Advancing international collaborative research and promoting research integrity: An analysis of stakeholders' perspectives between Sweden and Japan

MIRAI is a collaboration between 17 Swedish and Japanese universities, aiming to contribute to long-term research collaboration and to promote Sweden and Japan as nations of world-leading large-scale research infrastructure.

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科研費 KAKENHI

KAKENHI Number:
・24K16716
・21H00880
・21K13605

Statement of the Problem

- Internationalization in higher education & Internationalization in research
- "Responsible Internationalization"
- International collaborations in a project between Sweden and Japan
- Collaborations (international, national, institutional, and individual levels)
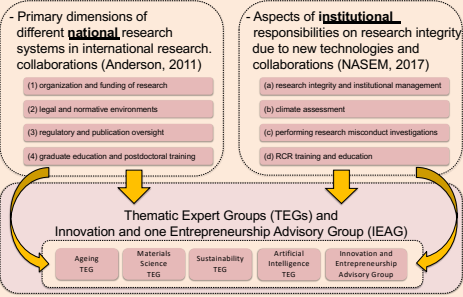
Objective

- Emerging challenges and opportunities in international collaborations
- To analyze and compare perspectives of the key stakeholders
  - international perspectives (Sweden, Japan, and others)
  - interdisciplinary perspectives (disciplinary and interdisciplinary)
  - transdisciplinary perspectives (academic, professional, and others)

History

- MIRAI (2017-2019)
  - 15 universities (7 Swedish & 8 Japanese)
  - Joint Statement on "Strengthening of Japan-Sweden Science and Technology Cooperation" signed in October 2018.
- MIRAI 2.0 (2020-2023)
  - 20 universities (11 Swedish & 9 Japanese)
  - Four Thematic Expert Groups (TEGs)
  - One Innovation and Entrepreneurship Advisory Group (IEAG)

Conceptual Framework

- Primary dimensions of different **national** research systems in international research. collaborations (Anderson, 2011)

(1) organization and funding of research

(2) legal and normative environments

(3) regulatory and publication oversight

(4) graduate education and postdoctoral training

- Aspects of **institutional** responsibilities on research integrity due to new technologies and collaborations (NASEM, 2017)

(a) research integrity and institutional management

(b) climate assessment

(c) performing research misconduct investigations

(d) RCR training and education

Thematic Expert Groups (TEGs) and Innovation and one Entrepreneurship Advisory Group (IEAG)

| Ageing TEG | Materials Science TEG | Sustainability TEG | Artificial Intelligence TEG | Innovation and Entrepreneurship Advisory Group |

Methods & Results

- MIRAI Research and Innovation Week 2023 at Umeå University in Sweden

Source: https://www.mirai.nu/

- Participating universities in MIRAI (2024-2026)

Sweden
· Umeå University (coordinating univ.)
· Jönköping University
· Karlstad University
· Linnaeus University
· Linköping University
· Luleå University of Technology
· Stockholm School of Economics
· University of Gothenburg
· Uppsala University
· Örebro University

Japan
· Kyushu University (coordinating univ.)
· Hiroshima University
· Nagoya University
· Okinawa Institute of Science and Technology (OIST)
· Sophia University
· Tohoku University
· Waseda University

- Qulitative Research Methodology (Semi-structureal interviews)
  - Administrators and Researchers (Sweden and Japan)
  - Semi-structural interviews (online or in-person)
  - 45 to 60 minutes (audio recording of interviews)
  - Ethics Committee for Research on Human Subjects (Sophia University)

- Data Analysis and Results
  - Advanced institutional partnerships (administrative networks)
  - Advising (study or research abroad destinations for students)
  - Authorized decision-making capacity
  - Institutional capacity (research environments, research support structure)
  - Communication challenges (institutional, national, international levels)
  - Data (Regulations and rules; EU and Japan)
  - Designated faculty representatives
  - Research targets & Faculty representatives (in a disciplinary research)
  - Top management engagement support (maintaining collaborations)

Limitations

- The participating length in MIRAI
- Perspectives of administrators and researchers
- Aspects of leadership and research support
- Input & Output (institutional investment & collaboration outcomes)
- External factors influence university partnerships and relations
- COVID-19 discontinued in-person engagement (to online engagement)

Key Findings & Discussion

- Findings at the National level
  - Incentives (Erasmus Mundus, Top Global University Project)
  - Collaborations among domestic administrators and researchers
  - National interests on collaborations (SASUF, SKERIC, RENKEI)
- Findings at the Institutional level
  - Open recruitment (representing researchers) and incentives (funding)
  - Intercultural communication (how to decide / what to discuss)
  - Research integrity (academic and professional backgrounds)
- Discussion
  - Top down and Bottom-up approaches
  - Funding agencies and foundations

Next Steps

- Findings relating to structure and functions of research systems
  - Research Infrastructure
  - Research Operation & Management
  - Research Policies
- Common challenges in research integrity between Sweden and Japan
- Developing a course (research integrity) toward undergraduate students

Selected References

Anderson, M. S., & Steneck, N. H. (Eds.). (2010). International research collaborations: Much to be gained, many ways to get in trouble. New York: Routledge. https://www.taylorfrancis.com/books/edit/10.4324/9780203848906/international-research-collaborations-melissa-anderson-nicholas-steneck.
Bouter, L. (2020). What research institutions can do to foster research integrity. Science and Engineering Ethics, 26(4), 2363–2369. https://doi.org/10.1098/s11948-020-00178-5.
Bouter, L. (2023). Why research integrity matters and how it can be improved. Accountability in Research, 1–10. https://doi.org/10.1080/08989621.2023.2189010.
Cabinet Office, Government of Japan. (2023). Research Integrity. Science and Technology Policy. Council for Science, Technology and Innovation. Government of Japan. https://www8.cao.go.jp/cstp/english/about/research_integrity.html.
Degn, L. (2020). Integrating integrity: The organizational translation of policies on research integrity. Science & Engineering Ethics, 26, 3167–3182. https://doi.org/10.1007/s11948-020-00262-w.
Kamata, T. (2023, November 15). In-person Workshop: Promoting research integrity in transdisciplinary and international collaborative research between Sweden and Japan – Conceptualization, challenges, and ways forward, Parallel Transdisciplinary Challenge-Based Workshops. Workshop Presented at MIRAI 2.0 R&I Week 2023. https://mirai2023.se/november-15-parallel-14-00-16-00/.
Knight, Jane. (2022). Knowledge diplomacy in international relations and higher education. Springer. https://link.springer.com/book/10.1007/978-3-031-14977-1.
Labib, K., Roje, R., Bouter, L., Widdershoven, G., Evans, N., Marušić, A., Mokkink, L., & Tijdink, J. (2021). Important topics for fostering research integrity by research performing and research funding organizations: A Delphi Consensus Study. Science and Engineering Ethics, 27, 47. https://doi.org/10.1007/s11948-021-00322-9.
Labib, K., Tijdink, J., Sijtsma, K., Bouter, L., Evans, N., & Widdershoven, G. (2023). How to combine rules and commitment in fostering research integrity? Accountability in Research, 1–27. https://doi.org/10.1080/08989621.2023.2191192.
MIRAI. (2023). About us, MIRAI – Swedish-Japanese Strategic University Collaboration. MIRAI. https://www.mirai.nu/.
OECD. (2022). Integrity and security in the global research ecosystem. OECD Science, Technology and Industry Policy Papers, No. 130, OECD Publishing, Paris. https://doi.org/10.1787/1c416643-en.
OECD. (2023). Public research funding in Sweden: Optimising the system in response to multiple demands. OECD Science, Technology and Industry Policy Papers, No. 148, OECD Publishing, Paris. https://doi.org/10.1787/0eb0af50-en.
Robishaw, J. D., DeMets, D. L., Wood, S. K., Boiselle, P. M., & Hennekens, C. H. (2020). Establishing and maintaining research integrity at academic institutions: Challenges and opportunities. American Journal of Medicine, 133(3), e87–e90. https://doi.org/10.1016/j.amjmed.2019.08.036.
National Academies of Sciences, Engineering, and Medicine. (2017). Fostering integrity in research. Washington, DC: The National Academies Press. https://doi.org/10.17226/21896.
Sørensen, M.P., Ravn, T., Marušić, A., Elizondo, A. R., Kavouras, P., Tijdink, J. K., & Bendtsen, Anna-Kathrine. (2021). Strengthening research integrity: Which topic areas should organisations focus on? Humanities & Social Sciences Communications 8, 198. https://doi.org/10.1057/s41599-021-00874-y.
The National Board for Assessment of Research Misconduct (Nämnden för prövning av oredlighet i forskning). (2023). National Board for Assessment of Research Misconduct (NPOF). https://npof.se/en/.
Valkenburg, G., Dix, G., Tijdink, J., & de Rijcke, S. (2021). Expanding research integrity: A cultural-practice perspective. Science and Engineering Ethics, 27, 10. https://doi.org/10.1007/s11948-021-00291-z.

8th World Conference on Research Integrity
Megaron Athens International Conference Centre
June 2-5, 2024; Athens, Greece (Presented on June 4)

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