# PROJECT PROPOSAL FOR SUBMISSION TO JTC DECARBONISATION LIVING LAB @ JID INNOVATION CALL (DECAL)

- The information in each proposal furnished to JTC will be treated with strict confidence, with the understanding that it shall be used or disclosed for evaluation, reference and reporting purposes. All sections are to be completed. Incomplete submissions will not be accepted. Completed submissions should be saved as one folder and titled "[*Project Title*] by [*Company Name*]".
- 2. To facilitate regulatory acceptance and public sector adoption, JTC will invite relevant public agencies as Public Agency Collaborators to the project if supported. Proposals submitted will be shared with the public agency, if they are interested.
- 3. Sections B, C, D of the proposal (including any clarifications accepted by JTC) will form the content in Schedule 1 of the Project Agreement, if supported.

Submission Documents/Checklist	Check if you have done so
Project Proposal	
Project Budget	
Quad chart	
Declaration of Financial Solvency	
Other attachment for project proposal (include a	
content page and label in sequence of appearance	
if you referred in the proposal)	
Requested funding not more than S\$250,000	
Project duration not more than 1 year	

# SECTION A: INFORMATION

Challenge St	atement a	ddressed:	<please ins<="" th=""><th>e<b>r</b>t&gt;</th><th></th><th></th></please>	e <b>r</b> t>		
Company Na	me:					
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Firm or Comp	any)					(Insert Iname of
Authorised S	ignature					
GeBIZ Tradi	ing Partne	r Referen	ce No.:			
Name of Poir	nt of Conta	act (if diffe	erent from	above):		
Email Addre	ss:					
Contact Num	iber:					

# 1. State the stages of development to be covered by the proposal:

Stage	Covered? (Yes/No)	
Proof-of- concept		
Development of prototype		
Trial/ test-bed		
Commercialisation Plan		

2. Has the scope of work from this proposal received funding or used to apply to other public agency funding?

YES/NO

## 3. Other Public Agency Funding

Has the applicant received public agency funding for other innovation projects? If yes, please specify.

Project Title	Funding Agency Point-of-contact	Start-end date	Project Value (S\$)

#### 4. Background of Company/ Profile of Team

[Concisely indicate the nature of business, business type (startup, SME, LLE, MNC), global presence, and number of employees, the technologies / products / services provided, annual sales turnover. Background of key team members who will be working on the project.]

**Commented [A1]:** Ivy: should this question be asked relating to answer in Q2?

**Commented [A2R1]:** yes should ask. let the companies declare. if they falsely declare and subsequently we find out we can rescind the contract.

**Commented [A3R1]:** I mean, should the instruction "Has the applicant received..." also refer to Question 2?

**Commented [A4R1]:** This is asking about other innovation projects. qn 2 is getting them to declare that for the scope to be submitted if they have been funded before.

**Commented [A5R1]:** Qn2 asking companies to declare they have not been funded/ to be funded for the proposed scope.

Qn 3 is asking them to declare the inno projects that have been funded for by public sector (to check for double dipping and also track record)

## SECTION B: PROPOSAL TO REQUEST FOR FUNDING OF UP TO \$500,000 AND DURATION UP TO 18 MONTHS

### 5. Title of Proposal [keep it succinct and short]

#### 6. Project Team

[Describe the roles and responsibilities of the project team <u>directly involved using</u> <u>the table below</u>. Please <u>do not</u> give a description of their normal job scope but describe specifically their involvement in this project.]

Name & Designation	Company	Background/Qualification	Role in this Project
1		Table 1 Project team	J

Table 1 Project team

# 7. 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 PI and the Public Agency Collaborator. Applicant may put Public Agency Staff as collaborator, but should furnish letter of support from the Public Agency.

Name, Designation	Agency	Role in project
<jtc pi=""></jtc>	JTC	

# Table 2 Public Agency Collaborator

#### 8. Proposed Solution/Approach

[Describe: a) aim of the project, b) describe solution/approach, c) main technologies used and its Technology Readiness Level (TRL) and target TRL at the end of the project, d) aspect in challenge statement being addressed, e) innovativeness and differentiation against commercially-off-the-shelf product/solution. Explain how proposed work will address the challenge statement.]

### 9. Project Scope

[State objectives, proposed scope that will meet these objectives. State the expected outcome and its expected performance. The expected performance should be described with quantitative element as far as possible.]

S/ N	Description of Task (inclusive of sub- tasks)	Estimated Duration (months)	Target Start, T <sub>0</sub> as effective date	Target Completion, T₀ as effective date
			$T_{0+}$ _Months	$T_{0+}$ _Months
			$T_{0^+}$ _Months	$T_{0+}$ _Months
			$T_{0+}$ _Months	$T_{0+}$ _Months
			$T_{0+}$ _Months	$T_{0+}$ _Months
			$T_{0+}$ _Months	$T_{0+}$ _Months
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Table 3 Task for development and testbed/trial

Description of Proof-of-Concept and Prototype Development Stages

- Referring to <u>Table 3</u>, describe the tasks needed for the scope of work and its implementation;
- For critical tasks, include risk assessment and accompanying mitigation plan

#### Description of Trial/Test-bed Stages

- Referring to <u>Table 3</u><u>Table 3</u>, describe the trial/test-bed activities to be carried out and state expected outcome(s) of the trial/test-bed. This would specify the area for the trial/test-bed and the results you expect to obtain from the trial/test-bed.
- Describe the procedures to carry out the trial/test-bed
- How will the trial/test-bed be set-up/ installed (drawings, if any) [Please indicate if infrastructure alteration is required as well as details to mitigate potential nuisances to other users.]
- Expected regulatory challenges/approvals [Description of regulatory approval required]
  - Space requirements if any (preferred location/type of space)
  - Any other important information (access requirements, etc.)
  - For critical tasks, include risk assessment and accompanying mitigation plan

**Commented [A6]:** Ivy: Should point 10 & 11 be transferred to under point 9 as a sub-set/sub-point instead? As there will be no info to be inputed under point 10 & 11.

**Commented [A7]:** to replace the COVID clause. risk mitigation plan would cover this aspect

**Commented [A8]:** to replace the COVID clause. risk mitigation plan would cover this aspect

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#### 10. Cost Benefit Analysis of Solution

[Using Table 4Table 4, compare using conventional approach or next best alternative, an <u>quantitatively describe</u> the benefits of the proposed solutions in terms of: i) life cycle cost savings; and/or ii) manpower productivity improvement; and/or iii) reduction in carbon impact to the environment. You may add qualitative improvements, if applicable.]

Proposed Solution	Existing/ Next Best Alternative
[Describe the proposed solution's difference in approach/method vis-à-vis existing or next best alternative]	
[Expected improvements over existing/ next best alternative]	[Your basis for comparison and the standard results/performance]

Table 4 Cost Benefit Analysis

#### 11. Estimated Carbon Abatement Potential of Solution

Estimate the potential carbon abatement based on the proposed testbed scale if proven successful.

Potential benefits generated with solution deployment	Conversion factor to carbon	Potential Carbon Abatement	5
Describe the proposed	[Use applicable Singapore based	Present the potential amount	
solution's potential green	and/or internationally recognised	of CO2 savings as either a	
resource generation and/or carbon dioxide emission	<u>conversion factor to convert impact of</u> green resource to carbon dioxide	<u>one-off or at a suitable rate]</u>	
reduction]	<u>green resource to carbon dioxide</u> <u>abatement. Please state the source]</u>		
<i>e.g. Green Electricity estimated</i>	<u>e.g. 0.4168kG CO2/kWh</u>	e.g. X Tonnes of CO2/year	_
to be generated in kWh/year	(Singapore grid emission factor in		
	2022: Source: EMA website:		
	https://www.ema.gov.sg/singapore-		
	energy-statistics/Ch02/index2)		/
	Estimated Carbon Abatement Potential of		/

Table 4.1 Estimated Carbon Abatement Potential of Solution

#### **<u>11.12.</u>** Intellectual Property Rights

[Foreground IP development (FIP)

- Proposal is to describe the expected Foreground IP developed (if any) Background IP (BIP)

- Proposal to include declaration and details such as Background IPs that are required for technology acquisition, payment of licensing fees, and purchase of copyrights/ trademarks/ patents and explain how they are relevant and required for the proposed development and test-bed.

*Note: JTC will co-own the foreground IP generated]* 

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### **12.13.** Description of Commercialisation Plan

[A brief write-up on how the company intends to commercialise the product <u>within</u> <u>two years</u> after successful test-bed and demonstration. The business model shall include the value proposition, target market(s) & prospects for effective deployment, and expected ROI, etc.]

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#### SECTION C: COST OF PROPOSAL

#### 13.14. Estimated Cost Breakdown for R&D and Trial/Test-bed Phases

[Provide a detailed breakdown of cost estimates for the various Categories (<u>refer to</u> <u>05\_Project Budget excel document</u> using <u>Table 5</u>). All cost estimates are to be given in <u>Singapore dollars</u> and be supported with quotations where possible. The estimate for cost incurred will be assessed on value-for-money and used to determine payment schedule.]

Description of Item or Category	Activity Details ( <i>refer to section B</i> , Table 3)	Timeframe for Implementation (e.g. No. of Weeks/months)	Operating Cost for the item for project duration (S\$)	Basis of Cost (attach supporting document)		
Manpower	1			T		
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Equipment/ Software		4				
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Consumables	1	1				
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Other Operating Costs						
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Intellectual Property* (I	I <del>P)</del>					
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Total Requested funding from JTC	<del>[State in words a</del>	und in numericals the	e total funding reque	ested in S\$}		
Table 5: Summary of Costing						

\*Proposal to include details such as technology acquisition, payment of licensing fees, and purchase of copyrights/trademarks/patents and explain how they are relevant to the proposed research and test-bed. A copy of the quotation from the source maybe required.

Formatted: Font: Times New Roman Commented [A9]: Should be Table 5. Formatted field - pls update the ref of subsequent tables.

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#### 14.15. Contributions in-kind and co-funding

[Please provide detail breakdown of contribution in-kind and co-funding (refer<u>to</u> <u>05\_Project Budget excel document</u> using <u>Table 6</u>), if applicable. Otherwise indicated as "Not Applicable" or "N/A". JTC will subsequently include JTC's in-kind contribution (such as project management, access to trial sites, and etc)].

<add if="" more="" required="" rows="">         Equipment/ Software         <add if="" more="" required="" rows=""> <add if="" more="" required="" rows="">         Consumables         <add if="" more="" required="" rows=""> <add if="" more="" required="" rows=""></add></add></add></add></add></add></add></add></add></add></add></add></add></add></add></add></add></add></add></add></add></add></add></add></add></add></add></add></add></add></add>	Description of Item or Category	Activity Details (refer to section B, Table 3)	Timeframe for Implementation (e.g. No. of Weeks/months)	Operating Cost for the item for project duration (S\$)	Basis of Cost (attach supporting document)
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Intellectual Property* (IP) <a href="citalized">add more rows if</a> required>         Total co-funding         and in-kind         contribution by         [State in words and in numericals the total funding requested in \$\$]	<add if<="" more="" rows="" td=""><td></td><td></td><td></td><td></td></add>				
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Total co-funding           and in-kind           contribution by         [State in words and in numericals the total funding requested in S\$]	<add if<="" more="" rows="" td=""><td></td><td></td><td></td><td></td></add>				
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contribution by [State in words and in numericals the total funding requested in S\$]	0				
		10			. 1
		<del>[State in words c</del>	<del>ind in numericals the t</del>	<del>otal funding reques</del>	<del>ted in S\$]</del>
Collaborator Table 6: Co-funding and Contribution in-kind	Collaborator	T-11-6-0-8-1	in a set 1 Constationation i	1.4	

[\*Proposal to include details such as technology acquisition, payment of licensing fees, and purchase of copyrights/trademarks/patents and explain how they are relevant to the proposed research and test-bed. A copy of the quotation from the source maybe required.]

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#### SECTION D: PAYMENT SCHEDULE

### 15.16. Payment Schedule

State the payment schedule (<u>refer to 05 Project Budget excel document</u> filling in Table 7) based on: a) a firm price; b) cost recovery basis; c) referencing completed tasks from Table 3 and Table 4 of Section B as deliverables for each milestone, and Table 6 of Section C for the projected cost incurred to be used as the amount to be paid. Payment to be disbursed according to the deliverables met.

Milestone & timeline	Description of deliverables	Amount to be paid to [2]	Specify expected performance [3]
$\frac{Milestone \ 1}{T_0 + 2months*}$	Upon delivery of progress report & completion of Task (refer to		
19 12months -	timelines in Table 3 of Section B)*		
Milestone 2	Upon delivery of progress report & completion of Task (refer to		
$T_{\theta}$ +4months*	timelines in Table 3 of Section B)*		
Milestone 3	Upon delivery of progress report &		
$T_{\theta}$ +6months*	completion of Task(refer to		
	timelines in Table 3 of Section B)*		
Milestone 4	Upon delivery of progress report &		
$T_0 + 8months^*$	completion of Task(refer to		
	timelines in Table 3 of Section B)*		
Milestone 5	Upon delivery of progress report &		
$T_0 + 10 months*$	completion of Task(refer to		
	timelines in Table 3 of Section B)*		
Milestone 6	Upon delivery of progress report &		
$T_{\theta}$ +12months*	completion of Task(refer to		
	timelines in Table 3 of Section B)*		
Table 7: Payment Schedule			

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\* Delete row if not applicable

[1] Milestones are fixed at 2 months interval.

[2] Based on the incurred cost or could be project value divided by equal parts (e.g. 20% over 5 payment)

[3] Expected performance should be quantifiable. e.g. Design validated by model and simulation to reduce noise by 10dBA.

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