



## Call for Proposals (CFP)

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

**CFP 001/09/06/20**

<b>Date of Issue</b>	<b>09 June 2020</b>
<b>Closing Date</b>	<b>30 June 2020, 16:30</b>
<b>Submissions</b>	Submissions to be emailed to <a href="mailto:lmashoko@csir.co.za">lmashoko@csir.co.za</a>
<b>Queries</b>	AISI Technical Leader Tel.: (012) 841-4466 Email: <a href="mailto:lmashoko@csir.co.za">lmashoko@csir.co.za</a>
<b>CSIR Business Hours</b>	<b>08:00 – 16:30</b>
<b>Category</b>	<b>Aerospace</b>

## 1 INTRODUCTION

The purpose of this document is to outline the framework for the call 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 potential beneficiaries 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, Industry and Competition (**the dtic**). The AISI takes its strategic direction from government's objectives with emphasis on the aeronautic, space and defence industry, on:

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

The AISI is hosted and managed 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 with the entire South African industry, as well as with local and international aerospace Small Medium and Micro Enterprise (SMMEs) and Integrators and Sub-systems Suppliers.

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

- Increase the contribution of SMMEs 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, in order to enable market entry and global competitiveness through access to national expertise and infrastructure.

## 2.2 Industry Development and Technology Support

The Industry Development and Technology Support Programme focuses on advancing the involvement of industry in sectors relating to advanced manufacturing in aeronautics, space and defence. Industry is encouraged to apply for funding to industrialise technologies to the advancement of South African niche capabilities and value propositions to support the following:

- Ensuring partnerships are established between organisations;
- Accessing national infrastructure and expertise;
- Accessing new and existing processes, products and methods to enter into the industry;
- Industrialising technologies from universities and other research institutions;
- Enhancing industry competitiveness by ensuring appropriate technology transfer interventions; and
- Integrators and Sub-Systems Suppliers are encouraged to include SMMEs as well as lower tier suppliers, to ensure the continuous transfer of knowledge, expertise, capabilities and technologies, 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 Call for Proposals (CFP) is issued aimed at attracting projects that contribute towards the development of the South African aeronautics, space and defence industry, specifically focusing on:

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

The CFP is open to both local **INTEGRATORS AND SUB-SYSTEMS SUPPLIERS** and **SMMEs**.

### Definitions:

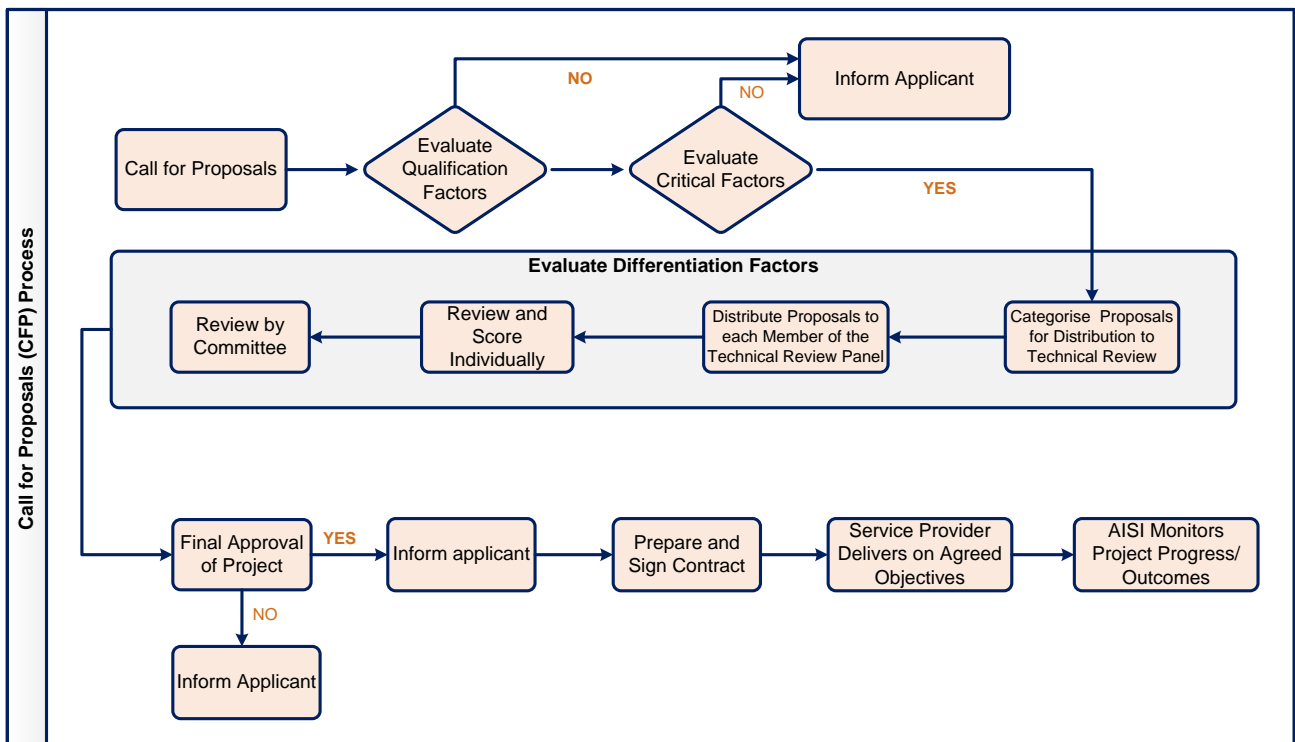
An Integrator and Sub-Systems Supplier is a company whose products are used as components in the products of another company. The integrators and sub-systems suppliers generally works closely with the company that sells the finished product and customises designs based on that company's needs. Only integrators and sub-systems suppliers who are involved in aerospace advanced manufacturing will be considered.

A manufacturing SMME according to the National Small Business Amendment Act, No. 26 of 2003, is defined as having less than:

- 200 full time employees;
- R51 million annual turnover; and R19 million total gross asset value (fixed property excluded)

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 the members of a pre-determined technical review committee;
- Each member of the technical review committee will review and score the projects using pre-approved differentiation evaluation factors;
- A technical review will take place to obtain a final score and approval of all projects to be supported by the AISI;
- Service providers will be formally informed if their project was approved for support or not;
- Approved projects will be contracted through the CSIR processes and procedures;
- Contracts will be managed by the AISI including monitoring of approved deliverables.



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

### 3.1 Thematic Areas

The thematic areas selected are at the discretion of the AISI and are seen as those most relevant for technology advancement in the South African aeronautics, space and defence sectors. These are:

- Aerostructures including advanced manufacturing and processing Aerostructures including advanced manufacturing and processing);
- Space;
- Avionics;
- Propulsion and
- Surveillance and Sensor Systems

The continuation of projects previously supported by the AISI will also be considered for support. Only projects with a Technology Readiness Level (TRL) value  $\geq 4$  (greater than or equal to four) will be considered for support. **Refer to TRL definitions in Section 10.**

**NOTE:** The AISI **ONLY** supports Advanced Manufacturing Projects. The AISI does not support construction, renovation or upgrade of buildings.

### 3.2 Project Budget

The total project budget requested from the AISI 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 requested budget amounts over the above value will be disqualified. It will be beneficial for applicants to co-invest in the projects; this should be included in the pricing proposals. (*This means that the total project amount including co-funding from the beneficiary can exceed the R750 000*).

### 3.3 Project Timelines

All proposed projects must have a maximum duration of one year (12 months). All project deliverables must be completed within the specified timeframes, no extensions will be permitted.

## 4 PROPOSAL SPECIFICATION

All proposals are to be submitted in a format as specified in the CFP document (a template is provided under Annexure A).

## 5 FUNCTIONAL EVALUATION CRITERIA

### 5.1 Evaluation of proposals

All proposals will be evaluated by a technical review committee 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.

Price and B-BBEE will only be considered after the first phase has been evaluated and accepted. Only proposals that achieved the minimum qualification score for functionality will be evaluated further using the **80/20** preference point system; 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 published with this CFP, must 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 and 3. Integrators and Sub-Systems Supplier applications will be evaluated using Table 2, whereas SMME applications will be evaluated using Table 3. **Please indicate if you are applying as an Integrator and Sub-Systems Supplier or SMME in the proposal template.**

Each differentiation factor is assigned a score (maximum 10), which is then weighted according to the importance of the factor. Please note the following:

- Proposals with functionality / technical points of less than the pre-determined minimum overall percentage of 65% and less than 50% on any of the individual criteria will be eliminated from further evaluation.

**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	Yes	No
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 for Integrators and Sub-Systems Suppliers**

Differentiation Factors: Integrators and Sub-Systems Suppliers		Score	Weight	Weighted Score
Factor	Scoring	( /10)	(%)	
<b>Strategic nature and relevance of project/technology to South African aerospace development</b>	<p>Project/Technology contributes to SA development by adhering to:</p> <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>	<p>Co-investment from applicant if <b>NOT</b> SMME</p> <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>	<p>Involvement of (excluding organisation submitting proposal):</p> <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> <p><b><i>The role of the SMMEs on the project should be clearly indicated</i></b></p>		<b>15</b>	
<b>Human Capital Development</b>	<p>Number of jobs potentially retained, created or personnel to be trained:</p> <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>	



<b>Differentiation Factors: Integrators and Sub-Systems Suppliers</b>		<b>Score</b>	<b>Weight</b>	<b>Weighted Score</b>
<b>Factor</b>	<b>Scoring</b>	<b>( /10)</b>	<b>(%)</b>	
<b>Industry Development</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>10</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>15</b>	

Differentiation Factors: Integrators and Sub-Systems Suppliers		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/organisation have the relevant technical expertise and industry experience in advanced manufacturing 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>		<b>10</b>	
<b>Total</b>			<b>100</b>	<b>100</b>

**Table 3: Differentiation Evaluation for SMMEs**

<b>Differentiation Factors: SMMEs</b>		<b>Score</b>	<b>Weight</b>	<b>Weighted Score</b>
<b>Factor</b>	<b>Scoring</b>	<b>( /10)</b>	<b>(%)</b>	
<b>Strategic nature and relevance of project/technology to South African aerospace development</b>	<p>Project/Technology contributes to SA development by adhering to:</p> <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>Collaborative nature of project</b>	<p>Involvement of:</p> <ul style="list-style-type: none"> <li>• More than 3 organisations, minimum 1 SMME (assigned score: 10)</li> <li>• 2 – 3 organisations, minimum 1 SMME (assigned score:5)</li> <li>• No collaboration (assigned score 0)</li> </ul> <p><b><i>The role of other SMMEs on the project should be clearly indicated</i></b></p>		<b>15</b>	
<b>Human Capital Development</b>	<p>Number of jobs potentially retained, created or personal to be trained:</p> <ul style="list-style-type: none"> <li>• More than 5 (assigned score 10)</li> <li>• 3-5 (assigned scored: 8)</li> <li>• Less than 2 (assigned score: 5)</li> <li>• None (assigned score: 0)</li> </ul>		<b>15</b>	

Differentiation Factors (SMMEs)		Score	Weight	Weighted Score
Factor	Scoring	( /10)	(%)	
<b>Industry Development</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>15</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>10</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>15</b>	

Differentiation Factors (SMMEs)		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/organisation have the relevant technical expertise and industry experience in advanced manufacturing 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>		15	
<b>Total</b>			100	100

### 5.1.3 Guidelines and Key Points

Any South African **Integrators and Sub-Systems Suppliers** and **SMMEs** are 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:

- **Submit your applications via email:** [lmashoko@csir.co.za](mailto:lmashoko@csir.co.za)
- An organisation may submit more than one proposal but only one project can be supported per company.
- The AISI will only support advanced manufacturing aerospace related projects under this call for proposal.
- The AISI does not fund feasibility studies.
- 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, relevant documentation, data and information will be treated as confidential.
- 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.
- Beneficiaries who have not completed and submitted all deliverables, as per the 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 the 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 will be the primary technical contact between the AISI and the recipient.
- A payment schedule will be negotiated on a project-by-project basis.
- Even though SMMEs will not be evaluated on co-investment it is encouraged for SMMEs to co-fund the project as well.
- Local Integrators and Sub-Systems Suppliers are required to utilise local SMMEs in the proposed project.

## 6 ELIMINATION CRITERIA

Proposals will be eliminated under the following conditions:

- Submission after the deadline date and time;
- Incomplete Submissions;
- Proposal template not completed, signed and submitted;
- No B-BBEE certificate;
- Companies that have a B-BBEE level of non-compliant;
- No Tax Clearance Certificate; and
- No signed CFP Terms of Reference (this document), each page should be initialed and submitted with the proposal.

## 7 PROGRAMME DURATION

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

- Issue of tender documents: 09 June 2020
- Last date for submission of queries: 25 June 2020
- Closing / submission date: 30 June 2020 at 16:30
  
- Estimated appointment date of successful tenderers: 22 July 2020
- Estimated contract duration (in months/years) ≤ 12 months/1 Year

## 8 SUBMISSION OF PROPOSALS

- 8.1 Due to the current COVID-19 pandemic, ONLY electronic copies will be accepted and must be submitted via email to Livison Mashoko - [lmashoko@csir.co.za](mailto:lmashoko@csir.co.za).
- 8.2 All CFP documents must be received no later than the stipulated closing date and time. Any CFP submitted after the stipulated time and date will be automatically disqualified.
- 8.3 All queries pertaining to the CFP must be forwarded for attention: Livison Mashoko - [lmashoko@csir.co.za](mailto:lmashoko@csir.co.za) with **AISI Industry Development and Technology Support Programme** as the subject.
- 8.4 Proposals submitted by companies must be signed by a person or persons duly authorised.
- 8.5 The AISI will award the contract to qualified tenderer(s) whose proposal(s) is determined to be the most advantageous to the AISI, taking into consideration the technical (functional) evaluation, price and B-BBEE.

## 9 DEADLINE FOR SUBMISSION

Proposals must be submitted at the address mentioned above by no later than the closing date of Tuesday, 30 June 2020 during the 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 at the stipulated time, it will be regarded as a late submission. Late submissions will not be considered.



## 10 Technology Readiness Levels (TRLs)

**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.

**ANNEXURE A: PROPOSAL TEMPLATE (provided)**

- [Proposal Template](#)