



## MOE Decentralised Gap Funding (MDGF) – Grant Application Full-Proposal Instructions

- All full-proposals are to be completed on this template
- The full-proposal shall not exceed ten (10) pages in length (not including figures or graphics). Figures or Graphics may be attached as Annex if there is.
- Do not change the margin or font size (Times New Roman, 12)
- The full-proposal must be submitted as PDF.
- The shortlisted proposal will be called to make a presentation at the evaluation panel.

### Types of Grants you can apply for :

MDGF – MD (Market Discovery) Max up to : 50K & period 6 months	MDGF – POC (Proof of Concept) Max up to : 250K & period 12 months
<b>Objective: Establish commercial value proposition</b>	<b>Objective: Establish minimally viable product</b>
<b>Scope:</b> <ul style="list-style-type: none"> <li>▪ Complete market opportunity discovery for the technology</li> <li>▪ Partially completed minimally viable product/prototype</li> <li>▪ Identification of the customer segment(s) to service</li> <li>▪ Identification of unique problems to solve</li> </ul>	<b>Scope:</b> <ul style="list-style-type: none"> <li>▪ Detailed <a href="#">business Plan</a> must match commercial value proposition</li> <li>▪ <a href="#">Lean Launchpad (LLP)</a> Alumni viewed favorably</li> <li>▪ Must have customer segment clarity</li> <li>▪ Project team with Entrepreneur Lead and Engineers/Programmers</li> </ul>
<b>Deliverables :</b> <ul style="list-style-type: none"> <li>▪ <a href="#">Business Plan</a> that must include but not limited to:</li> <li>▪ Market Opportunity</li> <li>▪ POC roadmap</li> <li>▪ Minimally Viable Product Scope(MVP)</li> </ul>	<b>Deliverables :</b> <ul style="list-style-type: none"> <li>▪ MVP/POC projects for customer(s) from the target segments</li> </ul> <b>POC Scope:</b> <ul style="list-style-type: none"> <li>▪ Develop minimally viable product/prototype for each POC project</li> <li>▪ Clarity on compelling pain points.</li> <li>▪ How many customers you talked to before deciding the POC?</li> <li>▪ Why no solution exists?</li> <li>▪ Why your solution is unique?</li> <li>▪ How likely the POC customer will become a paid customer or purchase a trial licence?</li> <li>▪ Product specifications &amp; brochure for further marketing effort.</li> <li>▪ Potential for filing an IP on the technology developed for this stage?</li> </ul>
<b>Other requirements on a need basis, part of the funds could be utilized (if necessary):</b> <ul style="list-style-type: none"> <li>▪ Attend <a href="#">Lean Launchpad (LLP)</a> and other programs recommended by IIE</li> <li>▪ Engage <a href="#">consulting services</a> available under IIE Ecosystem</li> </ul>	<b>Other requirements on a need basis, part of the funds could be utilized (if necessary):</b> <ul style="list-style-type: none"> <li>▪ Attend <a href="#">Lean Launchpad (LLP)</a> and other programs recommended by IIE</li> <li>▪ Engage <a href="#">consulting services</a> available under IIE Ecosystem</li> </ul>

## MOE Decentralised Gap Funding – Grant Application Full Proposal

<b>Applying for</b>	<input type="checkbox"/> <b>MDGF – MD (Market Discovery)</b> Max up to : 50K & period 6 months
	<input type="checkbox"/> <b>MDGF – POC (Proof of Concept)</b> Max up to : 250K & period 12 months

<b>Project Title:</b>	[Project Title]
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<b>Title:</b>	[Title]
<b>SMU Email:</b>	[SMU Email]
<b>Other Email (Optional)</b>	[Email]

### Investigator Data

Role	First Name	Last Name	Dept./Lab	Email	Faculty? (Y/N)
PI	[Name]	[Name]	[Dept./Lab]	[Email]	[Y/N]
Co-PI 1	[Name]	[Name]	[Dept./Lab]	[Email]	[Y/N]
Co-PI 2	[Name]	[Name]	[Dept./Lab]	[Email]	[Y/N]
Co-PI 3	[Name]	[Name]	[Dept./Lab]	[Email]	[Y/N]

Other Key Participants	First Name	Last Name	Title/Organization	Email
Entrepreneur Lead	[Name]	[Name]		[Email]
Industry Mentor	[Name]	[Name]		[Email]

### 1. Executive Summary

Please give a brief summary (no more than 500 words), with minimal technical terms, of the objectives and the scope of the project. The summary should also include the market need, proposed solution and comparison with existing or future competitors (if any).

## 2. Technology

### 2.1 Background Intellectual Property (IP) (if any) / Underlying Technology

Description	Type of IP	Owner (if applicable)
Brief description of the IP / technology	E.g. Patent, previous work done by team members, work done by others	If background IP is proprietary (e.g. patent/patent pending), please state the owner of the IP.

### 2.2 Detailed Technical Description (Maximum 5 pages)

Please describe the technical merits and application of this project in detail. A brief description of the methodology of how the proof-of-concept will be carried out experimentally, the expected outcomes and deliverables of the project (e.g. prototype, device, feasibility studies, animal/clinical trials, etc) should be provided.

### 2.3 Patent Number (if any)\*

Please indicate patent number as provided by ORTT, if any

### 2.4 Technology Category\*

Please refer to Annex on RIE2025 classification for reference

### 2.5 Technology Readiness Level\*

Please refer to annex for TRL table

## 2.6 Funding Sources\*

Please carefully consider all sources of funds used in the research that led to this Invention and provide the details below. This is to ensure that SMU and all inventors named in this form meet all obligations to sponsors, if any.

Note: If the Invention is developed with funding from the US government, please provide the details of the funding below as SMU may be required to disclose the information about this Invention to the US Government Contracting Office within 2 months of receipt from this form

Insert "NA" if not applicable

SMU Grant/Sponsor	Grant Number	Duration	Amount (incl. currency)	Principal Investigator

## 2.7 Reliance on existing IP\*

Please provide information on any dependence or utilization of existing intellectual property from other research projects

## 2.8 Third Party Codes in Invention\*

Please provide the details of all third-party codes embedded in and/or used to run the Invention, below. Include **ALL** open-source codes, free executable codes, public domain codes, libraries and all other codes not written by any of the Inventors named in this Form. Insert "NA" if not applicable.

Name of Third-Party Code	Purpose in Invention	Link to Third Party Code	Link to License of Third-Party Code

## 2.9 Keywords\*

Please provide a few keywords of the project based on the underlying technology and how your solution would be searched for. For example, Fintech, Digital Bank, Cybersecurity, Compare online deals engine, loan aggregators, Robo advisors, Freight Search, etc.

**2.10 Novelty of Invention\***

Please describe how this research project and technology differs from what is currently commercially viable in the market

**2.11 Researchers in similar areas \***

Please state if there are any other researchers or faculty members who are researching on a similar technology in SMU, Singapore, elsewhere.

**2.12 Presence of existing and easily accessible alternative solutions\***

Please state if there are any current solutions which are similar and widely available in the market

**3. Publications / Public Disclosures\***

- |   | Yes                      | No                       |
|---|--------------------------|--------------------------|
| a) Has the Invention been described in any publication (includes theses, abstracts and any printed or on-line publication)? | <input type="checkbox"/> | <input type="checkbox"/> |

*If yes, please provide the date and name of publication/journal/website:*

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- |   |                          |                          |
|---|--------------------------|--------------------------|
| b) Has there been any oral public disclosure of the Invention (e.g. presentation or lecture outside of the SMU coursework)? | <input type="checkbox"/> | <input type="checkbox"/> |
|---|--------------------------|--------------------------|

*If yes, please provide the date of disclosure and occasion:*

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- |  |                          |                          |
|--|--------------------------|--------------------------|
| c) If unpublished and undisclosed, has a manuscript describing the Invention been submitted for publication? | <input type="checkbox"/> | <input type="checkbox"/> |
|--|--------------------------|--------------------------|

*If yes, please provide date of manuscript submission, name of publication/journal/website, and expected date of publication (if accepted):*

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#### 4. Project Milestones

Describe specific project development in terms of “project months or weeks” such as fabrication, testing, refinement, field tests, etc.

Start	End	Description
e.g. Month 0	Month 2	
Month 2	Month 6	

#### 5. Budget

Budget Items	Description	Amount (\$\$)
<b>Manpower</b> - Number and type of manpower (e.g. research assistants)		
<b>Equipment</b> - <i>List of equipment and accessories</i>		
<b>OOE</b> - <i>Breakdown of items</i>		
<b>Total</b>		

## Annex 1

## Technology Categories Table

Please indicate by highlighting

<b>Chemicals</b>	
Chemicals - Additives	Chemicals - Coatings & Paints
Chemicals - Agrochemicals	Chemicals - Flavours & Fragrances
Chemicals - Analysis	Chemicals - Inorganic
Chemicals - Bio-based	Chemicals - Organic
Chemicals - Catalysts	Chemicals - Polymers

<b>Electronics</b>	
Electronics - Actuators	Electronics - Power Management
Electronics - Display	Electronics - Printed Electronics
Electronics - Embedded Systems	Electronics - Radio Frequency
Electronics - Interconnects	Electronics - Semiconductors
Electronics - Lasers, Optics & Photonics	Electronics - Sensors & Instrumentation
Electronics - Memory & Storage	

<b>Energy</b>	
Energy - Battery & SuperCapacitor	Energy - Solar
Energy - Biofuels & Biomass	Energy - Thermal Power System
Energy - Fuel Cells	Energy - Waste-to-Energy
Energy - Sensor, Network, Power Conversion, Power Quality & Energy Management	Energy - Wind & Waves

<b>Environment, Clean Air &amp; Water</b>	
Environment, Clean Air & Water - Biological & Chemical Treatment	Environment, Clean Air & Water - Sanitisation
Environment, Clean Air & Water - Filter Membrane & Absorption Material	Environment, Clean Air & Water - Sensor, Network, Monitoring & Quality Control Systems
Environment, Clean Air & Water - Mechanical Systems	

<b>Foods</b>	
Foods - Ingredients	Foods - Processes
Foods - Packaging & Storage	Foods - Quality & Safety

<b>Green Building</b>	
Green Building - Sensor, Network, Building Control & Optimisation	Green Building - Indoor Environment Quality

Green Building - Façade & Envelope	Green Building - Lightings
Green Building - Heating, Ventilation & Air-conditioning	

<b>Healthcare</b>	
Healthcare - Diagnostics	Healthcare - Pharmaceuticals & Therapeutics
Healthcare - Medical Devices	Healthcare - Telehealth, Medical Software & Imaging

<b>Infocomm</b>	
Infocomm - Ambient Intelligence & Context-Aware Computing	Infocomm - Interactive Digital Media & Multimedia
Infocomm - Artificial Intelligence	Infocomm - Internet of Things & Wearable Technology
Infocomm - Augmented Reality, Virtual Reality & Computer-Simulated Environments	Infocomm - Mobility
Infocomm - Big Data, Data Analytics, Data Mining & Data Visualisation	Infocomm - Natural Language Processing & Semantic Technology
Infocomm - Blockchain & Other Distributed Ledgers	Infocomm - Networks & Communications
Infocomm - Cloud Computing	Infocomm - Operating Systems
Infocomm - Computer Simulation & Modeling	Infocomm - Quantum Computing
Infocomm - Data Processing	Infocomm - Robotics & Automation
Infocomm - eCommerce & ePayment	Infocomm - Security & Privacy
Infocomm - Educational Technology	Infocomm - Smart Cities
Infocomm - Enterprise & Productivity	Infocomm - Social Media, Collaboration & Crowdsourcing
Infocomm - Financial Technology	Infocomm - Speech/Audio Analysis & Speech Recognition
Infocomm - Geoinformatics & Location-based Services	Infocomm - Speech/Audio Processing
Infocomm - Green ICT	Infocomm - Video/Image Analysis & Computer Vision
Infocomm - Healthcare ICT	Infocomm - Video/Image Processing
Infocomm - High Performance Computing	Infocomm - Web Technology
Infocomm - Human-Computer Interaction	Infocomm - Wireless Technology



<b>Life Sciences</b>	
Life Sciences - Agriculture & Farming	Life Sciences - Industrial Biotech Methods & Processes
Life Sciences - Biotech Research Reagents & Tools	

<b>Logistics</b>	
Logistics - Delivery & Distribution	Logistics - Transportation
Logistics - Inventory Management	Logistics - Value-Added Services
Logistics - Planning & Order Processing	

<b>Manufacturing</b>	
Manufacturing - Additive Manufacturing	Manufacturing - Moulding, Sintering, Casting & Nanoimprinting
Manufacturing - Assembly, Automation & Robotics	Manufacturing - Subtractive Machining
Manufacturing - Chemical Processes	Manufacturing - Surface Finishing & Modification

<b>Materials</b>	
Materials - Bio Materials	Materials - Nano Materials
Materials - Ceramics & Glass	Materials - Plastics & Elastomers
Materials - Composites	Materials - Semiconductors
Materials - Metals & Alloys	

<b>Personal Care</b>	
Personal Care - Cosmetics & Hair	Personal Care - Nutrition & Health Supplements
Personal Care - Fragrances	Personal Care - Wellness & Spa

<b>Waste Management &amp; Recycling</b>	
Waste Management & Recycling - Waste-to-Energy	Waste Management & Recycling - Industrial Waste Management
Waste Management & Recycling - Food & Agriculture Waste Management	Waste Management & Recycling - Automation & Productivity Enhancement Systems

## Annex 2

### TRL Reference Table

TRL	Physical Sciences & Engr	Healthcare (Pharmaceutical)	Healthcare (Medtech)	Healthcare (Diagnostics)	Simplified
1	Basic principles observed	Basic principles observed	Basic principles observed	Basic principles observed	Proof-of-Concept
2	Technology concept formulated	Technology concept formulated	Technology concept formulated	Technology concept formulated	Proof-of-Concept
3	Experimental proof of concept	Experimental proof of concept in vitro and in vivo research models	Experimental proof of concept in vitro and in vivo research models	Experimental proof of concept in vitro	Proof-of-Concept
4	Technology validated in lab	Proof of concept demonstrated in defined laboratory/animal models	Proof of concept demonstrated in defined laboratory/animal models	Analytical validation	Prototype in Lab
5	Technology validated in relevant environment	Non-clinical and pre-clinical research studies, & initial demonstration of feasibility and efficacy	Product Development Plan		
6	Technology demonstrated in relevant environment	Phase I clinical trials	Phase I clinical trials		
7	System prototype demonstration in operational environment	Phase 2 clinical trials	Clinical safety and effectiveness trials in operational environment	Clinical validation in 1 site	Prototype in Live Environment
8	System complete and qualified	Phase 3 clinical trials	Overall risk-benefit Trials		
9	Actual system proven in operational environment	Pharmaceutical can be distributed or marketed	Medical device can be distributed or marketed	Clinical validation in multi-site	Ready-to-Market

## Annex 3

### RIE Classification

