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THE FUTURE OF FOOD CONFERENCE 2023

26 OCTOBER | BRUSSELS & ONLINE
CONFERENCE REPORT



PROGRAMME OUTLINE

MORNING

09:30 – 09:45 Opening remarks

Michiel de Ruiter, Chairman of EIT Food Supervisory Board

09:45 – 10:05

INSPIRATIONAL TALK

Future-proof European food ecosystems

Peter Kearns, Director, Sustainable Food Systems and Innovation, Re-Imagine Europa

Ninna Granucci, CEO, Green Spot Technologies

10:05 – 10:45 Plenary session

Consumer Information, behaviour and choices – new solutions

Moderator: Natasha Foote, Agrifood Reporter, Euractiv

Cortney Price, Lead for Behavioural Science, Office of Innovation, Food and Agriculture Organization, United Nations (FAO)

Prof. Klaus G. Grunert, Aarhus University, Professor and Director of MAPP Centre, Consumer Observatory, EIT Food

Hendrik-Jan van Oostrum, Head of EU Public Affairs, Ahold Delhaize

Maria Etessam Alvaro, Human Resources Director at Magnatech, FutureFoodMakers

11:10 – 12:30 Interactive parallel sessions

BREAKOUT SESSION

Future-proof Youth

Moderator: Dr Lucy Wallace, Chief of Staff, EIT Food

Pawel Krasny, Human capital and regional development specialist, EBRD

Glindys Virginia Luciano, Network Engagement Coordinator, YPARD

Rieke Sproten, Graduate of EIT Food MSc. in Food Systems

BREAKOUT SESSION

Legislative approaches for the future of food

Moderator: Natasha Foote, Agrifood Reporter, Euractiv

Claire Bury, Deputy Director General, DG SANTE, European Commission

Dirk Jacobs, Director General, FoodDrink Europe

Robert Jones, Vice President, Public Affairs, Mosa Meat

Monica Andres, Executive Vice President, Europe, YARA

Giulia Riedo, Food and Agriculture Policy Officer, WWF

Maija Itkonen, Co-Founder and CEO, Onego Bio

BREAKOUT SESSION

Food for healthy planet and people – The Protein Diversification Case

Moderator: Lorena Savani, Mission Lead, EIT Food

Kari Tronsmo, Chair of EIT Food Think Tank on Protein Diversification, Open Innovation Manager, Danone

Koen Dillen, Head of Unit, DG AGRI, European Commission

Jorge Molina Villanueva, Policy Officer, RTD, European Commission

Mathilde Do Chi, Lawyer, VeganFoodLaw

Anna Churkina, Researcher, Bayreuth University

WORKSHOPS (CLOSED ROUND TABLES)

The European Innovation Landscape

- **Startups' needs** (EIT Food Startup focus group)

- **Investment for the transition**
(Food Drink Europe)

PROGRAMME OUTLINE

AFTERNOON

12:30 – 12:50 Keynote Speech

Iliana Ivanova, European Commissioner
for Innovation, Research, Culture, Education and Youth

13:50 – 14:10 Speech

Europe's Future of Food – Articulating food security, sovereignty and sustainability

Alan Matthews, Professor Emeritus of European Agricultural Policy, Department of Economics, Trinity College Dublin

14:10 – 14:50 Plenary Session

INTERNATIONAL DEBATE

European food systems in perspective: the transition happening beyond our shores, what can we learn?

Moderator: Natasha Foote, Agrifood Reporter, Euractiv
Arvea Marieni, Partner and Board Member of Management Advisory Company Brainscapital and Technical Director for the Regenerative Society
Julie Vermooten, Chair, AgriFood Committee, AmCham EU and Director of Europe Public Policy and Government Relations at MSD Animal Health
Felix Collins, Founder and CEO, Full Circle Biotechnology
Ana Euler, Business Executive Director, EMBRAPA, Brazil's agriculture research corporation
Nir Goldstein, CEO, The Good Food Institute Israel

15:15 – 16:35 Interactive parallel sessions

BREAKOUT SESSION

DeepTech Talents to nurture our future in food & agriculture

Moderator: Cornelia Schwenk, Head of EIT Community Education, EIT Food
Dr. Antonella Succurro, CTO and Co-Founder, CinSOIL
Dana Adriana Pula Morel, DG GROW, European Commission
Laura Fernandez, Director General, European Food Information Council

BREAKOUT SESSION

The data we need to make decisions for our future: Reliability, transparency, transferability

Moderator: Natasha Foote, Agrifood Reporter, Euractiv
Valeria Forlin, Policy Officer, DG CLIMA, European Commission
Hannah Koffler, Project Manager, ConstellIR
Claudia Schapp, Senior Officer, Federal Agency for Agriculture and Food, 4per1000
John Gilliland, Agriculture and Environmental Advisor, AHDB

BREAKOUT SESSION

Food for thought – Sharpening innovation support: the future-fit instruments we need for the transformation of European food

Moderator: Michiel de Ruiter, Chairman of the Supervisory Board, EIT Food
Michiel Scheffer, Board President, European Innovation Council
Adelaide Cracco, Head of Climate and Environmental Impact, EIF
Pawel Kazmarek, Fundacjateranostra
Will Surman, Director of Public Affairs, Food Drink Europe

17:00 – 17:20 Fireside chat

Ambition – Agility – Acceleration. Can Europe deliver?

Roberto Berutti, Member of Janusz Wojciechowski's Cabinet, European Commission
Lin Heivers, Coordinator Belgian EU Presidency 2024, Agriculture & Fisheries

17:20 – 17:30 Closing remarks

Richard Zaltzman, CEO, EIT Food

[WATCH THE SESSION REPLAYS →](#)

Project Management and content creation
Laura Dirix, Flavio Antonelli, Marie-Elisabeth Rusling | Public Affairs | EIT Food

KEY EVENT STATISTICS

THE CONFERENCE IN NUMBERS

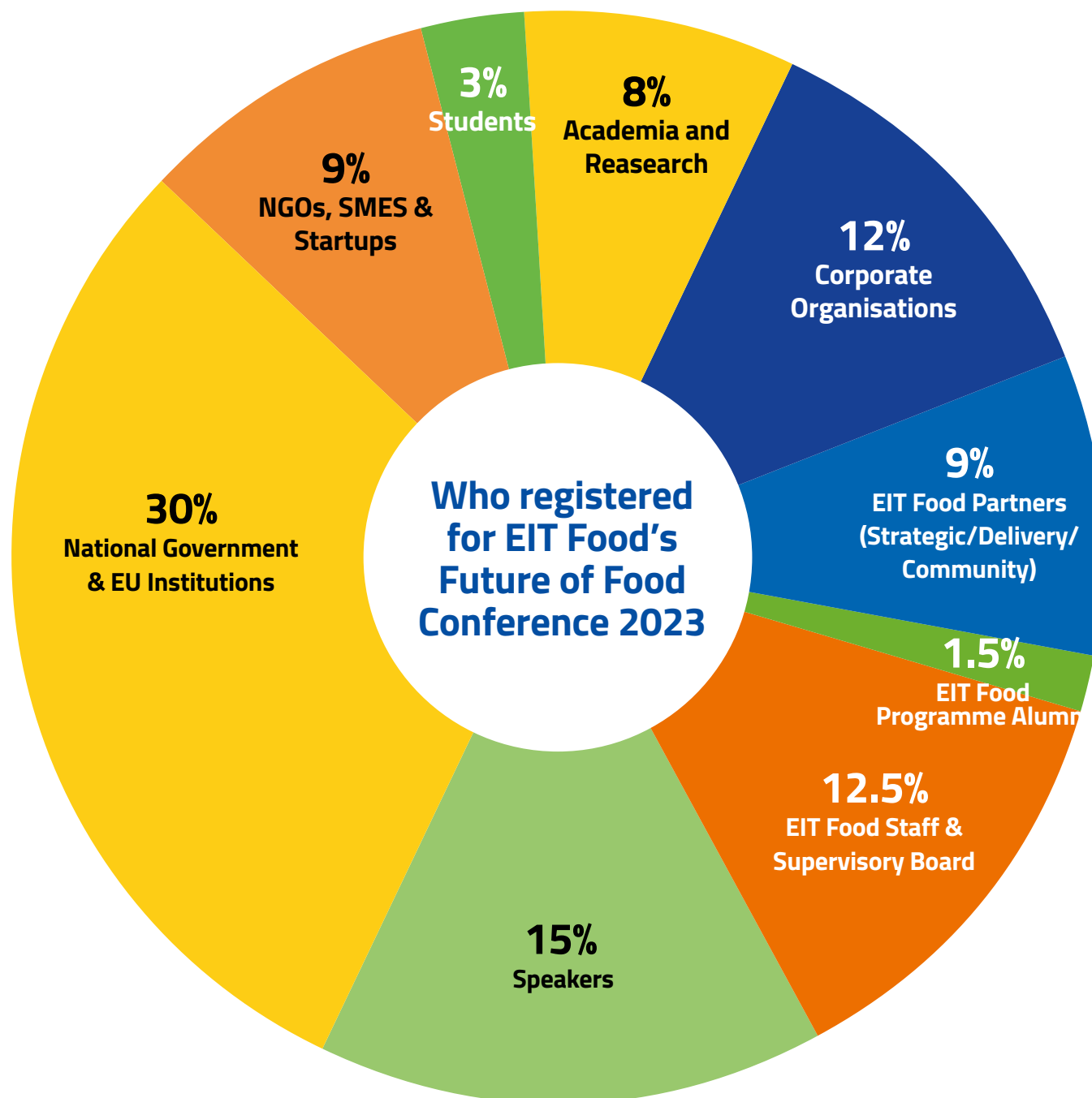
202 Attendees

328 In person registrations

171 Online viewers

45 Speakers

23 Countries represented at the event



INTRODUCTION

With Europe looking towards institutional change in 2024, EIT Food's 2023 flagship conference provided the perfect moment to consider what should be on the menu for the future of food systems.

Bringing together the largest food community in the world, stakeholders were inspired with evidence-based insights, business cases, and concrete recommendations on how to transform food systems.

The event comprised an in-person gathering in Brussels and strong online participation. Policymakers, EIT Food partners and representatives from farmers to consumer champions came together to discuss issues including soil health, innovative proteins, data, and much more. With bold strategies for everything from investment in regenerative agriculture to comprehensive food labelling, there was plenty of food for thought.

This report draws together the day's key themes. From the role of big data to forging a resilient global food supply, delegates dived into the relevant challenges. Links below give access to the full recordings of the breakout sessions; it concludes with recommendations for the new EU legislature.

In the words of Iliana Ivanova, European Commissioner for Innovation, Research, Culture, Education and Youth, "our food systems need a strategic overhaul." We need to green our food system while ensuring food security for Europe and beyond. "It is not a task for a few players, but for society as a whole, and that is where EIT and this community come in."

At a time when the EU's "best in class" stance is under threat, EIT Food's Future of Food Conference provided the perfect opportunity to discuss what comes next.

 This is Iliana Ivanova, European Commissioner for Innovation, Research, Culture, Education and Youth



PLENARY SESSIONS

MOVE FAST, BUILD SYSTEMS

Michiel de Ruiter, Chair of the EIT Food Supervisory Board began the morning with **Welcome Remarks** outlining the importance of creating resilient, healthy and sustainable food systems.

It is time to map realistic change scenarios, because we need to move faster, he noted. Recent EIT Food work in this area includes publishing a Policy Brief on protein diversification, research on financing gaps and how consumers feel about food innovation.

The EU needs to go beyond implementing the promises made in UN Sustainable Development Goals (SDGs) and the EU Farm to Fork Strategy to shape a sustainable, resilient and transparent system. From supporting the SMEs driving these changes, to placing consumers at the centre of food system change, there is much work to do.



FUTURE-PROOF EUROPEAN FOOD ECOSYSTEMS

The next session saw Peter Kearns, Director for Sustainable Food Systems and Innovation at Re-Imagine Europa and Ninna Granucci, CEO of Green Spot Technologies discuss **Future-proof European Food Ecosystems**.

Noting that plant breeding goes back 10,000 years, Kearns said he sees no discrepancy between agrifood systems, agriculture and the urgent need to

protect biodiversity. With climate change a growing threat, he gave a stern warning about the costs of inaction. Sensitivity about scientific innovation is not going anywhere, he added, with new legislation on new genomic techniques in front of the European Parliament. Work on depolarisation and clear information has therefore never been more important.

Ninna Granucci, CEO of France's Green Spot Technologies, which leverages upcycling and fermentation at an industrial scale to produce natural ingredients, noted while Europe's innovation systems are facing "profound challenges" – but simultaneously have a powerful influence to do good.

BETTER CHOICES... AT A PRICE?

Moderator Natasha Foote, EURACTIV's Agrifood reporter, opened the next session on *Consumer Information, Behaviour and Choices - New Solutions*, which considered the consumer's role in food diversification, health and preserving the planet.

Leader of the new EIT Food Consumer Observatory, Professor Klaus G. Grunert of Denmark's Aarhus University set the scene, noting the power of the consumer in the green transition. The EIT Food Trust Tracker 2023, new research into nearly 10,000 consumers across Europe, showed that 63% of consumers think food brands pretend they're more sustainable than they are. Just 44% of them have confidence in the healthiness of food, and only 36% are confident that their food is produced sustainably. Significantly, while about two thirds of consumers are motivated to make healthier, more sustainable consumption choices, most do not believe that they have sufficient information to do so.

Labelling can and should contribute to their choice. But there are many other factors, and we need to think in a holistic way, Grunert noted. Most existing labels highlight trade-offs between products in the same category, but a meaningful transition is about substituting whole categories. Moreover, many consumers perceive a trade-off between sustainability and price, he added.

At the same time, information is not by itself sufficient, said Cortney Price, Lead for Behavioural Science at the Office of Innovation of the Food and Agriculture Organization of the United Nations (FAO). People are "jumping-to-conclusions machines," he noted, "and it usually serves us well, but in critical places, it fails us." It has been a fallacy since the Enlightenment that, if we give people good data, they will make good choices. In reality, there is more at play: one of the main unaddressed barriers to better consumption choices is how easy it is to make changes. After all, he remarked, we can't put the onus on consumers to change the world. Thinking about how "normal or abnormal" it is to bring sustainable items to a party, for example, is a barrier – as is cost. Highlighting these barriers, and then undertaking the co-design, experiment, and measuring of food choice environments can "nudge" consumers towards better behaviours. Everything from how people navigate a supermarket to meal planning can affect them.

These are far from the only factors, noted Hendrik-Jan van Oostrum, Head of EU Public Affairs at supermarket group Ahold Delhaize, which deals with 1,100 farmers and growers and often negotiates on sustainability targets as part of this. Demographic traits also influence the reach of a label: only a minority of people buy bio label food products, typically those with a higher level of education, he explained.



📷 Leader of the new EIT Food Consumer Observatory, Professor Klaus G. Grunert of Denmark's Aarhus University

NOT JUST A LABEL

Labelling, a favourite topic at EIT Food conferences, was once again front and centre when discussing consumer choices.

“We like the French system Nutri-Score,” said Ahold Delhaize’s van Oostrum. Already in use across Benelux and Germany, the company would happily roll it out across all markets on own brand products. While Europe is far from unified on labelling, many in the industry hope for a single European nutrition label during the next Commission mandate, when policymakers will tackle the Framework Legislation for Sustainable Food Systems, FIC Regulation revision, and Green Claims Proposal.

Labelling can only work as part of a more widespread push on education around healthy eating, said María Etessam Álvaro, a dietitian and member of the newest cohort of FutureFoodMakers, a group of youth representatives from across Europe brought together by EIT Food. Education can also play a big role, she noted, with teaching people how to plan meals and shop accordingly a skill that needs to be taught.

At the end of the day, modifying behaviours requires willingness to change, accurate and reliable information, and a gentle nudge in the right direction. “Labelling can and should contribute to it,” concluded Grunert, but so should store layout, shelf placement, packaging, pricing, and more. Every part of the value chain has a role to play in fostering better choices.



Attendees heard more about labelling to ensure consumer choices



María Etessam Álvaro spoke on stage on labelling



TAKING STOCK, LOOKING FORWARD

The inflection point between two legislative cycles is the perfect moment to discuss the need for an enabling policy framework to achieve a more sustainable EU food system.

The last five years have seen turbulence including pandemic and war, exposing the risk factors for global food security at every level; all topics discussed in the breakout session on **Legislative Approaches for the Future of Food**.

"It's a miracle that we've kept the ship more or less stable and still getting towards port in spite of those crises," said Claire Bury, Deputy Director-General of DG SANTE at the European Commission, reviewing the Farm to Fork Strategy. Given the pressing issue of climate change, "standing still is not an option," nor is reducing the ambition of the Green Deal. And there are reasons to be optimistic: a change of mindset is happening among farmers, in board rooms, among consumers and investors. But delivering on the transformation will require innovation, engagement and involvement, as well as understanding food choices.

"Food is one of the first sectors to be damaged by climate change," explained Dirk Jacobs, Director General of FoodDrinkEurope (FDE), which represents Europe's food and drink industry. Despite widespread support for the Farm to Fork Strategy, rollout so far has been missing market orientation.

There are large-scale challenges: a recent FDE study illustrates that just achieving sustainable agriculture, will cost between €38 and €52 billion annually.

Agriculture is one of main drivers of biodiversity loss, reminded Giulia Riedo, Agriculture and Sustainable Food Policy Officer at the WWF European Policy Office. As biodiversity threats increase, the incoming Commission should adopt an EU Common Food Law with quantitative targets to set a clear direction for not just farmers, but also processors and retailers – and unlock the investment needed to achieve this.

Riedo invited a better alignment of the Common Agricultural Policy (CAP) and Farm to Fork Strategy objectives. Additionally, she suggested, it may be worth rebalancing its allocation, currently tilted in favour of direct payments. At the same time, bringing incentives rather than conditionalities will help decrease the administrative burden for farmers.

Europe is seeing a big impact from climate change, with floods a particular issue, said Monica Andres, Executive Vice President for Europe at fertilizer producer YARA. Andres underlined the importance of unlocking decarbonisation, noting that green fertilisers will be an indispensable tool for this. Today's farmers are overwhelmed with conflicting demands to produce more, improving biodiversity and sequester carbon. Farmers need clear expectations and incentives, along with ambitious targets for change.

Innovation at every stage of the value chain is required for this to succeed, panellists noted. “We want to be part of the conversation. It’s about layering in new technologies,” said Robert E. Jones, President of Cellular Agriculture Europe and Head of Public Affairs at Mosa Meat, which grows beef from sampled cells, rather than rearing cows. Despite the hype, their solution is both complementary to existing protein sources, and reliant on existing systems of agricultural production, he noted.

Europe needs to avoid a monoculture or importing crops from problematic areas, such as the Amazon, he stressed. “Farmers are the original entrepreneurs,” he said. “We’re trying to disrupt the climate crisis, not conventional producers.” A massive increase in regenerative agriculture is needed, as are more sustainable ways to produce meat.

Getting a regulatory environment that is conducive to protein diversification is a challenge, along with funding models, explained Maija Itkonen, CEO and Co-Founder of Onego Bio, which makes animal-free egg whites through precision fermentation. “Even though this technology has been incorporated in all

kinds of food for 30 years,” and the company has garnered €50 million in investment, she sees at least six years until they can market the product in the EU, due to the Novel Food approval process. “We’re in a bit of a trap here,” she explained, because only fully developed technologies can apply for approval, whereas other jurisdictions globally allow more flexibility. With one factory likely to cost €200 million to establish, Itkonen presented this as a potential missed opportunity for the EU, as applicants are incentivised to seek opportunities abroad.

With much to do and many new tools to tackle the issues at hand, the class of 2024 has a lot of work to do. Panelists pondered the creation of a single Commission DG dedicated to food and expressed optimism about the upcoming Strategic Dialogue on Agriculture as an opportunity to forge a new social contract between civil society and policymakers. Innovation, good governance, and getting out of comfort zones will be essential for progress in the coming years.



📷 The panel discussed Legislative Approaches for the Future of Food



📷 Dirk Jacobs of FoodDrinkEurope expressed his views on the panel



📷 Rieke Sproten shared her views as a recent graduate

SKILLS TODAY, OPTIONS TOMORROW

Young people have a vital role to play in building the food systems of tomorrow, so how can market, skill gaps, needs and offerings meet their needs?

“The food sector is constantly evolving,” said Dr. Lucy Wallace, Chief of Staff at EIT Food. “Skills receive a lot of attention from policymakers, but not necessarily quite as much from the private sector.”

With this in mind, during the ongoing European Year of Skills, we brought together an EIT Food Master’s programme graduate, the European Bank for Reconstruction and Development (EBRD), Young Professionals for Agricultural Development (YPARD) and European Research Executive Agency (REA) to discuss **Future-proof Youth (Skills for the Future)**.



📷 The breakout session focussed on skilling up youth



📷 Glindys Virginia Luciano of YPARD gave her views on young people’s role in building the food system

Rieke Sproten, a recent graduate of the EIT Food MSc. in Food Systems, noted how the program had helped her get out of the university “bubble,” and make connections between stakeholders and solve problems. Soft skills, such as embracing uncertainty, and adapting to change were a vital part of this, as was becoming part of the EIT Food network.

To thrive in the food sector, researchers need to not only have a solid understanding of relevant technology and science, but also know about nutrition, health, and consumer behaviour,” said Vasiliki Exarchou, Project Adviser at REA. Getting researchers out of their comfort zone means they will be “ready to face all the challenges that the food sector has and will have in the future – which are a lot.”

CHANGING EDUCATION, CLOSING GAPS

Young people should be able to try different things, with bridges between different activities as careers progress, explained Pawel Krasny, a Human Capital and Regional Development specialist at EBRD.

“Our main counterparts are private companies, for us they are the key vehicle to upskilling populations, youth especially,” he said. With process changes such as regenerative farming, thousands of farmers are needed to take these new skills to the fields.

Private companies, especially innovative ones, need to be empowered to provide the lifelong skills training the sector needs. Both formal skills, acquired through education, and informal skills learnt on the job have a role to play, with one leveraging the other.

There’s also a question of where those skills are put to use, with many young people choosing to move to countries where salaries are higher. Even in the face of very proactive HR policies, this gap can be quite strong, Krasny noted, with Central and Eastern Europe particularly affected.

There are also new roles to fill. Bigger companies are taking ESG commitments seriously and increasingly hiring food systems thinkers. Collaboration between academia and the private sector can fill those gaps, said YPARD’s Luciano – while policymakers should concentrate on fostering an environment where these connections can flourish.



DIVERSE PROTEINS FOR A SUSTAINABLE FUTURE

In Food for healthy planet and people - The Protein Diversification Case EIT Food launched its new Policy Brief Accelerating Protein Diversification for Europe.

Fighting the climate crisis requires a shift from resource-intensive animal-based protein to more plant-based solutions, cultivated meat, microprotein fungal and bacterial-base proteins, precision fermentation and insect-based and algae-based foods.



Anna Churkina and Kari Tronsmo spoke on the panel about protein diversification

"Investing in protein diversification brings the highest greenhouse gas reduction per Euro invested compared to any other industries," said Kari Tronsmo, President of the EIT Food Protein Diversification Think Tank and Open Innovation Manager at Danone.

By 2050, Europeans should have access to a diet with appealing and affordable protein that is also sustainable, resilient, healthy, and safe. Protein diversification needs to be part of policy thinking, starting with the EU Protein Strategy which is currently in the works. The new CAP will also be instrumental in promoting the change.

Anna Churkina, a Masters Student at Bayreuth University presented their research into the perception on the Novel Food Regulation. A survey of stakeholders and users of the Novel Food Framework found that more than half of participants thought collection of required data and the costs of the procedure were "a significant obstacle," while around 70% of those polled were concerned about excessive political interference in the authorization procedure. Respondents suggested improvements including pre-submission dialogue with EFSA, more agile and regularly updated guidelines, group applications, data sharing and collaboration with other jurisdictions. Mathilde Do Chi, Legal Advisor at VeganFoodLaw spoke about the various regulatory approaches to novel proteins around the world, especially in the wake of UN FAO report on the safety of cell-based products. While protein diversification is high on countries' agendas, approaches differ based on social economic and cultural consideration – for example, eating snails in France – and national strategies. If the EU wants to retain innovation, it needs to increase support initiatives such as implementing pre-submission advice and standardization of parameters required for new foods, she said.

Different priorities exist throughout the value chain, as well. Agricultural producers are focused on plants, with an emphasis on protein crops, improving the farm and staying close to nature, said Koen Dillen, Head of Unit Arable Crops & Olive Oil at Directorate-General for Agriculture and Rural Development of the European Commission (DG AGRI). Meanwhile, food processors see sustainability through a lens of brand image, quality, safety and consistency. For retail and the food service prioritize convenience, nutrition and health when they look at alternatives, he noted.



This breakout session looked at food for healthy planet and people

[VIEW PROTEIN DIVERSIFICATION PAPER →](#)

DIFFERENT IDEAS, DEEP TECH UNLEASHED



📷 The session marked the launch of EIT Food's new Policy Brief

Protein diversification has many facets. The Netherlands, for example, increased investment in alternative proteins, to a record funding of €60 million for cultivated meat and precision fermentation in 2022, with a prospect to deploy up to €450 million in the longer term.

Insect proteins, growing more and different kinds of soy, advances in biotechnology and increasing interest in vegan and sustainable food are all driving interest this area.

Going beyond the 2018 report on protein diversification, which was focused on the import dependency and on high protein crops, DG AGRI's Dillen said the new report would look at the green benefits of growing more high-protein crops, increased profitability, a greater role for plant protein in diets.

Meanwhile, the European Commission Directorate-General for Research and Innovation (DG RTD) is working on R&I for Green and Resilient Food Systems. Their European Innovation agenda aims to position Europe in a new wave of deep tech and start-ups in the field of alternative proteins." A call for expression of interest is bringing together regional authorities, industries, universities, and other clusters to become Regional Innovation Valleys.

Ultimately, a change of mindset is required. "By doing systemic changes instead of incremental ones and risk mitigation... there's such a huge potential in that transformation," said Tronsmo of the EIT Food Protein Diversification Think Tank. "We cannot only decelerate climate change, but we could halt it and we could even reverse it if we do the right things."

A WORD FROM THE COMMISSIONER...

“We need to green our food system while ensuring food security,” said Iliana Ivanova, European Commissioner for Innovation, Research, Culture, Education and Youth. That requires a holistic approach.”

We need to bring different players together, if we want to have system-wide impact,” she said. The work of EIT Food is “extremely relevant: not only are you connecting the whole innovation chain,” but also across borders, with more than 20 regional hubs.



📷 Commissioner Ivanova joined us near the start of her term to address the conference attendees

Secondly, higher education needs to be on board. “Human capital is our most valuable commodity in the transition and we must invest in people,” she said, noting how the whole EIT structure enhances the link between innovators, researchers and learners.

She highlighted the Deep Tech Talent Initiative, the European Commission’s instrument to position Europe at the forefront of the new wave of deep tech innovation. Through this, EIT will train 1 million people in deep tech areas, including the food sector.

In addition, Food 2030, the EU’s research and innovation policy supports the transition towards sustainable, healthy and inclusive food systems. Over 100 collaborative EU projects across EU and Africa are being supported, including creating a data economy for sustainable food systems.

She invited participants to get involved in the EU Mission “A Soil Deal for Europe.” It is estimated that between 60 and 70% of EU soils are unhealthy. Soil is a fragile resource; one centimetre of soil can take hundreds of years to form, but can be lost in just a single rainstorm or industrial incident. “I invite you to get even more involved so Europe can make the transition to healthy soils by 2030,” she said, stressing the need for private investment in this space.

Horizon Europe provides dedicated support for collaborative R&I in food, bioeconomy, agriculture, and the environment in Cluster 6; so does Food 2030, the EU’s research and innovation policy framework. But at the end of the day, a communal effort is required for success. “We can provide the seeds, the sunlight, the water, but the soil upon which they germinate needs to be supported by a whole ecosystem, by all of you and your collaboration,” she concluded



EUROPE'S FUTURE OF FOOD

After lunch, Alan Matthews, Professor Emeritus of European Agricultural Policy at Trinity College Dublin spoke about the future of food in Europe and how to balance concerns about food security, sovereignty and sustainability.

"In recent months we've seen increasing focus on actual and potential challenges to food security in Europe and abroad," he said. Rising commodity and energy prices and climate events such as El Niño are leading to suggestions that the EU should slow down the Green Deal. However, the discourse around EU food security likely masks fears that embracing sustainability will make Europe less competitive, lead to job losses in rural areas and raise food prices at a time when governments are struggling with inflation.

"The transition to a more sustainable food system will be hugely challenging because of these many trade-offs," he said. "But framing the issue as a threat to food security is not going to help." Food security does exist, but in Europe, the main issue is economic access to food. Therefore, providing targeted support to low-income families is a more appropriate response than compromising sustainability goals.



Alan Matthews presented findings about shortage of oilseeds

"In general, the EU has a high degree of food sovereignty and is fortunate to be relatively self-sufficient in basic food commodities," he said. The EU is a net exporter of wheat, dairy and meat, and close to self-sufficient in coarse grains and sugar. The average European is eating more than enough in terms of calorie and protein intake, he noted; "most of us could eat less and be better off for it."

At the same time, the EU depends on imports of vegetable oils, oilseeds, and fruit and vegetables. Back in March 2022, EU leaders agreed at Versailles to identify food as a strategic dependency and said they'd review the bloc's protein strategy – another reason why increasing EU production of plant-based proteins is vital.

In addition, the shortage of oilseeds is a concern for the feed and livestock industries, not to be confused with food security. In the EU, 66% of human-edible cereals are currently fed to animals, with significant conversion losses. "There are good reasons for a protein strategy, but food security is not one of them," Professor Matthews said. "Arable land area in Europe is fixed so any increase in protein crops will be at the expense probably of wheat and maize and, given current yield differences, overall biomass production would be reduced."

Turning to climate concerns, he noted that the most effective incentive would be an emission trading scheme. However, although there's support for the idea that farmers should be paid for carbon removals, an ETS has little traction as a way to achieve this.

Ultimately, a smaller agricultural sector would actually be optimal from an emissions perspective. We are currently producing

at the level that makes sense from the viewpoint of profit maximisation, but only if profit is calculated in a way that assigns no economic value to the economic externalities of prevailing production modes. – when this economic value absolutely does exist. A more environmentally responsible and forward-looking economic calculation points to lower optimal output levels.

"It's imperative that we improve the sustainability of our food system," he said. Transitioning towards a more sustainable food system will require significant changes in what we produce, in how we produce it and in what we eat, but it will be worth it.



GLOBAL PERSPECTIVES FOR BETTER GROWTH

Many speakers highlighted the importance of an innovative global approach in tackling soil depletion, climate change and increasing resilience, and the International debate - “European food systems in perspective: the transition happening beyond our shores, what can we learn?” brought views from the US, Asia and Israel, along with EIT Food Partners and stakeholders.

Israel’s Innovation Authority aims for the country to become a leading innovation and production hub, said Nir Goldstein CEO of Good Food Institute Israel (GFI). In the same vein, Singapore aims to produce 30% of foods locally by 2030 and the UAE wants to be the world’s most food secure country by 2051.

Israel recently put together the world’s first cultivated meat consortium at an investment of more than \$18 million that brought together over 14 companies and 10 academic labs in the area. GFI is an international nonprofit organization working to promote alternative protein, which brings together policy makers, scientists and startups worldwide.



Speakers joined us from all over the world

Innovation can target inefficiencies, such as the way arable crops are fed to livestock. “It’s very important to tackle how we use our calories for example,” said Goldstein. “We can reduce the calorie ratio that we need in order to get beef out of the cow which is currently 34 calories that we use to get one calorie out of a cow for human consumption; what can we do with innovation in order to have a better ratio of calorie input and output?”

That need for a longer-term rethink that centres sustainability is universal. “We’ve got an interest in making the whole operability of our companies and our businesses here sustainable,” said Julie Vermooten, Chair of the AgriFood Committee at AmCham EU. After the US expressed reservations about the Farm to Fork strategy, trust is being rebuilt through a Transatlantic collaboration platform and benchmarking of each bloc’s sustainability journey.

It need to be a truly global effort, said Arvea Marieni, Technical Director of The Regenerative Society. This Italian Foundation, established in 2020 by businesses including Illy Cafe and Mutti, is expanding with new members and looking into how to develop regenerative cultures. This approach to food and farming systems includes topsoil regeneration, increasing biodiversity, improving the water cycle, supporting biosequestration and strengthening the health and vitality of farm soil.

“You need to change completely the rules of the market,” she said. “Because if you’re approaching a post-fossil, resource-light, fertilizer-free... less polluting, more circular [economy], you cannot regulate markets with the same rules that are being conceived for a fossil-based society.” The whole world needs to be on board, she said, noting the convergence between what is happening here in Europe with green deal and 1+N, the green deal of the Chinese leadership. But even with these measures, change is coming.

“Most places we can cultivate coffee beans will be gone by 2150,” she said. “Therefore you need to start imagining different ways even to produce... that’s the place for innovation,” including vertical farms, hydroponic farming and taking into account the entire life cycle of cultivation.



Ana Euler shared experiences from Brazil



Felix Collins, Founder and CEO of Full Circle Biotechnology is also working on new ways to produce. Full Circle is a nutrient recapture company; they take nutrients that have escaped the food system, such as agricultural industrial byproducts, then recapture them through an ecosystem of insects and microbes. Based in Bangkok, the company has headquarters in Singapore, and takes full advantage of the startup-friendly attitude in Asia.

"In Thailand we received government approval this month and that cost us a few thousand at most," compared to many times that amount in the EU, noted Collins, adding concerns about the threat of carbon taxation and high food standards. "The big challenge from my perspective looking at the EU... from the protein diversification strategy seems to be trying to integrate systemic thinking." The longer a system exists the more complicated it gets, he noted, and the EU is getting increasingly complex to navigate; meanwhile countries like Israel, Singapore and Thailand can be more flexible.

Global food systems are an interconnected web, said Ana Euler, Business Executive Director of EMBRAPA, Brazil's agriculture research corporation. The EU is Brazil's second biggest export after China, especially



Attendees heard from the speakers from US, Asia and Israel

for coffee, soybeans and grains. "Therefore, the transformation of European food systems and consumer behaviour and public policies place a great influence in the Brazilian agriculture system in terms of product origin, traceability, animal well-being, certification, food security, carbon footprint and so on."



Felix Collins of Full Circle Biotechnology joined the panel

Brazil's Ministry of Agriculture aims to recover 40 million hectares of degraded pastureland to double the Brazilian food production in 10 years, while preserving rainforests. There are also programs to reduce the use of nitrogen fertilisers and cut carbon emissions. Adopting a non-tillage system across 40 million hectares in 2021-22 is another example of sustainable production; leaving soil intact has protected the soil, sequestered carbon and saves water. Adopted by 70% of Brazilian grain production, it has estimated rates of emission reduction in order to 2.9 tons per hectare per year of CO₂.

DEEPTech TALENTS



| 📷 Laura Fernández Celemín from EUFIC

With innovation at the heart of food's future, there's a growing role for deep tech. The next panel discussed deep tech – new techniques such as advanced manufacturing, artificial intelligence, machine learning and biotechnology – in the agrifood sector.

Deep tech skills cover a wide range of fields and aren't a simple concept. "You cannot study 'Deep Tech'.. I actually studied particle physics, I did my PhD at the CERN Laboratories," said Dr Antonella Succurro, CTO and Co-Founder, CinSOIL. "A game changer for me was the Innovator Fellowship from the EIT Food where I started getting a more of an overview of the entrepreneurship world or, as I call it, research-preneurship."

Getting people – in particular girls and women – to develop these skills requires a multi-pronged approach, panellists explained. Raising awareness of study and career options on social media platforms, ensuring that courses are engaging, and developing teachers' skills all have a role. "How do you do it? You need to train the trainers first, so the first programs a few years ago [were part of] the European Commission Communication on Lifelong Learning," said Dana Adriana Puia Morel of DG GROW in the European Commission. With the European Entrepreneurship Competence Framework and the European Digital Competence Framework, there are programs to get the next generation of skills ready.

Making deep tech skills inclusive and accessible for women depends on multiple factors, including role models. "The fact that the Director General of CERN was Fabiola Gianotti, a woman, I think that it had some meaning... I have a place here," said CinSOIL's Succurro. Building confidence is important

too, said Puia Morel. "I do some workshops on entrepreneurship and digital competences and on building confidence because even if [girls] have those skills and competences, [they are] not confident in using them."



| 📷 Dr Antonella Succurro spoke in the breakout session

It's also important to educate the public about the potential of deep tech, said Laura Fernández Celemín, Director General of the European Food Information Council (EUFIC), a consumer-oriented nonprofit organization. Society needs "more knowledgeable citizens on food and health topics," she explained. "By providing information and conducting activities that increase the knowledge that people have on food technology, but also on food and health" we can help them transition to healthier and more sustainable diets.

Technology and innovation are important in the transition – but so are knowledge and communication. We need consumer-friendly explanations of innovations, "turning complex technologies into understandable terms in order to gain support and to increase adoption and acceptance," said Celemín. With the advent of natural language processing applications like ChatGPT, generative AI and ML, there is an urgent need for proper education, critical thinking skills, ethics, and an effective global framework to regulate the ethics of AI.

SMART DATA, HAPPIER SOIL

Throughout the day, panellists noted that soil health is inseparable from sustainability and resilience. However, too often, innovative farmers cannot access reliable data to build a business case for improving soil quality, while finance providers are frequently not ready to assess these proposals.



Dr. Claudia Schapp of Germany's Federal Office for Agriculture and Food and the 4i100 Coalition

Discussing regenerative approaches for seven farms aiming for net zero, including his own, Professor John Gilliland, of the UK's Agriculture and Horticulture Development Board, explained that the main technology used to gather data are LIDAR for above ground carbon, and depth sensors for underground forensics. He called for more granularity in the current design of the Commission's proposal for a Framework Certification of Carbon Removals, because averaging and modelling do not give enough feedback to measure the behavioural change we need.

Switching to regenerative practices matters. Processes such as soil carbon sequestration, where CO₂ is removed from the atmosphere and stored in the soil carbon pool, can make a huge difference. Gilliland said he had 24,400 tons of carbon stored on his farm, and hoped to increase this to 26,000 tons in five years' time – and that setting targets could encourage his peers to do more.

Reliable data is essential as countries consider dramatic measures to meet carbon reduction goals in Ireland, the government has floated proposals to cull almost 200,000 dairy cows over the next three years.

Farmers have two main hesitations: overreach in data governance, with concerns over what data will be used for. The solution they found in Northern Ireland is to have an independent third-party data broker. Secondly, financial support: the government is investing £45 million into baselining every field, giving the data back to the farms, and repeating the measurement every five years, making it a public good, with no burden on farmer.

How to measure is another important question. Constellr is a German startup which uses temperature-based, beyond-visual imaging technology to monitor vegetation, soil health, and derive insights on water and carbon. Temperature data can show soil health, the right time to irrigate, the right time to fertilize and the right time to harvest, said Hannah Kofler, a Project Manager at Constellr.

Farmers that use this can reduce water and fertiliser use, but it can take some persuading to get them on board. "It's difficult in the beginning to get to the individual farmer," so they mainly approach agritech companies who offer digital farm management systems she said. The ultimate goal is "collaboration and cooperation between governments, private companies and the ecosystem as a whole."

At the EU level, work is ongoing with the Regulation on Land Use, Land Use Change and Forestry (LULUCF) revised this year to include a separate land-based net carbon removals target of 310 million tonnes of CO₂-equivalent by 2030," said Valeria Forlin, Policy Officer at DG CLIMA in the European Commission. There is also a recent proposal for the Soil Monitoring Law from DG ENV "that also sets out a framework for member states to create better governance for data about the soils."

With a wealth of measuring techniques, including soil probes, satellite-based imagery, AI and ML, it is "important to drive down the costs and make all this data available to the farmer," said Forlin. Carbon is relatively easy to measure compared to other sustainability metrics, such as biodiversity, she added, noting that by 2028 farmers should know carbon production as easily as how much feed they buy or carcass production levels.

And that data needs to be consistent, instead of a "Wild West" where different methodologies abound. One harmonized certification method at the EU level will promote sustainability. With the new ETS for building and transport, agriculture is the only big sector left without one. An ETS may not be the most appropriate solution for agriculture, but there has to be a strong focus for climate policy, it has to be bottom up, and her team are currently conducting a study in this area.

Harmonised data requires harmonised lab procedures to enable meaningful comparisons, said Dr Claudia Schapp of Germany's Federal Office for Agriculture and Food joined the discussion. "What kind of data do we really need?" she asked. Voluntary carbon markets require incremental measurements of small changes, whereas general trends to understand climate change don't require such precision.

INVESTING IN A GREENER FUTURE

The green transition is essential, but expensive, and current financing instruments available need an overhaul. How can farmers and companies take advantage of relevant public instruments, expand uptake of them, and generate sufficient private funding as well?

Michiel de Ruiter, Chairman of EIT Food's Supervisory Board, opens the session on the financing of the transition. Will Surman, Deputy Director General of FoodDrinkEurope, stressed the importance of making the change happen. The cost of the transition to more sustainable farming practices is estimated between €37 and €52 billion per year, based on farmers' own perception of the costs to change farm practices and their estimation of impact on yield and income. But at the same time, soil degradation costs €50 billion per year.

Options to achieve this include targeted CAP payments for specific outcomes, getting access to loans for specific tools and activities, carbon markets or monetizing other benefits, such as enhancing biodiversity, using less water, or public private Partnerships.



Michiel de Ruiter chairs the investment panel



Attendees heard from farmers and companies

When it comes to venture capital investment, financing is “still vastly insufficient,” said Adelaide Cracco, Head of Climate and Environmental Impact at the European Investment Fund (EIF). Back in 2020 the investor landscape was “very dire,” with just a handful of agrifood investors; it hit an all-time high of €9 million in 2021, before dropping back – but remaining above 2020 levels.

There's also a question of where investment happens, with most funding available at an early stage. In reality, the financing gap often appears at the growth and scaleup stage -- particularly for technologies with a hardware component, so support could be better targeted.

Various tools exist to get innovators through the so-called valley of death, the period in the life of a startup in which it has begun operations but has not yet generated revenue, said Michiel Scheffer, President of the Board at the European Innovation Council (EIC). These include the EIC's Accelerator funding, which offers a range of levels of support for **innovative game changers**. Meanwhile the EIC Pathfinder offers grants of up to €3-4 million to support early stage development of future technologies.

A lot of VCs like the “shopping mall” approach of the EIC, said Scheffer. They invite private investors to take the lead, because “we are not tooled to play the role of a chairman of a Board of Supervisors,” so private sector market insights

are invaluable. Time is of the essence, highlighted Pawel Kaczmarek of Terra Nostra, a Polish Foundation created in 2019 by experienced practitioners of regenerative farming. “The later we start... the more effort it will be,” said Kaczmarek. At the same time, “90% of our EU farmers are not ready to go to regenerative farming,” he said.

Incentives require careful consideration, he noted. Existing systems based on area payments are not the answer. A whole new mindset is required with funding for a symbiotic model that brings together farmers, financiers and food producers in a healthy ecosystem.



Will Surman, Deputy Director General of FoodDrinkEurope presents during the breakout session

LOOKING FORWARD TO PROGRESS

Throughout the day, speakers discussed climate, health and security challenges to food systems. Tackling them is in the hands of the incoming European Commission and EU Council Presidency, so the last session brought together speakers from both to discuss the future.

“The fact that we can make safe, nutritious food in Europe should never be taken for granted,” said Roberto Berutti, a Member of Janusz Wojciechowski’s Cabinet in the European Commission. Europe has achieved a greater level of food security, but needs to address sustainability, environmental, social and economic concerns.

The Green Deal and Farm to Fork strategy gave a new impetus to more resilient, innovative and sustainable farming; forums such as the EIT Food Conference are extremely helpful, said Berutti. “It’s only from this kind of dialogue that we can shape the best solution.”

He added that the Commission would like to increase the budget of the next CAP, but this will not be easy. This means alternative financial forms of financing such as grants, loans, the [EIB ringfenced envelope for agriculture](#) are more important than ever.

Meanwhile, the Flemish Government’s Lins Heivers, who will coordinate AgFish issues for the Belgian EU Presidency for Agriculture and Fisheries, noted the country’s track record of resolving thorny dossiers and said his priority is to close as many files as possible during its upcoming time at the helm.

This includes systemic changes in food policy, more sustainable food production, an emphasis on innovation and a holistic approach involving academia, companies and governments, along with a renewed focus on the demand side, with a packed schedule of conferences and meetings to find a common way forward.

Food ecosystems are stretched to the maximum. War still rages at Europe’s borders. With the climate crisis bringing floods, desertification and uncertainty to the continent, the time to act is now.



CONCLUSION

In a world challenged by environmental concerns, the EU standards at a pivotal juncture, Europe is uniquely positioned to lead the global transition towards a sustainable, resilient, healthy, and competitive food system and unlocking opportunities for farmers, consumers and enterprises.

At the heart of effective and sustainable solutions for the future lies collaboration and a systemic approach, connecting key stakeholders from fork to fork and fostering dialogue among them.

The above messages have been compiled across all thematic panel discussions into a set of recommendations for a sustainable, resilient, healthy and competitive model of food systems transformation. These recommendations shall provide actionable insights to policy makers and will be shared in a separate report to support the EU policy framework.

EIT Food invites policymakers, industry leaders, and consumers to join force with us. Together, we can build a resilient, inclusive, and competitive food system that safeguards the health of our planet and future generations.



📷 We must all work together for a better food system



