# Overview

The establishment of the Queensland Earth Observation Hub (the EO Hub), incorporating the SmartSat Cooperative Research Centre (SmartSat) Queensland Earth Observation 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 for projects to foster the creation and commercialisation of space-related research and innovation in Queensland. 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 R&D with SmartSat CRC’s current partner base and beyond.

The focus of the Queensland Node is Earth Observation. This Call is seeking industry-led projects relevant to Earth Observation.

#  Description of funding program

The Earth Observation Hub’s Partnering Program is to support industry-led projects with a commercial or potential commercial application that:

* demonstrate technology
* create a new product or service or expand a current service offering

All projects must be industry led or solve an industry / business problem and involve at least one industry partner and one research partner.

# Requirements

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

1. Type of project
	1. Projects must either be focused on:
		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 Queensland Node 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
2. 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 Queensland. 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.
	3. The industry project partner to have established operations in Queensland, and the project to be led by the Queensland operations.
3. Funding arrangements
4. Total project budget should not exceed AUD$300,000 + GST.
5. Industry partner(s) co-investment in the project is required in the form of cash. The EO Hub will match industry funding at a cash ratio of $1 Industry : $2 EO Hub funding.
6. Project funds are expected to be allocated to the research or industry partner, to undertake joint 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 topics: Earth observation-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
		5. Transport and logistics
		6. Emergency Management and Disaster response.
		7. Marine, water and the environment
		8. Terrestrial water quality and quantity
		9. Other - as required by industry

**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 the interim Earth Observation Business Manager directly on:

Email: heather.christensen@uq.edu.au

Mobile: 0402 070 701

Project Concept Applications

# Instructions

* + This project Expression of Interest (EOI) includes a ‘Project Concept’ and ‘Response to Project Concept’ templates which are designed to capture information to 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 submit it to the EO 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.
	+ All applications will be managed and assessed by SmartSat.

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 project**This section must not exceed one A4 page.* |

# STRATEGIC ALIGNMENT

|  |  |
| --- | --- |
| Strategic Alignment | *Briefly describe the relevance of the proposed project to the research objectives of*  [*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 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.*  | *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 EOA Hub 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 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

*Describes the Project, i.e. what the EO 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 EO 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 |
|  |
|  | Project Milestone Title |  |  |
|  |
| Description, Deliverables / Demonstration & Party Responsible |
|  |
|  | Project Milestone Title |  |  |
|  |
| Description, Deliverables / Demonstration & Party Responsible |
| *In the final Milestone, provide a brief statement to define final outputs either here or under a new question. I.e. Report on X, To be produced in collaboration with the project partners on results of X and recommendations for Y.* |

# 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 and other employee costs | *$* | *a brief justification for the resources requested* |
| Travel | *$* | *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 EO Hub will match industry funding at a cash ratio of $1 Industry : $2 EO Hub funding.* *Additional cash investment will be highly regarded during the proposal evaluation phase. This may include cash investment by non-SmartSat University partners involved in the project.* |
| Participant Support | *In-kind (staff)* | *Number of Full Time Equivalent staff (FTE)* |
| *In-kind (non-staff)* | *$ value - description* |
| Will there be any additional resources required? | *Yes / No. If Yes, provide details.* |