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CREATE THEMATIC GRANT CALL 2022

"INTERSECTION OF PUBLIC HEALTH AND THE ENVIRONMENT"

Information for Applicants

Background

- 1. CREATE is taking a thematic approach to project selection in RIE2025 and is working towards an evolved model of partnerships that encourages greater multilateral collaborations to bring in new partners for Singapore. The first theme on the "Science of Sustainable Cities" focuses on research that will provide the tools, technologies, and perspectives to consider how cities can work better and evolve to be more sustainable, liveable and resilient. An important part of this theme is the intersection of public health and the environment.
- 2. Global interest in public health and the environment is evident from the increasing recognition that factors such as climate change, access to safe and sufficient food, exposure to air, chemical and water pollution, as well as built environments including housing and roads have profound effects on mental and physical health. According to the World Health Organization (WHO), premature death caused by more than 100 diseases and injuries can be prevented through healthier environments. In 2021, access to a healthy environment was declared a human right by the United Nations Human Rights Council, prompting governments worldwide to take bold actions to give prompt and real effect to the right to a healthy environment. In 2022, the Intergovernmental Panel on Climate Change and WHO revealed the interconnections between climate change and mental health, linking the former to a rising threat in emotional distress, anxiety, depression, grief, and suicidal behaviour.
- 3. Although environmental and health surveillance is being conducted worldwide using various tracking systems, many of them remain isolated from each other, leading to knowledge gaps that remain to be addressed.
- 4. Two workshops were held on 30 August 2022 and 1 September 2022 to identify research gaps at the intersection of public health and the environment, explore opportunities for impactful research, create awareness of related R&D efforts within the ecosystem, and define the scope of the grant call.

Scope of Research

5. Proposals should take into consideration Singapore's unique context as a trade/travel hub with a highly dense multicultural urban population and limited land space to identify direct and indirect urban environmental drivers (e.g., air, noise, water, food, heat) that affect the physical and mental health of various age groups within the Singapore population (e.g., children, students, working

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population, elderly). This could involve an integrative approach using big data to monitor global trends for early detection of potential public health threats.

- 6. Proposals should aim to understand the mechanisms by which environmental drivers can influence the occurrence of non-communicable diseases (e.g., diabetes, childhood myopia, cardiovascular diseases) or mental health (sadness, loneliness, stress, and anxiety), or impact general health and well-being (e.g., obesity, frailty, healthy longevity).
- 7. Proposals should include actionable recommendations, policies and/or interventions that integrate surveillance and prevention with better design of environmental and community spaces, socio-behavioural sciences, and/or effective communication strategies that will result in a positive impact on public health. While the timeline to impact could take 5-10 years, it will be important to articulate quantifiable indicators to track the progress of these plans and interventions (e.g., data collection using sensors, number of people spending more time in green spaces).
- 8. Research areas such as pandemic preparedness, zoonotic and vector-borne diseases, and anti-microbial resistance will not be included in the scope of this grant call.

Team Composition

- 9. Each research team should comprise members with the following roles:
 - <u>Lead Principal Investigators (Lead Pls)</u>: Each team is jointly led by *two* Lead Pls with different primary institutional affiliations – at least *one* must be from a CREATE Partner institution¹.
 - <u>Co-Investigators (Co-Is)</u>: Each team may include any number of Co-Investigators.
 - Collaborators: Each team may include any number of collaborators.
- 10. Lead PIs and Co-Is are expected to commit a proportionate amount of their time in ensuring the success of the project.
- 11.Lead PIs should be independent researchers with a track record of leadership ability in coordinating research project(s) and providing mentorship to research team(s), as well as having productive research outcomes.

¹ CREATE Partners refer to BEARS, CARES, CNRS@CREATE, E2S2, ILATSG, NUS, NTU, SEC, SHARE, SMART and TUMCREATE

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Eligibility

Lead Pls

- 12. Each proposal must identify only *two* Lead-Pls who should not have the same primary institutional affiliation.
- 13. At least **one** Lead PI must be primarily affiliated with a CREATE Partner institution (see Footnote 1).
- 14. Proposals *cannot* be jointly led by two Lead Pls from Singapore autonomous universities and/or public sector R&D agencies.
- 15. Lead PIs/PIs from overseas universities are required to comply with the CREATE residency requirements modulated by the duration of the project².

Co-Is and Collaborators

- 16. Proposals should include PIs or Co-Is from the Singapore autonomous universities or public sector R&D agency.
- 17. Proposals that include multi-lateral collaborations by involving Co-Is and Collaborators from overseas universities, which are not existing CREATE Partners, are highly encouraged.

Host Institution

- 18. Each proposal must nominate one Host Institution to take responsibility for the management of the project. Eligible Host Institutions include:
 - a. CREATE Partners <u>BEARS</u>, <u>CARES</u>, <u>CNRS@CREATE</u>, <u>E2S2</u>, <u>ILATSG</u>, <u>NUS</u>, <u>NTU</u>, <u>SEC</u>, <u>SHARE</u>, <u>SMART</u> and <u>TUMCREATE</u>.
 - b. Other Singapore autonomous universities (e.g., SIT, SUTD) and public sector R&D agency (e.g., A*STAR).
- 19. Each proposal must be endorsed by both the Host Institution and the co-Lead PI's affiliated institution.
- 20. The maximum number of Whitepapers that can be submitted by each Host Institution is *two*.
- 21. However, CREATE Partners may submit additional Whitepapers if they include co-Lead PIs/PIs from an overseas university that is not an existing CREATE Partner.

² "Residency Requirements" means an aggregate period of residence of at least seven months in Singapore over the duration of a three-year Programme; and each residency stay shall be for a period of no less than four continuous weeks on each occasion per year.

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Grant quantum

- 22. Each award will support up to S\$5 million per proposal (inclusive of all chargeable direct and indirect costs) over a three-year period.
- 23. Activities supported by this grant award should primarily be conducted in Singapore. Applicants should take into account expenses related to/required for collaborative work, including traveling to/from Singapore, during project planning.
- 24. Applicants should request for budgets that realistically reflect what is required to execute the proposed scope of work. Where possible, existing equipment and facilities should be used. Applicants are encouraged to leverage on facilities and testbeds available in CREATE and other local institutions. Cost estimates should be credible, and an inflated budget will be viewed less favourably.

Indirect costs

- 25. Funding support of 30% of the total qualifying approved direct costs will be provided as indirect costs.
 - Host institutions are responsible for administering and managing the support provided by NRF for the indirect costs of research.
 - As a general guiding principle, indirect costs should be apportioned based on the allocation of direct costs to participating institutions. If required, institutions may vary the division of indirect costs according to their individual needs, as agreeable by all parties.
 - The Host Institution shall inform NRF how the indirect costs will be apportioned between participating institutions before the first drawdown of funds for awarded projects.
 - As a guide, the estimated costs of audit for the entire project should be set aside prior to apportioning indirect costs to institutions. Partner Institutions should allow appropriate access to relevant information for the purposes of the audit, as commissioned by the Host Institution. Otherwise, a Partner Institution should provide a separate audit for its part of the project at its own cost, in agreement with the Host Institution.

Selection Process and Evaluation Criteria

- 26. Grant awards will be selected through a two-stage process:
 - a. Whitepapers will be shortlisted for development into Full Proposals by the CREATE Scientific Advisory Board (SAB); and
 - b. <u>Full Proposals</u> will be evaluated by international peer reviewers and the CREATE SAB. Applicants may be invited to give a presentation in person for the final consideration of grant award.

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27. Key assessment criteria include:

Relevance of the proposal to the aims and scope defined in the call

- Proposals with novel ideas for Singapore with objectives and motivations that relate or contribute clearly to the scope of the grant call
- Demonstrate awareness of relevant R&D activities within the ecosystem and articulate gaps to be addressed

Quality

- Scientific excellence
- Technological novelty
- Feasibility of completing R&D aims and objectives within the proposed timeframe

Impact

- Potential benefit for scientific breakthroughs or disruption
- Opportunities for research translation

Team composition

- Competencies of the research team
- Achieve scientific excellence and outcomes by leveraging on complementary expertise of partners from multi-lateral collaborations
- 28. All decisions on the selection process are final.

Submission of Application

- 29. Whitepapers should be submitted to NRF via email through the Host Institution's Office of Research (ORE) or equivalent. Applicants whose Whitepapers are shortlisted will need to submit their Full Proposals through the Integrated Grant Management System (IGMS).
- 30. Whitepapers should be submitted by 18 October 2022, 11.59pm (Singapore Standard Time). Whitepapers will be evaluated and shortlisted by the CREATE SAB for development to full proposals by December 2022.
- 31. The timeline and submission deadlines are as follows:

Call for Whitepapers
Submission of Whitepapers
Shortlisting of Whitepapers for full proposals
Submission of full proposals
International peer review of full proposals
CREATE SAB evaluation of proposals for award

5 September 2022
18 October 2022
28 February 2023
March to June 2023
June/July 2023

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Instructions for submission of Whitepapers

- 32. Interested applicants should prepare their Whitepapers using the template provided in **Attachment 1**.
- 33. Host Institutions should submit softcopies of completed Whitepapers in PDF format to NRF via email (To: joanita_jasmen@nrf.gov.sg) by the stipulated deadline.
- 34. The following will be rejected without review:
 - Incomplete applications (e.g., sections left blank, missing CVs, etc.)
 - Inappropriate format (e.g., template not used, small font size, tight paragraph spacing, etc.)
 - Late submission
 - Missing or incomplete endorsements by respective Director of Research of Host Institution (or equivalent) and Second Lead PI's institution
 - · Revisions made after closing date
 - Proposal not within scope of grant call theme
 - Duplicate of proposal submitted to any other public funding agencies for simultaneous consideration
 - Ineligibility of Lead Pls/Co-Is or Lead Pl compositions
 - Single investigator-led proposals

Instructions for submission of Full Proposals

- 35. Submission of full proposals will be *by invitation only*, following the CREATE SAB shortlisting process in December 2022.
- 36. Full proposals, including all necessary supporting documents, must be submitted through IGMS (https://researchgrant.gov.sg/pages/index.aspx).
- 37. Applications must be submitted by the Host Institution Lead PI using a CorpPass³ ID and endorsed by the Host Institute's Director of Research (DOR) via IGMS by the stipulated deadline. Applicants are encouraged to submit the completed application early, to allow the DOR to endorse the proposal on IGMS in a timely manner.
- 38. Late and incomplete submissions will not be accepted. Separate submissions outside of IGMS will not be considered.
- 39. Information provided on the IGMS application must be accurate and selfconsistent across all documentation provided. NRF reserves the right to disqualify non-compliant applications.

³ Lead PIs and all Co-Is must obtain a CorpPass account and complete user registration on IGMS prior to application. Please refer to **Annex A** for detailed information relating to CorpPass.

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40. Detailed administrative information on full proposal submission will be provided to shortlisted applicants.

Contact Information

- 41. For enquiries related to the CREATE Thematic Grant call, please contact Dr Joanita Jasmen (joanita_jasmen@nrf.gov.sg).
- 42. For technical enquires related to IGMS, please contact the Helpdesk at Helpdesk@researchgrant.gov.sg.

Annexes and Attachment

Annex A	Administrative Instructions for CorpPass
Attachment 1	CREATE Thematic Call Whitepaper Template

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Annex A

ADMINISTRATIVE INFORMATION FOR CORPPASS

- 1. Access to the application page of CREATE grant calls on IGMS requires a CorpPass account, which researchers may request through their organisation's Research Admin Office. Please allow sufficient time to set up all CorpPass accounts prior to the grant application.
- 2. All Lead PIs and Co-Is must obtain a CorpPass ID and complete user registration for IGMS prior to application.
- 3. Lead PIs should log in to IGMS using the CorpPass ID from the Host Institution through which they intend to submit the application. Failure to do so will prevent the application from being routed to the right Host Institution for endorsement.
- 4. Researchers from overseas institutions may request for CorpPass accounts through the respective Host Institution.