



Food loss and waste reduction innovation hub

Solving the issue of the worldwide food waste from fusion of literary science & technology

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Our project: 活動説明文章（英語）

According to the Food and Agriculture Organization of the United Nations (FAO), about 5 billion tons of food is produced annually in the world, but one-third of it is discarded, making food loss and waste a global social issue that not only wastes resources but also has a negative impact on the environment.

As a solution to this problem, Osaka University will solve the important issues of SDG 12.3, which is the basis for the formulation of the vision, through “Food DX” by focusing on the social implementation of “new technology related to food” and research teams working on “social problems related to food,” aiming to create a society where food loss reduction and ethical consumption is realized.

Description of our activity

活動説明・図表（英語）



Our hub solves problems related to food waste by promoting food loss reduction and ethical consumption through innovation using Food DX.

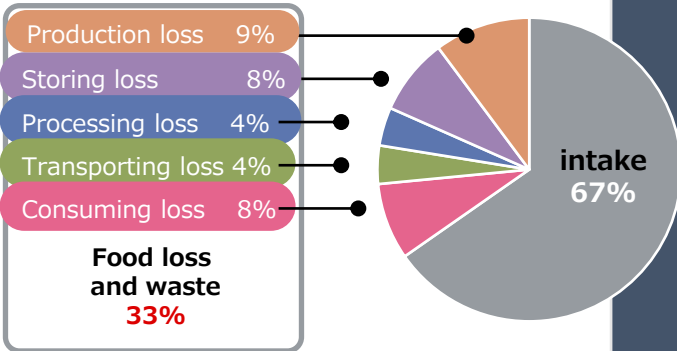


We will make all people in society happy and realize a society that is environmentally friendly and well connected through the food cycle.

Our vision

Our Food DX technology opens the way for low food loss & waste and ethical consumption society.

Worldwide food loss and waste (Y2013)



Our target

1. Establishment of storage and distribution infrastructure technology to extend the shelf life of food products
2. Development of basic technology system for food traceability
3. Effective utilization of low-use plant and microbial resources
4. Fostering human resources for food solutions through the integration of food culture and technology

R&D policy and food loss to be reduced in each assignment

Building a Sustainable Socio-Economic System through Ethical Consumption



Participating Organizations 公開可能な産官学連携機関名



Representative Organization



Osaka University

Research Institution

Prefectural University of Kumamoto

Institute of Development Economies,
Japan External Trade Organization
(IDE-JETRO)

Institut Teknologi Bandung, ITB
(Indonesia)

Institut Pertanian Bogor (Indonesia)

Badan Pengkajian dan Penerapan
Teknologi, BPPT (Indonesia)

Participating Companies

Shimadzu Corporation

Atonarp Inc.

LAPIS Technology Co., Ltd.

Hankyu Hanshin Holdings., Inc.

Hankyu Hanshin Express

Espec Corporation

Kantsu Co., Ltd.

Sumisho Foods

Nichirei Foods Inc.



Subcommittee

As of August 1, 2022



Name of the subcommittee	Social Issues Area	Content of Efforts	Leadership organization	Remarks
Biomethane Subcommittee	Environment and energy	Carbon neutralization of energy	Osaka Gas Co., Ltd.	
Plastic subcommittee	Environment and energy	Bioplastic	Saraya Co., Ltd.	
Mental Health Subcommittee	Healthcare	Improving social productivity	Shionogi & Co., Ltd.	
Personal Data Subcommittee	Healthcare	Use of personal data	Nippon Telegraph and Telephone West Corporation	
Wellbeing Subcommittee on Aspergillus (National Bacteria)	Lifestyle modification healthcare	Elucidation of health and cosmetic effects of Aspergillus oryzae	Gekkeikan Sake Co., Ltd.	
Smart Cultivation Subcommittee	Continuous primary production system	Maximizing the use of biotechnology in the primary industry	Yanmar Holdings Co., Ltd.	
Biofoundry Cluster Subcommittee	Manufacturing Value Chain	Bio manufacturing	Baccus Bio innovation Co., Ltd.	
Start-up subcommittee	Support for start-up	Support for start-up in Kansai	Sumitomo Mitsui Banking Corporation (SMBC)	
Big Data Healthcare Subcommittee	Overall	Biodigital	Biogrid Center Kansai (non-profit)	
Well-Being with Bright Eyes Subcommittee	Healthcare	Social implementation of happy lifestyles through digital health big data with a focus on ophthalmology	Tohoku University	
Subcommittee on Digital Green	Continuous primary production system / Digital Healthcare/ Bio production system	Realization of a sustainable society in which Keihanna Science City and nearby rural villages complement each other	NARA INSTITUTE of SCIENCE and TECHNOLOGY	
Subcommittee on Digital Biohealth	Healthcare	General health industry city	National Cerebral and Cardiovascular Center	Field of JST co-creation
Subcommittee on Photonics Life Engineering	Healthcare	Photonics biotechnology	Osaka University	Field of JST co-creation
Food Loss Subcommittee	Continuous primary production system	Innovative Low Food Loss Co-creation Base	Osaka University	Field of JST co-creation
Future urban subcommittee	Sustainable society	Dissemination of Future Intellectual Infrastructure Models	Osaka University	Field of JST co-creation
Biomass subcommittee	Carbon neutral	Realization of carbon zero emissions through biomass technology	Tokyo University of Agriculture and Technology (TUAT)	Field of JST co-creation
Subcommittee on Cell Production	Regenerative medicine	Construction of an ecosystem for cell production	Osaka University	AMED
Subcommittee on Modality	Healthcare	Manufacture of antibodies, gene therapy products, and vaccines	Manufacturing Technology Association of Biologics (MAB)	AMED·NEDO
White Bio-industry Subcommittee	White bio-industry	Biofoundry business	Osaka University (representative sponsor)	NEDO

Many research institutions from industry, government, and academia are scheduled to participate

Companies" and "Industry-Academia-Government Collaboration Projects" that will play a central role in the new subcommittee are now being recruited.