**Queensland Earth Observation Hub/SmartSat CRC Queensland Node**

**Calibration and Validation Project Expression of Interest**Submissions due 5pm Friday, 13 January 2023

# Overview

The establishment of the Queensland Earth Observation Hub (the EO Hub), incorporating the SmartSat CRC Queensland Node, is a jointly funded initiative of SmartSat and the Queensland Government through the Department of State Development, Infrastructure, Local Government and Planning.

The establishment of the EO Hub aims to accelerate the growth of Queensland’s, and Australia’s, Earth observation industry by supporting commercialisation of research, and EO product and service development. The EO Hub will generate opportunities for data analytics businesses and researchers, as well as downstream industries and upstream service providers of Earth observation imagery.

The EO Hub is issuing this open call (the Call) for Queensland businesses to submit an expression of interest (EOI) for projects that foster the creation and commercialisation of calibration and/or validation in research and innovation.

The Call aims at creating research to industry partnerships and empowering the space-related industry ecosystem of Queensland, creating State-based opportunities for industry-led Research & Development (R&D).

The Call is seeking industry-led projects relevant to calibration and/or validation of Earth observation data, projects, applications, and/or services.

# Requirements

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

1. **Type of project**
	1. Projects must be calibration and/or validation related and focused on either:
		1. ***translating research into business operations*** through R&D partnerships with an industry lead and a research partner (aim is to demonstrate technology or create a new product or service); or
		2. ***improving business operations*** through R&D partnerships with an industry lead and a research partner (aim is to improve deployment of a current product or service)
2. The Hub is specifically looking to support projects that will effectively harness research partner IP and capability to reduce or eliminate technical and/or market risks for the industry project partner, scale up of the existing products and services, or create a new product or service.
3. Projects that include a clear end-customer as part of the project team are encouraged
4. **Project team composition & focus**
5. Project proposals must be developed, led and submitted by a Queensland Business project partner. 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.
6. Project team is to be comprised of at least one industry and one research organisation.
7. The industry project partner must be a Queensland business which is defined as a business that:
	1. has its headquarters in Queensland; or
	2. is liable to pay payroll tax in Queensland on the wages or salaries of at least half its employees; or
	3. in undertaking its activities, otherwise makes a material contribution to the Queensland economy, as determined by the State (in its absolute discretion)
8. **Funding arrangements**
9. Total Hub funding contribution should not exceed AUD$150,000 + GST.
10. Industry partner(s) co-investment in the project in the form of cash is required and will be matched at a cash ratio of $1 Industry : $2 Hub funding.
11. Project funds are expected to be allocated to the research and industry partners, to jointly undertake the research and innovation activities and/or project required activities.
12. In-kind contributions from all project parties are accepted and will be considered in the selection of project proposals.

**Reporting Requirements**

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:

**Heather Christensen**
Business Manager
Queensland Earth Observation Hub
heather.christensen@uq.edu.au
0402 070 701

**Expression of Interest Form**

# Instructions

* This project Expression of Interest (EOI) includes a ‘Project Concept’ and ‘Response to Project Concept’ template which are designed to capture the information enable the Earth Observation (EO) Hub to review and assess project proposals
* To apply follow the steps below
	1. Contact the EO Business Manager to discuss the proposed project (all applicants must meet with the EO Business Manager before submission)
	2. Complete the application form as a collaborative team
	3. Send a draft to the EO Business Manager for feedback. The first draft should be submitted 2 weeks before the intended deadline to allow due process and optimisation
	4. Agree on intellectual property arrangements as part of submission.
	5. Submit final application to the EO Business Manager
* It is expected that a lead industry partner will champion any proposal and be the party that submits it to the Hub on behalf of the project team
* The Expression of Interest 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 Expression of Interest templates (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 EOI
	+ The full Expression of Interest consists of both the ‘Project Concept’ and ‘Response to Project Concept’ forms (shown below). These should be submitted to: heather.christensen@uq.edu.au
	+ The EO Hub will only accept Expression of Interests using the templates provided below.

**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?**Could outcomes inform a larger Phase 2 activity or should this phase lead to an output that can be readily commercialised / utilised?**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 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 projectThis section must not exceed one A4 page. |

# Strategic Alignment

|  |  |
| --- | --- |
| **Strategic Alignment** | Briefly describe the relevance of the proposed project to the research objectives of the [SmartSat CRC and the technology roadmap of the Industry Partner](https://smartsatcrc.com/app/uploads/SS_StrategicPlan_Web.pdf) |

# Utilisation

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

# Impact

|  |  |
| --- | --- |
| **Description** | Briefly describe how the project contributes to the Queensland Earth Observation Hub and the benefits of this project to the wider Australian space sector and/or to other industry sectors. Briefly describe how the project will impact the customer and/or industry group who most experience the current problem. |

**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** | (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 that will participate in this project, including ABN details.  | Identify key points of contact for each participant – supply name, position, phone number and email |
| **Project Team** | Provide a brief statement to indicate why this team has the capability for undertaking the research.*Provide any gaps in the project team where the Hub can assist in project design, implementation and communication.* |
| **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 research 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

*Describe the project, i.e. what the Hub will spend the funds doing, and develop a timeline for the completion of project milestones. It is important to include enough detail to allow the Hub 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. 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 / Demonstration & Party Responsible |
|  |
|  | Project Milestone Title |  |  |
|  |
| Description, Deliverables / Demonstration & Party Responsible |
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|  | Project Milestone Title |  |  |
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| Description, Deliverables / Demonstration & Party Responsible |
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|  | Project Milestone Title |  |  |
|  |
| Description, Deliverables / Demonstration & Party Responsible |
|  |

# Risks

Identify key 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 any 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. *The Hub 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 Queensland government and SmartSat 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* |
| Travel | $ | *a brief justification for the resources requested* |
| Equipment | $ | *a brief justification for the resources requested* |
| Other | $ | *a brief justification for the resources requested* |
| Total Cash Budget | $ |
| Please describe the additional cash contributions from partners? | *Note: Industry partner(s) co-investment in the project is required in the form of cash. The Hub will match the industry funding at a cash ratio of $1 Industry : $2 Hub funding.*  |
| Participant Support | In-kind (staff) | *Number of Full Time Equivalent staff (FTE)* |
| In-kind (non-staff) | *$ value – description* |
| Will there be any additional resources required? | *Yes / No.* If Yes, provide details. |