



**MINISTRY OF SCIENCE, TECHNOLOGY AND INNOVATION, MALAYSIA**

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**SCIENCEFUND  
GUIDELINES FOR APPLICANTS**

**Fund Secretariat  
Planning Division  
Ministry of Science, Technology and Innovation  
Level 3, Block C5, Parcel C  
Federal Government Administrative Centre  
62662 Putrajaya.**

**Tel: 603 – 8885 8842 / 8852 / 8145 / 8758 / 8778**

**Fax: 603 – 88892994**

**<http://ernd.mosti.gov.my/eScience>**

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## **CHAPTER 1: INTRODUCTION TO SCIENCEFUND**

### **1.1 DEFINITION OF SCIENCEFUND**

ScienceFund is a grant provided by Government to carry out R&D projects that can contribute to the discovery of new ideas and the advancement of knowledge in applied sciences, focusing on high impact and innovative research.

### **1.2 OBJECTIVES OF SCIENCEFUND**

The objectives of ScienceFund are:

- i. to support research that can lead to the innovation of products or processes for further development and commercialisation; and/or
- ii. to generate new scientific knowledge and strengthen national research capacity and capability.

### **1.3 RESEARCH PRIORITY AREAS**

ScienceFund focuses on the following areas:

- i. Life Sciences;
- ii. Computer Sciences and Information and Communication Technology (ICT);
- iii. Agriculture Sciences/ Agricultural Engineering;
- iv. Environmental Sciences;
- v. Advanced Materials Science;
- vi. Chemical Sciences;
- vii. Physical and Mathematical Sciences;
- viii. Engineering;
- ix. Medical and Health Sciences; and
- x. Social Sciences and Humanities.

Project proposals eligible for consideration must fall under research priority areas as in **Appendix I: Table 1**. Consideration for funding will also be given to identified Flagship Programmes as in **Appendix I: Table 2**.

### **1.4 ELIGIBILITY CRITERIA**

1. This fund is open to all research scientists and engineers who are employed on a permanent or contractual basis from the following organisations:
  - i. Government Research Institutions (GRIs);
  - ii. Government Science, Technology and Innovation (STI) Agencies; and
  - iii. Public and Private Institutions of Higher Learning (IHL) with accredited research programmes.

**Note:**

- Expatriates working under contract with any of the above institutions are eligible to apply. However, the project must have a permanent Malaysian co-researcher from the same institution, well-versed with the project, to ensure its completion in the event the expatriate's contract is terminated.
- The service of a contract researcher must be valid during the period of research proposed and contractual documents must be furnished as proof of employment for the period.

2. The following organisations are **not eligible** for ScienceFund:

- i. Private Research Institutions (PRIs) in the private sector;
- ii. Other department/agencies that carry out research under their purview; and
- iii. Research Institutions (RIs) with internal research funding such as Cess Fund.

**Note:** These organisations can participate by collaborating with the eligible institutions.

3. Project proposals substantially similar to proposals submitted to any other government funding agencies.
4. Researchers can **lead** only one (1) project at any time. Researchers have to submit the End of Project Report (EPR), before submitting a new application.

## 1.5 SELECTION CRITERIA OF THE PROJECT

- **Scientific and technical merit:** The project must be scientifically sound, technically feasible with achievable milestones, and has the potential for further development and commercialisation.
- **Research competence:** The research team must have the knowledge and competency to carry out the research successfully to completion.
- Innovativeness of the research.
- **High impact research:** Clear and measureable expected output, outcome and impact in line with National Key Economic Areas / National Key Result Areas (NKEA/NKRA).

## 1.6 LOCATION OF RESEARCH

The research project under ScienceFund must be carried out in Malaysia.

## 1.7 PROJECT DURATION

The project duration is up to **30 months**.

**Note:** Researchers/Institutions are obliged to provide additional and current information from time to time upon written requests by MOSTI.

## **1.8 RESPONSIBILITY OF THE PROJECT LEADER**

The successful implementation of the project is the responsibility of the project leader. Project leaders have to ensure that the projects are carried out effectively to meet the specified objectives and milestones within the specified timeframe and funding allocated.

## **1.9 SCOPE OF FUNDING**

ScienceFund covers preliminary research leading to laboratory proof of concept or towards the development of new products or processes.

The quantum of fund approved will be determined based on the merit of each application.

The funding can be utilised for the following categories:

### **Wages and Allowances for Temporary and Contract Personnel (V11000)**

- Includes wages and allowances for temporary and contract personnel who are directly engaged in the project. Only **two (2) temporary or contract personnel** will be funded for each project.
- The maximum wages/allowances for temporary or contract personnel are up to **RM 2,500 per month/per head inclusive of deductions for SOCSO/EPF**. The allocation cannot be used for tuition fees.

### **Travel and Transportation (V21000)**

Includes travel and transportation expenses for domestic and overseas trips directly related to the project.

Overseas trips must meet the following criteria:

- Only oral presentation at conferences or seminars on the findings of the project;
- When domestic facilities and expertise are inadequate to conduct a portion of the research. However, the venue must be suitable in terms of facilities, expertise and technology transfer;
- The **project leader or collaborator or team member** is only allowed to go **once** for the duration of the project;
- Travel is limited to economy class using the shortest direct routes by either MAS or Air Asia except under extenuating circumstances;
- The project leader or collaborator needs to send application for approval and a copy of abstract/paper that is going to be presented to MOSTI before attending the conference; and
- The allocation for travelling overseas must be budgeted for in the research proposal and must get prior approval from MOSTI.

Expenses related to overseas trips will be funded up to a **maximum of 15% of the total expenses of the project or RM15,000, whichever is less.**

### **Rentals (V24000)**

Only rental for building space, equipment, transportation and any other items directly related to the project can be included.

### **Research Materials and Supplies (V26000)**

Only expenses for research materials and supplies directly related to the project can be included.

**Note:** Please provide detail of cost and quantity of items required. The grant will not support utilities, books, stationeries and subscription to journals etc.

### **Minor Modifications and Repairs (V28000)**

- Only expenses for minor modifications and repairs of laboratory, equipment or any other items directly related to the project can be included.
- The maintenance costs of existing equipment used during the duration of project period can also be included.
- The cost of maintenance of any equipment purchased will not be borne by ScienceFund after the project is completed.

### **Special Services (V29000)**

- Only services directly related to the project such as:
  - ✓ consultancy – agreement/letter of intent must be submitted together with the project proposal;
  - ✓ payment for enumerators;
  - ✓ sample testing and analysis;
  - ✓ data processing;
  - ✓ patent registration, excluding–maintenance cost;
  - ✓ paper publications related to the project; and
  - ✓ registration fees for conference.
- Engagement of foreign expert(s) will be considered on a case-by-case basis.

**Note:** All services under this category must be itemised.

### **R&D Equipment and Accessories (V35000)**

- Justification for purchase of specialised equipment must be given. Project leader will need to provide information on availability of such equipment and why it cannot be used or shared.

- Accessories needed include items that are necessary to upgrade the capability of existing equipment directly related to the project.
- Purchasing of equipment must be made in the first year. Purchasing of personal computer, laptop, printer, server, scanners are not allowed.
- Researchers are encouraged to share R&D equipment and avoid purchasing of the same R&D equipment within the same Research Institutions.
- Funding for specialised equipment and accessories is up to a maximum of 40% of the total project expenses.

**Note:** All specialised equipment/software directly related to the project must be itemised. Applicants need to provide justifications, specifications, quotations and estimated costs for such purchases.

### 1.10 VARIATION IN PROJECT COSTING

Virement can only be done **once** throughout the project duration. For details, please refer to **the V-series guidelines**.

Requests for virement to purchase new equipment **in the last six months** of the grant's duration will not be entertained.

### 1.11 NON-QUALIFYING PROJECT ACTIVITIES

Scientific and technical information services such as collecting, coding, recording, classifying, disseminating, translating, analysing, evaluating, bibliographic services, scientific and technical information extension advisory services and compilation of data, are excluded from the main activities of the project except when they form an integral part of the project. In such a case, applicants must provide a statement indicating the research objectives to which the data would contribute.

### 1.12 PROJECT EXTENSION

- Under certain circumstances, MOSTI may allow for extension of project duration without additional funding.
- Requests for project extensions must be made in writing via the institutional coordinator to the ScienceFund Secretariat for approval at least **three (3) months before** the project completion date. Applications received after the project completion date, will not be considered.
- The maximum extension given is up to **6 months including the submission of the End of Project Report**.

### 1.13 NOTIFICATION OF RESULTS

The results of applications will be notified, through the e-ScienceFund system to applicants within **7 working days** after the convening of the Fund Approval Committee Meeting.

#### **1.14 ACCEPTANCE OF OFFER**

Applicants must accept or decline the offer through the e-ScienceFund system within **14 days after notification**.

#### **1.15 SCIENCEFUND AGREEMENT**

The Heads of institutions are required to sign the ScienceFund Agreement within **30 working days** upon acceptance of the approved projects, failing which MOSTI has the right to revoke the approval.

#### **1.16 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 and it belongs to the Institution.

All R&D equipment purchased under the project must be maintained by the institution on conclusion of project. However, such equipment is not for the sole use of the institution, and must be made available to other research organisations as and when the need arises.

#### **1.17 INTELLECTUAL PROPERTY RIGHTS**

Ownership and management of IPR, royalties and any other form of fees received by the institution resulting from technology transfer, licensing of technology or any other form of commercialisation, shall be governed in accordance with the terms and conditions outlined in the ScienceFund Agreement.

#### **1.18 PUBLICATIONS**

Researchers are encouraged to publish the results of their projects in local and renowned international publications **only after** all measures have been taken to protect IPR generated from these projects.

The contribution of MOSTI as the fund provider must be acknowledged at all times in all forms of publications.





## **CHAPTER 2: PROJECT APPLICATION**

### **2.1 APPLICATION PROCESS**

Application for ScienceFund must be made online through the website <http://ernd.mosti.gov.my/eScience>.

Please refer to the eScienceFund User Manual for further instructions.

### **2.2 APPLICATION SUBMISSION**

Application can be submitted throughout the year.

### **2.3 APPLICATION FORM**

This section of the Guidelines is for filling in the ScienceFund Application Form.

#### **Project Number**

The project number is defined by the research cluster, institution's category, institution's name and serial number. It will automatically be generated by the eScienceFund system once the proposal is submitted to MOSTI. Prior to this submission, the system will allocate a temporary project number. The coding structure is as shown in Figure1.

**Figure 1: Coding Structure for Project Number**

XX	XX	XX	<b>SFXXXX</b>
Research Cluster	Institution Category	Institution Name	Serial Number

**Note:** SF stands for ScienceFund

**Example:** The project number **01-01-04-SF0001**.

**01** – refers to the ICT cluster,  
**01** – refers to Public Institution of Higher Learning  
**04** – refers to UPM  
**SF0001** – refers to the project serial number.

For research cluster (RC) codes, please refer to Table 3, and the institution's category and codes in **Appendix II**.

**Table 3: Research Cluster (RC) Codes**

<b>Code</b>	<b>Research Cluster</b>
01	Information and Communication Technology (ICT)
02	Biotechnology
03	Industrial Technology
04	Sea to Space
05	S&T Core

### **Project Title**

The title should be concise, clearly indicating the subject of the research and reflecting the key idea(s) of the project.

### **Project Objectives**

This section describes the measurable objectives of the project and defines the expected results.

### **Research Background**

The research background should cover the following elements:

- The major issues and problems to be addressed by the research;
- Research necessity and importance;
- Variables and parameters of the research;
- Hypothesis or theory, if any; and
- Setting the limits or boundaries of the proposed research in order to provide a clear focus.

The literature review should be addressed in this section to meet the requirements below:

- The application must be novel (should not "reinvent the wheel");
- Demonstrates knowledge of the research problem;
- Demonstrates understanding of the theoretical and research issues related to the research question; and
- Critically analyses, integrates and synthesises the relevant literature information.

## **Socio-economic objectives (SEO)**

The socio-economic objectives (SEO) represent the purpose or sectoral beneficiaries for which R&D activities are conducted. The SEO classification allows for a systematic analysis of R&D funding at three different levels under the SEO Divisions. There are 5 SEO Divisions, namely Defence, Economic Development, Society, Environment and Advancement of Knowledge.

The appropriate divisions will determine the SEO Classification that best describes the beneficiary group of the project from the Malaysian Research and Development Classification, 5<sup>th</sup> Edition or the latest edition. To classify the research project, please use the following definitions:

- **SEO Category**

The SEO Category describes the sector of the national economy for which it will be the main beneficiary of the R&D being practised.

- **SEO Group**

A sub-division under the SEO Category, which groups socio- economic activities that have common characteristics.

- **SEO Area**

A sub-division under the SEO Group, which represents a specific area of research.

## **Fields of Research (FOR)**

The fields of research (FOR) represent R&D activities classified according to their scientific and academic disciplines. Please choose the FOR classification which most appropriately describes the scientific discipline being practised. Please select the FOR from the Malaysian Research and Development Classification, 5<sup>th</sup> Edition according to the following:

- **FOR Category**

A sub-division of scientific or academic disciplines.

- **FOR Group**

A sub-division under the FOR Category.

- **FOR Area**

A specific discipline within FOR Group which describes a science or a technology area.

## **Research Approach**

- **Research Methodology**

The research methodology demonstrates how the applicant plans to tackle the research problem. It should have details of the analytical techniques, research design and description of research activities. Specialised equipment, facilities and infrastructure, whether new or existing, required for the project, should also be identified at this stage.

The applicant should compare the methodology with alternative methods and justify why the approach chosen is the most appropriate.

- **Project Activities**

The applicant should provide the work plan and the list of activities necessary for the project to meet its objectives and , the transfer of research results to customers / beneficiaries. It should also outline the sequence of the proposed activities and identify them in numbered stages, steps or phases.

Research activities including all timelines must be reflected in the Gantt chart.

- **Milestones**

Milestones must be tangible and quantifiable, marking significant phases of the project or completion of research activities that result in a significant output.

There must be at least 2 milestones per calendar year. The timing of the milestones must be reflected in the Gantt chart.

**Note:** Literature review and report writing are not part of milestones.

- **Risk of the Project**

Describe the factors that may cause delays or prevent successful implementation of the project as proposed. Give an estimate on the degree of risk.

## **Benefits of the Project**

- **Output Expected**

- ✓ Method / technique
- ✓ Demonstrator / prototype
- ✓ New / improved product / device
- ✓ New / improved process
- ✓ New / improved software
- ✓ New / improved material
- ✓ New / improved service
- ✓ IPR

- **Human Capital Development**

The indicators are as follows:

- ✓ Post doctorate
- ✓ Doctorate
- ✓ Master
- ✓ Research staff with new specialisation

- **Economic Contribution**

The indicators are as follows:

- ✓ Sales of manufactured product / device / equipment
- ✓ Royalties from licensing
- ✓ Revenue from consultancies
- ✓ Cost savings
- ✓ Time savings
- ✓ Others

- **Infrastructural contribution**

The indicators are as follows:

- ✓ New equipment
- ✓ New / improved facility
- ✓ New information networks
- ✓ Others

### **Research Collaboration**

The collaboration is in the form of sharing of expertise and research facilities, marketing opportunities and other related research resources. Details on the role of key collaborators should be provided. Such commitment should be substantiated by documentation proof such as memorandum of agreement, letter of consent or any other form of agreement.

For the project team, state all the collaborators involved based on their roles and time allocated. The man-month of each of the project team member will be automatically calculated based on the staff cost estimation worksheet.

- **Project Schedule**

The project schedule is automatically generated based on the research activities and milestone.

- **Staff Cost Estimation**

The computation of daily rates for individual researchers or research staff is done according to the following formula:

$$\text{Daily Rate} = \text{Emolument} \times \frac{\text{Research Utilisation Factor}}{\text{Annual Working Days}}$$

Where:

- **Emoluments** include:

- ✓ Annual basic salary
- ✓ EPF contributions by employer
- ✓ Performance bonuses
- ✓ Allowances

- **Annual working days** are computed by deducting the total days in the year (365) with the following number of days:

- ✓ Rest days (Saturday and Sunday)
- ✓ Vacation
- ✓ Public holidays

- The **research utilisation factor** is calculated as follows:

$$\text{Research utilisation factor} = \frac{\text{Annual days on research projects and activities}}{\text{Annual days on research projects}}$$

The research factor ensures that time spent on activities which are *not project specific* (e.g. training, attendance of conferences, administrative tasks related to research proposals, recruiting of research staff, etc) is reflected in the daily rate.

### **Project Funding**

In addition to the ScienceFund, the applicants have to indicate and specify which of the following funding sources may provide funding for the project.

- Domestic funding sources:

- ✓ Other Government Funding Schemes;
- ✓ Internal Funding;
- ✓ Industry sources;
- ✓ Others; please specify

- International funding sources:

- ✓ World Bank
- ✓ Asian Development Bank (ADB)
- ✓ United Nations Development Programme (UNDP)
- ✓ Others; please specify

### **Summary of Relevant Past Research Project**

Applicants should provide a summary of past research, if any, which has relevance to the proposed research.

### **Contractual Obligations Under This Project**

Applicants must furnish (as attachment) documentation of any contractual obligation with third parties.

### **Ownership Of Intellectual Property Rights**

Applicants must indicate the organisation(s) that will own the intellectual property rights that may arise from this project.

### **Ethical Clearance And Compliance To Other Related Regulations**

Project Leaders must obtain and furnish (as attachment) a copy of ethical clearance, or clearance by its Institutional Biosafety Committee and submission of notification or submission of application for approval to the National Biosafety Board, and other related regulations by the relevant authorities when necessary.



## **CHAPTER 3: PROJECT EVALUATION**

The project evaluation consists of Institutional Screening, and Technical and Financial Evaluation before it is submitted to Fund Approval Committee.

### **3.1 INSTITUTIONAL SCREENING COMMITTEE**

All applications are to be screened by the Institutional Screening Committee to ensure that the applications conform to the ScienceFund requirements.

The Institutional Screening Committee is required to assess various technical aspects of the research proposal using the Institutional Screening Form. It should also ensure the project leader and research team are technically competent, the project costs are fair, and there is optimal utilisation of available research equipment and infrastructure.

The Institutional Screening Committee must ensure that projects which involve experimentation on humans or animals have obtained ethical clearance from the relevant authority. The Institutional Screening Report should be submitted online via <http://ernd.mosti.gov.my/eScience>.

### **3.2 TECHNICAL AND FINANCIAL EVALUATION COMMITTEE AT MOSTI**

The Chairman and members of the Technical and Financial Evaluation Committee are appointed by MOSTI. Members of this committee consist of experts from the public and the private sectors. However, additional experts, including international peer reviewers can be invited as and when necessary, to assist in the evaluation.

All applications will be evaluated by the Technical and Financial Evaluation Committee. The committee will study the proposals based on the merits of the research objectives, appropriateness of research methodology, ability of researchers and the cost effectiveness of the proposal.

### **3.3 FUND APPROVAL COMMITTEE**

Projects evaluated by the Technical and Financial Evaluation Committee are then submitted to the Fund Approval Committee for approval.

The Fund Approval Committee is chaired by the Secretary-General of MOSTI and its members are as in **Appendix III**.

Any decision made by the Fund Approval Committee is final.

## **CHAPTER 4: ALLOCATION AND DISBURSEMENT OF FUND**

### **4.1 QUANTUM OF FUNDING**

The quantum for each project is up to **RM500,000.00**.

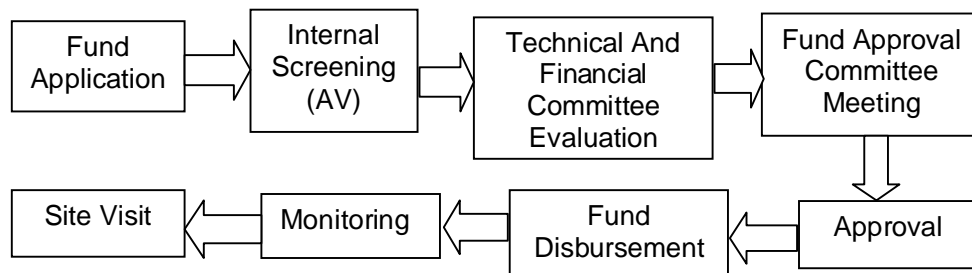
### **4.2 INITIAL DISBURSEMENT**

The project allocation for the first year allocation will be disbursed to the relevant institutions within one month of the return of the signed ScienceFund Agreement to MOSTI.

### **4.3 PROGRESS PAYMENT**

The subsequent disbursements will be based on the milestone and financial achievements of the project.

#### **Process Flow**



### **4.4 INSTITUTIONAL FINANCIAL PROCEDURE**

Researchers must abide by all financial rules and regulations of the institutions especially those pertaining to procurement, disbursement, appointment of research staff and intellectual property rights.

## **CHAPTER 5: PROJECT IMPLEMENTATION AND MONITORING**

### **5.1 PROJECT IMPLEMENTATION AND MONITORING**

- All projects must be conducted in accordance with the terms and conditions outlined in the ScienceFund Agreement.
- The project will be closely monitored to ensure that they are carried out successfully. Researchers are required to submit the following reports through the Institutional Coordinator via <http://ernd.mosti.gov.my>.
- **Progress Report (PR)** must be submitted before 31 January and 31 July each year. These reports will be used to monitor the progress of the project as well as determine the timing of the fund disbursements. This will take into account milestones achieved as well as 50% expenditure of the amount already disbursed. It is the project leader's responsibility to ensure that the correct and updated information related to the milestone achievement and expenditure are reported. Failure to submit the Progress Report is a serious omission that will result in the withholding of further fund disbursement or possible termination of project. The report can also be used to apply for changes in timeline for milestone achievement and project schedule.
- **End of Project Report (EPR)** should be submitted within three (3) months after project completion. All publications must acknowledge MOSTI's contribution as a fund provider. The End of Project Report requires the following information:
  - ✓ Direct outputs of the project;
  - ✓ Extent of achievement of the original project objectives;
  - ✓ Technology transfer and commercialisation approach;
  - ✓ Benefits of the project, particularly project outputs and organisational outcomes;
  - ✓ Assessment of the project team, research approach, project schedule and project costs; and
  - ✓ Sectoral/national impacts of the project.
  - ✓ Technical Report of the project

**Note:** The outcome of research under ScienceFund that has commercial potential can be considered for additional funding under the Pre-Commercialisation funding category.

The reports will be reviewed by the panels at MOSTI through the:

- **Progress Assessment Report (PAR)**
- **Outcome Assessment Report (OAR)**

MOSTI reserves the right to call for periodic information on progress or to conduct site visits even after the project has been completed.

## 5.2 INTELLECTUAL PROPERTY RIGHTS

Researchers shall disclose to the Government (MOSTI) in writing, of the existence of the Project Intellectual Property not later than 60 days from the Project Completion Date.

### Incentive for Project Intellectual Property

The applicant may apply for the following incentives:

- Incentive for disclosure of the Project Intellectual Property: RM500.00;
- Incentive for filing of patent of the Project Intellectual Property: RM5,000.00; and
- Incentive for granting of patent Project Intellectual Property: RM10,000.00.

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

The institution shall pay:

- the incentive for disclosure of the Project Intellectual Property upon disclosure of the Project Intellectual Property;
- 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
- the incentive for granting of patent Project Intellectual Property upon receipt of the proof of patent granted of the Project Intellectual Property.

## 5.3 EXPENDITURE STATEMENTS AND UNEXPENDED GRANT

MOSTI reserves the right to require the Institution to complete and 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.

The Institution shall return the unexpended grant to MOSTI **within three (3) months after the completion of the project.**

TABLE 1: RESEARCH AND PRIORITY AREAS

No.	RESEARCH AREAS	PRIORITY AREAS
1	• ENGINEERING SCIENCES	1 Cutting tool technology
		2 Design for Manufacturing and Assembly
		3 Flexible Manufacturing Systems
		4 Metrology SN: Including Instrumentation Manufacturing such as Metrological Instrument
		5 Machining
		6 Laser machining
		7 Rapid prototyping and tooling
		8 Robotics and Mechatronics
2	• ADVANCED MATERIALS SCIENCES • CHEMICAL SCIENCES • ENGINEERING SCIENCES	1 Biosensors
		2 Building and Construction Materials
		3 Fine Chemicals
		4 Green material
		5 Medical devices
		6 Microsphere technology
		7 Nano Materials
		8 Nano particle
		9 Nano photonic
		10 Nanoelectronics
		11 Nanotube
		12 Other Nanotechnology
		13 Quantum device
		14 Smart Materials
3	• ENGINEERING SCIENCES • PHYSICAL AND MATHEMATICAL SCIENCES	1 Accelerator technology
		2 Ionising Radiation Technology
		3 Non-Destructive Testing
		4 Non-ionising Radiation Technology
		5 Radiation Technology
		6 Reactor Technology
4	• LIFE SCIENCES • AGRICULTURE SCIENCES • ENGINEERING SCIENCES	1 Animal Biotechnology
		2 Animal Reproduction Biotechnology
		3 Biofeed
		4 Bioinformatics
		5 Bioprocessing
		6 Biosafety(Food)
		7 Cell Culture Technology
		8 Diagnostic Kits
		9 Enzyme Technology
		10 Feed and Nutrition
		11 Fermentation
		12 Functional Food
		13 Genomics
		14 Livestock Reproduction
		15 Microbial technology
		16 Product Recovery
		17 Risk Assessment
		18 Risk Management
		19 Transgenic Plant: Rice, Papaya, Banana and Pineapple, Grain Maize
		20 Vaccine Development
5	• MEDICAL AND HEALTH SCIENCES	1 Biopharmaceuticals
		2 Obesity
		3 Nutraceuticals
		4 Drug Discovery
		5 Oncology
		6 Endocrinology
		7 Therapeutics
		8 Cardiology
		9 Respiratory Diseases
		10 Infectious/Communicable Diseases
		11 Gastroenterology
6	• ENVIRONMENTAL SCIENCES/ ENGINEERING SCIENCES	1 Bio-Gas and Bio-Fuel
		2 Biomass Energy Technology e.g. Refuse-derived Fuel (RDF)
		3 Climatology
		4 Coastal Oceanography and Processes
		5 Disaster Management
		6 El Niño Southern Oscillation (ENSO)
		7 Fisheries Oceanography
		8 Hydro Power Technology
		9 Hydroinformatics /and Oceanographic Data Management
		10 Land-Sea Interactions and Processes /Ocean-atmosphere interaction
		11 Marine Biodiversity, Conservation and Management
		12 Marine Ecology
		13 Marine Geology
		14 Marine Pollution
		15 Marine Products Biotechnology
		16 Meteorological Oceanography /Natural marine hazards
		17 Meteorology
7	• ENGINEERING SCIENCES • COMPUTER SCIENCES & ICT • PHYSICAL AND MATHEMATICAL SCIENCES	1 Advance and Emerging Methods SN: Forecasting
		2 Antenna Technology (mitigation.)
		3 Biometrics Security System
		4 Broadband Communication
		5 Cloud Computing
		6 Digital Image processing System (Pattern recognition UAV platform development
		7 Digital Signal Processing
		8 Earth Observation System/Ground and Space Station
		9 Equipments SN/RFID
		10 Firewalls
		11 Grid Computing
		12 Intrusion Prevention System
		13 Malware, Worms and Viruses
		14 Micro Electro Mechanical System (MEMS)
		15 Mobile Network Technologies
		16 Other Communications n.e.c.SN: Secured Communication System
		17 Pattern Recognition and Image Recognition/Imaging Processing and Computer Vision
		18 Processor Design. Geographic Information System.
19 Quantum Computing		
20 Radio Frequency Design (RF) Front-End		
21 Remote sensing and related technology		
22 Rocketry		
23 Safety Critical Software		
24 Satellite and Spacecraft System		
25 Satellite Communication Services (Bus).		
26 Security Protocols		
27 Security Services SN: Network Security		
28 Semantic technology		
29 Space sciences especially on Micro gravity experiments Astronomy & Astrophysics		
30 Wireless Devices/Wireless Communication and Technologies		
8	• SOCIAL SCIENCES AND HUMANITIES	1 Community Development
		2 Environmental Economics
		3 Gender Studies
		4 Gerontology
		5 Policy studies
		6 Tourism Studies
		7 Transportation Economics
18	Monsoon System	19 Oceanography Instrumentation
		20 Other Advancement of Marine Sciences Knowledge/Alternative energy Sources from the sea
		21 Sea Level Changes
		22 Seismology/Earthquake
		23 Solar Energy Technology
		24 Storm Water Management
		25 Tsunami
		26 Water Resources Management (Technology development for supplying clean water for rural communities)
		27 Wind

**TABLE 2: FLAGSHIP PROGRAMMES**

<b>No.</b>	<b>Flagship Programme</b>
1.	Renewable Energy
2.	Advanced Manufacturing
3.	Electronics
4.	Wireless Sensor Network
5.	Predictive Analytics
6.	3-Dimension Internet
7.	Space Technology
8.	Oceanography
9.	Meteorology
10.	Production System and Precision Agriculture
11.	Biosurveillance
12.	Tropical Emerging Infectious Diseases and Cancer
13.	Food Security and Food Biotechnology based Products

**INSTITUTION CATEGORY AND CODE****PUBLIC INSTITUTIONS OF HIGHER LEARNING (CODE 01)**

<b>Institution Code</b>	<b>Institution Name</b>
01	UiTM (Universiti Teknologi MARA)
02	UKM (Universiti Kebangsaan Malaysia)
03	UM (Universiti Malaya)
04	UPM (Universiti Putra Malaysia)
05	USM (Universiti Sains Malaysia)
06	UTM (Universiti Teknologi Malaysia)
07	UUM (Universiti Utara Malaysia)
08	UIAM (Universiti Islam Antarabangsa Malaysia)
09	UNIMAS (Universiti Malaysia Sarawak)
10	UMS (Universiti Malaysia Sabah)
11	UPSI (Universiti Perguruan Sultan Idris)
12	UMT (Universiti Malaysia Terengganu)
13	UTHM (Universiti Tun Hussein Malaysia)
14	UTeM (Universiti Teknikal Malaysia Melaka)
15	UniMAP (Universiti Malaysia Perlis)
16	UMP (Universiti Malaysia Pahang)
17	USIM (Universiti Sains Islam Malaysia)
18	UniSZA (Universiti Sultan Zainal Abidin)
19	UPNM (Universiti Pertahanan Nasional Malaysia)
20	UMK (Universiti Malaysia Kelantan)

**INSTITUTION CATEGORY AND CODE****PRIVATE INSTITUTIONS OF HIGHER LEARNING (CODE 02)**

<b>Institution Code</b>	<b>Institution Name</b>
01	MMU (Multimedia University)
02	UTP (Universiti Teknologi PETRONAS)
03	UNITEN (Universiti Tenaga Nasional)
04	UNIRAZAK (Universiti Tun Abdul Razak)
05	MUST (Malaysia University of Science and Technology)
06	KLIUC (Kuala Lumpur Infrastructure University College)
07	CURTIN (Curtin University of Technology Sarawak)
08	UNISEL (Universiti Industri Selangor)
09	IMU (International Medical University)
10	MONASH (Monash University Malaysia)
11	UTAR (Universiti Tunku Abdul Rahman)
12	NOTTINGHAM (University of Nottingham Malaysia Campus)
13	UniKL (Universiti Kuala Lumpur)
14	SUTS (Swinburne University of Technology, Sarawak Campus)
15	MSU (Management and Science University)
16	SUNWAY (Sunway University College)
17	TATi (TATi University College)
18	TAYLORS (Taylor's University)
19	UNU-IIGH (United Nations University)
20	TWINTeCH (Kolej Universiti Teknologi Antarabangsa)



**INSTITUTION CATEGORY AND CODE****PUBLIC RESEARCH INSTITUTIONS (CODE 03)**

<b>Institution Code</b>	<b>Institution Name</b>
01	ANM (Malaysian Nuclear Agency)
02	SIRIM Berhad
03	MACRES (Malaysian Centre for Remote Sensing)
04	MIMOS Berhad
05	TPM (Technology Park Malaysia Corporation Sdn. Bhd.)
06	IPP (Institut Penyelidikan Perikanan)
07	VRI (Veterinary Research Institute)
08	MARDI (Malaysian Agricultural Research & Development)
09	NAHRIM (National Hydraulic Research Institute of Malaysia)
10	FRIM (Forest Research Institute of Malaysia)
11	LGM (Lembaga Getah Malaysia)
12	LKM (Lembaga Koko Malaysia)
13	NIH (National Institute of Health)
14	STRIDE (Science & Technology Research Institute for Defence)
15	PBM (Perbadanan Bioteknologi Melaka)
16	SBC (Sarawak Biodiversity Centre)
17	IKRAM (Kumpulan IKRAM Sdn. Bhd.)
18	MRM (Majlis Rekabentuk Malaysia)
19	Unit Makmal Penyelidikan Tanah Gambut Tropika
20	PHN (Pusat Hidrografi Nasional)
21	CSM (Cyber Security Malaysia)

**INSTITUTION CATEGORY AND CODE**  
**GOVERNMENT STI AGENCIES (CODE 04)**

Institution Code	Institution Name
01	JTSB (Jabatan Pertanian Sabah)
02	JISB (Jabatan Perikanan Sabah)
03	JHSB (Jabatan Perkhidmatan Haiwan Sabah)
04	JISK (Jabatan Perikanan Sarawak)
05	JPS (Jabatan Pengairan & Saliran)
06	JTSK (Jabatan Pertanian Sarawak)
07	JMG (Jabatan Mineral & Geosains)
08	FDPM (Forest Department of Peninsular Malaysia)
09	JPSB (Jabatan Perhutanan Sabah)
10	JKM (Jabatan Kimia Malaysia)
11	JMM (Jabatan Meteorologi Malaysia)
12	ANGKASA (Agensi Angkasa Negara)
13	ASM (Akademi Sains Malaysia)
14	SFC (Sarawak Forestry Corporation)
15	Jabatan Perhutanan Sarawak
16	Institut Sukan Negara
17	Jabatan Tenaga Manusia
18	Institut Keselamatan Dan Kesihatan Pekerjaan Negara (NIOSH)
19	ABI (Insititut Agro-Bioteknologi Malaysia)
20	MGI (Institut Genom Malaysia)
21	JKR (Jabatan Kerja Raya Malaysia)
22	UMPTGT (Unit Makmal Penyelidikan Tanah Gambut Tropika)
23	IPHARM (Institut Farmaseutikal Dan Nutrasedutikal Malaysia)

**FUND APPROVAL COMMITTEE**

1. Secretary General	Chairperson
2. Deputy Secretary General (Science)	Member
3. Deputy Secretary General (Policy)	Member
4. Senior Under Secretary (Planning)	Member
5. Under Secretary (Biotechnology)	Member
6. Under Secretary (Industry)	Member
7. Under Secretary (Sea to Space)	Member
8. Under Secretary (S&T Core)	Member
9. Under Secretary (ICT)	Member
10. Deputy Under Secretary (Fund Section)	Secretary