**SmartSat CRC Victoria Node
Open Call:** Submissions due 3 February 2025

# Rationale

The Victoria Node (Vic Node) of SmartSat, in conjunction with Victorian Government, is issuing this Open Call for Projects that will foster the creation and commercialisation of space-related research and innovation, or support the translation of past research and adoption, in Victoria.

The Call aims at supporting research to industry partnerships and empowering the space-related industry ecosystem of Victoria, creating State-based opportunities for industry-led R&D with SmartSat CRC’s current partner base and beyond.

This Open Call is seeking industry led projects, not greater than 6-months in duration, relevant to the **Research Priority Areas** described in this call.

# Requirements

This Open Call, and the selection of successful responses, is driven by the following requirements:

1. **Project team composition & focus**
	1. Project proposals to be developed, led and submitted by an industry project partner (i.e. with an ABN / ACN) based in Victoria. The lead industry project partner does **NOT** have to be a member or partner of SmartSat CRC; however, collaborative projects involving one or more SmartSat industry partners are highly encouraged.
	2. Project team to be comprised of at least one industry and one research organisation.
		1. The lead industry project partner must be a Victorian business which is defined as a business that: has its headquarters in Victoria; or
		2. is liable to pay payroll tax in Victoria on the wages or salaries of at least half its employees; or
		3. in undertaking its activities, otherwise makes a material contribution to the Victorian economy, as determined by the State (in its absolute discretion)
	3. Projects that include a clear end customer as part of the project team are encouraged
	4. The Victoria Node is specifically looking to support projects that will tangibly unlock research partner IP and capability as a means to retire technical and/or market risks for the industry project partner, thereby improving technical and investment readiness levels.
	5. Projects supporting the inclusion and adoption of prior research outcomes into business operations will be favourably considered.
2. **Funding arrangements**
3. Total project total (cash) budget should not exceed AUD$300,000 + GST
4. Industry partner(s) co-investment in the project is required in the form of cash. SmartSat CRC will match industry funding at a cash ratio of $1 Industry : $2 SmartSat Node funding
5. SmartSat CRC will disperse the funds directly to each partner on receipt of an appropriate invoice.
6. Project funds are expected to be allocated to the Research partner to undertake the research and innovation activities and/or project required activities.
7. In-kind contributions from all project parties are accepted and will be considered in the selection of project proposals.
8. **Research Priority Areas:**
	1. **Advanced Communications, Connectivity & IoT Technologies**
	including technologies for creating commercial products and services for application areas such as:
		1. Laser communication
		2. Next Generation ground stations & terminals
		3. Mobile optical antennas
		4. Quantum cryptography
		5. Adaptive communication networks
		6. Spectrum sensing & Cognitive radio
		7. Next Generation IoT architectures
		8. Ad-hoc connectivity
		9. Satellite & terrestrial network integration.
	2. **Advanced Satellite Systems, Sensors and Intelligence**
	including technologies for creating commercial products and services for application areas such as:
		1. MBSE & Digital twins of small satellite systems
		2. Autonomous, cooperative satellite formations
		3. Artificial Immune Systems in satellite swarms
		4. Trusted Autonomous Formations
		5. Self-healing satellite systems
		6. Agile & resilient satellites
		7. Satellite system & data security
		8. Advanced pointing & manoeuvring
		9. On-board machine learning modules
		10. Advanced adaptable payloads
		11. HgCdTelR Optoelectronic sensors
		12. Quantum sensors.
	3. **Next Generation Earth Observation Data Services**
	including EO-related analytics, sensor technologies, and other technologies related to creating commercial products and services for application areas, such as:
		1. Food & fibre supply chains (agriculture, aquaculture, farming)
		2. Mining and resources
		3. Defence and security
		4. Environment and infrastructure
9. **Reporting**

A summary report will be required at the end of the Project. This report must summarise activities, including deliverables, and describe any next steps between partners. A template document will be provided by SmartSat for the summary report. Excerpts from summary reports may be made available for promotional, and/or case study purposes.

**More Information**

For further information and confidential enquiries, please contact: research.projects@smartsatcrc.com

**Project Application**

# Instructions

* This template includes a ‘Project Concept’ and ‘Response to Project Concept’ template which are designed to capture the key information enable the SmartSat Vic Node team to review and assess project proposals
* To apply follow the steps below:
	1. Complete the application form as a collaborative team
	2. Agree on intellectual property arrangements as part of submission.
	3. Submit final application to SmartSat
* It is expected that a lead industry partner will champion any proposal and be the party that submits it to the SmartSat on behalf of the project team
* The Application will be assessed against the SmartSat Research Project Investment Criteria and Approval Policy
* Applicants are strongly encouraged to refer to the following documents (available at <https://smartsatcrc.com/research/resources/> ) when developing their proposal:
	+ 1. [Research Project Investment Criteria and Approvals Policy](https://smartsatcrc.com/app/uploads/SmartSat-Policy-Research-Project-Investment-Criteria-and-Approval.pdf), and
		2. [Project Costing Principles.](https://smartsatcrc.com/app/uploads/FN-Procedure-Project-Costing-Principles-2.pdf)
* To assist in completing the Application (Project Concept and Response to Project Concept) below, some guidance information has been presented in the template. *All guidance is in red italic font*. These should be removed upon completion of the Application.
* SmartSat will only accept Applications using the templates provided below.

# Streamlined Project Proposal Assessment and Approval Flow

**Project Concept**

# PROJECT SUMMARY

|  |  |
| --- | --- |
| **Project Title** | *Enter project title* |
| **Summary** | Short 1-2 paragraph description of the project summarising key aims, activities and expected outcomes/outputs. |

# PROJECT AIMS AND OBJECTIVES

|  |  |
| --- | --- |
| **List specific aims and long-term objectives with a clear purpose.** | *What are you looking to do?**What are the intended primary deliverables/outcome of the project?*This section must not exceed one A4 page. |

# Problem Statement

|  |  |
| --- | --- |
| **Briefly state the challenge this project will address** | *What is the State of the Art and limits of current practice?**What is the problem / gap / opportunity that this research / commercialisation project is intending to solve / fill / create?**Who is the customer – who will benefit from solving this problem?**Outline the preferred approach to implement/manage the project**This section must not exceed one A4 page.* |

# Strategic Alignment

|  |  |
| --- | --- |
| **Strategic Alignment** | *Briefly describe the relevance of the proposed project to the Research Priority Areas described in this call and the technology roadmap of the Industry Partner* |

# Utilisation

|  |  |
| --- | --- |
| **Utilisation Plan** | *Briefly describe how will the end user or industry partner exploit (utilise) the outcomes (deliverables) from this project to achieve impact? (pathway for adoption, utilisation and/or commercialisation approach)* |

# Impact

|  |  |
| --- | --- |
| **Description** | *Briefly describe how the project will impact the customer and/or industry group who most experience the current problem, and how the benefits might impact the wider Australian space sector and / or other industry sectors.* |

**Response to Project Concept**

# Project Team

|  |  |
| --- | --- |
| **Project Lead**  | *Enter name, position email and phone number.* |
| **Estimated Start date** | Provide a brief statement to indicate when you could commence the project.  |
| **Project duration** | ( not exceeding 6-months) |
| **Participants** | **Organisation** | **Point of Contact** |
| *Typically, participants on a Project Agreement receive some cash funding and/or are significantly involved in developing Project IP through contributing to research design, operationalisation, analysis and dissemination.* | List the organisations, together with their ABN and Address, that will participate in this project.  | Identify key points of contact for each participant – name, position, phone number and email |
| **Project Team** | Provide a brief statement to indicate why this team has the capability to undertaking the project and deliver impact.*Provide any gaps in the project team where SmartSat can assist* |
| **Diversity and Inclusion** | Provide a brief statement to indicate how you have considered Diversity and Inclusion in your team composition. |

# Project Activities, Strategy and Methodology

|  |  |
| --- | --- |
| **Project activities, strategy and methodology** | *Outline the project plan in detail including, as appropriate, a description of the experimental design, techniques and methods to be used.* *Demonstrate that the strategy is adequately developed, well integrated, feasible and appropriate to the aims of the project.*This section must not exceed one A4 page. |

# Milestones and Deliverables

*Describes the Project, i.e. what SmartSat will spend the Funds on, and develop a timeline for the completion of Project Milestones. It is important to include enough detail to allow SmartSat to understand what the project team is undertaking and whether the spending of the Funds falls within the approved scope*. *It is recommended that this be in the form of a one-paragraph description for each milestone, clearly indicating how achievement of the milestone will be measured, with an ‘as measured by…’statement for each. Milestone titles and start and end dates are to be included in the table below.*

| **No.** | **Milestones & Deliverables** | **Start Date** | **End Date** |
| --- | --- | --- | --- |
|  | Project Milestone Title |  |  |
|  |
| Description, Deliverables & Party Responsible |
|  |
|  | Project Milestone Title |  |  |
|  |
| Description, Deliverables & Party Responsible |
|  |
|  | Project Milestone Title |  |  |
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| Description, Deliverables & Party Responsible |
|  |
|  | Project Milestone Title |  |  |
|  |
| Description, Deliverables & Party Responsible |
|  |

# Risks

Identify risks to project success and indicate relative degree of risk (high, medium, low). Risks to be considered include commercial, technical, political, strategic business direction, market forecasts or operations parameters. Include a statement of the impact should the risk eventuate, and the mitigation strategy to be employed to prevent the risk being realised.

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **ID** | **Risk Description** | **Type** | **Rating** | **Impact** | **Mitigation Strategy** |
| **R1** | e.g. COVID-19 limiting access to teams and lab space | Operational | High | Impact the prototype fabrication. | Potential to re-schedule aspects of project. |
| **R2** | e.g. Inability to gain access to third party IP | Commercial | Low | Component ZZ cannot be fully developed. | Use alternative open-source component.  |
| **R3** |  |  |  |  |  |

# Intellectual Property

|  |  |
| --- | --- |
| **Project Intellectual Property** | *Please provide advice on proposed Intellectual Property (IP) arrangements.****Note****:**SmartSat does not need to own IP arising from funded projects.  SmartSat will work with the project partners to reach agreements on all IP related matters at the commencement of the project, including: IP Ownership, Utilisation of IP (or commercialisation).  SmartSat can be considered the independent project partner, and we welcome advice from the project partners on how they wish to structure these matters.**As a minimum, a license to the Project IP will be required for:*1. *SmartSat to use, reproduce, adapt, modify and communicate the Project IP, including a right to sublicence rights to use, reproduce, adapt, modify and communicate to the VIC government and CRC Program (this expressly excludes any right to exploit Project IP for commercial purposes); and*
2. *other project team members, for use of Project IP for internal research and teaching.*
 |
| **Background Intellectual Property** | *Please provide advice on any background IP that may be provided by project participants and how it would be used in the project.* |

# Project Resources

*The figures supplied in the table below are approximate only – they will be further refined once the project proposal progresses to project planning stage.*

|  |  |
| --- | --- |
| **Request** |  |
| **Type** | **Value**  | **Description** |
| Salary | $ | *a brief justification for the resources requested and indicate the partner who will receive this funding* |
| Travel | $ | *a brief justification for the resources requested and indicate the partner who will receive this funding* |
| Equipment | $ | *a brief justification for the resources requested and indicate the partner who will receive this funding* |
| Other | $ | *a brief justification for the resources requested and indicate the partner who will receive this funding* |
| Total Cash Budget | $ |
| Please describe the additional cash contributions from partners? | *Note:* *Industry partner(s) cash co-investment in the project is required. SmartSat will match industry funding at a cash ratio of $1 Industry : $2 SmartSat Node funding.* Additional cash investment will be highly regarded during the proposal evaluation phase. This may include cash investment by non-SmartSat University partners involved in the project. |
| Participant Support | In-kind (staff) | *Number of Full Time Equivalent staff (FTE)* |
| In-kind (non-staff) | *$ value - description* |
| Will there be any additional resources required? | *Yes / No.* If Yes, provide details. |

*SmartSat CRC will invoice contributing partners for their cash contributions. Based on the figures above, please provide a proposed schedule of invoicing for each cash contributing partner. Add more columns as needed.*

|  |  |  |  |
| --- | --- | --- | --- |
| **Cash Contribution** |  |  |  |
| **Payment Milestone** | Partner | Partner | Partner |
| Commencement | $ | $ | $ |
| Milestone – nn months | $ | $ | $ |
| Final Report | $ | $ | $ |
| **TOTAL** |  |  |  |