSOR



SPONSORS



SUPPORTERS



COMMUNICATION SPONSORS





CENTRAL OFFICES

2, Paradeisou str. & Kifisias av., 15125, Marousi Greece

T +30 213 018 7300 **F** +30 213 018 7399 **E** info@c-gaia.gr

THESSALONIKI OFFICE

27 Georgikis Scholis Ave., 57001, Thessaloniki-

T +30 2316 004800 **E** info@c-gaia.gr

BRUSSELS OFFICE

19, Rue Guimard, 1040 Brussels

T +32 (0) 25134173 **E** gaiabrussels@c-gaia.gr

www.c-gaia.gr



Funded by the IMCAP Programme of the European Union

