

Scope of Work

- I. Scope of Solicitation**
- II. Instructions to Offerors**
- III. Scope of Work / Specifications**
- IV. Terms and Conditions - Special**
- V. Appendices – Appendix A**
- VI. Bidding Schedule**

I. SCOPE OF SOLICITATION

Clemson University is seeking proposals for a high-UX database, data visualization, and reporting tool suite that must utilize individual university scholars as the base unit record to:

(a) benchmark the scholarly output (including but no limited to journal articles, books, conference proceedings, citations, grants, and honorific awards) of individual faculty, specific academic doctoral programs, academic departments, academic colleges, the University, and customized intra-University groups against analogous groupings at other institutions. Benchmarking should have longitudinal capability using frozen datasets.

(b) on-the-fly user-created national peer groupings

(c) continuously (daily preferred) updated scholarly data at the individual level to: (i) pre-populate scholarly profiles of individuals; (ii) enable individuals to edit these profiles; (iii) provide a turnkey solution for scholars to identify, and receive via opt-in push notifications, funding and honorific award opportunities tailored to them on the basis of scholarly data; (iv) provide extant actual demonstrated ability to push metadata to and pull metadata from the University tenure/reappointment and annual evaluation solution (Watermark's Faculty Success); and (v) utilize daily data to generate a curated public web-based presence showcasing the University's scholarship (at the University, academic program, academic department, and custom unit levels), searchable by faculty name and scholarly expertise, and nationally-based individual-to-individual scholarly networks.

(d) provide a selection of on-demand dynamic visualization-style reports including, but not limited to: identifying scholars who are under-awarded compared to national peers; trending research topics and emerging themes; understanding demographic distributions of NRC prestigious awards across the University; exploring the movement of faculty across categories of institutions; analyzing scholar disciplinary trends by demographics such as academic age, discipline, rank, publication and grant patterns, *etc*; analysis of federal grant activity at the University compared to customizable peer institution sets; discover scholarly activity and current

location of University's PhD and MS graduates placed in faculty positions nationally; and institutional benchmarking on the basis of AAU indicators.

(e) include a license agreement that allows cogent unlimited custom requests including, but not limited to, custom intra-University groupings, custom external benchmarks, trending research topics, emerging research themes, and top journal publishing analysis.

(f) provide role-based individual-level access to these tools and datasets.

(g) provide synchronous and asynchronous dedicated training and ongoing professional development opportunities for university users (whether staff, administrators, or faculty) in utilizing the solution described above to advance scholarship, recognition, and wise stewardship of resources (whether human or capital).

Award

Award will be made to the single responsible and responsive bidder that has been scored the highest based upon the criteria set forth in Section IV of this Scope of Work. Award will be made for a maximum of 5 years total as a series of 1 year agreements

A contract term of about 5-years with possibility of renewal options is desired, as are separately-priced add-on options for (i) a cloud-based data service allowing University access such that in-house analytics tools can be developed, and (ii) a University-industry collaboration benchmarking module.

Deadline for Questions

Please see the Activities tab in the online bidding system for more information about the submission of question. All Offerors are charged with a duty to inquire. Submitting an Offer represents that the offeror has read and understands the Solicitation and that its Offer is made in compliance with the Solicitation. Offerors are expected to examine the Solicitation thoroughly and should request an explanation of any ambiguities, discrepancies, errors, omissions, or conflicting statements in the Solicitation. Failure to do so will be at the Offeror's risk.

II. INSTRUCTIONS TO OFFERORS

Regardless of specific requirements below or in this document, Offerors are required to submit their proposal electronically through the Clemson University online bidding system. To do so you must login (registering first) at <https://clemson.ionwave.net/Login.aspx>, and follow specific instructions for this solicitation. Do NOT simply email or mail in proposals based on this scope of work document. **You must attach your complete proposal response as two separate pdf files in the online bidding system - one file as a technical only (i.e. no pricing information) and one file as a financial proposal.** Submit any additional files if required as redacted

proposals. These attachments must address all the specific requirements outlined in Section II, Instructions to Offerors, as well as Section III: Scope of Work/Specifications.

All information should be presented in the order listed below.

The proposals shall be organized in the order specified in this RFP. A proposal that is not organized in this manner risks elimination from consideration if the University is unable to find where the RFP requirements are specifically addressed. Failure to provide information required by this RFP may result in rejection of the proposal.

Your Technical Proposal must not include any reference to cost, if cost is found to be included in your Technical Proposal your entire proposal will be deemed non-responsive and eliminated from further consideration.

Technical Proposal (as a single pdf file) that includes:

- a. Cover letter
 - i. The Offeror shall provide a cover letter that contains a commitment to provide the product/services described in this solicitation. The cover letter must include the name and signature of a representative of the Offeror who is authorized to negotiate a contract with the University and should summarize the overall benefits of selecting your company and what your company considers to be the most important factors involved in the selection of the PMIS.
- b. Offeror's qualifications, including a company overview.
- c. Technical proposal detailing the approach to meeting the scope of work
- d. Service Level Agreements (SLAs) and performance commitments
- e. Documentation of product capabilities
- f. Additional enhancements that may benefit Clemson's future needs
- g. Response to Section III All Offerors must provide a detailed explanation of how their solution will accommodate each requirement outlined in Section III.
- h. Offeror must provide a list of at least three (3) comparable higher-ed projects for whom offeror has provided a similar solution and service, preferably R1 land-grant institutions with similar complexity to Clemson University. Provide a brief, to-the-point summary for each engagement that includes an introduction with relevant background, recommended approach and solution(s), and related outcomes in as much detail as possible. Include a contact person, an email address, and a telephone number for each project, in the event that Clemson would choose to contact the reference.
- i. Describe in detail how the proposed solution complies with federal and state of South Carolina accessibility requirements, including Web Content Accessibility Guidelines 2.2 (WCAG 2.2), Section 508, and the Americans with Disabilities Act Title II Digital Accessibility regulations.
 - i. Submit a Voluntary Product Accessibility Template (VPAT) version 2.2 or higher for each unique proposed solution/service offered. For each VPAT, provide:

- ii. A list of known accessibility gaps
- iii. The specific steps and timelines by which these known gaps will be remediated
- iv. A list of any workarounds for proposed solution accessibility gaps including:
 - 1. Use of alternative business processes (e.g. offering phone support until your web-based support tools are accessible)
 - 2. Use of a third-party product to replace or supplement functionality in your proposed solution (e.g. providing a programming interface which allows other applications to interact with content in your product)
- v. Describe the accessibility conformance testing process
- vi. Provide examples of the proposed solution that work with traditional adaptive technologies, such as screen readers, zooming technology, etc.
- vii. Explain how you ensure that you keep your proposed solution current with changing legal requirements and accessibility best practices.
- j. . Any additional legal documents must be submitted along with your proposal documents and must be a Microsoft Word format.

Financial Proposal that includes:

- a. Include pricing for all start-up/on-boarding initial implementation costs. Implementation costs must include pre-assessment planning, process design, data migration, tool configuration, user testing, training and go-live assistance.
- b. Offeror's Financial Proposal must be submitted as a separate file from the Technical Proposal.
- c. Pricing must be inclusive of all to include travel, meals, lodging and other expenses.
- d. Your separate Financial Proposal may go into more detail in terms of pricing breakdown, options, etc., but it must also clearly indicate the price you enter the online bidding system. This is the price that will be used for evaluation purposes and should reflect the firm, fixed price for the base technical proposal you are offering in response to the solicitation. If there are conflicts in the pricing you propose, or Clemson cannot clearly determine a total price of your proposal, your response may be deemed non-responsive.
- e. Please include, if applicable, the hourly rate, valid for the term of this agreement for future consulting services or needed assistance once the installation and training have

occurred. Also, include a future-oriented schedule detailing possible expansion pricing scenario as an option.

- f. The cost that you input on each Line Items tab in the online bidding system must be your total 1 year cost and must match your Financial Proposal and the Bidding Schedule as this is the amount that will be used for evaluation purposes. If prices do not match and not discernible your proposal will be deemed non-responsive and removed from further consideration.

III. SCOPE OF WORK / SPECIFICATIONS

Overview

Clemson University is a highly ranked public 4-year institution of higher education with an abiding land grant commitment and a growing portfolio of scholarly programs, partnerships, and aspirations. These are reflected by historically high levels of scholarly funding submissions, awards, and expenditures, and by specific scholarship-related metrics that are at the core of the University's Clemson Elevate strategic plan.

As part of its continuing growth, evolution, and maturation in nationally-recognized and – competitive scholarship, the University seeks to utilize democratized data, evidence-based strategies, and benchmarking tools in fulfilling and wisely growing its scholarly mission for the benefit of our faculty, students, staff, SC citizens, and numerous stakeholders across the country and world. Such data, approaches, and tools are in wide use at many prominent research universities across the nation.

Requirements

The successful vendor should provide a solution/proposal meeting the full entirety of the requirements and needs described in (a)-(g) of *I. Scope of Solicitation*. That the successful vendor is demonstrably already doing so already at Clemson University's institutional Research 1 peers is a Qualification under this Solicitation.

The University seeks a hosted SaaS solution requiring no on-premises infrastructure. The solution shall be accessible through modern web browsers and require no client-side software installation apart from limited API integration described in the next section. The solution shall support role-based access controls and authentication through institutional single sign-on.

The solution shall provide web-based dashboards/visualizations with the option for role-based ability to export data. The solution shall support institution, college, department, and program-level reporting. The solution shall provide benchmarking against similar unit-levels at other institutions with user customization regarding peers and metric weightings. The solution shall also provide ability to aggregate and display scholarly outputs/metrics at individual scholar and institution, department, and college unit levels.

AI-assisted analytics capabilities and collaboration network mapping are not requirements, but are deemed desirable and viewed favorably as solution features.

Implementation/Installation

The successful vendor should have turnkey solutions that rely primarily on extant external data sources. However, it is expected that, as part of initial implementation and ongoing operation, the vendor would work with, and require the cooperation of, the University in: providing (possibly multiple) scholarly rosters, academic unit organizational structure, dynamic updating of solution user rosters and University-required training check-off; receiving a regularly updated feed of non-federal grant data and other data in the University's Faculty Success system; and implementation of APIs and associated data pushes/pulls between the solution(s) and the University's Watermark Faculty Success platform.

The vendor shall provide an implementation plan, timeline, and identify institutional resource requirements. The vendor shall identify any service level agreements if relevant or proposed and recognize the University's retention of ownership of institution-provided data that is otherwise not public or part of external data sources to which the vendor has access.

Training

The successful vendor should provide new user training as well as ongoing professional development to users via the web. New user training should be synchronous or asynchronous and via the web or on the Clemson campus. It would be desirable, though not required, if the successful vendor might commit to a campus visit once or twice a year to meet and work with our various communities of scholars and administrative users to enhance productivity of the solution and receive feedback.

IV. TERMS AND CONDITIONS – SPECIAL

1. **AWARD CRITERIA:** Offers will be evaluated using only the factors stated below. Evaluation factors are stated in the relative order of importance, with the first factor being the most important. Once evaluation is complete, all responsive Offertory will be ranked from most advantageous to least advantageous.
 - A. **Individual-user-level access** to tools and reports, and multiple level aggregations (individuals, departments, doctoral programs, colleges, University) of data, benchmarking results, and reports.
 - B. **Cost** – The total 5 year cost of ownership
 - C. **Demonstrated existence of national data and meta-data** of individual higher education scholars as the base unit record needed to fulfill the requirements
 - D. **High UX** that can be judged by Clemson evaluators through direct use of actual or dummy platform
 - E. **Demonstrated existence of SaaS web/cloud-based platforms** and tools to serve the visualization and reporting that fulfill the requirements.

V. APPENDICES – APPENDIX A

CCIT Technical Specifications (as applicable)

General Requirements

- All of the selected vendor's personnel providing services are responsible for protecting their access privileges and for maintaining confidentiality and proper use of the University's data in accordance with the University's policy. Personnel will not disclose or distribute data in any medium, except as required by responsibilities under the contract.
- Solutions must comply with all applicable laws and regulations commonly found in a higher education environment as well as timely implementation of compliance with future changes to laws and regulations. Current laws and regulations include, but are not limited to: FERPA, Clery Act, ADA, the Rehabilitation Act of 1973 Section 504 & 508, COPPA, HIPAA, etc. Please refer to Clemson's Privacy Policy, <http://www.clemson.edu/privacypolicy.html>
- Offerors shall provide a detailed implementation plan that includes a timeline with dates of initiation, milestones, and completion and include all requirements, if any, for university resources that must be used for each step of the implementation.
- The selected vendor must supply initial technical training on the proper use of any software solution. Offerors shall include this training in the proposal. The training must be sufficient to enable technical individuals designated by Clemson to fully understand, test, validate, use tools, and operate and instruct others as to the features, functions, capabilities, and maintenance (e.g., trouble identification) of the software so as to perform all functions effectively and without error.

Offerors shall identify user groups and recommend additional training resources that might be beneficial to Clemson University's implementation.

Technical Requirements

- User Interface
 - Browser Compatibility (if UI is browser based)
 - Offers shall identify all platforms and browsers compatible with proposed solution
 - Client (if UI is installed on local systems)
 - Offerors shall identify all operating systems/platforms compatible with proposed solution
 - Solution should not require client-side Java but if required, shall be

- compatible with the then current version of Java
 - Solution should not require client-side Flash but if required, shall be compatible with the then current version of Flash
 - Mobile Compatibility
 - Offerors shall identify all mobile platforms compatible with proposed solution.
 - Prefer iOS because > 80% of all mobile traffic on campus is iOS, but should also support other platforms.
 - Virtual Desktop compatibility
 - Offerors shall identify if Virtual desktop configuration is possible and if so, what virtual desktop configurations are compatible with proposed solution.
- Application Architecture
 - Solution shall utilize currently supported versions of application frameworks (Java, PHP, etc.)
 - Offeror should describe any compatibility or interoperability with desktop productivity tools (Microsoft Office, etc.)
 - Offeror should describe the Application Programming Interface (API) if available.
 - Offeror should describe the Application Server environment required for the proposed solution.
 - Software sold or licensed to Clemson to be installed, maintained, or run by Clemson personnel must not have a dependency on Oracle Java (JDK, SE, EE, or ME), unless licensing and maintenance costs for Oracle Java, for the life of the product, are included in the purchase price. Preference for software based on Java technology will be given to vendors utilizing the OpenJDK framework.
 - Recommended Architectural designs provided by the offeror shall be resilient and able to be run with a minimum of downtime in a cloud environment.
 - No Flash
- Database Services
 - Solution shall be compatible with one of the following currently supported database technologies: Oracle or MS SQL
 - Offeror should provide technical documentation regarding configuration and installation including backup/maintenance scripts for proposed solution
- Web Services
 - Solution shall be compatible with CU's Web Server hosting requirements:
 - For linux-based systems:
 - Before 1/1/2015: Oracle Enterprise Linux 6.x.
 - After 1/1/2015: Oracle Enterprise Linux 7.x or above
 - For Windows-based systems:
 - Windows Server 2012 R2 or above.

- Please note the Oracle Enterprise Linux is a variant of RedHat Enterprise Linux (RHEL)
- Accessibility
 - Offerors must provide an Accessibility Conformance Report (ACR) for their solution.
 - The ACR must be based on a Voluntary Product Accessibility Template® (VPAT®) version 2.3 or higher, provided by the Industry Technology Industry Council (ITIC).
 - The ACR must include conformance to Web Content Accessibility Guidelines (WCAG) version 2.3 levels A and AA.
 - The ACR must be completed according to the instructions.
 - If the solution has multiple forms (i.e. web version, desktop version, and mobile app), then either the provided ACR clearly covers the results of each form or an ACR for each form is provided.
 - Offerors must provide a supplemental accessibility statement including the following:
 - The offeror's commitment to providing accessible solutions.
 - Processes and practices used to ensure accessibility, including the frequency in which the ACR is renewed.
 - A list of any unsupported or partially supported criteria in the ACR that have since been remediated.
 - A roadmap, including target dates, for remediation of all applicable criteria in the ACR that are not listed as supported.
 - Any accessibility or usability features provided by the solution.
 - Any known accessibility limitations of the solution.
 - Any configuration or installation requirements to provide accessibility.
 - Contact information for reporting accessibility issues.
 - If the solution is an authoring tool used to generate electronic content (e.g. documents, web pages, multimedia):
 - Offerors must describe how the solution generates accessible content.
 - Offerors should provide documentation to guide end users in the generation of accessible content.
 - Offerors should provide samples of accessible generated content.
 - Offerors should be able to demonstrate the following:
 - Operation of the entire application using only the keyboard, including a visual focus indicator and logical navigation order.
 - Operation of the application with a screen reader (i.e. JAWS, NVDA, VoiceOver).
 - Zooming the text size to 200% without loss of functionality.
 - A color contrast ratio of at least 4.5:1 for text and images of text, with the following exceptions: large text should have a 3:1 contrast ratio; decorative text and logotypes have no contrast requirements.

- Where a user can find accessibility features, settings, and support within the application, including contact information for assistance.
- Security
 - If data is utilized, processed or otherwise stored in offeror's solution and subject to any regulatory requirements, offeror must describe and provide documentation of processes and practices that support the necessary regulatory controls for applicable data elements.
 - If solution requires confidential, sensitive or otherwise protected data transmissions, solution shall utilize a secure, encrypted method of transport (e.g. Secure Socket Layer (SSL), VPN, etc.)
 - Offeror shall describe in detail the retention of any user activity logs, and other system information (including but not limited to unauthorized login attempts, successful logins, event times, etc) of the proposed solution.
 - Upon request the offeror shall provide timely review of any actively logs that are requested.
 - Solution shall provide multiple (tiered) security levels within the application. (ex: RBAC, etc)
 - Offerors should also include documentation of how Clemson University data is kept secure and confidential.
 - Customer (CU) will require an Annual review of SOC1 (SSAE16), SOC2 reports for all vendor hosted solutions
 - Offerors shall describe and provide documentation of how data is maintained in backup, the extent/duration and method of backups, timely destruction of backups (automated and upon request), and destruction (purge) of all client data upon separation.
 - Offeror must describe and document the level of access to client data by offeror's staff or affiliates, safeguards in place to prevent any unauthorized access by offeror's staff or affiliates, and any regular review of access rights, privileges and activity by offeror's staff.
 - We need to add language to confirm our right to audit vendors/supplier their method to provide software:
 - Offerors shall be required to disclose whether or not any data, telemetry or otherwise, is sent back to the vendor at any time during the license period. Offerors shall disclose the nature of the data and provide representative samples of the data. If at any time during the license period additions are made to the data that is sent back to the vendor, Clemson will be notified of the change at least 60 days in advance.
- Disaster Recovery
 - Offerors software shall be compatible with current CU disaster recovery strategies that can meet the business expected recovery time objective (RTO) and recovery point objective (RPO).
- Integration

- Authentication
 - Solution shall support one of the following for end-user authentication (not required for administrator access)
- Shibboleth (Preferred)
- Active Directory authentication integration (Preferred)
- Secure LDAP authentication.
 - SHA-1 user/password hashing - any stored passwords must be encrypted
- API for provisioning - solution should support one of the following
 - REST (Preferred)
 - SOAP
 - NetIQ IDM driver
 - other HTTP based protocols
- Configuration/Deployment Management
 - SaltStack is the configuration/deployment management system used by Clemson University.
 - If a CU Hosted system is to be installed or configured by the offeror's personnel, SaltStack "states" should be provided by the offeror to facilitate automated provisioning and configuration. If unable to provide the SaltStack "states", the offeror shall allow in the contract sufficient consulting hours to develop the appropriate Saltstack "states" in collaboration with Clemson personnel.
 - Any license management solution based on a physical object, such as a USB key or dongle is not acceptable.
- Network
 - Offeror shall describe in detail what network access and bandwidth is required for proposed solution.
 - Solution shall be IPV6 compliant
- Right to Audit (Fair Audit Clause)
 - Contractor agrees to have an independent third-party audit performed at least once a year. The audit results (generally provided in a SOC report) and the Contractor's plan for addressing audit issues shall be shared with the Institution upon request.

Physical

- CU Hosted Solutions:
 - Solution should operate in a virtual server or container environment.
 - Offeror shall describe in detail the minimum and recommended server configurations including, but not limited to, Operating System, CPU, Memory, Disk Space, and firewall exceptions for each server and instance required.
 - Offeror shall describe in detail any 3rd party software (including version) required for the proposed solution.
 - Offeror shall adhere to the standard supported operating systems of Clemson

University

- Vendor Hosted Solutions:
 - Data may only be used in such a way as to accomplish the assigned task or as directed by Clemson University.
 - Solution shall provide a mechanism for Clemson University to control user and system level access to all functions of the hosted system where applicable. This access should include utilizing Clemson University's Shibboleth implementation for user level access.
 - Solution shall provide a mechanism for Clemson University to accurately monitor the system status including, but not limited to, the up/down status of the hosted system.
 - Vendor shall not store any Clemson University data in a facility outside of the United States.
 - Solution shall provide a mechanism to allow Clemson University to receive data files for consumption by, but not limited to, the Clemson University Data Warehouse. Vendor shall design this transfer in a way as to allow it to be scheduled and fully automated as well as fully controlled by Clemson University.
 - Vendor shall provide Clemson University a mechanism to review and export security data from the hosted solution. This data should include, but not be limited to, login history, record modifications, and user location information.
 - Customer (CU) will require an Annual review of SOC1 (SSA16) reports
 - CCIT Business Continuity/Disaster Recovery Team will require an annual review of the vendor disaster recovery plan or a SOC2 report. The SOC2 report should indicate annual disaster recovery tests proving a recovery time objective (RTO) and recovery point objective (RPO) that is acceptable to the purchasers business requirements in the event of an event at the vendor site that will impact CU's ability to do business.
 - CCIT Business Continuity/Disaster Recovery Team will require an exit strategy that can be tested annually. This will consist of a database backup of CU data being recoverable at a CU datacenter. The application may not be present but the system administrator should be able to recover the database of CU data at CU primary data center and validate record counts.
 - CCIT Business Continuity/Disaster Recovery Team will require the primary and secondary hosting site be located a minimum of 150 miles apart and from Clemson, SC.

VI. BIDDING SCHEDULE

Please see the Attchments tab in the bidding system for this document. This must be either included as a stand-alone document or be incorporated as part of your Financial Proposal.