

# FoodTech: how will we eat in the future ?

Schedule: November 3rd	What	Time	Info
8:30-8:40 am BRT 12:30-12:40 pm CET 8:30-8:40 pm KST	Intro and splitting into groups	10'	Welcome remarks, introduction, information
8:40-10:40 am BRT 12:40-2:40 pm CET 8:40-10:40 pm KST	Three parallel group discussions A,B,C *	120'	Participants pre-assigned to the rooms
10:40-11:00 am BRT 2:40-3:00 pm CET 10:40-11:00 pm KST	Reporting/closing	20'	1 designated reporter per group

## \*3 parallel group discussions

### A. Agriculture System & Food (120')

Question 1 (35'): How advanced is digitalisation in agriculture systems and food production?  
Are there big gaps or resistances in adopting new technologies in farming?

- Intro of topic and expert moderator (5'): João Carvalho - [Innovation & Digital Advisor](#) at Cargill Brasil
- Flash inspirational presentation (5'): Thainná Cardoso Waldburger - [Agroscope](#)
- Discussion (25')

- **João Carvalho** - [Innovation & Digital Advisor](#) at Cargill Brasil

Digital Strategy, digital business development and venture building advisory. Startup / Innovation / University ecosystem relationship and partnership. He develops new digital business and strategic projects, either in startups or in the context of corporations. Today he is a Digital Strategy and Innovation Advisor for LATAM at Cargill, where he works closely with the region's businesses in the definition of digital strategy, development of new products and businesses, in addition to leading the company's partnerships and relationship with the ecosystem of start-ups and innovation. Previously, she had entrepreneurial experiences launching e-commerce/subscription startups for cosmetics (Sublime Rituals) and fintech/energy (Dooak), and leading Products, Marketing and R&D in organic foods at Fazenda da Toca. He also managed innovation programs and strategic projects at Abbvie and Abbott, and was a strategic management consultant at 3GEN Consultoria.

- **Thainná Cardoso Waldburger** - [Agroscope](#) (CH)

Bachelor in Environmental Engineering at Faculdade de Tecnologia e Ciências de Itabuna-FTC and proficient in Geoprocessing. Master in Regional Development and Environment by the State University of Santa Cruz - UESC: Currently is Scientific Employee at Agroscope.

**Question 2 (35'):** What mishaps and pitfalls can affect our sustainability, health, security, and economy in the future of agriculture?

- Intro of topic and expert moderator (5'): Paulo Silveira, CEO [FoodTech Hub](#)
- Flash inspirational presentation (5'): Fernando Antonio Hello - PhD Researcher - Tech Transfer at Embrapa
- Discussion (25')

**- Paulo Silveira - CEO at FoodTech Hub Brasil**

Professional Experience:

CEO of Danisco Ingredients for South America; CEO of Blockbuster - Brazil; CEO of Intecom - Integrated Logistics; CEO of Unidas Rent a Car; CEO and founder of GREEN ASSETS

Business activity already carried out:

Board Member of ADVB; Former Member of YPO - Young President's Organization; Board Member of Apprimus, a company formed by Grupo Martins, Accor and BRF; Board Member of Sequoia Logística; Board Member of Tatu Marchesan

**- Fernando Antonio Hello - PhD Researcher - Tech Transfer at Embrapa**

He has a degree in Agronomic Engineering (USP - University of São Paulo, 1981), a degree in Psychology (USP - University of São Paulo, 1986), a specialization in Psychoanalysis (PUC - Pontifical Catholic University of São Paulo, 1992), a Master in Education (UNIMEP - Methodist University of Piracicaba, 2004) and a PhD in Education (UNICAMP - State University of Campinas, 2009). He is currently a Researcher in Innovation and Business Management Policies and Strategies, Secretariat of Innovation and Business, EMBRAPA - Brazilian Agricultural Research Company, where he works with the governance of Embrapa's Innovation Policy. He also develops research in the area of planning, development, application and impact assessment of Public Policies (PPs) for dissemination of technologies in Programs, Projects and Courses in different areas of tropical agriculture, and Food and Nutrition Sovereignty and Security (SSAN); In the latter area, he has been developing partnerships with the Ministry of Science, Technology, Innovation and Communications (MCTIC) where he is part of the Advisory and Management Committees of the Global Network for Education, Research and Extension in Nutrition, Sovereignty and Food and Nutrition Security (NutriSSAN Network)

**Question 3 (35'):** How can agritech contribute to building a better tomorrow?

- Intro of topic and expert moderator (5'): [Carlos Ribeiro](#), Executive Director, [Sensix Agro](#)
- Flash inspirational presentation (5'): [Christine Schäfer](#), researcher at GDI
- Discussion (25')

- **Christine Schäfer, MSc BA - Researcher at GDI Gottlieb Duttweiler Institute**

Christine Schäfer is a researcher at the GDI Gottlieb Duttweiler Institute. She analyses social, economic and technological trends, with a focus on food, consumption and trade.

- **Carlos Ribeiro - Executive Director at Sensix**

Carlos Ribeiro, Co-founder and CEO at Sensix. Mechatronic Engineer with training and vast experience in the digital agriculture market. He founded Sensix in 2015, a digital intelligence management platform that consolidates data from images, machines, soil and plants to define strategies to increase profitability is being used in over 300 thousand ha in Brazil. Working in soybean, corn, cotton and sugarcane crops, the Sensix FieldScan platform is able to deliver maps of weed location, quantify crop failures, identify variability of vigour and biomass for variable rate application of fertilizers, nematicides, growth regulators (cotton), resistance inducers and herbicides, communicating directly with the application machinery and impacting on input economy, greater homogeneity of cultivation and increased productivity.

**Group 1 summary of the outcomes in the group discussion the group discussion (10')**

## B. Technology & Food (120')

**Question 1 (35'): What is the current status and vision in the food industry?**

- Intro to the topic (5'): JongKyu Jang, Latitude Korea
- Flash inspirational presentations (5'+5'):
  - Alex Bastos, Givaudan
  - Jeong Sang Lee, Jeonju University
  - Discussion (20')

- **JongKyu Jang, CEO Latitude Inc. (Moderator)**

JongKyu is CEO of Latitude Inc in Korea which has been developing sustainable solutions to minimise environmental impact and maximise the brand value of the companies Latitude represents. JongKyu has inspired and led a number of innovative collaboration programmes for both large corporates and start-ups in the sustainability space.

JongKyu also oversees multiple marketing programmes and collaboration projects between international entities and Korean corporates as part of a broader in-market representation function.

On 5th of Nov, Latitude Inc. is hosting Sustainable Brands Korea Community Conference – online (<http://sustainablebrands.kr/>). This is Latitude's 5<sup>th</sup> conference for sustainable innovation for businesses.

- **Alex Bastos, Global Director Front End Innovation, S&T, Flavours, Givaudan**

Alexandre's role as Global Director Front End Innovation at Givaudan is to explore emerging food technologies, business models and adjacent spaces and bring new opportunities by connecting with start-ups, entrepreneurs and innovation thought leaders that are disrupting the food and agriculture ecosystem. Alexandre is an active leader in the Givaudan journey to drive a more collaborative and inclusive working model to deliver innovation.

- **Jeong Sang Lee, Professor, Jeonju University, College of Medical Science, Dep. of Functional Foods and Biotechnology**

Professor Jeong-Sang Lee had completed his Ph.D. at Seoul National University College of Pharmacy (Biochemistry major) and postdoctoral training from Yale University School of Medicine (Comparative Medicine and Pharmacology) for 3 years. He is now serving as the Director of Food Industry Research Institute of Jeonju University and assistant professor of Dep. of Functional Foods and Biotechnology. He has published 53 papers in reputed journals and has been serving as an editorial board member of Frontier in Bioscience and Journal of Food Chemistry and Nanotechnology. He has been studying cancer prevention research especially focusing on gastro-intestinal inflammation. He expanded his expertise to translational research, utilizing human patient samples (gastritis, colitis, gastric and colon cancer) and functional food science.

#### Question 2 (35'): Where does science stand and how does it envision healthy nutrition?

- Intro to the topic (5'): Braida Thom, World Food System Center ETH
- Flash inspirational presentations (5'+5'):
  - Joan Onate Narciso. Laboratory of Food Biochemistry EPFL
  - Jin Kyu Rhee, Food Nanotechnology Lab, Ewha Womans University
- Discussion (20')

- **Braida Thom, Project Manager, [World Food System Center ETH](#)**

Braida Thom joined the World Food System Center as Project Manager in November 2019. In her role, she manages the research programs of the Center, including the Future Food Fellowship. She completed her bachelor studies in Agricultural Science at ETH Zurich and her master studies in Agricultural Economics at ETH Zurich and Boku Vienna. Her master thesis was part of the Flagship project "Enhancing Resilience in Food Systems" and focused on evaluating action measures to enhance resilience of Ghanaian cocoa farmers to drought. She then joined the World food system center as an intern, supporting communication, outreach, and education activities. Since May 2019, she also works with the ETH Zurich Sustainable Agroecosystems group, where she is in charge of the monitoring and evaluation of the project "Post-harvest cocoa processing & farmers' support centers." Implemented by CABOZ AG, the project aims to counter risks along the cocoa value chain and implement sustainability initiatives in Côte d'Ivoire

- **Joan Onate Narciso, Researcher, Department of Health Science and Technology, ETH**

Dr. Joan Oñate Narciso studied Chemistry at the University of the Philippines, Los Baños (UPLB) under the mentorship of Professor Evelyn B. Rodriguez, analyzing indole glucosinolates found in locally grown *Brassica* vegetables. She pursued an MSc thesis in Biochemistry at the International Rice Research Institute (IRRI) under the mentorship of Dr. Ajay Kohli. Her MSc focused on the role of cellulose synthases in rice drought tolerance. She obtained her PhD in Plant Cell and Molecular Biology from the University of Melbourne under Professor Tony Bacic, studying the biosynthesis of arabinogalactan-proteins. Her first postdoctoral position was at INRA-Versailles, France, under Dr. Grégory Mouille, where she searched for O-fucosylation in the plant cell wall. Currently, she is looking at the potential of kabog millet, an ancient crop from the Philippines, as an alternative to rice. She is a Future Food Fellow at ETH Zürich under the supervision of Professor Dr. Laura Nyström.

- **Jin Kyu Rhee, professor, Ewha Womans University**

Jin-Kyu Rhee is presently associate professor of Food Science and Engineering at Ewha Womans University, with research specializations in the area of minimal processing technology for size-reduction/extraction, micro-dispensing technology for food 3D printing, microbial enzyme design and convergent nano-technology for food smart fabrication. He has published more than 50 peer-reviewed papers in these fields. He obtained a Bachelor of Science degree from the Yonsei University in 1998 and a Ph.D. degree in Biotechnology from the Yonsei University in 2006. Following a Pfizer postdoctoral fellowship at The Scripps Research Institute from 2008 to 2012, he served on the Senior Researcher and the Director at the Korea Basic Science Institute until his move to Ewha Womans University in the spring of 2015. He now runs the Food Nanotechnology Lab to pursue human beings' lifestyle of health and sustainability (LOHAS) for preparing the future life. With the goal of commercialization of technology, he has been in charge of the CEO of SuFAB(Super Fabulous Fabrication of Foods, Agriculture and Biomaterials) Inc., a technology holding subsidiary of Ewha Womans University, from 2019. He is also a frequent reviewer of submitted papers to the Journal of the Polymers, Food Science and Biotechnology, Microbiology and Biotechnology, Microbiology Letters and others. In addition, each year he reviews many grant proposals for the agencies from Korea.

**Question 3 (35'): What are the avenues for the future of food and food-related services?**

- Intro to the topic (5'): Alex Bastos, [Givaudan](#)
- Flash inspirational presentations (5'+5'):
  - Cyril Hess [LemnaPro](#)
  - Benjin Kim [AvokadoLab](#)
- Discussion 20'

- **Alex Bastos, Global Director Front End Innovation, S&T, Flavours, [Givaudan](#) (see above)**

- **Cyrill Hess, environmental scientist and entrepreneur, Co-founder LemnaPro**

As a young entrepreneur and scientist, Cyrill Hess is a pioneer in the field of duckweed for human nutrition. He studied environmental sciences at ETH Zurich and founded the project LemnaPro shortly after graduation. He pursues the vision of a novel world food system in

which all nutrients necessary for health and well-being are available for every human being. In addition to his work as an entrepreneur, he is engaged as a team- and mindset coach.

- **Benjin Kim, CEO, [Avokado Lab](#)**

Benjin is Co-founder & CEO of Avokado Lab (Aug 2018 - Now) with background in Electrical and computer Engineering, Mechanical Engineering and Mechatronics Design from Seoul National University.

**Group 2 summary of the outcomes in the group discussion in the group discussion (10')**

**C. PrevenTransforManage (120')**

**Question 1 (35'): What is the current status and available services/technologies helping prevent food waste? (Please, elaborate on the needs, status and what is foreseen)**

- Intro to the topic(5'): Claudio Beretta ZHAW
- Flash inspirational presentations (5'+5'):
  - Sunyoung Lee, [Pure Space](#)
- Discussion (20')

- **Claudio Beretta, Scientific assistant for sustainability and food waste prevention in food systems ZHAW**

Claudio Beretta is currently working as a research associate in the group of *Food and Beverage Innovation* at the school of applied sciences ZHAW. He is responsible for sustainability in food systems and more specifically for food waste reduction. Besides his position at ZHAW he is president and co-founder of the association *foodwaste.ch* destined to reduce food losses at the various stages of the food value chain. In 2018 he finished his PhD at the *Institute of Environmental Engineering* at ETH Zurich, analyzing the environmental impact of food losses in Switzerland and its reduction potential. He studied environmental science at ETH Zurich, with a major in forest and landscape management and a minor in sustainable energy technologies.

- **Sunyoung Lee, [PureSpace](#)**

Sunyoung is a founder of PureSpace. She is an alumni of Seoul National University in Business and has a career in finance sector. She has decided to establish a tech-based startup to help reduce food waste and is in charge of leading the business development of PureSpace.

**Question 2 (35'): If on the one hand waste transformation in resources has been identified among the solutions to food waste, on the other hand, this idea might induce citizens not to**

seriously engage in food waste reduction. What are the current initiatives and outcomes? What is still missing which might be provided by a better use of technology?

- Intro to the topic (5'): Lin Hwang, [DamoGO](#)
- Flash inspirational presentations (5'+5'):
  - Niloufar Sharif EPFL
  - Discussion (20')

- **Lin Hwang, CEO, [DamoGo](#)**

Lin Hwang is a Korean-American who has worked as an entrepreneur in the food industry for 13 years - in food processing, distribution, import/export, and he also imported the American restaurant franchise, The Halal Guys, to South Korea in 2016. He started his career by taking over his father's seafood processing company and growing revenue by over 600%. He then moved into consulting American food companies to export their products into Asia. His 1st hand experiences in seeing and unwillingly being part of wasting perfectly good food throughout his career has led him to the founding of the all-in-one food waste mobile app, DamoGO, in 2017.

- **Niloufar Sharif, Researcher, Institute of Chemical Sciences and Engineering, EPFL**

Niloufar Sharif obtained her B.S. and M.S. in Food Science and Technology from the Urmia University, Urmia, Iran. She then received her Ph.D. in Food Technology from the Shiraz University, Shiraz, Iran in 2018. Prior to starting her Ph.D., she worked as a quality control expert in a food production company in Iran. Niloufar Sharif has been the recipient of the Future Food fellowship, a Swiss science-industry program that aims to expand research and education in the area of food and nutrition. The Iranian post-doctoral researcher is working on a three-year project at the Federal Institute of Technology Lausanne (EPFL) to develop intelligent packaging technologies.

Question 3 (45'): Food waste reduction must be the ultimate goal and solution. However, alternative digitally-led solutions to waste have been developed to overcome the massive amount of "left-over" from restaurants, catering and supermarkets. What is currently the citizens' participation? What is foreseen to transform these alternatives in regular, not exceptional, options?

- Intro of topic and experts (5'): [Pedro Martins](#), Liv-Up
- Flash inspirational presentations (5'+5')
  - Lin Hwang, DamoGO
  - Hyoung-Joon Lim, Director World Food Program Korea
- Discussion (20')

- **Pedro Alexandre Martins, Sourcing and Sustainability at [Liv Up](#)**



Pedro Martins is a Brazilian with a background in innovation, business and engineering. He is responsible for Sourcing and Sustainability at Liv Up, a healthy food startup based in São Paulo with the mission of creating better food (eco)systems through integration and transparency.

- Lin Hwang, CEO, [DamoGo](#) (see above)

- **Hyoung Joon Lim, Director World Food Program UN Korea**

Hyoung-Joon Lim, a Korean national, is Head of WFP Korea office as of September 2019. Hyoung-Joon joined WFP in January 2002 as a JPO (Junior Professional Officer) and served in Honduras, Guinea Bissau, Lao PDR, managing complex emergency operations as well as development projects. After his missions in the field, he moved to WFP HQ in Rome, Italy to serve as a donor relations officer in charge of Asia region until he was reassigned to his homeland, Korea. In his 20s, Hyoung-Joon backpacked over 80 countries around the world for over a span of 3 and half years. He has been engaged in several publications: published his own travel essay "I swallowed earth" in 1999, was featured at a book "Global Young Korean" in 2008, given his appearance at KBS's 60 minute TV documentary and also published "Let's smile together," a children's book in May 2012 to tell global hunger and activities of WFP based on his personal experience. Hyoung-Joon also contributed to newspapers, including a weekly column to Hankyoreh, one of major Korean Dailies from 1997 to 1998 and a monthly column to Hanwool in mid 2000s. He is often invited to give lectures and speeches at various institutions, including Government ministries, Universities, research institutes. From March to June 2015, he was a visiting professor to Seoul National University to teach an English class, "International Development Practice". Hyoung-Joon received a B.A in language and diplomatic science, M.A in political science from H.U.F.S and MPA (Master of Public Administration) from John F. Kennedy School of Government, Harvard University. He is married with one son.

**Group C summary of the outcomes in the group discussion in the group discussion(10')**

**Final report (20')**

At the end of the 3 parallel group discussions, the 3 groups gather in the main Zoom room and report