



Research Data Management (RDM) Policy			
Policy Group(s):	B: Teaching and Learning F: Technology, Partnerships, Research and Planning		
Type:	Policy	<input checked="" type="checkbox"/>	Guideline
	Procedure	<input type="checkbox"/>	Regulation
CPUT Statute and/or regulation reference no. and date:	Government Gazette No.33202 of 17/05/2010		
Relevant legislation and/or policy, codes of practice, professional authorities:	<ul style="list-style-type: none"> • Patents Act 57 of 1978, Regulations (GG 6247 of 15/01/1978) • South African Copyright Act 98 of 1978 • Counterfeit Goods Act 37 of 1997 • Competition Act 89 of 1998 • Electronic Communication and Transaction Act 25 of 2002 • Protection of Personal Information Act 4 of 2013 • Promotion of Access to Information Act 2 of 2000 • The 2019 White Paper on Science, Technology and Innovation • CoreTrustSeal • Committee on Data for Science and Technology (CODATA) • Research Data Alliance (RDA) • Data Intensive Research Initiative of South Africa (DIRISA) • National Archives and Record Service of South Africa Act 43 of 1996 		
Relevant institutional policies/ documents/manuals/ handbooks	<ul style="list-style-type: none"> • Policy on Intellectual Property and Innovations • Research Policy • Community Engagement Policy • Open Access Policy • Research, Technology Innovation and Partnerships: Ten-Year Blueprint • Information Security Policy • Electronic Communication Policy • Research Data Deposit Guidelines • Data Management Plan Guidelines • Privacy Policy • Information Security Policy • Strategic Plan 2021 – 2030 One Smart CPUT • Promotion of Access to Information Manual 		
Policy reference and version number:	5/7/P; 8/1/P; 8/3/P		

Consultation Process To be verified and signed off before approval		Request to initiate the creation of this policy was submitted to ManCom on 11 March 2020. This was approved. The formation of the Policy Working Group (PWG) started with the nomination of 18 staff members on 6 May 2020 across Departments of Research, Technology Innovation and Partnerships (RTIP), Faculties, Libraries and the Quality Management Directorate (QMD). Most of the nominees agreed to form part of the PWG. The PWG was reviewing two policies, the Open Access (OA) and Research Data Management (RDM) policies. The first meeting took place on 7 August 2020 and further subsequent meetings were held on 11 September 2020, 15 September 2020, 9 December 2020, 5 March 2021, 8 March 2021 and 17 March 2021. The Blue Paper was finalized on 17 March 2021, and circulated via Newsflash on 19 March 2021, with 9 April 2021 as the due date for comments. One comment was received during this period and one definition. The PWG met on 13 May 2021 to discuss these and conclude the process by issuing a White Paper.			
Policy Owner		DVC: Research, Technology Innovation & Partnerships			
Compliance Officers		Director: CPUT Libraries			
Certification of Due process: To be verified and signed once approved by the relevant authority		 _____ Vice-Chancellor		04.10.2021 _____ Date	
Approval Date	To be inserted	Commencement Date	To be inserted	Review Date	To be inserted

REVISION HISTORY: Only applicable to amended or reviewed policies. Record details of amendments/revision.					
Version No.	Approved/ Rescinded	Date	Approving Authority	Resolution Number/ (Minute number)	Date for next review (start date for review process)
2.0					
1.0	Approved	2015	Vice-Chancellor		

For office use only	
Policy Group (Broad policy field)	Governance and Administration
Subject (Policy sub-field)	Research Data Management Policy
Reference Number	5/7/P; 8/1/P; 8/3/P
Version Number	2

Key Words:	Curation, data curation, data management, Data Management Plan (DMP), data reuse, digital duration, preservation, research data, research records, Research Data Management (RDM)
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POLICY STATEMENT	
1.0 Intent	<p>The Cape Peninsula University of Technology (CPUT) recognizes the value of the research data generated across all the research activities under its jurisdiction and wishes to ensure that this data is of a world-class standard and can be freely accessed and re-utilized for scientific advancement and human development. CPUT also recognizes that good practice in data management is key to an efficient and effective research process. It is essential for enabling and safeguarding the longevity and continuing intelligibility of data, and for ensuring that sensitive data is handled in compliance with all relevant ethical and legal requirements. Preserving the data that underpins research outputs, whether it is shared or not, is integral to research integrity and the reproducibility of results. There are benefits to the researcher, the University and the research community when research data is well managed, preserved and, where appropriate, made publicly available. Good research data management also responds to the Open Science and Open Data movements, which advocate transparency and efficiency in research as a way of accelerating the scientific enterprise. This policy is a direct response to the South African Government's 2019 White Paper on Science, Technology and Innovation, which seeks to strengthen the National System of Research and Innovation through the sharing of research outputs.</p> <p>The intent of this policy is therefore to establish the standards that govern the management of research data at CPUT.</p>

<p>2.0 Scope</p>	<p>2.1 This Policy applies to:</p> <p>2.1.1 All research conducted under the auspices of CPUT by all staff and registered students of the University.</p> <p>2.1.2 Visitors, in the absence of any written agreement to the contrary, who make use of CPUT resources and who through their use of CPUT resources generate research data.</p> <p>2.2 Limitations on scope</p> <p>2.2.1 The provisions for the deposit, access and re-use of all CPUT-generated research data are set out in the CPUT Libraries' Research Data Deposit Guidelines, Data Management Plan Guidelines and the CPUT Open Access Policy.</p> <p>2.2.2 The CPUT Open Access Policy sets out the terms, conditions and provisions for access to and re-use of research data owned by the university.</p> <p>2.2.3 The Research Data Deposit Guidelines set out the process and procedures to be followed when depositing research data in university repositories or other approved national or international repositories.</p> <p>2.2.4 Nothing in this Policy is intended to supersede or contradict any portion of the CPUT Policy on Intellectual Property and Innovations. To the extent that any research data, as defined below, also qualifies as intellectual property or innovation, all terms of the CPUT Policy on Intellectual Property and Innovations shall apply.</p> <p>2.2.5 The CPUT Policy on Intellectual Property and Innovations sets out the conditions for the automatic assignment of copyright to author(s) in situations where material is published. It is expressly noted that the assignment of copyright provided for in the CPUT Policy on Intellectual Property and Innovations does not extend to research data not included in the published work.</p>
<p>3.0 Objective(s)</p>	<p>The objectives of this policy are:</p> <p>3.1 To set out the University's requirements for Research Data Management.</p> <p>3.2 To promote the reproducibility of data in the interests of validity and progress in science.</p> <p>3.3 To ensure that researchers comply with institutional data management practices as outlined in the Research Data Deposit Guidelines and the Data Management Plan Guidelines.</p>

<p>4.0 Definitions and Acronyms</p>	<p>4.1 Data Management Plan (DMP): A Data Management Plan (DMP) is a formal document that outlines how data is to be handled, both during a research project and after the project is completed. The goal of a DMP is to consider the many aspects of data management, including data collection metadata generation, ethics and legal compliance, data storage and backup, data selection and preservation, data sharing and analysis before the project begins. This should lead to data being well managed in the present and prepared for preservation in the future.</p> <p>4.2 Embargoes: Banning the full-text publication of a document, usually for a defined period of time (<i>Oxford Pocket Dictionary of Current English</i>, 2008).</p> <p>4.3 Institutional Repository: Digital collections (hosted by CPUT Libraries) that capture and preserve the intellectual output of the University research community.</p> <p>4.4 Metadata: Data that provides information about the research output. In terms of scholarly communication, the output could be an article, book, creative work, dataset, etc. The metadata describes the authorship, provenance, publication location, date of publication, object type and so forth (UNESCO). In the case of research data, it describes the data, including how, where, when and by whom a particular set of data was collected, and how the data is formatted.</p> <p>4.5 Open Access (OA): refers to material that is digital, online, free of charge, and free of most copyright and licensing restrictions.</p> <p>4.6 Principle Investigator (PI) or Lead Researcher (LR): The Principal Investigator (PI) is responsible for conducting objective research that generates independent, high quality, and reproducible results. S/he is responsible for the management and integrity of the design, conduct, and reporting of the research project and for managing, monitoring, and ensuring the integrity of any collaborative relationships. The PI is responsible for the direction and oversight of compliance, and of financial, personnel, and other related aspects of the research project. The PI is also responsible for coordination with Faculty, Departmental, and central administration personnel to ensure that the research is conducted in accordance with government regulations and University and sponsoring agency policies and procedures.</p> <p>4.7 Research Data: Research Data, Primary Materials and Research Records include recorded, tangible or intangible research information, regardless of its form or the medium in which it is recorded, that is created or collected in the process of performing research, whether supported by University resources or by external funders.</p> <p>4.8 Research Data Management (RDM): Research Data Management (RDM) describes the organization, storage, preservation, and sharing of data collected and used in a research project. It involves the everyday management of research data during the lifetime of a research project (for example, using consistent file-naming conventions). It also involves decisions about how the data will be preserved and shared after the project is completed (for example, depositing the data in a repository for long-term archiving and</p>
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	<p>access).</p> <p>4.9 Research Data Repository: A repository that holds research data on the basis of the FAIR principles (a set of guiding principles aimed at making data findable, accessible, interoperable and reusable) (Wilkinson et al., 2016).</p> <p>4.10 Researcher: Any person undertaking research or involved in collecting, generating or creating Research Data, for or on behalf of the University.</p> <p>Abbreviations and acronyms CODATA – Committee on Data of the International Science Council CPUT – Cape Peninsula University of Technology DIRISA – Data Intensive Research Initiative of South Africa DVC – Deputy Vice-Chancellor ManCom – CPUT Management Committee NRF – National Research Foundation RDA – Research Data Alliance TTO – Technology Transfer Office (Technology Transfer and Industry Linkages)</p>
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<p>5.0 Policy, Procedure, Principles</p>	<p>5.1 Research Data Management as part of the research life cycle</p> <p>The effective management of the data generated during research projects is seen as an integral part of good research and innovation practice. The University recognises that the different types of output resulting from research are key assets and should be managed in a way that brings most benefit to the individual researcher, the University and society. Research data in its various forms can be seen as one such output.</p> <p>Researchers are responsible for ensuring that a signed agreement is in place prior to research involving multiple parties. The agreement must stipulate where the research data, primary materials and research records will be stored, access rights, ownership, retention and disposal.</p> <p>5.1.1 Research data will be managed according to local and international standards (e.g., CoreTrustSeal, RDA, CODATA, DIRISA) throughout the research lifecycle, including:</p> <p>5.1.1.1 Facilitation of research data sharing and collaboration</p> <p>5.1.1.2 Enhanced research data security and reduced risk of data loss</p> <p>5.1.1.3 Maximizing opportunities for new research based on the reuse and recombination of data from multiple sources, including data mining</p> <p>5.1.1.4 The principle of Open Science and Open Access for publicly-funded research outputs, as recognized by the University (and set out in the CPUT Open Access Policy)</p> <p>5.1.1.5 Improving the likelihood of success in future funding/grant proposals for data-intensive research</p> <p>5.1.1.6 Compliance with the requirements of research funders and any applicable regulatory requirements</p> <p>5.1.1.7 Compliance with the requirements of publishers</p> <p>5.1.2 All research proposals/plans should include a Data</p>
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	<p>Management Plan (DMP), including sufficient Metadata to aid discovery and in compliance with international FAIR principles (see Clause 4.9, above).</p> <p>5.1.3 Exclusive rights to research data should not be given to other bodies or parties without following institutional policies and/or contractual agreements.</p> <p>5.1.4 Researchers should prepare and maintain DMPs.</p> <p>5.1.5 All deposits should be centrally registered and stored in the University infrastructure for research data management, whether hosted on any other platform within the University or elsewhere.</p> <p>5.1.6 Research data should be retained for at least 10 years from the date of any publication, unless there are specific funder requirements in place.</p> <p>5.1.7 If research data is not retained it should be disposed of according to the University's Records Management guidelines.</p> <p>5.2 Access to research data</p> <p>The University has the right to access research data, primary materials and research records for all research that is either performed at the University, supported by University-administered funds, or conducted using University facilities, provided such access shall be for a reasonable cause, at reasonable times and after reasonable notice, except in the event of a bona fide emergency. The University's right of access shall continue regardless of the location of the Principal Investigator or of the research data, primary materials and research records.</p> <p>5.3 Legal and ethical considerations for the storage of data</p> <p>The responsibility for research data management through a sound Research Data Management Plan (DMP) during any research project or programme lies primarily with Principal Investigators, but all staff and students undertaking research within the University are responsible for managing their research data effectively. DMPs should take account of and ensure compliance with relevant legislative frameworks (e.g., NRF statements, National Archive, etc.) which may limit public access to the data (for example, in the areas of data protection, intellectual property and human rights).</p> <p>5.3.1 In projects involving contribution to the creation of research data by individuals from other organizations, the University must ensure that the contractual agreement underpinning the partnership clarifies who owns the research data.</p> <p>5.3.2 The contractual agreement envisaged in Clause 5.3.1 should also provide for a license for uploading the research data to the CPUT Research Data Repository, where necessary.</p> <p>5.3.3 In the event of there being no contractual agreement as envisaged in Clause 5.3.1, then attempts should be made to rectify the situation by implementing a suitable contractual agreement after the fact.</p> <p>5.3.4 In the event that the contractual agreement is deficient in specifying the ownership of the research data or the right to</p>
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	<p>upload such research data to the CPUT Research Data Repository, then the University should ensure that an Addendum to the contract is negotiated where such Addendum clarifies the deficiencies anticipated in this Clause.</p>
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<p>6.0 Responsibility</p>	<p>6. Roles and Responsibilities:</p> <p>The University acknowledges that the development, review and implementation of this policy is the joint responsibility of all Researchers.</p> <p>6.1 Principal Investigators (PI) / Lead researchers (LR)</p> <p>6.1.1 Responsible for the effective management of research data generated within or obtained from their research, including by their research groups. This shall include understanding and complying with the requirements of any relevant contract with or grant to the University that includes provisions regarding the ownership, preservation and dissemination of research data.</p> <p>6.1.2 Research data, primary materials and research records created or developed by researchers and the intellectual property in and associated with such research data, primary material and research records, are owned by the University, unless otherwise agreed in writing between the researcher and the University or the University and a third party.</p> <p>6.1.3 Researchers and specifically Principal Investigators are stewards and custodians of research data. If Principal Investigators choose to delegate responsibility within their research groups, they nevertheless remain accountable to the University for the stewardship of the data.</p> <p>6.1.4 Research data may be made available to other members of the CPUT community and/or to research collaborators at other institutions, as appropriate, at the discretion of the Principal Investigator, and subject to the terms of any applicable data use agreement, or other governing agreement, which outlines the security and confidentiality requirements and other terms of any sponsored agreement or human subjects' protection requirements.</p> <p>6.1.5 Transfer in the event of a researcher leaving CPUT (Appendix 1).</p> <p>6.1.5.1 If a member of staff leaves the University, a copy of the research data produced by the staff member should be retained by the University as the data belongs to the University.</p> <p>6.1.5.2 When leaving the University and as part of their exit planning, researchers must ensure custodianship of their data is transferred to an appropriate researcher as determined by the Head of Department or Director of an entity.</p> <p>6.1.5.3 The University may, at its discretion, allow a departing staff member to take a copy of the data with them, providing this does not conflict with any publisher requirements or contractual commitments, or adversely affect the University's research or commercialization plans. Any such access to and</p>
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	<p>transfer of data must first be agreed to in writing by the University.</p> <p>6.1.5.4 The discretionary approval envisaged in Clause 6.1.5.3, above, needs to follow official and due process and permission provided in writing by the relevant DVC must be obtained.</p> <p>6.1.5.5 The discretionary approval envisaged in Clause 6.1.5.3 will only be provided following written agreement from the researcher's new institution that guarantees (i) its acceptance of ongoing custodial responsibilities for the data; (ii) CPUT's having access to the original data, should such access become necessary for any reason; and (iii) relevant confidentiality restrictions, where appropriate.</p> <p>6.2 CPUT Researchers</p> <p>6.2.1 Protecting confidential, personal and sensitive research data, in accordance with the University's legal and ethical requirements, related to the research they conduct. This should include an ethical clearance approval as per the University's Ethics Committee structures.</p> <p>6.2.2 Making every reasonable effort to keep an accurate and comprehensive record of their research, including documenting clear procedures for the collection, storage, use, reuse, access and retention or deletion of the research data associated with their records. Where appropriate, this should include defining and documenting protocols and responsibilities in collaborative research projects.</p> <p>6.2.3 Making every reasonable effort to recognise Intellectual Property arising from their research activities and manage that Intellectual Property according to any funder requirements and contractual agreements, and in accordance with the university Intellectual Property and Innovation Policy.</p> <p>6.2.4 Preserving and providing appropriate access to their research data supporting outputs after the end of their project for as long as it has continuing value, in accordance with legal and funder requirements and paying due regard to discipline norms and cost.</p> <p>6.2.5 Depositing their data supporting outputs in an appropriate data repository along with sufficient descriptive metadata (a data record) to ensure that it can be found and understood. Where data is deposited somewhere other than the university's institutional data repository (eSango), a data record should also be created in eSango which describes and points to the data.</p> <p>6.2.6 Agreeing arrangements (with their Head of Department or nominee) as to where their research data will be stored and who will have access to this after they leave (or retire from) the university. The Researcher's Department or Faculty reserves the right to retain a copy of the data for an appropriate period to ensure compliance with any legal or regulatory responsibilities, and/or research grant or contractual requirements. (With acknowledgement to Oxford University's <i>Policy on the Management of Data Supporting Research Outputs</i>.)</p>
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	<p>6.3 Student Researchers</p> <p>6.3.1 In the case of University-student projects undertaken by students in collaboration, or subject to commercial agreements, or resulting from projects with pre-existing CPUT intellectual property, the research data, primary material and research records created or developed are owned by the University. In such cases the student(s) concerned will be required to assign ownership of data to the University via a Student Project Participation Agreement at the time of admission into their programme.</p> <p>6.4 Higher Degrees Committee (HDC) It is the responsibility of the HDC to ensure that:</p> <p>6.4.1 All research proposals for postgraduate students include a DMP with sufficient metadata to aid discovery.</p> <p>6.4.2 All supervisors are aware of this policy and comply with its provisions.</p> <p>6.5 University Library The university library will be responsible for:</p> <p>6.5.1 Providing training and consultation services to assist researchers with their RDM requirements.</p> <p>6.5.2 Provide and maintain a Research Data Repository.</p> <p>6.5.3 Provide a basic level of curation which includes brief checking, the addition of basic metadata or documentation to enhance curation, including conversion to new formats.</p> <p>6.5.4 Provide and maintain a DMP tool.</p> <p>6.6 Technology Transfer Office (TTO)</p> <p>6.6.1 In collaborative projects, the TTO is responsible for negotiating and advising on Intellectual Property and data ownership matters and ensuring that these are in alignment with institutional principles and policies.</p> <p>6.7 Research Directorate</p> <p>6.7.1 Facilitating and supporting research data governance processes.</p> <p>6.7.2 Advocacy and development of organisational awareness of research data management issues.</p>
7.0	7.

7.0 Accountability and Authority:	
Implementation:	DVC: Research, Technology Innovation & Partnerships
Compliance:	All CPUT staff and students
Monitoring and Evaluation:	DVC: Research, Technology Innovation & Partnerships

Development/Review:	DVC: Research, Technology Innovation & Partnerships
Approval Authority:	Council
Interpretation and Advice:	DVC: Research, Technology Innovation & Partnerships

8.0 Who should know this Policy?
All staff and students at CPUT should be made aware of this policy.

9.0 Policy/procedure implementation plan	<p>9.1 The relevant stakeholders and officials responsible for policy implementation are the DVC: RTIP and the Director: Libraries.</p> <p>9.2 The approved policy will be circulated via Newsflash.</p> <p>9.3 Training and awareness campaign activities will be arranged to cover the content of the policy.</p> <p>9.4 An approved process will be developed for the situation envisaged in Clause 6.1.5, transfer in the event of a researcher leaving CPUT.</p> <p>The policy will be reviewed after three years.</p>
10.0 Resources required	<ul style="list-style-type: none"> • Access to Policy • Procedures • Guidelines • Research Data Management Working Groups • Data management infrastructure • Finance, and participation by researchers • Metadata and research output • Human Capital and expertise • Skills Development • Partner institutions

11.0 Answers to FAQ	

EFFECTIVENESS OF THE POLICY	
Performance Indicator(s):	<ul style="list-style-type: none"> • Growth in number of CPUT researchers who provide their research data to be uploaded into the repository. • Research data is more visible and accessible.

Appendix 1:

Research data transfer request in the event a researcher leaves CPUT (as per the RDM policy, section 6.1.5)

Principal Investigator/Researcher Details:

Researcher Title:	Name:	Surname:
Staff Number:	ORCID:	
Faculty/Department/Unit:		

Research data description:

Indicate where the research data is accessible:	

Details of the new/elected research data custodian (as determined by the HoD/Director of the unit):

Researcher Title:	Name:	Surname:
Staff Number:	ORCID:	
Faculty/Department/Unit:		

Would the transfer of research data to another university conflict with any publisher requirements, contractual commitments or adversely affect CPUT's research or commercialization plans? (Please tick)	YES	NO
If YES, explain:		

Attached, as per clause 6.1.5.5 of the RDM Policy, is the written agreement of the researcher's new institution guaranteeing (i) its acceptance of ongoing custodial responsibilities for the data; (ii) CPUT's having access to the original data, should such access become necessary for any reason; and (iii) relevant confidentiality restrictions, where appropriate.	YES	NO
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CPUT RDM Policy, Section 6.1.5:

- 6.1.5 Transfer in the event of a researcher leaving CPUT
 - 6.1.5.1 If a member of staff leaves the University, a copy of the research data produced by the staff member should be retained by the University as the data belongs to the University.
 - 6.1.5.2 When leaving the University and as part of their exit planning, researchers must ensure custodianship of their data is transferred to an appropriate researcher as determined by the Head of Department or Director of an entity.
 - 6.1.5.3 The University may, at its discretion, allow a departing staff member to take a copy of the data with them, providing this does not conflict with any publisher requirements or contractual commitments, or adversely affect the University's research or commercialization plans. Any such access to and transfer of data must first be agreed to in writing by the University.
 - 6.1.5.4 The discretionary approval envisaged in Clause 6.1.5.3, above, needs to follow official and due process and permission provided in writing by the relevant DVC must be obtained.
 - 6.1.5.5 The discretionary approval envisaged in Clause 6.1.5.3 will only be provided following written agreement from the researcher's new institution that guarantees (i) its acceptance of ongoing custodial responsibilities for the data; (ii) CPUT's having access to the original data, should such access become necessary for any reason; and (iii) relevant confidentiality restrictions, where appropriate.

Principal Investigator/Researcher Signature:

I, the undersigned,, hereby acknowledge that I understand and accept the terms as recorded herein.	
Signature: _____	Date: _____

Dean/Director of Faculty/Department/Unit:

Title, Name, Surname: _____

Signature: _____ Date: _____

Deputy Vice-Chancellor:

Title, Name, Surname: _____

Signature: _____ Date: _____

Copies of this signed document to be provided to:

- CPUT Libraries Director
- Research Directorate Director
- Dean/Director of Faculty/Department concerned