



GHENT UNIVERSITY POLICY FRAMEWORK ON RESEARCH DATA MANAGEMENT¹

(approved by the Board of Governors on 2 September 2016)

INTRODUCTION

This policy framework gives an outline of the premises in dealing with research data at Ghent University. It is a general policy which defines basic principles and responsibilities. It should enable researchers and students to carefully manage their scientific research data.

The Policy Framework on Research Data Management (RDM) concerns all interventions in the research process which lead to high-quality, securely and sustainably stored research data, their findability, and – where possible and appropriate – their continued accessibility and reusability. RDM covers the planning and implementation of the collection, processing, analysis, organization, storage, documentation, archiving, destruction, sharing, and reuse of data. It is evident that the manner in which RDM is best applied largely depends on the type of research data used. For example, research data can be subject to certain conditions and regulations because of legal aspects (such as intellectual property rights, rights of third parties owing to contractual agreements, and legal provisions regarding privacy-sensitive data), or because of logistic and ICT-related aspects, etc. Therefore, it will not always be possible or desirable to proceed with all RDM interventions in the same way with respect to all research data.

The premises in this policy framework take account of national and international RDM developments, and the implementation will happen gradually, based on a roadmap¹. Moreover, the implementation will be addressed in a qualitative but cost-effective manner. This policy framework is also contextualized by a websection on RDM on the Ghent University intranet

(<https://www.ugent.be/en/research/datamanagement>), where an updated collection can be found of basic information, general best practices and further details on specific university-wide procedures, available tools and support.

The Ghent University Policy Framework on RDM should be read in conjunction with the [Ghent University Policy Plan on Research Integrity](#), the [Ghent University Open Access Policy and](#)

¹ this document was inspired by research data policies of various foreign research institutions, particularly in the Netherlands and the United Kingdom

[Deposit Mandate](#), the [Generic Code of Conduct for the Processing of Personal Data and Confidential Information](#), de [Vision on Information Security at Ghent University](#), the AUGent Research Regulations, the [Valorisation Regulations](#) and the Policy Framework Information and Archive Management (see below Appendix A).

1. OBJECTIVES

Ghent University aims to expand and optimize its quality assurance of research, and aspires to reach an RDM that meets the highest quality standards within the international research context. This policy framework aims to develop and promote a solid management of research data, in order to increase the efficiency, quality, integrity and transparency of scientific research, as well as to facilitate the development of new knowledge, and to ensure compliance with relevant laws and regulations, ethical and contractual obligations, and provisions of external research funders.

2. BASIC PRINCIPLES

2.1. Ghent University acknowledges that a solid data management is an integral part of good research practices and that the University, as an institution, is responsible for promoting and facilitating high standards of research data management in its researchers.

2.2. Ghent University acknowledges that research data are in themselves valuable forms of scientific output, which – as far as possible - need to be made accessible to the research community and potentially the general public, in order to enable the verification of scientific research, as well as the development of new knowledge and the generation of impact through data reuse.

2.3. However, Ghent University also acknowledges that access to research data should be (temporarily) restricted in certain circumstances, particularly in order to protect personal data or other confidential or sensitive information, to seek protection for research results subject to valorisation under intellectual property right (e.g. patents), or to comply with contractual obligations when the research data are the subject of third-party contracts (such as Research and Service Agreements, or Material Transfer Agreements).

3. SCOPE

This policy framework applies to the research data used by researchers as part of their research at Ghent University.

3.1. **Research Data** are defined as all information collected, created, or obtained from third parties by researchers to be analyzed with the purpose of generating, verifying and validating original scientific claims, irrespective of their form or the method of data collection. They can be raw, processed to a greater or lesser extent, or analyzed, and can adopt a digital or non-digital form.

3.2. The term **Researchers** refers to the staff members, students and persons with a different connection to the University who conduct scientific research at the University. The term comprises statutory and contractual staff members at Ghent University and doctoral students funded by Ghent University, as well as externally financed, unpaid and/or voluntary researchers hosted by Ghent University, and master students (as part of their master's thesis).

For a glossary of the other terms used in this policy framework, see Appendix B.

4. RESPONSIBILITIES

The management of research data is a shared responsibility between individual Researchers, Faculties and the Central Administration of Ghent University. The implementation of good data management practices requires a strong collaboration between all parties involved.

4.1. Central Administration creates the preconditions for good data management and is committed to the gradual development of a university-wide service and infrastructure for data management. This entails, inter alia, the provision of mechanisms and procedures for the storage, registration, archiving of, and – where appropriate – access to research data, as well as of general (i.e. non-discipline-related) data management guidelines, training, advice and support to faculties and individual researchers.

4.2. Given the wide differences in research data types and associated practices and requirements between and within the different fields of research at Ghent University, it is advisable for Faculties to take initiatives to encourage and support their researchers to carefully manage research data in accordance with the general RDM policy framework. Faculties can here play a coordinating role and should ensure an efficient transmission of general data management information between the central level and the research community. Moreover, they can complete and complement the university-wide policy with faculty-specific RDM guidelines, procedures, training and advice, taking into account local, domain-specific needs and practices. It belongs to the individual competence of each Faculty to adequately establish - within the overall policy framework - the internal roles and responsibilities for data management (support).

4.3. All researchers are primarily responsible for the careful management of the research data they collect, generate, and/or obtain from third parties, in accordance with the following provisions, in order to ensure that the data are reliable, secure, sustainable, findable, and – where possible – openly accessible.

Master and doctoral students, and unpaid and/or voluntary researchers are also responsible for the proper management of their research data, albeit under the supervision of their research mentor, supervisor or coordinator. If required, their responsibilities are stipulated in a specific agreement.

4.4. When researchers leave the University, the research data they collected or generated at Ghent University and the accompanying documentation must be preserved during the relevant retention period and must remain accessible to the University (see paragraph 12 and 13), unless alternative arrangements have been made in this respect in a contract with a third

party. Moreover, research results that are subject to valorisation (including the underlying research data collected or generated by the researcher) are the property of Ghent University.

Researchers cannot simply leave the University taking with them the (only copy of) the research data collected or generated at Ghent University, but need to make prior arrangements with their research mentor, supervisor, or coordinator on where these research data will be retained, for whom they will be accessible, and how they are allowed to be used in the future. In this respect, intellectual property rights in these research data need to be taken into account (see paragraph 6).

Prior written agreements will always have to be made with master students and unpaid and/or voluntary researchers.

Agreements with respect to research data in the event of the researcher's departure are preferably made at the start of a research project and documented, for example in a data management plan (see paragraph 8).

4.5. Researchers who work on a research project in a team or with external partners, make – preferably at the start of the research project – (written) agreements, in order to clarify who is responsible for the management of the concerned research data. Projects with external partners are always the subject of a contract which is negotiated via the [TechTransfer](#) Unit of Ghent University.

4.6. Further development of RDM policy as well as the monitoring of its implementation will take place within the university-wide Working Group on Research Data Management. Besides representing the relevant central services, this working group also seeks to proportionally represent the different Faculties.

5. EXTERNAL OBLIGATIONS

5.1. Research data management must always respect relevant laws and regulations (e.g. on the protection of personal data and other confidential data, or on intellectual property rights...), ethical codes, and/or contractual obligations with third parties, as well as the requirements included in the applicable regulations of external research funders (e.g. FWO, European Commission...).

5.2. If the external research funding regulations or the contracts with third parties impose more stringent or specific data management requirements, these will always override this policy framework's provisions.

6. INTELLECTUAL PROPERTY RIGHTS IN RESEARCH DATA

6.1. Given the wide variety of research data within and between different fields of research and the broad definition of research data in this policy framework, it is possible that research data – or at least the form in which they are expressed or arranged – are protected by copyright and/or database right. For example, this might be the case for research data which were

textually or visually captured in a creative and original manner, or for research data collections. Where required, researchers need to take these rights and the concerned right holders into account in their data management practices (for example in the context of data sharing: see paragraph 12).

6.2. Research data which are not obtained from third parties but generated by the researchers themselves during the research process are research results (which should be interpreted as everything which originates from research realized by researchers in the context of their relationship with Ghent University and/or using university resources or facilities, and is therefore not limited to the final results of the research process, such as scientific publications). When research data are research results that are subject to technology transfer as defined by the Ghent University Regulations on Research Transfer, they must be reported to the [TechTransfer Office of Ghent University](#) prior to any kind of publication, in order to examine whether these research data can be subject to technology transfer or are protected by intellectual property rights, such as patents. Given the fact that the property rights in these research results in principle belong to Ghent University, it is the TechTransfer Office which will – in consultation with the concerned researcher – decide how these research data will be dealt with (e.g. protection through registration or patenting, valorisation as confidential knowhow).

6.3. When the research is funded by external research funders or when the research is done in collaboration with a third – whether or not commercial – party, the intellectual property rights in the research data must be recorded in a written agreement prior to the start of the research project.

7. PERSONAL DATA

Researchers can only collect personal data that are relevant to their research objectives (data minimization). Researchers who use personal data as research data are co-responsible for the correct treatment and protection of these personal data in accordance with national and European privacy law, as specified in the [Generic Code of Conduct for the Processing of Personal Data and Confidential Information](#) and in the [Vision on Information Security of Ghent University](#). They must respect the basic principles of privacy protection: purpose limitation, proportionality, transparency, correct retention period, and secure destruction (after the retention period has expired). Technical and organizational measures to ensure secure storage and secure processing (e.g. anonymizing, pseudonomizing, or encrypting) must be provided.

8. DATAMANAGEMENT PLANNING

Researchers should - prior to or at the start of a research project - plan how they will manage their research data, both during and after their research. This is preferably done in a data management plan (DMP) (see Appendix B).

9. DOCUMENTATION

Research data should be accompanied by the necessary documentation. Adequate documentation includes all contextual and descriptive information necessary to understand how research data were generated, processed and analyzed, in order to interpret, find, and reuse them. Researchers should take account of any possible (international) standards in their disciplines for documenting research data (e.g. the use of certain metadata schemas).

10. STORAGE OF RESEARCH DATA

Research data and accompanying documentation must be securely stored and processed during the research project, in order to prevent loss, ensure confidentiality where necessary, and avoid unauthorized changes.

The [Tips for safely working with IT](#) in the context of the Ghent University information security policy are essential guidelines.

11. RETENTION AND DESTRUCTION OF RESEARCH DATA

11.1. Unless provided otherwise either by legal, contractual, ethical or other specific obligations, or by requirements of external research funders, relevant research data and accompanying documentation must be retained for a minimum of 5 years after completion of the research project or the project funding, or after publication of the conclusions based on the data (the latest date is applicable here).

11.2. Research data and accompanying documentation which were selected for retention are archived in a suitable storage facility and in an appropriate manner to ensure secure, long-term retention and accessibility (with appropriate access rights).

Preferably, the research data and documentation selected for retention are deposited in a reliable archive (“data repository”), listed in re3data.org, the international register of research data repositories, if appropriate access regimes can be guaranteed (see paragraph 12). In time, Ghent University aims to develop its own system for the long-term retention of research data. When researchers deposit research data in an external archive, they must supply metadata (including a link to the data in the external archive) for these research data in Biblio, the Ghent University institutional repository.

Researchers who are supervised (e.g. master students, doctoral students, unpaid and/or voluntary researchers) must submit any possible plan to deposit research data in an archive to their research mentor, supervisor, or coordinator.

11.3. When research data are deleted or destroyed, for example because they were not selected for retention, the retention period has expired, or due to legal (contractual obligations) or ethical reasons, this should always be done in compliance with the relevant legal, contractual, ethical, or other specific obligations and with particular attention to confidentiality and security (especially when it concerns personal data and other confidential or sensitive information). The destruction of research data should always be documented.

12. ACCESS TO RESEARCH DATA

12.1. Ghent University requires research data in their rawest possible form along with the accompanying documentation to be accessible within the own institution for review in the context of scientific integrity. This concerns both access to research data during the research project, and access to archived research data during the applicable retention period.

Archived research data which were collected or generated at Ghent University should remain accessible for further research and education within the University during the applicable retention period.

When dealing with confidential research data (e.g. personal data), the necessary precautions need to be taken (where necessary in consultation with the Ghent University Data Protection officer) to ensure that access to these data is limited to a minimum of authorized persons and confidentiality of the data is guaranteed.

12.2. In order to maximize the verification and validation of published scientific claims and the reuse of research data in new research, education, or innovation projects..., researchers are urged to make relevant research data and accompanying documentation openly and timely available to the wider research community and possibly the general public, i.e. data sharing.

Researchers who are supervised (e.g. master students, doctoral students, unpaid and/or voluntary researchers) must submit any possible plan to share research data to their research mentor, supervisor, or coordinator.

12.3. However, sometimes there are legitimate reasons to introduce restrictions on data sharing, for example in order not to jeopardize the protection and valorisation of research results, to respect the confidentiality of research data, or to comply with contractual obligations included in agreements with third parties.

In those cases, it may be necessary to only share research data after the expiration of an embargo period, or only make them available under more restricted conditions (e.g. only for certain purposes or only to authorized users).

12.4. Before proceeding with data sharing, it will therefore always be necessary to check whether there is no infringement of the relevant applicable law, contractual obligations, ethical codes, demands of an external research funder and/or internal university regulations (e.g. the regulations on the protection of personal data and other confidential or sensitive information).

Appendix A. Relevant Ghent University Documents

- [Vision on Information Security at Ghent University](#),
- [Generic Code of Conduct for the Processing of Personal Data and Confidential Information](#)
- [Guidelines for the classification of information and data](#)
- [Tips for safely working with IT](#)
- [Tips for safe system administration](#)
- AUGent Research Regulations
- Policy Framework Information and Archive Management
- [Valorisation Regulations](#)
- [Ghent University Policy Plan on Research Integrity](#)
- [Ghent University Open Access Policy and Deposit Mandate](#)

Appendix B. Glossary

Data archiving: the transfer of relevant research data to facilities suitable for long-term storage (and accessibility).

Data sharing: the process of making research data accessible and available for reuse to the general research community and possibly the general public, whether or not under certain conditions.

Data Deposit: a form of data archiving, in which relevant research data are presented to and deposited with a reliable data archive (or data repository) for long-term retention (and accessibility).

Data Management Plan (DMP): a formal document which specifies how research data will be managed during and after a specific research project. The document deals with various topics, such as the type of research data that will be collected, the method of documentation, the organization and storage, the plans for the retention/destruction and sharing of research data, taking into account the nature of the data and the restrictions which may be required.

Documentation: any descriptive and contextual information required to find, understand, and correctly use research data. Documentation should in principle allow other researchers to discover research data, assess their potential, understand them, and possibly reuse them.

Metadata (or “data about data”): a highly structured, digital form of data documentation which facilitates the discoverability and use of research data. Metadata are composed of elements (such as title, author, date, topic, language, format...) from a fixed list provided by a specific metadata schema. Some research areas have their own metadata schemas. Metadata are also used by data repositories to catalogue research data.

Raw Data: refers to the unprocessed source data, i.e. research data before being processed or manipulated for analysis. Raw data are the original data obtained directly from an instrument, a survey, the internet, or another source.

Processed Data: these are the research data resulting from any kind of processing or manipulation of raw data – however minimal – in order to prepare them for analysis. Examples of processed data are anonymized data (which no longer contain personal details), cleaned data, annotated data, etc.

Analyzed Data: these are research data resulting from the analysis of the processed data and which can be incorporated or converted into graphs, tables or charts.