National Institute of Informatics Open Collaborative Research 2024

Application Guidelines

1. Overview

The National Institute of Informatics of the Inter-University Research Institute Corporation Research Organization of Information and Systems (hereinafter "this research institute") pursues collaborative research with researchers at universities and research institutes both domestically and internationally as an inter-university research institute with the aim of "building future value (creating science)" in the field of informatics in Japan.

Recently, there has been demand in informatics for new theories, methodologies, and development of applications (future value) that create real value as never before for people and society. We are now accepting applications for collaborative research for further promoting this kind of research and pursuing pioneering research through collaboration with other academic fields.

The collaborative research being accepted is research into informatics conducted collaboratively with members of this research institute where the applicant (principal investigator) is a researcher who belongs to a university, etc., other than this research institute.

We welcome applications from all researchers, including young researchers, female researchers, and researchers at regional universities.

Furthermore, we actively support collaborative research that includes researchers from overseas research institutes among the collaborating researchers (hereinafter "international collaborative research") in order to promote international cooperation.

2. Types of collaborative research open for applications

This research institute is accepting applications for the following three types of collaborative research.

In line with the intent of this program, for all of the different types of collaborative research, **it is recommended that members of this research institute be included as collaborating researchers. Furthermore, one person who is a member of this research institute should be designated as the corresponding member (who provides guidance, advice, etc., regarding the collaborative research, and preferably is also a collaborating researcher). If it is difficult to select a corresponding member, consult with contact given in "17. Contact". After deciding on a corresponding member, you must coordinate with the corresponding member and obtain approval for the research before submitting the application.** Refer to the "National Institute of Informatics Faculty Information (Exhibit 1)" for information about the members of this research institute.

Furthermore, the collaborative research is to be performed within a single year. **The collaborative research should be a step leading to acquisition of a subsequent competitive research grant (grants-in-aid for scientific research, competitive research grants from various government agencies, grants from other financial groups, etc.).**

Note that each person must fully comply with measures against the novel coronavirus disease (COVID-19) during the execution of the collaborative research. Please actively use web conferencing systems, etc., to prevent the spread of the infection.

(1) Open strategic research [Strategic] (Upper limit of 1.5 million yen per year)

Select the desired research theme from among the research themes (12 themes) that this research institute has designated as strategic based on trends in informatics, and freely choose the specific research topic. Refer to the "List of Strategic Research Themes (Exhibit 2)" for the research themes.

(2) Open research planning meeting [Meeting] (Upper limit of 800,000 yen per year)

Freely choose a **novel** research topic that meets at least one of the following criteria, and conduct meetings (meet and greet, debate, training, planning, etc.). Freely choose a research topic that is not confined to the limits of informatics research.

- Collaboration between informatics and other fields
- Strengthening links between informatics academics
- New grand challenge taking on a difficult problem in informatics

Meetings should be held **at least one time** at the International Seminar House for Advanced Studies (refer to the explanation below) of this research institute by at least 5 collaborating researchers, and similar meetings can also be held at this research institute (2-1-2 Hitotsubashi, Chiyoda-ku, Tokyo) as needed. However, this condition will not apply if the pandemic spreads again.

Note that you may be asked to hold a meeting adopting similar research topics from the perspective of having more wide-ranging investigation.

International Seminar House for Advanced Studies

A place for interdisciplinary and international discussion and contemplation built in a quiet area of Karuizawa on land donated by Hiroshi Inose, who was the first director general of this research institute. Has a seminar room with a capacity of 40 people and rooms that can accommodate 10 people. (Can accommodate up to 15 people using additional beds.)

Please feel free to use it also as a place for holding meetings for other joint research, etc.

Address: 1052-471, Okan Minamihara Nagakura, Karuizawa, Karuizawa-cho, Kita Saku-gun, Nagano

URL: https://www.nii.ac.jp/about/seminar-house/

(3) Open free proposal [Free] (Upper limit of 1 million yen per year)

Freely choose and conduct a research topic.

3. Requirements for applicants (principal investigator)

① Researchers who belong to domestic universities, junior colleges, technical colleges, inter-university research institutes, etc. or equivalent researchers and graduate students (limited to adult graduate students)

② Researchers who belong to domestic private sector companies, etc.

4. Requirements for collaborating researchers

① Researchers who belong to domestic or international universities, junior colleges, technical colleges, inter-university research institutes, etc., or equivalent researchers and graduate students **(excludes university undergraduate students and technical college undergraduate and associate degree students)**

② Researchers who belong to domestic private sector companies, etc.

5. Research period

From April 1, 2024 to March 31, 2025.

6. Application method

Create “National Institute of Informatics Open Collaborative Research 2024 - Application Form (Form 1)” by referring to the separately attached guidelines for filling in the application. The application should be submitted as digital data by using “Joint-Research On-line Integrated System” (JROIS). When using JROIS, you may need to create a new account. Refer to the user manual for details.

JROIS: https://jrois2.rois.ac.jp/ (The user manual can also be downloaded from here.)

Next, after approval by the institute, submit the digital data (Microsoft Word file) for the application form (form 1) by uploading it to JROIS.

If it is difficult to obtain approval from the representative of your affiliated institution, you can submit the application form instead of the approval from an immediate supervisor, etc. However, in this case, you may need to submit a confirmation letter at a later date showing approval from your institution for conducting this collaborative research.

Furthermore, **when filling in the application form, make sure that you fully plan the details, such as the research content and methods, with the corresponding member at this research institute in advance.**

Note: The personal information written on the application form will be stored/disposed of appropriately based on the personal information protection rules of the Research Organization of Information and Systems. Furthermore, if the application is successful, the name, affiliated institution, and research topic title of the applicant (principal investigator) will be posted on the website of this research institute.

Note: Refer to the appendix for the overall flow (advance preparation - submit application form - selection/notification of results - conduct collaborative research - submit results report - additional scrutiny of research results).

7. Terms of the application

The applicant (principal investigator) must agree to the following terms regarding the research topic in the application before making the application. Furthermore, the applicant (principal investigator) should ensure that all of the collaborating researchers (including the corresponding member) participating in the research topic adhere to the following items. Note that foreign collaborating researchers are asked to read through or take courses as much as possible corresponding to points ④ and ⑤ below by using the English language versions.

① Information such as personal information and information that is not planned to be made public should be handled appropriately under your own responsibility in accordance with laws, etc.

② In addition to the above, adhere to related rules and regulations and implement measures as needed by society when performing your own research.

③ Based on “Guidelines for the Management and Auditing of Public Research Funds in Research Institutes (Standards for Practice)” (established by the Minister of Education, Culture, Sports, Science and Technology on February 15, 2007 and amended on February 1, 2021), be fully aware of the public mandate for academic research and the fact that collaborative research expenses are covered by the limited taxes paid by the people, and promise to utilize the

collaborative research expenses appropriately and efficiently and not perform any illicit activities during the research.

④ Before starting the collaborative research, read through the research ethics training material designated by the Ministry of Education, Culture, Sports, Science and Technology (For the Sound Development of Science: The Attitude of a Conscientious Scientist, Editing Committee "For the Sound Development of Science", Japan Society for the Promotion of Science) (*1), study the research ethics training e-learning provided by the Association for the Promotion of Research Integrity (APRIN) (*2), and study the research ethics training provided by your affiliated institution based on the "Guidelines for Responding to Misconduct in Research" (established by the Ministry of Education, Culture, Sports, Science and Technology on August 26, 2014).

(*1) https://www.jsps.go.jp/english/e-kousei/ethics.html

(*2) https://edu.aprin.or.jp/

⑤ Before starting the collaborative research, take training, etc., related to security export controls as conducted by your affiliated institution, or take the "e-learning for teaching staff at universities and research institutions related to secure export controls" published by the Ministry of Economy, Trade and Industry (*3).

(*3) https://www.meti.go.jp/policy/anpo/englishpage.html

8. Deadline for submitting the application form

December 1, 2023 (Friday) (digital data (Microsoft Word file) uploaded to JROIS)

JROIS: https://jrois2.rois.ac.jp/

9. Selection method and notification of selection results

The decision will be made by the director general through deliberations of the NII committee based on the results of document inspection.

For international collaborative research, evaluation will be performed by taking into account the international nature when performing the inspection.

Selection will be made by the end of March 2024, and the applicant (principal investigator) will be notified of the selection results through JROIS. Please understand that the application form will not be returned.

10. Collaborative research expenses

The collaborative research expenses will be used as follows according to the goals of the respective open collaborative research by placing an emphasis on strengthening links between collaborating researchers, and the completeness of the research results and information gathering.

(1) Open strategic research [Strategic] (Upper limit of 1.5 million yen per year)

Travel expenses and expenses related to participating in academic conferences, etc. (*1), journal submission and posting fees, etc. (*2), and other expenses (*3).

(2) Open research planning meeting [Meeting] (Upper limit of 800,000 yen per year)

Limited to travel expenses accompanying the meetings and payment of remuneration to invited speakers (also including online talks).

(3) Open free proposal [Free] (Upper limit of 1 million yen per year)

Travel expenses and expenses related to participating in academic conferences, etc. (*1), journal submission and posting fees, etc. (*2), and other expenses (*3).

(*1)

Applicable payments: Registration fees for academic conferences, etc., costs related to extracts, preprints, etc.

Applicable grounds: Presenting results of the collaborative research, gathering information related to the collaborative research

(*2)

Applicable journals: Journals that present the results of this collaborative research

Applicable payments: Journal submission and posting fees, English manuscript editing feeds (including for the purpose of posting papers to preprint servers, creating manuals for open software, etc.)

Note: Expenses related to book publication will not be disbursed.

(*3)

Disbursements can also be made for other expenses limited to the following applicable payments.

Fees for posting papers to preprint servers, cost of creating manuals for open software, expenses needed for constructing datasets, licensing fees for online conferencing tools, conference room rental fees (within the range that is not opulent), NII research cloud usage fees, academic and commercial cloud usage fees, communication and transportation fees for conducting experiments and presenting the results of the collaborative research (including network usage fees), payment of remuneration to invited speakers (also including online talks)

Note: The payment (contract) period shall be a single year.

Note: Remuneration can be paid as long as it is for services related to the above grounds (disbursement to collaborating researchers of the collaborative research is not allowed).

Note: Expenses related to purchasing goods that contain consumables cannot be disbursed from collaborative research expenses.

Note: This cannot be used by combining multiple collaborative research expenses or other competitive research grants.

Note: Administration of the collaborative research expenses will be performed by the corresponding member from this research institute (expenses will not be dispersed to the applicant (principal investigator) or affiliated institution of the collaborating researcher).

The budget will be exercised in a planned way through consultation with the corresponding member from this research institute.

Note: Travel expenses will be paid in according with the regulations and rules of this research institute, including return transport cost, daily allowance, and accommodation fee.

11. Handling of research results

For the attribution of intellectual property rights arising from performing the collaborative research, results created solely by either the applicant (principal investigator) or a collaborating researcher shall be attributable solely to the person who created the results or their affiliated institution. Results obtained collaboratively by the applicant (principal investigator) or collaborating researchers will be shared with the people who obtained the results or their affiliated institutions.

12. Research results report

The **digital data (Microsoft Word file)** of the "National Institute of Informatics Open Collaborative Research 2024 - Results Report (Form 2)" **should be submitted by uploading to JROIS by June 20, 2025 (Friday)** after the collaborative research is finished. Note that Form 2 is a draft and is subject to change. The digital data of official format will be provided after the research period has finished. The content of the submitted report will be posted on the website or in the annual report of this research institute, and it may also be posted in public relations magazines, etc.

Note: The results report should describe the current state of **starting using the collaborative research leading to applications for and acquisition of competitive research grants as the next step.** Furthermore, an additional scrutiny is planned around September to October 2025 in relation to the state of acquiring a competitive research grant and other results.

13. Academic papers and external presentations of research results

If research results are presented outside of this research institute, **you must explicitly state in the paper, etc., that this is the result of collaborative research with the assistance of this research institute.**

[Example of acknowledgements text (Japanese)]

「この研究は2024年度国立情報学研究所公募型共同研究（採択番号）の助成を受けています。」

[Example of acknowledgements text (English)]

"The research was supported by ROIS NII Open Collaborative Research 2024-(Grant Number)."

14. Obligation to maintain confidentiality

Research results arising through conducting the collaborative research and information disclosed or obtained from this research institute must be kept confidential for a period of 2 years after the end of the collaborative research except for information that you already possessed or that was already public, information that became public unless due to your own actions after the information was disclosed or obtained, and information where consent has been obtained from this research institute.

Note that separate consultation will be made for cases where more detailed arrangements are needed.

15. Other (cautions)

Please note that in cases such as errors in any of the content written in the application form and particularly cases where approval or confirmation was not obtained from your institution, the collaborative research may be halted or acceptance of collaborating researchers may be halted at the discretion of this research institute even after an application has been successful.

16. Addition or removal of collaborating researchers, or changes in the affiliation or job title of the applicant (principal investigator) or collaborating researchers after selection

You must submit in advance by e-mail Form 3 "National Institute of Informatics Open Collaborative Research – Application for Adding/Removing Collaborating Researchers" to add or remove collaborating researchers or Form 4 "National Institute of Informatics Open Collaborative Research – Application for Changing Affiliation and Job Title of Applicant (Principal

Investigator)/Collaborating Researcher" if the affiliation or job title of the applicant (principal investigator) or collaborating researchers has changed after selection to the e-mail address described in "17. Contact" as digital data (Microsoft Word file).

17. Contact

Inquiries about the details of this open collaborative research, and inquiries about submission of application forms, notifications of the details of research results papers and presentations, and submission of reports should be made to the following contact.

[Contact]

Open Collaborative Research Coordinator, Office for Social Collaboration, Planning Division, General Affairs Department, National Institute of Informatics

2-1-2 Hitotsubashi, Chiyoda-ku, Tokyo 101-8430, Japan

E-mail : kyoudou@nii.ac.jp

TEL : 03-4212-2139

Note : Application guidelines and forms such as application forms can be downloaded from the website of this research institute.

URL : https://www.nii.ac.jp/research/collaboration/koubo/

Exhibit 1

National Institute of Informatics Faculty Information

The faculty of National Institute of Informatics is divided into the following research divisions: Principles of Informatics Research Division, Information Systems Architecture Science Research Division, Digital Content and Media Sciences Research Division, and Information and Society Research Division.

[Reference URL] Researcher introduction website: https://www.nii.ac.jp/en/faculty/

[Principles of Informatics Research Division: 16 people]

	Researcher name	Specialty fields Researcher introduction URL	e-mail All domains are @nii.ac.jp
1	Professor Katsumi INOUE	Knowledge representation and reasoning, machine learning, logic programming, resilience http://research.nii.ac.jp/il/research.html	inoue
2	Professor Takeaki UNO	Mathematical programming, discrete algorithms, data structures, combinatorial optimization https://www.nii.ac.jp/en/faculty/informatics/uno_takeaki/ [Has research introduction video]	uno
3	Professor Ken-ichi KAWARABAYASHI	Graph coloring problem in discrete mathematics, structural graph theory and algorithms, network flow and path problems https://www.nii.ac.jp/en/faculty/informatics/kawarabayashi_kenichi/ [Has research introduction video]	k_keniti
4	Professor Ken SATOH	Application of AI to law https://www.nii.ac.jp/en/faculty/informatics/satoh_ken/ [Has research introduction video]	ksatoh
5	Professor Hideaki TAKEDA	Artificial intelligence, design theory https://www.nii.ac.jp/en/faculty/informatics/takeda_hideaki/	takeda
6	Professor Makoto TATSUTA	Theoretical computer science, mathematical logic https://www.nii.ac.jp/en/faculty/informatics/tatsuta_makoto/	tatsuta
7	Professor by Special Appointment Kae NEMOTO	Quantum computing, quantum technology, quantum optics, theoretical physics https://researchmap.jp/nemoto?lang=en	nemoto
8	Professor Yuichi YOSHIDA	Property testing, almost linear time algorithms, constraint satisfaction problem, approximation algorithms https://www.nii.ac.jp/en/faculty/informatics/yoshida_yuichi/	yyoshida
9	Associate Professor Masako KISHIDA	Control theory, optimization, control and optimization using machine learning https://www.nii.ac.jp/en/faculty/informatics/kishida_masako/	kishida
10	Associate Professor Mahito SUGIYAMA	Machine learning/data mining https://www.nii.ac.jp/en/faculty/informatics/sugiyama_mahito/ [Has research introduction video]	mahito

11	Associate Professor Akihito SOEDA	Quantum algorithm, theoretical physics, manipulation of quantum systems https://www.nii.ac.jp/en/faculty/informatics/soeda_akihito/	soeda
12	Associate Professor Shuichi HIRAHARA	Computational complexity theory, average-case complexity, minimum circuit size problem https://www.nii.ac.jp/en/faculty/informatics/hirahara_shuichi/	s_hirahara
13	Associate Professor Keijo MATSUMOTO	Quantum statistical inference, quantum information, quantum computation, information geometry, learning theory https://www.nii.ac.jp/en/faculty/informatics/matsumoto_keiji/	keiji
14	Assistant Professor Taisuke KOBAYASHI	Intelligent Robots, machine learning, data-driven control, human-robot interaction https://tk.prinlab.org/en/	kobayashi
15	Assistant Professor Shunsuke SHIGAKI	Intelligent Robots, Neuroethology, Data-driven Control, System Identification, Mechatronics https://sshigaki.jimdofree.com/	shigaki
16	Assistant Professor Kaito FUJII	Combinatorial optimization, machine learning https://www.nii.ac.jp/en/faculty/informatics/fujii_kaito/	fujiik

[Information Systems Architecture Science Research Division: 19 people]

	Researcher name	**Specialty fields** **Researcher introduction URL**	**e-mail** **All domains are @nii.ac.jp**
1	Professor Kento AIDA	Cloud computing, Internet of Things (IoT), parallel and distributed computing https://www.nii.ac.jp/en/faculty/architecture/aida_kento/ [Has research introduction video]	aida
2	Professor Yutaka ISHIKAWA	Infrastructure software https://www.nii.ac.jp/en/faculty/architecture/ishikawa_yutaka/	yutaka_ishikawa
3	Professor Shigeo URUSHIDANI	Network architecture, high-end network systems https://www.nii.ac.jp/en/faculty/architecture/urushidani_shigeo/	urushi
4	Professor Takashi KURIMOTO	Communication network architecture, system architecture https://www.nii.ac.jp/en/faculty/architecture/kurimoto_takashi/ [Has research introduction video]	tkurimoto
5	Professor Yusheng JI	AI/ML for networking, communication-efficient distributed learning, massive machine-type communications https://www.nii.ac.jp/en/faculty/architecture/ji_yusheng/	kei
6	Professor Michihiro KOIBUCHI	Interconnected networks, on-chip interconnects, network on-a-chip, parallel processing, system area networks, PC clusters, deadlock-free routing, computer architectures https://www.nii.ac.jp/en/faculty/architecture/koibuchi_michihiro/ [Has research introduction video]	koibuchi
7	Professor Masahiro GOSHIMA	Computer architecture, digital circuit technology https://www.nii.ac.jp/en/faculty/architecture/goshima_masahiro/	goshima

8	Professor Hiroki TAKAKURA	Cyber-security, networks	takakura
		https://www.nii.ac.jp/en/faculty/architecture/takakura_hiroki/	
9	Professor Atsuko TAKEFUSA	Parallel/distributed processing, cloud infrastructure technology, inter-cloud technology, cyber-physical systems, Internet of Things（IoT）	takefusa
		https://www.nii.ac.jp/en/faculty/architecture/takefusa_atsuko/	
10	Professor Ichiro HASUO	Infrastructure software	hasuo
		https://www.nii.ac.jp/en/faculty/architecture/hasuo_ichiro/	
11	Professor Kensuke FUKUDA	Computer networks, time-series analysis, network science	kensuke
		https://www.nii.ac.jp/en/faculty/architecture/fukuda_kensuke/	
12	Associate Professor Fuyuki ISHIKAWA	Software engineering, machine learning engineering, autonomous/smart systems	f-ishikawa
		https://www.nii.ac.jp/en/faculty/architecture/ishikawa_fuyuki/	
13	Associate Professor Megumi KANEKO	Wireless communications engineering, wireless resource allocation, protocol design for mobile communication systems	megkaneko
		https://www.nii.ac.jp/en/faculty/architecture/kaneko_megumi/ [Has research introduction video]	
14	Associate Professor Eisaku SAKANE	Identity and access management, grid computing	sakane
		https://www.nii.ac.jp/en/faculty/architecture/sakane_eisaku/	
15	Associate Professor Taro SEKIYAMA	Programming languages, program validation	sekiyama
		https://www.nii.ac.jp/en/faculty/architecture/sekiyama_taro/	
16	Associate Professor Ikki FUJIWARA	Research data platform systems, Cloud computing, Computer architecture	ikki
		https://www.nii.ac.jp/en/faculty/architecture/fujiwara_ikki/	
17	Assistant Professor Shunsuke AOKI	Autonomous driving systems, cyber-physical systems, distributed networks, vehicle communications	aoki
		https://www.nii.ac.jp/en/faculty/architecture/aoki_shunsuke/	
18	Assistant Professor Hiroyuki KATO	Data engineering	kato
		https://www.nii.ac.jp/en/faculty/architecture/kato_hiroyuki/	
19	Assistant Professor Sayako SHIMIZU	Authentication and authorization, information security, system operations, data science	smz
		https://www.nii.ac.jp/en/faculty/architecture/sayako_shimizu/	

[Digital Content and Media Sciences Research Division: 22 people]

	Researcher name	**Specialty fields**	**e-mail** **All domains are @nii.ac.jp**
		Researcher introduction URL	
1	Professor Akiko AIZAWA	Text comprehension, knowledge acquisition, document analysis, natural language interfaces	aizawa
		https://www.nii.ac.jp/en/faculty/digital_content/aizawa_akiko/ [Has research introduction video]	
2	Professor Asanobu KITAMOTO	Big data analysis, digital humanities, earth environmental informatics, open science	kitamoto
		https://www.nii.ac.jp/en/faculty/digital_content/kitamoto_asanobu/	

3	Professor Imari SATO	Computer vision, computer graphics, image-based modeling and rendering, mixed reality	imarik
		https://www.nii.ac.jp/en/faculty/digital_content/sato_imari/	
4	Professor Shin'ichi SATOH	Information science	satoh
		https://www.nii.ac.jp/en/faculty/digital_content/satoh_shinichi/	
5	Professor Akihiro SUGIMOTO	Computer vision, human-computer interactions, algorithms, image retrieval	sugimoto
		https://www.nii.ac.jp/en/faculty/digital_content/sugimoto_akihiro/	
6	Professor Atsuhiro TAKASU	Data engineering, data mining, recommendation systems, CPS	takasu
		https://www.nii.ac.jp/en/faculty/digital_content/takasu_atsuhiro/	
7	Professor Helmut PRENDINGER	Anthropomorphic characters, multimedia, multimodal presentation systems, biological interactive systems	helmut
		https://www.nii.ac.jp/en/faculty/digital_content/prendinger_helmut/	
8	Professor Junichi YAMAGISHI	Speech information processing, deep learning, machine learning, biometrics, liveness detection	jyamagis
		https://www.nii.ac.jp/en/faculty/digital_content/yamagishi_junichi/ [Has research introduction video]	
9	Professor Kazutsuna YAMAJI	Metadata assignment and sharing of academic content, platforms for creating academic communities	yamaji
		https://www.nii.ac.jp/en/faculty/digital_content/yamaji_kazutsuna/ [Has research introduction video]	
10	Professor Seiji YAMADA	Artificial intelligence, human-agent interactions, intelligent interactive systems	seiji
		https://www.nii.ac.jp/en/faculty/digital_content/yamada_seiji/ [Has research introduction video]	
11	Associate Professor Frederic ANDRES	Collective intelligence, food data science, human stress monitoring	andres
		https://www.nii.ac.jp/en/faculty/digital_content/andres_frederic/	
12	Associate Professor Norio KATAYAMA	Computer science, information engineering (database systems)	katayama
		https://www.nii.ac.jp/en/faculty/digital_content/katayama_norio/	
13	Associate Professor Teruhito KANAZAWA	Information engineering (information search)	tkana
		https://www.nii.ac.jp/en/faculty/digital_content/kanazawa_teruhito/	
14	Associate Professor Kazuya KODAMA	Information and communication engineering (pattern media: image processing)	kazuya
		https://www.nii.ac.jp/en/faculty/digital_content/kodama_kazuya/	
15	Associate Professor Yusuke KOMIYAMA	Research data infrastructure, research data management (RDM), semantic web, bioinformatics	komiyama
		https://www.nii.ac.jp/en/faculty/digital_content/komiyama_yusuke/	
16	Associate Professor Shoichi KOYAMA	Acoustic signal processing, Spatial audio, Physics-informed machine learning, Inverse problem, Active control	skoyama
		https://www.nii.ac.jp/en/faculty/digital_content/koyama_shoichi/	

17	Assistant Professor Yuta ASANO	Physics based computer vision, 3D reconstruction https://www.nii.ac.jp/en/faculty/digital_content/asano_yuta/	asanoy
18	Assistant Professor Satoshi IKEHATA	Computer vision, 3D reconstruction, photometric stereo https://www.nii.ac.jp/en/faculty/digital_content/ikehata_satoshi/ [Has research introduction video]	sikehata
19	Assistant Professor Saku SUGAWARA	Natural language processing, computational linguistics, natural language comprehension https://www.nii.ac.jp/en/faculty/digital_content/sugawara_saku/	saku
20	Assistant Professor Chifumi NISHIOKA	Scholarly communication, bibliometrics, open science https://www.nii.ac.jp/en/faculty/digital_content/nishioka_chifumi/	cnishioka
21	Assistant Professor Hiroshi MO	Information engineering https://www.nii.ac.jp/en/faculty/digital_content/mo_hiroshi/	mo
22	Assistant Professor Yi YU	Creation based on artificial intelligence/deep learning, cross-modal searching, multimedia https://www.nii.ac.jp/en/faculty/digital_content/yu_yi/	yiyu

[Information and Society Research Division: 13 people]

	Researcher name	**Specialty fields** **Researcher introduction URL**	**e-mail** **All domains are @nii.ac.jp**
1	Professor Noriko ARAI	Distance learning (system development, education), mathematical logic https://www.nii.ac.jp/en/faculty/society/arai_noriko/ [Has research introduction video]	arai
2	Professor Isao ECHIZEN	Multimedia security, multimedia forensics, biometrics, privacy https://www.nii.ac.jp/en/faculty/society/echizen_isao/ [Has research introduction video]	iechizen
3	Professor Noriko KANDO	Information access (evaluation of information search systems, analysis of text structures/genres/links, interactive information access systems, applications of cultural asset archive for educational purposes, information application support systems, cross-language access) https://www.nii.ac.jp/en/faculty/society/kando_noriko/	kando
4	Professor Ichiro SATOH	Distributed systems, programming languages, networks https://www.nii.ac.jp/en/faculty/society/satoh_ichiro/	ichiro
5	Associate Professor Hitoshi OKADA	Digital currency system theory, location information policy theory, e-commerce theory https://www.nii.ac.jp/en/faculty/society/okada_hitoshi/ [Has research introduction video]	okada
6	Associate Professor Hironobu GOTODA	Computer graphics https://www.nii.ac.jp/en/faculty/society/gotoda_hironobu/	gotoda
7	Associate Professor Yuan SUN	Psychological statistics, education engineering (learning/analytics, personalized learning assistance), bibliometrics https://www.nii.ac.jp/en/faculty/society/sun_yuan/	yuan

8	Associate Professor Masaki NISHIZAWA	Quantitative informatics, information systems, cosmic ray physics https://www.nii.ac.jp/en/faculty/society/nishizawa_masaki/	nisizawa
9	Associate Professor Miho FUNAMORI	Higher education policy, scholarly communication, university management, open science Blog on higher education issues around the world: miho channel <https://rcos.nii.ac.jp/en/miho/> https://www.nii.ac.jp/en/faculty/society/funamori_miho/	funamori
10	Associate Professor Mayumi BONO	Sociolinguistic sciences, conversational informatics, sign language https://www.nii.ac.jp/en/faculty/society/bono_mayumi/ [Has research introduction video]	bono
11	Associate Professor Takayuki MIZUNO	Complex network science, econophysics, computational social science, employing big data in social sciences https://www.nii.ac.jp/en/faculty/society/mizuno_takayuki/	mizuno
12	Assistant Professor Kouichirou UEKI	Neural networks, genetic algorithms, next generation science information systems https://www.nii.ac.jp/en/faculty/society/ueki_kouichirou/	ueki
13	Assistant Professor Masako FURUKAWA	Education engineering https://www.nii.ac.jp/en/faculty/society/furukawa_masako/ [Has research introduction video]	furukawa

Exhibit 2

List of Strategic Research Themes (12 Themes)

1. Proposals for innovative core functions and applications services utilizing SINET6

In order to contribute to creating a more advanced research and education environment at universities and other institutions with, for example, cloud computing, authentication, and high-speed high-function networks, we are accepting proposals for experiments and verification of cutting-edge core functions utilizing the ultra-high speed SINET6 network (which offers 400 Gbps), and also proposals for new application services. Examples include proposals for the core function of content sharing characterized by large-capacity data transfers, wide-area data collection and analysis functions using mobile SINET, cutting-edge cloud functions (inter-cloud, supercomputer integration, IoT integration, and management and administration technology), and fast and flexible provisioning of more economical services, such as simple experimental data storage services.

2. Proposals for base technology for next-generation Internet

The SINET academic information network that was built and is operated by the National Institute of Informatics is pursuing innovativeness, ultra-high speeds, high reliability, and high functionality, and provides an academic information platform service to universities, research institutes, etc., throughout Japan. Against a background of demand for a higher-performance Internet with more functionality, we are accepting proposals on this theme for base technology for the next-generation Internet. Examples include new architectures for routing, control mechanisms for ultra-high speed networks, network design with high reliability, and methods for measuring and controlling network traffic.

3. Proposals for cybersecurity analysis technology using NII-SOCS data

We are accepting proposals related to analysis technology using malware information and statistically processed attack information for which there are around 1 billion cases per day collected by NII Security Operation Collaboration Services (NII-SOCS), which is run by NII. Examples include technology for inferring the state and trends in damage that occurs from a comparison of static/dynamic analyses of malware with attack information, technology for inferring attacks where damage is expected to occur and the risk levels from attack information, technology for ameliorating the impact of cyberattacks, and technology for anonymizing attack detection information.

4. Proposals for establishing a research data management system in universities in the era of open science

Research data governance for ensuring institutional compliance and the acceleration of research

through the reuse of research data are essential for the realization of open science. The Sixth Basic Plan for Science, Technology and Innovation sets targets of establishing a data policy by 2025 for all universities and the like that have an institutional repository, and introducing a data management plan (DMP) by 2023 for public research grants. The Japanese universities are pressured to establish research data management systems. On this theme, we are accepting proposals related to methods for introducing research data management to universities, such as the issues, motives and strategies universities apply when working on research data management, related regulations and systems needed inside and outside the university, systems for assuring effective operation, installation of infrastructure, and applications in research activities.

5. Proposals for infrastructure for building and utilizing "datasets" as research resources

A research dataset comprises data that have been prepared after overcoming various social, systemic, and technical limitations so that the data can be shared among researchers. How to build environments for creating and using such a research dataset in a way that is easy and valuable has become an important problem. On this theme, we are accepting proposals related to the construction of research datasets, both methods for performing the construction process itself, and frameworks for sharing datasets that can coexist with the above limitations. Examples include preparing, building, and adding value to shareable datasets, constructing a platform for sharing datasets with a protection function, and designing systems for sharing datasets.

6. Proposals for CPS/IoT services and system platform design for realizing more efficient activities in society

The government has detailed the importance of cyber-physical systems (CPS) at the societal level, such a system being a fusion of the real world with the information world, as a foundation for Society 5.0, which is expected to offer visualization of society through analysis of data obtained by real-world sensing, more efficiency social systems through feedback to the real world, and the creation of new value. On this theme, we are accepting proposals for novel CPS/IoT application services covering various social activities, as well as proposals related to designing a cutting edge ICT system platform for realizing such services. This research also includes investigating methods for quantitatively measuring the effects of newly provisioned

services and new problems related to more advanced CPS system platforms (such as data collection methods, data management and analysis base systems, mechanisms for feedback to the real world that ensure that these are integrated together and are dependable) to enable such measurements.

7. Proposals for quality engineering technology for uncertain AI and CPS/IoT systems

There is great demand for social implementation of AI systems and CPS/IoT systems to operate at a deep level with people, society, and the physical world. In these systems, there is a demand for less clearly defined yet broadly reaching qualities such as safety, ethics, and governance in the real world. In addition, there is a need for quality engineering for unconventional implementation technologies such as deep learning and optimization. We are accepting proposals to merge and develop conventional software engineering principles and technologies for this problem. Examples include requirements engineering, testing, failure analysis, debugging, cause and effect analysis, runtime monitoring, and risk analysis for supporting the uncertainty of AI systems and CPS/IoT systems.

8. Proposals for technologies and methods for promoting digital innovation in education and research

Japan is currently directly facing problems that include a decreasing birthrate and an aging population with the accompanying reduction in the working-age population, and there is a trend that our education and research levels are deteriorating relative to other countries. In response, we are accepting proposals for technology and methods for promoting digital innovation in education and research for resolving this situation. Specifically, on this theme, we are seeking proposals to address a wide range of problems, including not only fundamental technology for increasing the quality of remote and online education, and base technology for remote and smart research, but also proposals for innovative technology for utilizing learning data and realizing learning assistance, and proposals for methods based on practical research and new ideas.

9. Proposals for algorithms and programming for quantum information processing

A wide variety of quantum computers operating in different ways and having different characteristics are currently being developed. There are also a variety of requirements to effectively use these quantum computers, including limitations and characteristics in hardware architectures, and device noise properties, and it has become important to have information processing for overcoming the deficiencies in current quantum computers. Furthermore, even large-scale quantum information processing is composed of logical quantum bits and logical

quantum gates that have a more digital character, which greatly differs from current quantum computers. The middleware, languages, compilers, etc., that will be needed in large-scale quantum information processing have appeared as a new problem. We are anticipating research proposals that will form the foundation of a new field of study through the application of modern information processing from current quantum computers to future large-scale quantum information processing.

10. Proposals for base technologies related to synthetic media for realizing a people-centric AI society

AI learns from information originating from humans, such as faces, audio, bodies, and natural languages, and is becoming more capable of creating synthetic media that are easily mistaken for the real thing. Synthetic media are expected to be used in a wide variety of fields from communication to entertainment, and we are expecting the establishment of high-quality synthetic media generation technology. However, one of the negative aspects of synthetic media is the possibility of fake media such as fake video, fake audio, and fake documents generated and distributed by malicious actors and attackers with the goal of fraud, spreading misleading ideas, and manipulation of public opinion, becoming a social problem. On this theme, we are accepting research proposals related to new technology and methods for generating synthetic media, detecting synthetic media generated for malicious purposes, and ensuring the reliability of media covering the diverse modalities of faces, audio, bodies, natural language, etc., in order to realize a human-centric AI society.

11. Proposals for research into communication assistance technology for supporting a diverse range of working styles

The diversification of working styles has been advanced by the coronavirus pandemic, with many people now working from a variety of locations including companies, homes, and rental offices. As a result, the places where people collaborate with each other are not limited to only the physical space of their company, and a transition has started to new spaces that are a mixture of virtual spaces and physical spaces. Against this background, ensuring smooth communication between people has also become important for maintaining and developing spaces for collaborative work that are enriching and inspire creativity. On this theme, we are accepting research proposals related to communication assistance technology for this kind of environment. Examples include proposals for a wide range of informatics and information technology, including communication technology that maintains the feeling of place and time even in a diverse range of communication environments without any feeling of discomfort, interaction

technology that seamlessly connects physical space with virtual space, and evaluation methods for these technologies.

12. Proposal for research on accelerating knowledge infrastructure with generative AI and large-scale language models

The expectations for generative AI technologies have risen significantly, thanks to the widespread adoption of machine learning in image generation and dialogue systems. In particular, the advancements of Large-scale Language Models (LLMs) have delivered significant breakthroughs in natural language processing, such as natural language text generation and understanding of semantic meaning of text, addressing unresolved issues, and discovering interrelated knowledge beyond human cognitive limits. This theme aims to solicit innovative research topics related to generative AI and LLMs. For instance, we are interested in proposals that focus on learning algorithms that balance computational efficiency with model quality, domain-adaptive LLMs to enhance inference performance in specific expert domains, multilingual and multimodal capabilities, which may include models designed for indigenous languages, and exploration of practical applications of these technologies in real-world scenarios. Moreover, we welcome challenging research topics that contribute to the creation of knowledge infrastructure, such as advancing the generalization capabilities of generative AI, elucidating mathematical principles underlying creativity, understanding and mitigating biases, hallucinations, and other phenomena associated with the construction of knowledge infrastructure.

Guidelines for Filling in the "National Institute of Informatics Open Collaborative Research 2024 - Application Form (Form 1)"

Delete the gray text from the digital file of Form 1 and provide the details in black font at an easy-to-read size.

Furthermore, please delete these guidelines for filling in the form before submitting Form 1.

Submit a digital version (Microsoft Word file) of the application form by uploading it to JROIS.

JROIS: https://jrois2.rois.ac.jp/

[1. Applicant (principal investigator)]

(1) Write the affiliated institution name, etc., including also the research school and department names.

(2) Write their age as of April 1, 2024.

[2. Research topic]

(1) Select one of the categories ("strategic", "meeting", "free") and indicate by filling in the box "■".

(2) For "strategic", select the research theme from "List of Strategic Research Themes (Exhibit 2)", and fill in the strategic research theme number and strategic research theme name.

(3) We actively support collaborative research that includes researchers from overseas research institutions among the collaborating researchers ("international collaborative research") in order to promote international cooperation. Refer to point (5) in 9 below, and fill in the box "■" if it corresponds to international collaborative research.

(4) Fill in the **research topic name concisely (up to around 50 characters)**.

[3. Approval from institution]

(1) **Obtain approval from the institution to which the applicant (principal investigator) belongs in advance, and write the job title and name of the institutional representative.**

(2) If obtaining approval from an institutional representative is difficult, you can submit the application form instead of the approval from an immediate supervisor, etc., of the institution. However, in this case, you may need to provide a confirmation letter at a later date showing that the institution approves of performing this collaborative research.

[4. Terms of the application]

(1) **Make sure you agree with the terms in items ① to ⑤ before making the application. If you agree with these terms, fill in the box "■".**

[5. Methods, content, etc., of the research/meeting corresponding to the selected research topic]

(1) Fill in the specific details indicated in each of the fields.

[6. State of selection of research topic related to the current application in open collaborative research at our institute in the last 5 years/State of applications for funding from within your affiliated institution and competitive research grants (grants-in-aid for scientific research, etc.) conducted by external institutions based on the results of the above research topic (past 5 years)]

(1) Fill in by adding sequential numbers (1, 2, 3, ...) starting from the newest.

(2) If you had any research topics related to the current research topic selected for open collaborative research at our research institute in the last 5 years, provide the details. If you filled in item (3) or (4) in [5. Methods, content, etc., of the research/meeting], then you must also fill in the information for that research topic.

(3) If you have made applications for funding from within your affiliated institution or competitive research grants (grants-in-aid for scientific research, etc.) conducted by external institutions **based on the results of previously successful topics in open collaborative research at our institute**, you must fill in the details.

[7. Research results of the applicant (principal investigator) (past 5 years)]

(1) List the main research papers over the last 5 years related to the current research topic **in order from the newest** with sequential numbers (1, 2, 3, ...) attached (up to 5 items). **Write an asterisk "*" in front of the name of the lead author of the research paper. Write the**

publication year in addition to the volume number. If the publishing journal is an electronic journal, also write the DOI and URL, or if it is a paper journal, write the page numbers. Printouts do not need to be provided.

(2) List the main presentations at academic conferences, etc., over the last 5 years related to the current research topic **in order from the newest** with sequential numbers (1, 2, 3, ...) attached (up to 5 items). If the presentation information is listed on a website, write the URL.

(3) If you do not have any research papers or conference presentations, write a related employment history, etc.

[8. Collaborative research expenses]

(1) Write the expenses divided into "travel expenses", "expenses related to participating in academic conferences, etc.", "journal submission and posting fees, etc.", and "other expenses" by referring to the expense categories written in 10. Collaborative research expenses in the application guidelines.

(2) For "Meeting", expenses are limited to "travel expenses" when holding the meeting and payment of remuneration to invited speakers (including online talks).

(3) For "travel expenses", include only the travel expenses, and for participation fees such as for academic conferences, include the "expenses related to participating in academic conferences, etc."

(4) If the details in the application differ significantly from actual budget usage, they might not be accepted as research expenses.

(5) Expenses related to purchasing goods that contain consumables cannot be disbursed from collaborative research expenses.

[9. Corresponding member and collaborating researchers]

(1) For the corresponding member, make arrangements in advance of the applications, and do not submit the application until after approval has been obtained to conduct the research.

(2) In the collaborating researcher field, provide information about all of the people who are planning to participate, including collaborating researchers from NII and researchers, graduate students, etc., from universities and companies. If the corresponding member is a collaborating researcher, fill in their details in both the corresponding member field and the collaborating researchers field. Note that, as described in the application guidelines, university undergraduate students and technical college undergraduate and associate degree students do not meet the requirements as collaborating researchers.

(3) For collaborating researchers other than from this research institute, obtain confirmation that the institutions to which each of the collaborating researchers belong consent to them participating in the collaborative research and publication in the annual report, etc., of this research institute. (Please note that writing the details will be treated as consent. The same applies for the applicant (principal investigator).)

(4) You must include the contact e-mail address, since notifications from this research institute will be sent by e-mail in principle. Write the telephone number as well, since this may be used as an alternative means of contact.

(5) For collaborating researchers who belong to overseas research institutions, fill in the box "■" for "overseas" and write the country name (or region name). If any of the collaborating researchers correspond to this, also fill in the box "■" for "International collaborative research" in "2. Research topic".

[10. Survey]

(1) Please answer some questions to help us with managing and running the National Institute of Informatics open collaborative research in the future (multiple choices are allowed). Note that the answers will have absolutely no bearing on whether an application is successful.

- Ends -

Form 1

National Institute of Informatics Open Collaborative Research 2024 - Application Form

Year: Month: Day:

To Director General, National Institute of Informatics
Inter-University Research Institute Corporation Research Organization of Information and Systems

[1. Applicant (principal investigator)]

Address of affiliated institution, etc.	〒○○○－○○○○ ○○ prefecture ○○ city …		
Name of affiliated institution, etc.	Fill in the affiliated institution, research school, and department. ○○ University ○○ School of …		
Job title	Professor/Associate professor/Assistant professor/Research fellow/・・・		
(Reading for Japanese names)	（○○○　○○○）	Gender (Fill in either box "■")	Male□ Femal e □
Name	○○○　○○○	Age	XX years (as of April 1, 2024)
T E L	○○－○○○○－○○○○		
E - m a i l	xxxxx@xxxxxxxx		

I am applying for the research topic described below in accordance with the conditions listed in the "National Institute of Informatics Open Collaborative Research 2024 - Application Guidelines". I will submit the designated results report after the research has finished.

[2. Research topic]

Category	□ Strategic □ Meeting □ Free (Fill in one of the boxes "■". For "strategic", also fill in the fields below.)	
(Fill in for the case of strategic)	Theme number	Theme name
	Strategic research theme number	Strategic research theme name
Research topic name		
International collaborative research	□ (Fill in the box "■" if there are any overseas research institution members among the collaborating researchers. Refer to 9. Collaborating researchers.)	

[3. Approval from institution]

Your research institution described above approves of the application for collaborative research.

Institution name ○○ University

Job title/name Dean ○○ ○○

Although this can be substituted with the approval of an immediate supervisor, etc. (a person who does not have the right to represent the institution), in this case, you may need to provide a confirmation letter at a later date showing that the institution approves of performing this collaborative research.

[4. Terms of the application]

The applicant (principal investigator) must agree to the following terms regarding the research topic in the application before making the application. Furthermore, the applicant (principal investigator) should ensure that all of the collaborating researchers (including the corresponding member) participating in the research topic adhere to the following items. Note that foreign collaborating researchers are asked to read through or take courses as much as possible corresponding to points ④ and ⑤ below by using the English language versions.

① Information such as personal information and information that is not planned to be made public should be handled appropriately under your own responsibility in accordance with laws, etc.

② In addition to the above, adhere to related rules and regulations and implement measures as needed by society when performing your own research.

③ Based on "Guidelines for the Management and Auditing of Public Research Funds in Research Institutes (Standards for Practice)" (established by the Minister of Education, Culture, Sports, Science and Technology on February 15, 2007 and amended on February 1, 2021), be fully aware of the public mandate for academic research and the fact that collaborative research expenses are covered by the limited taxes paid by the people, and promise to utilize the collaborative research expenses appropriately and efficiently and not perform any illicit activities during the research.

④ Before starting the collaborative research, read through the research ethics training material designated by the Ministry of Education, Culture, Sports, Science and Technology (For the Sound Development of Science: The Attitude of a Conscientious Scientist, Editing Committee "For the Sound Development of Science", Japan Society for the Promotion of Science) (*1), study the research ethics training e-learning provided by the Association for the Promotion of Research Integrity (APRIN) (*2), and study the research ethics training provided by your affiliated institution based on the "Guidelines for Responding to Misconduct in Research" (established by the Ministry of Education, Culture, Sports, Science and Technology on August 26, 2014).

(*1) https://www.jsps.go.jp/english/e-kousei/ethics.html

(*2) https://edu.aprin.or.jp/

⑤ Before starting the collaborative research, take training, etc., related to security export controls as conducted by your affiliated institution, or take the "e-learning for teaching staff at universities and research institutions related to secure export controls" published by the Ministry of Economy, Trade and Industry (*3).

(*3) https://www.meti.go.jp/policy/anpo/englishpage.html

(If you agree with the above terms, change the open box "□" to a filled box "■".) □ I agree with the above terms.

[5. Methods, content, etc., of the research/meeting corresponding to the selected research topic] You can make the answer boxes bigger as needed.

(1) Goals of research/meeting

Provide specific details of the goals of the research/meeting.

(2) Methods and content of research/meeting

Provide specific details of the methods and content of the research/meeting. For a meeting, also include how you hope to link this to informatics.

(3) Novelty and uniqueness of research/meeting

Provide specific details of the novelty and uniqueness of the set research topic. If a topic related to the currently set research topic was previously selected for open collaborative research in our research institute, clearly state the differences. Note that, in principle, only applications for novel research topics are permitted for the meeting type.

(4) Relationship with open collaborative research 2023 (only if applicable)

If an application related to the currently set research topic was selected for the National Institute of Informatics Open Collaborative Research 2023, provide specific details of the relationship with the set research topic.

(5) Expected effects of the research/meeting and future prospects after selection

Provide specific details of the expected effects of the research/meeting and future prospects after selection.

[6. State of selection of research topic related to the current application in open collaborative research at our institute in the last 5 years/State of applications for funding from within your affiliated institution and competitive research grants (grants-in-aid for scientific research, etc.) conducted by external institutions based on the results of the above research topic (past 5 years)]

If you had any research topics related to the current research topic selected for open collaborative research at our research institute in the last 5 years, provide the details. If you filled in item (3) or (4) in [5. Methods, content, etc., of the research/meeting], you must also fill in the information for that research topic.

You can increase the number of answer boxes as needed if you have a record of multiple successful applications. List them in order from the newest and attach sequential numbers.

Sequence number			
Year	○○ Year		
Open category (Fill in one of the boxes "■")	□ Strategic	□ Meeting	□ Free
Topic name	"Research into ○○○○"		

If you have made applications for funding from within your affiliated institution or competitive research grants (grants-in-aid for scientific research, etc.) conducted by external institutions based on the results of previously successful topics in open collaborative research at our institute, you must fill in the details. If you have multiple applications for funding, increase the number of answer boxes below and attach sequential numbers.

Sequence number				
Year				
Competitive research grant, etc. name	Write, for example, grant-in-aid for scientific research (A/B/C).			
State (Fill in one of the boxes "■")	□ Planning to apply	□ Application in progress	□ Granted	□ Rejected
Applicant name	Write the name of the person who applied for the competitive research grant.			
Participation type	Write the type of participation (principal, joint leader, collaborating researcher, etc.) of the applicant (principal investigator) of this open collaborative research in the applied competitive research grant.			
Research topic name	Provide as much information as possible.			
Other information	Provide as much information as possible.			

Sequence number					
Year					
Competitive research grant, etc., name	Write, for example, grant-in-aid for scientific research (A/B/C).				
State (Fill in one of the boxes "■")	□ Planning to apply	□ Application in progress	□ Granted	□ Rejected	
Applicant name	Write the name of the person who applied for the competitive research grant.				
Participation type	Write the type of participation (principal, joint leader, collaborating researcher, etc.) of the applicant (principal investigator) of this open collaborative research in the applied for competitive research grant.				
Research topic name	Provide as much information as possible.				
Other information	Provide as much information as possible.				

[7. Research results of the applicant (principal investigator) (past 5 years)] You can make the answer boxes bigger as needed.

List the main research papers, presentations at academic conferences, etc., over the last 5 years related to the current research topic in order from the newest with sequential numbers attached (up to 5 items).

Write an asterisk "*" in front of the name of the lead author of the research paper.

(1) Research papers

Sequence number		Peer reviewed? (Fill in one of the boxes "■")	□ Yes	□ No	
Research paper title					
Author, coauthor names					
Publishing journal name					
Publication year, volume number, page numbers	If an electronic journal, write the DOI or URL.				
Institutional repository publication information	Published? (Fill in one of the boxes "■")	□ Yes	□ No		
	If yes, also write the DOI/URL.				

(2) Presentations at academic conferences, etc.

Sequence number		Peer reviewed? (Fill in one of the boxes "■")	□ Yes	□ No	
Actual presenter name					
Joint presenter name					
Presentation title					
Presentation conference name					
Host name					
Date held and location	Write the country name, state, location held, etc.				
Web information such as presentation slides	Has information? (Fill in one of the boxes "■")	□ Yes	□ No		
	If yes, also write the DOI/URL.				

(3) If you do not have any research papers or academic conference presentations, write a related employment history, etc.

[8. Collaborative research expenses]

For “travel expenses”, include only the travel expenses, and for participation fees such as those for academic conferences, include the “expenses related to participating in academic conferences, etc.”

If the details in the application differ significantly from actual budget usage, they might not be accepted as research expenses.

Breakdown

Category	Details	No. of items	Amount	Remarks
Travel expenses				
Expenses related to participating in academic conferences, etc.	Do not fill in for “meeting”.			
Journal submission and posting fees, etc.	Do not fill in for “meeting”.			
Other expenses				
Total	**<Note> The annual limits for the application amounts are 1.5 million yen for strategic, 800,000 yen for meeting, and 1 million yen for free.**			

[9. Corresponding member and collaborating researchers]

For collaborating researchers other than from this research institute, obtain confirmation that the institutions to which each of the collaborating researchers belong consent to them participating in the collaborative research and publication in the annual report, etc., of this research institute (please note that writing the details will be treated as consent).

You must include the contact e-mail address, since notifications from this research institute will be sent by e-mail in principle. Write the telephone number as well, since this may be used as an alternative means of contact.

(1) Corresponding member Write the researcher from NII

Name	○○ ○○			
Affiliation (Fill in one of the boxes “■”)	□ Principles of Informatics Research Division	□ Information Systems Architecture Science Research Division	□ Digital Content and Media Sciences Research Division	□ Information and Society Research Division
Job title	Professor/Associate Professor/Assistant Professor			
Fill in the box “■” on the right after obtaining approval from the corresponding member to conduct the research.	□			

(2) Collaborating researchers You can add more rows as needed.

Provide information about all of the people who are planning to participate, including collaborating researchers from NII, and researchers, graduate students, etc., from universities and companies. If the corresponding member is a collaborating researcher, fill in their details in both the corresponding member field and the collaborating researchers field. Note that, as described in the application guidelines, university undergraduate students and technical college undergraduate and associate degree students do not meet the requirements as collaborating researchers.

For collaborating researchers who belong to overseas research institutions, fill in the box "■" for "Overseas" and write the country name (or region name). Also fill in the box "■" for "International collaborative research" in "2. Research topic".

(Japanese reading) Name	Affiliated institution, department, etc., job title (For overseas affiliated institutions, fill in the box "■" for "Overseas" and write the country or region name)			Age (As of April 1, 2024)	Gender (Fill in one of the boxes "■")	TEL・E-mail	
	Affiliated institution, department, etc.	Job title	Overseas				
(□□□□ □□) □□□□ □□	○○ University ○○ School	Professor	□ (Country or region)	xx years old	□ Male □ Female	T E L E-mail	xx-xxxx-xxxx xxxxx@xxxxxxxx
(▲▲ ▲▲) ▲▲ ▲▲	▲▲ Company ▲▲ Division	Researcher	□ (Country or region)	xx years old	□ Male □ Female	T E L E-mail	xx-xxxx-xxxx xxxxx@xxxxxxxx
(○○ ○○) ○○ ○○	○○ Research Lab ○○ Division	○○ Researcher	□ (Country or region)	xx years old	□ Male □ Female	T E L E-mail	xx-xxxx-xxxx xxxxx@xxxxxxxx

[10. Survey]

Please answer the following questions to help us with managing and running the National Institute of Informatics open collaborative research in the future (multiple answers are allowed).

Note that the answers will have absolutely no bearing on whether your application is chosen.

1. How did you find out about this open collaborative research 2023? Fill in the boxes "■" for all matching answers.
   - A. The website of the National Institute of Informatics □
   - B. The email magazine of the National Institute of Informatics □
   - C. SNS such as Twitter/Facebook (Note: This is not limited to the official account of the National Institute of Informatics) □
   - D. Advertising or portal site, etc., such as a noticeboard within your institution □
   - E. The website of an academic society □
   - F. The public information website of a research fund, etc. □
   - G. Introduction from member of the National Institute of Informatics □
   - H. Introduction from boss, colleague, friend, acquaintance, etc. □
   - I. Other (please write freely in the field on the right) [ ]
2. If there were any points that you noticed, etc., about this open collaborative research 2023, please write them freely.

   [ ]

- End -

Guidelines (Draft) for Filling in the "2024 NII Open Collaborative Research Results Report (Form 2)"

Delete the gray characters written into the digital file of Form 2 and fill in the form using black text of an easily readable size.

Furthermore, when submitting Form 2, delete these guidelines for filling in the form.

Submit a digital version (Microsoft Word file) of the results report by uploading it to JROIS.

JROIS: https://jrois2.rois.ac.jp/

[1. Basic Information]

(1) Write in the information as at the end of the research period (March 31, 2025).

(2) For the affiliation, write in detail down to the affiliated institution, graduate school, department, etc.

(3) Write down the information for all participants including NII collaborating researchers, university and corporate researchers, and graduate students in the collaborating researcher column. If the corresponding member is a collaborating researcher, fill in their details in both the corresponding member field and the collaborating researchers field. However, note that **undergraduate students as well as technical college undergraduate and associate degree students are not included in the requirements for collaborating researchers** as described in the application guidelines.

[2. Overview of research and meeting results]

(1) Write around **300 to 500 characters of text that can also be easily** understood by the general public so that it can be used for various publicity materials, including the 2024 NII Annual Report, and for answering inquiries about the research content.

[3. Details of research and meeting results]

(1) Write down the **specific** details of the results. It is acceptable to include figures, tables, etc.
Furthermore, although you can also attach PDF files to the results report as attached reference material, even if you do this, you must also write the details in the body text (note that if you do attach reference material, assign a filename that makes it clear that the material is for "3" and submit it together with the results report file by uploading to JROIS).

[4. State of cooperation with collaborating researchers]

(1) Write down the state of holding research planning, research meetings, etc. (dates, locations, participants, details, etc.). This can also be complemented with separate attachments such as reports created after the meetings were held.

[5. State of applications for research grants from within the affiliated institution/competitive research funds with this collaborative research as a step]

(1) **You must fill in the state of applications for research grants from within the affiliated institutions of the applicant (principal investigator)/collaborating researchers and competitive research funds (Kakenhi Grants-in-Aid, etc.) held by external institutions with this collaborative research as a step. Write down items where the result has already been determined, where the application is in progress, and where the application will be made in the future. If you are making an application for the next year's open collaborative research at our institute, also write down that information.** Furthermore, write down the sequential numbers (1, 2, 3, ...) in order from the newest. Note that we are planning to conduct an additional scrutiny of the selection status, etc., around September to October 2025. We ask for your cooperation.

[6. Published results]

(1) Write down details about thesis publications and conference publications according to the items. Thesis publications include conference proceedings and bulletins. Furthermore, write down sequential numbers (1, 2, 3, ...) **in order from the newest**. Write an asterisk (*) in front of the name of the lead author. In addition to the journal volume number, **also write down information about the year of publication.** Additionally, if the publishing journal is a digital journal, also include the DOI and URL, and for a paper journal, also include

the page numbers. Note that we are planning to conduct an additional scrutiny around September to October 2025. We ask for your cooperation.

[7. Industrial property rights (patents, etc.), demonstration experiments, events held, etc.]

(1) If you have applied for any patents, etc., related to this collaborative research or held any demonstration experiments or events related to this collaborative research, fill in that information. Furthermore, write down sequential numbers (1, 2, 3, ...) in order from the newest. Note that we are planning to conduct an additional scrutiny around September to October 2025. We ask for your cooperation.

[8. Future prospects]

(1) Write down details about future prospects regardless of whether or not the collaborative research can be continued.

(2) **If you have not applied for any competitive research funding, etc., in item "5", write down specifically how you will take the next step.**

[9. Details about activities that do not correspond to the above items]

(1) If there are any activities, etc., that do not correspond to the above items, write them down.

- End -

Form 2

2024 National Institute of Informatics Open Collaborative Research Results Report (Draft)

Year: Month: Day:

To Director General, National Institute of Informatics
Inter-University Research Institute Corporation/Research Organization of Information and Systems

[□ Strategy □ Meeting □ Free] Type Select the items that match and delete the other items.
2024 Open collaborative research, grant number [ ] Write down the research project number written in the grant notification.

[1. Basic information] Write down the information as at the end of the research period (March 31, 2025).

(1) Applicant (principal investigator)

Name	○○ ○○
Affiliation	Write in detail down to the affiliated institution, graduate school, department, etc.
Job title	Professor/Associate Professor/Assistant Professor/Researcher/...

(2) Faculty responsible for correspondence Write down the NII researcher.

Name	○○ ○○			
Affiliation (Fill in (■) one option)	□ Principles of Informatics Research Division	□ Information Systems Architecture Science Research Division	□ Digital Content and Media Sciences Research Division	□ Information and Society Research Division
Job title	Professor/ Associate Professor/ Assistant Professor			

(3) Collaborating researchers Detail columns can be added if needed.

Write down the information for all participants including university and corporate researchers, graduate students, and NII collaborating researchers. If the corresponding member is a collaborating researcher, fill in their details in both the corresponding member field and the collaborating researchers field. Undergraduate students as well as technical college undergraduate and associate degree students are not included in the requirements for collaborating researchers.

(Japanese reading) Name	Affiliated institution, division, etc., and job title	
(□□□□ □□) □□□□ □□	Affiliated institution, Division, etc.	□□ University □□ Department
	Job title	Professor
(▲▲ ▲▲) ▲▲ ▲▲	Affiliated institution, Division, etc.	▲▲ Company ▲▲ Division
	Job title	Researcher
(○○ ○○) ○○ ○○	Affiliated institution, Division, etc.	○○ Research Laboratory ○○ Division
	Job title	○○ Researcher
(○○ ○○) ○○ ○○	Affiliated institution, Division, etc.	○○ University ○○ Research Division
	Job title	Associate Professor
(○○ ○○) ○○ ○○	Affiliated institution, Division, etc.	○○ Research Laboratory ○○ Research Division
	Job title	Assistant Professor

[2. Overview of research and meeting results] (required)

Write down text that can also be easily understood by the general public so that it can be used for various publicity materials, including the 2024 NII Annual Report, and for answering inquiries about the research content (around 300 to 500 characters).

[3. Details of research and meeting results] (required)

It is acceptable to include figures, tables, etc. Furthermore, although you can also attach PDF files to the results report as attached reference material, even if you do this, you must also write the details in the body text (note that if you do attach reference material, assign a filename that makes it clear that the material is for "3" and submit it together with the results report file by uploading it to JROIS).

[4. State of cooperation with collaborating researchers]

Write down the state of holding research planning, research meetings, etc. (dates, locations, participants, details, etc.). This can also be complemented with separate attachments such as reports created after the meetings were held.

[5. State of applications for research grants from within the affiliated institution/competitive research funds with this collaborative research as a step] (required, also includes cases where not selected)

Detail columns can be added if needed.

You must fill in the state of applications for research grants from within the affiliated institutions of the applicant (principal investigator)/collaborating researchers and competitive research funds (Kakenhi Grants-in-Aid, etc.) held by external institutions with this collaborative research as a step.

Write down items where the result has already been determined, where the application is in progress, and where the application will be made in the future. Furthermore, write down the sequential numbers (1, 2, 3, ...) in order from the newest.

If you are making an application for the next year's open collaborative research at our institute, also write down that information.

Sequential number					
Year	2024/2025				
Competitive research fund name	Write down, for example, Grants-in-Aid for Scientific Research Foundation Research (A, B, C).				
Status (Fill in (■) one option)	□ Planning to apply	□ Application in progress	□ Granted	□ Rejected	
Applicant name	Write down the name of the person who made the application for the competitive research fund.				
Participation type	Write down the participation type (principal investigator, co-investigator, collaborating researcher, etc.) of the applicant (principal investigator) of this open collaborative research in the competitive research funding that was applied for.				
Research project name	Please fill in as much as possible.				
Other information	Please fill in as much as possible.				

[6. Published results] Detail columns can be added if needed. Furthermore, write down the sequential numbers (1, 2, 3, ...) in order from the newest.

(1) Write an asterisk (*) in front of the name of the lead author of thesis publications.

(1) Thesis publications (including conference proceedings and bulletins)

Sequential number		Peer reviewed? (Fill in (■) one option)	□ Yes	□ No
Thesis title				
Author and coauthor names				
Publishing journal name				
Publication year, volume no., pages		For the case of a digital journal, also write down the DOI or URL.		
Institutional repository publication information		Published? (Fill in (■) one option)	□ Yes	□ No
		If yes, also write down the DOI/URL.		

(2) Conference presentations

Sequential number		Peer reviewed? (Fill in (■) one option)	□ Yes	□ No
Actual presenter name				
Co-presenter names				
Presentation title				
Conference name				
Organizer				
Date and location held		Write down the country name, state, location where held, etc.		
Web information such as presentation slides		Has information? (Fill in (■) one option)	□ Yes	□ No
		If yes, also write down the DOI/URL.		

(3) Awards and other

Sequential number		Item name	
Items related to results		If you have any information related to awards and other results, write it down.	

[7. Industrial property rights (patents, etc.), demonstration experiments, events held, etc.] Detail columns can be added if needed.

If you have applied for any patents, etc., or held any demonstration experiments or events related to this collaborative research, write down that information. Furthermore, write down the sequential numbers (1, 2, 3, ...) in order from the newest.

(1) Industrial property rights (patents, etc.)

Sequential number		
Application/registration? (Fill in (■) one option)	□ Application	□ Registration
Inventor		
Rights holder		
Type		
Number		
Date of application/registration		
Domestic/International? (Fill in (■) one option)	□ Domestic	
	□ International	Country name:

(2) Demonstration experiments, events held, etc.

Sequential number	
Date held	
Title	
Details/results	
Location where held	

[8. Future prospects] (required)

Write down details about future prospects regardless of whether or not the collaborative research can be continued. Furthermore, if you have not applied for any competitive research funding, etc., in item “5”, write down specifically how you will take the next step.

[9. Details about activities that do not correspond to the above items]

If there are any activities, etc., that do not correspond to the above items, write them down.

- End -

Ver. 2.3

Form 3

Year: Month: Day:

Fill in using the name of the applicant (principal investigator).

To Director General, National Institute of Informatics
Inter-University Research Institute Corporation/Research Organization of Information and Systems

Affiliation
Job title
Name

National Institute of Informatics Open Collaborative Research
Application for Adding/Removing Collaborating Researchers

Please accept this application to make the following changes to the open collaborative research.

Details

1.	Procedure type (Fill in (■) one option)	☐Add	☐Remove	
2.	Grant number			
3.	Research title			
4.	Collaborating researcher to add or remove (★1)	Name		
		Age	Years	
		Gender (Fill in (■) one option)	☐Male	☐Female
		Affiliated institution, graduate school, department, division, etc.		
		Job title		
5.	Desired date of effect of this application (★2)	Year: Month: Day:		

- End -

*Submit to kyoudou@nii.ac.jp by email.
*If you are making changes for multiple people, fill in and submit this form for each person.
(★1) The requirements for collaborating researchers are as follows. (Excerpt from application guidelines)
① Researchers who belong to universities, junior colleges, technical colleges, inter-university research institutes, etc., both domestic and international, corresponding researchers, and graduate students
② Researchers who belong to private companies in Japan
(★2) Fill in a date that is on or after the submission date of this application form.

Ver. 2.2

Form 4

Year: Month: Day:

Fill in using the name of the applicant (principal investigator).

To Director General, National Institute of Informatics
Inter-University Research Institute Corporation/Research Organization of Information and Systems

Affiliation
Job title
Name

National Institute of Informatics Open Collaborative Research
Application for Changing Affiliation and Job Title of Applicant (Principal Investigator)/Collaborating Researcher

Please accept this application to make the following changes to the open collaborative research.

Details

1.	Procedure type (Fill in (■) one option)	☐Change applicant (principal investigator)		☐Change collaborating researcher
2.	Grant number			
3.	Research title			
4.	Applicant (principal investigator)/collaborating researcher for whom to change their affiliation	Name		
		Affiliation/job title before change	Affiliated institution, graduate school, department, division, etc.	
			Job title	
		Affiliation/job title after change	Affiliated institution, graduate school, department, division, etc.	
			Job title	
5.	Date of change (★)	Year: Month: Day:		

- End -

*Submit to kyoudou@nii.ac.jp by email.

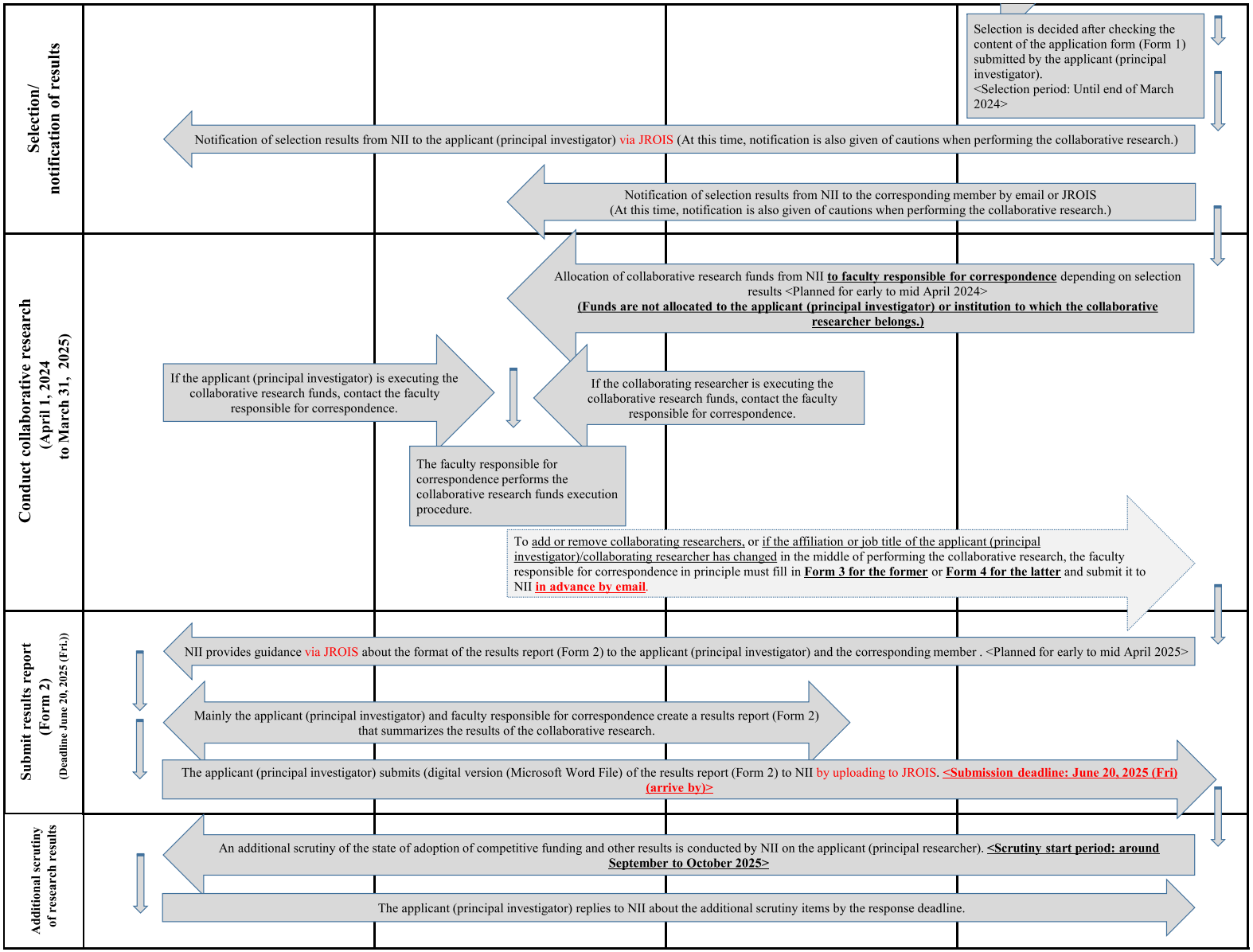
*If you are making changes for multiple people, fill in and submit this form for each person.

(★) Fill in the date when the personnel transfer, etc., occurred.

Appendix

Overall flow (Advance preparation - Submit application form - Selection/notification of results - Conduct collaborative research - Submit results report - Additional scrutiny of research results)

	Applicant (Principal Investigator)	Faculty Responsible for Correspondence	Collaborating Researchers	Open Collaborative Research Coordinator, Office for Social Collaboration, Planning Division, General Affairs Department, NII
	① Researchers who belong to universities, junior colleges, technical colleges, inter-university research institutes, etc., in Japan, corresponding researchers, and graduate students (limited to adult graduate students) ②Researchers who belong to private companies in Japan	Faculty described in Exhibit 1	① Researchers who belong to universities, junior colleges, technical colleges, inter-university research institutes, etc., both domestic and international, corresponding researchers, and graduate students **(does not include undergraduate students or technical college undergraduate and associate degree students)** ② Researchers who belong to private companies in Japan	[Contact details] 2-1-2 Hitotsubashi, Chiyoda-ku, Tokyo 101-8430, JAPAN E-mail: kyoudou@nii.ac.jp TEL: 03-4212-2139 URL: https://www.nii.ac.jp/research/collaboration/koubo/
Advance preparation - Submit application form (Form 1) (Submission deadline: December 1, 2023 (Fri.))	Consultation about conducting collaborative research from applicant (principal investigator) to faculty responsible for correspondence **Approval for conducting collaborative research from faculty responsible for correspondence to applicant (principal investigator)** Planning of details of collaborative research between applicant (principal investigator) and faculty responsible for correspondence Consultation about conducting collaborative research from applicant (principal investigator) (or faculty responsible for correspondence) to collaborating researchers (candidates) Approval for conducting collaborative research from collaborating researchers (candidates) to applicant (principal investigator) (or faculty responsible for correspondence) **Investigation of detailed content of collaborative research and details written in application form (Form 1) mainly by the applicant (principal investigator) and faculty responsible for correspondence** The applicant (principal investigator) creates the application form (Form 1) **and submits a digital version (Microsoft Word file) of the application form (Form 1) via uploading to JROIS** to the Open Collaborative Research Coordinator, Office for Social Collaboration, Planning Division, General Affairs Department, NII (hereinafter "NII"). **<Submission deadline: December 1, 2023 (Fri.) (arrive by)>** [Notes] 〇When using JROIS, it may be necessary to create a new account. Refer to the user manual for details of the operation. JROIS: https://jrois2.rois.ac.jp/ (The user manual can also be downloaded from here.) 〇 **Obtain the approval of the institution to which the applicant (principal investigator) belongs in advance and fill in the position and name of the institution representative.** 〇 Engage in planning with the corresponding member, and always **obtain approval** to perform the research **before making the application**. 〇 For collaborative researchers outside of this research institute, confirm and fill in that they have approval from the institutions to which each collaborating researcher belongs to participate in this collaborative research and publish in the annual report, etc., of this research institute. (Please note that filling this in shall be treated as approval. The same applies for the applicant (principal investigator).)			


Selection/ notification of results
Selection is decided after checking the content of the application form (Form 1) submitted by the applicant (principal investigator).
<Selection period: Until end of March 2024>
Notification of selection results from NII to the applicant (principal investigator) via JROIS (At this time, notification is also given of cautions when performing the collaborative research.)
Notification of selection results from NII to the corresponding member by email or JROIS
(At this time, notification is also given of cautions when performing the collaborative research.)
Conduct collaborative research (April 1, 2024 to March 31, 2025)
Allocation of collaborative research funds from NII to faculty responsible for correspondence depending on selection results <Planned for early to mid April 2024>
(Funds are not allocated to the applicant (principal investigator) or institution to which the collaborative researcher belongs.)
If the applicant (principal investigator) is executing the collaborative research funds, contact the faculty responsible for correspondence.
If the collaborating researcher is executing the collaborative research funds, contact the faculty responsible for correspondence.
The faculty responsible for correspondence performs the collaborative research funds execution procedure.
To add or remove collaborating researchers, or if the affiliation or job title of the applicant (principal investigator)/collaborating researcher has changed in the middle of performing the collaborative research, the faculty responsible for correspondence in principle must fill in Form 3 for the former or Form 4 for the latter and submit it to NII in advance by email.
Submit results report (Form 2)
(Deadline June 20, 2025 (Fri.))
NII provides guidance via JROIS about the format of the results report (Form 2) to the applicant (principal investigator) and the corresponding member . <Planned for early to mid April 2025>
Mainly the applicant (principal investigator) and faculty responsible for correspondence create a results report (Form 2) that summarizes the results of the collaborative research.
The applicant (principal investigator) submits (digital version (Microsoft Word File) of the results report (Form 2) to NII by uploading to JROIS. <Submission deadline: June 20, 2025 (Fri) (arrive by)>
Additional scrutiny of research results
An additional scrutiny of the state of adoption of competitive funding and other results is conducted by NII on the applicant (principal researcher). <Scrutiny start period: around September to October 2025>
The applicant (principal investigator) replies to NII about the additional scrutiny items by the response deadline.