Call for Tenders

Implementation of DSPACE-CRIS at Frederick University

Contents

1. Introduction

Frederick University (FredU) stands as a private institution in the Republic of Cyprus, with campuses located in Nicosia and Limassol. The university offers a broad spectrum of undergraduate and postgraduate programs across diverse fields, including science, engineering, business, arts, architecture, humanities, health, and education. Frederick University is also involved in externally funded Research, Development, and Innovation (RDI) projects. To further enhance its research management capabilities and increase the visibility of its scholarly outputs, Frederick University intends to implement the latest version of DSPACE-CRIS (Current Research Information System).

Currently, the university manages its research-related information using a combination of disparate systems, including Excel files, the SoftOne accounting system, and local server repositories. Information regarding people and projects is also manually updated on the university's website. This decentralized approach presents challenges in terms of data integration, efficiency, and the ability to effectively showcase the university's research activities and outputs.

This call for tenders invites experienced service providers to submit proposals for the detailed design and implementation of a comprehensive DSPACE-CRIS solution tailored to the specific operational needs and scale of Frederick University. The objectives of this tender are to identify a qualified partner who can provide a robust, user-friendly CRIS platform, including an open access institutional repository, while considering the university's limited capacity for in-house IT implementation support. The selected service provider will be responsible for delivering a fully functional DSPACE-CRIS system (latest version), along with a comprehensive implementation plan and detailed hardware and software requirements.

2. Background and Current Research Information Management

Frederick University engages in a wide array of research endeavors across its five schools: Engineering; Arts, Communication and Cultural Studies; Health Sciences; Education & Social Sciences; and Business & Law. Furthermore, a non-profit research organization, named Frederick Research Center (FRC), operates in parallel to the university and capitalises on the resources of the university to participate as well in externally funded research projects. The university's faculty and researchers participate in externally funded projects, including national and European programs such as HORIZON, LIFE, and ERASMUS+.

The current reliance on Excel files, the SoftOne accounting system, and local server repositories for managing this information poses several limitations. This fragmented approach can lead to data silos, making it difficult to obtain a comprehensive overview of the university's research landscape. Tracking research outputs, measuring their impact, and generating comprehensive reports become cumbersome and inefficient. Furthermore, the manual feeding of information about people and projects to the university's website introduces an administrative burden and increases the potential for outdated or inconsistent information. This process is time-consuming and may not accurately reflect the dynamic nature of research activities.

The key entities that need to be effectively managed within the DSPACE-CRIS system include the university's academics and researchers, postgraduate students, research groups, and running projects

(through the university and FRC). The system must be structured to accommodate these core entity types and their interrelationships, such as researchers participating in specific projects and belonging to particular research groups.

A critical requirement for Frederick University is the establishment of an open access institutional repository for its diverse range of research outputs. This repository should not be limited to traditional scientific publications but should also include other our outputs such as artistic works and postgraduate students' dissertations. The repository aims to preserve these outputs and provide broad access to the global research community, thereby increasing the visibility and impact of the university's scholarly contributions.

Also a distinct aspect that needs to be implemented through out the system, is the separation and designation of ownership of projects, results and outputs between Frederick University and Frederick Research Center.

The implementation of DSPACE-CRIS is expected to address the challenges associated with the current information management practices. A centralized system will streamline workflows, improve data accuracy, facilitate reporting and analysis, and enhance the university's ability to showcase its research activities effectively, potentially leading to increased opportunities for funding and collaboration.

3. Requirements for the DSPACE-CRIS Implementation

3.1. Functional Requirements

The proposed DSPACE-CRIS implementation must provide comprehensive functionalities for managing the university's research information and outputs.

Researcher Profile Management: The system should enable the creation and management of detailed researcher profiles, including biographical information, research interests, publications, projects, and affiliations with research groups. Integration with ORCID (Open Researcher and Contributor ID) is essential to ensure researcher profiles are discoverable and up-to-date.[15] Researchers should have the ability to manage their own profiles, and the system should support both ORCID and/or eduGAIN authentication and the automatic synchronization of data between DSPACE-CRIS and ORCID. This will streamline the process of maintaining accurate and complete researcher information.

Research Projects Administration Management: The CRIS must allow for the comprehensive administrative management of funded RDI projects. This includes the ability to record detailed project metadata such as types of project, project titles, descriptions, start and end dates, funding sources, coordinating parter, collaborating institutions, involved personnel (linked to researcher profiles), and resulting publications or other outputs. Given Frederick University's and FRC's participation in externally funded projects, the system should specifically support the (separate FredU/FRC) tracking of funding information, including grant details and funding amounts.

Research Group Management: The system should enable the creation and management of research group profiles. Each profile should include a description of the group's research focus and activities, a list

of its members (linked to researcher profiles), and any associated projects or outputs. This functionality will provide a clear overview of the university's research expertise and collaborative structures.

Open Access Institutional Repository: A fully functional open access institutional repository must be established as a core component of the DSPACE-CRIS implementation. This repository should support the deposit, management, and long-term preservation of a wide range of research outputs, including scientific publications, artistic works, and postgraduate students' dissertations. The repository must adhere to OpenAIRE guidelines to ensure the visibility and interoperability of Frederick University's research within the European research landscape.

Search and Discovery: The DSPACE-CRIS system must offer robust search and discovery capabilities across all managed entities and research outputs. Users should be able to easily search for researchers, projects, research groups, and research outputs using various criteria, including keywords, authors, dates, project names, research group affiliations, output types, and other relevant metadata fields. The search functionality should be intuitive and provide faceted browsing options to refine search results.

Reporting and Analytics: The system should provide comprehensive reporting and analytics functionalities to track research activities and outputs. This includes the ability to generate reports on research outputs by type, project, researcher, or research group, as well as reports on project funding and other key metrics. The system should also support the export of data in various formats and potentially include the functionality to generate CVs in PDF format.

Website Integration: The DSPACE-CRIS system should offer mechanisms for seamless integration with Frederick University's website (Joomla based). This integration should enable the automated display of researcher profiles, project information, research group details, and links to publications or other outputs in the institutional repository, reducing the current reliance on manual updates.

3.2. Technical Requirements

The proposed solution must meet specific technical requirements to ensure a successful and sustainable implementation.

Latest DSPACE-CRIS Version: The service provider must implement the latest stable version of DSPACE-CRIS to ensure access to the most recent features, security updates, and performance improvements.

SoftOne Integration: The service provider should outline their experience and proposed methodology for integrating DSPACE-CRIS with the university's SoftOne accounting system. The integration should aim to facilitate the feeding/retrieval of relevant financial data related to research projects, such as funding amounts and expenditure.

Scalability: The proposed DSPACE-CRIS architecture must be scalable to accommodate the current volume of data and users, as well as anticipated future growth in research activities and the number of records in the repository.

Metadata Standards and Interoperability: The implemented system must adhere to relevant metadata

standards and interoperability guidelines, including Dublin Core for repository items and CERIF (Common European Research Information Format) for CRIS entities. Compliance with OpenAIRE guidelines is also essential to ensure the visibility and interoperability of the university's research outputs with other research information systems and aggregators.

Data Security: The system must incorporate robust data security measures, including access controls, authentication, and authorization mechanisms, to protect sensitive research data and ensure compliance with privacy regulations.

3.3. Service Requirements

The selected service provider will be expected to deliver a range of services to ensure the successful implementation of DSPACE-CRIS at Frederick University.

Detailed System Design: The service provider must conduct a thorough analysis of Frederick University's current research information management practices and stakeholder needs to develop a detailed design and specification for the DSPACE-CRIS system architecture tailored to the university's specific requirements, including options for infrastructure requirements and solutions.

Implementation and Configuration: This includes the complete implementation, configuration, and customization of the DSPACE-CRIS platform, including setting up the software, configuring metadata schemas, workflows, and user roles to align with the university's branding and specific data management needs.

Data Migration: The service provider is responsible for designing a solution for a comprehensive data migration plan to transfer data from the university's existing systems (Excel, SoftOne, local servers) into DSPACE-CRIS, ensuring data integrity and accuracy.

Training: A training program must be provided for university staff, including system administrators and end-users (researchers, librarians, administrative staff), covering system administration, data entry, reporting, and end-user functionalities.

Infrastructure requirements: The preferred solution would be a proposed solution for inhouse hosting, at local infrastructure. Therefore, the minimum specifications and configuration to adhere to OpenAIRE guidelines for visibility and interoperability must be defined. A separate quotation should be provided for a cloud-based service provision, if possible.

Ongoing Support and Maintenance: The tender should clearly outline the terms of ongoing technical support and maintenance services to be provided post-implementation. This should include defined response times, service levels, cost and procedures for addressing technical issues, system updates, and enhancements.

4. Expected Deliverables from the Service Provider

Proposals submitted in response to this call for tenders should include the following components:

- A detailed project plan outlining all phases of the implementation, including clear timelines, milestones, and resource allocation.
- A comprehensive specification of the hardware and software requirements necessary for the DSPACE-CRIS implementation, considering the university's existing infrastructure.
- A detailed data migration plan that includes data mapping strategies, quality assurance procedures, and timelines for the in-house migration process from the current systems.
- A comprehensive training program for system administrators and end-users, including training materials and proposed schedules.
- A proposed service level agreement (SLA) for post-implementation technical support and maintenance, specifying response times and service availability.
- A clear and transparent pricing structure for the entire project, including implementation, data migration plan, training, and ongoing support services.
- Case studies or references from previous DSPACE-CRIS or similar CRIS platform implementations, preferably within universities of comparable size and research activity to Frederick University.

5. Evaluation Criteria

The evaluation of proposals will be based on the following criteria:

- **Experience and Expertise (30%):** Demonstrated experience and a strong track record in implementing DSPACE-CRIS or similar CRIS platforms within academic institutions, with preference given to experience with universities of a similar size and research profile to Frederick University.
- **Technical Competence, Implementation Plan and Methodology (30%):** Thorough understanding of the latest DSPACE-CRIS functionalities, architecture, and technical requirements, as evidenced by the proposed technical solution and the qualifications of the bidder's team. Quality, feasibility, and comprehensiveness of the proposed implementation plan and methodology, including the data migration strategy and approach to integration with existing university systems (SoftOne).
- **Pricing and Value for Money (40%):** Competitiveness and transparency of the pricing proposal, demonstrating a clear breakdown of costs and overall value for the services offered.

6. Submission Guidelines and Timeline

Interested service providers are requested to submit their proposals electronically to tenders@frederick.ac.cy by **June 27th 2025** (end of day). The proposal should be submitted in English and should clearly address all the requirements outlined in this call for tenders.

Proposals should be structured to include the following sections:

- Company Profile and Relevant Experience
- Case Studies and References
- Proposed Solution and Technical Architecture
- Implementation Plan and Methodology
- Data Migration Plan
- Infrastructure requirements and solutions

- Training Program outline
- Post-Implementation Support and Maintenance Plan
- Pricing Proposal
- Contact Information

Clarifications or inquiries regarding this call for tenders should be directed to Alexis Onoufriou, a.onoufriou@research.ac.cy by June 23rd 2025.

7. Conclusions

The implementation of DSPACE-CRIS at Frederick University represents a significant step towards enhancing its research information management capabilities and increasing the visibility of its scholarly outputs. By centralizing research-related data and establishing an open access institutional repository, the university will be better positioned to support its researchers, track its research impact, and foster collaboration. The selection of a qualified service provider through this call for tenders is crucial to ensure a successful implementation that meets the specific needs and scale of the university. The detailed requirements and specifications outlined in this document aim to provide potential bidders with the necessary information to develop comprehensive and competitive proposals. The evaluation process will focus on the bidder's experience, technical competence, proposed methodology, pricing, and references to ensure that Frederick University partners with a provider capable of delivering a high-quality and sustainable DSPACE-CRIS solution.

Annex: Detailed (Minimum) Specifications

Table 1: Minimum Functional Requirements and Desired Features of the DSPACE-CRIS System

The below tubular information is provided as a reference list for minimum specifications of the system. The full detailed specification will be agreed during the 1st implementation phase of the project.

Requirement Category	Specific Requirement	Desired Features/Level of Detail
Researcher Profile Management	Profile Creation & Management	Comprehensive fields for biographical data, research interests, contact information, etc.
	ORCID Integration	Support for ORCID authentication, data synchronization (push and pull), display of ORCID iD.
	Publication Management	Ability to link publications to researcher profiles, import from external databases (e.g., Scopus, Web of Science).
	Project Management Linkage	Ability to link researchers to ongoing and completed projects.
	Research Group Linkage	Ability to link researchers to Research Groups.
Research Project Administration Management	Project Metadata	Fields for type, project title, description, start/end dates, funding sources, Coordinating partner, FredU/FRC Lead researcher, Partners, status, SDGs, etc. (tbd based on current records)
	Funding Information	Detailed tracking of grant details, funding amounts, and funding periods.

	FredU Vs FRC designation	Ability to designate the owner of the project between FredU & FRC
	Output Linking	Ability to link project to resulting publications, datasets, project website, and other research outputs.
Research Group Management	Group Profile	Fields for group name, description, research focus, activities, website link, etc.
	Member Management	Ability to link researchers to specific research groups with defined roles.
	Project Management Linkage	Ability to link Research Group to ongoing and completed projects.
Open Access Repository	Output Types	Support for scientific publications, artistic works, postgraduate dissertations, datasets, software, etc.
	Metadata Standards	Compliance with Dublin Core for metadata.
	OpenAIRE Compliance	Adherence to OpenAIRE guidelines for repositories.
Search and Discovery	Basic Search	Keyword search across all entities and outputs.
	Advanced Search	Search filters for specific fields (e.g., author, title, date, project).
	Faceted Browsing	Ability to refine search results by

		entity type, subject, date, etc.
Reporting and Analytics	Standard Reports	Pre-configured reports on research outputs, projects, researchers, KPIs, etc.
	Custom Report Generation	Ability to create custom reports based on specific criteria.
	Data Export	Export of report data in various formats (e.g., CSV, Excel, pdf).
Website Integration	Content Embedding	Mechanisms for embedding researcher profiles, project information, and research group details on the university website.
	Repository Linking	Easy linking from website to publications and other outputs in the institutional repository.

Table 2: Technical Specifications and Integration Requirements

Category	**Specification**	**Details**
DSPACE-CRIS Version	Latest Stable Version	Implementation of the most recent stable release of DSPACE-CRIS 7.
SoftOne Integration	Data feeding/retrieval	Ability to feed/retrieve relevant financial data related to research projects (from separate accounts for FredU & FRC)
Scalability	Performance	System should handle current and future data and user loads efficiently.

Metadata Standards	Compliance	Adherence to Dublin Core, CERIF, and OpenAIRE guidelines.
Data Security	Access Control	Implementation of robust authentication and authorization mechanisms.
	Data Protection	Measures to ensure the confidentiality and integrity of research data.

Table 3: Data Entities and Key Attributes to be Managed

Entity (examples)	**Key Attributes (minimum)**
People (Researchers, Academics, Students)	Name, Affiliation, Contact Information, Research Interests, ORCID iD, Publications, Projects, Research Group Memberships.
Projects	Title, Description, Start Date, End Date, Funding Sources, Grant ID, Principal Investigator, Collaborators, Research Outputs.
Research Groups	Name, Description, Research Focus, Members, Activities, Associated Projects, Outputs.
Publications	Title, Authors, Publication Date, Journal/Conference, Volume, Issue, Pages, DOI, Abstract, Full Text Link/File.
Artistic Works	Title, Creator, Creation Date, Description, Format, Link/File.
Dissertations	Title, Author, Submission Date, Department, Abstract, Full Text Link/File.

Table 4: Reporting Requirements

Report Type (examples)	Frequency	Format	Key Metrics (minimum)
Research Outputs by Type	Annually	Summary table and detailed list	Number of publications, artistic works, dissertations, etc.
Research Outputs by Project	As needed	Detailed list	Publications, datasets, etc. resulting from specific projects.
Researcher Activity	Annually	Summary table	Number of publications, projects, funding, etc. per researcher.
Projects Funding	Annually	Summary table	Total funding received, funding by source/group/researcher/etc.
Repository Statistics	Monthly	Summary table	Number of items deposited, download counts, etc.

Table 5: Data Migration Requirements and Existing Data Volumes

Data Source	Estimated Volume	Format	Specific Requirements/Challenges
Excel Files		Spreadsheets	Data mapping to DSPACE-CRIS entities and attributes.
SoftOne Accounting System		Database/Exported Data	Identifying and extracting relevant financial data for

			research projects.
Local Server Repositories		Various file formats	Inventory and mapping of research outputs to repository items.
University Website		HTML/Database	Extracting and mapping existing information on people and projects.