GREEN BUILDINGS INNOVATION CLUSTER (GBIC)

REQUEST FOR PROPOSALS (RFP)

Research Challenge Areas	**Translational R&D Challenge Call for Next-generation Green Building Technologies**
RFP Number	GBIC-R&D RFP 04
Category	GBIC R&D Grant Call
Open Date for Proposal	**12 Aug 2021**
Close Date for Proposal	Proposals must be submitted via Integrated Grant Management System (IGMS) by 20 Sep 2021 at 2355 hours (Singapore time).
Enquiries	For enquiries on the Grant Call, please send your enquiries to: BCA_Challenge_Call@bca.gov.sg. For enquiries pertaining to IGMS system, please email IGMS helpdesk at: Helpdesk@researchgrant.gov.sg.

Introduction

1. The Green Buildings Innovation Cluster (GBIC) is an integrated research, development and demonstration (RD&D) hub set up under the Urban Solutions and Sustainability (USS) domain in RIE2020. Administered by BCA, GBIC aims to accelerate the development and adoption of promising building energy efficient technologies and solutions, as part of efforts to drive the green building development in Singapore. More details on GBIC can be found at: https://www1.bca.gov.sg/buildsg/buildsg-transformation-fund/green-buildings-innovation-cluster-gbic-programme

2. GBIC's key objectives include:
   - To streamline, coordinate and disseminate building energy efficiency related activities; and
   - To serve as a one-stop integrated RD&D hub to experiment, exhibit and exchange knowledge of promising building energy efficient solutions with industry stakeholders.

Call Topics

3. This call aims to provide opportunities for the industry to collaborate with researchers, technology providers and building owners to conduct translational R&D on next Generation of green building technologies to achieve Super Low Energy buildings. It pushes boundaries for energy performance and bring sustained cost savings in the long run. Please refer to separate documents for the details of the Call Topics.

Eligibility

4. This call is open to all public and private entities. I**ndustry driven proposals will be assessed more favourably.** Institutes of Higher Learning (IHLs), research start-ups, and not-for-profit organisations, are strongly encouraged to co-create innovative solutions with the industry.

Evaluation Criteria

5. The following criteria will be used for the evaluation of proposals:

   a) High-technical-merit research and innovation that is novel, internationally competitive, directly addresses identified industry-challenge(s), and can lead to breakthrough results;

   b) Economic benefits to Singapore in terms of potential scale up for mass adoption, capabilities and manpower development.

   c) Excellent execution plan by an experienced project team with a good trackrecord; members with relevant and complementary expertise; close collaboration and partnership with the industry; and a clear business model for the proposed innovation – are vital considerations for award.

Funding Support

6. Singapore-based IHLs and public sector agencies will qualify for up to 100% funding support of approved direct qualifying costs of a project. Only Singapore-based IHLs would be allowed support for indirect costs. These include up to 20% of qualifying costs for overhead costs.

7. Tiered funding support levels would apply for private sector entities (up to 30% for all non-Singapore entities[1]; 50% for Singapore Large Local Enterprises (LLEs); 70% for Singapore Small and Medium-sized Enterprises (SMEs), start-ups and not-for-profits). Funding for private sector entities for research projects (total project budget >$500K) would be conditional on collaboration with a public research performer, to ensure that research funding enables the growth of the public research ecosystem.

8. Proposals should not be funded or be currently considered for funding by other agencies. Funding awarded cannot be used to support overseas R&D activities. All funding awarded must be used to carry out the research and innovation activities in Singapore unless approved in the grant.

9. Projects would be considered for further funding support for a larger scale demonstration in a real building environment if they show potential at the end of the technology innovation phase.

Application and Evaluation Process

Submission Instructions

10. Interested applicants are required to submit proposal through the Integrated Grant Management System (IGMS) at https://researchgrant.gov.sg/ with the supporting documents by **20 Sep 2021 2355 hours** (Singapore time). Separate submissions outside of IGMS will not be considered. **Late submissions or submissions from individual applicants without endorsement from the Host Institution will not be entertained.**

11. Please download the Integrated Grant Management System (IGMS) User Guide from the IGMS system at https://researchgrant.gov.sg/ for all instructions and guidelines on the submission process and information relating to the Grant Call.

12. Lead PI and Co-PIs from organisations that are not registered in the IGMS are advised to contact BCA_Challenge_Call@bca.gov.sg as soon as possible. Applicants are advised to allow sufficient time (at least 2 weeks) for their respective organisation to be registered,

[1] For projects led by non-Singaporean entities, a Singapore Technology Licensing Office (STLO) will be appointed to assist in managing the foreground Intellectual Property (IP) developed through the project.

including registering their respective researcher profiles in the IGMS prior to submitting proposals. Refer to **Annex A** for further information.

13. For enquiries on the Grant Call, please email BCA_Challenge_Call@bca.gov.sg. For other enquiries pertaining to IGMS system, please email IGMS helpdesk at Helpdesk@researchgrant.gov.sg.

14. Applications are considered to be successful only if all relevant documents are submitted. The application documents can be downloaded from the "Research proposal" section under "Research Details" after the applicant login to IGMS. The documents required to be submitted are:

a) Form A – Full Proposal;
b) Form B – Budget; and
c) Form C – Capability Indicators

It is advised to restrict each attachment size to be less than 4MB.

15. Please follow the naming convention and format for labelling of softcopy attachments:

Attachment	Naming Convention	Format of attachment
Full Proposal Template	*[Topic Code]* FP_ *Project title*	MS Word
CVs	*[Topic Code]* CV_*Project title*	MS Word
References (optional)	*[Topic Code]* References_ *Project title*	MS Word
Budget Template	*[Topic Code]* Budget_ *Project title*	MS Excel
Capability Indicators	*[Topic Code]* Indicators_ *Project title*	MS Excel

Important: Where relevant privileged or confidential information is needed to help convey a better understanding of the project, such information should be disclosed and must be clearly marked in the proposal.

16. In case of discrepancy between the information in the IGMS application form and the attachments uploaded, the information in the attachments shall be taken as final.

17. Shortlisted applicants may be invited to present their proposals to the Project Evaluation Panel (PEP). Successful shortlisted project teams will be invited to proceed to develop Full Proposal. This will be followed by the final selection of proposals for award.

Indicative Timeline

18. Indicative timeline is as below:

Activities	**Timeline**
Launch of Innovation Challenge Call	12 Aug 2021
Close of Innovation Challenge Call	20 Sep 2021
Peer Review of Proposals	Sep-Oct 2021
Project Evaluation Review	Nov 2021
Award of Innovation Challenge Call	Jan-Feb 2021

Rights of Awarding

19. BCA reserves the right to select proposals to be awarded. For the avoidance of doubt, BCA reserves the right not to award any proposal.

Annex A: SOP for Creation of New Companies/Institutions in IGMS

Before you begin, please familiarise yourself with the various training guides on navigating the IGMS system.

The various guides and manuals will help you understand the roles of various users in the IGMS and the application process. These documents can be downloaded from: https://researchgrant.gov.sg/Pages/TrainingGuides.aspx

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Please be informed that companies or institutions who wish to apply for grants in IGMS will need to be registered in the system for first time application. The registration of the company or institution within IGMS is mandatory as part of the proposal submission workflow.

Please refer to the SOP below for the creation of a new company/institution within IGMS.

CREATION OF ACCOUNT FOR LOCAL USERS

Step 1:

To register a new entry in IGMS, companies/institutions will need to send an e-mail to BCA_Challenge_Call@bca.gov.sg with the following details:

Subject: Creation of new Company/Institution in IGMS for GBIC Innovation Challenge Call for Alternative Cooling Technologies

Details of the New Company/Institution to be created in IGMS:

- *Full Name of Company:*
- *Indicate Local Company or Foreign Company:*
- *Indicate Public Company or Private Company:*
- *UEN (for local company) or Unique Identifier (for foreign Company):*

Step 2 (For Co-PIs):

For Co-PIs, please proceed to register an account on IGMS using CorpPass after the company/institution has been registered on IGMS. Thereafter, the Lead PI will be able to add the Co-PIs' name in the IGMS when he/she fills up the application form.

An Open Researcher and Contributor ID (ORCID) is also necessary to complete the application. Please register for a ORCID at: https://orcid.org and update the user profile on the IGMS system with the ORCID.

Step 2 (For Lead PI):

For Lead PI who will be submitting the application under their company/institution, the role of Host Institution (HI) Admin is necessary for the assignment of relevant roles ("ORE" and "DOR") to other IGMS users in the company/institution. The grant application is only considered to be submitted after the PI had submitted the proposal on IGMS for ORE's endorsement and DOR's approval.

After the company/institution has been created in IGMS, BCA will inform them to nominate an HI Admin. The following steps will apply:

(1) The company/institution will need to nominate a HI Admin. The HI Admin (including all other intended IGMS users) will need to ensure that his/her CorpPass account and ORCID account has been setup. An Open Researcher and Contributor ID (ORCID) is necessary to complete the application. Please register for a ORCID at: https://orcid.org and update the user profile on the IGMS system with the ORCID. To set up a CorpPass account, please visit www.CorpPass.gov.sg.

(2) The HI Admin will need to login to IGMS using his/her CorpPass account to register/update his/her profile inside IGMS. Please note that the IGMS would grant him/her the Principal Investigator (PI) role by default.

(3) After the HI Admin has been successfully registered in IGMS, the HI Admin will notify BCA with the information below:
- Full Name of HI Admin:
- E-mail Address of HI Admin:
- Designation of HI Admin in his/her company:

BCA will arrange with IGMS to change the role of the person from a Principal Investigator (PI) to a HI Admin.

Step 3 (For Lead PI):

(1) After the role has been updated from Principal Investigator (PI) to HI Admin in IGMS, BCA will inform the company/institution.

(2) Once granted the role as a HI Admin, he/she can proceed to assign the relevant roles (e.g. "DOR", "ORE", etc.) to the various users within his/her organisation.

Note:

(1) To complete a proposal submission, **3 distinct roles** are required from any company or institution to endorse the proposal, namely: Lead Principal Investigator (PI), Office of Research (ORE) and Director of Research (DOR).

(2) The HI Admin will manage the roles of the users in their company or institution. A HI Admin can concurrently hold the role of Lead PI. He/She will be able to select different profiles upon login to IGMS:
   (a) Login as HI Admin – to maintain institution & user profiles
   (b) Login as PI – to apply for grant call.

<u>CREATION OF ACCOUNT FOR FOREIGN USERS</u>

For local companies/institutions with foreign staffs without access to CorpPass/SingPass. The following steps apply:

(1) All foreign users from the company (i.e. **HI Admin, DOR, ORE, PI)** will "**Register**" themselves in IGMS via "**Login for overseas users without CorpPass/SingPass**".

(2) After all the foreign users have been successfully registered in IGMS, the **HI Admin** will notify BCA with the information below:
   (a) Full Name of HI Admin:
   (b) E-mail Address of HI Admin:
   (c) Designation of HI Admin in his/her company:
   (d) Full Name of DOR (if DOR is foreign user):
   (e) E-mail Address of DOR (if DOR is foreign user):
   (f) Designation of DOR in his/her company (if DOR is foreign user):
   (g) Full Name of ORE (if ORE is foreign user):
   (h) E-mail Address of ORE (if ORE is foreign user):
   (i) Full Name of Foreign PI/Co-PI(s)*:

(j) E-mail Address of Foreign PI/Co-PI(s)*:

**list down all the foreign users that requires tagging to a company/institution*

(3) BCA will follow up with IGMS to tag the foreign user to your company.

Note: The **HI Admin** cannot add a new foreign user. However, the **HI Admin** can change the role of a user, or, delete an existing user in his/her company.

Appendix 1 of Annex A – Frequently Asked Questions (FAQs)

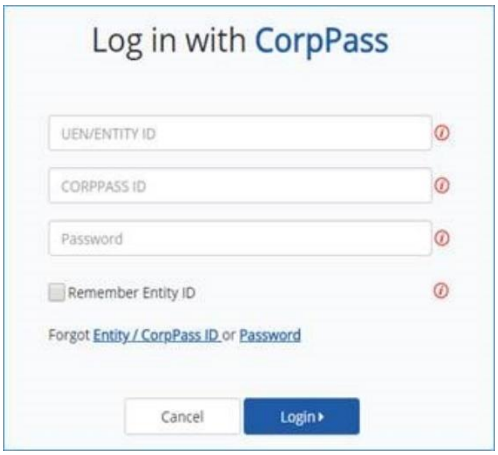
Q: I am a local PI with access to CorpPass. How do I register an account on IGMS?

A:

(1) Go to the URL: https://researchgrant.gov.sg/eservices/account/login

(2) Click on "**Login for PI / ORE / DOR**"

(3) Enter CorpPass login credentials

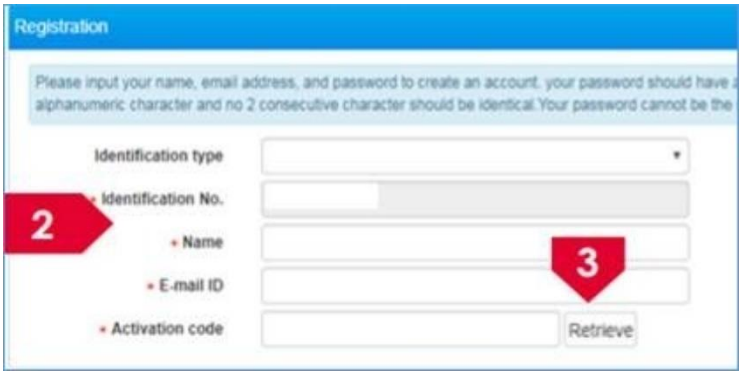


(4) For first time login, user will be directed to IGMS registration page.

(5) Fill in all necessary details.

(6) Click on "**Retrieve**" button to receive an activation code (the code is valid for 10 minutes and will be sent to the e-mail registered)

(7) Key in the activation code and click on **"Next"** to complete the registration



Q: Does the Co-PIs need to register an IGMS account?

A: The Lead Principle Investigator (Lead PI) will submit the online application in IGMS but he/she will need to add the relevant Co-PI(s) as research team member in IGMS. All Co-PI(s) must be registered in IGMS before they can be added as a research team member.

Q: Is the proposal, budget and capability indicators templates available on IGMS for download? Is there any specific format for CV to be submitted?

A: To download the Full Proposal, Budget and Capability Indicator templates, applicants will need to click "Apply" and login to IGMS, under the "Research Details" tab, look for "Research proposal" section to download the templates from "Please click here".

The instruction to prepare CV can be found under the "Research Team, Collaborators, Referees" tab, at the "Research team" section, click "Add" to download the document from "Please click here".

Q: Is signatory on the Budget template necessary before submitting it on IGMS?

A: Yes. It is necessary for Form B to be endorsed before submission on IGMS. E-signature is acceptable.

Annex B: Format for CVs

All CVs submitted for GBIC application must not exceed 2 pages and should use the following format (in terms of sections required and the order of the sections), to highlight key information relevant for the evaluation of proposal.

A. EDUCATIONAL QUALIFICATIONS
B. PROFESSIONAL EXPERIENCE
C. SELECTED PUBLICATIONS MOST CLOSELY RELATED TO THE PROPOSAL
D. SELECTED OTHER PUBLICATIONS (THAT THE REVIEW PANELS SHOULD NOTE)
E. PREVIOUS AND CURRENT RESEARCH GRANTS IN RELATED AREAS
F. LIST OF RECENT COLLABORATORS