

Arctic Challenge for Sustainability II (ArCS II)
International Research Exchange Program for 2022
Application Guidelines

1. Aims

As one of the Priority Subjects of the Arctic Challenge for Sustainability II (ArCS II), the International Research Exchange Program aims to develop outstanding human resources capable of leading Arctic research and to strengthen the capabilities of research groups by developing and further enhancing sustainable international joint research and human network through collaboration with laboratories and research groups at overseas research institutions.

This program particularly supports dispatch of researchers, especially early-career researchers, overseas; the invitation of researchers from overseas; and holding international workshops and joint seminars under the international joint-research program for the Arctic region, which is carried out in collaboration with overseas research institutions in units of laboratories and research groups in universities and research institutions.

< Arctic Challenge for Sustainability II (ArCS II) www.nipr.ac.jp/arcs2/ >

The Arctic Challenge for Sustainability II (ArCS II) is a national flagship project for Arctic research. The project will take place over approximately four and a half years, from June 2020 to March 2025, primarily through the collaboration of three institutions: the National Institute of Polar Research (NIPR), the Japan Agency for Marine-Earth Science and Technology (JAMSTEC), and Hokkaido University.

< Project Goal >

“Towards the realization of a sustainable society, we promote advanced research to understand the current status and process of environmental changes in the Arctic and to improve meteorological and climate prediction in order to assess the impact of rapid environmental changes in the Arctic on human society, including Japan, as well as to implement the results of this research into society. We also provide domestic and international stakeholders with our scientific knowledge that will be a basis for legal and policy for the formation of international rules in the Arctic.

< 4 Strategic Goals >

Strategic Goal 1: Advanced Observation of Arctic Environmental Change

Strategic Goal 2: Improvement of Weather and Climate Prediction

Strategic Goal 3: Impact of Arctic Environmental Change on Society

Strategic Goal 4: Legal/Policy Response and Research Implementation for a Sustainable Arctic

* This open call for participants started before the decision to grant a subsidy for the ArCS II project in 2022 so that this project could be started smoothly after the decision. The overseas exchange plan and the budget are implemented on the premise that the subsidy be granted in 2022. Note that there may be changes made in the

2. Outline of the Open Call for Participants in the Overseas Exchange Plan

1) Target field

All research fields related to the Arctic region (e.g., natural sciences, humanities, social sciences, engineering, medicine)

2) Applicant organizations

Universities and research institutions of national, public, and independent administrative agencies in Japan

3) Implementation bodies and applicants

Implementation bodies of the overseas exchange plan recruited in this program are laboratories and research groups of individual institutions. Apply from the representative manager of the overseas exchange plan (hereinafter referred to as the “coordinator”). The coordinator must obtain a consent from the head of the institution to which he or she belongs in order to carry out the program.

4) Implementation system

- Each implementation body is a laboratory or research group in a university or research institution, and it should establish an implementation system that enables the implementation of the overseas exchange plan in collaboration with overseas research institutions in one or more countries (multiple institutions in one country are also permitted).
- An implementation body should consist of a coordinator, early-career researchers,¹ and overseas exchange plan co-researchers² (hereinafter referred to as “implementation members”). In addition, if necessary for implementing the overseas exchange plan, research collaborators³ may be included in the implementation system.
- The implementation members in Japan should consist of at least five persons, including at least two early-career researchers, at the time of application.
- The number of institutions to which the implementation members in Japan belong should be within a total of four institutions⁴ at the time of application.
- The coordinator should be substantially responsible for formulating and implementing the overseas exchange plan and preparing implementation reports. If the coordinator is changed during the program implementation period, submit a change application to a successor coordinator who belongs to the same institution. The change in implementation members should be reflected in the plan for the next fiscal year.

Notes:

1. *Early-career researcher* is defined as a student enrolled in master’s or doctoral programs as of April 1, 2022; a researcher who belongs to a university or research institution in Japan and has obtained a master’s or doctoral degree within the past ten years; or a researcher who has obtained a master’s or doctoral degree within the past ten years, excluding the period of prenatal and postnatal leave and child-

care leave taken after obtaining the master's or doctoral degree.

2. *Overseas exchange plan co-researcher* is defined as a researcher belonging to a university or research institution in Japan and a person other than a coordinator, early-career researcher, and research collaborator.
 3. *Research collaborator* is defined as a person who cooperates in the implementation of the overseas exchange plan, such as an observation supporter or an engineer.
 4. Institutions to which only research collaborators belong are excluded from the limit on the number of institutions at the time of application.
- The coordinator should show the laboratories or research groups of one or more overseas research institutions (hereinafter referred to as “overseas partner institutions”) that are the counterparts of this program, their representative managers (hereinafter referred to as “overseas coordinators”) and the researchers that include early-career researchers (hereinafter referred to as “overseas implementation members”), and attach the letter of consent of each overseas coordinator as application documents at the time of application. If there are multiple overseas partner institutions, there will be multiple overseas coordinators.
 - The coordinator should describe that the above-mentioned overseas partner institutions are appropriate for two-way human resource exchange with the research group in question and as international joint-research partners. For a research institution with which the applicant has had a relationship or collaborated through joint research or other activities, describe a summary of the results in the application form.
 - The overseas implementation members in an overseas partner institution should consist of multiple members in the same institution, including early-career researchers.
 - If the overseas coordinator is changed during the program implementation period, submit a change application to a successor overseas coordinator who belongs to the same institution. The change in overseas implementation members should be reflected in the plan for the next fiscal year.

5) Program implementation period

April 1, 2022–March 31, 2025

6) Applications to be adopted

Around 1 or 2 applications

7) Program implementation details

- Dispatching implementation members, mainly early-career researchers, from Japan to overseas partner institutions
- Inviting overseas implementation members from overseas partner institutions to Japan
- Dispatching researchers, mainly early-career researchers, to field surveys and observations
- Giving early-career researchers a chance to make a presentation at international symposiums and to attend

international conferences

- Holding international workshops and joint seminars (at least once a year in principle)
- Holding intensive lectures, special seminars, and lecture meetings by invited overseas implementation members

(1) Number of dispatched persons and dispatch period

During the period of the plan, dispatch implementation members to overseas partner institutions every year. The number of people dispatched and the dispatch period for each dispatched researcher are not specified in particular, but at least one of the dispatched researchers should be an early career researcher, and long-term stay is recommended. Note that for a long stay over years, travel expenses will be paid on a fiscal-year basis.

(2) Number of invited persons and invitation period

During the period of the plan, invite overseas implementation members from overseas partner institutions every year. The number of people invited is not specified, but the period of invitation is basically two weeks or more.

(3) Holding international workshops and joint seminars

In principle, hold international workshops and joint seminars with overseas partner institutions at least once a year.

(4) Dispatching early-career researchers

The overseas exchange plan should include an active dispatch of early-career researchers overseas (e.g., participation in field observation surveys, presentation at international symposiums, attending international conferences). Particularly, be sure to implement participation in field observation surveys during the program implementation period. In addition, be sure to give early-career researchers a chance to make a presentation at symposiums and attend international conferences when they are dispatched overseas, though the number of dispatches per fiscal year is not specially specified. In the examination, particular importance is placed on whether there is a plan to actively dispatch early-career researchers overseas in the overseas exchange plan.

8) Amount of support

A total of 5 million yen or less per plan per fiscal year.

- * The amount of support for the first year will be determined within the above range based on the application documents.
- * The amount of support for the second and subsequent years of the overseas exchange plan will be determined based on examination of the annual overseas exchange plan. There may be cases where the amount of support is reduced.
- * At the end of the second year of the overseas exchange plan, an evaluation will be made based on the business report, and whether or not to continue the overseas exchange plan will be decided based on the evaluation results.

9) Range of the amount of support

We will support the following expenses that are directly required for the execution of this program.

- (a) Goods expenses: Supplies expenses
- (b) Personnel expenses, rewards: Personnel expenses, rewards
- (c) Travel expenses: Travel expenses (overseas, domestic, invitation)
- (d) Others: Outsourcing expenses, printing and binding expenses, meeting expenses, communication transportation expenses, and other (miscellaneous expenses)

3. Application Procedure

1) Application documents

- “Overseas exchange plan” application form
- “Overseas exchange plan” authorization form
- “Overseas exchange plan” Letter of Consent
- * Fill in the application form in Japanese.
- * The authorization and letter of consent can be sent in PDF format. You do not need to submit the original.

2) Application deadline

The application documents must arrive by noon on Tuesday, November 30, 2021.

3) Application method and reception confirmation

The coordinator should send a set of application documents as PDF files to the following e-mail address. After receiving the email, the ArCS II secretariat will send you a reception confirmation email. If you do not receive the reception confirmation email by 5 p.m. on Tuesday, November 30, contact the secretariat.

Destination: ArCS II Secretariat, Section of International Research Exchange Program

Email address: arcs2_irep@nipr.ac.jp

E-mail subject: Application for International Research Exchange Program

4. Reviewing and Adoption

1) Review committee

Reviewing is made by the Review Committee for the International Research Exchange Program (hereinafter referred to as the “Review Committee”) established in the ArCS II Project.

2) Review process

The reviewing will be made based on the reviewing guidelines (Attachment 1) specified separately. See the reviewing guidelines for details.

<Basic flow of reviewing>

(1) First screening

Document screening will be made based on the submitted application documents.

(2) Second screening

In the second screening, interview will be made for applications that have passed the first screening. Depending on the situation, it may be conducted in writing or online. The review committee comprehensively evaluates the results of the first screening and the interview, and determines the overseas exchange plans to be adopted. Depending on the review results, the amount of support may be less than the amount applied.

3) Viewpoint of reviewing

Reviewing is made from the following viewpoints.

- Effectiveness for enhancing research capabilities
- Effectiveness for fostering human resources, particularly early-career researchers (e.g., active overseas dispatch plan for early-career researchers)
- Importance and developability of establishing and enhancing international research networks
- Implementation system of domestic and overseas partner institutions
- Validity of the overseas exchange plan (including the budget plan)

4) Notification of acceptance or rejection

For all applications, the ArCS II Secretariat will notify each applicant whether the application is accepted or rejected by e-mail to the e-mail address of the coordinator stated in the application.

5) Procedures after the adoption decision

We will notify the coordinator of the procedures necessary for implementation and send a set of forms, including an implementation plan. Submit the required documents by the specified date. Details on the forms and date will be in a separate notification after the adoption is determined. In addition, it is necessary to make a consignment contract between the Inter-university Research Institute Corporation Research Organization of Information and Systems, National Institute of Polar Research, and the institution to which the coordinator belongs.

5. Budget Execution

- According to the consignment contract, the institution to which the coordinator belongs manages and executes the amount of support.
- The amount of support will be executed and paid in fiscal-year units.

6. Schedule Until the Start of the Overseas Exchange Plan

Fiscal 2021

The detailed schedule after the first screening will be posted on the website as soon as the final schedule is

set.

Friday, September 10, 2021	Start of open call for participants
Noon on Tuesday, November 30	Application deadline
Early to late December	First screening
Late December to early January 2022	Notification of review results only for those rejected in the first screening
Early to middle January	Second screening
Late January	Notification of acceptance or rejection
Early February	Submission of 2022 Implementation Plan
March	Creation of consignment contract



Fiscal 2022 and later

April 1	Start of International Research Exchange Program
Around late December every year	Submission of an implementation report up to December of the relevant year, overseas exchange plan for the next year, and breakdown of expenses for the next year
End of March every year	Submission of an implementation report for the relevant year

FY 2023, the second year of project

Around mid-February 2024	Implementation of evaluation based on business reports, etc.
Around early March 2024	Determination of whether or not to continue the overseas exchange plan based on the evaluation results

Fiscal 2024

March 2025	End of the International Research Exchange Program
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7. Announcement of Research Results

- The adopted laboratories and research groups are strongly expected to present the results of international co-authored academic papers with researchers from overseas partner institutions at international conferences. In addition, they are required to present information on the outline of the program implementation plan, activity results, and results obtained through dispatch and invitation activities through symposiums sponsored by ArCS II and the website.
- The coordinator is required to report the results of the implementation of this program to the ArCS II secretariat and to utilize the website of the institution to which he or she belongs to actively transmit information to the outside for the outline of the plan, process, and results of the program in Japanese and English (or other languages).
- Disclosure of acquired data

* For the handling of results and data, see “8. Handling and Reporting of Results.”

8. Handling and Reporting of Results

1) Handling of research results and data

Research results and data obtained from the implementation of the adopted overseas exchange plan will be handled in accordance with the rules established by the ArCS II project.

<Outline>

- Announcement of research results and public relations

Follow the “Arctic Challenge for Sustainability II (ArCS II) Research Results Presentation and Public Relations Guidelines” (Attachment 2) (hereinafter, referred to as “outline”).

- Specify the name or logo of the ArCS II project when announcing the results.
- Specify the name and systematic number (JPMXD1420318865) of the ArCS II project in the acknowledgments of papers.
- For press release, clearly state that it is the result of the ArCS II project and notify the ArCS II secretariat to that effect.

- Data handling

Follow the “Arctic Challenge for Sustainability II (ArCS II) Data Policy” (Attachment 3) and various handling guidelines based on this (hereinafter referred to as “outline”).

- In order to maximize the value of the acquired data, it is necessary to make efforts to disclose the data promptly.
- Of acquired data, the data that is not designated as intellectual property is managed and stored by the Arctic Data Archive System (ADS, <https://ads.nipr.ac.jp/>) appropriately for the purpose of scientific, educational, and industrial use and is provided smoothly to domestic and overseas research institutions, researchers, and stakeholders.

*Various guidelines can also be referred to on the ArCS II website

(<https://www.nipr.ac.jp/arcs2/regulations/>).

2) The coordinator is required to submit a report every year. Details will be notified separately after the adoption is determined.

9. Handling of Personal Information

Personal information contained in application documents will be strictly managed and will not be used for any purpose other than the following purposes, except when required by law.

- 1) For the examination by the examination committee based on application documents and notification of acceptance or rejection
- 2) For publication of the name of the laboratory or research group, the coordinator’s name, title, and institution,

and the overseas coordinator's name, title, and institution on the ArCS II website and publications such as public relations magazines when the overseas exchange plan is adopted

10. Other

- In consideration of the spread of COVID-19 infection, the implementation plan of this program may be changed in consultation with the coordinator after adoption.
- The Inter-University Research Institute Corporation Research Organization of Information and Systems, National Institute of Polar Research, is not responsible for accidents that occur during the period of field observations, field surveys, international workshops, and international seminars in international joint research. When Japanese participants travel abroad, they are responsible for handling troubles such as accidents, illnesses, and disasters during the implementation period. When traveling abroad, take action to manage crises by, for instance, purchasing overseas travel accident insurance and checking the Ministry of Foreign Affairs' overseas safety website (<https://www.anzen.mofa.go.jp/>).

11. Contact

Inter-University Research Institute Corporation Research Organization of Information and Systems
National Institute of Polar Research, Arctic Environment Research Center
ArCS II Secretariat, Section of International Research Exchange Program
10-3, Midori-cho, Tachikawa-shi, Tokyo 190-8518, Japan
Email: arcs2_irep@nipr.ac.jp

Reference

- Example of overseas exchange plan

[Implementation examples of overseas dispatch or invitation and international workshop or joint seminar holding schedule]

- 1) Early-career researchers (May–August 2022) and graduate students (July–September 2022) will be dispatched from Japan to overseas partner institutions for field observation and data collection.
- 2) The overseas coordinators and researchers in charge will be invited from overseas partner institutions to Japan for data analysis and international workshops (October 2022).
- 3) International workshop will be held in Japan in October 2022.
- 4) The coordinator (January–February 2023) will be dispatched from Japan to overseas partner institutions for data analysis and co-authored paper writing.

	2022									2023		
	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.
Japanese implementation body												
Coordinator											➔	
Overseas exchange plan co-researcher												
Overseas exchange plan co-researcher												
Early-career researcher												
Early-career researcher		➔										
Early-career researcher (graduate student)				➔								
Overseas partner institution												
Overseas coordinator							▪▪▪▪➔					
Overseas implementation members							▪▪▪▪➔					
Overseas early-career researcher												
Overseas early-career researcher (graduate student)												
International workshop												
International workshop							◎					

➔ Dispatch to overseas partner institutions

▪▪▪▪➔ Invitation from overseas partner institutions