



SMART CHALLENGE FUND GUIDELINE FOR APPLICANTS

(27 September 2018)

**Fund Division
Ministry of Energy, Science, Technology, Environment and Climate Change
Level 4, Block C4, Parcel C
Federal Government Administrative Centre 62662 Putrajaya
Tel: 603 – 8885 8305/8324/8367/8704/8322
Fax: 603 – 8888 7710**

SMART CHALLENGE FUND GUIDELINE REVISION

No.	Guideline	Amendment	Description of Amendment	Effective Date
1.	SMART Challenge Fund Guideline for Applicants	-	Initial Publication	13 th March 2017
2.	SMART Challenge Fund Guideline for Applicants	-	First Amendment	5 th April 2017
3.	SMART Challenge Fund Guideline for Applicants	-	Second Amendment	8 th June 2017
4.	SMART Challenge Fund Guideline for Applicants	Appendix 3	Remove the following from list of document: <ul style="list-style-type: none"> • Memorandum and Article of Association Company Act 1965/ Section 17 Company Act 2016; • Form 9 Company Act 1965/ Section 17 Company Act 2016; • Form 24 Company Act 1965/ Section 17 Company Act 2016; • Form 49 Company Act 1965 /Section 58 Company Act 2016; and • Form 44 Company Act 1965/ Section 46 Company Act 2016 	21 st August 2017
5.	SMART Challenge Fund Guideline for Applicants	Change of Ministry's name and acronym	Change Ministry of Science, Technology and Innovation (MOSTI) to Ministry of Energy, Science, Technology, Environment and Climate Change (MESTECC)	27 September 2018

MESTECC reserves the right to revise the guideline at any time without prior notice.

SMART CHALLENGE FUND GUIDELINE FOR APPLICANTS

TABLE OF CONTENTS

1. INTRODUCTION.....	4
2. OBJECTIVES	4
3. PRIORITY AREAS.....	5
4. ELIGIBLE APPLICANT	6
5. ELIGIBILITY CRITERIA.....	7
6. APPLICATION PROCESS.....	8
7. QUANTUM AND DURATION OF FUNDING	11
8. SCOPE OF FUNDING	12
9. EVALUATION CRITERIA	16
10. PAYMENT	17
11. PROJECT MONITORING.....	17
12. OWNERSHIP AND USE OF R&D EQUIPMENT	19
13. INTELLECTUAL PROPERTY RIGHTS.....	19
14. INCENTIVE FOR INTELLECTUAL PROPERTIES.....	19
15. TERMINATION.....	20
16. EXPENDITURE STATEMENTS AND UNEXPENDED GRANT.....	21
17. MALAYSIAN CODE OF RESPONSIBLE CONDUCT IN RESEARCH ..	21
18. ETHICAL APPROVAL, INSTITUTIONAL BIOSAFETY COMMITTEE (IBC) APPROVAL/NOTIFICATION AND COMPLIANCE TO OTHER RELATED REGULATIONS.....	21

1. INTRODUCTION

The Smart Challenge Fund (SMART Fund) is the government's initiatives which is open to businesses and researchers interested in competing for funding opportunities for which the Government has identified the strategic and prioritised needs (new technologies, processes, products) with the expectation that the deliverables will solve national problems and identify long term solutions.

Through this scheme, the Government will be investing in pre-commercialisation of technologies, processes, products that are highly innovative which can be translated into marketable output to spur the economy as well as for societal benefit.

Proposed projects must be specific, measurable, achievable, realistic and timely (SMART). The proposed projects must be well-designed, scientifically valid, and competitive with current technologies and research works.

2. OBJECTIVES

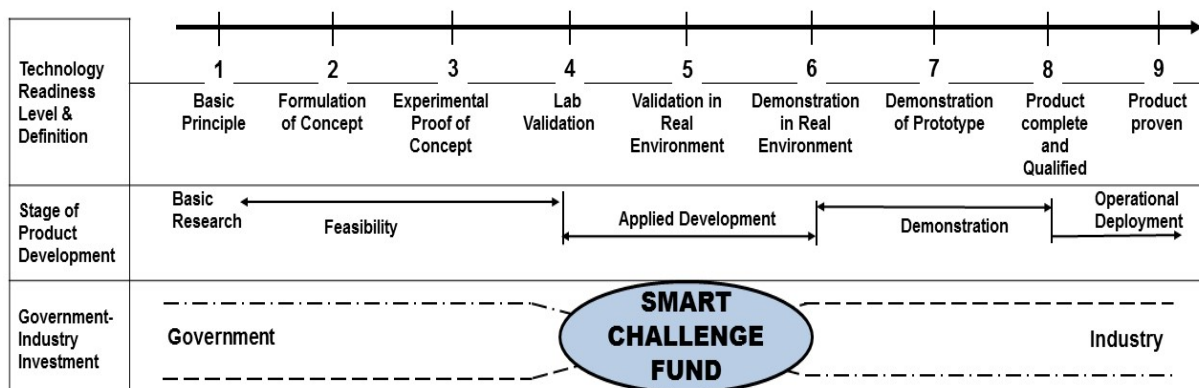
2.1 The objectives of this fund are divided into two categories:

2.1.1 to tackle **strategic** issues that will provide long term solutions, thus, ensuring commercialization of new R&D products to spur economic returns for the country. This fund covers pre-commercialisation stage with the technology readiness level (TRL) 4.

2.1.2 to tackle **prioritised** issues that need immediate solution leading to improvement of societal wellbeing. This fund covers pre-commercialisation stage with the technology readiness level (TRL) 6.

2.2 Technology Readiness Levels is a method of characterising technological maturity from the most basic research (TRL 1) through to full-scale-real-world operation (TRL 9). The SMART Fund covers from TRL4 to TRL6 as shown in **Figure 1**. The description for every level of TRL can be seen in **Appendix 1**.

Figure 1: Scope of SMART Fund relative to Technology Readiness Level



3. PRIORITY AREAS

3.1 The proposed projects must be within the framework of the priority areas as follows:

3.1.1 Water, Food, and Energy Nexus;

3.1.2 Green Growth for Sustainable Development; and

3.1.3 Medical and Healthcare.

3.2 For each priority area, there will be thematic problem statements that require solution. Please refer to the thematic areas in **Appendix 2**.

3.3 Key enablers such as Internet of Things (IoT), nanotechnology, biotechnology and Industry 4.0 should be embedded in the priority areas.

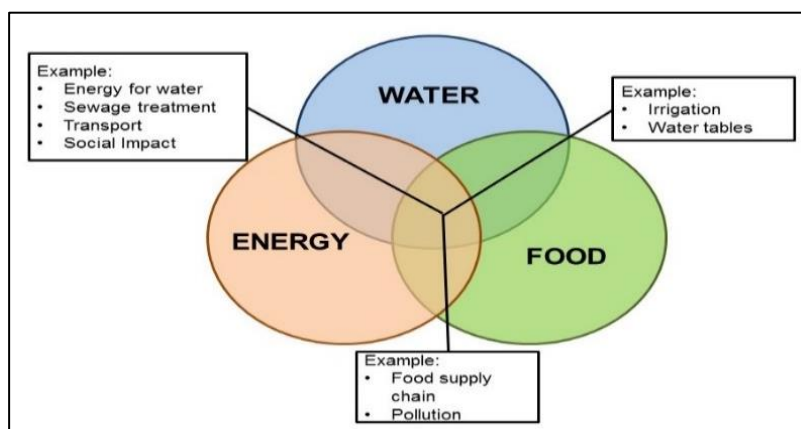
3.4 **The Water, Food, and Energy Nexus** focuses on the interdependence of water, food and energy resources by understanding the challenges and opportunities involved. Applicants are required to propose projects which include at least two resources as stated in **Figure 2**. The outcome of the project must:

3.4.1 Improve energy, water and food securities;

3.4.2 Address externality across sectors and decision-making at the nexus; and

3.4.3 Support transition to sustainability.

Figure 2: Water, Food, and Energy Nexus Resources



4. ELIGIBLE APPLICANT

4.1 The fund is open to **Small and Medium Companies, Government Research Institutes (GRI), Government Science, Technology and Innovation Organisation (Government STI organisation) and Public and Private Institutes of Higher Learning (IHL).**

4.1.1 Small and Medium Companies refer to companies registered with the following bodies:

- i). Companies Commission of Malaysia (SSM) either under Registration of Company Act (1965) or Limited Liability Partnerships (LLP) Act 2012; or
- ii). Respective authorities or district offices in Sabah and Sarawak; or
- iii). Respective statutory bodies for professional service providers.

4.1.2 Government STI organisation is a government organisation involved in R&D activities and other services related to STI in Malaysia.

4.2 Definition of small and medium companies is as shown in Table 1.

Table 1: Definition of Small and Medium Companies by Size of Operation

Category	Small Companies	Medium Companies
Manufacturing	<ul style="list-style-type: none"> • Sales turnover from RM300,000 to less than RM15 mil; or • employees from 5 to less than 75 	<ul style="list-style-type: none"> • Sales turnover from RM15 mil to not exceeding RM50 mil; or • employees from 75 to not exceeding 200
Services and Other Sectors	<ul style="list-style-type: none"> • Sales turnover from RM300,000 to less than RM3 mil; or • employees from 5 to less than 30 	<ul style="list-style-type: none"> • Sales turnover from RM3 mil to not exceeding RM20 mil ; or • employees from 30 to not exceeding 75

Source: SME Corporation Malaysia

4.3 Proposals which include the tie-up of industry, academia and research are very much encouraged.

5. ELIGIBILITY CRITERIA

5.1 All categories of companies must have a minimum of **51% equity held by Malaysians**.

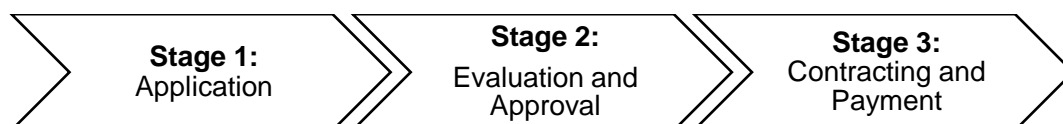
5.2 Companies, whether as an applicant or a collaborator, must have a **minimum paid-up capital of RM10,000.00**.

5.3 Companies must be in **operation for at least 2 years** from date of application. Companies shall provide audited financial report as proof.

- 5.4 None of the **company directors or project team members** have been convicted of any fraudulent activities or the company has been declared bankrupt, under liquidation or placed under receivership.
- 5.5 Only **Malaysian citizens can apply and lead the project** but can include international organisations or expatriates working in any of the organisations mentioned above as part of their project team.
- 5.6 **Researchers** working under **contract** with IHLs, GRIs and STI organisation must ensure that their **employment contract is still valid during the project duration**.
- 5.7 The project team should consist of members who are qualified and competent on the technical aspects of the whole project. Each team member must provide a curriculum vitae clearly stating their previous research and highlighting their experience and achievements.
- 5.8 Applicants are allowed to **lead only one project at any time**.
- 5.9 Projects must be **conducted in Malaysia**.
- 5.10 The proposed project must contain elements of **technological innovation leading to commercialisation**.
- 5.11 The following are **not eligible** for funding under the SMART Fund:
- 5.11.1 Works already undertaken or under the responsibility/portfolio of certain Ministries, Departments or Agencies other than MESTECC; and
- 5.11.2 Application from Research Institutes that have their own internal research funding such as CESS Fund.

6. APPLICATION PROCESS

- 6.1 There are three (3) stages to the SMART Fund application as shown below:



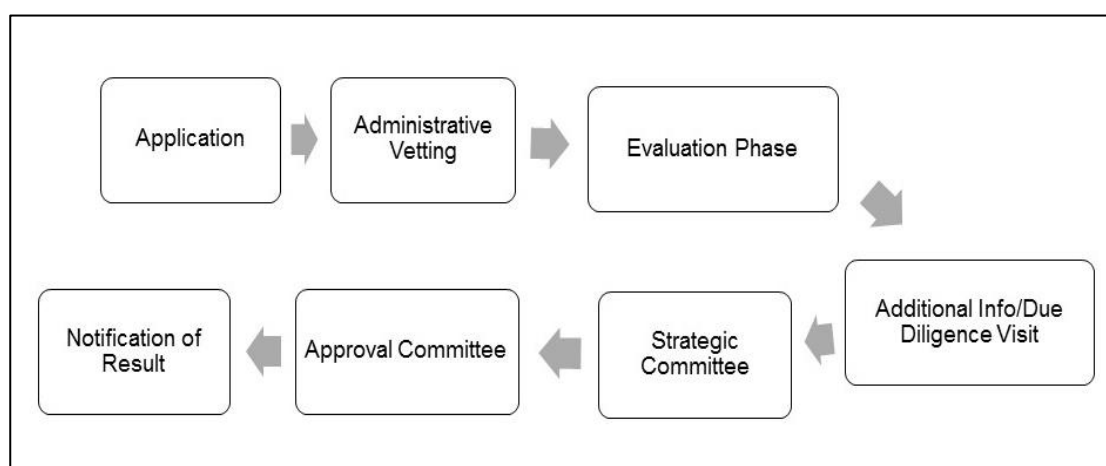
6.2 **Stage 1: Application** process are as follows:

- 6.2.1 The application starts with **submission of the full paper proposal**.
- 6.2.2 Full proposal must be submitted through the online system at <https://edana.MESTECC.gov.my>. Applicants and collaborators must provide document as listed in **Appendix 3**.
- 6.2.3 All applications must be reviewed and approved by the Head of the applicant's organisation or the Research Management Centre (RMC) of the institution. They should also declare that the proposed research has not been funded or submitted for funding to any other source. Failure to do so would cause the application to be rejected.
- 6.2.4 In the online application, applicant needs to provide a concise **summary of their project** which shall answer the following questions:
 - 6.2.4.1 What are the problems you are solving?
 - 6.2.4.2 How to solve the problem?
 - 6.2.4.3 Who will benefit from your solution?
 - 6.2.4.4 What are the anticipated outcomes?
 - 6.2.4.5 What are the potential impacts?
- 6.2.5 In the application form, applicant needs to provide **proof of concept** as the evidence that verifies the concept/theories/ideas that can be applied successfully in the real-world operation.
- 6.2.6 The applicants also need to describe the **SMART Business Model** in the application form as listed in **Appendix 4**.
- 6.2.7 The proposal submitted will then be vetted by the Secretariat to ascertain whether the application and documents submitted fulfil the basic requirement. Incomplete or non-eligible proposal will be returned to the applicant.

6.3 **Stage 2: Evaluation** process is as follows:

- 6.3.1 The complete paper will be **reviewed** by the Fund Expert Committee (**FEC**) for elements of their commercial potential and technical aspect.
- 6.3.2 **Applicants** will be invited to **present (pitch)** their full paper proposal to the FEC. The applicant may be required to amend or revise the full paper to improve the proposal. In some instances, a **due diligence may be required** to be conducted after the evaluation process for verification purposes.
- 6.3.3 Once the due diligence has been carried out, **results** will be **assessed** by the Strategic Committee before presenting to the **Approval Committee**.
- 6.3.4 All applicants shall be notified officially via eDANA system or email. The successful applicants shall accept or decline the offer via eDANA system or email. Decisions made by the Approval Committee is **FINAL** and **any appeal on the results will not be entertained**.
- 6.3.5 The overall application and evaluation process including notification of the results will take **60 days** after all responses and information have been received from the applicant. The application process work flow is shown in Figure 3.

Figure 3: Application process work flow



6.4 Stage 3: Contracting and Payment Process are as follows:

- 6.4.1 Fund recipients are required to submit letter of acceptance upon receiving the offer letter from MESTECC. Heads of the fund recipient companies or the Research Management Centres (RMC) of the institutions are required to sign the Project Agreement and submit bank information (companies are required to open a designated bank account solely for the purpose of the project) to MESTECC.
- 6.4.2 The signed agreement will then be signed by MESTECC's top management and the agreement will be sent back to the fund recipient for stamping.
- 6.4.3 The activities of 6.4.1 and 6.4.2 are expected to be completed within **30 days**. Once the Secretariat has received the stamped agreement, the first payment to the fund recipient will be processed.
- 6.4.4 Memorandum of Understanding / Letter of Intent between collaborating Institutions **must accompany the application**. However, should the grant be approved, an **agreement between the collaborating parties** stating the respective scope of work, ownership of IP and all equipment purchased during the tenure of the project must be submitted to the Secretariat **within 30 days** from the date of the offer letter, failing which MESTECC has the right to revoke the approval.

7. QUANTUM AND DURATION OF FUNDING

The quantum and duration of funding approved will be based on the merits of each application, not exceeding the limits as stated in Table 2:

Table 2: Quantum and Duration of Funding

FUND CATEGORY	DURATION (months)	QUANTUM (RM)
Strategic	24	1,000,000
Prioritised	24	3,000,000

8. SCOPE OF FUNDING

8.1 The scope of funding for SMART Fund are as stated in the Table 3:

Table 3: Scope of Funding for SMART Fund

SCOPE	ITEM FUNDED	ITEM NOT FUNDED	NOTES
Pilot plant / prototype	<ul style="list-style-type: none"> • Only equipment directly related to the pilot plan/ prototype 	<ul style="list-style-type: none"> • Capital asset such as land, building, vehicle and furniture • Lab apparatus • Equipment maintenance 	Not more than 40% of total approved project cost
Pre-clinical testing/clinical testing/field trials/stress test/user acceptance test	<ul style="list-style-type: none"> • Screening test • Payment for volunteers • Data analysis 		
Intellectual Properties (IP)	<ul style="list-style-type: none"> • For registration in Malaysia only • IP resulting from the project <ol style="list-style-type: none"> i) Patent ii) Industrial Design 	<ul style="list-style-type: none"> • Maintenance • Patent Cooperation Treaty (PCT) 	
Market testing and evaluation	<ul style="list-style-type: none"> • Survey development • Data analysis • Sample size should follow the statistical standard 	<ul style="list-style-type: none"> • Incentive for respondents • Facility rental and exhibition fee 	<ul style="list-style-type: none"> • Not more than 10% of fund approved

SCOPE	ITEM FUNDED	ITEM NOT FUNDED	NOTES
Regulatory and standards compliance	<ul style="list-style-type: none"> • Registration of certification • Product testing and standard compliance 		
Special Services	<ul style="list-style-type: none"> • Consultancy (agreement / letter of intent must be submitted together with the project proposal, details of the consultancy to be stated) • Consultant for market testing and evaluation • Sample testing and analysis • Data processing • IP incentive 	<ul style="list-style-type: none"> • Production outsourcing • Travelling and transportation • Organizing meeting • Stationery such as paper, books, etc. • Personal computer, laptop, printer, scanners, toner, etc. • Subscription to journals • Conference fee • Exhibition fee 	Not more than 20% of total fund project cost
Administration	<ul style="list-style-type: none"> • Up to two Research Officer (RO) allowed and only for wages and allowances. (Applicable for IHL & GRI only) 	<ul style="list-style-type: none"> • Management fees • Allowance/bonus for management and technical staff • Office rental • Utilities such as telephone, broadband, water and electricity bill 	Maximum RM2,500 per month/per RO inclusive of SOCSO / EPF

SCOPE	ITEM FUNDED	ITEM NOT FUNDED	NOTES
Raw materials /consumables directly related to the project	<ul style="list-style-type: none"> • Raw material • Consumable 	<ul style="list-style-type: none"> • Product and packaging design • Brochure • Advertisement • Web design and development • Product launching 	
Technology/ IP Acquisition	<ul style="list-style-type: none"> • Local and foreign • Must be further enhanced • Must provide acquisition agreement / details of the technology & IP acquired • Training related to technology transfer conducted locally 		Not more than 50% of total approved project cost

8.2 For technology/IP acquisition, the technology provider must not hold any position and equity in the applicant's company.

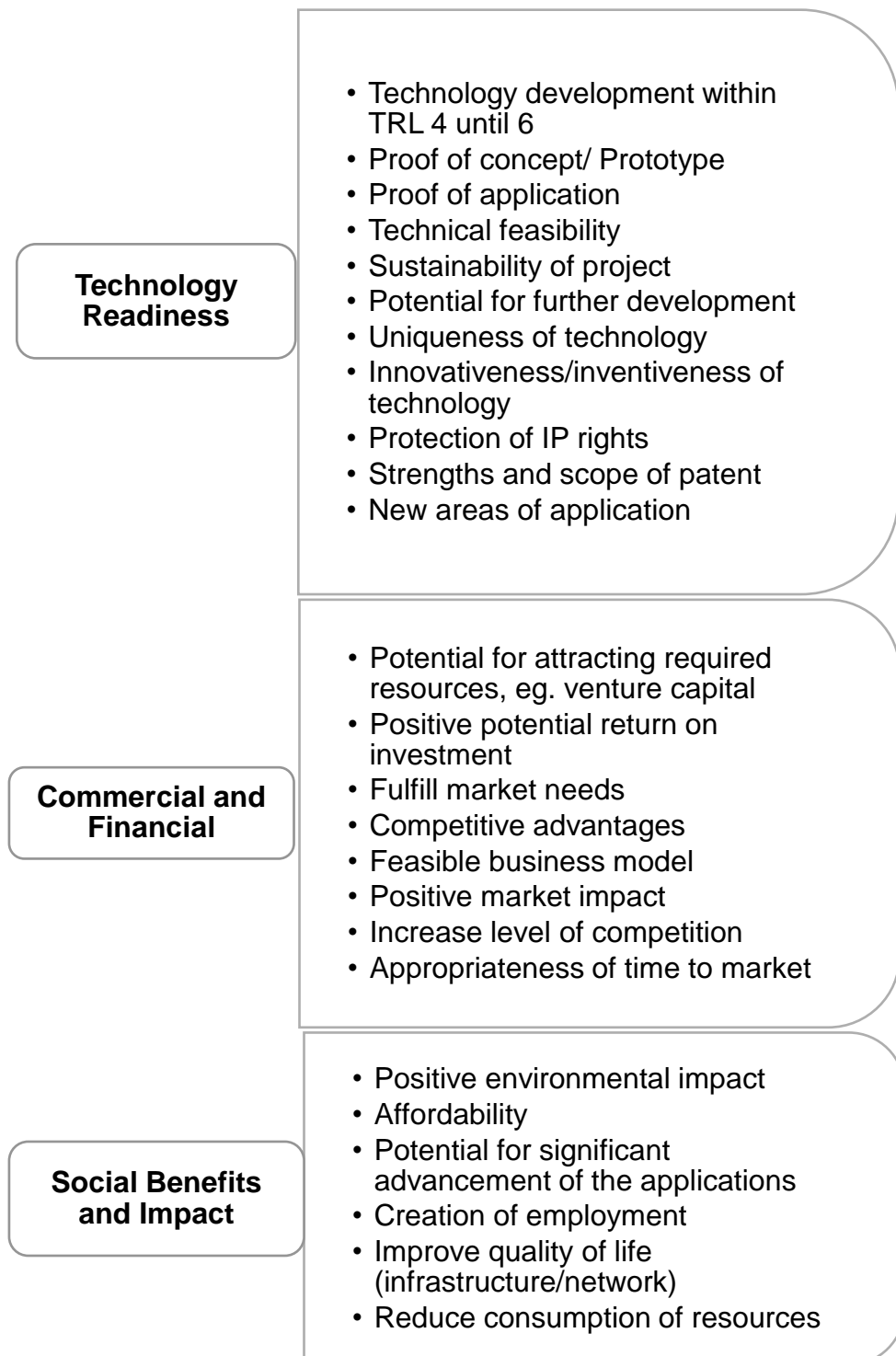
8.3 Items not listed under the scope of funding may be given consideration based on special approval.

- 8.4 Procedures for purchasing of equipment and services:
- 8.3.1 Grant recipients shall **submit quotations** or substantial proof of any purchase or acquisition of services such as Consultancy;
 - 8.3.2 Purchase of equipment or acquisition of services which costs **more than RM100,000.00 shall be accompanied by 3 or more quotations** or substantial proof. Breaking down the purchase of equipment or acquisition of services is prohibited;
 - 8.3.3 All financial transaction must be done properly with all the necessary documentation provided (invoice, purchase order (PO), delivery order (DO), receipts, etc);
 - 8.3.4 Purchase of equipment or acquisition of services from within the recipient's **company / institution, subsidiaries or associated companies** is not permitted;
 - 8.3.5 Purchase order/quotation submitted must be based on current market prices. **Mark-up from the original price is not allowed**; and
 - 8.3.6 The supplier of research materials, equipment and services for the project **shall not have any conflict of interest** with the recipient.

9. EVALUATION CRITERIA

9.1 The criteria used for the evaluation right from the beginning will consider the following aspects as in Figure 4 below.

Figure 4: SMART Fund's Evaluation Criteria



10. PAYMENT

- 10.1 The payment mode of approved application will be based on applicant category as shown in Table 4:

Table 4: Payment Mode

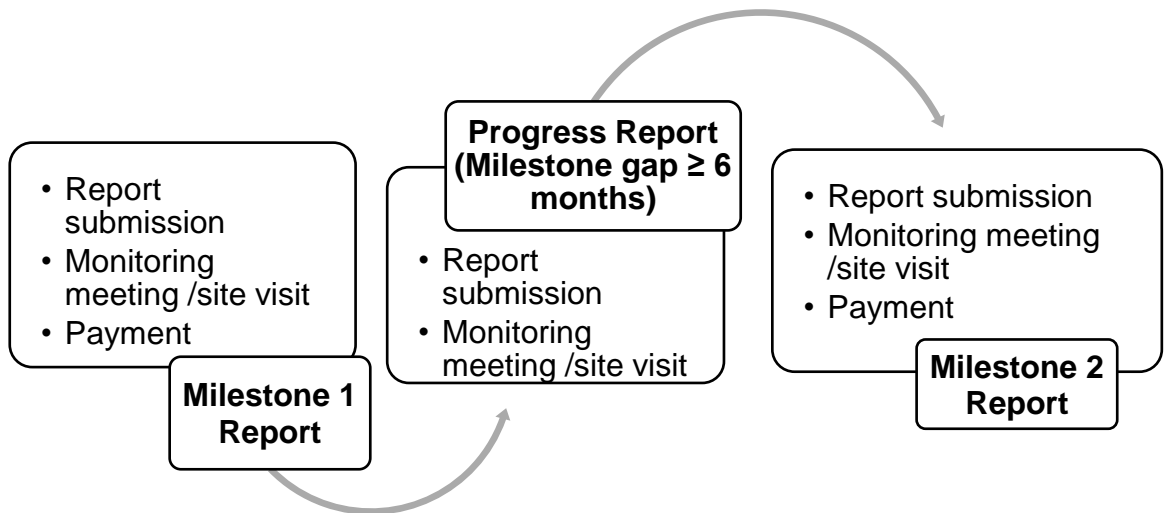
Applicant Category	Payment Mode
Small and Medium Companies	Reimbursement
GRI	Disbursement
Government STI organisation	Disbursement
Public IHL	Disbursement
Private IHL	Reimbursement

- 10.2 The initial payment will be paid after signing of agreement. Subsequent payment will be based on Schedule B of project agreement.
- 10.3 The due diligence will be carried out after the achievement of the first milestone to evaluate the viability of the project.
- 10.4 The Government has the absolute discretion for the review of the grant approval or the aggregate amount to be paid to the project.

11. PROJECT MONITORING

- 11.1 The fund recipient is required to **submit periodic reports** (including milestones and financial reports) and documents as specified in the SMART Fund Agreement. **In between milestones for which the duration is 6 months or more**, the fund recipient shall also **submit a progress report**. If the project shows non-compliance to the agreement and non-adherence to timelines, MESTECC reserves the right to suspend or withdraw the funding.
- 11.2 The monitoring activities shall include **site visits** and meetings to assess progress of the project.
- 11.3 **Payment** will be made based on satisfactory performance of appropriate milestones in accordance with the terms and conditions as set out in the project agreement. The monitoring process work flow is shown in Figure 5.

Figure 5: Monitoring Process Work Flow



11.4 Project shall not begin until the project agreement has been signed by both parties and document stamped. Cost incurred for all activities prior to signing of the agreement is not claimable and not considered as part of project costs.

11.5 **End of Project Report (EPR) and audited financial report** shall be **submitted within three (3) months** after project completion. All output of the project must acknowledge MESTECC's contribution as a fund provider. The End of Project Report shall have the following information:

11.5.1 Deliverables and direct outputs of the project;

11.5.2 Achievement of the original project objectives;

11.5.3 Commercialisation/ technology transfer plan;

11.5.4 Benefits of the project;

11.5.5 Sectoral /national impacts of the project; and

11.5.6 List of equipment/facilities purchased.

11.6 MESTECC reserves the right to request for periodic information on the progress or to invite for seminar presentation and exhibition or to conduct site visits even after the project has been completed.

11.7 All variation is subjected to MESTECC's approval. The fund recipient needs to **submit an application in writing** (via institutional coordinator for the IHL and GRI) **to MESTECC for approval 3 months before the variations are made.**

12. OWNERSHIP AND USE OF R&D EQUIPMENT

All R&D equipment purchased under the grant must be recorded and tagged with the project number for monitoring and verification purposes. The equipment belongs to the fund recipient and the maintenance of the equipment is under the responsibility of the fund recipient once the project has been completed. However, such equipment are not for the sole use of the fund recipient, and must be made available to other research organisations as and when the need arises.

13. INTELLECTUAL PROPERTY RIGHTS

13.1 The end products developed under the SMART Fund are **encouraged to be patented and registered for IP Rights**. The fund recipient has to notify the Secretariat in writing upon the successful registration of the IP.

13.2 The IP rights of the project shall be **wholly owned by the recipient** as specified in the SMART Fund Agreement.

13.3 Any provisional activities using the output of the project should acknowledge MESTECC as the fund provider.

14. INCENTIVE FOR INTELLECTUAL PROPERTIES

14.1 The applicant may apply for the following incentives after the project completion, provided the **allocation for the incentive is stated during grant application**:

14.1.1 Incentive for **disclosure** of the Project Intellectual Property:
RM500.00;

14.1.2 Incentive for **filing** of patent of the Project Intellectual Property: **RM5,000.00**; and

14.1.3 Incentive for **granting** of patent Project Intellectual Property: **RM10,000.00**.

Payment of this incentive shall be on a one-off basis.

14.2 The organisation shall set aside and pay:

14.2.1 The incentive for disclosure of the Project Intellectual Property upon disclosure of the Project Intellectual Property;

14.2.2 The incentive for filing of patent of the Project Intellectual Property upon receipt of the proof of patent filing of the Project Intellectual Property; and

14.2.3 The incentive for granting of patent Project Intellectual Property upon receipt of the proof of patent granted of the Project Intellectual Property.

14.3 The grant recipient must disclose to MESTECC in writing, of the existence of the Project Intellectual Property not later than 60 days from the Project Completion Date.

15. TERMINATION

15.1 MESTECC reserves the right to withdraw the grant in the event of the following:

15.1.1 Any false information provided by the recipient.

15.1.2 Changes in scope of the project without the prior written consent of MESTECC;

15.1.3 Change of project leader without the prior written consent of MESTECC;

15.1.4 Any misuse of grants;

15.1.5 Achievement / progress are not as specified in the Agreement of the Fund; and

- 15.1.6 Any breach of the agreement.
- 15.2 Upon termination by MESTECC, recipients are required to pay back the amount of fund that has been disbursed
- 15.3 MESTECC reserves the right, at any time, to review, suspend or withdraw approval of any grant or payment if such measures are deemed necessary; and
- 15.4 MESTECC reserves the right to make a claim against the recipient for any losses incurred as a result of any default by the recipient as specified in the agreement.

16. EXPENDITURE STATEMENTS AND UNEXPENDED GRANT

- 16.1 MESTECC reserves the right to request the grant recipient to submit a statement of expenditure at any time during the course of a grant, or to provide supplementary information in support of an interim or final expenditure statement.
- 16.2 The fund recipient must return the unexpended grant (disbursement mode) to MESTECC **within three (3) months after the completion of the project. For terminated projects, fund recipient shall return the amount disbursed to MESTECC within one (1) month from date of termination notice.**

17. MALAYSIAN CODE OF RESPONSIBLE CONDUCT IN RESEARCH

Everyone involved in the project shall comply with the principles and practices as stated in the Malaysian Code of Responsible Conduct in Research.

18. ETHICAL APPROVAL, INSTITUTIONAL BIOSAFETY COMMITTEE (IBC) APPROVAL/NOTIFICATION AND COMPLIANCE TO OTHER RELATED REGULATIONS

- 18.1 Project Leader must obtain and furnish a copy **of approval from** relevant authorities when necessary.

- 18.2 For a project which requires **tests on human beings or animals**, the Project Leader must obtain and furnish a copy of **ethical clearance**.
- 18.3 For a project involving **living modified organisms (LMOs)**, the Project Leader must obtain and furnish a copy of **clearance by the appropriate/relevant Institutional Biosafety Committee** and also a submission of notification or submission of application for approval to the National Biosafety Board.
- 18.2 Information on the use of biological resources and associated traditional knowledge must also be furnished by filling in the form as in **Appendix 5**.

Appendix 1

Technology Readiness Level (TRL)

TRL	Description	Characterisation
1	Basic Principle	<ul style="list-style-type: none"> • Technology research • Pure science begins translation to R&D
2	Formulation of Concept	<ul style="list-style-type: none"> • Early studies for application formulation. • Invention & Practical Application Begins.
3	Experimental Proof of Concept	<ul style="list-style-type: none"> • Analytical validation & proof of concept • Start active research & development
4	Lab validation	<ul style="list-style-type: none"> • Validation in laboratory environment • Ready to begin bridge for technology transition
5	Validation in real environment	<ul style="list-style-type: none"> • Validation in relevant environment • Ready to enter technology development
6	Demonstration in real environment	<ul style="list-style-type: none"> • Demonstrated in relevant environment • Ready to enter system development
7	Demonstration of prototype	<ul style="list-style-type: none"> • Demonstrated in operational environment • Ready for limited production decision
8	System complete and qualified	<ul style="list-style-type: none"> • Compliant, qualified & test/demo complete • Ready for operational evaluation
9	System proven	<ul style="list-style-type: none"> • Completed operational evaluation • Ready for full-rate

Source: Adapted from NASA TRL

Appendix 2

SMART Fund’s Priority Areas

Priority Area	Examples of Thematic Areas	Gaps
Water, Food & Energy (WFE) Nexus	Food Supply, Security and Traceability	<ul style="list-style-type: none"> • Develop and enhance local food production, healthy alternatives, food traceability through smart, new and cross cutting technology - utilising robotics, sensors, real-time data systems. • Create and advance knowledge/technologies that foster more efficient, safe, and secure use of resources within the food-energy-water nexus. • Develop/Innovate tools to achieve the Sustainable Development Goals’ target and to manage local resources.
Green Growth for Sustainable Development	<p>Construction Material Usage and Waste Management</p> <p>New Technology Commercialisation in Agriculture</p> <p>Waste Management</p>	<ul style="list-style-type: none"> • Moving towards a circular economy solutions which aims to eradicate waste generation - developing a low carbon, resource efficient, sustainable and competitive economy. Reduction of the use of virgin materials, number of items going to the landfills, environmental risk, gas emission and pollution. • Supports the development of green industries and technologies which utilises fewer resources and generates fewer emissions during production of food, transport, construction, housing, energy, lighting, etc.
Medical and Healthcare	<p>Increase of Obesity Rate (related to hypertension and diabetes)</p> <p>Increase of Senior Citizen</p>	<ul style="list-style-type: none"> • Develop affordable assistive technologies and early detection devices. • Improve healthcare technologies application by developing future therapies, frontiers of physical intervention and optimising treatment. • Restoring function and/or enabling independence for older people, the disabled and those with long-term conditions through the application of engineering, ICT and physical sciences. • Effective technologies for individuals to manage their own healthcare.

Appendix 3

List of Documents

Companies		Type of Documents	Mode of submission	Applicant	Collaborator (if applicable)
1	Signed SMART Fund Form with declaration Witnessed by Commissioner of Oath (1 copy)	Hardcopy	Send to MESTECC	√	
2	Latest SSM Search (Corporate Information from MyDATA portal)	Softcopy	Upload in edana	√	√
3	EPF statement for company	Softcopy	Upload in edana	√	√
4	Work permit for foreign team members / appointment letter	Softcopy	Upload in edana	√	√
5	Latest audited Financial Report (annual turnover, profit and loss statement, balance sheet, cash flow, etc)	Softcopy	Upload in edana	√	√
6	Contract Agreement/ Letter of Acceptance between Entity and Collaborator	Softcopy	Upload in edana	√	
7	Contract Agreement/ Letter of Acceptance between Entity and Consultants	Softcopy	Upload in edana	√	
8	Detailed Curriculum Vitae of project team	Softcopy	Upload in edana	√	√
Companies		Type of Documents	Mode of submission	Applicant	Collaborator (if applicable)
9	IP/ Technology Acquisition Agreement (if applicable)	Softcopy	Upload in edana	√	
10	Insolvency Search (of company and all members in project team)	Softcopy	Upload in edana	√	√
11	Ethical approval / IBC Approval or notification (if applicable)	Softcopy	Upload in edana	√	
12	One quotation for each equipment listed to be purchased	Softcopy	Upload in edana	√	

IHL / GRI / STI organisation		Type Copy	Mode submission	Applicant	Collaborator (if applicable)
1	Signed SMART Fund Form with declaration Witnessed by Commissioner of Oath (1 copy)	Hardcopy	Send to MESTECC	√	
2	Detailed Curriculum Vitae of project team	Softcopy	Upload in edana	√	√
3	Contract Agreement/ Letter Of Acceptance between Entity and Collaborator	Softcopy	Upload in edana	√	
4	Contract Agreement/ Letter Of Acceptance between Entity and Consultants	Softcopy	Upload in edana	√	
5	IP/ Technology Acquisition Agreement (if applicable)	Softcopy	Upload in edana	√	
6	Insolvency Search (all members in project team)	Softcopy	Upload in edana	√	√
7	Ethical approval / IBC Approval or notification (if applicable)	Softcopy	Upload in edana	√	
8	One quotation for each equipment listed to be purchased	Softcopy	Upload in edana	√	

SMART business model

<p><u>Key Partners</u></p> <p>Who are our key partners?</p> <p>Who are our key supplier?</p> <p>What are we getting from them? Giving them?</p>	<p><u>Key Activities</u></p> <p>What key activities do we require?</p> <p>Manufacturing? Software? Supply Chain?</p>	<p><u>Value Propositions</u></p> <p>Which of our customer's problem are we helping to solve?</p> <p>Which customer needs are we satisfying?</p> <p>What are the key features of our product that match customer problem/need?</p>	<p><u>Customer Relationships</u></p> <p>How will we get, keep and grow customers?</p>	<p><u>Customer Segments</u></p> <p>Who are our most important customers?</p> <p>What are their archetypes?</p> <p>What job do they want us to get done for them?</p>
<p><u>Key Resources</u></p> <p>What key resources we require?</p> <p>Financial, Physical, IP, HR?</p>		<p><u>Channels</u></p> <p>Through which channels do our customer segments want to be reached?</p>		
<p><u>Cost Structure</u></p> <p>What are the most important cost inherent in our business model?</p>			<p><u>Revenue Streams</u></p> <p>How do we make money?</p> <p>What's the revenue model? Pricing tactics?</p>	

Appendix 5

INFORMATION ON USE OF BIOLOGICAL RESOURCES AND ASSOCIATED TRADITIONAL KNOWLEDGE (IF RELATED)

1. Were biological resources or traditional knowledge associated with biological resources or information relating thereto utilised in the invention applied for.

Yes No

2. If yes, provide details:

- i. Country :
- ii. State :
- iii. Permit date :
- iv. Benefit sharing agreement date:

A certified copy of the permit accompanies this form.

3. Date of notification of this application for a patent to the National Competent Authority under the Access to Biological Resources and Benefit Sharing Act 2016.

A certified true copy of the receipt of the notification accompanies this form.