



MINISTRY OF SCIENCE, TECHNOLOGY AND INNOVATION

TECHNOLOGY DEVELOPMENT 1 FUND (TeD 1) GUIDELINES

Fund Division
Ministry of Science, Technology and Innovation
Level 4, Block C4, Complex C, Federal Government Administrative Centre
62662 Putrajaya
Tel.: 603-8885 8316 / 8322 / 8703 / 8324 / 8318
E-mail: urusetia.ted1@mosti.gov.my

CHRONOLOGY OF TECHNOLOGY DEVELOPMENT 1 FUND GUIDELINES

| No. | Amendment | Description of Amendment | Date of Enforcement | |
|-----|---------------------------------------|--|---------------------|--------------|
| 1. | - | Initial publication | 1 January 2021 | |
| 2. | Paragraph 4: Categories of Applicants | Open to polytechnics and community colleges | | |
| 3. | Paragraph 5: Eligibility Criteria | Paragraphs 5.4 and 5.5: For a collaborating applicant, documentary proof shall consist of at least a Letter of Acceptance (LoA) or its equivalent. | | |
| 4. | Paragraph 10: Scope of Financing | <u>Paragraph 10.1: Administration</u> i. Appointment of Research Officer (RO) is permitted for start-up and SME applicants. Applicants shall collaborate with institutes of higher learning. ii. Transport expenses associated with the project are permitted but shall not exceed 10% of the total fund approved by MOSTI. <u>Paragraph 10.2</u> The fund recipients are permitted to disburse allocations to collaboration partners for the items stated in Table 4. | | 1 March 2021 |

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(17 JUNE 2021)

| No. | Amendment | Description of Amendment | Date of Enforcement |
|-----|---|---|---------------------|
| 5. | Paragraph 5: Eligibility Criteria | <u>Paragraph 5.4 addition:</u> STI agency refers to an agency that undertakes research and services related to STI under MOSTI. | 17 June 2021 |
| 6. | Paragraph 6: Application Process | <u>Table 2 amendment:</u> TeD 1 Evaluation Criteria | |
| 7. | Paragraph 7: Contracting and First Disbursement | <u>Paragraph 7 title amendment:</u> Contracting and First Disbursement or Lump Sum <u>Paragraph 7.5 amendment</u> The first disbursement or lump sum to the fund recipients will be made once MOSTI has received the duly stamped agreement. | |
| 8. | Paragraph 10: Scope of Funding | <u>Item funded amendment</u> Pilot plant /prototype: Engineering and design activities (man-hours) not including the salaries of employees under the supervision of the applicant | |
| 9. | Paragraph 11: Payment | <u>Table 6 amendment:</u> Method of project payment <u>Amendment of payment</u> | |

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(17 JUNE 2021)

| No. | Amendment | Description of Amendment | Date of Enforcement |
|-----|----------------------------------|--|---------------------|
| | | <u>categories and methods for:</u> a) Public institutes of higher learning b) Government research institution (GRI) (transfer without warrant) c) Government research institution (GRI) (transfer with warrant) | |
| 10. | Paragraph 12: Project Monitoring | <u>Paragraph 12.3 amendment</u> Payments will be made based on the performance of project progress and completed documents as per the terms and conditions in the project agreement except for public IHL and GRI (transfer without warrant). | |

MOSTI reserves the right to amend these guidelines at any time without any notice.

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1. INTRODUCTION

The Technology Development Fund 1 (TeD 1) is offered to researchers and companies that are interested in carrying out research and development (R&D) projects to establish new processes and products in areas already identified by the Government. Such R&D projects shall have the potential to solve problems at national level in a sustainable and holistic manner.

The projects proposed shall be at least at formulation of concept level; which refers to plan or design of new technology, process or products with potential for commercialisation. The outcomes of such projects shall be new prototype technology, process or products whose value can be established for customers, industries and society.

2. OBJECTIVES

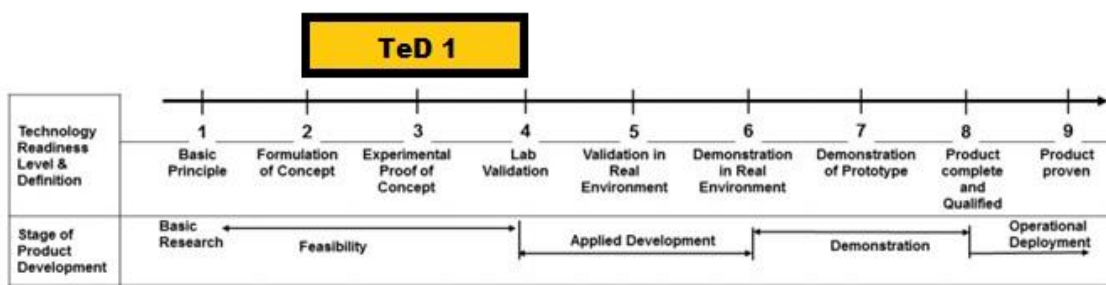
2.1 The objectives of TeD 1 are:

2.1.1 To develop existing concepts that are related to the design of technology, processes or products with potential for commercialisation; and

2.1.2 To stimulate the growth of technology research and development amongst Government Research Institutions, STI agencies, Institutes of Higher Learning and industries.

2.2 Technology Readiness Level (TRL), which is developed by the National Aeronautics and Space Administration (NASA), is a method to determine the maturity of technologies during the acquisition phase of a programme. Proposed projects under TeD 1 shall have achieved TRL 2 to TRL 3 as shown in Figure 1, the details of which are as set out in **Appendix 1** (TRL 1-9).

Figure 1: Scope of TeD 1 according to TRL



3. PRIORITY AREAS

3.1 Project application shall encompass the 10-10 Malaysia Science, Technology, Innovation & Economy (MySTIE) Framework by the Academy of Sciences Malaysia (ASM). The socio-economic drivers are as follows and the priority areas are as set out in Appendix 2.

- 3.1.1 Energy;
- 3.1.2 Education;
- 3.1.3 Water and Food;
- 3.1.4 Agriculture and Forestry;
- 3.1.5 Environment and Biodiversity;
- 3.1.6 Smart Cities and Transportation;
- 3.1.7 Medical and Health Care;
- 3.1.8 Culture, Arts and Tourism;
- 3.1.9 Business and Financial Services; and
- 3.1.10 Smart Technology and Systems (Next-Generation Engineering and Manufacturing).

4. CATEGORIES OF APPLICANTS

4.1 The TeD 1 Fund is open to:

- i. Small and Medium Enterprises (SMEs);
- ii. Start-up company;
- iii. Public and private Institutes of Higher Learning;
- iv. Polytechnics and Community Colleges;
- v. Government Research Institutes (GRIs); and
- vi. Government Science, Technology and Innovation (STI) agencies.

5. ELIGIBILITY CRITERIA

5.1 Small and Medium Enterprises (SMEs) shall comply with the conditions below:

- a. Open to companies and businesses registered with the Companies Commission of Malaysia whereas businesses in Sabah and Sarawak are required to be registered with the local authorities. SMEs shall also be registered with statutory bodies for providers of professional services.
- b. The definition of SMEs shall be as set out in Table 1.

Table 1: Definition of SMEs according to Size of Operation

| Category | Small | Medium |
|----------------------------|--|--|
| Manufacturing | <ul style="list-style-type: none"> • Sales turnover from RM300,000 to less than RM15 million; or • Employees from 5 to fewer than 75 persons | <ul style="list-style-type: none"> • Sales turnover from RM15 million to not exceeding RM50 million; or • Employees from 75 to not exceeding 200 persons |
| Services and other sectors | <ul style="list-style-type: none"> • Sales turnover from RM300,000 to less than RM3 million; or • Employees from 5 to fewer than 30 persons | <ul style="list-style-type: none"> • Sales turnover from RM3 million to not exceeding RM20 million; or • Employees from 30 to not exceeding 75 persons |

5.2 Definition of start-up company: A technology- or innovation-enabled business at early stage with a scalable business model and a high-growth strategy

5.3 The eligibility criteria for a start-up company are as follows:

- i. Registered with the Companies Commission of Malaysia;
- ii. Majority ownership by Malaysian citizens (>50%);
- iii. Paid-up capital of at least RM10,000.00;
- iv. At least two (2) company directors;
- v. Business based on technology; and
- vi. Company in operation not exceeding 5 years

5.4 STI agency refers to an agency that undertakes research and services related to STI under MOSTI.

5.5 Applicants from public and private Institutes of Higher Learning, Polytechnics, Community Colleges, GRIs and STI agencies are **encouraged to collaborate** with start-up companies or SMEs (documentary proof shall consist of at least a Letter of Acceptance (LoA) or its equivalent).

5.6 Applicants from start-up companies and SMEs are **encouraged to collaborate** with public and private Institutes of Higher Learning, GRIs or STI agencies. If the applicants intend to appoint Research Officers (ROs), they **shall collaborate** with the public or private Institutes of Higher

Learning (proof of documentation shall consist of at least a Letter of Acceptance (LoA) or its equivalent).

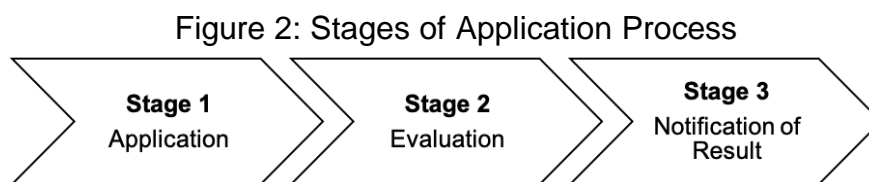
- 5.7 All categories of companies shall have a minimum of 51% equity held by Malaysian citizens.
- 5.8 None of the company directors or project team members have been convicted of any fraudulent activities nor the company declared bankrupt, under liquidation or placed under receivership.
- 5.9 The project leader who is a Malaysian citizen may appoint project members from international organisations or expatriates who are working in the same institution.
- 5.10 Researchers who are working under contract with Government Research Institutions/Government STI agencies/Public and Private Institutes of Higher Learning shall ensure that their employment contracts are valid throughout the duration of the project.
- 5.11 The project team shall comprise members who are qualified and competent in the technical aspects. Each team member shall prepare a curriculum vitae that is clear on his/her research areas, experience and successes.
- 5.12 If a team member is from a different institution, a letter of consent from the head of department shall be submitted. Applicants are permitted to submit applications for different projects provided that they possess the capability in terms of human resources and strong financial standing.
- 5.13 Applicants are permitted to submit applications for different projects provided that they possess the capability in terms of human resources and strong financial standing.
- 5.14 The project leader is allowed to lead only one project approved by MOSTI at one time.
- 5.15 The project must be executed in Malaysia.
- 5.16 The proposed project shall contain experimental development elements that may be commercialised.
- 5.17 The project leader must notify MOSTI whether funds are received from other parties for the same project.
- 5.18 MOSTI will not fund projects related to enforcement of security and defence (police and military).

5.19 Applications received from Government STI agencies and GRIs for the improvement of existing concepts, that is, from scientific journals, may be considered and:

- i. Innovative;
- ii. The project leader shall submit evidentiary documents related to the views of the original researcher concerning the suitability of such concepts prior to submitting the application; and
- iii. The applicant is required to submit proof of intellectual property search to ensure that the technology and innovation to be implemented are new and have commercial value.

6. APPLICATION PROCESS

6.1 The application process will involve three (3) key stages as shown in **Figure 2**.



6.2 Stage 1: Application

- i. The applicant is required to complete and submit the application form together with supporting documents as set out in **Appendix 3** to <http://edana.mosti.gov.my> within the period stipulated.
- ii. The application shall be checked and verified by the authorised party in the applicant's organisation such as the head of department or Research Management Centre. The applicant shall declare that the project application submitted has never been funded by any financing party.
- iii. The applicant shall include the business model of the project as set out in **Appendix 4**.
- iv. The application will be vetted by MOSTI to ensure that the application and documents submitted are complete and meet the basic criteria for TeD 1 Fund application. Incomplete application will be returned to the applicant.

6.3 Stage 2: Evaluation

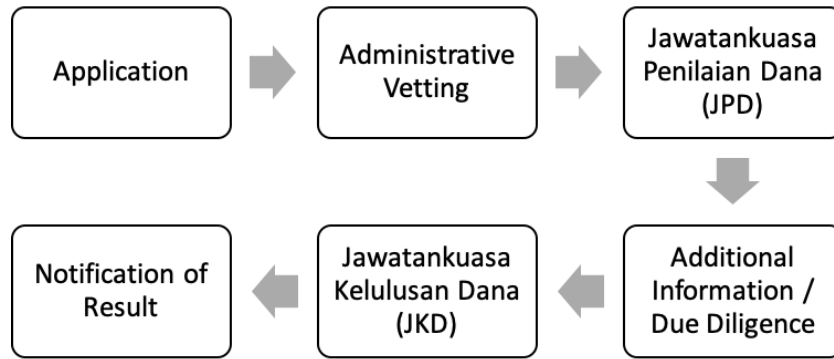
- i. Complete applications will be assessed by the Jawatankuasa Penilaian Dana (JPD) based on the criteria set out in Table 2.
- ii. The applicants will be invited to present the project proposal to the JPD. If needed, the applicants will be requested to amend or revise their proposals for improvement. Due diligence will be carried out for validation (if needed).
- iii. The result and recommendations of the JPD will be presented to the committee at MOSTI level.

Table 2: TeD 1 Fund Evaluation Criteria

| Fund | Evaluation Criteria | | | |
|-----------------------------|--|--|--|---|
| | Technical | Commercial | Impact (Social/Economic/ Environmental) | Finance and Project Management |
| TeD 1 (TRL 2 - 4) | 1. Formulation of concept 2. Uniqueness/ Innovativeness/ Inventiveness/ Disruptive/ Game changer; 3. Viability of project objective(s) (SMART); Specific – Measurable – Attainable/Achievable – Relevant/Realistic – Timebased 4. Appropriateness of methodology 5. Supported by original research/scientific data 6. Regulatory and standard compliance 7. Relevancy of milestones (activity, cost, duration) | 1. Competitive advantages 2. Market potential and demand (need, size, growth, target, niche, penetration) 3. Sustainability 4. Marketing strategy/ Business model (distribution network, strategic alliance) 5. Diffusion 6. Cost effectiveness | Social Impact 1. Affordability 2. Creation of skilled and knowledge workers 3. Problem solving (consumer needs, industry needs, & *strategic needs of the nation) *e.g.: national security, health, national policy 4. Improvement of living standards Economic Impact 1. Ready for market 2. Cost reduction 3. Export potential 4. Increased productivity and quality of product/services Environmental Impact 1. Effects on environment 2. Optimum consumption of resources | Finance 1. Potential to generate return on investment 2. Financial sustainability Project Management 1. Professional qualification/ Experience of project leader & team members 2. Risk management |

6.4 Stage 3: Notification of Result

- i. The applicant will be notified of the result via the eDana system or e-mail.
- ii. The successful applicant is to accept or reject the fund offer via the eDana system or e-mail.
- iii. The decision of the committee at MOSTI level is **FINAL**.
- iv. The process of evaluation up to notification of result shall take **45 days after receipt of complete documentations** from the applicants. The work flow process is as set out in **Figure 3**.



7. PREPARATION OF CONTRACT AND FIRST DISBURSEMENT OR LUMP SUM

7.1 The successful applicant shall submit the following documents after receiving a letter of offer from MOSTI:

- i. Letter of Acceptance of offer;
- ii. Copy of bank details (the company is required to have a designated bank account for the purpose of project execution);
- iii. Copy of e-vendor registration with details of designated bank;
- iv. Details of milestones for the allocation approved; and
- v. Agreement between collaborators stating scope of work, IP ownership and purchase of equipment during project execution. The agreement shall be submitted to MOSTI within 30 days of the date of the letter of offer. MOSTI reserves the right to withdraw its approval if the applicants fail to submit the agreement.

7.2 The fund recipients will be invited to a discussion on the milestone details based on the allocation approved by MOSTI.

7.3 Only the officer authorised by the company or fund recipient's institution shall have the right to sign the TeD 1 Fund agreement.

7.4 The agreement will be signed by the top management of MOSTI and returned to the fund recipients for stamping.

7.5 The first disbursement to the fund recipients will be made once MOSTI has received the duly stamped agreement.

8. RESEARCH OUTPUT

8.1 The outcome of the project research shall be tangible, measurable or specific products resulting from the implementation of the project.

8.2 The results of the proposed research project must be related to the project objectives and there has to be an accurate means to determine/measure the success of the project.

8.3 The project under TeD 1 shall produce:

8.3.1 Proven feasible technology, process or product to ensure the continuity of the project to the next phase;

8.3.2 The registration of at least one (1) intellectual property related to the scope of the project;

8.3.3 At least one (1) publication as a result of the project at local or international level in the ISI/WoS Q1 or Q2 publication in the case of researchers from Private and Public Institutes Of Higher Learning, Polytechnics, Community Colleges, Government Research Institutions and Government STI agencies. MOSTI must be clearly acknowledged in each publication; and

8.3.4 At least one (1) person in terms of human capital (GRA-Master's/GRA-PhD/RO) under TeD 1 (if applicable).

9. QUANTUM AND DURATION OF FUNDING

a) The maximum quantum of funding is RM1,000,000.00.

b) The maximum duration of project funding is 24 months.

10. SCOPE OF FUNDING

10.1 The scope of funding for the TeD 1 Fund shall be as set out in Table 3:

Scope of Funding for TeD 1 Fund

| SCOPE | FUNDED BY MOSTI | NOT FUNDED BY MOSTI | NOTE |
|----------------------------------|--|---|---|
| G01: Pilot plant/prototype | <ul style="list-style-type: none"> • Equipment and supporting infrastructure directly related to the pilot plant or up-scaling prototype • Engineering and design activities(man-hours) not including the salaries of employees under the supervision of the applicant • Rental/Minor repair of equipment | <ul style="list-style-type: none"> • Capital assets such as land, building, vehicle and furniture • Rental of space, land, building | <ul style="list-style-type: none"> • Not exceeding 40% of fund approved by MOSTI |

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| SCOPE | FUNDED BY MOSTI | NOT FUNDED BY MOSTI | NOTE |
|---|---|---|--|
| G02: Pre-clinical trial/clinical trial/non-clinical trial/field trial/stress test/user acceptance test | <ul style="list-style-type: none"> • Screening • Sampling • Payment for volunteers/subjects • Data analysis (man-hours) – 20% of total approved | <ul style="list-style-type: none"> • Overhead costs (bills, etc.) • Rental of facilities | |
| G03: Intellectual Property (IP) | <ul style="list-style-type: none"> • For registration in Malaysia only, including drafting service • IP resulting from the project <ul style="list-style-type: none"> i) patent ii) industrial design • IP incentives | <ul style="list-style-type: none"> • Maintenance • Patent cooperation treaty (PCT) | |
| G04: Market study and evaluation | <ul style="list-style-type: none"> • Sample development cost • Data analysis (man-hours) • Market validation valued up to RM15,000 • Payment for enumerators (charge/sample) | <ul style="list-style-type: none"> • Incentive for respondents • Fees for rental of facilities and exhibition | <ul style="list-style-type: none"> • If relevant • Not exceeding 10% of fund approved by MOSTI • Sample size shall be in accordance with statistical standard |
| G05: Compliance with regulations and standards | <ul style="list-style-type: none"> • Certification registration • Compliance with standards (local/international) • Product testing for certification • GMP, HALAL and HACCP | <ul style="list-style-type: none"> • Training | |

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| SCOPE | FUNDED BY MOSTI | NOT FUNDED BY MOSTI | NOTE |
|---|--|--|---|
| G06: Special services | <ul style="list-style-type: none"> • Consultation (agreement/letter of intent must be submitted together with the project proposal and consultation particulars to be stated) • Consultants for market study and evaluation | <ul style="list-style-type: none"> • Production outsourcing • Travel and transport • Arrangement of meetings • Journal subscriptions • Conference fees | <ul style="list-style-type: none"> • If relevant • Not exceeding 20% of total fund approved by MOSTI • Companies that apply for budget for special services (consultant for market study and evaluation) are not eligible to apply for allocation under the scope of market study and evaluation |
| G07: Raw materials/ Consumables directly related to the project | <ul style="list-style-type: none"> • Raw materials • Consumables | <ul style="list-style-type: none"> • Product design and packaging • Brochure • Advertisement • Website design and development • Product launches • Stationeries such as paper, books | <ul style="list-style-type: none"> • Not exceeding 20% of total fund approved by MOSTI |
| G08: Administration | <p><u>Applicant from IHL and IHL collaborator only</u></p> <ul style="list-style-type: none"> • Appointment of Graduate Research Assistant (GRA) directly involved in project • Allowance of GRA in accordance with academic qualification, i.e. RM3,200 for PhD holder and RM3,000 for master's degree holder. • This allowance includes SOCSO/EPF deduction. | <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 bills | |

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| SCOPE | FUNDED BY MOSTI | NOT FUNDED BY MOSTI | NOTE |
|-------|--|---------------------|--|
| | <p><u>Applicant from Polytechnic, Community College, GRI, STI agency, start-up and SME</u></p> <ul style="list-style-type: none"> • Appoint an RO who is directly involved in the project • The allowance of the RO shall be in accordance with academic qualification: <ul style="list-style-type: none"> a) For RO with a bachelor's degree related to the scope of the project, the allowance shall be RM3,000. b) For RO with a master's degree/doctorate related to the scope of project, the allowance shall be RM3,200. <p>This allowance shall include SOCSO/EPF deductions.</p> <p><u>Travel and transport expenditure related to project</u></p> <p>Domestic travel and transport expenses to attend meetings or visits as directed by MOSTI</p> <p>Travel is limited to economy class using the shortest direct route of airline service providers except in pressing circumstances</p> <p>The entity shall apply for MOSTI approval for travel and transport claims other</p> | | <ul style="list-style-type: none"> • Only applicant that is sole proprietorship/ partnership/ limited liability partnership shall collaborate with IHL • Definition of RO: <ul style="list-style-type: none"> i. Individual appointed to assist in research activities ii. Must have academic qualification pertinent to the R&D project iii. Not an employee in applicants' organisation <p>Not exceeding 10% of total fund approved by MOSTI</p> |

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| SCOPE | FUNDED BY MOSTI | NOT FUNDED BY MOSTI | NOTE |
|--------------------------------|--|---------------------|--|
| | than the items stated above | | |
| G09: Technology/IP acquisition | <ul style="list-style-type: none"> • Local and overseas • Potential for up- scaling • Must prepare acquisition agreement/details of the technology and IP acquired • Training related to transfer of technology carried out domestically | | <ul style="list-style-type: none"> •Not exceeding 50% of total fund approved by MOSTI |

10.2 The fund recipients are allowed to disburse allocation to collaboration partners for items as set out in Table 4.

Table 4: Scope of Funding Permitted for Collaboration

| SCOPE | NOTE |
|---|---|
| Pilot plant/Prototype | Up to 20% of overall cost approved by MOSTI |
| Pre-clinical trial/clinical trial/field trial/non-clinical trial/stress test/user acceptance test | |
| Raw materials/consumables directly related to the project | |

10.3 Procedure for purchase of equipment and services:

10.3.1 The fund recipients shall **submit the quotation** or proof for any purchase or procurement of services such as consultation services;

10.3.2 Purchase of equipment or procurement of services in amounts **exceeding RM100,000.00 must be accompanied by 3 or more quotations** with proof. Breaking down the purchase of equipment or procurement of services is not permitted;

10.3.3 All monetary transactions must be in order. All documentation for the expenditure with expenses documents including invoices, purchase orders, delivery orders and receipts must be attached;

10.3.4 Purchase of equipment or procurement of services from the

company/institution, subsidiary or associate companies is not permitted;

10.3.5 The purchase order/quotation submitted must be based on the current market price. **Mark-up from the original price is not permitted;**

10.3.6 The fund recipients **shall not have any conflict of interest** with collaborators and suppliers of research materials, equipment and services for the project; and

10.3.7 All problems that are related and not included in clauses 10.2.1 to 10.2.6 must be brought before the committee at MOSTI level for consideration and approval.

11. PAYMENT

11.1 The method of payment for the fund recipients shall be as set out in **Table 5.**

Table 5: Method of Project Payment

| CATEGORY | METHOD OF PAYMENT |
|--|---------------------------------|
| Public Institute of Higher Learning | Full disbursement (lump sum) |
| Government Research Institution (GRI) (transfer without warrant) | |
| Small and Medium Enterprise (SME) | Figure 4 |
| Start-up company | Figure 5 |
| Government Research Institution (GRI) (transfer with warrant) | |
| Government STI agency | |
| Private Institute of Higher Learning | |
| Polytechnic and Community College | |

Figure 4: Method of Payment to SME

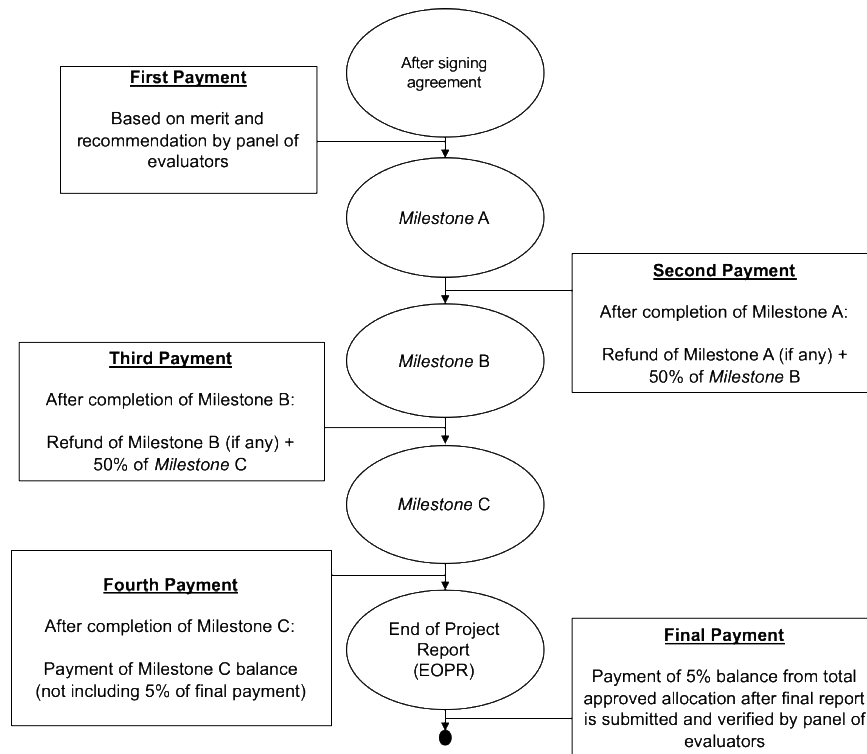
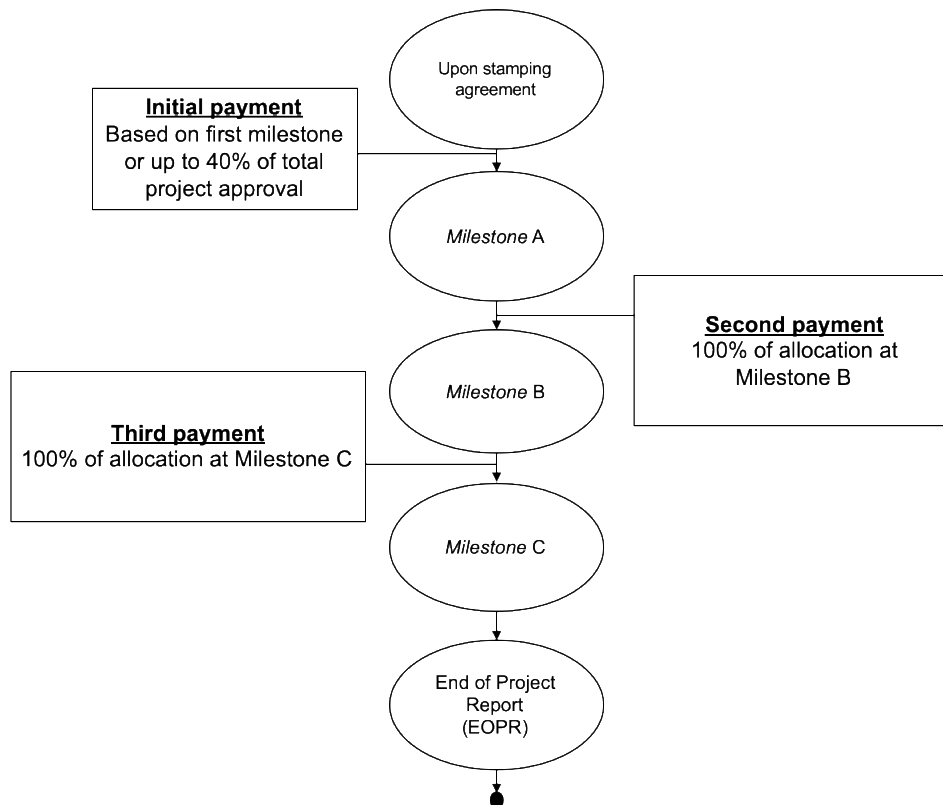


Figure 5: Method of Payment to Start-up Company, Private Institute of Higher Learning, Polytechnic, Community College, STI Agency and GRI (Warrant)



- 11.2 Advance payment or full disbursement (lump sum) will be processed after MOSTI receives the duly stamped agreement.
- 11.3 The subsequent payment shall be based on the schedule of payment set out in the agreement. Payment will be disbursed in stages, based on milestone achievement and project expenditure performance.
- 11.4 The Government has the right to amend the allocation that has been approved and will stipulate the value of the first payment based on the cost of the first milestone and recommendation by the panels.

12. PROJECT MONITORING

- 12.1 The fund recipients are required to submit periodic reports based on project progress achievements (technical report and audited financial report) as well as the documents stated in the agreement. If the project shows non-compliance with the agreement and non-adherence to the timeline stipulated, MOSTI has the right to suspend the project or withdraw funds.
- 12.2 Project monitoring activities cover meetings (physical/online) and site visits to evaluate the progress of the project.
- 12.3 Payments will be made based on the performance of project progress and completed documents as per the terms and conditions set out in the project agreement.
- 12.4 The project can be carried out once the project agreement is executed by both parties and duly stamped. Expenditure made before the agreement is duly stamped may not be claimed and will not be deemed to be part of the project cost.
- 12.5 The fund recipients are required to submit the End of Project (EOP) Report to MOSTI within three (3) months of the end date of the project. A project completion letter will be issued once EOP verification is received from MOSTI. All project output must include the name of MOSTI as fund provider. The EOP Report shall contain the following information:
 - 12.5.1 Deliverables and final project output;
 - 12.5.2 Achievement of project objectives;
 - 12.5.3 Commercialisation/transfer of technology planning;
 - 12.5.4 Project benefits;
 - 12.5.5 Impact of project on the nation; and
 - 12.5.6 List of equipment/facilities purchased.
- 12.6 Projects having the potential to proceed to the subsequent fund level (TeD 2) will be provided justification and recommendations by the panel in the monitoring report at EOP level. Such projects are categorised as fast track.
- 12.7 Notwithstanding the completion of the project, MOSTI has the right:

- i. To obtain regular information on the project progress; or
- ii. To invite the fund recipients for seminar presentation; or
- iii. To invite the fund recipients to hold an exhibition; or
- iv. To conduct a visit to the project location.

12.8 All changes/variations to the project shall be subject to the consent in writing from MOSTI. The fund recipients shall submit an application in writing at least **one (1) month** for consideration and approval of MOSTI before the changes/variations are affected. However, Public and Private Institute of Higher Learning, Polytechnics, Community Colleges and Government Research Institutions shall make such applications through the Research Management Centre (RMC).

13. OWNERSHIP AND USE OF R&D EQUIPMENT

13.1 All equipments purchased under the fund scheme shall be recorded and tagged with the project number for purposes of monitoring and verification. Such equipment belongs to the fund recipients and maintenance of the equipment shall be the responsibility of the fund recipients after completion of the project. However, the said equipment is not for the sole use of the fund recipients and must be available for use by other research organisations when needed.

13.2 The equipment purchased must be recorded in the Government repository system and information on such equipment must be updated until expiry of the agreement.

13.3 The equipment purchased using this fund may not be sold, transferred and disposed of within two (2) years of completion of project.

14. INTELLECTUAL PROPERTY (IP)

14.1 Registration of the end product developed under the TeD 1 Fund is encouraged in accordance with intellectual property laws and ownership (if needed).

14.2 The fund recipients shall inform the Government in writing, through an official letter or e-mail, of the existence of such project intellectual property no later than sixty (60) days from the date of project completion.

14.3 The fund recipients shall obtain Government approval before continuing with any licensing and commercialisation activities prior to expiry of the agreement.

14.4 The fund recipients may apply to the Government to obtain ownership of the project intellectual property wherein the Government shall have the full discretion to consider such application from the fund recipients.

14.5 MOSTI has the right to withdraw the intellectual property obtained, in the

event the fund recipients fail to develop or improve the technology developed prior to this, 12 to 24 months after the date of project completion. This is to ensure that the technology as well as products developed progress towards commercialisation.

15. INTELLECTUAL PROPERTY INCENTIVES

15.1 Application for the following incentives may be made after completion of project, provided that allocation for the incentives was stated in the fund application:

- 15.1.1 Incentive for disclosure of project intellectual property: RM500.00;
- 15.1.2 Incentive for filing of project intellectual property patent: RM5,000.00; and
- 15.1.3 Incentive for granting of project intellectual property patent: RM10,000.00

Payment of such incentives shall be on a one-off basis.

15.2 MOSTI will disburse payments for:

- 15.2.1 Incentive for disclosure of project intellectual property after receiving proof of project intellectual property disclosure;
- 15.2.2 Incentive for filing of project intellectual property patent after receiving proof of filing of project intellectual property patent; and
- 15.2.3 Incentive for granting of project intellectual property ownership after receiving proof of patent granted.

16. TERMINATION

16.1 MOSTI has the right to withdraw the fund in the event of the following:

- i. Any false information provided by the fund recipients;
- ii. Change in project scope without written consent from MOSTI;
- iii. Change in project leader without written consent from MOSTI;
- iv. Any misuse of the fund;
- v. Achievement/progress is not as stated in the agreement; and
- vi. Any breach of the agreement.

16.2 If the project is terminated by MOSTI, the fund recipients shall pay back the amount of fund already disbursed.

16.3 MOSTI has the right, at any time, to revise, suspend or withdraw the approval of any fund or payment; and

- 16.4 MOSTI has the right to make a claim against the fund recipients for any losses arising from any default on the part of the fund recipients as stated in the agreement.

17. STATEMENT OF EXPENDITURE AND UNEXPENDED FUND

- 17.1 MOSTI has the right to request the fund recipients to hand over a statement of expenditure at any time during the project period or to provide additional information in support of any interim or final expenditure.
- 17.2 The fund recipients must return the unexpended fund to MOSTI within three (3) months of the date of project completion. For a project that is terminated, the fund recipients shall or must return to MOSTI the amount of fund disbursed within one (1) month of the date of notice of termination.

18. MALAYSIAN CODE OF RESPONSIBLE CONDUCT IN RESEARCH

Those who are involved in the project implementation must comply with the code and practices prescribed in the Malaysian Code of Responsible Conduct in Research.

19. ETHICAL APPROVAL, INSTITUTIONAL BIOSAFETY COMMITTEE (IBC) APPROVAL/NOTIFICATION AND COMPLIANCE WITH THE RELEVANT REGULATIONS

- 19.1 The project leader shall or must obtain the approval and extend a copy of the same from the relevant authority if necessary.
- 19.2 For a project requiring testing on humans or animals, the project leader shall or must obtain ethical clearance and submit a copy from the relevant authority.
- 19.3 For a project involving living modified organisms (LMOS), the project leader shall or must obtain clearance from the Institutional Biosafety Committee/relevant body and submit a copy of the application for approval by the National Biosafety Board.
- 19.4 Information on the use of biological resources and associated traditional knowledge shall or must be completed by filling in the form set out in **Appendix 5**.

Appendix 1

TECHNOLOGY READINESS LEVELS

| TRL | Description | Characteristics |
|------------|---------------------------------------|---|
| TRL 1 | Basic principle | Technology research Pure science begins translation to R&D |
| TRL 2 | Formulation of concept | Early studies for application formulation Invention & practical application begins |
| TRL 3 | Experimental proof of concept | Analytical validation & proof of concept Start active research & development |
| TRL 4 | Lab validation | Validation in laboratory environment Ready to begin bridge for technology transition |
| TRL 5 | Validation in real environment | Validation in relevant environment Ready to enter technology development |
| TRL 6 | Demonstration in real environment | Demonstrated in relevant environment Ready to enter system development |
| TRL 7 | Demonstration of prototype | Demonstrated in operational environment Ready for limited production decision |
| TRL 8 | Product/System complete and qualified | Compliant, qualified & test/demo complete Ready for operational evaluation |
| TRL 9 | Product/System proven | Completed operational evaluation Ready for full-rate |

PRIORITY AREAS OF TECHNOLOGY DEVELOPMENT FUND 1

| SOCIO-ECONOMIC DRIVER | PRIORITY AREA |
|---|--|
| Smart technology and systems (next- generation engineering and manufacturing) | Advanced materials for a circular economy and sustainable society Next-gen smart factories Manufacturing of smart devices and technology development |
| Medical and health care | Digital health Precision medicine Clinical trial hub for developing countries |
| Agriculture and forestry | High-value seafood Premium tropical fruits Local agricultural input Smart supply chain management for sustainable forest |
| Water and food | Premium halal food Local superfood Integrated water resource management |
| Smart cities and transport | Integrated urban infrastructure and infostructure management Smart systems for connected -rural-urban Human-centred design and analytics |
| Energy | Diversified renewable energy Energy storage system Microgrid |
| Environment and biodiversity | Precision biodiversity Innovative eco-products from waste |
| Business and financial services | Subscription business model and sharing platform Digitalised & autonomous services Fintech in Islamic finance |
| Education | Personalised and experiential learning Micro-credentials Global online learning: promoting local content |
| Culture, arts and tourism | Creative and content heritage Digitalised tourism High-value tourism |

Appendix 3

| Start-up/SME | | Type of Document | Mode of Submission | Applicant | Collaborator (if applicable) |
|--------------|--|-----------------------------|---|-----------|------------------------------|
| 1 | Statutory declaration | Digital copy & printed copy | Upload to eDana & present during evaluation session | √ | |
| 2 | Latest CCM search (corporate information from MyDATA portal) | Digital copy | Upload to eDana | √ | √ |
| 3 | Work permit for non-citizen project team members / letter of appointment | Digital copy | Upload to eDana | √ | √ |
| 4 | Latest audited financial report (annual return, profit and loss statement, cash flow and others) | Digital copy | Upload to eDana | √ | √ |
| 5 | Contract / Letter of Acceptance or equivalent between entity and collaborator (if relevant) | Digital copy | Upload to eDana | √ | |
| 6 | Letter of consent from head of department to become project member (if relevant) | Digital copy | Upload to eDana | | √ |
| 7 | Contract/Letter of Acceptance between entity and consultant (if relevant) | Digital copy | Upload to eDana | √ | |
| 8 | Résumés of project team members and collaborators | Digital copy | Upload to eDana | √ | √ |
| 9 | Transfer of technology / intellectual property agreement (if relevant) | Digital copy | Upload to eDana | √ | |
| 10 | Company's EPF statement (if relevant) | Digital copy | Upload to eDana | √ | |
| 11 | Insolvency search (company and project team members) | Digital copy | Upload to eDana | √ | √ |
| 12 | Ethical clearance/IBC approval or notification (if relevant) | Digital copy | Upload to eDana | √ | |
| 13 | One quotation for each piece of equipment and service listed for purchase | Digital copy | Upload to eDana | √ | |
| 14 | Résumé/CV of Research Officer to be appointed (if relevant) | Digital copy | Upload to eDana | √ | √ |

TECHNOLOGY DEVELOPMENT 1 (TeD1) FUND GUIDELINES
(17 JUNE 2021)

| | STI Organisation/ Government Research Institute/ Institute of Higher Learning /Polytechnic/ Community College | Type of Document | Mode of Submission | Applicant | Collaborator (if applicable) |
|---|--|-----------------------------------|---|------------------|---|
| 1 | Statutory declaration | Digital copy & printed copy | Upload to eDana & present during evaluation session | √ | |
| 2 | Résumés of project team members and collaborators | Digital copy | Upload to eDana | √ | √ |
| 3 | Contract/Letter of Acceptance or equivalent between entity and collaborator (if relevant) | Digital copy | Upload to eDana | √ | |
| 4 | Letter of consent from head of department to become project member (if relevant) | Digital copy | Upload to eDana | √ | |
| 5 | Contract/Letter of Acceptance between applicant and consultant (if relevant) | Digital copy | Upload to eDana | √ | |
| 6 | Transfer of technology/intellectual property agreement (if relevant) | Digital copy | Upload to eDana | √ | |
| 7 | Insolvency search (if relevant) | Digital copy | Upload to eDana | √ | √ |
| 8 | Ethical clearance/IBC approval or notification (if relevant) | Digital copy | Upload to eDana | √ | |
| 9 | One quotation for each piece of equipment and service listed for purchase | Digital copy | Upload to eDana | √ | |

Appendix 4

TECHNOLOGY DEVELOPMENT FUND BUSINESS MODEL

| | | | | |
|--|---|---|--|---|
| <p><u>Key Partners</u></p> <p>Who are our key partners? Who are our key supplier? What are we getting from them? Giving them?</p> | <p><u>Key Activities</u></p> <p>What key activities do we require? Manufacturing? Software? Supply chain?</p> | <p><u>Value Propositions</u></p> <p>Which of our customers' problems are we helping to solve? Which customer needs are we satisfying?</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? What are their archetypes? What job do they want us to get done for them?</p> |
| | <p><u>Key Resources</u></p> <p>What key resources do we require? Financial, physical, IP, HR?</p> | <p>What are the key features of our product that match customer problems/needs?</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 is the most important cost inherent in our business model?</p> | | <p><u>Revenue Streams</u></p> <p>How do we make money? What's the revenue model? Pricing tactics?</p> | | |

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

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, please provide details:

- i. Country:
- ii. State:
- iii. Permit date:
- iv. Date of benefit sharing agreement:

A copy of the permit is attached to this form.

3. Date of notification of this application for patent to the National Competent Authority under the Access to Biological Resources and Benefit Sharing Act 2017.

A certified copy of the permit accompanies this form.