



澳門特別行政區  
Macao Special Administrative Region  
科學技術發展基金  
Science and Technology Development Fund

## **Funding Scheme for Research and Innovation**

### **I. Objectives**

To support the policy objectives of the Macao SAR Government, the Macao Science and Technology Development Fund (hereinafter referred to as “FDCT”) launched the Funding Scheme for Research and Innovation (hereinafter referred to as “the Scheme”) based on the relevant provisions of the *Public Financial Support Scheme of the Macao Special Administrative Region*, the *Statutes of the Science and Technology Development Fund* and the *Regulation on Financial Support of the Science and Technology Development Fund*. With the multi-level funding categories, the Scheme aims to support scientific research units and researchers in Macao to continuously enhance their research strength and cutting-edge original innovation capacity through in-depth research in various science and technology projects, so as to maintain Macao’s leading position in advantageous disciplines. At the same time, the Scheme supports the enhancement of industry-academia-research cooperation, encourages the production of applied scientific research results, and focuses on the transformation and cultivation of mature research results, so as to improve the contribution of scientific and technological innovation results to the social and economic development of Macao.

### **II. Types of Application and Maximum Funding Amount**

1. Capability enhancement: Research projects initiated by new researchers and those interested in enhancing their research capabilities. The amount of funding applied for this type shall not exceed MOP500,000.
2. Basic research: Basic or applied basic research projects carried out to enhance the capacity of cutting-edge original innovation. The amount of funding applied for this type shall not exceed MOP3 million.
3. Applied research: Applied research projects for the application of science and technology in real scenarios. The amount of funding applied for this type shall not exceed MOP3 million.
4. Demand driving: Applied research projects to meet the needs of the Macao SAR Government or the needs of enterprises. The amount of funding applied for this type shall not exceed MOP5 million.
5. Key research and development: Research projects carried out by coordinating interdisciplinary and industry-academia-research strengths to integrate into the overall development of science and technology of the state or promote the appropriate economic diversification of Macao. The amount of funding applied for this type shall not exceed MOP20 million.



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**III. Funding Recipients**

1. Public higher education institutions or public medical institutions in the Macao SAR;
2. Private higher education institutions established by law in the Macao SAR.
3. Private non-profit-making entities established by law in the Macao SAR.
4. Researchers engaged in research and development in the Macao SAR.

**IV. Application Eligibility**

1. If an entity does not have a legal personality, the application shall be made through the entity with legal personality to which it belongs.
2. For applications for capability enhancement and key research and development, the applicant shall be an entity referred to in paragraph 1, 2 or 3 above.

**V. Relevant Conditions**

1. Each research project must have a project leader who is responsible for leading and coordinating the project (hereinafter referred to as "project leader").
2. The expected level of technology maturity of the project shall be at the level set out in Article 19 of the Scheme at the time of project closure.
3. For capability enhancement, the project leader shall meet any of the following requirements:
  - (1) If the applicant is a higher education institution referred to in Article 3, the project leader shall have been employed by the higher education institution for no more than five years as of the date of public application for this type and hold a position not higher than assistant professor or equivalent.
  - (2) If the applicant is a private non-profit-making entity referred to in Article 3, the project leader shall be an organizational member or a full-time employee of the entity. If the funds applied for are used for a scientific research project in the higher education institution, the project leader shall also meet the conditions referred to in paragraph (1) of this article.
4. For key research and development projects, the following requirements shall be met:
  - (1) The project leader shall be an associate professor or above.
  - (2) The project leader shall be a full-time employee of the applicant and work full-time for the applicant for at least nine months per year.



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- (3) The applicant shall organize the application in the form of projects according to the directions listed in the application guidelines.
- (4) Each project shall be included in the application as a whole and cover all the research details and assessment indicators in the application guidelines.
- (5) Each research project may have no more than three subjects, and each subject must have a responsible person (hereinafter referred to as "subject leader"), and the subject leader shall meet the following conditions:
  - 1) A doctoral degree or a master's degree with at least six years of R&D experience in enterprises, or an assistant professor or above is required.
  - 2) Not less than 50% of the subject leaders are full-time employees of the applicant.
- (6) If entities other than the applicant participate in the project in the form of cooperation (hereinafter referred to as "participating entities"), the number of participating entities for each project shall not exceed six.
- (7) Experts involved in the preparation of the relevant application guidelines shall not be the project (subject) leaders or members.

## **VI. Application Guidelines**

1. For demand driving applications, the Administrative Committee of the FDCT organizes experts to compile application guidelines for the projects supported under this type every year in terms of technical areas, research objectives, research directions, assessment indicators, funding period and supporting funds required based on the needs of the Macao SAR Government or the needs of enterprises.
2. For key research and development applications, the Administrative Committee of the FDCT organizes experts to compile application guidelines for the projects supported under this type every year in terms of technical areas, research objectives, research directions, assessment indicators, funding period and supporting funds required based on the objective of integrating into the overall development of science and technology of the state or promoting the appropriate economic diversification of Macao.

## **VII. Application Period**

To be determined (Applications are will be accepted from time to time every year and each application period shall not exceed two months. The acceptance period for application is determined by the Administrative Committee of the FDCT).



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### **VIII. Type and Scope of Funding**

1. The Scheme is a non-reimbursable financial assistance.
2. Scope of funding: Projects in line with the purpose of the FDCT and the objectives of the Scheme.

### **IX. Priority Support**

1. In order to support Macao's industry-academia-research cooperation, priority will be given to applied research and demand driving projects when the budget is limited.
2. For applied research, demand driving and key research and development applications, priority will be given to projects in cooperation with enterprises in Macao or Hengqin, especially enterprises accredited under the *Technology Enterprise Certification Programme* of the Economic and Technological Development Bureau (DSED).
3. For basic research and applied research applications, priority will be given to supporting collaborative research projects with higher education institutions of Macao.

### **X. Supporting Input for Collaborative Research**

1. For basic research and applied research applications, if the applicant collaborates with commercial enterprises, such commercial enterprises shall provide supporting inputs of not less than 10% of the amount funded by the FDCT.
2. For demand driving applications, if it is necessary to collaborate with commercial enterprises, such commercial enterprises shall provide supporting inputs of not less than the amount funded by the FDCT.
3. For key research and development applications, enterprises are encouraged to participate in the project and provide supporting funding inputs according to the relevant requirements of the application guidelines.
4. The supporting inputs shall meet the requirements of Article 11 of the Scheme.

### **XI. Expenditure Eligible for Funding**

1. The expenditure eligible for funding includes the following expenses incurred for the implementation of the project:
  - (1) Personnel expenses.
  - (2) Expenses on acquiring the necessary new machinery and equipment by any means.



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- (3) Expenses on consumable materials, reagents, and equipment maintenance.
- (4) Direct costs of patent application.
- (5) Other derivative expenses.
- 2. Other derivative expenses referred to in (5) of the preceding paragraph do not include:
  - (1) Expense on the establishment of the recipient entity.
  - (2) Electricity, water, telephone charge and other expenses of a similar nature.
  - (3) Entertainment.
  - (4) Audit fee.
  - (5) Expense on the acquisition of vehicles, except for experimental purposes.
  - (6) Expense on construction, acquisition and repayment of real estate by installments.
  - (7) Other expenditures ineligible for funding as stipulated in the *General Guidelines for Project Management of the Science and Technology Development Fund*, the approval decision and the consent of funding.

## **XII. Application Documents**

The application documents shall include the following materials:

- (1) The applicant's identification information and relevant supporting documents.
- (2) A document issued by the competent authority in the last three months certifying that the applicant does not owe any tax or social security contributions to the Macao SAR.
- (3) Information on other projects financed by public funds and other pending applications submitted by the same applicant for the purpose of applying for the funding.
- (4) Identification information and curriculum vitae of the project leader and members, as well as information on the time allocated to the implementation of the project.
- (5) An application proposal containing a detailed description of the project, which shall set out in detail the estimated amount of the project.
- (6) A statement of responsibility for the project.
- (7) A cooperation agreement or memorandum of understanding or letter of intent signed with the cooperating party (if any).



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- (8) Other materials required by the application guidelines (if any).

### **XIII. Submission of Application**

1. Applicants shall prepare applications in any of the official languages of the Macao SAR or in English.
2. Applicants who have applied for an electronic signature shall submit the application documents via the online application system of the FDCT on or before the deadline.
3. Applicants who have not applied for electronic signature shall, in addition to submitting the application documents via the online application system of the FDCT on or before the deadline, deliver the signed and stamped application documents to the FDCT.

### **XIV. Preliminary Analysis**

1. The FDCT will conduct a preliminary analysis of the application documents after the application deadline, respectively, to verify whether the application has the required documents under the Scheme and whether the applicant meets the conditions for funding approval.
2. If the documents required for the application are not sufficient, the FDCT will request the applicant to supplement materials within 15 days, if necessary.
3. Applications under any of the following circumstances will not be accepted for review and will be rejected by the FDCT, and the relevant applicant will be notified by letter:
  - (1) The applicant does not meet the requirements of Article 4 of the Scheme.
  - (2) The applicant is on the list of mandatory levies and overdue returns of the FDCT.
  - (3) The applicant is a debtor to the treasury of the Macao SAR.
  - (4) The application conditions do not meet the requirements of Article 5 of the Scheme.
  - (5) The number of active research projects undertaken by the project leader exceeds the maximum number of active research projects that the project leader can undertake under the FDCT.
  - (6) The project leaders cannot submit a new application for funding.
  - (7) Multiple applications for the same project are submitted at the same time or the same project has been funded by the FDCT before.
  - (8) The supporting input (if any) does not meet the requirements of Article 10 of the Scheme.



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- (9) The application documents do not meet the requirements of Article 12 of the Scheme.
- (10) The applicant fails to supplement or promptly submit relevant application materials after notification.
- (11) The applicant violates existing laws and regulations or fails to protect the safety and legal rights and interests of participants.

**XV. Assessment Method and Criteria**

1. Before accepting an application, the Administrative Committee of FDCT shall invite five to seven advisors from the list of project advisors to form the Project Advisory Committee.
2. The application documents that may enter the review process will be submitted to the Project Advisory Committee formed by FDCT for review according to the review elements and criteria in the following paragraph.
3. Review elements and criteria:
  - (1) Capability enhancement:
    - 1) Assessment of technology innovation enhancement.
    - 2) Eligibility of the applicant.
    - 3) Project plan.
  - (2) Basic research:
    - 1) Scientific value and cutting edge.
    - 2) Eligibility of the applicant.
    - 3) Project plan.
  - (3) Applied research, demand driving, and key research and development:
    - 1) Assessment of technology and results.
    - 2) Eligibility of the applicant.
    - 3) Project plan.
4. The Administrative Committee of FDCT may formulate specific assessment criteria based on the above review elements.
5. The Administrative Committee of the FDCT may invite external experts to review specific or more complex funding applications.
6. FDCT may conduct site inspection to verify the research conditions of the applicant, interview with the project team and partners (if any) as necessary.



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**XVI. Funding Approval**

1. For a project application not exceeding MOP1 million, the Administrative Committee of the FDCT will make a decision after considering the analysis of the application documents and the review opinions.
2. For a project application exceeding MOP1 million, the FDCT will supervise the entity and make a decision on the application after considering the analysis of the application documents and the review opinions.
3. The recipients shall sign the *Consent of Funding* attached to the approval letter within the time limit to declare that they are aware of and will comply with the approval decision as set out in the approval notice.
4. The funds will be disbursed by installments in the manner as described in the *Consent of Funding*.

**XVII. Funding Amount and Calculation Method**

1. The maximum funding amount for a single project of each type is set out in Article 2 of the Scheme.
2. The funding amount approved by the FDCT shall not exceed the funding amount applied for.

**XVIII. Funding Term**

1. Capability enhancement: The funding term does not exceed two years.
2. Basic research, applied research and demand driving: The funding term of the Scheme does not exceed three years.
3. Key research and development: The funding term of the Scheme does not exceed five years. The specific term is set out in the relevant application guidelines.

**XIX. Requirements for Output**

1. Capability enhancement: The expected research results include but are not limited to academic or applied results.
2. Basic research: The expected research results include but are not limited to academic or applied results. The technology maturity shall be at Level 3 or below at the time of project closure.
3. Applied research: The expected research results shall include outputs such as software, hardware (prototypes, samples), technical standards, formulations, new materials, and new processes, and the economic or social benefits that will be brought about by the implementation of the





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project shall also be stated. The technology maturity of the project shall be at Level 4 or above at the time of project closure.

4. Demand driving and key research and development: The requirements for the expected research results are set out in the relevant guidelines.

**XX. Report and Report on Agreed-upon Procedures**

1. The recipients shall submit annual and final reports on the progress of the funded project to facilitate interim and final assessment by the FDCT.
2. The report referred to in the preceding paragraph shall consist of two parts, namely, the activities carried out and their effectiveness, and the financial performance.
3. Regarding the activities carried out and their effectiveness, the recipients shall describe in detail the work implemented during the relevant period and the results achieved in accordance with the approved planning and timetable.
4. Regarding the financial performance, the recipients shall set out in detail the use of the funding, particularly all income and expenditures, and completely retain the original vouchers of income and expenditure involved in the funding for at least five years.
5. The recipients shall submit an annual report by the deadline specified in the approval letter.
6. The recipients shall submit a final report and a *Report on the Implementation of the Agreed-upon Procedures* (if required) within 90 days from the day of expiry of the funding term.
7. When the cumulative amount of funding granted to a recipient in the current year of the Scheme equals or exceeds MOP1 million, the recipient must engage a certified public accountant, an accounting firm, a certified public accountant that can provide accounting and tax services, and an accounting firm that can provide accounting and tax services to implement the agreed-upon procedures for the funded project, and prepare a *Report on the Implementation of the Agreed-upon Procedures*.
8. If the report cannot be submitted on time due to force majeure or for reasons confirmed by the Administrative Committee of the FDCT as not attributable to the recipient, the recipient shall notify the FDCT within seven business days from the date of the occurrence of the matter in question.
9. In the case referred to in the preceding paragraph, with the approval of the Administrative Committee, the reporting period shall be suspended from the date of the occurrence of the matter in question and shall continue from the day after the disappearance of such matter.



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## **XXI. Obligations of the Recipient**

The recipient shall fulfill the following obligations:

- (1) Truthfully provide information and make declarations.
- (2) Apply for any changes to the approved funding to the FDCT in advance, unless as otherwise specified in the approval decision or the consent letter.
- (3) Ensure that the funding is used for the purposes specified in the approval decision.
- (4) Plan and execute the funded expenditure prudently and reasonably.
- (5) Submit reports on time.
- (6) Refund any unspent subsidies on time.
- (7) Properly maintain an account for the expenditure incurred in implementing the funded project and keep specific entries for recording such expenditure.
- (8) Accept and cooperate with the supervision of the use of funding by the FDCT, including reviewing the relevant income, expenditure and financial position.
- (9) Refund subsidies according to Article 24.
- (10) Comply with the laws and regulations for intellectual property protection.
- (11) Warrant that the details of the application and the procedures for the implementation of the project do not violate any laws or infringe any rights of others.
- (12) Comply with the terms and conditions set out in the Consent of Funding signed with the FDCT.
- (13) Agree that the FDCT will own the rights to record in writing, photograph, film and record in other manners throughout the project, as well as the right to use all related outputs in perpetuity without compensation.
- (14) Agree that the FDCT will publish basic information, project summaries and publicly available results of the project on FDCT's website and in documents available to the public.
- (15) State that "The project is supported by the Science and Technology Development Fund (FDCT) of the Macao Special Administrative Region" or "Supported by: Science and Technology Development Fund (FDCT) of the Macao Special Administrative Region" in any promotional activities, press releases and publicity materials related to the project, and file with the FDCT.
- (16) Expenditure funded by the FDCT shall not be eligible for subsidies from any other public funding programs.



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## **XXII. Consequences of Breach of Obligations**

If the recipient breaches the above obligations, except in the event of force majeure or that the Administrative Committee of the FDCT considers that the responsibility is not attributable to the recipient, the Administrative Committee may make the following decisions, either individually or jointly, in accordance with the nature and severity of the breach by the recipient:

- (1) No funding will be approved.
- (2) Funds that have been approved but not yet disbursed will be suspended or appropriately limited in the calculation of the actually disbursed amount.
- (3) The approved funding will be canceled in whole or in part, and the recipient will be required to refund the relevant funding.
- (4) The recipient or the project leader will be included in the list of breach of obligations and subject to a restriction on the submission of applications for funding, but the maximum period of restriction will not exceed two years.

## **XXIII. Application Scope of Consequences**

1. The consequences referred to in paragraph 1 of the preceding article apply, in particular, to recipients in breach of paragraphs 6 and 9 of Article 21 at the time of application for funding.
2. The consequences referred to in paragraph 2 of the preceding article apply, in particular, to recipients in breach of paragraphs 2, 4, 5, 7, 8 and 12 of Article 21, and recognized by the FDCT to have minor faults.
3. The consequences referred to in paragraphs 3 and 4 of the preceding article apply, in particular, in the following cases:
  - (1) The recipient breaches the obligations under paragraphs 1, 3, 9, 10, 11 and 16 of Article 21.
  - (2) The recipient breaches the obligations under paragraph 4 of Article 21, leading to serious risks or damages to the participants or the public interest, especially public safety or social order.
  - (3) The recipient breaches the provisions of paragraphs 2, 4, 5, 7, 8, and 12 of Article 21, and recognized by the FDCT to have caused serious consequences.
4. If the project summary report is assessed as non-compliant in accordance with the *General Guidelines for Project Management of the Science and Technology Development Fund*, the FDCT reserves the right to impose the consequences referred to in paragraph 4 above on the relevant project leader.



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5. The Administrative Committee of the FDCT will give reasons for its decision on imposing the above consequences and, if the approved funding has been canceled in part, set the refund amount.

#### **XXIV. Refund, Repayment and Compulsory Levy of Funding**

1. If the amount of expenditure to be financed, as confirmed by the Administrative Committee of the FDCT, is less than the amount of funding already disbursed, the recipient shall refund all the difference within the specified period as notified by the FDCT.
2. If the approved funding is not used within the period specified in the approval decision or the consent letter, the recipient shall explain the reasons for such failure and refund the funding received within the period specified by the FDCT.
3. Upon application by a recipient with reasonable grounds, the Administrative Committee of the FDCT may exceptionally approve that the recipient is not required to refund the funding that has been used to cover expenditure reasonably incurred prior to the termination of the use of funding.
4. If the approved funding is canceled in whole or in part or the funding is terminated, the recipient shall refund the amount of funding received within the notified period.
5. If the recipient fails to refund or repay the funding within the specified period and fails to provide reasonable explanation, the Financial Services Bureau (DSF) will, in accordance with the tax enforcement procedures, leverage the relevant certificate issued by the Administrative Committee to enforce compulsory levy.

#### **XXV. Administrative, Civil and Criminal Liabilities**

Any person who makes false statements, provides false information or uses any illegal means to obtain the funding in the procedures related to the funding shall, without prejudice to the consequences referred to in Article 22 of the Scheme, assume administrative, civil and criminal liabilities (if any) in accordance with the law.

#### **XXVI. Supervision**

1. The FDCT shall have the authority to supervise the compliance with the Scheme, the approval decision or the consent letter, especially whether the recipient uses the funding approved for the purposes specified in the approval decision.
2. To perform the supervision function, the FDCT shall be entitled to:



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- (1) Require the recipient to provide necessary information and assistance for project follow-up, site survey and random document inspection.
- (2) Engage a professionally qualified third party to audit the accounts of the funded activities or projects.

## **XXVII. Complaint**

The applicant may appeal the relevant decision in accordance with the *Administrative Procedure Code*.

## **XXVIII. Personal Data Processing**

1. In order to implement the Scheme, the FDCT and other relevant public authorities or entities may, when necessary, adopt any means, including data interconnection, to process and verify the personal data involved in the files, in accordance with the *Personal Data Protection Act* (Law No. 8/2005).
2. The personal data provided in the application documents will be used only for the processing and approving the funding application by the FDCT. To review and approve the funding application, the applicant shall consent to the transfer of information contained in the application documents by the FDCT to other entities and to the printing of the information to the project advisory committee for review.

## **XXIX. Others**

1. All application materials shall be used for the Scheme only. The applicants shall ensure the accuracy of the documents and materials submitted, which will not be returned once submitted.
2. Matters not covered by the Scheme shall be governed by the applicable documents such as the *Public Financial Support Scheme of the Macao Special Administrative Region*, the *Statutes of the Science and Technology Development Fund*, the *Regulation on Financial Support of the Science and Technology Development Fund*, the *Guidelines for the Inspection of Subsidized Activities or Projects* of the Public Assets Supervision and Planning Office (GPSAP) of the Macao SAR, the General Guidelines for Project Management of the Science and Technology Development Fund, other funding rules or guidelines of the FDCT, and the *Consent of Funding* signed after approval.
3. This Scheme is available at the office or the website (<https://www.fdct.gov.mo/>) of the FDCT.
4. The applicant shall assume all responsibility if the content of the application involves illegal infringement of the rights of others. The FDCT also reserves the right to proceed with legal actions against such applicant.



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5. The applicant's false statement will lead to disqualification and other legal consequences.
6. The FDCT has the right to revise and interpret the above content.