

JTC DECARBONISATION LIVING LAB @ JID INNOVATION CALL (DECAL)

1. INFORMATION

1.1. OBJECTIVE

To identify innovative research and development relevant to the respective Challenge Statements; and to provide funding in accordance with the terms of a Project Agreement for suitable projects.

1.2. FUNDING

The requested funding from JTC shall not exceed S\$500,000. This covers manpower, equipment, consumables, and project related expenses. Significant expenses should be justified with supporting documentation e.g. quotes.

Disbursement of funding will be in Singapore dollars. Notwithstanding any fluctuation in exchange rate, the total funding disbursed shall not exceed the approved funding.

Proposals shall not be funded or be currently considered for funding by other agencies, as detailed in Clause 3.4.

Local¹-Small and Medium Enterprise (SME²)-led Applicant will qualify for up to 70% funding support of the approved supportable cost³ of the project, while non-local-SME-led Applicant will qualify for up to 50% of the same.

Funding awarded shall not be used to support overseas R&D activities. The project team and R&D activities must be based in Singapore to ensure development of local capabilities.

The project may include research collaborations with local or overseas organisations. However, contracting out the whole or substantial part of the research work is not permitted.

All assets acquired using the funding must be located in Singapore and maintained within the control of the awardees during the duration of the project.

¹ Local applicants should have $\geq 30\%$ of its ordinary shares held directly or indirectly by Singaporeans/Singapore Permanent Residents. This is determined by the ultimate individual ownership of the applicant.

² A SME is defined as having (i) Group Annual Sales Turnover of not more than S\$100 million; or (ii) Group Employment Size of not more than 200 workers.

³ Refer to Project Budget for breakdown cost components. For manpower, staff must be a permanent employee. Qualifying costs include actual salary of employee, employer's CPF contribution and annual wage supplement (aka 13-month bonus). As a guide, salaries for top management and shareholders should not be supported as they are deemed to have vested interests in project success. Transport and telephone allowances, insurance and medical claims are not supportable.

1.3. DURATION

The project duration shall not exceed eighteen (18) months from the date stated in the Project Agreement.

1.4. SELECTION PROCESS

Proposals will undergo detailed assessment with the following assessment criteria:

- (i) **60% quality** of Proposal (scope of work, operational feasibility, disruption to operations, experiences and skills, cost benefit analysis, commercialisation and implementation plans);
 - High-technical-merit and innovation that is novel, international competitive and directly addresses the identified challenge(s);
 - Economic benefits to Singapore in terms of capabilities and manpower development and system level benefits to Jurong Innovation District ecosystem;
 - Strong and clear demonstration of potential commercial viability and advantages of the proposed solution over existing technologies and practices; and
 - Excellent execution by an experienced team with a good track record and whose members have the relevant and complementary expertise.
- (ii) **40% price** (reasonableness of project cost and value for money, co-funding and contribution in-kind).

Shortlisted Applicants will be required to present their proposal(s) to a Project Evaluation Panel (“PEP”) for further evaluation, in accordance with Clause 2.4.

1.5. TARGET AUDIENCE

Commercial entities with capability to eventually support deployment in JTC projects/properties and commercialisation of developed solution are encouraged to apply.

1.6. PUBLIC AGENCY COLLABORATORS

JTC will invite relevant public agencies as Public Agency Collaborators to the project if the proposal is supported. This is to i) facilitate regulatory acceptance; and ii) steer development to better meet end-user requirements. JTC will insert JTC Principal Investigators (PI) and the Public Agency Collaborator into Schedule 1 of the Project Agreement.

1.7. AWARDING OF PROJECTS

For each Challenge Statement, JTC has the sole discretion to (i) award to more than one Applicant; or (ii) not award if JTC decides that none of the received proposals meets JTC’s requirement or objectives; or (iii) in the case of a tie in the Price-Quality

score, choose the proposal that is the most advantageous to JTC. All awarded projects will be published on GEBIZ.

Successful Applicants are required to hold a valid account with GeBIZ, those who do not hold a valid registration are advised to apply for the registration at the earliest possible opportunity.

As this program is funded by Enterprise Singapore (EnterpriseSG), applicants must comply with the standard terms and conditions as stipulated by EnterpriseSG. Details of the standard terms and conditions will be provided to shortlisted applicants.

1.8. NON-NEGOTIABLE TERMS

Awarded projects are subjected to the terms in the Project Agreement (refer to the specimen Project Agreement provided). The terms in the Project Agreement are non-negotiable.

1.9 INTENTION TO FUTURE DEVELOP AND COMMERCIALISE

JTC reserves the rights to further develop, scale-up and implement at subsequent stages as set out in the Project Agreement.

1.10 DECLARATION ON PROGRESSIVE WAGE MARK ELIGIBILITY AND UNDERTAKING TO COMPLY WITH PROGRESSIVE WAGE MARK REQUIREMENTS

Applicants are required to make and include as part of their submission the declaration of its PW Mark eligibility status in the form set out in the “Declaration on Progressive Wage Mark Eligibility”. Successful Applicants are required to sign the Undertaking to Comply with Progressive Wage Mark Requirements in the form set out in **Annex I**.

2. INSTRUCTIONS

2.1 ELECTRONIC SUBMISSIONS

Proposals shall be submitted to **decal-jid.innovation-challenge.sg** by **16:00 (Singapore time, GMT+8)** of the Closing Date stipulated in the respective Challenge Statements or any extended date notified through Addendum/Corrigendum. All proposals shall use the provided proposal templates, failing which JTC reserves the right to disregard the submission.

2.2 CLARIFICATIONS

Clarifications (if any) shall be submitted to **decal-jid.innovation-challenge.sg** in writing via the form found in the DECAL innovation call site, stating the issue requiring clarification, at least ten (10) working days before the Closing Date or any extended date (“Clarification Deadline”). JTC shall reply in five (5) working days.

JTC shall have the discretion to disregard all clarifications received after the Clarification Deadline.

2.3 RESPONDING TO JTC

Upon the Closing Date, if JTC identifies discrepancies or has doubts about any part of the Applicant's Proposal, JTC will seek clarification in writing. Applicants' responses should be received within three (3) working days, failing which JTC shall have the discretion to disregard the Proposal.

2.4 PRESENTATION

Shortlisted Applicants shall be required to present to the PEP at a date and time ("Presentation Date") arranged by JTC. Each team will be given at least five (5) working days before the Presentation Date to prepare and each presentation should not exceed 15 minutes. More details will be provided to shortlisted Applicants.

3. ELIGIBILITY

3.1 DEBARMENT STATUS

Applicants who are debarred from participating in public sector tenders are not eligible to participate in JTC DECAL Innovation Call. Where an Applicant is: i) debarred on or after the Closing Date, the Applicant's Proposal shall be precluded for further evaluation; ii) debarred during the term of the Project Agreement, the Project Agreement shall be terminated. If a proposal is submitted without explicitly mentioning that the Applicant is liable for debarment by the Standing Committee on Debarment (SCOD), JTC shall treat the submission as an express continuing declaration by the Applicant that the applicant is in fact eligible to participate in this Innovation Call and, if such a declaration is discovered to be false, JTC will be entitled to, at any time, to reject the Applicant's Proposal or rescind/terminate any contracts entered without JTC being liable therefor in damages or compensation.

3.2 COMPLIANCE TO INSTRUCTIONS

Any proposal not submitted according to the instructions contained and in the form(s) prescribed in **decal-jid.innovation-challenge.sg**, or which attempts to vary any provision of or which fails to fully comply with this Innovation Call, is liable to be rejected.

3.3 FUNDING AND DURATION

Proposal requests exceeding S\$500,000 and/or with project duration longer than 18 months shall be rejected.

3.4 NO DOUBLE FUNDING

Applicants must declare in the proposal submission that: i) they have not received funding from other public agency for the same scope of work; or ii) applied to other

public agency funding using the same proposal. If any Applicant is found to have been funded or seeking funding from other public agency, its proposal will be rejected.

3.5 COMPANY FINANCIAL SOLVENCY DECLARATION

Applicants are required to submit a declaration of financial solvency as part of the proposal submission. This is **compulsory**.

3.6 LOCAL SME(s) INVOLVEMENT

Local SME(s) must be involved in one way or another i.e., the Applicant must either be a local SME(s) or in a consortium arrangement with local SME(s). For the latter, the Applicant shall be led by a private sector company, preferably a local SME, and can partner other private sector companies, Institutes of Higher Learning (IHLs), Research Institutes (RIs), public sector agencies and/or not-for-profit organisations. For non-local-SME-led Applicant, local SME(s) should be involved in a substantive and meaningful way (e.g. core technology must be from/or co-developed with local SME(s)).

4. OTHER INFORMATION

4.1 SUPPORTABLE PROJECT STAGES

This Innovation call is targeted to support the development of innovative, mid-to-high Technological Readiness Level (TRL) technologies for onsite trial and deployment. Refer to **Annex A** for more details on TRL.

Applicants are required to indicate the developmental stage of their proposal (i.e. prototype or demonstration stage). The submission requirements for the various developmental stages are listed in the table below.

Applicants supported at the prototype stage may apply for further funding support following the completion of the project, subject to approval by the project review committee.

Developmental Stage	Submission Requirements
Prototype Stage (TRL 4–6)	<ul style="list-style-type: none"> • <u>Scope</u>: Applicant has developed a Proof-of-Concept solution and seeks the development of prototype for industry demonstration. • Target industry end-user(s) shall be indicated in the proposal. Proposals with letter of intent and/or contributions from industry partner(s) would be favourably assessed, but not mandatory.

	<ul style="list-style-type: none"> • There should be an articulation of commercialisation plan. Applicants may update the commercialisation plan at the end of the prototype stage. • Company should identify first trial partner upfront.
Demonstration (TRL 7–8)	<ul style="list-style-type: none"> • Scope: (i) Applicant has developed a prototype and seeks to demonstrate the solution, or (ii) demonstration of the solution has been conducted overseas and localisation of the solution is required. If latter, proposal shall clearly indicate the adaptations required for localisation. • Industry end-user(s) to demonstrate the solution (preferably a Jurong Innovation District company) must be identified. A letter of intent and contribution from the identified industry end-user(s) must be submitted as part of the proposal. • Commercialisation plan and business model to be clearly articulated. Company should secure first commercial contract/deployment within 24 months after the completion of the demonstration project.

4.2 CLAIMS

A project milestone-based payment scheme will apply to all Awardee(s), with payment due only upon the completion of each project milestone by Awardee(s) in accordance with the agreed timeline and requirements to the satisfaction of JTC. Please refer to the link for documents required for claims submission (<https://www.enterprisesg.gov.sg/-/media/esg/files/financial-assistance/grants/for-local-companies/edg/apply/esg-edg-claims-submission-checklist.pdf>).

Awardee(s) are required to engage 3rd party auditors from Enterprise Singapore's pre-qualified panel of auditors to validate their claim amounts for each claim submission. Please refer to the link for the list of auditors (https://www.enterprisesg.gov.sg/-/media/esg/files/financial-assistance/grants/for-local-companies/edg/apply/edg_claims_prequalified_panel_of_auditors.pdf).

Upon submission of claims, a JTC officer will verify that the project deliverables have been met and may contact you for further information if required. A site visit or presentation meeting may be arranged for this purpose.

Proposal budget shall be broken down into the following broad categories, mainly: (a) internal incremental manpower costs (b) equipment/software; (c) testing and certification; (d) consultancy (professors/experts); and (e) intellectual property.

Annex A**Technology Readiness Level (TRL)**

TRL	Description	Definition
0	Idea	Unproven concept, no testing has been performed
1	Basic Research	Basic principles postulated and observed but no experimental proof available
2	Applied Research	Concept and application have been formulated
3	Critical Function	First Laboratory test completed; proof of concept
4	Concept Validation	Small Scale Prototype built in a laboratory environment; technology validated in laboratory
5	Validation of Integrated System	Component and/or validation in a relevant environment
6	Verification of Integrated System	System model or prototype tested in intended environment close to expected performance
7	Demonstration System	Operating in operational environment at pre-commercial scale
8	System Completed and Qualified	Manufacturing issues solved
9	Full commercial application	Technology available for consumers

Annex B**FREQUENTLY ASKED QUESTIONS**

<i>Pre-submission</i>
<p>Q1: I am from academia and am hoping to use my earlier research outcomes to develop into a product/solution that can be used in the built environment. Can I apply?</p>
<p>A1: Yes, you may apply. Ideally, you will collaborate with a partner from industry who may have suggestions on commercial applications of the solution.</p>
<p>Q2: Can I include overseas conference travel and research publication expenses in the budget?</p>
<p>A2: No. The budget should include only project costs, such as manpower, consumables, equipment, and transportation expenses.</p>
<p>Q3: Is there a list of qualifying cost that can be funded by this Innovation Call?</p>
<p>A3: JTC does not have a fixed list. The guidelines are that line items submitted must be clearly project-related, such as: manpower cost, equipment (additional modules), consumables, other operating costs (software licence, transporting prototype to site, etc).</p> <p>Do not include items that are not directly linked to the project, as it will affect the price-aspect of the evaluation.</p>
<p>Q4: Can foreign companies with GeBIZ registration submit proposal in consortium with locally registered company in Singapore.</p>
<p>A4: Foreign companies can apply, as long as:</p> <ol style="list-style-type: none"> i) The company has a GeBIZ registration upon award, and subsequently; ii) submit their electronic invoice through Vendors@Gov. <p>JTC encourages the Applicants to have local presence as JTC's estates and development are in Singapore, to facilitate any demonstrations, and provide timely engineering support.</p> <p>Approved funding will be made to the applicant whose submission has been accepted by JTC. Applicant should have their own arrangement with their partners or associates.</p>
<p>Q5: Does the Applicant include cost of Public Agency Collaborator in the Total Requested Funding?</p>
<p>A5: Cost related to collaborating with public agencies will be borne respectively by the public agency as a contribution in-kind. It will be reflected in the contribution in-kind table by public agencies.</p> <p>Applicants shall list clearly the various parties which it is collaborating with in their proposals.</p>

Q6: Is an extension of time allowed for these projects?
A6: This is subject to approval of JTC but such requests should be exceptions. Each project should not last more than 18 months.
Q7: Who will own the Intellectual Property (IP) generated from the project?
A7: As JTC will be contributing significant resources, this will jointly owned by JTC and the Collaborator and subject to the terms of the Project Agreement.
Q8: I am requesting more than S\$500,000 of funding, will my project still be considered?
A8: No. You must adjust the scope of work so that the funding requested does not exceed S\$500,000.
Q9: Can overheads from University/Research Institutes be part of the project cost?
A9: Yes.
Q10: My proposal was not supported even though I addressed all issues. I want to know why.
A10: There are, unfortunately, limited resources available so not all proposals can be supported. Besides technical merit and novelty, JTC assesses the potential impact of the project if it is successful and whether its commercialisation will give good value for money.
Q11: I intend to submit a proposal but would like to vary some of the terms in the Project Agreement. Is this possible?
A11: No. The terms in the Project Agreement apply to all applicants across the board. It would not be fair to change a term or terms for one applicant but not for another.

<i>Post Award</i>
Q12: Will I be paid if I cannot meet the timetable for the deliverables in the Project Agreement?
A12: JTC shall only be obliged to make payment (i) in accordance with the Payment Schedule in the Project Agreement and (ii) subject to JTC's satisfaction and acceptance of the completion of milestones and/or deliverables.
Q13: What is the next step if a solution is developed?
A13: JTC will undertake a careful study to assess whether steps should be taken to commercialise the product/solution. If so, steps will be taken in accordance with the terms of the Project Agreement.
Q14: My project team consists of members from different organisations. How will disbursement of funds take place?

A14: JTC will disburse payments pursuant to the Project Agreement only to the party that signed the Project Agreement and not to individual members of the team.