



MINISTRY OF HEALTH
SINGAPORE

Ageless Workplaces Innovation Grant

National Innovation Challenge on Active and Confident Ageing

Industry Networking
10 June 2016

Programme

Time	Item	Presenter
2:00pm	National Innovation Challenge on Active and Confident Ageing	National Innovation Challenge Programme Office
	Ageless Workplaces Innovation Grant	
	Q&A	
3.00pm	Fitness and Productivity in an Ageless workplace	Dr Bala S Rajaratnam, Nanyang Polytechnic
3:15pm	Modular Soft Exoskeleton to Assist Mobility of Older Workers	Prof Low Kin Huat, Nanyang Technological University
3:30pm	Ageless Shopfloor for the Manufacturing Industry	Dr Vinayak Prahbu, Nanyang Polytechnic
3:45pm	Bioengineering Core, SGH	Mr Yeow Siang Lin, Singapore General Hospital

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
- This NIC seeks to **catalyse innovative ideas and research** in Singapore that can **transform the experience of ageing** in Singapore, tomorrow.

More research into ageing issues:

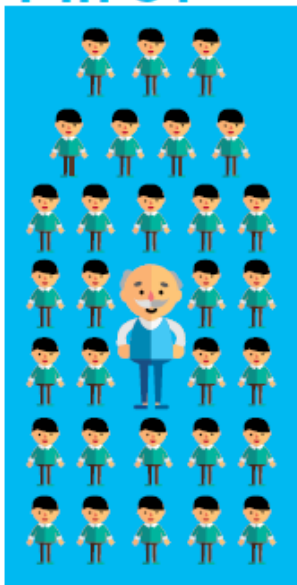
- Up to \$200 million set aside for a **National Innovation Challenge** to catalyse research related to ageing.



Singapore is ageing rapidly

By 2030, there will be over 900,000 Singaporean seniors

1 in 31

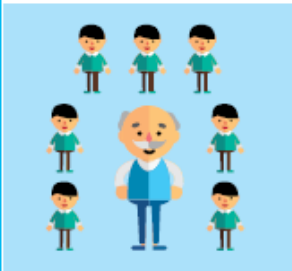


1970

OUR POPULATION IS AGEING RAPIDLY.

In 1970, **1 in 31** Singaporeans was 65 or older. In 2015, it was **1 in 8**. By 2030, it will be **1 in 4**. We will have over 900,000 seniors, approximately double the current 440,000.

1 in 8



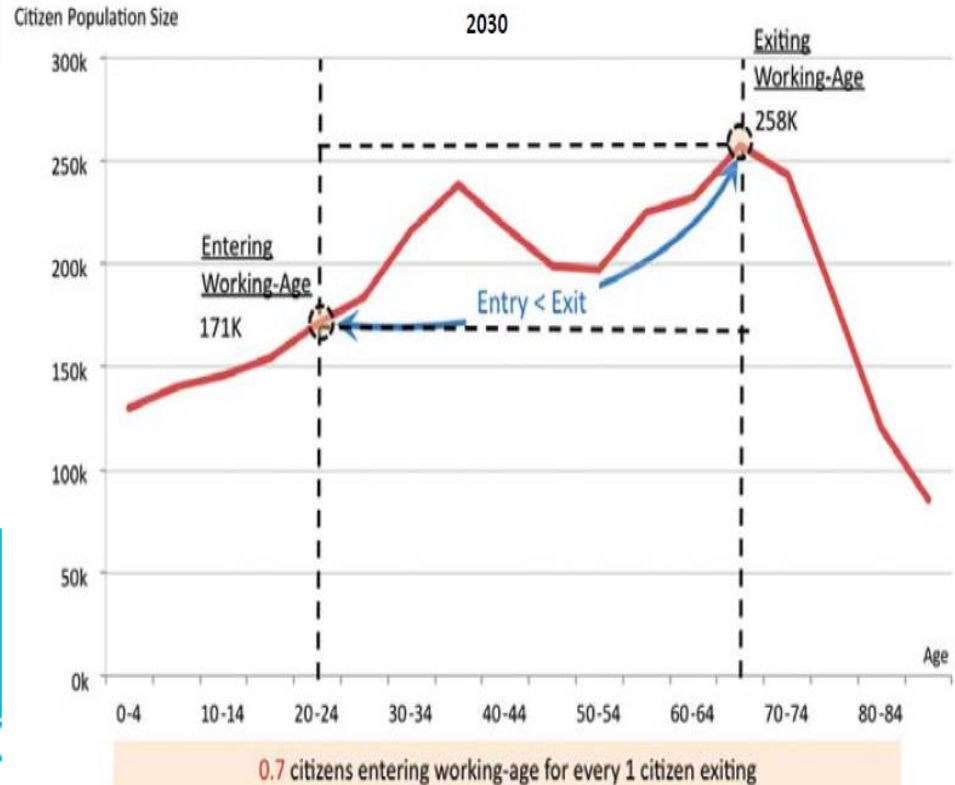
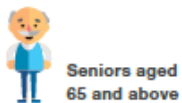
2015

1 in 4



2030

YEAR



Source: Population White Paper, Jan 2013.

Ageless Workplaces Innovation Grant

- This is our third grant call, under the NIC thrust on “Productive Longevity”
- We seek **novel, practical and impactful game-changing solutions** that may include (a) new inventions in automation or labour-augmenting devices or (b) significant trial of age management systems that have never been trialled at scale locally before.
- **Two objectives** for the Ageless Workplaces Innovation Grant
 - **Improve the productivity and health of older workers**
 - **Enable older workers to be employable for as long as possible, beyond 65 years old**

Challenge Statement

Participants can explore ideas (i) across sectors or (ii) focus on a sector specific solution.

Projects should look into ways to transform the workplace into an 'ageless workplace' that can enable a **50% improvement in the productivity of older workers aged 65 years and above and/or increase the employment of workers aged 65 years and above by 50% or more**, both compared to sector and company specific benchmarks, whichever is higher.

Examples of Projects

Robotics and Assistive Technology

- Workstation re-design, with automation, to reduce physical demand and improve comfort and safety for older workers
- Use of assistive technology to augment labour productivity

Age management practices

- Study of the optimal lifespan of certain job types and how older workers reaching the end of the optimal job lifespan can be rotated to new positions or a re-designed job scope that allows them to continue tapping on their accumulated experience
- Flexible work arrangements such as reduced work hours, telework or project-based work.

Eligibility

- Participants forming Project Teams can submit **more than one Grant Proposal** in response to the challenge statement but a Project Team will only be awarded Funding for **one Project**.
- Open to all **public, private or non-profit organisations**, research institutes and institutes of higher learning, registered and/or incorporated in Singapore.
- There are no restrictions on nationality for individuals, but the entity they represent must be registered in Singapore either through the setting up of a local equivalent of the entity in Singapore or through a consortium with Singapore-registered entities.
- Project teams are to identify a 'Host Organisation' for the administration of the Project.

Project Team Composition

- Required to partner an implementation partner and form a Project Team comprising:
 - Members from **multi-disciplinary** (e.g. pairing medical and technology, engineering) background and/or involving more than one organisation; and
 - An **implementation partner** that is a **company with at least 200 staff**.
- **No restriction** on the number of Participants in each Project Team
- Participants are expected to **form their own** partnerships.

Project Funding

- Awardees may qualify for **up to 80%** funding of approved qualifying costs to develop and implement their Project for a **period of up to 3 years**, with the possibility of **extension for another 1 year**.
- Qualifying costs include both **developmental and operating** costs
- Project Teams are expected to **co-fund the remaining 20% of qualifying costs**
- Support for **indirect costs**, *on top of supportable qualifying costs*, **is capped at 20% of the supportable qualifying direct costs**
- Funding will be provided in phases and subjected to the successful attainment of milestones and Key Performance Indicators (KPIs) tied to each phase

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 Project. These include,
 - Expenditure on manpower (EOM);
 - Expenditure on new equipment; 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 Project, but contribute to the ability of the Host Organisation to support Projects. Examples include,
 - General administration and general expenses (eg. provision of research space)
 - Operation, maintenance and departmental administration expenses
 - Library expenses, departmental administration expenses

Project Phases

Project teams will have the **flexibility to decide the time allocated** to the phases as follows,

Design phase (Proof-of-concept). Project teams are to articulate the concept of the programme / service / prototype and the process by which to achieve stated outcomes. Project teams should also provide studies and analyses that support the concept's viability for further development.

Development phase (Proof-of-value). Project teams are to develop and validate the programme / service / prototype so that it takes on a clearer form to achieve the intended outcomes.

Implementation phase (Test-bedding) - At least one year. In this phase, project teams are to test and validate the programme / service / prototype in the field (a relevant environment). This phase may also include initial production or roll out.

Application Process

*Proposals will be evaluated through a **two-stage process***


Project Abstract

- First, submit a short 5-page **Proposal Abstract** of the Project, including a comprehensive literature review that show the reasons for choosing a particular solution
- Project Teams are to use the “Project Abstract Submission Template” that can be downloaded from NMRC webpage
- Two hard copies of the Project Abstract and any supporting documents should reach MOH **no later than 22 July 2016 at 5:00pm.**
- Project Teams shall email soft copies to NIC_Ageing@moh.gov.sg by the deadline

Project Proposal

- Shortlisted proposals will then be invited to submit a **detailed Project Proposal**. This will be evaluated by an evaluation panel.

Project Abstract

- **Objective(s)** of the Project;
 - Literature review and the **evidence/basis** for the Project;
 - Key **components and innovations** of the Project;
 - How the Project could **address the challenge statement**
 - Summary of the **implementation plan, deployment plan, timelines and milestones** of the Project; and
 - Summary of the **evaluation framework and KPIs** to track for the Project.
- 

Additional Guidance (1)

Roles and Responsibilities

- The roles and responsibilities of every Member of the Project Team must be clearly specified.

Proposed Solution(s)

- To articulate in detail their proposed solution and how it can achieve the targeted outcomes/KPIs.
- Project Teams will be expected to test-bed the proposed solution at the implementation phase if awarded the Grant.
- 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.

Implementation Plan

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

Additional Guidance (2)

Deployment Plan

- Project Teams are required to include a detailed deployment plan as part of the Project Proposal to demonstrate scalability.
- The deployment plan should discuss scaling of the proposed solution **with at least 5 Singapore-based organisations within the targeted industry.**
- Deployment to the companies **will not be funded** under this Grant.
- The 5 Singapore-based organisations must **endorse the Project Proposal**, but are not required to commit to the actual scaling of the solutions.

Mandatory KPIs (1)

Productivity

- Project Teams should show a productivity improvement of 50% from the existing baseline applicable to the Implementation Partner
- This is measured using output per older worker, which can be expressed in terms of **physical quantities** (e.g. numbers of customers served, number of books printed) or **operational efficiency** etc.

Mandatory KPIs (2)

Proportion of older workers aged 65 years and above in Implementation Partner

- Project Teams should achieve more than 50% improvement from the existing baseline applicable to the Implementation Partner.

Table 1: Proportion of Older Workers Aged 65 Years and Above by Industry

Industry	Baseline Proportion of Older Workers Aged 65 Years and Above (%)
Overall (Across Sectors)	5.4
Wholesale & Retail Trade	5.5
Transportation & Storage	7.0
Accommodation & Food Services	11.1
Health & Social Services	4.6

Mandatory KPIs (3)

Sustenance or improvement in function/physical health of older workers

- Project Teams should show that the function or physical health of older workers are maintained or enhanced. Project Teams should consider the **health issues** relevant to the jobs or industries that the older workers are working in.

Other KPIs

Project Teams are to propose at least two other KPIs to track. Possible KPIs can include:

- Reduction in exposure to work-related hazards or risks faced
- Adaptability of solution (e.g. ease of use)
- Improvement in attitudes of immediate supervisors and co-workers
- Improvement in work motivations
- Sustained work interests and job satisfaction

Broad Evaluation Criteria

Component	Evaluation Criteria
Grant Requirements	<ul style="list-style-type: none">● Proposal Abstract and Project Proposal Submission● Locally-Based Project & Team Lead● Project Team composition● Addressed the challenge statement
General	<ul style="list-style-type: none">● Project Proposal submission● Background of Team Lead● Track record of Members of the Project Team and Implementation Partner(s)
Business	<ul style="list-style-type: none">● Scalability of proposed solution● Sustainability of proposed solution● Innovativeness of proposed solution
Performance	<ul style="list-style-type: none">● Proposed model/prototype/programme● Proposed outcomes
Implementation	<ul style="list-style-type: none">● Project feasibility in the local context● Clear implementation plans with demonstrable outcomes in field pilot stage● Reasonableness of funding request and charges

Timeline

Activity	Date
Call for Grant Proposals	May 2016
Public Briefing	26 May 2016 (Thurs)
Industry Networking	10 June 2016 (Fri)
Deadline for Submission of Proposal Abstract	22 July 2016 (Fri)
Deadline for Submission of Project Proposal	30 September 2016 (Fri)
Announcement of Results	By December 2016

E-Marketplace

To facilitate partnerships, MOH has created an E-Marketplace for the Ageless Workplaces Innovation Grant:

The screenshot shows a web browser window displaying the NMRC website. The page features the Ministry of Health and NMRC logos, a navigation menu, and a sidebar with various grant categories. The main content area is titled "Ageless Workplaces Innovation Grant E-Marketplace" and includes a breadcrumb trail, an introductory paragraph, contact information for interested parties, and a list of participating research institutes with their contact details.

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Ageless Workplaces Innovation Grant E-Marketplace

Home > Competitive Research Grants > Ageless Workplaces Innovation Grant > Ageless Workplaces Innovation Grant E-Marketplace

We have created an E-marketplace to facilitate partnerships between interested parties to participate in the Ageless Workplaces Innovation Grant. The organisations below have given permission to share their interests and contacts on this platform. Please do not hesitate to contact interested organisations to forge partnerships.

If you would like to be added to this E-Marketplace, please contact us at NIC_Ageing@moh.gov.sg

Institutes of Higher Learning / Research Institutes

- Centre for Ageing Research and Education, Duke-NUS Medical School

The impact on health and wellbeing as a result of changes in work structures and processes	mal@duke-nus.edu.sg grand.cheng@duke-nus.edu.sg
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- Geriatric Education and Research Institute

Translational and/or health services research relating to preventive health or delivery of care services for the senior population	wee.shiou.liang@geri.com.sg Qiu.shijia@geri.com.sg
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http://www.nmrc.gov.sg/content/nmrc_internet/home/grant-navigation/competitive-research-grants/Ageless-Workplaces/e-marketplace.html

Note: Participants can work with any suitable company(s) and need not limit their partnerships to the companies listed on the e-marketplace.

Questions?

For enquiries, please email
[NIC Ageing@moh.gov.sg](mailto:NIC_Ageing@moh.gov.sg)