

INNOVATION IN FOOD PERSPECTIVE OF INDUSTRY

IMPROVING FOOD TOGETHER

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Exploring Our Session Agenda

An overview of our engaging session structure

- **Opening Remarks**

- **Healthier Lives through Food**

Paweł Harycki will present the EIT Food Perspective of our Missions

- **Panelists Introductions**

Introducing panelists and discussing industrial innovation case studies.

- **Discussion**

An interactive discussion covering technology implementation and cross-industry collaboration.



FOOD SYSTEM CHALLENGES

Our current food system is a leading cause of some of the biggest challenges the world is facing, from **climate change**, resource depletion and waste, to **malnutrition**, obesity and other **diet-related illnesses**.

SOCIAL

We need to feed **10 billion** people by 2050 (UN, 2017)

Over too **2 billion people** are currently overweight (WHO, 2018), while **800 million** are undernourished (FAO, 2019)

Up to **35% of children** under 5 globally are affected by stunting, wasting or overweight (UNICEF, 2019)

ENVIRONMENTAL

1/3 of our food is wasted globally (FAO, 2019)

70% of global freshwater withdrawals come from the food industry (FAO, 2016)

Food production accounts for **26%** of greenhouse gas emissions (Science, 2018)

ENTREPRENEURIAL

Only **3.4%** of all EU startups are in the food industry (ESM, 2016)

9 out of 10 startups fail due to lack of a market need for their products (Munich Business School, 2016)

Meeting the UN SDGs could create innovation opportunities worth US **\$200 billion** for the European business sector in agrifood by 2030 (BSDC, 2016)

FOOD SYSTEM CONCERNS

Our current food system is a leading cause of some of the biggest challenges the world is facing, from **climate change**, resource depletion and waste, to **malnutrition**, obesity and other **diet-related illnesses**.

76% of Europeans prioritize health in their food purchases, indicating a shift towards healthier options.

68% of consumers express worries about food additives and processing, highlighting the need for transparency.

53% of Europeans actively look for foods with functional benefits, promoting a health-oriented market.

Diet-related healthcare costs range between €70-80 billion yearly, affecting economies and healthcare systems.

35% of cancers can be prevented with dietary changes, emphasizing the role of nutrition in health.

Over 950,000 deaths annually are attributed to diet-related diseases, stressing urgent reform in food systems.

A 40% productivity gap exists between top and bottom farmers, indicating a need for better practices.

40% of European soils are showing signs of degradation, raising alarms for sustainable agriculture.

88 million tonnes of food are lost annually, highlighting inefficiencies in the food supply chain.

Innovations in Supply Chain Management

Transforming supply chain from production to consumption

- **Advanced Preservation Techniques**

Achieve 42% longer shelf-life while reducing chemical preservatives by 65%.

- **Enhanced Traceability Solutions**

Trace products in just 15 minutes; 72% of consumers value product origin verification.

- **Smart Packaging Developments**

Reduce food waste by 35% with intelligent packaging; 68% recyclable materials now.

- **Logistics Optimization Strategies**

Cut transportation emissions by 38% and achieve €4.3 billion in efficiency gains.

EIT Food Innovation



Innovations in Food Technology

Exploring advancements in nutrition and processing

● Fermentation 2.0

Over 400 new bioactive compounds discovered, increasing protein bioavailability by 35%.

● Enhanced Nutritional Value

Fermentation boosts vitamin content by 28% while reducing anti-nutrients by 45%.

● Novel Processing Techniques

High-pressure processing retains 95% nutrients compared to traditional thermal methods.

● Ultrasonic Extraction Benefits

This method yields 40% more bioactive compounds, enhancing product efficacy.

● Energy Efficient Methods

Pulsed electric fields technology achieves a 60% reduction in energy consumption.

● Reformulation Science

Achieve a 30% sugar reduction without compromising taste, improving health profiles.

● Reduction in Sodium Levels

45% salt reduction possible while maintaining food preservation effectiveness.

● Fat Reduction Innovations

Reformulation allows for a 35% reduction in problematic fats, promoting healthier diets.

● Clean Label Growth

Over 2,500 natural functional ingredients validated; 68% of new products feature clean labels.

● Market Expansion

The clean label market is valued at €15.8 billion, expanding at 8% annually.

Innovative Applications of Nutrition Science

Exploring advancements in nutrition and processing

- **Microbiome Optimization**

Over 5,000 strains identified, enhancing gut health by 26-38%.

- **Bioactive Delivery Systems**

Boosts compound bioavailability by 300%, ensuring effective nutrition.

- **Personalized Nutrition Solutions**

Tailored solutions lead to 27% better glycemic responses.

- **Clinical Validation of Nutritional Benefits**

22% reduction in metabolic syndrome through validated programs.

- **Gut Barrier Function Improvement**

Achieves a 26-38% enhancement in gut barrier integrity.

- **Cognitive Performance Enhancement**

Programs show a 33% improvement in cognitive metrics.

- **Inflammation Reduction**

Results show a 31% decrease in inflammation markers with tailored diets.

- **Enhanced Energy Utilization**

24% improvement in energy utilization through personalized nutrition.

Innovative Industry Collaboration Models

Driving Innovation through Collaborative Efforts

- **Research Partnerships**

Enable product development cycles that are 3.5x faster and reduce R&D costs by 45%.

- **Startup Integration**

Established players acquired 340+ food startups, leading to €4.2 billion investments in FoodTech in 2023.

- **Shared Infrastructure**

Open access to 65 pilot facilities across Europe, decreasing capital expenditures by 42%.

- **Cross-Industry Platforms**

Over 220 companies collaborate in pre-competitive consortia, generating 78% of major innovations.



WHAT WE DO

At EIT Food we aim to overcome food system challenges by accelerating innovation to build a future-fit **food system that produces healthy and sustainable food for all.**

COLLABORATION

We connect stakeholders right across the food system to drive change through collective learning, problem solving and invention.

IMPACT

Through our missions-led approach, we invest in projects, individuals and organisations that share our goals to deliver positive impact at speed and scale.

We are the world's largest and most dynamic food innovation community

INCLUSION

We believe inclusive systems innovation, which enables all people and places to participate and benefit.





Our Distinguished Panel of Experts

Leaders in Food Innovation and Sustainability

- **Jarosław Turek – PROBIOS**

A pioneer in sustainable food solutions, leading PROBIOS toward innovative health products.

- **Justyna Moskwa – NutriDesign Lab**

An expert in nutritional design, focusing on creating tailored food solutions for health-conscious consumers.

- **Lucia Balak – Živá Záhřada**

A champion of organic farming practices, promoting sustainable gardening and local food systems.

- **Chris Knight – Agribot AI**

An innovator in agricultural technology, integrating AI solutions to enhance farming efficiency.

- **Paweł Harycki – EIT Food**

A leader in food innovation, focusing on transforming the food ecosystem for a sustainable future.

WE'RE PART OF EIT

EUROPE'S ONE-STOP SHOP FOR INNOVATION

The European Institute of Innovation and Technology (EIT) drives innovation by supporting entrepreneurs, innovators and students across Europe to turn their best ideas into reality. For each major societal challenge, there is an ecosystem of partners, the EIT's Innovation Communities, that creates and finds innovative solutions.



LET'S CREATE THE FUTURE OF FOOD TOGETHER



BECOME PART OF OUR COMMUNITY

SHARE YOUR IDEAS

HELP US TRANSFORM THE FOOD SECTOR

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