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TERMS OF REFERENCE

CONSULTANCY TO CREATE JCTR'S RESEARCH DATA MANAGEMENT (RDM) INFRASTRUCTURE

1.0 BACKGROUND

The Jesuit Centre for Theological Reflection (JCTR), is a research, education and advocacy institution that promotes study and action on issues linking Christian faith and social justice in Zambia. The vision of the JCTR is to have a just Zambian society guided by faith where everyone enjoys the fullness of life. It seeks to provide critical understanding of current social, political and economic issues and generates action to address them. Key to its mission is the gathering and analysing of pertinent and topical data on issues, whose results are then employed in popular education and engagement with policy makers, service providers and other duty bearers on the identified issues.

1.1 CONTEXT SUMMARY

The JCTR in its quest to improve effectiveness and efficiency in contributing to the development of Zambia and improving the citizen's lives uses mostly manual methods of data management. This has resulted in challenges in compiling, utilisation and storage of the organisational data. Data from the many cyclical and one-off researches conducted such as the Basic Needs and Nutritional Basket, the Biannual Satellite Home Survey, and one-off researches tend to be manually compiled and poorly stored. This has reduced the possible effective and efficient usage of data that was collected in the past for possible advocacy and trend analyses. Therefore, there is need to develop a data and information management system, which will facilitate an integrated approach to identifying, capturing, evaluating, retrieving and sharing of data and information. The Centre would therefore like to optimize the opportunity offered by the ever-evolving digital environment to consolidate and systematize the increasing volume of information, mostly its research data, publications and other outputs of a scholarly nature so that they are 'findable' easily by users. In doing so, the Centre has established a Research and Data Management Unit, whose responsibility is to undertake the day to day systematic gathering, processing, storing and making available data and information to both internal and external users."

2.0 RATIONALE

Given the context above, several pieces or components need to be put together to create a robust and cohesive Research Data Management (RDM) infrastructure for the Centre. The choices to be made must be influenced by what has been created as good practice in the Research Data Management and must therefore follow figure 1 – Data Life Cycle.

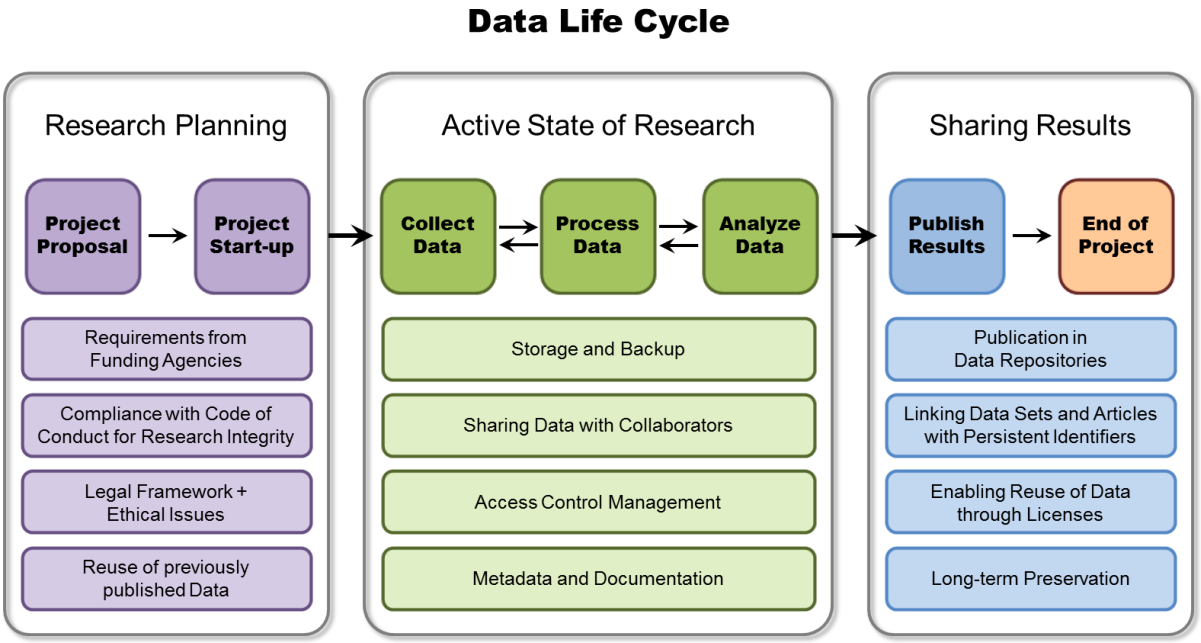

Figure 1 – Data Life Cycle (credits: Technical University of Denmark (DTU) [https://figshare.com/articles/figure/DTU_Research_Data_Life_Cycle/4258019/1]

1. Research Planning

	Attribute	Remarks
1.1	Requirements from funding agencies	• Will Involve creating/gathering and documenting guidelines with links to appropriate URLs to the resources • These could involve other internal requirements, processes or even government legislations and regulations • Data management plans – could opt to use DCC's (Data Curation Centre's) DMPOnline[1] • These products could be stored on a shared file system or intranet or whatever the consultant would suggest and justify. • The products will be registered on a master registry which can be a spreadsheet listed on the intranet or stored on shared file system. Again, the consultant could suggest others.
1.2	Compliance with Code of Conduct	• Will Involve policies that govern research data management; research ethics; computer use; social media use; GDPR; internal procedures and policies; etc. The consultant must identify, gather/create and document these products. • Intranet and/or shared file system could be used for storage, however the consultant can suggest others.

[1] https://dmponline.dcc.ac.uk/

1.3	Legal Framework + Ethical Issues	• Management and storage same as in 2
1.4	Usage of previously published data	• The data can be found on external data management platform or in case of JCTR on the JCTR Institutional Repository[2] • The consultant will provide a list of other sources as examples that can be used and highlighted in the RDM plans, however most of these sources would be dependent on the type of research.

2. Active State of Research

	Attribute	Remarks
2.1	Storage and Backup	• This involves data collected during research • Could be stored on external drives, networked drives or Cloud based object storage such as Amazon's AWS • Reusable artefacts stored/and or management on a Digital Asset Management (DAM) system such as video, audio, images, etc backed up from the system – can be decided by the implementors or providers of the DAM • The DAM will be a system that need to be created either bespoke or based on open source or use of SaaS (Software as a Service) cloud provision. • The consultant should provide suggestions on what would be appropriate in this area in terms of security, availability, integrity, privacy and disaster recovery.
2.2	Sharing Data with Collaborators	• JCTR feels, Cloud based services are ideal for this purpose and these can be as simple as Google Drive, Dropbox, etc or complex ones such as SharePoint. However, the consultant is at liberty to suggest others with appropriate justifications. • Versioning of the data is key • Personal computers and/or laptop including smartphones should never be used if comply with GDPR (General Data Protection Regulation)[3] and other data privacy and security legislations. If used, the consultant must provide guidelines on how to secure personal computing devices based on good practice. • All sharing of data must be logged in a register stored on the shared file system if the system used (in 2.2) does not provide such details or the data is not managed by such a system.

[2] https://repository.jctr.org.zm/
[3] https://gdpr.eu/

2.3	Access Control Management	• Whichever system or tool [mentioned in 2.2] used must provide capabilities for access control and could even go further to even have audit trails.
2.4	Metadata and Documentation	• Systems and tools as in 2.2

3. Sharing Results

	Attribute	Remarks
3.1	Publication in Data Repositories	• Unless the research funder mandates where this should be published, the JCTR Institutional Repository must be used and in fact should be the default since it already exists. University of Cambridge uses their DSpace repository for both publications[4] and datasets[5]. Edinburgh University also uses a dedicated DSpace for the datasets called DataShare[6]. • Should JCTR opt to use the Institutional Repository, it will need to be enhanced in terms of metadata requirements. • Should the JCTR Institutional Repository be used for datasets as well, it should be registered with re3data (Registry of Research Data Repositories)[7]. It is good it is already registered with OpenDOAR (Directory of Open Access Repositories)[8]. These registries can help with discovery and creditability of the content. • The software used by JCTR Repository does comply with FAIR (Findable, Accessible, Interoperable, Reusable) Principles[9] on the technical side but you will need to work on the content side to satisfy the principles.
3.2	Linking Datasets and Articles with Persistence Identifiers (PIs).	• This is not mandatory, however if required then a subscription or purchase of DOIs (Digital Object Identifiers) can be made. The consultant should provide the pros and cons of having PIs. • DOIs are provided by Crossref[10] and Datacite[11]

[4] https://www.repository.cam.ac.uk/
[5] https://www.repository.cam.ac.uk/browse?type=type&value=Dataset
[6] https://datashare.ed.ac.uk/
[7] https://www.re3data.org/
[8] https://v2.sherpa.ac.uk/id/repository/9678
[9] https://www.go-fair.org/fair-principles/
[10] https://www.crossref.org/
[11] https://datacite.org/

3.3	Enabling Reuse of Data through Licenses	• This is a policy issue – reuse licenses obviously will need to be accessible to the users of the systems storing the data such as the JCTR Institutional Repository.
3.4	Long-term Preservation	• If JCTR can guarantee availability of the Repository, it can also be used for purpose of long-term preservation. • Backups are therefore essential for this purpose although once JCTR ceases to exist such will be lost.

3.0 SCOPE OF WORK

3.1 The first stage for the consultant is to create a framework of the RDM requirements suited to JCTR which is informed by the current good practice in the RDM.

3.2 The consultant should then map what is currently available at JCTR (policies, guidelines, ICT infrastructure) which will play a role in the RDM infrastructure. The consultant should also identify the gaps and note the parts that are missing but important in the RDM that can be acquired or built at reasonable cost.

3.3 The consultant should then put together the whole parts/components in a coherent manner so that they can be implemented.

3.4 The consultant together with JCTR will operationalise the RDM infrastructure and begin embedding it into its research operations.

3.5 The consultant will conduct training and orientation of JCTR staff to operate as well as manage the RDM infrastructure.

4.0 DELIVERABLES AND PROPOSED TIMELINES

On the basis of the **Scope of Work** in 3.0 above, the consultant must be able to articulate and outline the deliverables and timelines in the Technical Proposal as per the requirement stated in the **Expression of Interest** in 6.0 below.

5.0 CONSULTANT REQUIREMENTS

The consultant must be knowledgeable in RDM, open data, scholarly communication, ICT and research librarianship.

6.0 EXPRESSION OF INTEREST

All expressions of interest (of no more than eight pages) should include:

1. **Technical Proposal:** This should include a brief profile about the consultant with particular emphasis on previous experience in this kind of work; the consultant's understanding of the Terms of Reference, scope of work, tasks to be accomplished (deliverables) and proposed work plan (timelines) etc.
2. **Financial Proposal**: This should provide cost estimates for the consultancy. **Tax obligations should be included**.

7.0 SUBMISSION OF INTREST

- All expressions of interest should be addressed to:

  The Executive Director

  Jesuit Centre for Theological Reflection

  P.O. Box 37774

  Lusaka.

- The deadline for submission of the expressions of interest is ***Wednesday 29th June, 2022 at 12:00hours.*** In view of COVID-19 health concerns, all expressions of interest should be submitted electronically to **admin@jctr.org.zm and jctr.office@gmail.com**

For further details, contact us on (+260 211 290 410 or +260 955 290 410)