

The 7<sup>th</sup> ISEKI-Food Conference, took place in Paris at the of AgroParisTech (University of Paris-Saclay) from July 5<sup>th</sup> to 7<sup>th</sup>, 2023 with 230 participants from 49 countries from all continents that included scientists, engineers, and students from universities all around the world, as well as experts from food industry, that once more contributed to bridge universities, research and industry.

The theme of the conference was

### "Next-Generation of Food Research, Education and Industry"

The **ISEKI-Food 2023** focused on future challenges in **education** on food science and technology, in **research** activities related to production, processing, quality and safety, packaging of foods and in **societal engagements** in the field divided in three main sections: **EDUCATION: CHALLENGES OF EDUCATION IN A CHANGING WORLD**, **RESEARCH: NEXT GENERATION OF FOODS** and **SOCIETY ENGAGEMENT: SOCIETY AND FOOD INDUSTRY**.

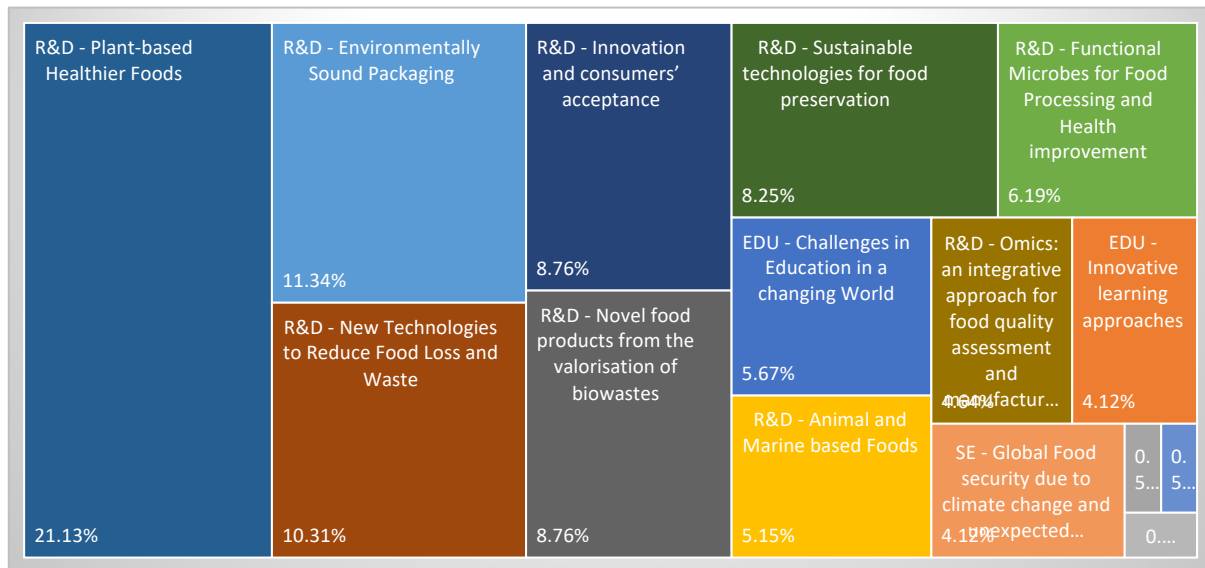
The delegates could exchange new ideas and application experiences face to face, establish business and research relations, and find global partners for future collaborations. Following is a World map showing the international nature of the participation, with more participants from France (18%) followed by Greece (10%), Italy and Portugal (both with 8%), followed by Croatia and Türkiye (6%).



There were 244 abstracts submitted and accepted! Among them, 80 were selected to be oral presentations and all the others poster presentations. The distribution per topic within each section is presented on the following Treemap where it can be seen that research on Plant-based Healthier Foods is where more researchers are focusing their interest followed by

Environmentally Sound Packaging. The abstracts of the keynote speakers together with the abstracts of the oral and poster presentations can be found in this Book of Abstracts.

One noteworthy highlight of the event was the remarkable emphasis on education in food science and technology. Several presentations on this topic reaffirmed **this conference's position as the world leader in advancing education** in the field. The presence of two exceptional keynote speakers, along with 12 other captivating oral presentations and 10 engaging posters, inspired the enthusiastic participants, many of whom were teachers, to further enhance their skills and teaching practices in food science and technology.



The Pre-conference took place on the 4<sup>th</sup> of July, with **Food and Nutrition Security Cloud tools and services: How can I benefit?** From FNS Cloud project, **Intermediate Food Value Chains In Practice** from Fairchain project, **Recent scientific and policy developments on plastic food Packaging**, from Fitness2, European qualifications and competences for a plant-based, sustainable and digital Food Industry: the EQVEGAN project, **Short Food Supply Chains: Building an EU learning ecosystem through multi-level collaborations for sustainable, robust and regenerative food systems** from Eu4 advice. The **3rd Workshop of Food Waste Recovery & Bioeconomy** was also held on the 4<sup>th</sup> of July. On the 5<sup>th</sup> the Conference started and lasted till the 7<sup>th</sup> of July. We were privileged to host on section **EDUCATION: CHALLENGES OF EDUCATION IN A CHANGING WORLD**, the following keynote speakers: **HUGO DE VRIES** from INRAE, France, talked about **"FOODPathS towards sustainable outcomes" discussing examples on** the development of new circular business models for locally valorising and functionalizing bio-diverse coproducts from the agri-food sector; **JESPER TÆKKE** from Aarhus University, Denmark whose talk was about **"Digitalization of education - the theory of the three waves"** emphasizing that a narrow focus on competencies alone is insufficient for adequate teaching in a digital media environment and suggesting an adequate approach to "Bildung" where education based on critical-thinking will produce autonomous citizens capable of taking social responsibility in a digitalized society; **FERRUH ERDOGDU** from Ankara

University, Turkey presented the ***"Future of Food Engineering in the Digitalization Era – Preparing for Industry X.0"*** calling attention to the fact that food processing and food science/technology concept, improved food safety and quality assurance with productivity with applied simulation, artificial intelligence and machine learning approaches (in addition to the use of IoT and big data usage) are expected in the near future which demands that an engineering background should be in a solid state to prepare the young generation for digitalization and integration of the engineering science with food science and technology.

On section **RESEARCH: NEXT GENERATION OF FOODS**, **LAURENT GUILLIER** from ANSES, France in his talk ***"Challenges and perspectives in food safety"*** highlighted the complexity of the microbiological safety of foods and the challenges that need to be addressed, improving the understanding of foodborne illnesses, ensuring food safety in an ever-evolving environment, and reconcile the goal of food safety with other consumer expectations; **GILLES TRYSTRAM** from AgroParisTech, France, talked about ***"Some research questions in food and biotechnological process engineering"*** presenting several examples illustrating both potential innovations at the scale of an operation, the strength of combinations of operations to build all the expected properties of food or bio products and processes using microorganisms ; **HORST-CHRISTIAN LANGOWSKI** from Fraunhofer Institute, Germany, talked about ***"Circular Economy for Plastic Food Packaging – Options and Challenges"*** calling the attention to the present need of Design for Circularity (D4C) and the design for Functionality (D4F) and referring to technologies that apply thin barrier layers to plastics enable both packaging functions and minimization of the risk of product contamination from recycles without compromising recyclability.

On section **SOCIETY ENGAGEMENT: SOCIETY AND FOOD INDUSTRY**, **CATHERINE BAYARD** from Givaudan Naturals, France, questioned us ***"Are you ready for the future of dairy alternatives?"*** mentioned the difficulties to compete with all aspects of dairy products in a plant-based milk or yogurt and offer the same food experience with dairy-free products and how Givaudan's research with the foresight agency, Synthesis, is strongly dedicated to future scenarios for this alternative dairy market; **MAURO SERAFINI** from Teramo University, Italy, spoke about ***"Functional food and health: essentiality of human evidence"*** stressing the importance of strengthening human-based evidence and on practical aspects of eating, the "real life" settings, to significantly improve scientific-based evidence about the association between diet and wellbeing; **STELLA CHILD** from GFI Europe, Belgium informed us on ***"The 3 pillars of future protein production: Plant-based, cultivated, and fermentation-made meat, eggs and dairy"*** outlining scientific and industrial challenges as identified through a market-shaping analysis, whitespace ideation, and interviews with more than 150 experts across the alternative protein field, and it will describe some high-leverage opportunities for innovation along the sustainable protein value chain.

**An EPNOE roundtable "Modern Analytics of Polysaccharides in Food: Challenges, Limitations, Labelling"** also took place in this conference.

The authors of the best oral and poster presentations have now the possibility to publish their works in the Food and Bioproducts Processing Journal, in the International Journal of Food Studies, and in a book published by Springer entitled NEXT-GENERATION OF FOOD RESEARCH, EDUCATION AND INDUSTRY.

We would like to express our sincere appreciation to all participants, speakers, and contributors for their valuable inputs to the success of the 7th International ISEKI-Food Conference.

Our gratitude goes out also to the members of the local organizing committee, the scientific committee, our sponsors EHEDG and the University of Paris-Saclay, along with Graduate School Biosphera, the Orals and Poster awards sponsors ISEKI-Food Association and Graduate School Biosphera, and all the supporters/endorsers, UNIMED, I.S.L.E., ICA, GHI, IAAS, University of Algarve, Polytechnic of Coimbra, Kaunas University of Technology, and ICC.