



MINISTRY OF HEALTH
SINGAPORE

Grant Call on Translation

National Innovation Challenge on Active and Confident Ageing (Phase 2)

Public Briefing
9 June 2023

National Innovation Challenge on Active and Confident Ageing

- The National Innovation Challenge (NIC) on Active and Confident Ageing was announced by Minister for Health and Chairman of the Ministerial Committee on Ageing as part of the Action Plan for Successful Ageing on 26 August 2015
- The NIC seeks to **catalyse innovative ideas and research** in Singapore that can **transform the experience of ageing** in Singapore.
- We have launched a total of 9 thematic grant calls across a variety of ageing-related topics:
 - Home care, Cognition, Ageless workplaces, Assistive devices, Healthy ageing, Falls prevention, Chronic disease management, and Caregiving ecosystem, Frailty

More research into ageing issues:

- Up to \$200 million set aside for a **National Innovation Challenge** to catalyse research related to ageing.



Building a strong ageing R&D ecosystem through our NIC on Ageing – A Phased Approach

RIE2015
Phase 1A
(FY15-18)



RIE2020
Phase 1B
(FY19-22)



RIE2025
Phase 2
(FY23-25)

BUILDING THE FOUNDATION FOR AGEING R&D

- Objective was to jumpstart ageing research in variety of topics
- Awarded 29 projects through 7 thematic grant calls
- **Projects tend to be smaller scale (average of \$1-2mil per project for up to 3 years).**

SHARPENING OUR FOCUS, MOVING TOWARDS GREATER IMPACT

- Sharpened our focus on high priority areas: frailty, caregiving and leveraging technology
- Larger funding quantum and longer duration projects
- Awarded 6 projects under 2 grant calls
- Also started global collaboration through the Healthy Longevity Catalyst Awards (HLCA)

BRIDGING RESEARCH AND APPLICATION

- Focus on driving translation and scaling of projects that have shown positive POC/POV
- Enhance our understanding of future seniors and the ageing trajectory

The Translation Grant Call under NIC Phase 2 seeks to bridge the gap between research and real-world application.

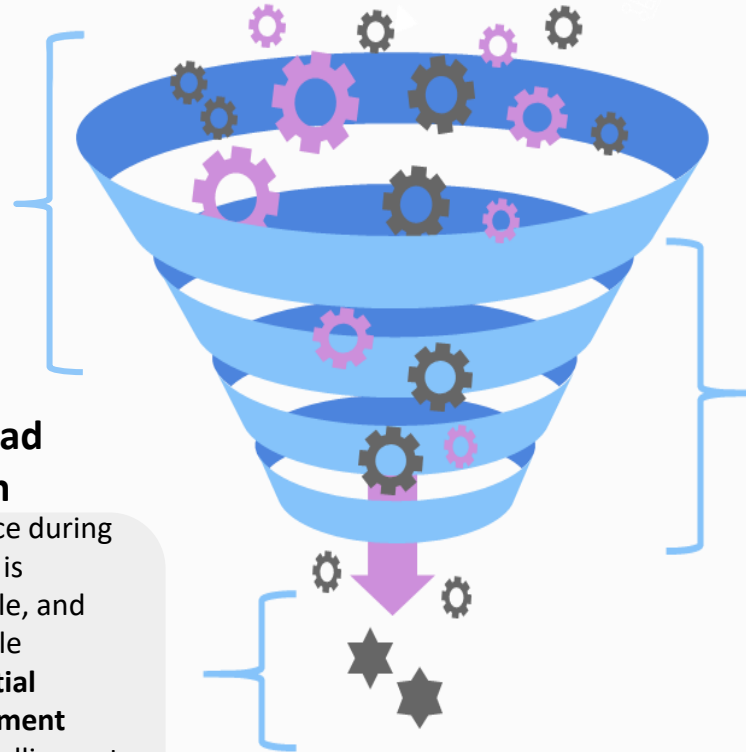
We are launching a translation grant call to **scale up promising research projects and generate evidence to facilitate a decision in the future on suitability for nationwide implementation and adoption of the solution.**

Phase 1: Ideation

- Seeding ideas and building a pipeline of projects in different areas
- Established Proof-of-Concept and Proof-of-Value
- Some test-bedding involved at a smaller scale to establish value and effectiveness

Future: Widespread Implementation

- Generated sufficient evidence during funding period that solution is effective, cost-efficient, viable, and financially sustainable at scale
- **Garner support from potential funders to adopt and implement solution more widely** (e.g. rolling out as a mainstream service in eldercare settings)



Phase 2: Test-bedding and Translation

- Some projects have demonstrated good outcomes and show potential for translation.
- The focus of this translation phase is on **large-scale test bedding** to (i) **understand application of implementation science approaches** (e.g. barriers affecting uptake of the innovation by service providers/seniors, staff training & resourcing required), (ii) **establish cost-effectiveness**, and (iii) **validate whether the good POC/POV results continue to hold** when project is scaled.

Focus areas: Proposals submitted must address at least one of the following three focus areas.

Cognition *(prioritised)*

- Implementation of effective and scalable tools or interventions to detect cognitive decline, preserve cognitive health, or to delay onset of cognitive decline and dementia

Frailty

- Implementation of effective and scalable detection tools to identify pre-frailty and frailty, as well as interventions to reverse/delay frailty and improve health outcomes

Caregiving

- Implementation of effective and scalable solutions or care models to enhance caregiving support and improve productivity of care, as well as to address the multi-factorial needs of caregivers and care recipients.

Selection of projects will follow these eligibility criteria:

Who can apply

The grant is open to all public and private entities and institutes of higher learning (IHLs). Project teams are to identify a 'Host Institution' from any local public institution for the administration of the Research including the receipt of funding. While there is no restriction on the nationality of members in the project team, the entity represented must be legally registered in Singapore. Consortiums with Singapore-registered entities are also eligible to apply.

Progress and achievement

The grant is open to projects that have already achieved **Proof-of-Value (POV) and has a working prototype** (e.g. app, system) **and interventions** that have demonstrated good **potential for impactful outcomes and application at a larger scale**. Projects whose earlier phases of research were supported by competitive MOH individual research grants (e.g. NIC, HSRG) are preferred.

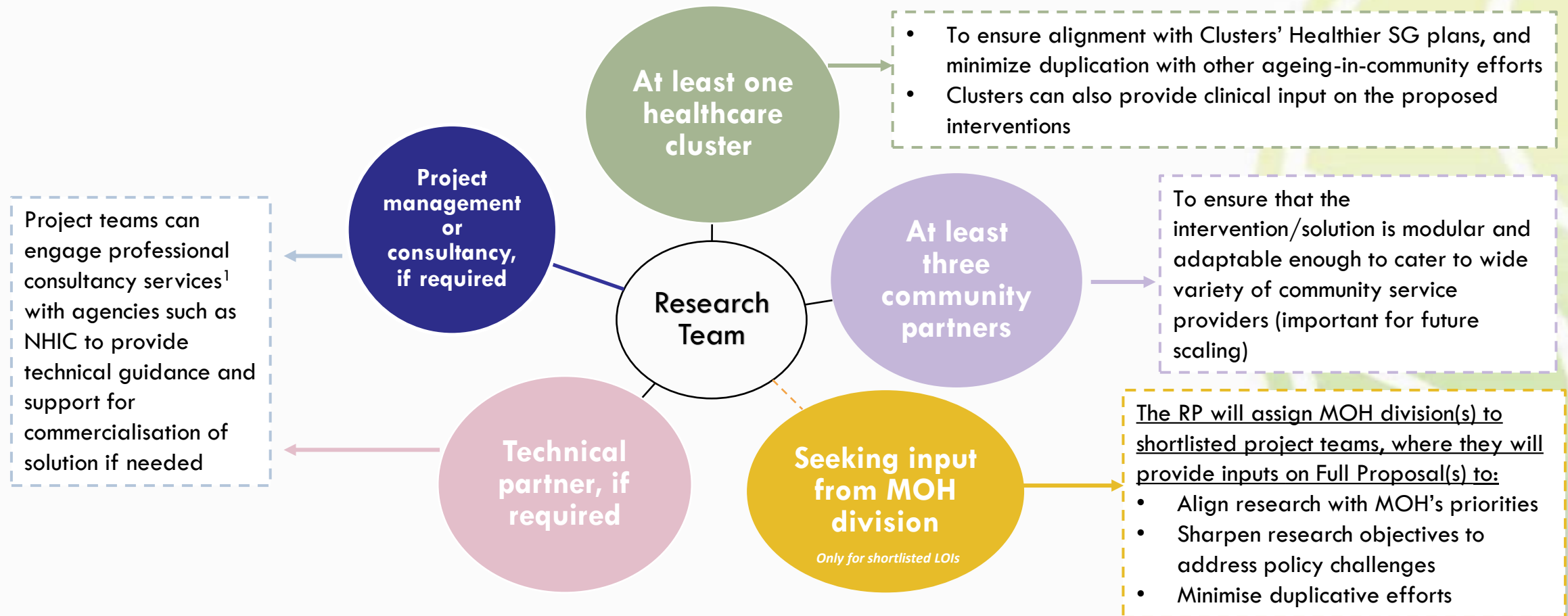
Project proposal

Projects must have a clear proposal and implementation plans, including a multi-disciplinary team that can work with multiple community partners to drive research and scaling.

PI Eligibility

- A Principal Investigator (PI) can submit **only one application**. However, he/she may be part of the Project Team of other proposal applications.
- Lead PIs are required to fulfil the following criteria at the point of application:
 - i) Have PhD or MD/MBBS/BDS qualifications and/or other appropriate Postgraduate Qualification (at least a Master's Degree) in areas relevant to the proposal research
 - ii) Hold a primary appointment in a local publicly funded institution and salaried by the institution;
 - iii) Be an independent PI with demonstrated track record of research, as evidenced by the award of nationally competitive funding (*international funding to be considered on a case-by-case basis*), substantial publication record in the past 3 years, or PI status in research institutes;
 - iv) Have a laboratory or research program in Singapore;
 - v) Hold a minimum of 9 months employment (per calendar year) with local Singapore Institution(s). Upon award, the PI must agree to fulfil at least 6 months of residency in Singapore for each calendar year over the duration of the grant award;
 - vi) Must not have outstanding reports from previous BMRC, NMRC grants and other national grants; and
 - vii) For proposals involving patients, the PI should be Singapore Medical Council (SMC) registered; or should be able to demonstrate ability to access patients through SMC registered Co-Is or Collaborators.


Team composition: Project team should also comprise multi-disciplinary and cross-sector expertise that can drive research and implementation



¹This could include areas like system/platform architecture and integration, technology trends, inter-operability, security requirement, maintenance and hosting, scaling and deployment, developing business model, identification of potential IP

*At the time of application, PI will need to identify in IGMS whether the implementation partner would be a Co-I or Collaborator

Proposal Submission

- Interested applicants are to submit a **Letter of Intent (LOI)** covering the following areas:
 - Project abstract
 - Objective(s) of the project;
 - Provide evidence on **the Proof-of-value that has been achieved, and how the project has addressed an existing gap;**
 - Key components and innovations of the research;
 - Summary of the implementation plan, timelines and milestones
 - Summary of the evaluation framework and KPIs to track for the Research.
 - Shortlisted LOIs will then be invited to submit a full proposal.
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Full proposals should provide evidence of POV achieved from previous phases of research, and include a clear long-term goal and business model for sustainability and scalability

- Key components and information required in the research proposal:

Provide evidence of POV
(This can include i. Final report from previous grant; and ii. Any publication/research report detailing findings)

Proposed implementation sites/target group and should include a critical mass of end-users (e.g implementation partners, seniors)

How project team will measure user response to the prototypes in terms of usefulness and adoption

How project team will evaluate cost-effectiveness of intervention

Scalability of intervention (e.g. effectiveness of individual modules within a suite of interventions, enabling data flows and IT connectivity to mainstream systems, modular enough to be implemented in other clusters)

Proposed business model and plans to ensure financial sustainability (including potential future funding streams)

- Project teams to obtain letters of support from senior mgmt. of collaborating partners (from Co-Is and collaborators only) indicating that they will (i) Provide necessary support, including eventual deployment if proven to be effective, sustainable and viable; and (ii) Verify that project does not duplicate other existing efforts.

**Although Letter of Endorsement is only required during the submission of full proposal, we encourage project teams to check-in with senior mgmt of the respective collaborating institution(s) early during the drafting of LOI, to ensure that they are supportive of the overall direction of the proposal.*

Evaluation will focus on the key aspects that are important to support successful translation

Component	Criteria for Shortlisting/ Evaluation	Weightage
Grant Requirements	<ul style="list-style-type: none"> Address priority areas (cognition, frailty or caregiving) Team Composition (at least 1 cluster and 3 comm partners) Usual NMRC requirements (e.g. must be local research institution; PI must be locally-based, etc) 	Pass/Fail
Proof-of-value	<ul style="list-style-type: none"> Robustness and relevance of POV findings <ul style="list-style-type: none"> Achieved relevant targets and KPIs under previous research grant Demonstrate positive outcomes measured by appropriate tools and scales (e.g. MMSE, SPPB) Findings were based on a reasonable sample size 	Pass/Fail
Expertise	<ul style="list-style-type: none"> Expertise and Ability of the Lead Principal Investigator and the team (including community partners) to carry out the proposed research project <ul style="list-style-type: none"> For PI, having prior experience with translational research or past collaborations with community providers would be an important consideration Positions/appointments held by PI and team members should be relevant to the application and in line with their respective expertise For community partners, past participation/experience in research projects would be helpful. In addition, community partners would be required to submit a letter of support documenting their Management's support and commitment on the research project. 	25%
Potential impact and outcomes when scaled	<ul style="list-style-type: none"> Impact (improved health outcomes, increased productivity, sustained impact and behavioural changes that are transferable to improvements in daily lives etc) Cost-effectiveness of the proposed solution compared to existing solutions 	35%
Implementation methodology	<ul style="list-style-type: none"> Useability and adoption by end-users Scalability/replicability (e.g. connectivity to mainstream systems, interoperability across settings) Reasonableness of funding request Financial viability and sustainability of proposed business model 	40%
Total		100%

*For proposals that are assessed to be similar in merit, priority will be given to projects on Cognition, as well as those previously supported by competitive MOH/NMRC NIG-equivalent, IRG-equivalent and LCG-equivalent research grants administered by MOH (e.g. NIC, NMRC IRGs, HSRG, NMRC OFLCGs).

Project Funding

- Funding is **capped at \$5mil (inclusive of 30% indirect cost) per project**, for a period of **up to five years**.
 - Public entities and IHLs** will qualify for **full funding support of direct costs** , while private entities (except for non-profit entities) that are part of the Project Team will be funded at up **to 70% of supportable direct costs***.
 - Support for indirect costs, on top of supportable qualifying direct costs, is **30% of direct costs**. **Only Singapore-registered Institutions that are institutes of higher learning (IHLs) or non-profit entities, including public healthcare providers, may qualify for support for indirect costs.**
- Funding will be provided on a reimbursement basis, to be claimed via the Integrated Grant Management System (IGMS).

	Budget request	Direct Costs	Indirect Costs	Total funding
Public entities, IHLs and SG not-for-profits	\$1mil	\$1mil	\$300k	\$1.3mil (overall project budget capped at \$5mil)
Private sector entities (<i>participating as Co-Is</i>)	\$1mil	\$700k (<i>Co-Is to co-fund \$300k</i>)	NA	\$700k (overall project budget capped at \$5mil)

* SG Not-for-profits (e.g. community care providers) are exempted and will be eligible for 100% funding of direct costs as well as indirect costs (30% of supported direct costs).

Explanation of Costs

- In general, qualifying costs are **direct costs** that are required to **execute or implement the project**, and are held **accountable to the performance** of the particular Research. These include,
 - Expenditure of Manpower (EOM);
 - Equipment (EQP);
 - Overseas Travel (OT) and
 - Other Operating Expenses (OOE)
- **Indirect costs** are those that are **incurred for common or joint objectives** and therefore cannot be identified readily and specifically with a particular Research, but contribute to the ability of the Host Institution to support the Research. Examples include,
 - General administration and general expenses (eg. provision of research space)
 - Operation, maintenance, utilities, rental and departmental administration expenses

Post-award Monitoring Requirements

Monitoring requirements for awarded projects

1. **Annual progress reports** submission, to be reviewed by a distinct Review Panel of subject matter experts.
2. **Mid-term Review** to be conducted at project's mid-term mark by Review Panel
3. **Share findings/progress of project with MOH policy division** at important milestones (e.g. post-data analysis) to ensure relevance of research to policy
4. **Review of final report by RP**, for assessment on achievements and readiness for nationwide implementation

Applying via Integrated Grant Management System (IGMS)

- The following files will be available for download from the NMRC (www.nmrc.gov.sg) and IGMS (<https://researchgrant.gov.sg>) websites:
 - IGMS Application Guide
 - Public Document and Application Guide
 - README document
 - (i) Proposal, (ii) CV, (iii) Other Support and Annexes and (iv) Declaration and Additional Info Templates (these must be completed and attached in your IGMS application)
 - Prevailing Terms and Conditions
- To submit an application on IGMS, Pls are required to obtain a CorpPass from your institution and this will be used to access/log in IGMS. For more information on how to register your institution's representative as a CorpPass admin or obtain a CorpPass, please visit www.corppass.gov.sg.
- If this is the first time your institution/organisation is creating an institutional account with IGMS, please email the Grant Manager ([Tricia Teo@moh.gov.sg](mailto:Tricia_Teo@moh.gov.sg)) **at least two weeks before the submission deadline** with the following details:
 - - Full Name of Company:
 - - Local Company / Foreign Company:
 - - Public Company / Private Company:
 - - UEN (for Local Company) / Unique Identifier (for Foreign Company):The Grant Manager will inform you of the next steps.

Applying via Integrated Grant Management System (IGMS) – cont'd

- For the submitted application to route to NICPO by the deadline of submission, Project Team must identify a Host Institution Office of Research (HI ORE) with the following roles set up on IGMS:
 - Host Institutional Director of Research (HI DOR)
 - Host Institution Office of Research (HI ORE)
- The PI should submit only one application on behalf of the Project team using the templates available on the IGMS and upload these documents to the relevant sections in IGMS:
 - Research proposal
 - CV template (PI, Co-I/Collab)
 - Other Attachments Template (Signatories and Other Support)
- It is **mandatory** for all applications to be submitted *online via IGMS* by 11 Aug 2023, 5pm. Please ensure that all online submissions are **endorsed by the corresponding host institution's Research Director by the closing date**.

Additional Guidance (1)

Roles and Responsibilities

- The roles and responsibilities of every Institution, Investigator and Collaborator must be clearly specified.

Proposed Solution(s)

- To provide evidence of Proof-of-Value from earlier phases of research - this can include i. Final report from previous grant; and ii. Any publication/research report detailing findings
- To articulate in detail the proposed solution and how it can achieve the targeted outcomes/KPIs.

Implementation Plan

- Project Teams are required to describe all implementation activities, stages, Milestones and targets.

Additional Guidance (2)

Ethics Consideration

- Expected to ensure the safety and well-being of persons involved in any activity conducted in relation to the NIC is not compromised in any manner whatsoever.
- Ensure that all potential human subjects are assessed by a qualified assessor if necessary, e.g. allied health professional, registered nurse or doctor, to determine the need for and suitability of the prototype (if applicable) before the subjects would use the prototype.
- Take into consideration all applicable laws, including the Human Biomedical Research Act, the Health Products Act, Health Products (Medical Devices) Regulations , Allied Health Professionals Act and the Medical Registration Act to ensure that proposed designs are in line with regulatory requirements.

Timeline

Activity	Date
Public Briefing	9 June 2023
Launch of Grant Call and Submission of LOI	9 Jun – 11 Aug 2023
Call for Submission of Full Proposals for Shortlisted LOIs	~Oct 2023 – Jan 2024
EP Meeting and Interview with Project Teams	Mar 2024
Announcement of Results	Apr 2024

FAQs

	Questions	Replies
General Eligibility	Can I submit the same proposal to different funding agencies?	On the Other Support template, applicants are also required to indicate if they are submitting any applications (with outcomes pending) and if there are overlapping section(s). Applicants are not allowed to submit the same/similar proposal to multiple funding agencies
Scope of Proposal	Is there any specific area of cognition, frailty or caregiving that MOH is interested to look at under this grant call?	Cognition, frailty and caregiving are multi-dimensional and complex issues. Project teams have the flexibility to determine the problem statement and scope of study, as well as to specify if your project or proposed intervention intends to focus on a specific target or sub-group, and why such a focus would be of value.
Team Composition	Must I have three community partners as collaborators or co-investigators in the team? Would it suffice if I work with one community partner that has multiple sites and centres?	The requirement to have at least three community partners is a deliberate criterion to ensure that the solution could be tested with a variety of partners to ensure scalability, as this would be important for future large-scale implementation.
	Shortlisted LOIs will have to seek input from MOH divisions on the full proposals. How should we work with MOH divisions?	The review panel will appoint relevant MOH divisions to provide input to the full proposal. NICPO will help to facilitate a linkup between the PI and the appointed divisions. PIs may wish to share the LOI or a draft of the full proposal, for MOH's input on the proposal, such as whether there is alignment between research objectives and policy needs, as well as feasibility of proposed implementation plan (where applicable).
Evaluation	is there a specific area that MOH will assess the proposals on? E.g. is innovativeness more important to MOH compared to implementation?	MOH will evaluate the proposals holistically based on the criteria in slide 13. As this is a translation grant, the focus of the evaluation will be on expertise of the research team, implementation methodology, and potential impact at scale. We have also provided a longer preparation time (compared to past NIC grants) to factor in time needed to seek input and finalise the full proposal.

Questions?

For enquiries, please email
NIC_Ageing@moh.gov.sg

We look forward to receive your application!