



## Call for Proposals (CFP)

### Aerospace Industry Support Initiative (AISI): Industry Focussed Development and Technology Support Programme

**CFP 001/02/10/17**

<b>Date of Issue</b>	<b>18 September 2017</b>
<b>Closing Date</b>	<b>06 October 2017, 16:30</b>
<b>Submit</b>	Deliver hard copies at the CSIR, Building 10 (Reception), Meiring Naudé Road, Brummeria, Pretoria, 0184
<b>Queries</b>	AISI Project Manager Email: <a href="mailto:lmashoko@csir.co.za">lmashoko@csir.co.za</a>
<b>CSIR business hours</b>	08:00 – 16:30
<b>Category</b>	Aerospace

## 1 INTRODUCTION

The purpose of this document is to outline to the supporting organisation, the framework for the request for proposals and submission procedures with regards to the provision of services for the Aerospace Industry Support Initiative (AISI): Industry Development and Technology Support Programme. It serves as a guideline to service providers interested in submitting proposals for consideration by the AISI technical review committee.

## 2 BACKGROUND

### 2.1 Aerospace Industry Support Initiative

The AISI is an initiative of the Department of Trade and Industry (**the dti**). The AISI takes its strategic direction from government's objectives with emphasis for the aeronautic-, space- and defence industry, on:

- Supplier Development
- Industrialisation of Technology;
- Industry Transformation; and
- Job Creation.

The AISI is hosted by the CSIR and has a specific aim of industrial development and technology based supplier development. The AISI is a fully government-funded mechanism to support the local South African aeronautics, defence and space industry. The AISI works across all of South African industry and with local, as well as international, aerospace Small Medium and Micro Enterprise (SMMEs) and original equipment manufacturers (OEMs).

The role of the AISI as an industry support mechanism is to:

- Increase the contribution of small enterprises in the economy;
- Significantly enhance Broad Based Black Economic Empowerment (B-BBEE);
- Raise the levels of direct investment overall, as well as in defined priority sectors;

- Increase market access opportunities for the export of South African goods and services;
- Contribute towards building skills and technology platforms;
- Improvement of the local industry competitiveness;
- Ensuring that new technologies are taken up by industry through an active process of industrialisation; and
- Enable new suppliers to enter the supply chain and develop new technologies, industries and SMMEs, to enable market entry and global competitiveness through access to technology.

## 2.2 Industry Development and Technology Support

Industry Development and Technology support focuses on advancing the involvement of industry in sectors relating to advanced manufacturing in aeronautics, space and defence. Industry is encouraged to industrialise technologies to the advancement of South African niche capability and value proposition.

- Partnerships are established between organisations to achieve this goal;
- Access to national infrastructure and expertise is facilitated;
- Specific emphasis is placed on providing access to new and existing processes, products and methods into industry;
- Industrialising technology from universities and institutions;
- Enhancing industry competitiveness by ensuring appropriate technology transfer interventions; and
- OEMs are encouraged to include SMMEs as well as lower tier supplier, to ensure the continuous transfer of knowledge, expertise, capability and technology, and in doing so, broadening the industry base.

### 3 INVITATION FOR PROPOSAL

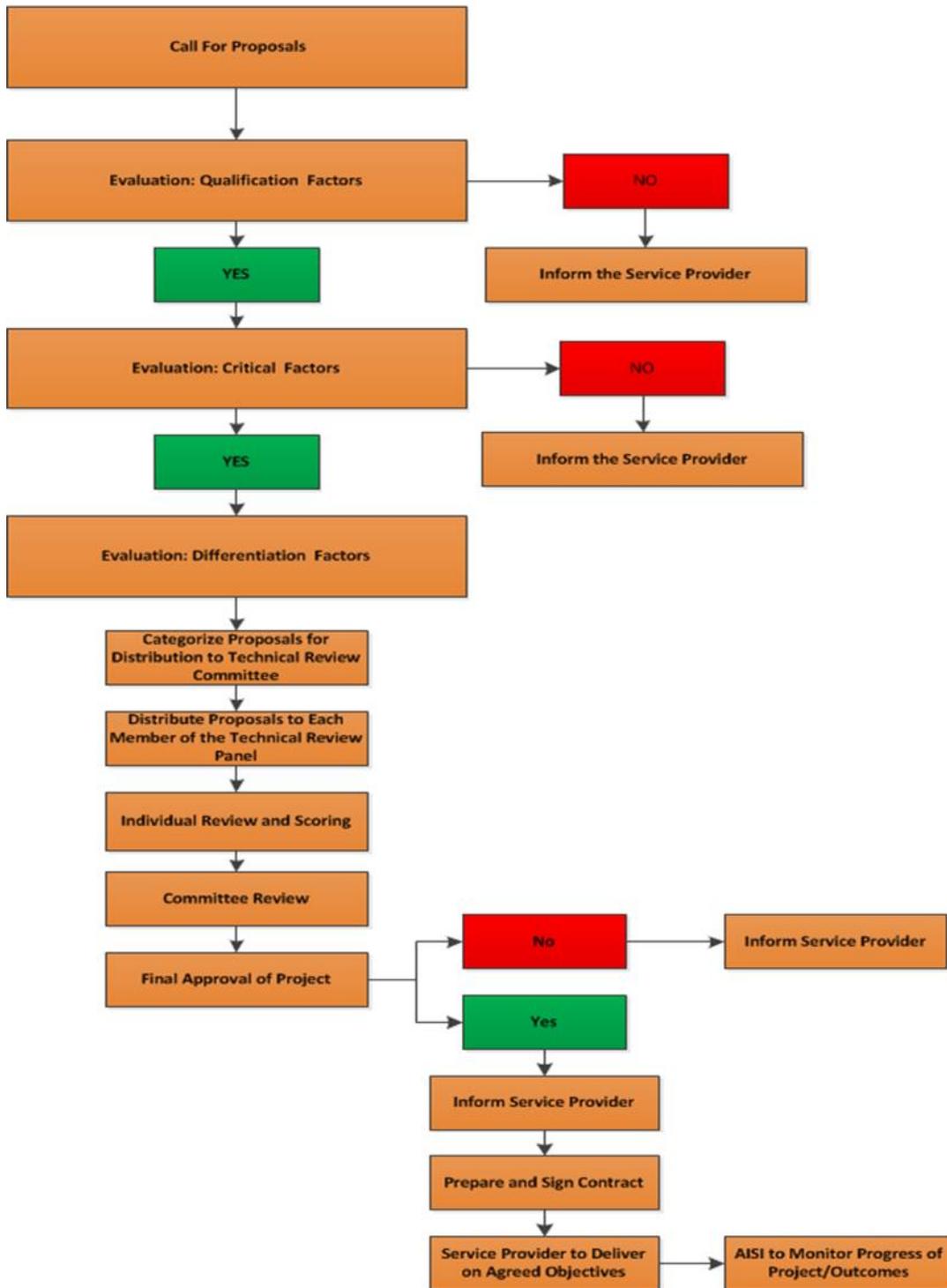
The AISI realises that there is a need to support the local industry; therefore a request for proposals aligned to its goals, those of the Industrial Policy Action Plan (IPAP 2017/18-2018/19) and the Aerospace Sector Development Plan (SDP), is being issued.

This call is aimed at attracting projects that contribute towards the development of the SA aeronautics, space and defence industry, specifically focusing on:

- Supporting SMMEs and established industry in fostering new technology; and
- Developing the local content and capability of South African entities.

The call for proposals and assessment process is shown in Figure 1. The process is as follows:

- All proposals will initially be reviewed to ensure that they fulfil the qualification and critical evaluation factors. If not, the project proposal will be disqualified and the service provider will be informed thereof;
- All projects that fulfil the qualification and critical evaluation factors will then be categorised accordingly and the project proposals will be distributed to each member of the pre-determined technical review committee;
- Each member of the review committee will review and score the projects using pre-approved differentiation evaluation factors. Each member will have a maximum of one week to review all projects;
- A committee review will take place to obtain a final score and approval of all projects to be supported by the AISI;
- Service Providers will be informed if their projects will be supported;
- Approved projects will be contracted through the CSIR processes and procedures;
- Contracts will be managed by the AISI; and
- The AISI will monitor progress of all the supported projects for the duration of the project.



**Figure 1: Call for Proposal Assessment Process**

### 3.1 Thematic Areas

The thematic areas chosen are based on those which are seen as the most promising area for growth within the **aeronautics, defence and space** industries and are at the discretion of the AISI. The thematic areas are:

- Avionics;
- Propulsion;
- Radar Technology;
- Advanced Materials; and
- Advanced Manufacturing and processing (including certification of manufacturing processes).

The continuation of projects previously supported by the AISI may also be considered. Only projects with a Technology Readiness Level (TRL) value  $\geq 4$  (greater than or equal to four) will be considered for support. The TRL definitions are shown in Appendix: TRL Definitions

### 3.2 Project Budget

The total project budget specified in the proposal being submitted may not exceed the amount specified below:

- Project Budget  $\leq$  R 750 000.00 (Seven Hundred Fifty Thousand South African Rand) (excl VAT)

Any project proposals received with project budget amounts over the above value will be disqualified. Applicants are advised to co-invest in the project. This must be shown in the pricing proposal.

### 3.3 Project Timeline

All proposed projects must have a maximum duration of one year even though shorter duration projects are preferred.

All project deliverables must be completed within this timeframe, no extensions will be permitted.

## 4 PROPOSAL SPECIFICATION

All proposals are to be submitted in a format specified in this enquiry (template is provided).

## 5 FUNCTIONAL EVALUATION CRITERIA

### 5.1 Evaluation of proposals

All proposals will be evaluated by an evaluation team for functionality, price and B-BBEE. Based on the results of the evaluation process, the AISI will approve the awarding of the contract to successful beneficiaries.

A two-phase evaluation process will be followed:

- The first phase includes **qualification, critical and differentiation evaluation factors**.
- The second phase includes the evaluation of **price** and **B-BBEE** status.

Pricing Proposals will only be considered after first phase has been adjudicated and accepted. Only proposals that achieved a minimum qualification score for functionality will be evaluated further using the preference points system.

The **80/20** preference point system will be used where **80** points will be dedicated to price and **20** points to B-BBEE status.

### **5.1.1 Qualification and Critical Evaluation Factors**

The assessment criteria for the evaluation of all project proposals are firstly divided into qualification (based on the service provider) and critical (based on the proposal) factors. These are shown in Table 1. For the qualification and critical factors, any NO answer immediately disqualifies the proposal.

***The proposal template which is also published with this CFP is required to be completed and submitted. The evaluation of the CFP will be based on the information provided in the proposal template and any additional documentation requested.***

### **5.1.2 Differentiation Evaluation Factors**

The differentiation factors for the evaluation of all project proposals are shown in Table 2. Each differentiation factor is assigned a score (maximum 10) which is then weighted according to the importance of the factor. Please note the following:

- A minimum score of 50 must be achieved for each differentiation factor. If this is not achieved the proposal will be disqualified.
- A minimum total weighted score of 65 must be achieved. If this is not achieved the proposal will be disqualified.

**Table 1: Qualification and Critical evaluation factors for assessing project proposals**

Qualification Evaluation Factors	Yes	No
South African registered company		
Valid tax clearance certificate		
Critical Evaluation Factors		
Project within thematic area or continuation of existing AISI supported project		
Project within the specified duration		
Is the costing for the project correct?		
Does the project fall within the predetermined budget category?		
Technology Readiness Level value $\geq 4$ at start of project		
No duplication of infrastructure, product or service?		
Is the project outside of normal beneficiary operations?		
Completed proposal template		
Aeronautics/space/defence related?		
Is the application complete?		
Submission of CFP Terms of Reference		
Projects previously supported by the AISI are completed and deliverables have been achieved (If applicable)		

**Table 2: Differentiation Evaluation factors for assessing project proposals**

Differentiation Factors		Score	Weight	Weighted Score
Factor	Scoring	( /10)	(%)	
<b>Strategic nature and relevance of project/technology to South African aerospace development</b>	Project/Technology contributes to SA development by adhering to: <ul style="list-style-type: none"> <li>• More than one government policy and/or strategic document (assigned score : 10)</li> <li>• One government policy and/or strategic document (assigned score: 5)</li> <li>• No government policies and/or strategic documents (assigned score: 0)</li> </ul>		<b>15</b>	
<b>Favourable ratio of self-investment if not SMME</b>	Co-investment from applicant if NOT SMME <ul style="list-style-type: none"> <li>• More than or equal to 100% of requested funds (assigned score : 10)</li> <li>• 75 - 99% of requested funds (assigned score: 8)</li> <li>• 50 - 74% of requested funds (assigned score: 6)</li> <li>• 25 – 49% of requested funds (assigned score: 4)</li> <li>• 5 - 24% of requested funds (assigned score: 2)</li> <li>• Less than 5% (assigned score: 0)</li> </ul>		<b>15</b>	
<b>Collaborative nature of project</b>	Involvement of (excluding organisation submitting proposal): <ul style="list-style-type: none"> <li>• More than 3 organisations, minimum 2 SMMEs (assigned score: 10)</li> <li>• 2 – 3 organisations, minimum 1 SMME (assigned score:5)</li> <li>• No collaboration (assigned score 0)</li> </ul>		<b>15</b>	
<b>Human Capital Development</b>	Number of jobs potentially retained, created or personal to be trained: <ul style="list-style-type: none"> <li>• More than 5 (assigned score 10)</li> <li>• 4 – 5 (assigned scored: 8)</li> <li>• 1 – 3 (assigned score: 5)</li> <li>• None (assigned score: 0)</li> </ul>		<b>10</b>	

Differentiation Factors		Score	Weight	Weighted Score
Factor	Scoring	( /10)	(%)	
<b>Skills and Knowledge Transfer</b>	<p>Submission of a plan that details how skills, knowledge transfer and technical development will be gained through the project and transferred to industry and the aerospace supplier base i.e. how will the project result in suppliers being developed on a technical level (e.g. lectures, workshops, presentations etc)</p> <ul style="list-style-type: none"> <li>• The plan successfully addresses all applicable aspects, no limitations (assigned score: 10)</li> <li>• The plan addresses the criterion thoroughly, but with a small number of limitations (assigned score: 8)</li> <li>• The plan broadly addresses the criterion, but there are significant weaknesses (assigned score: 5)</li> <li>• The plan fails to address the criterion and/or cannot be assessed due to missing or incomplete information (assigned score: 0)</li> </ul>		<b>10</b>	
<b>Quality and Feasibility</b>	<p>Quality and overall direction of proposal</p> <ul style="list-style-type: none"> <li>• The proposal successfully addresses all applicable aspects, no limitations (assigned score: 10)</li> <li>• The proposal addresses the criterion thoroughly, but with a small number of limitations (assigned score: 8)</li> <li>• The proposal broadly addresses the criterion, but there are significant weaknesses (assigned score: 5)</li> <li>• The proposal fails to address the criterion and/or cannot be assessed due to missing or incomplete information (assigned score: 0)</li> </ul>		<b>15</b>	
	<p>Are the objectives and methodology appropriate for the proposed work and time frame?</p> <ul style="list-style-type: none"> <li>• The proposal successfully addresses all applicable aspects, no limitations (assigned score: 10)</li> <li>• The proposal addresses the criterion thoroughly, but with a small number of limitations (assigned score: 8)</li> <li>• The proposal broadly addresses the criterion, but there are significant weaknesses (assigned score: 5)</li> </ul>		<b>10</b>	

Differentiation Factors		Score	Weight	Weighted Score
Factor	Scoring	( /10)	(%)	
	<ul style="list-style-type: none"> <li>The proposal fails to address the criterion and/or cannot be assessed due to missing or incomplete information (assigned score: 0)</li> </ul>			
	<p>Does the applicant have the relevant technical expertise and industry experience to undertake the project</p> <ul style="list-style-type: none"> <li>More than 10 years (assigned score: 10)</li> <li>5 – 10 years (assigned score: 8)</li> <li>Less than 5 years (assigned score: 5)</li> </ul>		10	
<b>Total</b>		<b>/100</b>	<b>100</b>	<b>100</b>

### 5.1.3 Guidelines and Key Points

Any South African SMME or OEM is invited to submit proposals in support of this call. Applicants are encouraged to propose projects with the support of a consortium of partners. Such partners should ideally co-fund/contribute to the project.

Please note the following:

- An organisation may submit more than one proposal.
- All enquiries must be directed to the AISI.
- More than one company will be supported through this call.
- Companies receiving support will be based on merit.
- Complete the project proposal template and submit by the date and time specified.
- All project proposals will be treated as confidential as well as all relevant documentation, data and information.
- The process of evaluating all proposals will be conducted in a fair and confidential manner.
- All technical experts in the review committee are also bound by an obligation of confidentiality.
- Only applications received before or on the due date will be considered for this call.
- Participants who have not completed and submitted all deliverables as per projects undertaken with the AISI during the previous project cycle will not be considered for funding.
- Contracts will be entered into between the CSIR on behalf of AISI and the successful institution(s) for each successful project proposal.
- Subject to the nature and scope of a project, a Project Manager from the AISI shall be the primary technical contact between the AISI and the recipient.
- A payment schedule will be negotiated on a project-by-project basis.
- Co-investment if beneficiary is not an SMME is encouraged.
- Local OEMs and integrators are encouraged to utilise local SMMEs in proposed project.

## 6 ELIMINATION CRITERIA

Proposals will be eliminated under the following conditions:

- Proposals submitted at incorrect location;
- Submission after the deadline date and time;
- Incomplete Submission;
- Proposal template not completed, signed and submitted;
- No B-BBEE certificate;
- No Tax Clearance Certificate; and
- Non submission of CFP Terms of reference (this document), initial each page and submit;

## 7 VENUE FOR PROPOSAL SUBMISSION

All proposals must be submitted at:

- **CSIR, Building 10 (Reception)** at the following address:  
Council for Scientific and Industrial Research (CSIR)  
627 Meiring Naudé Road  
Brummeria  
Pretoria  
0184

## 8 PROGRAMME DURATION

The tender program, as currently envisaged, incorporates the following key dates:

- Issue of tender documents: 18 September 2017
- Last date for submission of queries: 04 October 2017
- Closing / submission Date: 06 October 2017
- Estimate appointment date of successful tenderer: 01 November 2017
- Estimated contract duration (in months/years) ≤ 12 months/1 Year

## 9 SUBMISSION OF PROPOSALS

- 9.1 All proposals are to be sealed. No open proposals will be accepted.
- 9.2 All proposals are to be clearly marked with the CFP number and the name of the tenderer on the outside of the main package. Proposals must consist of two parts, each of which is placed in a separate sealed package clearly marked:
- PART 1:** Technical Proposal:
- PART 2:** Pricing Proposal, B-BBEE and other Mandatory Documentation:
- 9.3 Proposals submitted by companies must be signed by a person or persons duly authorised.
- 9.4 The AISI will award the contract to qualified tenderer(s)' whose proposal is determined to be the most advantageous to the AISI, taking into consideration the technical (functional) solution, price and B-BBEE.

## 10 DEADLINE FOR SUBMISSION

Proposals shall be submitted at the address mentioned above no later than the closing date of **Friday, 06 October 2017** during AISI's business hours. The AISI business hours are between 08:00 and 16:30.

Where a proposal is not received by the AISI by the due date and stipulated place, it will be regarded as a late tender. Late tenders will not be considered

## 11 ANNEXURE A: Technology Readiness Levels

**TRL 1 Basic principles observed and reported:** Transition from scientific research to applied research. Essential characteristics and behaviours of systems and architectures. Descriptive tools are mathematical formulations or algorithms.

**TRL 2 Technology concept and/or application formulated:** Applied research. Theory and scientific principles are focused on specific application area to define the concept. Characteristics of the application are described. Analytical tools are developed for simulation or analysis of the application.

**TRL 3 Analytical and experimental critical function and/or characteristic proof-of concept:** Proof of concept validation. Active Research and Development (R&D) is initiated with analytical and laboratory studies. Demonstration of technical feasibility using breadboard or brass board implementations that are exercised with representative data.

**TRL 4 Component/subsystem validation in laboratory environment:** Standalone prototyping implementation and test. Integration of technology elements. Experiments with full-scale problems or data sets.

**TRL 5 System/subsystem/component validation in relevant environment:** Thorough testing of prototyping in representative environment. Basic technology elements integrated with reasonably realistic supporting elements. Prototyping implementations conform to target environment and interfaces.

**TRL 6 System/subsystem model or prototyping demonstration in a relevant end-to-end environment (ground or space):** Prototyping implementations on full-scale realistic problems. Partially integrated with existing systems. Limited documentation available. Engineering feasibility fully demonstrated in actual system application.

**TRL 7 System prototyping demonstration in an operational environment (ground or space):** System prototyping demonstration in operational environment. System is at or near scale of the operational system, with most functions available for demonstration and test. Well integrated with collateral and ancillary systems. Limited documentation available.

**TRL 8 Actual system completed and "mission qualified" through test and demonstration in an operational environment (ground or space):** End of system development. Fully integrated with operational hardware and software systems. Most user documentation, training documentation, and maintenance documentation completed. All functionality tested in simulated and operational scenarios. Verification and Validation (V&V) completed.

**TRL 9 Actual system "mission proven" through successful mission operations (ground or space):** Fully integrated with operational hardware/software systems. Actual system has been thoroughly demonstrated and tested in its operational environment. All documentation completed. Successful operational experience. Sustaining engineering support in place.