Technical Design assistance - Biosecurity Integrated Information and Analytics System (BIISA)

Opportunity ID
665

Published
Wednesday 4 October 2017

Deadline for asking questions
Wednesday 11 October 2017 at 6PM (in Canberra)

Closing date for applications
Wednesday 18 October 2017 at 6PM (in Canberra)

Overview

Write a summary of your brief

The Commonwealth Department of Agriculture and Water Resources requires an experienced digital agency(s) to partner with to develop a design for the Biosecurity Integrated Information and Analytics System (BIISA). The technical design will be sufficiently detailed to enable the program to commence agile development. Further information is available on request.

What is the latest start date?
Within 10 business days of the contract being awarded.

**How long is the contract?**

Six (6) months

**Where will the work take place?**

Australian Capital Territory

**Who will the specialist work for?**

Australian Government Department of Agriculture and Water Resources

**Budget range**

$1.5-$3.0 million

**About the work**

**Why is the work being done?**

The Australian Government, under the Agricultural Competitiveness White Paper, approved the development of BIISA in 2016-17. The BIISA is a business and process led, technology enabled program.

The BIISA will improve biosecurity functions by providing a technical architecture that facilitates information flows and decision making, supported by better data access, sharing and analysis. It will replace some legacy biosecurity systems and create digital solutions to support business functions where none currently exist. It will develop a data environment that supports the BIISA applications and analytic activities.
The BIISA was subject to the Department of Finance’s ICT Investment Approval process. The business case endorsed BIISA as a business and process led, technology enabled program. The BIISA will adopt existing departmental technologies where possible and focus on the system solutions to support business improvements.

We are looking to engage a partner or partners that can assist with developing a:

- Detailed technical design for BIISA transactional applications characterised by complex workflows, rules and integration points to legacy systems that supports the program’s business objectives.

- Detailed design of information architecture, data environment and appropriate tools to support agile development of self-service analytic products.

The program is committed to developing an integrated product offering that provides seamless user interactions, and is of sound design that also ensures a low operating cost where possible. The design should reflect a user centered approach to design and ensure consistency, scalability and efficiency can be achieved to support the development of an integrated environment. The degree of detail of the design should enable an agile approach for development and deployment.

The technical design needs to be cognisant of the limited time and financial resources, and as such the department will require innovative technical solutions that maximise re-use where possible, whilst retaining a scalable and modern technical architecture design.

Key dates to note include:

- Completion of product assessment - November 2017
• Completion of optimal future state of BIISA applications – December 2017

• Completion of data architecture design – December 2017

• Completion of solution architecture design – December 2017

• Completion of design phase – February 2018.

The finalisation of the design phase will require detailed documentation that will withstand the Department of Finance Gateway process, the department’s internal audit system under development reviews, and satisfy the program board and department’s Information Services Division (ISD) expectations. Documentation will also allow subsequent business partners to continue to deliver on the program objectives.

Note that a subsequent procurement activity(s) is likely at the end of this design phase to select a business partner to support the remaining elements of the program. The successful partner for this design work will not be precluded from bidding for additional work under the BIISA program.

**What's the key problem you need to solve?**

The department is seeking a team of experts to partner with the program to develop a detailed design of the BIISA applications and data environment drawing on the approach established by the business case and current state analysis. The design should draw on existing departmental technologies where possible.

Some specific issues with the current systems include:

• Aged, end of life technologies

• Inefficient and fragmented processing steps

• Multiple manual processes outside of systems
• Duplication of information entry and retrieval

• Little flexibility for making changes due to changes in legislation, policy, process, templates and/or timeframes

• Poor user experience, applications not mobile friendly

• Data assets not easily shared or accessible

• High number of workarounds to address limitations of available tools

• Minimal system integration.

Further information is available on request

Describe the users and their needs

There are a range of users for BIISA, a sample of users and needs are outlined below.

As an inspections officer I require:
- a fully mobile solution that allows me to access to information, record inspection results and attach photos and other documents even when there is no signal (offline).
- access to more information to help me do my job
- a system with more automation that allows me to spend more time inspecting and less time on administration.

As an assessment services officer I require:
- one import system where I can access all the information I need to assess risks and entity performance
- a system with more automation that allows me to spend more time assessing and less reliance on manual processes.
As a biosecurity policy officer I require:

- integrated systems to identify and manage changes in threats and risks

- access to a single source of truth.

**What work has already been done?**

The BIISA program has completed a discovery phase through the development of the business case to government. High level business requirements have been developed for the BIISA applications and data environment. Pain points and high level requirements identified through the business case are being examined in a much greater level of detail. Current business processes are being mapped and assistance is sought from the digital agency partner to optimise the current, very complex, state.

The BIISA program has also commenced a series of design engagements to develop a view of the optimal future state. The digital agency partner will provide assistance to define the optimal product and the minimum viable product that will meet our primary users' needs. The digital agency partner, as part of the BIISA team, will need to engage with users as they continue to deepen the design and develop prototypes to prepare the program for commencing an agile build phase in March 2018.

The program has also undertaken a proof of concept to assess the suitability of the department’s current applications to deliver against the requirements of the BIISA. Some of these products were not deemed fit for purpose and the program is exploring how the department’s existing technologies can be used to the maximum extent possible.

Further information is available on request.
Who will the work be done with?

You will be working within the BIISA program which is a co-located team of contractors and APS staff. The BIISA program works closely with the biosecurity divisions of the department which include staff around Australia. You will also need to work closely with the department’s Information Services Division to ensure that the solution is consistent with enterprise strategy and meets the Government's ICT and data agendas.

Any additional relevant information?

We will shortlist up to four (4) sellers against the requirements defined in this brief. These shortlisted sellers will be provided with a document that outlines the work in more detail. The shortlisted sellers will then have 10 business days to provide a written proposal which must include case studies, an outline of skills and capacity and a detailed cost estimate. The skills being sought for the BIISA include solution architect and solution analysts, business analysts, user interface design, information architect, data analysts, data migration and data modellers. The program expects the technical work to be led by the digital partner.

From the case studies we require assurance that shortlisted sellers have demonstrated experience with business led, technology enabled programs commensurate with the scale and characteristics of the BIISA. Key factors to present include examples of a user centered approach to design, scale, subject matter expertise, complex integration, functional complexity and technical requirements.

Short listed sellers should also provide costing estimates based on daily rates and CVs of proposed personnel.

The program needs to be assured that the provider has the appropriate and available resources to meet these tight timeframes.
What phase is the work in?

Other

Work setup

Where will the work take place?

All work is to be undertaken at DAWR Canberra office (18 Marcus Clarke St), therefore there is a preference for Canberra based resources where available

What are the working arrangements?

Respondents are expected to work on site 5 days per week (Monday through Friday).

Is security clearance required?

Current Commonwealth Government baseline security clearance is an advantage, otherwise the ability to obtain one.

Additional information

Additional terms and conditions

Respondents are able to respond to any combination of the following:

• all roles identified in this request; and/or

• all roles under a particular requirement in this request;

The department reserves the right to select specific skillsets to meet its requirements, and may not accept all resources offered as a complete team. Where resourcing of some candidates is contingent
on a broader contract arrangement, this must be clearly stated in the service provider’s response. This is also important where discounts are offered. Respondents are also encouraged to identify their willingness, and demonstrated experience in, working as part of an integrated team comprising other providers, contractors and APS staff.

Should a respondent wish to provide alternate models to deliver on these outcomes, they will be considered at the discretion of the department.

**Skills and experience**

Buyers will use the essential and nice-to-have skills and experience to help them evaluate sellers’ technical competence.

**Essential skills and experience**

- Proven expertise in working in business led projects to design ICT solutions
- Demonstrated experience with employing a user centred approach to design
- Proven experience in working with, and optimising, complex business processes
- Experience with working integrating new applications with complex legacy ICT systems
- Collaborative approach to working across diverse stakeholder groups
- Strong organisational and communication skills
- Evidence of skilled resources and organisational depth to undertake the work.
- Proven strategic level capability to align project requirements with enterprise and agency objectives
• Proven design experience across platforms, systems and environments
• Innovative, and where necessary, bespoke solutions that adapt to existing available technology and legacy systems, but ensure contemporary and scalable long term outcomes.
• Demonstrated understanding of complex ICT systems
• Knowledge of cloud architectures and deployment models and aligns with Commonwealth Government policy.
• Demonstrated experience with designing and developing information management architecture, standards and data models that meet the immediate and future needs of the department
• Experience in dealing with controls around personally identifiable and commercially confidential information, and legislative constraints
• Proven experience with developing implementable data management and migration strategies.

Nice-to-have skills and experience

Experience in designing systems that meet regulatory responsibilities in complex operational environments.

How sellers will be evaluated

How many shortlisted sellers will you evaluate?

4

Proposal criteria

• Proven industry experience
• Organisational capability and capacity
• Individual team member’s expertise to meet required skills, and where appropriate, backup resources
• Ability to identify workable solutions within a constrained complex operating environment
• Showcase proven best practices and innovative solutions
• Experience to meet the organisational goals
• Ability to meet strict timeframes for completion of work
• Experience with integrating contemporary applications with legacy systems and presenting innovative solutions to maximise existing technologies and reuse where possible.

**Cultural fit criteria**

• Willingness and demonstrated ability to work as an integrated team, including with other contractors, consultants and APS staff
• Ability to work with subject matter experts with limited technical expertise
• Willing to challenge our internal assumptions and practices
• Prepared to advocate for best practice
• The ability to pragmatically change direction and scope as new information is discovered and challenges or opportunities present themselves
• Capacity to scale up (and down) to meet program requirements
• Ability to work with a geographically dispersed organisation and team
• Understanding of the challenges in implementing an agile, design led approach in a government context.
Payment approach

Time and materials

Assessment methods

• Written proposal
• Case study
• Work history
• Reference
• Presentation

Evaluation weighting

Technical competence
50%

Cultural fit
30%

Price
20%
Seller questions

1. A fully mobile solution that allows me to access to information, record inspection results and attach photos and other documents even when there is no signal (offline). With regards to the above user requirement, is an offline feature a mandatory requirement for this solution?

   Yes, for key elements.

2. In the question and answer section for this request, there is reference to an Information Pack for Interested Sellers. Could the department please provide the Information Pack?

   Please email Biosecurityintegratedinformationsystem@agriculture.gov.au and we will reply to your email with the information pack.

The deadline for asking questions about this opportunity was Wednesday 11 October 2017.

Interested in this opportunity?