



March 17, 2023

Japan Science and Technology Agency (JST)
5-3, Yonbancho, Chiyoda-ku, Tokyo

JST to fund three Belmont Forum research projects as a part of the Systems of Sustainable Consumption and Production Collaborative Research Action

The Japan Science and Technology Agency (JST, President HASHIMOTO Kazuhito) has decided to fund three research projects as a part of the Belmont Forum¹ Systems of Sustainable Consumption and Production Collaborative Research Action (CRA²).

The Belmont Forum is a group of funding organizations engaged in funding research related to global environmental change.

The call for proposals titled Systems of Sustainable Consumption and Production was in cooperation with seven funding organizations from seven countries and regions open from February 17 to October 10, 2022. The call saw a total of 16 applications including Japanese researchers (32 overall), out of which 3 with Japanese researchers (7 overall) were selected for funding, based on the results of an evaluation by an independent panel of experts.

Each project is planned to be funded for approximately three years with support of up to 30 million yen per project (including indirect costs).

1) The Belmont Forum (established in 2009) is a group of funding organizations in the world's major and emerging countries of global environmental change research. It aims to accelerate delivery of the environmental research needed to remove critical barriers to sustainability by aligning and mobilizing international resources.

Belmont Forum website: <https://www.belmontforum.org/>

2) Collaborative Research Actions (CRAs) are multilateral Belmont Forum joint calls for proposals programs which are implemented collectively by the Belmont Forum member funding agencies.

Appendices

Appendix 1: List of Awarded Projects

Appendix 2: List of Participating Funding Agencies

Annex: Belmont Forum Systems of Sustainable Consumption and Production List of Evaluation Criteria

Contact

Department of International Affairs

Japan Science and Technology Agency (JST)

SATO Masaki

K's Gobancho, 7 Gobancho, Chiyoda-ku, Tokyo 102-0076

Tel: +81-3-5214-7375

E-mail: [belmont\[at\]jst.go.jp](mailto:belmont[at]jst.go.jp)

List of Awarded Projects

Project Title	Principal Investigator	Project Outline (#1)
Co-designing justice-centric indicators and governance principles to intensify urban agriculture sustainably and equitably (JUST GROW)	(Japan) KANKI Kiyoko Professor, Graduate School of Engineering, Kyoto University	<p>This is a joint research project between Japan, the United States, Sweden, Germany, Norway and the Netherlands. In a context of rapid technological advancement and capital intensive approach in the area of urban agriculture, this project evaluates urban agriculture intensification from a knowledge-intensive approach for social and environmental justice-centric perspective. In particular, this project addresses how sustainability can be achieved during rapid industrial development, such as in cases where an excessive increase in agricultural facilities pose risks in an area sensitive to climate impacts. In order to do this, this project studies six city regions through collaborative surveys with stakeholders, based on which justice-centric indicators and governance principles to improve urban agriculture will be derived.</p> <p>As a component of this project, the Japan team will conduct research on the Keihanshin metropolitan region, especially taking a look at factors such as aging, depopulation, Asian land-use complexity, among others.</p> <p>Based on the research conducted on the different city regions, internationally applicable indicators and governance principles will be devised that integrates the results of each studied area in the project.</p>
	(United States) <u>Patrick Baur</u> Assistant Professor, Department of Fisheries, Animal and Veterinary Sciences, University of Rhode Island	
	(Sweden) Michael Martin Senior Researcher, Life Cycle Management, IVL Swedish Environmental Research Institute	
	(Germany) Katrin Specht Deputy Head of Research, Spatial Planning and Urban Design Group, Institute for Regional and Urban Development (ILS)	
	(Norway) Heidi Vinge Associate Professor, Faculty of Education and Arts, Nord University	
	(The Netherlands) Adam Calo Assistant Professor, Geography, Planning and Environment Group, Radboud University	

* The underlined principal investigator is the consortium lead for the project.

Project Title	Principal Investigator	Project Outline (#2)
Conceptualizing, implementing and measuring the Circular Economy from the micro to the macro level (Circularity ³)	(Japan) MATSUMOTO Mitsutaka Group Lead, Advanced Manufacturing Research Institute, National Institute of Advanced Industrial Science and Technology (AIST)	The study intends to develop the frameworks for modelling and evaluating the effects of the implementation of circular economy (CE) measures by stakeholders (companies, society, and governments) and to develop relevant recommendations for these stakeholders. Two products (mobile phones and EV batteries) are targeted for case studies, and evaluation models for five countries (Japan, Germany, Turkey, Taiwan and Thailand) will be constructed. The Japan team will build product lifecycle models for two products in a Japanese context. Additionally, the Japan team will carry out resource and environmental impact assessments in the form of life-cycle assessment (LCA) and will build a consumer perception model. The other teams build models for their respective countries and a macroeconomic level model based on the input-output tables and relevant data, which will then be integrated with the product life cycle model. Through this joint research, it is expected that a micro-macro integrated model will be developed which in turn will be used to formulate relevant recommendations for stakeholders.
	(Germany) <u>Antonia Loibl</u> Researcher, Sustainability and Infrastructure Systems Department, Fraunhofer ISI	
	(Turkey) Yigit Kazancoglu Head of Department, Logistics Management, Yasar University	
	(Taiwan) Hwong-wen Ma Professor, Graduate Institute of Environmental Engineering, National Taiwan University	
	(Thailand) Pharino Chanathip Professor, Faculty of Engineering, Chulalongkorn University	

* The underlined principal investigator is the consortium lead for the project.

Project Title	Principal Investigator	Project Outline (#3)
Digital infrastructure for sustainable consumption: Reorganizing food and mobility consumption (DISCo)	(Japan) KISHITA Yusuke Associate Professor, School of Engineering, The University of Tokyo	<p>This research aims to clarify how and in what conditions digital technologies are able to promote sustainable consumption by integrating them into household practices. Digital technologies, such as e-tail platforms, QR codes, and smartphone applications, help consumers change their behaviors to more environmentally friendly ones. Each team in this consortium uses sociological and design approaches (including practice theory, ethnography, and co-design, and others) to understand and analyze the relationship between digital technologies and consumer behaviors.</p> <p>The Japan team, as one part of this consortium, takes an engineering approach (e.g., life cycle simulation) to quantitatively evaluate the environmental impact reduction in terms of CO₂ emissions and other measures.</p> <p>Based on the outcomes of each respective team, a scenario analysis will be undertaken to explore conditions for sustainable consumption by given various digital technologies, various consumer types, and various usage situations where digital technologies are used in household practices.</p>
	(Norway) <u>Arne Dulsrud</u> Research Director, Consumption Research Norway, Oslo Metropolitan University	
	(United States) Manisha Anantharaman Associate Professor, Earth and Environmental Science Department, Saint Mary's College of California	
	(Turkey) Aykut Coskun Associate Professor, Department of Media and Visual Arts, Koç University	
	(Sweden) Christian Fuentes Professor, Department of Service Studies, Lund University	

* The underlined principal investigator is the consortium lead for the project.

List of Participating Funding Agencies

Country/Region	Funding Agency
Japan	Japan Science and Technology Agency (JST)
Taiwan	National Science and Technology Council (NSTC)*
United States	National Science Foundation (NSF)
Germany	Germany Research Foundation (DFG)
Norway	Research Council Norway (RCN)
Sweden	Swedish Research Council for Environment, Agricultural Sciences and Spatial Planning (Formas)
Thailand	Program Management Unit for Human Resources & Institutional Development, Research and Innovation (PMU-B)
Turkey	Scientific and Technological Research Council of Turkey (TUBITAK)

* Thematic Program Office (TPO) of this CRA.

Belmont Forum
Systems of Sustainable Consumption and Production
List of Evaluation Criteria

Belmont Forum Evaluation Criteria	
(1) Scientific Excellence	<ul style="list-style-type: none"> - Concept and objectives - Novelty of research - Quality of plan and methodology
(2) Research Implementation and Management	<ul style="list-style-type: none"> - Research management quality - Qualifications of researchers and collaborators - Suitability and benefits of international research - Budget allocation and justification
(3) Potential and Impact	<ul style="list-style-type: none"> - Perceived scientific and social impact - Suitability of research plan to achieve objectives - Value to stakeholders - Result and intellectual property management