	EFFoST2021 Conference – Oral Programme							
Monday 1	November 2021							
08:00-18:30	Registration in the Campus level foyer of the SwissTech Convention Center							
Room	Room 1BC							
08:30-14:00	Young EFFoST Day Sponsored by ADM and Nestlé							
Room	Auditorium							
14:00-18:30	Welcome & Opening Session Chair: Christoph Hartmann							
14:00-14:20	Welcome to the 35th EFFoST International Conference Hugo de Vries, President of EFFoST Board, Research director at INRAE, France Christoph Hartmann, Conference chair, Head of Academic Alliances & Expertise Development at Nestlé S.A., Switzerland							
14:20-14:40	Welcome to EPFL and the Swiss Food and Nutrition Valley Martin Vetterli President of EPFL and President of Swiss Food and Nutrition Valley, Switzerland							
	The Role of Science & Technology for Switzerland Martina Hirayama State Secretariat for Education, Research and Innovation at the Federal Department for Economic Affairs, Education and Research							
15:00-15:45	[PLN.01] Opening Lecture: Feeding a Growing Global Population Healthily, Sustainably & Equitably Prof. Sir Charles Godfray University of Oxford, UK							
15:45-16:15	Refreshment break Campus foyer sponsored by Nestlé							
16:15-16:45	[PLN.02] Purpose driven innovation – Food which is good for you & good for the planet Prof. Dr. Stefan Palzer CTO Nestlé S.A. and Vice-President of Swiss Food and Nutrition Valley, Switzerland							
	Podium Discussion: Collaborating in Innovation Ecosystems to Accelerate the Transformation of the Food System Moderator: Christina Senn-Jakobsen, Swiss Food and Nutrition Valley, Switzerland Can innovation ecosystems overcome shortcoming of the food systems? Representatives from academia, industry and the public sector will discuss their vision, challenges and opportunities of creating and maintaining an innovation ecosystems in the agri-food sector. Podium discussion speakers: Joël Mesot, ETH Zurich, Switzerland Awilo Ochieng Pernet, Federal Food Safety and Veterinary Office FSVO, Switzerland Ian Roberts, Bühler, Switzerland Hugo de Vries, President of EFFoST board and Research director at INRAE, France							
18:15-18:30	Welcome to Canton Vaud Minister Philippe Leuba Chef du Departement de l'économie, de l'innovation et du sport							
18:30-20:30	Welcome Reception Campus foyer sponsored by Canton de Vaud and Nestlé							



In this programme, only the presenters of the abstracts are mentioned. The online book of abstracts acknowledges all authors.

Tuesday 2	November 2021								
Room	Auditorium								
08:30-10:00	Plenary Session 1: Advancing Science for Shifting Consumer Trends Chair: Christoph Hartmann								
08:30-09:00	[PLN.03] The Microbiome: Small cre Emma Wetter Slack, ETH Zu								
09:00-09:30		o discover molecular targets for niversity of Munich, Germany	or flavour innovations						
09:30-10:00		ges for food science, innovatio							
10:00-10:30		r Session 1 Garden & Campu							
Rooms	Auditorium	Room 1BC	Room 2BC	Room 3BC	Room 1A	Room 2A	Room 3A		
10:30-12:35	Plant Protein based food processing Chair: Igor Bodnár and Alexander Mathys	Microbial Food and Gut Systems Chair: Alain Le Bail and Gleb Yakubov	Regional aspects of sustainable Food Chair: Hugo de Vries and Olga Martín-Belloso	Food Safety Mitigation Chair: Petros Taoukis and Lucia Vannini	Modelling & Computational Approaches Chair: Ferruh Erdogdu and Christopher McHardy	Special Session: Highlights of innovation projects at EIT Food Chair: Katja Hakka and Ilario Ingravallo,	BBI special session I: Bio-Based ingredients: INGREEN, PROLIFIC and NEWPACK scientific research updates Chair: Edward Sliwinski		
10:30-10:55	[001.1] High moisture meat analog extrusion: Application of a modular cooled slit die design to investigate the shear- induced structuring of	[O02.1] Enrichment of wheat biscuits with L-arginine from plant sources stimulates GLP-1 response and regulates subjective appetite sensations in	[003.1] Regionally-explicit case study results covering nutritional and environmental dimensions of food products and countries	[005.1] Decontamination with UV-C can result in directed evolution of Bacillus cereus endospores with an impact on food safety Katrien Begyn, <i>Ghent</i>	[004.1] Predictive tools for microbial inactivation in food systems by high- pressure homogenization Francesco Donsi, University of Salerno, Italy	10:30-10:40 Welcome by the chairs of EIT Food Katja Hakka and Ilario Ingravallo, <i>EIT Food</i>	10:30-10:55 [S02.1] Yarrowia lipolytica, as adjunct culture obtained using dairy by-products, to produce innovative and sustainable cheeses Davide Gottardi, University of Bologna, Italy 10:55-11:15 [S02.2] Prefermented ingredients		
	plant proteins Valerie Pietsch Thermo Fisher Scientific, Germany	overweight subjects Amalia Yanni, Harokopio University of Athens, Greece	Ashley Green, ETH Zurich, Switzerland, Agroscope, Switzerland	University, Belgium		10:40-11:00 Introduction EIT Food & EIT Food Innovation Focus areas			
10:55-11:15	[O01.2] Mung bean as new protein source for meat	[O02.2] How semi-dynamic digestion conditions can	[O03.2] Pulsed Electric Fields (PEF) and Vacuum	[O05.2] Removal of <i>Listeria</i> <i>monocytogenes</i> biofilms	[004.2] Modelling tools to evaluate the ultrasound	Ilario Ingravallo, EIT Food CLC West			
	analogues Miek Schlangen, Wageningen University & Research, the Netherlands	impact the kinetics of food digestion Sarah Verkempinck, Laboratory of Food Technology and Leuven Food Science and Nutrition Research Centre (LFoRCe), Belgium		on stainless-steel surfaces through conventional and alternative cleaning solutions. Tina Mazaheri, Universitat Autònoma de Barcelona, Spain	effect on the growth of Saccharomyces cerevisiae Arturo B. Soro, Teagasc Food Research Centre, Ireland	11:00-11:15 [S01.1] TRIBOTEC: Protein concentration by triboelectric separation Luise Wockenfuß, <i>German Institute of Food</i> <i>Technologies, Germany</i>	from milling by-products for the production of innovative bakery prototypes Lorenzo Siroli, University of Bologna, Italy		

11:15-11:35	[001.3] Understanding texture differences in meat analogues produced by high moisture extrusion S.J.E. Snel, University of Applied Sciences Western Switzerland, Switzerland. Wageningen University & Research, the Netherlands	[002.3] Temporal changes in the diversity of the biochemical and microbiological composition of human milk – a computational nutrition approach Mayara Lopes-Martins, University of Debrecen, Hungary	[003.3] Upcycled ingredients for improving the nutritional value of orange juice assessed by a randomized controlled nutritional intervention Clara Talens, AZTI, Food Research, Basque Research and Technology Alliance (BRTA), Spain.	[O05.3] Antiviral surface coatings to reduce the risk of COVID-19 transmission Sophie Butot, Nestlé Research, Switzerland	[004.3] Baby bottle parameters impact on milk flow: a mechanistic model Marine Devezeaux de Lavergne, Nestlé SA, Switzerland	11:15-11:30 [S01.2] PERSFO: Personalised nutrition advice in workplace restaurants Daniela Segovia-Lizano, <i>Quadram Institute</i> Bioscience, UK. 11:30-11:45 [S01.3] Phenoliva – upcycling of olive oil side streams Laura Nyström, ETH Zurich Institute of Eood Nutrition	11:15-11:35 [S02.3] Bioactive compounds from coffee and fungi side-streams as effective ingredients in meat products Monica Bergamaschi, SSICA, Experimental Station of Food Preserving Industry, Italy, Italy
11:35-11:55	[001.4] A water-only process to fractionate yellow peas into its constituents Anna Cäcilie Möller, Wageningen University & Research, the Netherlands	[002.4] Oligosaccharide- Lactoferrin shell- crosslinked particles for selective targeting of proteins to probiotic bacteria in the colon Stav Peled, Technion - Israel Institute of Technology, Israel	[003.4] Wild edible species of the Mediterranean area: contents of bioactive compounds and effects of domestic cooking Alessandra Fratianni, Università degli Studi del Molise, Italy	[005.4] Gentle sterilization of baby food purees by ohmic heating – influence on product quality and the formation of food processing contaminants Maximilian Gratz, Univer- sity of Natural Resources and Life Sciences, Austria	[004.4] Food foams analysis and simulation considering the accompanying multi- physical phenomena Mohammad Mobarak, <i>Friedrich-Alexander-</i> <i>Universität Erlangen-</i> <i>Nürnberg, Germany.</i>	Institute of Food Nutrition and Health, Switzerland	11:35-11:55 [S02.4] Agro-industrial side- streams as alternative sources of proteins and development of food prototypes Dennis Schaller, <i>IGV</i> , <i>Germany</i>
11:55-12:15	[001.5] Understanding astringency in legume-based milk alternatives Ana Cristina Cázares- Godoy, ETH Zurich, Switzerland	[O02.5] IBS, migraine and low mood management through a microbiome- gut-brain-axis focused intervention Malwina Naghibi, ADM Protexin, UK	[003.5] Differentiation of muscle cells in edible 3D scaffolds for the engineering of cultured meat Shlomit David, <i>Technion</i> , <i>Israel</i>	[005.5] Decontamination of selected herbs and spices by gamma irradiation and low energy electron beam (LEEB) treatment and influence on product characteristics upon storage Felix Schottroff, BOKU Vienna, Institute of Food Technology, Austria, BOKU Core Facility Food & Bio Processing, Austria.	[O04.5] Microwave decontamination process for hummus: a computational study with experimental validation Samet Ozturk, <i>Gumushane</i> <i>University, Turkey</i> .	11:45-12:00 [S01.4] Taste2Meat: From side- streams to tasty meat alternatives and hybrids Volker Lammers, German Institute of Food Technologies, Germany	11:55-12:15 [S02.5] Development and testing of active bio-based food plastics Giorgia Spigno, Catholic University of the Sacred Heart, Italy 12:15-12:35 [S02.6] Process Investigation, Modelling and Economic Assessment of Active PLA/PHB Films Production Andrea Bassani, Catholic University of the Sacred Heart, Italy
12:15-12:35	[001.6] Genome-based selection and application of food-grade microbes for chickpea milk fermentation towards increased L-lysine content, elimination of indigestible sugars, and improved flavour Muzi Tangyu, Saarland University, Germany.	[002.6] Elucidating the impact of edible insects on the human colon microbiota composition and metabolism Gil Refael, Technion - Israel Institute of Technology, Israel	[003.6] A temporal view of the water kefir microbiota and flavour attributes Shriram Patel, SeqBiome, Ireland	[005.6] Innovative ultrasound- assisted approaches towards reduction of heavy metals and iodine in macroalgal biomass Estefanía Noriega, Nofima, Norway, European Food Safety Authority, Italy.	[004.6] A mathematical approach to the interpretation of synergy and antagonism events between antioxidant agents commonly used as food additives M. Carpena, University of Vigo, Spain.	12:00-12:20 Round table discussion 12:20-12:30 Wrap up and closure	

12:35-13:45	Lunch Poster Session 1 Garde	en & Campus foyers sponsored by F	Firmenich			
Rooms	Auditorium	Room 1BC	Room 2BC	Room 3BC	Room 1A	Room 3A
13:45-15:50	Processing & Side stream valorization for Sustainablity Chair: Hugo de Vries and Anet Režek Jambrak	Food Safety: Risks assessments Chair: Mariem Ellouze and Vasilis Valdramidis	Structure, Function, and Nutrition Relationships Chair: Delphine Huc-Mathis and Alexander Mathys	Plant-based proteins functionality Chair: Lilia Ahrne and Alain Le Bail	Digitalization in the food industry Chair: Christopher McHardy and Ferruh Erdogdu	Working group session: Let's talk sustainability Chair: Henry Jäger and Felix Schottroff
13:45-14:10	[O10.1] Sustainable and functionality- driven protein fractionation: what does it mean? Nynke Draijer, Wageningen University & Research, the Netherlands	[O08.1] Trends in Novel foods in the European Union Ermolaos Ververis, European Food Safety Authority (EFSA), Italy. National and Kapodistrian University of Athens (NKUA), Greece	[O06.1] Value creation by functionality and nutrition – microalgae proteins in extrusion, interfacial applications and stability Lukas Böcker, ETH Zurich, Sustainable Food Processing Laboratory, Switzerland	[007.1] The role of hydrothermal processing to align digestive functionalities amongst different pulses Katharina Pälchen, KU Leuven, Belgium	[O09.1] DNA-analysis systems for authenticity of vegan, Halal and Kosher food Elisa Jimenez, <i>AZTI, Spain</i> .	In this informal interactive session, the EFFoST Working Group on Sustainable Food Systems invites you to share your thoughts and opinions on Sustainable Food Systems. The session will start with a brief review of the five
14:10-14:30	[O10.2] Enzyme treatment of canola (<i>Brassica napus</i> L.) press cakes: A pilot research for sustainability of food industry Ye Tian, University of Turku, Finland	[O08.2] Unleashing the potential of future proteins: when safety assessment addresses societal demands Eirini Kouloura, European Food Safety Authority (EFSA), Italy	[O06.2] Edible Cocoa Butter – based Oil Foams for Healthier and More Sustainable Confectionery Products Lorenzo Metilli, University of Leeds, UK	[007.2] Analytical ultracentrifugation in food research: understanding plant – salivary protein interactions to reduce astringent perception. Hanna Lesme, EPFL, Switzerland	[009.2] Multi-criteria assessment platform (MCAP) for "reverse engineering" and design of plant-based meat replacers Marta Rodriguez-Illera, Wageningen University & Research, the Netherlands	seminars organized by the Working Group throughout the year 2021, focusing on thought-provoking moments and highlights. This will serve as a guide to discuss critical topics from the audience and panelists. Sustainability-related
14:30-14:50	[O10.3] Eco-efficient process design towards the integral valorisation of agro-industrial residues Antonio Martínez-Abad, Institute of Agrochemistry and Food Technology, Spain	[O08.3] Safety of Human-identical Milk Oligosaccharides (HiMO) as novel foods – Insights on the risk assessment by the European Food Safety Authority (EFSA) Ermolaos Ververis, European Food Safety Authority (EFSA), Italy. School of Medicine, National and Kapodistrian University of Athens (NKUA), Greece	[O06.3] Starch properties impact its <i>in vitro</i> digestion: the long and windy road to slowly digestible cookies Leonardo Mulargia, <i>KU Leuven, Belgium</i>	[O07.3] Mild aqueous fractionation for sustainable and digestible pea proteins Andrea Rivera del Rio, Wageningen University & Research, the Netherlands	[009.3] Towards autonomous bioprocess control: evaluation of online learning methods Eric Morelle, Technische Universität Berlin, Germany	
14:50-15:10	[O10.4] Sustainable plant protein- based cheese alternative via high-pressure processing- induced gels Beatriz Silva, DIL Deutsches Institut für Lebensmitteltechnik e.V., Germany. Universidade Católica Portuguesa, Portugal	[O08.4] Role of data science in food chain safety decision making: current status and future trends Akos Jozwiak University of Veterinary Medicine Budapest, Hungary	[O06.4] Aerated whey protein gel as a controlled release system of creatine Stanisław Mleko, University of Life Sciences in Lublin, Poland	[O07.4] Pea protein functionality: tailor-made through fractionation Remco Kornet, Wageningen University & Research, the Netherlands	[O09.4] Food & nutrition data platform – an enabler for digital nutrition transformation Roko Plestina, Nestlé Institute ofHeath Sciences, Switzerland	

15:10-15:30	[O10.5] The procestimator advises on food loss and waste valorisation options Martijntje Vollebregt, Wageningen Food & Biobased Research, The Netherlands	[O08.5] Digital twin to quantify the impact of pre- and postharvest variability on the quality evolution of citrus Chandrima Shrivastava, Empa-Swiss Federal Laboratories for Material Science and Technology, Switzerland. University of Bern, Switzerland	[O06.5] Optimization of the rheological properties of <i>Chapatti</i> enriched with crickets (<i>Acheta</i> <i>domesticus</i>). Habiba Khatun, Catholic University of Leuven, Belgium. Hajee Mohammad Danesh Science and Technology University, Bangladesh	[007.5] Hydration of pea proteins: A case study Serafim Bakalis, University of Copenhagen, Denmark.	[009.5] Consumer perception of digitization in the food sector: results from a game-based survey Katrin Mathmann, University of Applied Sciences Upper Austria, Austria		
15:30-15:50	[O10.6] Systems engineering design of food processing equipment to integrate sustainability Sara Esmaeilian, <i>NTNU</i> , <i>Norway</i>	[O08.6] Development and validation of a predictive model of <i>Anoxybacillus flavithemus</i> growth for estimating the impact of climate change on non-refrigerated food products Ourania Misiou, <i>Aristotle</i> University of Thessaloniki, Greece.	[O06.6] Muscle cells maturation on edible, 3D-printable non- animal derived scaffolds , for cultured meat development Iris Ianovici, Technion - Israel Institute of Technology, Israel	[O07.6] Relationships between Astringency perception and saliva lubrication over time after the In Situ addition of Pea protein dispersions Marine Devezeaux de Lavergne, Nestlé Research, Switzerland	[009.6] Real-time computer vision- based measurement of extrusion flow rate for 3D food printing Yizhou Ma, Wageningen University & Research, the Netherlands		
15:50-16:20	Refreshment break Poster Sess	sion 1 Garden & Campus foyers					
Room	Auditorium						
16:20-18:00	Plenary Session 2 Chair: Beatrice Condo-Petit						
16:20-16:35	Update on the European Commi Speaker TBA	ssion's Research Funding Program	1				
16:35-18:00	Podium Discussion: Reconnecting the animal food value chain for human, animal and planetary health Sponsored by ADM We face the urgent need of transforming our food system to provide safe, healthy and affordable diets for a growing population within the limits of our planet. Making the animal food chain more sustainable has a huge potential to create a positive environmental and socioeconomic impact in near future. Our panelists from academia and industry with background in sustainable food systems, animal and human nutrition, and feed and food processing technology will discuss needs and opportunities, and how science-based solutions and collaborative innovation can contribute to reconnect the fragmented value chain for a more resilient food system. Podium discussion speakers: Jeroen Dijkman, Nestlé and WUR, Agricultural Science, the Netherlands Erika Georget, Buhler, Switzerland Charles Godfray, Oxford, UK Pierre Joseph Paoli, ADM Animal Nutrition, Switzerland Daniel Ramon Vidal, ADM, Switzerland Clement Ray, Innovafeed, France						
20:00-22:00	Conference Dinner at "Le Musée Olympique" sponsored by ADM and Nestlé Conference dinner guests are welcome to visit the Olympic Museum between 18:00-20:00						

Wednesd	ay 3 November 2021							
Room	Auditorium							
08:30-10:00	Plenary Session 3: Engineering A Chair: Francesco Stellacci	ffordable and Sustainable Nutrition	on Solutions					
08:30-09:00		I bovine skeletal muscle tissue for ael Institute of Technology Faculty		Israel				
09:00-09:30	[PLN.07] Gentle food processing for bette Remko Boom, Wageningen Unive	r sustainability ersity & Research, the Netherlands						
09:30-10:00	[PLN.08] Perspectives of experiment-base Natalie Germann, Technical Unive	ed OpenFOAM simulations in food ersity of Munich, Germany	process design and optimization					
10:00-10:30	Refreshment break Poster Sess	sion 2 Garden & Campus foyers						
Room	Auditorium	Room 1BC	Room 2BC	Room 3BC	Room 1A	Room 3A		
10:30-12:35	Gentle and smart processing Chair: Marco Dalla Rosa and Petros Taoukis	Emulsion and Complex Structures Chair: Maya Davidovich-Pinhas and Matthias Schult	Food Industry 4.0 Chair: Antonio Delgado and Anet Režek Jambrak	Sensory and consumer science Chair: Diána Bánáti and Gleb Yakubov	Mild processing innovations to preserve fresh fruits and vegetables Chair: Kerstin Pasch and Simona Mincione	BBI special session II: Optimal utilization of seafood sidestreams: AQUABIOPRO-FIT and WASEABI scientific research updates Chair: Edward Sliwinski		
10:30-10:55	[O11.1] Improved Pulsed Electric Field processing units for pasteurizing thermosensitive protein-rich foods Christopher McHardy, Technische Universität Berlin, Germany	[013.1] One-step high internal phase pickering emulsions: up-cycling orange pomace Delphine Huc-Mathis, Université Paris-Saclay, INRAE, AgroParisTech, UMR SayFood, France	[014.1] Development of an artificial intelligence-based kneader- system with iot sensing of dough's rheology and optical appearance Julian Thünnesen, Friedrich- Alexander-Universität Erlangen- Nürnberg, Germany	[O12.1] Estimation of coffee sensory profiles using HyperTaste, an Al-assisted electronic tongue Gianmarco Gabrieli, IBM Research, Switzerland	[S04.1] At a glance: FOX and SHEALTHY Kerstin Pasch, Simona Mincione, DIL German Institute of Food Technologies, Germany, Enco Engineering and consulting, Potsdam, Italy	[S03.1] Exploitation opportunities for fisheries and aquaculture side stream biomass-based ingredients Katerina Kousoulaki, Nofima AS, Norway		
10:55-11:15	[O11.2] 3D printing functional edible cutlery as a sustainable alternative to plastic Irina Elena Chiriac, LEITAT, Spain	[O13.2] Screening of mildly processed food by-products for emulsion stabilization: a material science approach Charlotte Hollestelle, Université Paris-Saclay, INRAE, AgroParisTech, UMR SayFood, France	[O14.2] Computer Aided Food Engineering – CAFE for production and advanced data analytics for the "Perfect Pintje" Satyajeet Sheetal Bhonsale, KU Leuven/BioTeC+, Belgium	[O12.2] The heritage food concept and its authenticity risk factors – validation by culinary professionals Mohammad Almansouri, Wageningen University & Research, the Netherlands. King Saud University, Saudi Arabia	[S04.2] Mobile solutions for fruit and vegetables producers Ariette Matser, Wageningen University & Research, Wageningen, the Netherlands	[S03.2] Nutritional and sensory properties of hydrolysates based on residual raw material Silje Steinsholm, Nofima AS, Norway		
11:15-11:35	[O11.3] Concentration of skim milk by forward osmosis using delactosed permeate as an innovative draw solution Herehau Blais, Teagasc Moorepark Research Centre, Ireland. Wageningen University & Research, the Netherlands	[O13.3] Emulsification mechanisms of pectin from different fruit waste biomass Daniel Alexander Méndez, Institute of Agrochemistry and Food Technology (IATA-CSIC), Spain.	[O14.3] Multiobjective optimization of food process based on expert knowledge: Example of milk microfiltration Maëllis Belna, Montauban-de-Bretagne, France	[O12.3] Does excluding the sense of sight improve the quality of sensory and consumer research data? Md Kamal Hossain, University of Kassel, Germany. Fulda University of Applied Sciences, Germany	[S04.3] Sustainable futures in the food sector – a methodological combination of future scenarios and LCA Björn Moller, Fraunhofer Institute for Systems and Innovation Research ISI, Germany	[S03.3] Utilization of seafood side- streams for production of savoury ingredients Charlotte Jacobsen, Technical University of Denmark, Denmark		

11:35-11:55	[O11.4] Emerging technologies to improve protein and lipid bioaccessibilities in microalgae while preserving lipid oxidative stability Greta Canelli, <i>ETH Zurich</i> , <i>Switzerland</i> .	[013.4] Effect of micro-aeration on thermal properties of chocolate and link with oral processing Dimitrios Bikos, Imperial College London, UK.	[014.4] Faster than real-time predictions for online optimal control of food processing with digital twins Maximilian Kannapinn, Technical University of Darmstadt, Germany	[O12.4] Consumer perceptions of plant- based beverages: the ghanaian consumer's perspective Jacqueline Baaba Acquah, University of Ghana, Ghana	[S04.4] Application of non-thermal processing to minimally processed F&V based products Elena Torrieri, University of Naples Federico II, Italy	[S03.4] Strategies for valorization of high value compounds from mussel cooking water Bruno Iñarra, AZTI, Food Research, Basque Research and Technology Alliance (BRTA), Spain
11:55-12:15	[011.5] In-situ formed microbial homopolysaccharides: Potential for the meat industry Myriam Loeffler, KU Leuven - Technology Campus Gent, Belgium.	[O13.5] A computational and experimental study on the effect of micro-aeration on the mechanical breakdown during the first bite Georgios Samaras, Imperial College London, UK	[O14.5] Digital twins as enabler for data-driven process improvements in the industrial manufacturing of food and feed Ali Baajour, Bühler Group, Switzerland	[O12.5] Dynamic sensory profiling and evaluation of the impact of ambient temperature on the dynamic emotional response to vanilla ice cream Célia Rocha, Sense Test, Lda, Portugal.	[S04.5] Consumer- and Business-led Innovation in agro-food SMEs Marco de la Feld, ENCO SRL, Italy	[S03.5] Diet supplementation with fish-derived protein hydrolysates suppresses type 2 diabetes by modulating the intestinal microbiome in a mouse model of diet-induced obesity Christos Tsatsanis, University of Crete Medical School, Greece
12:15-12:35	[011.6] Implications of pulsed electric field processing on enhancing single-cell value-chain efficiency Iris Haberkorn, ETH Zurich, Switzerland	[O13.6] Advancing in gluten network tailoring by defining its thermal limits Monika Wehrli, Technische Universität München, Germany	[O14.6] Monitoring of Sourdough fermentations with different substrates by 2D-Fluorescence Spectroscopy Viktoria Zettel, University of Hohenheim, Process Analytics and Cereal Science, Germany	[O12.6] Consumer liking of vegan tomato soup over its shelf-life period Krishnachandra Sharma Hidangmayum, University of Copenhagen, Denmark	Discussion: Hurdles about implementing ideas? Moderators: Kemal Aganovic and Oliver Schlüter, DIL German Institute of Food Technologies, Germany Leibniz Institute of Agricultural Engineering and Bio-economy e.V., Germany	[S03.6] Regulatory effects of fish side streams extracts on human gut microbiota Jianjun Zhou, University of Valencia, Spain
12:35-13:45	Lunch / Poster Session 2 Garde	n & Campus foyers		,		<u> </u>
Room	Auditorium	Room 1BC	Room 2BC	Room 3BC	Room 1A	Room 3A
13:45-15:50	Processing and stability of bioactives in food Chair: Marco Dalla Rosa and Ann Van Loey	Side stream valorization Chair: Catherine Renard and Oliver Schlüter	Food Safety & Authenticity Analysis Chair: Lucia Vannini and Volker Heinz	Physical Chemistry of Food Materials Chair: Maya Davidovich-Pinhas and Gleb Yakubov	Special Session: LeguComf and Leg4Life present: Towards innovative legume-based foods Chair: Vieno Piironen and Anne-Maria Pajari	Driving availability and digestibility of nutrients Chair: Uri Lesmes and Catherine Renard
13:45-14:10	Encapsulation efficiency and limpacts of preprocessing treatments on the functionality and stability of proteins on the cellular envelopes of proper		[O16.1] The effect of electric and pulsed electric field on physical properties, solubility and morphology of high protein	13:45-13:50 Opening the session Vieno Piironen, University of Helsinki, Finland	[019.1] Influence of food processing on protein digestibility of alternative protein sources Laila Hammer, Agroscope,	
	Carolin Bommes, DIL Deutsches Institut für Lebensmitteltechnik, Germany	streams using the pH-shift technology Mehdi Abdollahi, <i>Chalmers University of</i> <i>Technology, Sweden</i>	by Non-Thermal Atmospheric Plasma Márcia Oliveira, University of Leon, Spain	dairy powders. Valentyn Maidannyk, Teagasc Food Research Center, Ireland	13:50-14:10 [S05.1] Sociodemographic factors and perceived obstacles associated with legume and plant-based meat substitute consumption in Finland, Sini Kuosmanen, University of Helsinki, Finland	Switzerland.

14:10-14:30	[017.2] Effect of acidification on the color and anthocyanin stability of strawberry puree during thermal processing and accelerated storage Natalia Teribia, KU Leuven University, Belgium. Döhler GmbH, Germany	[O15.2] Applying quantitative proteomics for evaluation of protein quality, extraction methods, and nutritional value in side-streams of industrial carrageenan production from the red seaweed <i>Eucheuma</i> <i>denticulatum</i> (Spinosum) Simon Gregersen, <i>Aalborg</i> <i>University, Denmark</i>	[O18.2] Gentle sterilization of carrot- based puree by high-pressure thermal sterilization and influence on food processing contaminants as well as quality attributes Robert Sevenich, <i>TU Berlin</i> , <i>Germany</i>	[016.2] Design of a durable and flexible formulating setup for food compaction processes René Rösemeier-Scheumann, <i>TU Braunschweig, Germany</i>	14:10-14:35 [S05.2] Flavour challenges in faba bean -based processes Kati Katina, University of Helsinki, Finland	[019.2] Stabilization of vitamin A by wheat bran during storage: unravelling the mechanism Eline Van Wayenbergh, <i>KU Leuven, Belgium</i>
14:30-14:50	[017.3] Stability and bioavailability of vitamin D encapsulated in whey protein microgels Jenna Lee, Waterford Institute of Technology, Ireland	[O15.3] Tailoring aqueous ethanol washing process of de-oiled sunflower kernel towards food applications Wanqing Jia, Wageningen University & Research, the Netherlands	[018.3] Microplastics in Tea bags: Invisible contamination Ana Amelia Franco del Pino, University of Cadiz, Spain	[O16.3] How to ensure and predict food powders physical stability in sustainable packaging? A material science challenge from product to packaging properties. Vincent Meunier, Nestlé Research Lausanne, Switzerland	14:35-15:00 [S05.3] EIT Food LeguComf project - Innovative tools to produce legume-based foods for increased consumer acceptance Anne-Maria Pajari, University of Helsinki, Finland	[019.3] Understanding the effect of matrix structure on digestion of potato proteins: A in vitro study Luis Jimenez-Munoz, Aarhus University, Denmark
14:50-15:10	[017.4] Processing strategies to create carotenoid-enriched pumpkin juice as natural food colorant Sharmaine Atencio, Katholieke Universiteit Leuven, Belgium	[O15.4] Efficient black soldier fly larvae-based waste utilization to produce more sustainable animal feed Alexander Mathys, ETH Zurich, Switzerland	[O18.4] A novel food authentication approach by combining hyperspectral imaging and deep chemometrics: a study on 'espresso' coffee Swathi Sirisha Nallan, University of Tuscia, Italy	[O16.4] The Physicochemical Stability of Oat-based Drinks from Oat Bran and Wholemeal Oat Flour Tiffany Patra, University of Copenhagen, Denmark	15:00-15:25 [S05.4] Extrusion-based approaches in developing new legume-based foods Kirsi Jouppila, University of Helsinki, Finland	[019.4] The fate of phenolic compounds, their bioaccessibility, and bioactivity in African pumpkin (Momordica balsamina) leaves during boiling and in vitro human digestion Siphosanele Moyo, University of Pretoria, South Africa. University of Johannesburg, South Africa
15:10-15:30	[017.5] Demystifying the prebiotic potential of functional ingredients incorporated in food matrices Nelson Mota de Carvalho, Universidade Católica Portuguesa, Portugal	[O15.5] Valorisation of food processing by-products for developing and application of low/high cost nutritional ingredients: Searching for the 'golden mean' Petras Rimantas Venskutonis, Kaunas University of Technology, Lithuania	[018.5] Treatment of mushrooms with plasma activated water Masja Nierop Groot, Wageningen Food & Biobased Research, The Netherlands	[O16.5] Use of state diagram to understand the enzyme- catalyzed reactions in model and real systems in view of legume ageing and their hard to cook development Shruti Aravindakshan, KU Leuven, Belgium	15:25-15:40 Summary and closing the session Vieno Piironen and Anne-Maria Pajari, University of Helsinki, Finland	[019.5] The influence of bile and dissolved oxygen on polyphenol bioaccessibility in model systems Eden Eran Nagar, Technion, Israel

15:30-15:50	[017.6] Colloidal particles of bovine alpha-lactalbumin complexed with dietary fibres for gastrointestinal delivery of capsaicin Alon Romano, Technion – Israel Institute of Technology, Israel	[O15.6] Checking and breakage of dry cereal products mitigated by microwave treatment after baking; the BRICE project. Alain Le-Bail, ONIRIS-GEPEA, France. SFR IBSM 4204-Nantes, France	[O18.6] Survival of Listeria monocytogenes and Salmonella Typhimurium during simulated gastrointestinal digestion: effect of gastric pH and bile acids Theodora Akritidou, KU Leuven/ BioTeC+, Belgium	[O16.6] Physicochemical properties of Finnish lupin fibre Anis Arzami, University of Helsinki, Finland		[019.6] Low dose, wholegrain mustard supplementation associated with beneficial effects on fasting glucose and cholesterol in adults. Hannah Carter and Ruth Fairchild, <i>Tracklements, UK. Cardiff</i> <i>Metropolitan University, UK</i>
15:50-16:20	Refreshment break / Poster Sess	sion 2 Garden & Campus foyers	sponsored by Givaudan			
Room	Auditorium					Meeting room AB
16:20-18:00	Plenary session 3 Chair: Fabian Wahl					Open Science Taster Workshop
16:20-17:40	Chair: Fabian Wahl Podium Discussion: Food Industry 4.0 Together with our panelist, we will discuss the different perspectives of Industry 4.0 in the agri-food sector and examine the current and future role of digitization and blockchain technology in the transformation of the current food system. Podium discussion speakers: • Stuart Bashford, Buhler, Switzerland • Mariella Goebl, TechnoServe, Switzerland • Matthias von Kaiserswerth, former IBM, Hasler foundation, Switzerland • Matthew Robin, ELSA, Switzerland • Steve Tanner, Ecorobotix, Switzerland					This workshop will introduce the many pillars of Open Science while focusing on open data and open access publishing for food and nutrition scientists. Speakers: • Katherine Flynn, ISEKI-Food Association, Austria • Edward Sliwinski, EFFoST, the Netherlands
17:40-18:00	Werder Foundation Award					1
					Room 3A Debate session: Addressing the	value of food processing
					for nourishing people in a susta Chairs: Lilia Ahrné en Hugo de V	inable manner

In this session, we would like to debate with the invited audience about the potential contribution of Food Science and Technology (FST) to societal challenges. The topic will be first briefly introduced by three experts that will present their food engineering, nutrition, and consumer perspectives, followed by a debate of six statements with the audience. Session speakers:

• Prof Erich Windhab, ETH Zurich, Switzerland

- Prof Diana Bánáti, University of Szeged, Hungary
- Prof Lorraine Brennan, University College Dublin, Ireland
- Prof Thom Huppertz, Wageningen University & Research, the Netherlands

SCAN ME

In this programme, only the presenters of the abstracts are mentioned. The online book of abstracts acknowledges all authors.

<u> </u>	4 November 2021				
Rooms	Auditorium	Room 1BC	Room 2BC	Room 3BC	Room 3A
08:30-10:35	Processing with gas, cold plasma and UV-light Chair: Aliena Altmann and Vasilis Valdramidis	Food Microstructure Chair: Dolores O'Riordan and Marco Dalla Rosa	Quality and freshness Chair: Olga Martín-Belloso and Oliver Schlüter	Proteins for food structuration / texturation Chair: Laura Piazza and Matthias Schultz	Special Session: GHI - Food security, safety, sustainability, and consumer acceptance of novel food technologies Chair: Huub Lelieveld
08:30-08:55	[O20.1] Development of novel CO2 gas hydrate technology for fruit juices concentration process Timo Claßen, Institute of Fluid Mechanics, FAU Erlangen-Nürnberg, Germany	[O21.1] Improving the microstructure of meat-like alternatives with microcomputed tomography analysis Lisa Franke, <i>Technische Universität</i> <i>Berlin, Germany</i>	[O23.1] Use of carvacrol to eradicate biofilms formed by an environmental <i>Pseudomonas</i> spp. strain isolated from poultry meat Natalia Merino, <i>Agri-food Institute of</i> <i>Aragón, University of Zaragoza, Spain</i>	[O22.1] Formation and characterization of zein-stabilized oleogel by using emulsion-template method Shaghayegh Keshani, University of Copenhagen, Denmark	08:30-08:45 [S07.1] Assessing skills and competences to boost novel food technologies – outcomes of ASKFOOD Knowledge Alliance Paola Pittia, University of Teramo, Teramo, Italy
					08:45-09:00 [S07.2]
08:55-09:15	[O20.2] Gas hydrates as an innovative leavening agent for baked goods Timo Claßen, FAU Erlangen- Nuremberg, Germany	[O21.2] Understanding starch gelatinization and proteins denaturation during pulses cooking to improve nutritional quality Charlotte Lefèvre, <i>Qualisud</i> ,	[O23.2] Portable food-freshness recognition platform based on UV Lithography patterning metal-organic frameworks and deep convolutional neural networks	[O22.2] Physicochemical, textural and meltin properties of heated casein gels with various fat content Bo Yuan, Wageningen University & Research, the Netherlands	Nonthermal Processing for safety, sustainability and consumer acceptance – The High-Pressure paradigm in research and applications Petros Taoukis, National Technical University of Athens, Greece
		Univ Montpellier, CIRAD, France	Peihua Ma, University of Maryland, USA		09:00-09:15 [S07.3] Improving food system sustainability through technological, social, and organizational innovations in intermediate food value chains Katherine Flynn, <i>ISEKI-Food</i> <i>Association, Austria</i>
09:15-09:35	[O20.3] Aeration and texturization of gluten- free food systems Mario Jekle University of Hohenheim, Germany	[O21.3] Microbial transglutaminase induced modification of wheat gliadin-based nanoparticles and its impact on foaming properties Katarzyna Kaczynska, KU Leuven, Belgium	[O23.3] Green off-flavor in soy products: Linkage of the sensorial aversion to green aldehydes and reduction by fermentation with Lycoperdon pyriforme Ann-Kathrin Nedele, University of Hohenheim, Germany	[O22.3] Lactoferrin/β-lactoglobulin complex coacervates: rheological properties Rima Hachfi Soussi, INRAE, Institut Agro, STLO, France	09:15-09:30 [S07.4] Novel, functional forest honey's health-promoting impact justification with human clinical trial Erzsébet Némedi, <i>Expedit Nodum Ltd.,</i> <i>Hungary</i>
09:35-09:55	[O20.4] Optimization of unfolding degree of pulsed UV-treated whey protein isolate by response surface methodology Gianpiero Pataro, University of Salerno, Italy	[O21.4] Contribution of maize starch and pea protein to the mechanical properties of plant-based food Zhihong Lyu Wageningen University & Research, the Netherlands	[O23.4] From culture medium to the real food: How to use the correction factor and the cardinal values to predict microbial growth in food matrices – a case study with Bacillus cereus Nathália Buss da Silva, Nestlé Research, Switzerland	[O22.4] Foaming properties of aqueous quinoa extracts: Impact of protein composition and conformation Julie Van de Vondel, <i>KU Leuven, Belgium</i>	09:30-09:45 [S07.5] Edible bird's nest as novel food Daisy Lanoi, Kenya Agricultural and Livestock Research Institute, Kenya

09:55-10:15	[O20.5] Production, characterization and in vivo toxicity of cold atmospheric plasma activated water George Katsaros, <i>ELGO-DEMETER</i> , <i>Greece</i>	[O21.5] Determining the effect of microstructure on functionality of imitation cheese with starch, casein and fat Kathrine E. Ørskov, Aarhus University, Denmark. KMC Amba, Denmark	[O23.5] Analytical evaluation and quantification of benzo(a)pyrene in herbal medicines by using high- performance liquid chromatography/ fluoresence detector (HPLC/FLD) Yong Yeon Kim, Dongguk University, Republic of Korea	[O22.5] Adsorption dynamics and viscoelastic properties of mixed plant-dairy protein interfaces formed through simultaneous and sequential adsorption Katherine Grasberger, <i>Aarhus</i> <i>University, Denmark</i>	09:45-10:00 [S07.6] Application of ultrasound treatments in processing and production of high quality and safe juices and added- value by-products Cristina Luisa Silva, Portuguese Catholic University – College of Biotechnology, Portugal			
10:15-10:35	[O20.6] The impact of plasma activated water on the cross-protection mechanisms of resistant mutants of <i>Salmonella</i> <i>enterica</i> Typhimurium Elisa Pagan, <i>University of Zaragoza</i> , <i>Spain</i>	[O21.6] Liquid-solid transition of saturated and unsaturated triacyl-glycerides (TAGs): experimental and modeling perspective Maya Davidovich-Pinhas, Technion, Israel	[O23.6] Development of sustainable biodegradable packaging film based on Thyme Oil and Clove Oil Shubham Sharma, Technological University Dublin, Ireland	[O22.6] Protein-rich ingredients from berry pomace: Production, characterization and application Petras Rimantas Venskutonis, Kaunas University of Technology, Lithuania	10:00-10:15 [S07.7] Comparative study of prebiotic utilizing capabilities of distinctive probiotics by using various prebiotic materials of food application potential Attila Kiss, University of Debrecen, Hungary			
					10:15-10:30 [S07.8] Ultra-high Pressure homogenization (UHPH): Advantages, applications and performances vs UHT and HPP Jordi Serratosa Vilageliu, Autonomous University of Barcelona, Spain			
10:35-11:20	Big Morning Tea Campus foyer spon	sored by Buhler						
Room	Auditorium							
11:20-12:20	Plenary Session 4: Shaping Robust and Chair: Francesco Stellacci	Flexible Supply Chains & Manufacturing	Setups					
11:20-11:50	[PLN.09] From trend to growth: Example of plan Thomas Hauser Nestlé S.A., Head of Global Product and	t-based dairy, meat & seafood alternativ Technology Development, Switzerland	ves					
11:50-12:20	[PLN.10] Presentation title TBA Eyal Shimoni, Strauss Group Ltd, Petach	Tikva, Israel						
12:20-13:30	Plenary Session 5: Closure and Awards Chair: Christoph Hartmann							
12:20-12:50	[PLN.11] Closing Lecture: Forecasting the Landscape of Future Food Technologies Erich Windhab, ETH Zurich, Switzerland							
12:50-13:15	EFFoST Awards Ceremony Hugo de Vries, President of EFFoST Board and Ralf Jakobi, Cargill, Belgium							
13:15-13:30	Christoph Hartmann, Conference chair, I	Closing Remarks & Announcement of EFFoST 2022 Christoph Hartmann, Conference chair, Head of Academic Alliances & Expertise Development at Nestlé S.A., Switzerland Hugo de Vries, President of EFFoST Board, Research director at INRAE, France						