

DEPARTMENT OF HIGHER EDUCATION
MINISTRY OF HIGHER EDUCATION

**GUIDELINES OF PROTOTYPE
RESEARCH GRANT SCHEME (PRGS)
(AMENDMENT YEAR 2021)**

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**VISION AND MISSION OF
FUNDAMENTAL RESEARCH**

Vision

Competitive fundamental research for knowledge transformation and national excellence.

Mission

Cultivate, empower and preserve high impact research capacity to generate knowledge that can contribute to talent development, intellectual growth, new technology invention and dynamic civilization.

PART 1

INTRODUCTION

1.1 INTRODUCTION

The Guidelines of Prototype Research Grant Scheme (PRGS) Amendment Year 2021 document is prepared as a reference and guide for the application of research grant under the Department of Higher Education (JPT), Ministry of Higher Education (KPT). These guidelines should be referenced in conjunction with the Administrative Guide for Ministry of Higher Education Research Fund.

1.2 PHILOSOPHY

Many of the prototypes that have been developed failed to be commercialized because they are still in the early stages of development. For continuity, the Prototype Research Grant Scheme (PRGS) was established to bridge the gap between research findings and commercialization for the purpose of creating new technologies, in line with the needs of K-Economy and the implementation of the New Economic Model.

1.3 DEFINITION

The fund that was established for prototype development to bridge the gap between laboratory/research findings until pre-commercialization. These include the proof of concept, evaluation, up-scaling, pre-clinical testing and field testing.

1.4 PURPOSE

This research aims to bridge the gap between research findings and commercialization for the purpose of inventing new Malaysian molded technologies/discoveries, in line with the needs of K-Economy and the implementation of the New Economic Model.

PART 2 APPLICATION

JPT, KPT will inform the opening date of application for PRGS grant through official letter to Public Universities and Private Universities (including University Colleges). The University needs to announce the opening of application and perform the evaluation of application based on the rules of JPT, KPT. The flow chart for the application process is shown in **Figure 1**.

2.1 GENERAL TERMS OF APPLICATION

This grant is **open to academic staff (Professors, Associate Professors, Senior Lecturers and Lecturers) who have at least a Master's Degree at Public Universities and Private Universities (including University Colleges)** with the following conditions:-

- 2.1.1 Permanent or contracted Malaysian Principal Investigator must have at least one (1) co-researcher of Malaysian citizenship with a permanent position in the same field of expertise and from the same University only.
- 2.1.2 Permanent or contracted non-Malaysian Principal Investigator must have at least one (1) co-researcher of Malaysian citizenship with a permanent position in the same field of expertise and from the same University only.
- 2.1.3 Applications from Branch Universities must comply to the following requirement:
 - 2.1.3.1 Non-Malaysian Principal Investigator is allowed to apply provided that there is at least one (1) co-researcher of Malaysian citizenship with a permanent position in the same field of expertise and from the same University.
- 2.1.4 Lecturers from the Department of Polytechnic Education and Community Colleges (JPPKK) are encouraged to collaborate with the Project Leaders from Public Universities or Private Universities (including Private University Colleges) as a co-researcher in the application.
- 2.1.5 The PRGS grant is open to all researchers who have a fundamental grant either the Fundamental Research Grant Scheme (FRGS) or other competitive fundamental grants. Researchers must also have completed the project (the project has been 100% completed and approved by the University RMC). This previous project must have the complete findings/research that requires the development of a prototype.
- 2.1.6 New applications for researchers who have been approved of PRGS in the previous phase will be considered with evidence that the projects have been **100% completed in the MyGRANTS System Monitoring Module and approved by the University Research Management Center (RMC)** and the researchers have presented the Final Report to the appointed Committee of JPT, KPT. Researchers are requested to update the performance of research projects online through the MyGRANTS System every February and August annually.

- 2.1.7 Academic staff who are on study leave and sabbatical leave (domestic and overseas for more than 6 months) are not allowed to make new applications. However, the academic staff can be a member of the research group. Information regarding the duration of study/sabbatical leave should be updated by the researcher and verified by the Institution RMC.
- 2.1.8 Applicants from the Domain of Technology and Engineering (TK), Information and Communication Technology (ICT), Clinical and Health Sciences (SKK) and Pure and Applied Sciences (STG) **must collaborate with the relevant industries** to implement the research project (documents of proof include at least a letter of intent and other related documents).
- 2.1.9 While for the Domain of Social Sciences (SS), Arts and Applied Arts (SSI) and Natural and Cultural Heritage (WAB), **the priority of collaboration is with the industries**. However, collaboration with the relevant agencies to implement the research project (documents of proof include at least a letter of intent and other related documents) is allowed.
- 2.1.10 Applicants are required to submit a patent search for each project application.
- 2.1.11 Applicants are required to identify research risks and submit a risk assessment plan for each project application.
- 2.1.12 Each applicant is only allowed to submit one (1) project application at each phase.
- 2.1.13 The Principal Investigator must have **at least two (2) years left in service** at the University from the closing date of PRGS application.
- 2.1.14 Approval of the Human/Animal Research Ethics Committee (if applicable) must be included with the first progress report.

2.2 RESEARCH PRIORITY AREAS

(The evaluation for this research grant application is based on the Research Domains.)

2.2.1 Research Domains

Each application must **meet one (1)** of the seven (7) Research Domains as follows:-

- (a) Pure and Applied Sciences;
- (b) Technology and Engineering;
- (c) Clinical and Health Sciences;
- (d) Social Sciences;
- (e) Arts and Applied Arts;
- (f) Natural and Cultural Heritage; or
- (g) Information and Communication Technology.

2.2.2 Research Clusters

Each application must **meet one (1)** of the eight (8) Research Clusters as follows:-

- (a) Basic Infrastructure;
- (b) Food Security and Safety;
- (c) Health;
- (d) National Security;
- (e) Frontier Technologies and Advanced Manufacturing;
- (f) Climate Change and Environment;
- (g) Education and Knowledgeable Civil Society; or
- (h) Social and Economic Wellbeing.

2.2.3 The 10-10 Framework of MySTIE – Malaysian Science, Technology, Innovation and Economy

Each application must **meet one (1)** of the ten (10) Socio-Economic Drivers as follows:-

- (a) Energy;
- (b) Business and Financial Services;
- (c) Culture, Arts and Tourism;
- (d) Medical and Healthcare;
- (e) Smart Technology and Systems (Next Generation Engineering and Manufacturing);
- (f) Smart Cities and Transportation;
- (g) Water and Food;
- (h) Agriculture and Forestry;
- (i) Education; or
- (j) Environment and Biodiversity.

2.2.4 SPV 2030 – Shared Prosperity Vision 2030

Each application must **meet one (1)** of the 15 Key Economic Growth Activities (KEGA) as follows:-

- (a) KEGA 1 – Islamic Finance Hub 2.0;
- (b) KEGA 2 – Digital Economy;
- (c) KEGA 3 – Industrial Revolution 4.0;
- (d) KEGA 4 – Content Industry;
- (e) KEGA 5 – ASEAN Hub;
- (f) KEGA 6 – Halal and Food Hub;
- (g) KEGA 7 – Commodity Malaysia 2.0;
- (h) KEGA 8 – Logistic, Transportation and Sustainable Mobility;
- (i) KEGA 9 – Coastal and Maritime Economy;
- (j) KEGA 10 – Centers of Excellence;
- (k) KEGA 11 – Renewable Energy;

- (l) KEGA 12 – Green Economy;
- (m) KEGA 13 – Smart and High Value Agriculture;
- (n) KEGA 14 – Advanced and Modern Services; or
- (o) KEGA 15 – Malaysia Truly Asia.

2.2.5 SDGs - Sustainable Development Goals

Each application must **meet one (1)** of the 18 Sustainable Development Goals (SDGs) as follows:-

- (a) SDG 1 – No Poverty;
- (b) SDG 2 – Zero Hunger;
- (c) SDG 3 – Good Health and Wellbeing;
- (d) SDG 4 – Quality Education;
- (e) SDG 5 – Gender Equality;
- (f) SDG 6 – Clean Water and Sanitation;
- (g) SDG 7 – Affordable and Clean Energy;
- (h) SDG 8 – Decent Work and Economic Growth;
- (i) SDG 9 – Industry, Innovation and Infrastructure;
- (j) SDG 10 – Reduced Inequalities;
- (k) SDG 11 – Sustainable Cities and Communities;
- (l) SDG 12 – Responsible Consumption and Production;
- (m) SDG 13 – Climate Action;
- (n) SDG 14 – Life below Water;
- (o) SDG 15 – Life on Land;
- (p) SDG 16 – Peace, Justice and Strong Institutions;
- (q) SDG 17 – Partnerships for the Goals; or
- (r) Others – Societal Harmony and Happiness.

2.3 RESEARCH DURATION

The research duration is **one (1) year or two (2) years** only.

2.4 CEILING OF FUND

The fund applied must not exceed the ceiling of fund set at **RM500,000.00**.

2.5 RESEARCH OUTPUT

2.5.1 Prototype

Each research project must produce **at least one (1) functional prototype** that:-

- 2.5.1.1 Meet the approved characteristics/objectives and successfully obtain pre-commercialization and commercialization grants; and
- 2.5.1.2 Achieve Technology Readiness Level (TRL) 3 to 5 (refer to Technology Readiness Level (TRL) as in **Table 1**).

2.5.2 Intellectual Property

Each research project must file **at least one (1) intellectual property** whereby:-

- 2.5.2.1 Project leaders **must** file at least one (1) intellectual property a year after the project starts.
- 2.5.2.2 The intellectual property that is considered as a research output is as follows:-
 - (a) Patent;
 - (b) Copyright;
 - (c) Industrial Design;
 - (d) Geographical Indication; or
 - (e) Layout-Design of an Integrated Circuit.

(Source: Intellectual Property Corporation of Malaysia (MyIPO))

- 2.5.2.3 **The priority for intellectual property filing is Patent.**
- 2.5.2.4 Copyright filing is allowed for the Domain of Social Sciences (SS), Arts and Applied Arts (SSI) and Natural and Cultural Heritage (WAB).
- 2.5.2.5 While for the Domain of Technology and Engineering (TK), Information and Communication Technology (ICT), Clinical and Health Sciences (SKK) and Pure and Applied Sciences (STG), only the filing of Copyright for software production is allowed.
- 2.5.2.6 Researchers are encouraged to register for intellectual property locally first before registering internationally. The intellectual property produced from the PRGS grant is jointly owned by the Government of Malaysia and the University.
- 2.5.2.7 Management of the intellectual property is the responsibility of the University.

2.5.3 Commercialization Deliverables

- 2.5.3.1 Commercialization deliverables from the development of prototypes funded by the PRGS grant and other resources should be shared based on the breakdown of grant and other forms of contributions in the project.
- 2.5.3.2 For Public Universities, commercialization deliverables must be distributed in accordance to the existing Commercialization Policy.
- 2.5.3.3 For Private Universities, the details of commercialization ownership must be agreed based on Clause 9.3 of the Agreement Document.

2.5.4 Joint Publication with The Industry

- 2.5.4.1 All researchers are strongly encouraged to produce at least one (1) publication in indexed journals (WoS/Scopus/ERA/MyCITE).
- 2.5.4.2 The publication should involve the industry as a co-author.
- 2.5.4.3 Appreciation of the PRGS, KPT grant must be clearly stated in each publication.
- 2.5.4.4 Each project is required to file intellectual property first before publishing any indexed publication.

2.5.5 Research Deliverables

The research conducted should produce research deliverables that have the potential to be translated and utilized by the parties of interest.

2.6 APPLICATION RULES

- 2.6.1 Each applicant is allowed to submit **only one (1) application** per phase. Application of PRGS must be made online through the MyGRANTS System.
- 2.6.2 Researchers are responsible for updating personal profiles in the MyGRANTS System. The researcher's profile is the reference to assessing compliance with the application requirements.
- 2.6.3 Applications of PRGS are open to research projects that meet the requirements and areas of research as set out in Para 2.1, Para 2.2, Para 2.3 and Para 2.4.
- 2.6.4 Researchers are requested to state the grants or financial sources from the beginning of the research project up to the point that requires the development of prototype.
- 2.6.5 For prototype development beyond the ceiling of PRGS, researchers must declare all funding received for the project.
- 2.6.6 Researchers need to state the plan of grants that have been/will be obtained up to the point of pre-commercialization.

- 2.6.7 All PRGS applications must be carried out by presenting to the PRGS Evaluation Committee.
- 2.6.8 For each approved project (if necessary on the advice of the PRGS Evaluation Committee), a mentor will be appointed to provide guidance towards the commercial viability of the product.
- 2.6.9 For research projects involving humans/animals, the project must obtain approval from the Ethics Committee first.
- 2.6.10 Universities and researchers must also comply with the matters stated in the "Malaysia Code of Responsible Conduct in Research (MCRCR)" in <http://www.might.org.my/download/the-malaysian-code-of-responsible-conduct-in-research/>.

PART 3
ASSESSMENT

3.1 APPLICATION ASSESSMENT

3.1.1 Application Assessment at University Level (Internal Assessment)

- 3.1.1.1 Assessment is carried out at the university level and the results of the assessment are forwarded to JPT, KPT for evaluation and approval;
- 3.1.1.2 RMC needs to appoint members of Evaluation Committee (Internal Panel of Evaluators). Appointment of evaluators must meet the criteria set by JPT, KPT;
- 3.1.1.3 The main criterion that must be complied with for the appointment of internal panel of evaluators is that the evaluator **must have the rank of Associate Professor or Professor**;
- 3.1.1.4 Each research proposal must be evaluated by at least two (2) internal evaluators;
- 3.1.1.5 The internal evaluators must review the submitted research proposals in accordance with the assessment criteria set;
- 3.1.1.6 If there is a conflict of results between the first panel and the second panel, **a third panel should be appointed**. The decision of the third panel **determines whether** the research proposal can be approved by the RMC;
- 3.1.1.7 **The RMC is not allowed to change the recommendations of internal panel of evaluators** who are appointed at the university level; and
- 3.1.1.8 The approval of RMC must be based on the recommendations and approval of the internal panel of evaluators who are appointed at the university level.

3.1.2 Application Assessment at JPT, KPT Level

- 3.1.2.1 The PRGS applications will be evaluated by the JPT Evaluation Committee, KPT **according to the research domains** that have been set. This committee is chaired by a Domain Head/Chairman and is composed of several panel of evaluators/committee members who are recognized as experts in their respective research domains;
- 3.1.2.2 The Domain Head/Chairman of each Committee provide recommendations for the projects which have been evaluated to the PRGS Technical Committee. This committee is chaired by the Director General of Higher Education for verification and then to the KPT Steering Committee Meeting chaired by the Secretary General for approval; and

3.1.2.3 Presentation by the method of pitching according to presentation format by the Project Leader (representatives are NOT allowed) for shortlisted project proposals will be evaluated by the panel of evaluators who are appointed by JPT, KPT. The results of the assessment are final.

3.2 ASSESSMENT CRITERIA

- 3.2.1 The research proposal applied for must involve the production of one of the following:-
- (a) Proof of Concept;
 - (b) Evaluation;
 - (c) Up-scaling;
 - (d) Pre-clinical Testing; or
 - (e) Field Testing.
- 3.2.2 All terms and conditions set out in this Guidelines must be met and complied with by the applicant.
- 3.2.3 Prototypes that impact humanity and the society for the purpose of increasing the value of life locally and worldwide; or
- 3.2.4 Prototypes that have the potential to generate new knowledge-based industries; or
- 3.2.5 Prototypes that have the potential to contribute to the national strategic agenda.

PART 4 MONITORING

4.1 RESEARCH IMPLEMENTATION

The research project must commence on the date set by JPT, KPT. The project must be carried out in accordance with the approved research proposal. The University and researchers must adhere to the rules and regulations of PRGS and other regulations of JPT, KPT.

The University and researchers must ensure that any changes made to the research proposal comply with the governance set by JPT, KPT.

4.2 PROJECT MONITORING

Monitoring of each Institution and research project must comply with all monitoring methods set by JPT, KPT. Research project management, monitoring and reporting are entrusted to the RMC of each University. The Monitoring Flow Chart of PRGS is shown in **Figure 2**.

4.2.1 Scheduled Monitoring

Each research project is subject to scheduled monitoring throughout the active project period. Submission of performance report to JPT, KPT is to be done every six (6) months as shown in **Table 2**.

4.2.1.1 Submission of performance and expenditure reports for PRGS projects is as follows:-

- (a) The reports in February must be updated based on the achievements until December of the previous year; and
- (b) The reports in August must be updated based on the achievements until June of the same year.

4.2.1.2 The forms to be submitted are as follows:

(a) PRGS Project Performance Report Form (Online via the MyGRANTS System)

- The report is to be filled in and completed by each Principal Investigator and must be submitted to the RMC of the respective University for review.
- The reviewed report must be submitted by RMC to JPT, KPT for verification.

(b) PRGS Overall Report Form

- The PRGS Overall Report by phase for each University must be filled in and completed by the RMC of the respective University.

- The report must be submitted by the University RMC in softcopy and one (1) hardcopy to JPT, KPT PRGS Secretariat.
- The report should be submitted with the PRGS Financial Report Form and the PRGS Achievement Report Form.

(c) PRGS Financial Report Form

- The completed PRGS Financial Report by phase for the project needs to be standardized by the University RMC and certified by the University Treasurer.
- The report should be sent by the University RMC in softcopy and one (1) hardcopy to JPT, KPT PRGS Secretariat.

(d) PRGS Overall Achievement Report Form

- The completed Overall Achievement Report of PRGS projects by phase for each University should be standardized by the University RMC.
- The report should be sent by the University RMC in softcopy and one (1) hardcopy to JPT, KPT PRGS Secretariat.

- (e) An annual monitoring will be carried out in the form of a presentation to the JPT, KPT Evaluator Panel.

4.2.2 Unscheduled Monitoring

4.2.2.1 Each research project is also subject to unscheduled monitoring according to the regulations and requirements of JPT, KPT as follows:-

- (a) Site visits and auditing.
- (b) Re-reporting based on the recommendations and requirements according to the specifications of JPT, KPT.

4.2.2.2 JPT, KPT is also entitled to summon the University for unscheduled reporting through any appropriate methods such as presentation of research projects.

4.2.3 Project Final Report (Online via the MyGRANTS System)

The Principal Investigator must complete the Project Final Report (**online via the MyGRANTS System**) within three (3) months from the project end date or the date whereby the project is terminated. This report must be based on research results from the approved PRGS project only. This Final Report should include the following:-

- (a) Research Profile (5 pages);

- (b) Research Outputs (including evidence);
 - One (1) Prototype;
 - One (1) Intellectual Property;
 - One (1) Publication in an indexed journal with the industry (highly recommended); and
 - Other relevant research outputs.
- (c) Final Report Presentation Slides;
- (d) Infographics of Research Results; and
- (e) Must provide a 3–5 minutes of PRGS research impact video according to the format specified by JPT, KPT.

PART 5
FINANCIAL REGULATIONS

5.1 EXPENDITURE CODES

Provisions of the PRGS grant is allowed for any purchase, payment or procurement that meets the following expenditure codes:-

5.1.1 Vote 11000 – Allowance for Research Officers/Assistants (RO/RA)

5.1.1.1 The allowance ceiling for RO/RA is RM48,000.00 only during the research period. RO/RA must be non-student and have at least a diploma in the related field; and

5.1.1.2 The assigned RO/RA must have job scopes relevant to the scope of research that has been approved for PRGS only (prototype development and so on).

5.1.2 Vote 21000 – Travel and Transportation

5.1.2.1 Project-related domestic and international travels of no more than 15% of the total grant with the approval of JPT, KPT Evaluation Committee; and

5.1.2.2 Travel destinations must be the most convenient and economical in terms of facilities, expertise and technology transfer.

5.1.3 Vote 24000 – Rental

Rental is only allowed for building, equipment, transportation, computer use and other items that are directly involved in the development of prototype. Each proposal must include a justification and relevant quotation.

5.1.4 Vote 27000 – Research Supplies and Materials

Only research-related expenses in prototype development are allowed. Each proposal for the purchase of research supplies/materials must include a justification and relevant quotation.

5.1.5 Vote 28000 – Minor Repairs and Modifications

The cost of maintenance of existing equipment at the time of the project implementation is allowed. Once the project is completed, the cost of maintenance will not be covered by this grant.

5.1.6 Vote 29000 – Professional Services

5.1.6.1 This vote covers other services including printing, hospitality, honorarium, professional services, consultancy, data processing and other services related to the prototype development.

5.1.6.2 Payment for the filing of intellectual property (priority to Patent) is allowed with a ceiling amounting to RM15,000.00 only during the research period and the rest is to be borne by the University.

5.1.7 Vot 35000 – Accessories and Equipment

5.1.7.1 Only the purchase of special equipment and accessories (including upgrading existing equipment) related to the research project is allowed. Each application must include a justification and relevant quotation.

5.1.7.2 The amount applied for this vote shall not exceed 40% of the total project.

5.2 USE OF PROVISIONS

5.2.1 The provisions of the PRGS are not allowed for the following:-

- (a) producing a business plan;
- (b) market survey;
- (c) product exhibition and promotion; and
- (d) travel to attend any conference/seminar/colloquium.

5.2.2 Researchers are also not permitted to use grant allocation to make purchases that are not directly related to the research project. Purchases that are not allowed are as follows:

- (a) Payment of any form of professional membership fee and the like;
- (b) Purchase of reference materials and the like;
- (c) Purchase of ICT and communication equipment (such as mobile phones/laptops/printers/cartridges and the like);
- (d) Payment of utility/telecommunications bills;
- (e) Purchase of office equipment (such as stationery/paper/desks/chairs and the like);
- (f) Purchase of storage equipment (such as external hard discs/pendrives/CDs and the like);
- (g) Payment of space/facility rental at respective Universities; and
- (h) Other purchases that are not directly related to the research project.

5.2.3 The use of grant provisions for management/administrative charges is not permitted.

PART 6
RESULTS

6.1 RESULT ANNOUNCEMENT AND FUND DISTRIBUTION

- 6.1.1 The PRGS project approval letter will be forwarded to the Vice-Chancellor (VC) of the University and a copy of the approval letter will be forwarded to the Deputy Vice-Chancellor (Research and Innovation) (DVCRI), Research Management Center (RMC) and University Treasurer.
- 6.1.2 Payment will be made by the Ministry to the Treasurer/Finance of the University after the issuance of the PRGS approval letter based on the amount approved by the PRGS Evaluation Committee.
- 6.1.3 The decision of the PRGS Evaluation Committee is final.

6.2 AGREEMENT DOCUMENT AND CONTRACT

6.2.1 Agreement Document

- (a) Agreement document is a signed agreement to ensure that the research project is carried out in accordance with the terms and conditions stipulated between the Ministry (represented by JPT, KPT) and the University;
- (b) The University shall ensure that the agreement document is signed by the individual authorized to sign the agreement document on behalf of the University; and
- (c) Two (2) original copies must be forwarded to JPT, KPT.

6.2.2 Agreement Contract

- (a) Agreement contract is a signed agreement to ensure that a research project is carried out in accordance with the terms and conditions stipulated between the University and the researcher;
- (b) The University shall ensure that the agreement contract is prepared based on the format prescribed by JPT, KPT. However, the University is allowed to make additional terms and conditions in accordance with the requirements of the University without leaving out any of the basic information specified by JPT, KPT; and
- (c) The University is required to submit one (1) copy of the signed agreement contract to JPT, KPT.

APPENDIX A – PRGS APPLICATION FLOW CHART

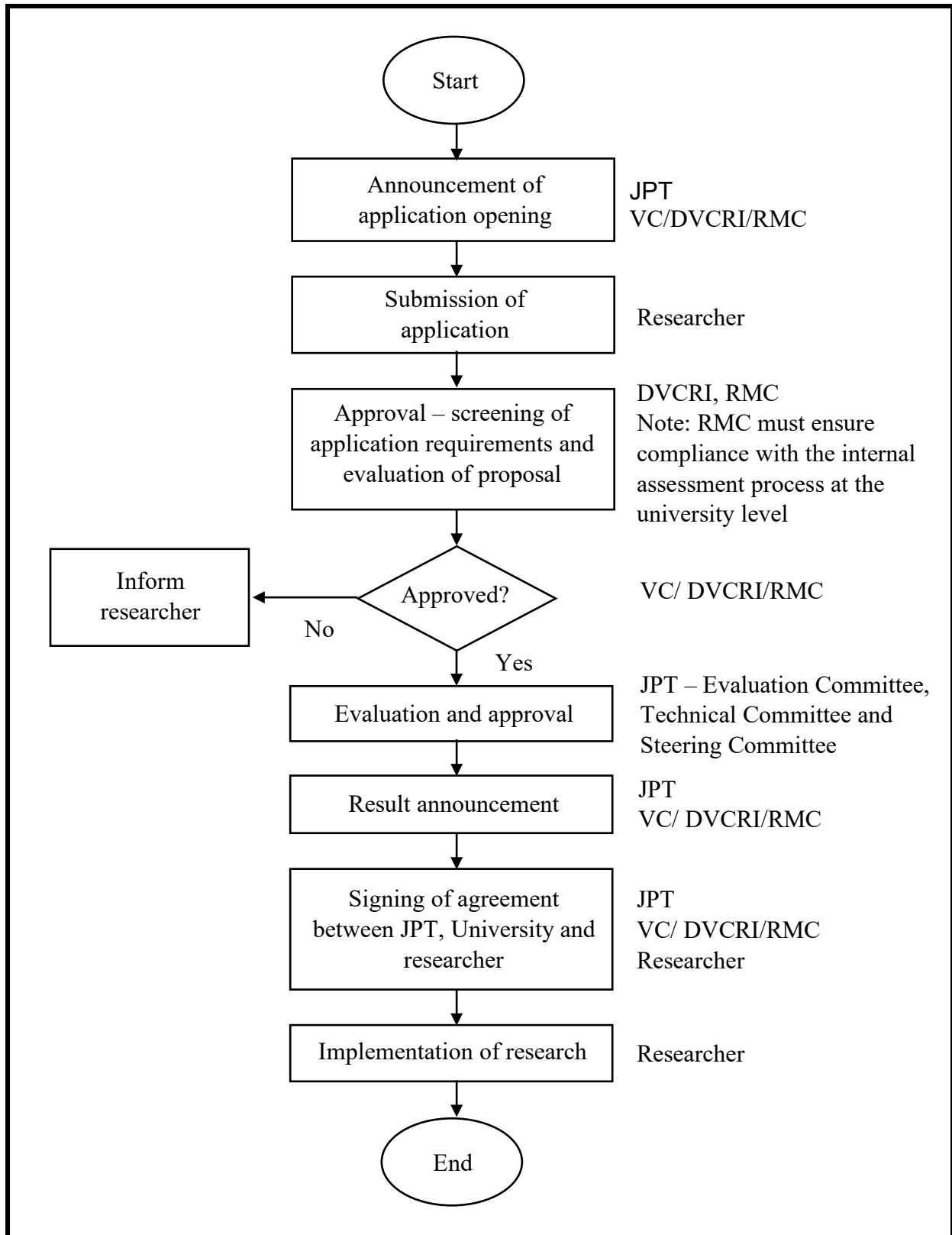


Figure 1: PRGS Application Flow Chart

APPENDIX B – TECHNOLOGY READINESS LEVEL (TRL)

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

Table 1: Technology Readiness Level (TRL)

Sources:

1. National Aeronautics and Space Administration (NASA) Technology Readiness Level (2012)
2. Ministry of Science, Technology and Innovation (MOSTI) (MOSTI Research and Development Fund Guidelines dated 1 January 2021)

APPENDIX C – PRGS MONITORING FLOW CHART

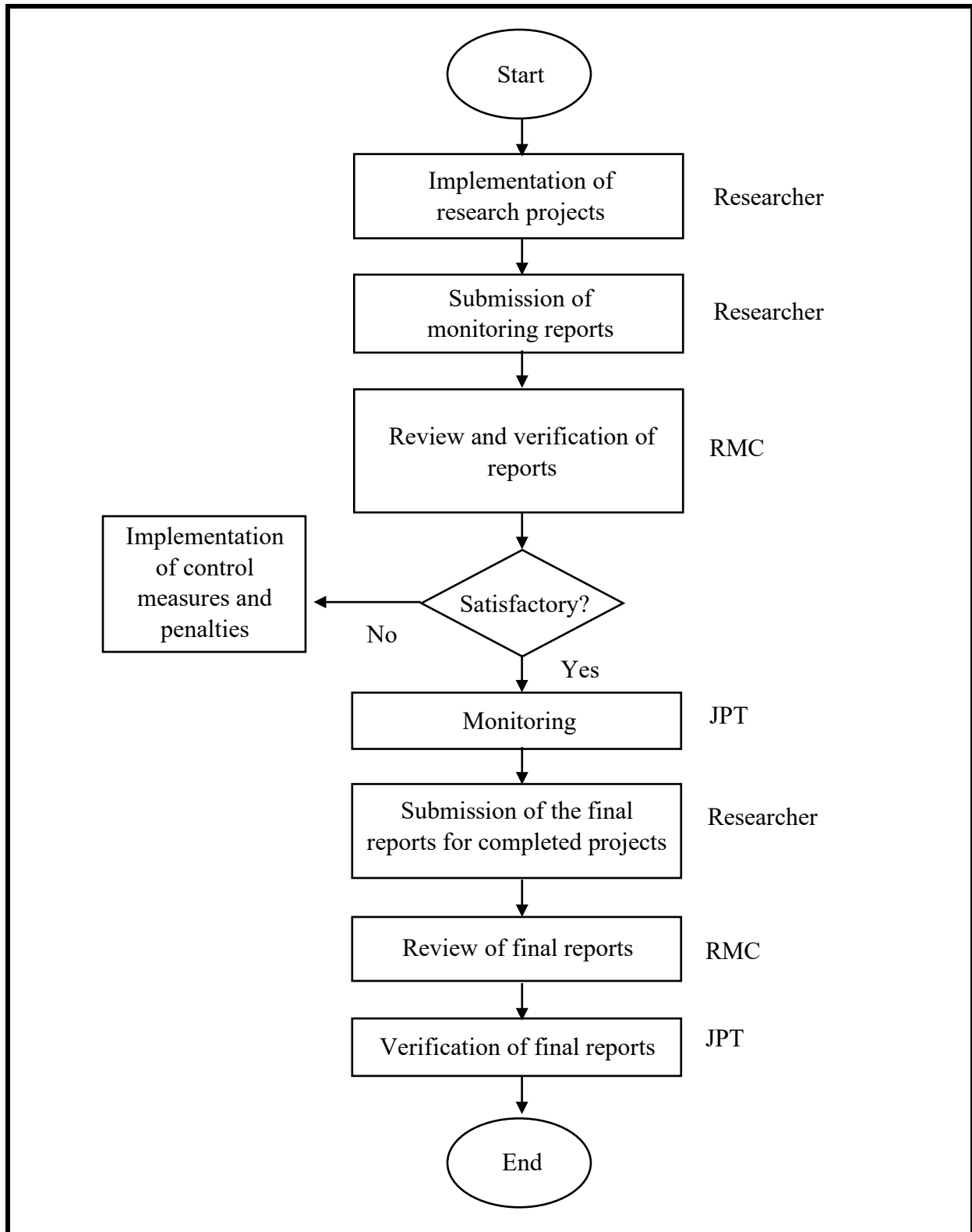


Figure 2: PRGS Monitoring Flow Chart

APPENDIX D – SCHEDULED MONITORING CYCLE FOR PRGS PROJECTS

Month											
Monitoring Cycle 1						Monitoring Cycle 2					
Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Preparation of monitoring reports (for achievements from July–Dec of previous year and cumulative achievements from project start date)	Submission of monitoring reports (for achievements from July–Dec of previous year and cumulative achievements from project start date)	Receiving and reviewing of monitoring reports (for achievements from July–Dec of previous year and cumulative achievements from project start date)				Preparation of monitoring reports (for achievements from Jan–Jun of the same year and cumulative achievements from project start date)	Submission of monitoring reports (for achievements from Jan–Jun of the same year and cumulative achievements from project start date)	Receiving and reviewing of monitoring reports (for achievements from Jan–Jun of the same year and cumulative achievements from project start date)			

Table 2: Scheduled Monitoring Cycle for PRGS Projects at JPT, KPT Level

Any questions/additional information can be directed to:

**SEKSYEN PENGURUSAN PENYELIDIKAN
BAHAGIAN KECEMERLANGAN PENYELIDIKAN IPT
JABATAN PENDIDIKAN TINGGI
KEMENTERIAN PENGAJIAN TINGGI
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