



International Conference on Science and Technology for Sustainability 2025  
持続可能な社会のための科学と技術に関する国際会議 2025

**Strengthening research capability and promoting  
international talent mobility and circulation:  
a focus on early career researchers  
who will lead the academia of the future**

# 将来の学術を担う 若手研究者を中心とした 研究力強化と 頭脳循環を目指して

Conference Report

会議報告書

**February 11<sup>WED</sup><sub>th</sub> → 12<sup>THU</sup><sub>th</sub>, 2026**

**[Organizer] Science Council of Japan 【主催】日本学術会議**

**Report of**  
**International Conference on**  
**Science and Technology for Sustainability 2025**

*Strengthening research capability and  
promoting international talent mobility and circulation:  
a focus on early career researchers  
who will lead the academia of the future*

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## **1. Message**

**MITSUISHI MAMORU**

**President, Science Council of Japan**



It is a great honour to welcome you all here today to the International Conference on Science and Technology for Sustainability 2025.

Creating a sustainable society is an extremely important global challenge, and the Science Council of Japan has been actively working towards solutions, through issuing recommendations and organising symposiums. Since 2003, the Science Council of Japan has hosted the International Conference on Science and Technology for Sustainability, bringing together distinguished experts from Japan and abroad to explore solutions to global issues.

This conference will address two central themes. The first is, “*Strengthening the research capacity of early career researchers who will lead the future of science*”. The second theme is “*Promoting international talent mobility and circulation*”.

We have invited domestic experts as well as researchers at overseas institutions who are actively serving as principal investigators. Through keynote lectures and panel discussions, we will explore ideas and directions for solutions to these challenges.

Our society is confronting numerous complex challenges, such as population decline and super-ageing, climate crisis, and the rapid advancement of data science, including generative AI. In order to address these issues, the creation of diverse knowledge and its social application are indispensable.

To support academia as the driving force behind this effort, the Science Council of Japan published, in November last year, the recommendation titled “Revitalizing Japan’s Research Ecosystem under Crisis: Advancing a Sustainable Future for Academia and Society.” This publication aimed at restoring the sustainability of the research ecosystem. The recommendation identifies cross-disciplinary challenges such as the weakening of basic funding, career insecurity caused by the expansion of fixed-term employment, the reduction of research time, and the ageing of research infrastructure. It also proposes comprehensive measures to restore stable funding and strengthen human resources.

At the same time, our approach to research evaluation must shift away from excessive reliance on quantitative indicators such as the number of publications and citation counts. It must move towards responsible evaluation that appropriately reflects the characteristics of each field and their societal impact. This is the core of the recommendation, “Specific Measures for Improving Research Assessment to Revitalize Research”, published

alongside “Revitalizing Japan’s Research Ecosystem under Crisis: Advancing a Sustainable Future for Academia and Society”. It calls for a concrete redesign of research evaluation, in line with the principles of the San Francisco Declaration on Research Assessment, and the agreements on research assessment reform in Europe.

This conference, following these two recommendations, will serve as a forum to deepen discussions with leading researchers, role models who stand at the forefront of the global stage. Thus, may we accelerate efforts to strengthen research capacity and promote international brain circulation. A cycle in which young researchers gain experience abroad and then share their insights domestically and internationally enhances the resilience of the research ecosystem and nurtures the seeds of original research. Today’s speeches and discussions are specifically designed to embody and advance this cycle.

To all participants of this conference: Through dialogue and the connections we forge, let us make evaluation design an effective partner, enabling the more effective use of time and funding resources for research, as well as accelerating international exchange. Academia is a public good, and the openness of data and knowledge, responsible evaluation, and inclusive career support constitute the foundations of a sustainable society.

I sincerely hope that today’s discussions will lead to concrete action for rebuilding research capacity and accelerating brain circulation and will contribute to the realisation of a sustainable society, which includes a circular economy, carbon neutrality, and coexistence with generative AI.

Finally, allow me conclude with an important announcement. The Science Council of Japan will embark on a new chapter as a legal entity on the first of October this year. With this milestone, we aspire to become one of the world’s leading national academies, contributing to the advancement of science both domestically and internationally, and earning your continued understanding and trust.

## 2. About the Conference

### International Conference on Science and Technology for Sustainability 2025

**Strengthening research capability and promoting international talent mobility and circulation:  
a focus on early career researchers who will lead the academia of the future**

Time & Date: 10:00-17:25 (JST) February 11, 2026

9:20-15:50 (JST) February 12, 2026

Venue: Hybrid (Auditorium of Science Council of Japan and ZOOM Webinar)

Organizer: Science Council of Japan International Conference on Science and Technology for Sustainability  
2025 Sub-Committee

Supported: Secretariat of Science, Technology and Innovation Policy, Cabinet Office, Government of Japan  
Ministry of Foreign Affairs  
Ministry of Education, Culture, Sports, Science and Technology – Japan  
Ministry of Economy, Trade and Industry

Languages: Japanese and English (simultaneous interpretation)

**International Conference on Science and Technology for Sustainability 2025**

**Strengthening research capability and promoting international talent mobility and circulation:  
a focus on early career researchers who will lead the academia of the future**

**February 11<sup>WED</sup> → 12<sup>THU</sup>, 2026**

**Hybrid** (In-Person Venue: Auditorium of Science Council of Japan, Online: ZOOM Webinar)  
(Language) Japanese/English (simultaneous interpretation) (Capacity) In-Person: 200 Attendees / Online: 600 Attendees  
(Organizer) Science Council of Japan International Conference on Science and Technology for Sustainability 2025 Sub-Committee  
(Supported) Secretariat of Science, Technology and Innovation Policy, Cabinet Office, Government of Japan /  
Ministry of Education, Culture, Sports, Science and Technology

In order for Japan to demonstrate competitive research capability at an international level, this conference will feature leading researchers at world-class universities and institutions overseas as role models to share the knowledge acquired from prior engagement and proposals based on that knowledge to deepen discussions. Furthermore, it will also highlight strategic measures such as the strategic dispatch and acceptance of research personnel, taking into account Japan's circumstances and trends in international talent mobility and circulation.

**Day 1: 2.11 WED** **PROGRAM**

10:00-11:55 ▶ **Opening Ceremony**

**Keynote Speech 1**  
**WILFRED VAN DER WIEL**  
Professor at the MESA+ Institute for Nanotechnology, University of Twente.  
The Netherlands Director of the SPINNS Center (spin-inspired Nano Systems)

**Keynote Speech 2**  
**FUKAMI Tadashi**  
Professor, Department of Biology and Department of Earth System Science, Shizuoka University.  
Visiting Senior Researcher, Center for Advanced Science and Technology, The University of Tokyo.  
Invited Professor, Institute of Advanced Interdisciplinary Research, Yokohama National University

13:30-17:25 ▶ **Panel Discussion 1**  
**"Strengthening the research capability of early career researchers who will lead the future of science"**

**Day 2: 2.12 THU**

9:20-13:00 ▶ **Panel Discussion 2**  
**"Promoting international talent mobility and circulation"**

14:00-15:30 ▶ **Integrate Session**      15:30-15:50 ▶ **Closing Ceremony**

**Admission FREE**  
Nursery available

**Register here**

**CONTACT**  
International Conference on Science and Technology for Sustainability 2025 Secretariat (PRIME International Co., Ltd.)  
TEL: 03-6277-0117 / E-mail: tcsts2025@pco-prime.com  
Office Hours: Mon-Fri, 10:00-17:00 JST, Office closed on Saturdays, Sundays and national holidays  
\*Requires and outside of office hours or during holidays will be responded to after the next business day.

<https://www.scj.go.jp/ja/int/kaisai/jizoku2025/>

### **3. Concept Paper**

International Conference on Science and Technology for Sustainability 2025

Concept paper

Theme:

Strengthening research capability and promoting international talent mobility and circulation: a focus on early career researchers who will lead the academia of the future

Objective:

Serious concerns are being expressed today about the decline in Japan's research capability and how it can be strengthened. It is essential to empower early career researchers because it is they that will serve as the driving force behind future academia. The International Conference on Science and Technology for Sustainability 2024, highlighted the fact that the environment surrounding early career researchers is increasingly challenging. The declining attractiveness of being a researcher as a career is a pressing issue that could directly lead to a decrease in their number. In order for Japan to demonstrate competitive research capability at an international level, the robust development of aspiring early career researchers is crucial. This can be effected by the sharing of knowledge acquired from prior engagement and proposals based on that knowledge to deepen discussions. It would also be beneficial for them to be involved in such discussions with leading researchers at world-class universities and institutions overseas as role model.

Conversely, from a global perspective, the world faces a mass of challenges such as climate change, and the opportunities for international exchange and international joint research have been increasing. As the term “international talent mobility and circulation” suggests, the field of activity of scientists is not been limited to one country, and the international competition for high-level researchers is intensifying. Therefore, in order to enhance Japan's research capability, it is necessary to take strategic measures such as the dispatch and acceptance of research personnel, taking into account Japan's circumstances and trends in international talent mobility and circulation.

Overview:

At the International Conference on Science and Technology for Sustainability 2025, keynote speeches and panel discussions will be held under the two central themes:

- I . Strengthening the research capability of early career researchers who will lead the future of science
- II . Promoting international talent mobility and circulation

These two themes are interrelated. The conference aims to consolidate the findings from discussions in an integrated session and to guide the discussion in a certain direction based up the results of this Conference.

#### I . Strengthening the research capability of early career researchers who will lead the future of science

We will invite Japanese and foreign researchers who are active as Principal Investigators (PIs) overseas to share their experience and engage in discussions. We will explore diverse support measures and programmes for undergraduates, graduate students and post-doctoral researchers to extend opportunities for gaining research experience and advance their research abroad.

Discussion will also focus on institutional reform. This is to encourage young Japanese researchers to devote themselves to research abroad. This involves incentives and evaluation systems that ensure that research results and networking abroad have a positive impact on their subsequent career paths. It involves also flexible employment systems that are not bound by conventional employment practices and systems of salary and promotion. In addition, discussion will explore measures to dispatch high quality human resources from Japan to educational centres around the world and to engage their research across Japan and other places in the world, with a view to building and strengthening Japanese research networks overseas.

#### II . Promoting international talent mobility and circulation

We will invite Japanese and foreign researchers from Europe, the US and other countries that are hubs for international talent mobility and circulation to present their views on trends in this sphere, including the receiving side's perspective.

Following from this, we will discuss the ideal form of international talent mobility and circulation and Japan's contribution to it, in light of global academic trends. The goal is to deepen the discussion on measures for Japan to attract excellent researchers from around the world.

The resolution of social issues and the creation of innovation require collaboration and initiatives that transcend fields and sectors. The relevant knowledge must be sought from universities, research institutions and a wide range of stakeholders, such as government related organisations and industry.

## 4. Programme

1st Day : February 11 (WED)		
Time	Title	Overview
<b>10:00-11:55 Opening Ceremony</b>		
10:00-10:05	Opening Remarks	<b>MITSUISHI Mamoru</b> President, Science Council of Japan
10:05-10:10	Guest Speech	<b>ONODA Kimi</b> Minister of State for Science and Technology Policy, Cabinet Office
10:10-10:25	Introduction	<b>ISO Hiroyasu</b> Director, Institute for Global Health Policy Research, Bureau of International Health Cooperation, National Center for Global Health and Medicine
10:25-10:55	Initiatives of Japanese Government	<b>SAKASHITA Suzuka</b> Deputy Director-General, Research Promotion Bureau, Ministry of Education, Culture, Sports, Science and Technology - Japan <b>KOTANI Motoko</b> Executive Director of Science, RIKEN
10:55-11:25	Keynote Speech 1	<b>Wilfred VAN DER WIEL</b> Full Professor, University of Twente/Co-Director, University of Münster
11:25-11:55	Keynote Speech 2	<b>FUKAMI Tadashi</b> Professor, Stanford University
12:05-13:15	Lunch Break	
<b>13:30-17:25 Strengthening the research capability of early career researchers who will lead the future of science</b>		
13:30-13:40	Introduction	<b>KITAJIMA Kaoru</b> Professor, Graduate School of Agriculture, Kyoto University
13:40-14:05	Presentation 1	<b>HAMADA Fumika</b> Professor, University of California, Davis, Department of Neurobiology, Physiology and Behavior
14:05-14:30	Presentation 2	<b>Anna Dreber ALMENBERG</b> Professor, the Stockholm School of Economics
14:30-14:55	Presentation 3	<b>Rob JENKINS</b> Professor of Psychology, University of York
14:55-15:10	Short Speech from a young researcher	<b>TATSUMI Chikae</b> Assistant Professor, Okinawa Institute of Science and Technology
15:10-15:25	Coffee Break	
15:25-17:25	Panel Discussion 1	<b>HAMADA Fumika</b> University of California, Davis, Department of Neurobiology, Physiology and Behavior <b>Rob JENKINS</b> Professor of Psychology, University of York <b>OGAKI Masao</b> Special Visiting Professor, Faculty of Economics, Doshisha University <b>KOTANI Motoko</b> Executive Director of Science, RIKEN

2nd Day : February 12 (THU)

Time	Title	Overview
<b>9:20-13:00 Promoting international talent mobility and circulation</b>		
9:20-9:30	Introduction	<b>KANO Mitsunobu</b> Professor, Graduate School Interdisciplinary Science and Engineering in Health Systems, Okayama University
9:30-9:55	Presentation 4	<b>Keshav M DANI</b> Professor, Director of the Okinawa Institute of Science and Technology(OIST) Open Center for Energy
9:55-10:20	Presentation 5	<b>IGARASHI Kei</b> Chancellor's Fellow Associate Professor, University of California, Irvine
10:20-10:45	Presentation 6	<b>Rees KASSEN</b> Professor of Evolutionary Biology and Director, Trottier Institute for Science and Public Policy, McGill University
10:45-11:00	Coffee Break	
11:00-13:00	Panel Discussion 2	<b>Keshav M DANI</b> Professor, Professor, Director of the Okinawa Institute of Science and Technology(OIST) Open Center for Energy <b>IGARASHI Kei</b> Chancellor's Fellow Associate Professor, University of California, Irvine <b>Rees KASSEN</b> Professor of Evolutionary Biology and Director, Trottier Institute for Science and Public Policy, McGill University <b>SAKA Chika</b> Professor, School of Business Administration, Kwansai University
13:00-14:00	Lunch Break	
<b>14:00-15:30 Integrate Session</b>		
14:00-15:30	Session	<b>Wilfred VAN DER WIEL</b> Full Professor, University of Twente/Co-Director, University of Münster <b>FUKAMI Tadashi</b> Professor, Stanford University <b>HAMADA Fumika</b> Professor, University of California, Davis, Department of Neurobiology, Physiology and Behavior <b>Rob JENKINS</b> Professor of Psychology, University of York <b>Keshav M DANI</b> Professor, Director of the Okinawa Institute of Science and Technology(OIST) Open Center for Energy <b>Rees KASSEN</b> Professor of Evolutionary Biology and Director, Trottier Institute for Science and Public Policy, McGill University <b>ISO Hiroyasu</b> Director, Institute for Global Health Policy Research, Bureau of International Health Cooperation, National Center for Global Health and Medicine
<b>15:30-15:50 Closing Ceremony</b>		
15:30-15:45	Summary	<b>ISO Hiroyasu</b> Director, Institute for Global Health Policy Research, Bureau of International Health Cooperation, National Center for Global Health and Medicine
15:45-15:50	Closing Remarks	<b>SUGANO Saki</b> Associate Professor of Economics, Aoyama Gakuin University

## **5. Conference Report**

### **International Conference on Science and Technology for a Sustainable Society 2025**

*Strengthening research capability and promoting international talent mobility and circulation: a focus on early career researchers who will lead the academia of the future*

The conference was organized by the Science Council of Japan (SCJ), with support from the Secretariat of Science, Technology and Innovation Policy, Cabinet Office, Government of Japan, the Ministry of Foreign Affairs, the Ministry of Education, Culture, Sports, Science and Technology, and the Ministry of Economy, Trade and Industry. It aimed to explore pathways for enhancing the research capacity of early career researchers and strengthening international talent mobility as essential components for building a sustainable society.

#### **Day 1 – Wednesday, 11<sup>th</sup> February**

##### **1. Opening Ceremony**

###### **1) Opening Remarks — MITSUIHI Mamoru: President, Science Council of Japan**

The conference focuses on two priorities: *strengthening research capability of early career researchers* and *promoting international talent mobility*. SCJ has issued recommendations that address the crisis in Japan’s research ecosystem and advance efforts to secure stable funding, foster human resource development, and shift toward responsible research assessment. As societal challenges have grown increasingly complex, diverse knowledge and global mobility are becoming more indispensable. By inviting researchers active on the global stage, the conference serves as a forum to discuss how to build a more resilient, circulation-based research environment. Through dialogue and networking, the conference aims to reclaim time and resources for research and to catalyze actions that contribute to a sustainable future.

###### **2) Guest Speech — ONODA Kimi: Minister of State for Science and Technology Policy, Cabinet Office**

The conference is to provide chance for researchers from Japan and abroad to share the latest academic developments and discuss solutions to societal challenges and pathways toward sustainable innovation, under the theme of “Strengthening research capability and promoting international talent mobility and circulation”. As global competition for talent intensifies, the Japanese government is advancing efforts to create attractive research environments through initiatives such as J-RISE (Japan Research & Innovation for Scientific Excellence). At the same time, fostering diverse human resources and enhancing research capability through systemic reforms are crucial. We look forward to active knowledge exchange and productive discussions throughout this conference.

###### **3) Conference Overview — ISO Hiroyasu: Vice President, Science Council of Japan / Chair of Conference Committee/ Director, Institute for Global Health Policy Research, Bureau of International Health Cooperation, National Center for Global Health and Medicine**

Japanese researchers' global networks, supporting Japan's broader strategy for research capacity enhancement and international talent mobility.

## 5). Keynote Speech

### **(1) Wilfred G. van der WIEL: Full Professor, University of Twente/Co-Director, University of Münster**

The international mobility and exchange of early career researchers carry strategic significance, as exposure to different cultures and disciplines enhances creativity and competitiveness. The foundation supporting science and technology lies in cross-border relationships of trust and long-term networks. Moreover, stays of more than six months are necessary to deepen both scientific collaboration and relationship-building because short-term stays rarely allow researchers to make meaningful progress. In addition, it is essential to establish sustainable mechanisms for research promotion through both top-down and bottom-up approaches. On the top-down side, lasting international talent mobility and trust-building require institutional frameworks such as joint programs and international co-funding schemes, including JST–Netherlands collaborations, as well as formal MoU. On the bottom-up side, such researcher-driven collaborations and networks help sustain joint work and long-term trust, ultimately forming the strongest and most resilient international partnerships. Ultimately, scientific progress is built on people and the trust that connects them.

### **Q&A Highlights**

It was noted that, in Japan, the increase in domestic academic positions resulting from the growing number of professors reaching retirement age has led to a decline in young researchers' motivation to go abroad. In contrast, in Europe, it is common practice for postdoctoral researchers to gain overseas experience, and institutional mechanisms function effectively to promote mobility. It was also pointed out that international experience is indispensable for developing intercultural understanding and that Japan also needs to establish systems that encourage researchers to go abroad.

### **(2) FUKAMI Tadashi: Professor, Stanford University**

Strengthening Japan's research capability requires expanding support for overseas study from the high-school and university levels and fostering bicultural researchers who can understand both English-speaking cultures and Japanese culture. Intercultural perspectives enhance contributions to global issues—especially sustainability—and Japan possesses cultural resources, such as its animistic view of nature, that can offer important perspectives for sustainability research. By communicating these perspectives clearly in English, Japan can strengthen its international academic presence. As a foundation for such international engagement, gaining overseas experience before becoming a postdoctoral researcher—after firmly grounding oneself in Japanese culture yet remaining flexible enough to absorb other cultural perspectives—is particularly effective. Increasing the number of these bicultural researchers to a sufficient critical mass, and thereby normalizing overseas study, will contribute to Japan's future ability to engage

internationally and make meaningful research contributions on the global stage.

### **Q&A Highlights**

The importance of understanding diverse cultures beyond the English-speaking world was highlighted, and it was noted that differences in personality and body language can influence mutual understanding. The need to gain multicultural experience from early childhood was also emphasized. In addition, examples were presented of educational practices and recruitment approaches that place explicit value on multicultural competence.

## **4. Panel Discussion 1**

### **1) Moderator Description — KITAJIMA Kaoru: Professor, Graduate School of Agriculture, Kyoto University**

Stepping beyond the “small pond” and into the “open sea,” even when it feels daunting, is an important path for the growth of early career researchers. Overseas challenges can open access to mentors and unexpected opportunities. At the same time, life circumstances and family responsibilities can influence career trajectories, including the feasibility of gaining international experience. In the discussion ahead, we also raised the need to consider how research environments can support the balance between research and personal life so that young researchers’ talents are not lost.

### **2) Presentations**

#### **(1) HAMADA Fumika: Professor, University of California, Davis, Department of Neurobiology, Physiology and Behavior**

Supporting environment is essential for the success of early career researchers. In particular, it is crucial to establish dual-career support that enables both partners in a researcher couple to pursue academic careers. In the United States, such support has been institutionalized, and many universities routinely conduct dual hires, indicating the need for similar systems in Japan. The United States also provides mechanisms that allow young researchers to secure large-scale research funding. At the same time, Japan offers strong support environments, including competitive funding schemes for young and independent researchers—such as PRESTO—and opportunities for research discussions that facilitate interaction with senior researchers. By building on these strengths and expanding dual-career support, it is expected that early career researchers in Japan will be better able to achieve independence while balancing family responsibilities and their academic careers.

### **Q&A Highlights**

It was explained that the impact of LGBTQ-related policies on university-level dual-career systems had been limited, as state governments and universities retain significant autonomy; in particular, institutions in California continue to hire LGBTQ couples in the same manner as other couples. It was also noted that, while researcher couples in Japan sometimes live apart due to work assignments, couples in the United States often apply for positions as a pair. In addition, it was

mentioned that, although couples in the same field once shared a laboratory or research funding, current practice has shifted toward providing each partner with an independent position.

**(2) Anna DREBER ALMEMBERG: Professor, the Stockholm School of Economics**

**\*Presented remotely**

Research driven by curiosity requires funding schemes that are both flexible and long-term. Programs such as the Wallenberg Academy Fellows in Sweden demonstrate how funding that provides mentorship and networking opportunities, while also allowing shifts in research direction and objectives as projects evolve, can support ambitious, high-risk work, including large-scale reproducibility studies and team-science initiatives. Given the strong influence that research assessment and funding allocation exert on researchers' behavior, systems with built-in flexibility play an essential role in enabling early career researchers to take risks and in sustaining the healthy development of science.

**(3) Rob JENKINS: Professor of Psychology, University of York**

The contemporary era is characterized by greater uncertainty, as technological advances simultaneously amplify both opportunities and risks, making accurate knowledge a decisive factor for survival and prosperity. Because knowledge is dispersed across individuals, collective intelligence formed through diverse perspectives—supported by networks that include international collaboration—can yield the best solutions. In global research cooperation, diversity should be treated not as a background attribute but as a resource that generates creativity. To combine diverse viewpoints effectively, structured thinking frameworks and intentionally designed group processes are valuable. In selecting research themes, the ITN framework—Importance, Tractability, and Neglectedness—enables early career researchers to identify high-impact topics by integrating multiple perspectives and drawing on distributed knowledge while reducing uncertainty. International talent mobility functions not only as the movement of people but also as a mechanism for transmitting and integrating dispersed knowledge, thereby creating conditions for guiding the future in a positive direction.

**Q&A Highlights**

The importance of providing young people with opportunities to experience creative thinking methods was emphasized, along with the value of environments that generate diverse perspectives. It was also stressed that linguistic differences should be seen not as obstacles but as resources, and that young researchers need not hold excessive anxiety about their English ability when pursuing opportunities abroad.

In addition, concerns were raised about the tendency for grant funding to concentrate on already popular research areas. Identifying and calling attention to important yet undeveloped fields was described as key to cultivating new research domains. It was further noted that even in trending fields, researchers can gain support by presenting novel angles, and that maintaining broad perspectives and remaining open to opportunities are essential.

**(4) TATSUMI Chikae: Assistant Professor, Okinawa Institute of Science and Technology (OIST) \*Presented remotely**

In the United States, high research standards, open environments for academic discussion, systematic mentoring, and well-established career support collectively foster the growth of early career researchers, while flexible arrangements also enable them to balance research with childcare. In contrast, in Japan, heavy administrative burdens, rigid work practices, limited childcare support, and long meetings hinder the continuation of research and the return of researchers with overseas experience, creating structural barriers that can exclude researchers regardless of their abilities. Strengthening Japan's research capacity therefore requires alignment with international standards, sufficient funding and institutional support, and reforms to workplace flexibility and research culture, all of which are essential for attracting truly competitive researchers and enabling them to fully realize their potential.

**3) Panel Discussion1 — KITAJIMA Kaoru, KOTANI Motoko, HAMADA Fumika, Rob JENKINS, OGAKI Masao: Special Visiting Professor, Faculty of Economics, Doshisha University**

The session, which included participation from the audience, examined the strengthening of early career researchers' capabilities from two interconnected perspectives—*scientific creativity* and the *sustainability of research careers*. The discussion explored both the conditions necessary to support the international engagement of young researchers and the persistent barriers embedded within Japanese society.

With respect to *scientific creativity*, participants shared the view that creativity is enhanced through the collision and integration of diverse perspectives. There was broad agreement that unhindered exploration and a culture that treats failure as a source of learning—rather than a basis for evaluation—form the foundation for taking on ambitious challenges. Because these conditions closely mirror those found in international research environments, efforts to cultivate creativity were positioned as directly contributing to an ecosystem that supports young researchers' global engagement.

Regarding *the sustainability of research careers*, the discussion underscored the importance of flexible systems that allow researchers to continue their work regardless of life stage, stable and long-term funding mechanisms, and the availability of multi-track career pathways. In Japan, however, risk-averse norms, age-based restrictions, and rigid career structures were identified as factors that discourage risk-taking and make it difficult for young researchers with overseas experience to return and reintegrate. At the same time, successful initiatives such as OIST and WPI demonstrate that internationally aligned evaluation standards, flexible hiring practices, and strong research support can attract outstanding researchers. Despite the availability of numerous programs that support international mobility, a lack of accessible information prevents many early career researchers from taking advantage of them.

Overall, the session emphasized that creativity and sustainability are inseparable themes, and that rebuilding research environments around three principles—diversity, flexibility, and long-term support—is essential for strengthening Japan's research capability. International exchange and talent mobility were identified as key mechanisms for moving knowledge, fostering creativity, and

sustaining high-quality research. The discussion concluded that networks, mentoring, role models, institutional reform, and shifts in values are all crucial to creating an environment in which young researchers can continue to pursue challenges in the “open sea” of the global research landscape.

## 1. Panel Discussion 2

### 1) Moderator Description: **KANO Mitsunobu, Professor, Graduate School Interdisciplinary Science and Engineering in Health Systems, Okayama University**

In the discussions held the previous day, the importance of personal networks, bicultural perspectives, family-inclusive research environments, and diversified funding sources was reaffirmed. Creativity was redefined as “creating something different from both others and the past, for the benefit of someone,” and on that basis, today’s session examines the significance of international talent mobility. Research is an endeavor to respond to the uncertainties faced by future others, and the challenges associated with allocating research funding and selecting personnel were also underscored. Building on these prior discussions, today’s meeting focuses specifically on international talent mobility.

## 2) Presentations

### (1) **Keshav M. DANI: Professor, Director of the Okinawa Institute of Science and Technology (OIST) Open Center for Energy**

Conventional competitive grant systems, while providing a sound foundation for science through rigorous review and transparency, tend to overlook bold research that challenges existing knowledge. To foster genuinely innovative work, new selection mechanisms are needed ones that identify factors such as the maturity, independence, creativity, and boldness of early career researchers and that do not rely solely on document-based review but instead allow talent to be scouted directly in the field on an international scale. In evaluating research outcomes, systems that move away from simple publication counts and instead recognize the value of creative risk-taking and the role of failure in advancing knowledge are essential for strengthening creativity. In the Japanese context, it is also important to cultivate a culture in which researchers can engage with societal impact and commercialization. At the same time, as international networks expand, researchers face greater exposure to external expectations and evaluation; securing protected time for deep, independent thinking is therefore necessary to achieve breakthrough results. Furthermore, because a researcher’s ability to produce high-quality work depends fundamentally on their living conditions, including family well-being, supporting researchers’ daily lives is indispensable as a foundational component of research support as a whole.

### (2) **IGARASHI Kei: Chancellor's Fellow Associate Professor, University of California, Irvine**

In Europe and the United States, high salary levels, stable employment contracts, childcare support, early research independence, and access to large-scale research funding together create an environment in which researchers—from early career stages through professorship—can focus fully on their work. In contrast, Japan faces challenges such as low compensation for graduate students and postdoctoral researchers, delayed independence caused by hierarchical academic structures, and seniority-based allocation of research funding. These issues have resulted in lost opportunities for researchers to demonstrate creativity and produce strong outcomes, as well as a

growing outflow of talent to industry. Institutional reforms that promote early independence and substantially improve compensation, including salary-doubling initiatives, are therefore critical. Reform efforts emerging in Japan—such as those seen at OIST and the Universities for International Research Excellence initiative—are encouraging. However, ensuring a supportive and secure environment in which researchers and their families can work with confidence is indispensable. Such an environment is fundamental to attracting outstanding talent and sustaining the creative research that underpins scientific excellence.

**(3) Rees Kassen: Professor of Evolutionary Biology and Director, Trottier Institute for Science and Public Policy, McGill University**

In today's research environment, where international collaboration has become indispensable, trust serves as the most fundamental foundation. Three perspectives are particularly important for young researchers seeking to build such trust: mutual support within multinational and interdisciplinary networks such as the Global Young Academy; collaborative leadership that allows individuals to assume roles flexibly according to circumstances; and openness to cooperation with local communities, industry, and government in order to pursue co-creation. While societal trust in science is essential, the ability to work with people from diverse backgrounds and to engage constructively with real-world challenges on this basis is a key condition for young researchers to thrive internationally.

**3) Panel Discussion 2 — KANO Mitsunobu, Keshav M. DANI, IGARASHI Kei, Rees Kassen, SAKA Chika: Professor, Professor, School of Business Administration, Kwansai University**

International talent mobility served as the central theme for an integrated discussion on trust in science, research environments, and institutional reform. In examining the relationship between science and society, the discussion highlighted the importance of demonstrating visible contributions to local communities, building relationships grounded in diversity and inclusion—including the advancement of women—and fostering public understanding that investment in science is an investment in the future. It was also noted that difficulties in obtaining visas impede researcher mobility, underscoring the need for improvements in related administrative systems.

For the development of supportive environments for early career researchers, the discussion pointed to the need for funding mechanisms that complement traditional peer-review systems and support high-risk, creative research, as well as structures that enable early independence, flexible PI arrangements, and robust support for researchers' living conditions. To strengthen the trust that underpins international collaboration, the effectiveness of peer support within multinational and interdisciplinary networks, collaborative leadership that adapts to circumstances, and openness to cooperation with society—including communities, industry, and government—was also shared.

Further institutional challenges were identified, including the need to ease seniority-based systems, ensure diversity, address shortages of positions for returning researchers, enhance incentives for pursuing a PhD, and shift from equality-based to equity-based support approaches. Overall, the discussion concluded that comprehensive reforms centered on trust, readiness for challenge,

independence, and diversity are essential for advancing international talent mobility and strengthening Japan's research capacity.

## **2. Integrated Session and Overall Summary**

The integrated session centered on three major themes: researcher well-being, research funding and the research environment, and proposals for improving Japan's research system.

Regarding researcher well-being, participants shared the view that a sense of belonging to a research community, stable living conditions, family support, environments that allow individuals to make use of their abilities in intercultural settings, and the capacity to maintain personal interests outside research all form the foundation for creative work. The importance of feeling a sense of contribution and purpose at each career stage, as well as fostering healthy team dynamics within research groups, was also recognized.

Discussion on research funding and the broader research environment highlighted structural issues in Japan, including the long path from postdoc to PI positions and insufficient dual-career and mentoring systems. Increasing research funding was seen to require not only the expansion of public resources but also greater use of private foundations, balanced allocation between basic and applied research, and program-based funding models that secure both stability and autonomy for researchers. In terms of international collaboration, the session emphasized that the effectiveness of partnerships matters more than the number of formal MoUs, pointing to the value of sabbaticals, joint and dual degree programs, and improved administrative capacity for international engagement within universities.

Finally, proposals for the Japanese government included participation in international research frameworks, expanded support for overseas study among younger generations, increasing the attractiveness of the PhD degree, creating career opportunities across academia and industry, strengthening young academies, leveraging Japan's cultural assets, and improving tuition support and loan programs. Enhancing educational functions and establishing systems that support the daily lives of researchers—such as childcare support for dual-career couples—were also identified as essential foundations for sustaining talent mobility. The session concluded that these discussions offer important insights into future policy recommendations.

## **3. Closing Remarks — SUGANO Saki: Associate Professor of Economics, Aoyama Gakuin University**

The two days of internationally diverse discussions underscored their significance, and it is important to share the insights gained through this conference with peers of the same generation as well as with the next generation of researchers. A fundamental concern for well-being is universal, and as young researchers who will shape the future of academia, it is essential to promote collaboration across borders, genders, and disciplines, and to build research environments that ensure flexibility and inclusiveness in the way we work. Science should contribute not only to the advancement of knowledge but also to the well-being of all forms of life. I would like to express my sincere appreciation to everyone who took part in this conference.

## **6. Photos**

Day 1 – Wednesday, 11<sup>th</sup> February

Opening Remarks



**Prof. Dr. MITSUISHI Mamoru**  
**President, Science Council of Japan**

Guest Speech

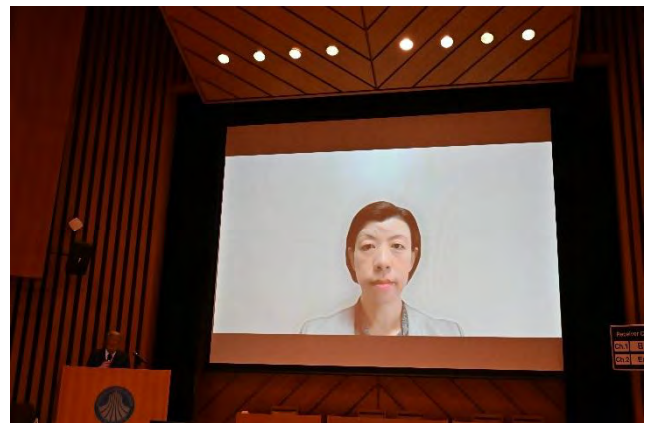


**Ms. ONODA Kimi**  
**Minister of State for Science and Technology**  
**Policy, Cabinet Office, Government of Japan**  
**Government Initiatives - MEXT**

Introduction



**Prof. Dr. ISO Hiroyasu**



**Ms. SAKASHITA Suzuka**

Government Initiatives – MOFA



**Dr. KOTANI Motoko**

Keynote Speech 1



**Prof. Dr. M.Sc. Wilfred G. VAN DER WIEL**

Keynote Speech 2



**Prof. FUKAMI Tadashi**

Moderator Description



**Prof. KITAJIMA Kaoru**

Speech 1



**Prof. HAMADA Fumika**

Speech 2



**Prof. Anna DREBER ALMENBERG**

Speech 3



**Prof. Rob JENKINS**

Youth Perspective



**Dr. TATSUMI Chikae**

## Panel Discussion 1



## Day 2 – Thursday, 12th February

### Moderator Description



**Prof. KANO Mitsunobu**

### Speech 4



**Prof. Keshav M. DANI**

### Speech 5



**Prof. IGARASHI Kei**

### Speech 6



**Prof. Rees KASSEN**

## Panel Discussion 2



## Integration Session

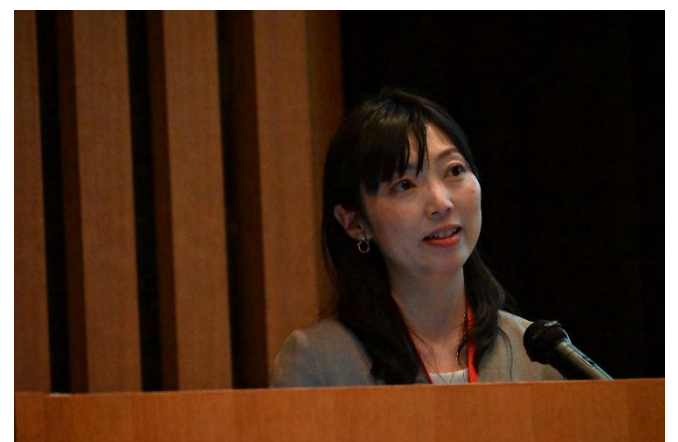


## Ceremonial Address



**Prof. ISO Hiroyasu**

## Closing Remarks



**Prof. SUGANO Saki**

## Group Photos

### Day 1



### Day 2

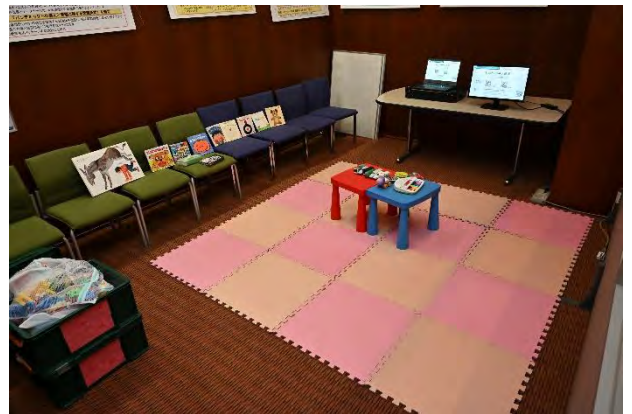


## Venue

### Auditorium



### Kids space



### Science Council of Japan



## **7. Record**

- ◆ Tuesday, 16 December – Friday, 19 December 2003 Energy and Sustainability Science [Tokyo]
- ◆ Wednesday, 10 November – Friday, 12 November 2004 Asian Megacities and Global Sustainability [Tokyo]
- ◆ Friday, 9 September – Saturday, 10 September 2005 Dynamism and Uncertainty in Asia [Kyoto]
- ◆ Friday, 8 September – Saturday, 9 September 2006 Global Innovation Ecosystem [Kyoto]
- ◆ Friday, 7 September – Saturday, 8 September 2007 International Cooperation for Development [Tokyo]
- ◆ Friday, 12 September – Saturday, 13 September 2008 In Search of Sustainable Well-Being [Tokyo]
- ◆ Thursday, 17 September – Friday, 18 September 2009 Global Food Security and Sustainability [Tokyo]
- ◆ Thursday, 16 December – Friday, 17 December 2010 Conservation and Sustainable Use of Biodiversity [Ishikawa]
- ◆ Wednesday, 14 September – Friday, 16 September 2011 Building up Regional to Global Sustainability: Asia Vision [Kyoto]
- ◆ Thursday, 17 January – Friday, 18 January 2013 Wisdom for Recovery from Disasters and Risk Control [Tokyo]
- ◆ Wednesday, 9 October – Thursday, 10 October 2013 Colossal Multiple Disaster (Earthquake, Tsunami, and Nuclear Plant Accident)-Repercussions, Countermeasures, and Future Policy Choices - [Tokyo]
- ◆ Friday, 18 July 2014 Transdisciplinarity for Global Sustainability: Strategies for Research and Capacity Building [Tokyo]
- ◆ Sunday, 15 November 2015 Future Earth [Tokyo]
- ◆ Friday, 27 January 2017 Promoting Transdisciplinary Research and Multi-stakeholder Collaboration for Achieving the Sustainable Development Goals [Tokyo]
- ◆ Wednesday, 1 March – Friday, 3 March 2017 AASSA Regional Workshop -Role of Science for Inclusive Society- [Tokyo]
- ◆ Thursday, 23 November – Saturday, 25 November 2017 Global Forum on Science and Technology for Disaster Resilience 2017 [Tokyo]
- ◆ Wednesday, 6 March 2019 Threats to Coastal and Marine Ecosystems, and Conservation of the Ocean Environment with Special Attention to Climate Change and Marine Plastic Waste [Tokyo]
- ◆ Thursday, 3 September – Friday, 4 September 2020 Social Inclusion in the Global Era - Sustainable post-COVID-19 Society- [Online]
- ◆ Monday, 31 January – Tuesday, 1 February 2022 Achieving Net Zero Emissions: The Roles of Academia [Online]
- ◆ Wednesday, 25 January – Thursday, 26 January 2023 Disaster and Health [Online]
- ◆ Thursday, 7 September – Friday, 8 September 2023 Transforming Society to Become Resilient and Sustainable beyond Catastrophic Disasters [Tokyo,Online]
- ◆ Monday, 3 February 2025 Ecosystem for Sustainable Innovation -Toward Sustainable Science and Society in 2040 [Tokyo,Online]
- ◆ Wednesday, 11 February – Thursday, 12 February 2026 Strengthening research capability and promoting international talent mobility and circulation: a focus on early career researchers who will lead the academia of the future [Tokyo,Online]



**日本学術会議**  
SCIENCE COUNCIL OF JAPAN

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