

## Explanatory Notes on Yokohama National University Policy on Management and Publication of Research Data

Approved by President on March 21, 2024

The purpose of this document is to explain the meaning, background, etc. of the terms contained in the preamble and Sections 1 through 6 of the Yokohama National University Policy on Management and Publication of Research Data (hereinafter “this Policy”).

As its fundamental principles, Yokohama National University (hereinafter “the University”) aims to uphold the practicality, innovation, openness, and internationality inscribed in the University Charter as the spirit the University has fostered throughout its history since its foundation, value diversity, and make continuous efforts to establish an important foothold in international scholarly research and education.

To this end, we will flexibly respond to changes in society by appropriately managing research data produced in the process of research activities at the University, make it publicly available and facilitate its utilization, and, by mobilizing diverse academic and practical knowledge, promote advanced research to contribute to the intellectual development of humankind.

Based on the above fundamental principles, this Policy aims to establish the basic policy on the utilization of research data at the University.

### (1) Purpose and Background of Development of the Policy

In the University Charter and the fundamental principles, Yokohama National University sets out the principles of “practicality,” meaning solving actual, real-world problems by putting theory into practice, “innovation,” meaning encouraging new endeavors, “openness,” meaning opening its doors widely to society, and “internationality,” meaning fostering exchanges with other nations, as the spirit the University has fostered throughout the history since its foundation, values “diversity,” meaning that every person is respected and empowered, and declares that it will make every effort to establish a strong footing in academic research and education in the world. Based on the intent of this University Charter, the University has established this Policy.

The current international trend is toward treating research data itself as research outputs and offering open access to such data. Funding agencies and the Cabinet Office are also making requests regarding the handling of research data. The Cabinet Office’s 6th Science, Technology, and Innovation Basic Plan (approved by the Cabinet in June 2021) specifies the aims that 100% of universities with institutional repositories will have in place their research data policies by 2025, and that all new subscriptions of publicly offered research funds will introduce data management plans (DMPs). Moreover, inconvenience may arise if research data is transferred between institutions that have research data policies in place and those that do not.

Under such circumstances, we have decided to formulate a research data policy that provides general guidelines for us to respond to future changes in scientific distribution and support researchers’ research activities at the University.

### (2) Operating Rules for Research Data

Research fields and projects are so diverse that it is difficult to handle the management and disclosure of all research data in a uniform manner. Taking into consideration differences in the characteristics of each research field, it is desirable that each section, etc. of the University takes specific initiatives, such as the

details and procedures of policies, rules and the like for the purpose of facilitating the management, storage and utilization of research data as set forth in this Policy as necessary.

[Reference] Relevant internal rules

国立大学法人横浜国立大学共同研究取扱規則（平成 16 年 4 月 1 日規則第 371 号）

国立大学法人横浜国立大学受託研究取扱規則（平成 16 年 4 月 1 日規則第 372 号）

国立大学法人横浜国立大学研究成果有体物取扱規則（平成 16 年 4 月 1 日規則第 373号）

国立大学法人横浜国立大学利益相反マネジメント規則（平成 23 年 1 月 20 日規則第 2号）

国立大学法人横浜国立大学における公正な研究活動の確保等に関する規則（平成19年規則第 8 号）

国立大学法人横浜国立大学におけるライフサイエンス研究等の実施に関する規則（平成19年規則第105号）

国立大学法人横浜国立大学科学研究費助成事業取扱要項（平成16年4月1日規則第379号）

(Definition of Research Data)

1. Research data to which this Policy applies means any data, digital or non-digital, collected or generated through research activities by researchers of the University.

(1) Examples of Research Data

Research data to which this Policy applies includes data collected or generated by external researchers through their research activities at the University as a result of their participation in collaborative research or their use of our facilities or equipment, etc. However, since the extent to which this Policy should apply differs depending on such factors as the characteristics of each research field, the nature of research data, and a research implementation system, researchers will take those factors into account and appoint a research data administrator through consultation with researchers of other institutions, and have the administrator decide the scope of application of this Policy.

Not only primary data collected or generated as research material but also processed data or analytical data created by analyzing or processing that data are included. Materials explaining such data are also included. Numbers, images, text, samples and any other form of data are included. Examples are shown below:

Observational data

Clinical trial data

Survey data

Laboratory notebooks

Audiovisual information such as audio and video

Programs

Photographs

Samples

Historical materials

Metadata (data that describes managed data), and other materials, etc.  
used to create the metadata

(Reference) Metadata to be attached to managed data is as follows:

Metadata (data that describes managed data)	Common Metadata Elements	<ol style="list-style-type: none"> <li>1. Funder information (mandatory*)</li> <li>2. Funding Stream Code in Japan Grant Number (optional) Program name (optional)</li> <li>3. Grant number (mandatory*) Project name (mandatory*)</li> <li>4. Data No. (mandatory)</li> <li>5. Title (mandatory)</li> <li>6. Date (issued/updated) (mandatory)</li> <li>7. Description (mandatory)</li> <li>8. Research field (mandatory*)</li> <li>9. Data type (mandatory)</li> <li>10. File size (optional)</li> <li>11. Data utilization and provision policy (mandatory) Access rights (mandatory) Available date (mandatory)</li> <li>12. Repository information (mandatory) Repository URL/DOI link (optional)</li> <li>13. Creator name (optional) Creator name identifier (e-Rad) (optional)</li> <li>14. Hosting institution (mandatory) Hosting institution code (optional) Data manager (mandatory) Data manager identifier (e-Rad) (optional) Data manager contact information (mandatory)</li> <li>15. Remarks (optional)</li> </ol>
	Items required by funders	
	Items required by hosting institutions	

- “Mandatory\*”...In the event of publicly funded research activities

- Created by 「ムーンショット型研究開発制度におけるメタデータ説明書(第3版)」

(2023/3/31 内閣府 科学技術・イノベーション推進事務局)

[https://www8.cao.go.jp/cstp/ms\\_metadatainstructions.pdf](https://www8.cao.go.jp/cstp/ms_metadatainstructions.pdf)

(2) Handling of research data acquired at another institution to which the researcher used to belong  
Even academic data collected or generated by researchers of the University at other institutions to which they used to belong will be governed by this Policy if they retain such data while they belong to the University.

(Definition of Researchers)

2. In this Policy, “researchers” means those engaged in research at the University including faculty members, students, and invited researchers of Yokohama National University.

(1) Definition of Researchers

Researchers include not only those in an employment relationship with the University (whether full-time or part-time) but also students and researchers invited to the University in accordance with the regulations formulated by the University.

(Researchers' Rights and Obligations)

3. Researchers are authorized to manage research data and obliged to manage research data in accordance with its legal and ethical requirements, contracts, etc.

(1) (Management of Research Data)

As specified in the Basic Approach to the Management and Utilization of Publicly Funded Research Data published by the Ministry of Education, Culture, Sports, Science and Technology on April 27, 2021, "managed data" refers to research data generated during publicly funded research and development whose scope subject to management and utilization is determined by researchers in accordance with standards, etc. of institutions including universities or funders.

Managed data will be managed along with the metadata describing the managed data. Researchers will determine whether it is possible to disclose and share managed data as follows, and thereby promote its utilization.

Open access data: Research data that are open in general and can be used by anyone

Restricted access data: Research data that are available for a limited number of people who have access rights, such as co-researchers

Metadata only access data: Research data that are neither published nor shared

Research data	Data subject to retention	Digital	Managed data	Open access
				Restricted access
				Metadata only access
		Data outside scope of management		
	Non-digital			
	Data outside scope of storing			

(2) Specific flow of research data management

- Prepare a data management plan (DMP).
- Determine whether research data collected or generated must be retained or not.
- Determine the scope of "managed data."
- Prepare "metadata" relating to "managed data."

- Divide “managed data” into “open access data,” “restricted access data,” and “metadata only access data.”
- Publish “open access data.”

(3) Retention period of research data

The Yokohama National University Regulations on Ensuring of Fair Research Activities, etc. (effective from April 1, 2007) stipulates that “each researcher will retain materials related to the preparation of research outputs, etc. (such as documents, electronic data) for ten (10) years after the publication of the outputs, and samples related to the preparation of research outputs, etc. (such as experimental samples, specimens, etc.) for five (5) years after the publication of the outputs. However, if it is difficult or extremely costly in nature to retain data and if there is an unavoidable reason, the data may be disposed of within a reasonable extent.”

(4) Matters superseding the promotion of utilization of research data

Some research data contains data that is subject to intellectual property rights, including copyright, data that is subject to the Personal Information Protection Act, or the like. Such data is protected by law, and the related rights must automatically take precedence over this Policy. Regarding contracts for collaborative, funded research or other contracted research, such contractual terms will prevail.

However, it is necessary to appropriately manage even research data not to be retained or disclosed while such data are in use.

(5) Transfer of management authority of research data

Management authority of research data may be transferred to an individual or organization subject to the agreement with the counterparty within the scope of laws, regulations, contracts, etc. However, it is necessary to give due consideration to the handling of the authority so as not to interfere with future research activities at the University.



(Disclosure and Utilization of Research Data)

4. Researchers will make efforts to facilitate the utilization of research data under their control by such means as its disclosure, while examining the value of such data, the characteristics of the research field, and any other necessary matters as appropriate.

(1) Promotion of utilization of research data

Research data after the end of research will be disclosed appropriately based on judgement based on the open and closed strategy and the disclosure will be made in accordance with the FAIR Data Principles.

In addition, it is required to take into consideration such matters as research field, laws and regulations, contracts, and characteristics of the data, and make judgment whether or not to disclose in each case.

The following table shows the combinations of access rights for metadata and managed data:

	Combinations of Open Access and Restricted Access					
Metadata	Open access			Restricted access		Metadata only access
Managed data	Open access	Restricted access	Metadata only access	Restricted access	Metadata only access	Metadata only access

Created by 「ムーンショット型研究開発制度におけるメタデータ説明書（第2版）」

（2021 / 9 / 13 内閣府 科学技術・イノベーション推進事務局）

[https://www8.cao.go.jp/cstp/ms\\_metadatainstructions.pdf](https://www8.cao.go.jp/cstp/ms_metadatainstructions.pdf)

(2) Place of disclosure

We expect open access platforms such as the institutional repository provided by the University to be utilized. However, this does not apply if a file size is too large, or if field-specific repositories are widely used in that research field.

## 【Reference】 FAIR data principles

### Preamble

One of the grand challenges of data-intensive science is to facilitate knowledge discovery by assisting humans and machines in their discovery of, access to, integration and analysis of, task-appropriate scientific data and their associated algorithms and workflows. Here, we describe FAIR – a set of guiding principles to make data Findable, Accessible, Interoperable, and Reusable. The term FAIR was launched at a Lorentz workshop in 2014, the resulting FAIR principles were published in 2016.

### To be Findable:

- F1. (meta)data are assigned a globally unique and eternally persistent identifier.
- F2. data are described with rich metadata.
- F3. (meta)data are registered or indexed in a searchable resource.
- F4. metadata specify the data identifier.

### To be Accessible:

- A1 (meta)data are retrievable by their identifier using a standardized communications protocol.
  - A1.1 the protocol is open, free, and universally implementable.
  - A1.2 the protocol allows for an authentication and authorization procedure, where necessary.
- A2 metadata are accessible, even when the data are no longer available.

### To be Interoperable:

- I1. (meta)data use a formal, accessible, shared, and broadly applicable language for knowledge representation.
- I2. (meta)data use vocabularies that follow FAIR principles.
- I3. (meta)data include qualified references to other (meta)data.

### To be Re-usable:

- R1. (meta)data have a plurality of accurate and relevant attributes.
  - R1.1. (meta)data are released with a clear and accessible data usage license.
  - R1.2. (meta)data are associated with their provenance.
  - R1.3. (meta)data meet domain-relevant community standards.

(University's Responsibility)

5. The University will create an environment that promotes the management, storage, and utilization of research data and provide support.

(1) Examples of the University's Responsibility

Specific examples are as shown below:

- a. Provision and support for building of a digital platform designed to manage research data
- b. Support for development and implementation of data management plans (DMPs)
- c. Provision of open access platforms such as institutional repositories on which research data is made publicly available
- d. Support for preparation of metadata when disclosing research data
- e. Support for contractual, legal affairs, etc. regarding research data
- f. Provision of information, advice, and opportunities for education and research regarding research data management and disclosure

(Other Matters)

6. This Policy may be reviewed from time to time according to changes in society and academic circumstances.