**Macao Funding Scheme for Key R&D Projects**

**Final Report**

|  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **File No.** |  | | | | | | | | | | |
| **Project Title (in Chinese)** |  | | | | | | | | | | |
| **Project Title**  **(in Portuguese/English)** |  | | | | | | | | | | |
| **Name of Applying Entity (in Chinese)** |  | | | | | | | | | | |
| **Name of Applying Entity (in Portuguese/English)** |  | | | | | | | | | | |
| **Related Field** |  | | | | | | | | | | |
| **Research Direction** |  | | | | | | | | | | |
| **Principal Investigator** |  | | | | | | | | | | |
| **Topic and Topic Leader** | **Topic** | | **Topic leader** | | | **Unit to which (s)he belongs** | | | | **Partner (if any)** | |
|  | |  | | |  | | | |  | |
|  | |  | | |  | | | |  | |
|  | |  | | |  | | | |  | |
| **Applied Amount** | **MOP** | | | | | | | | | | |
| **Total Funding Amount** | **MOP** | | | | | | | | | | |
| **Accumulated Funding Received** | **1st phase** |  | | **2nd phase** | | |  | **3rd phase** | | |  |
| **Supporting Funds or the Equivalent Amount of Supporting Investment**  **(List the name of the institution, supporting investment and related amount)** |  | | | | | | | | | | |
| **Project Duration** | **Month(s)** | | | | | | | | | | |
| **Funding Type** | **Non-compensated  Compensated** | | | | | | | | | | |
| **TRL at the Start of the Project** (please refer to the following explanation) |  | | | | **Current TRL** | | | |  | | |

**Filling Date: (D/M/Y)**

**Filling Guidelines**

1. According to Article 13 of the *Financial Aid Grant Regulation* approved as per the Chief Executive’s Dispatch No. 64/2021 dated 4th May, the beneficiary shall submit a final report on the execution progress of the funded project for final evaluation conducted by the Science and Technology Development Fund (hereinafter referred to as FDCT) of the Macao Special Administrative Region. **Please submit it together with a compact disc that contains relevant documents.**
2. The applying entity shall prepare the final report based on the actual research undertaken according to the relevant requirements requested by FDCT, and submit the corresponding supporting documents.
3. For a project with research duration less than one year, only a final report is required for submission. Please refer to the required format of FDCT Final Report.
4. FDCT is in charge of reviewing the final report and following up on the project progress and research deliverables. The remaining funding applications will be hindered due to any ineffective implementation or inappropriate arrangement on the project content or personnel that may affect the progress of the project, or the failure of submitting the final report on time.
5. After the completion of the final report, FDCT may have followed up assessment to the project; therefore, the principal investigator (PI), kindly provides us any publications released or published where feasible within 3 years after the research period, for our reference and assessment for future evaluations.
6. FDCT emphasizes that researchers should have rigorous academic ethics, and ensure the seriousness in work. For any undesired achievements or even fail to meet the objective of the research, please realistically reflect in the report.
7. Explanation of Technology Readiness Level (TRL):

TRL1: Basic principles observed and reported, hypotheses and observations proposed, no actual research on application

TRL2: Applied research: technology solution and/or application formulated, confirm the possibility of materials or processes meeting the requirements of technological development

TRL3: Analytical and experimental critical function or proof of concept validated: key research areas of the application confirmed, analytical predictions of technical components validated through preliminary experimental measurements.

TRL4: Modules formed and validated: a prototype is developed, that tests are run in various environments, component and/or process validation in a laboratory environment, indicating the results meet the required performance index of the proposal or model system.

TRL5: Technology integration and system prototype validated in a real-life environment

TRL6: Prototype formed and validated in a real-life environment

TRL7: The actual system/process of the product design is completed, and the demonstration is qualified. (Production verification test)

TRL8: Actual system is qualified through test and demonstration in real life situations, and ready for formal production.

TRL9: Actual technology is proven through successful mission operations, and available for technology transfer.

**Part I: Report on Actual Activities**

* 1. **Abstract of the project (Within 1,000 words)**

|  |
| --- |
| Abstract on the research progress (Briefly describe the progress on whole research project, research deliverables and applications, existing problems, recommendation and other issues that needed to be declared) |
| 1. Research background 2. Research objectives 3. Briefly describe the overall research progress    1. Status of Subtopic 1 (Title: )  |  |  |  |  | | --- | --- | --- | --- | | S/N | Proposed title of achievement upon application | Achievement index currently achieved | Achieving rate | | 1 |  |  |  | | 2 |  |  |  | | 3 |  |  |  | | … |  |  |  |  * 1. Status of Subtopic 2 (Title: )  |  |  |  |  | | --- | --- | --- | --- | | S/N | Proposed title of achievement upon application | Achievement index currently achieved | Achieving rate | | 1 |  |  |  | | 2 |  |  |  | | 3 |  |  |  | | … |  |  |  |  * 1. Status of Subtopic 3 (Title: )  |  |  |  |  | | --- | --- | --- | --- | | S/N | Proposed title of achievement upon application and specific achievement index | Achievement index currently achieved | Achievement  rate | | 1 |  |  |  | | 2 |  |  |  | | 3 |  |  |  | | … |  |  |  |  1. Research achievements and related applications 2. Work plan to further promote the research 3. Briefly describe any existing problems, recommendations and other issues that needed to be declared |

* 1. **Detailed research progress and final results achieved (Within 3,000 words)**

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| --- |
| **This is the core session of the final report. Please elaborate the research work that has been carried out, the major progress, any problems encountered and the final results achieved.** Including:   1. Introduction on the representative results, its level and impact and briefly describe its scientific significance and application prospects. 2. To provide any necessary domestic and foreign updates and research results comparison where necessary, also any necessary reference source and so on. 3. For the important research progress or results, please describe as detailed as possible. 4. Any items mentioned in the “Project Research Results List”, such as Awards, Patents, Monographs, Journal Papers, Conference Papers, Application Situations and others, should be described in this section. |
| 1. Summarize the research work completed: 2. Status of Subtopic 1 (Title: )  |  |  |  |  |  | | --- | --- | --- | --- | --- | | **S/N** | **Title of Achievement** | **Type of Achievement** | **Research work completed and TRL achieved** | **Inspection mode (method) and assessment tool** | | 1 |  |  |  |  | | 2 |  |  |  |  | | 3 |  |  |  |  | | … |  |  |  |  |   Remarks: Please attach the inspection certificate issued by a third-party evaluation agency (if any).   1. Status of Subtopic 2 (Title: )  |  |  |  |  |  | | --- | --- | --- | --- | --- | | **S/N** | **Title of Achievement** | **Type of Achievement** | **Research work completed and TRL achieved** | **Inspection mode (method) and assessment tool** | | 1 |  |  |  |  | | 2 |  |  |  |  | | 3 |  |  |  |  | | … |  |  |  |  |   Remarks: Please attach the inspection certificate issued by a third-party evaluation agency (if any).   1. Status of Subtopic 3 (Title: )  |  |  |  |  |  | | --- | --- | --- | --- | --- | | **S/N** | **Title of Achievement** | **Type of Achievement** | **Research work completed and TRL achieved** | **Inspection mode (method) and assessment tool** | | 1 |  |  |  |  | | 2 |  |  |  |  | | 3 |  |  |  |  | | … |  |  |  |  |   Remarks: Please attach the inspection certificate issued by a third-party evaluation agency (if any). |

* 1. **Local or non-local academic collaborations and exchanges and personnel training (within 1,000 words)**

|  |
| --- |
| **Briefly describe the participation to any academic events, including the theme, content, scale, time, venue and effect of the conference, etc. (Also including:** any reports submitted when participating any conferences, the situation in participating any organizing committees, etc., please provide any necessary copies of the invitations received. Briefly describe the training conditions of the research personnel, any promotion on the research results and applications, and also promotion of science etc.) |
|  |

**Part II: Financial Report**

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **No.** | **Expenditure Item** | **Expenditure** | | | **Total expenditure**  **(A)** | **Latest approved funding amount2** | **Initially- approved funding amount3**  **(B)** | **The changing rate of total expenditure**  **to initially- approved amount**  **(A/B)%** |
| **1st year** | **2nd year** | **3rd year** |
|  | Local researchers’ allowances | | | | | | | |
|  | … | --- | --- | --- | --- | --- | --- |  |
|  | … | --- | --- | --- | --- | --- | --- |
| *Subtotal* | | --- | --- | --- | --- | --- | --- |
|  | External expert and consultant fees | | | | | | | |
|  | … | --- | --- | --- | --- | --- | --- |  |
| *Subtotal* | | --- | --- | --- | --- | --- | --- |
|  | Instrument and equipment fees | | | | | | | |
|  | … | --- | --- | --- | --- | --- | --- |  |
| *Subtotal* | | --- | --- | --- | --- | --- | --- |
|  | Consumables, reagents and equipment maintenance fees | | | | | | | |
|  | … | --- | --- | --- | --- | --- | --- |  |
| *Subtotal* | | --- | --- | --- | --- | --- | --- |
|  | Collaboration/ Cooperation fees | | | | | | | |
|  | … | --- | --- | --- | --- | --- | --- |  |
| *Subtotal* | | --- | --- | --- | --- | --- | --- |
|  | Conference trip | | | | | | | |
|  | … | --- | --- | --- | --- | --- | --- |  |
| *Subtotal* | | --- | --- | --- | --- | --- | --- |
|  | Research Trip | | | | | | | |
|  | … | --- | --- | --- | --- | --- | --- |  |
| *Subtotal* | | --- | --- | --- | --- | --- | --- |
|  | Publication/ References, etc. | | | | | | | |
|  | … | --- | --- | --- | --- | --- | --- |  |
| *Subtotal* | | --- | --- | --- | --- | --- | --- |
|  | Third-party financial audit fees | | | | | | | |
|  | … | --- | --- | --- | --- | --- | --- |  |
| *Subtotal* | | --- | --- | --- | --- | --- | --- |
| **Total** | | **---** | **---** | **---** | **---** | **---** | --- |  |

Notes: 1. All the expenditure items must align with the subsidized items mentioned in the Funding Agreement, and the receipts must be arranged in the same sequence as listed on the above table. Only the items listed as subsidized items in the Funding Agreement are subjected to reimbursement.

2. Latest approved funding amount: the original value refers to the approved amount stated in the Funding Agreement, or the adjusted amount approved by the Administrative Committee of FDCT.

3. Initially-approved funding amount: the approved amount stated in the Funding Agreement.

**Part III. Statistics of Achievements (within the whole research period)**

Including: 1. Statistical List of Project Research Results

2. List of Achievement Industrialization (samples, products or manufactured products)

3. “Project Research Results List” (achievement samples, achievement products, achievement manufactured products, awards, patents, monographs, journal papers or conference papers, etc.)

4. Personnel Training Statistical List

**Filling Guidelines**

1. **Column of “Type of Achievement”**: The category of achievements, which in general can be classified into seven major types, including award, patent, monograph, journal, conference paper, utilization and others (achievement sample, achievement product, achievement manufactured product). If the number of columns in the form is not enough, you may increase it at your own discretion.
2. **Column of “Title of Achievement”**: Such as filling in the title of the paper.
3. **Column of “Main Achiever”**: The name of the achiever should be filled in.
4. **Column of “Description of Achievement”**: This column should be filled in respectively according to following formats:
5. Regarding journal, the description should be filled in with the format of “Name of Journal. Volume (Issue). Page Numbers, and Date (M/Y)”.
6. Regarding conference paper, the description should be filled in with the format of “Location, Special Guest Report/Oral Report/Wall Newspaper, Title of Conference, and Date”.
7. Regarding monograph, the description should be filled in with the format of “Publisher, Publishing Date, Number of words, Volume of Circulation”.
8. Regarding patent, the description should be filled in with the format of “Patented Nation, Type of Patent, Patent Number, and Patented Time”. All items should be filled in, as long as the application for patent has been applied (Before the patent is approved, it should be marked with “Waiting for approval”, together with the application date for patent).
9. Regarding award, the description should be filled in with the format of “Organization Granting the Award, Date of Award, Title of Award, and Rank”.
10. Regarding utilization and others, they should be filled together with the necessary explanation in accordance with the actual activities.
11. **Column of “Citation and Inclusion of Achievement”**: This column should be stated the situation of the utilization or indicated the name of the journals for the cited publication. The supporting documents should be also attached.
12. Any published or accepted papers, other listed achievements and certificates, copies of these documents must be attached. All the documents should be submitted together with the final report.
13. **Statistical List of Project Research Results**

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Number of Conference Paper | International Conference | | National Conference | | | Regional Conference | | | Number of Journals | | International Publication | | | | National Publication | | | | Regional Publication | |
|  | |  | | |  | | |  | | | |  | | | |  | |
| Index by Four Searching Systems | SCI | | EI | | | ISTP | | | ISR | | | The Highest IF | | | | |  | | | |
|  | |  | | |  | | |  | | |
| Ranking of Related Journal | Q1 | | | | Q2 | | | | | Q3 | | | | | | Q4 | | | | |
|  | | | |  | | | | |  | | | | | |  | | | | |
| Number of Monograph | Chinese | | | | | | | | | English | | | | | | | | | | |
| Published | | | | Awaiting | | | | | Published | | | | | | Awaiting | | | | |
|  | | | |  | | | | |  | | | | | |  | | | | |
| Number of Patent | Local Application | | | | | | Mainland/Hong Kong/Taiwan Application | | | | | | | Overseas Application | | | | | | |
| Ongoing | | | Approved | | | Ongoing | | | Approved | | | | Ongoing | | | | Approved | | |
|  | | |  | | |  | | |  | | | |  | | | |  | | |
| Number of Award | International Academic Award | | | | | | National Academic Award | | | | | | | Regional Academic Award | | | | | | |
|  | | | | | |  | | | | | | |  | | | | | | |
| Number of trained personnel | PhD or above | | | | | | Master | | | | | | | Bachelor or below | | | | | | |
|  | | | | | |  | | | | | | |  | | | | | | |
| Academic Exchanges | Conduct International Academic Conference | | | | Conduct Regional Academic Conference | | | | | Attend International Academic Conference | | | | | | Attend Regional Academic Conference | | | | |
| No. of Meetings | No. of Participants | | | No. of Meetings | | | No. of Participants | | No. of Meetings | | | No. of Participants | | | No. of Meetings | | | | No. of Participants |
|  |  | | |  | | |  | |  | | |  | | |  | | | |  |
| Research Achievement | No. of Samples | | | | | | No. of Products | | | | | | | No. of Manufactured Products | | | | | | |
|  | | | | | |  | | | | | | |  | | | | | | |

Notes: 1. Numbers filled in this Statistical List should correspond with the following “Project Research Results List”, “List of Achievement Industrialization” and the report contents.

2. Sample refers to un-inspected specimen; Product refers to already inspected specimen; while Manufactured Product refers to commercialized product.

1. **List of Achievement Industrialization (please attach additional pages if necessary)**

|  |  |  |
| --- | --- | --- |
|  | | **Please in the Blank** |
| Productizable item | |  |
| Developer | |  |
| Product introduction | |  |
| Related patent\* | |  |
| Applicable scenarios / industries | |  |
| Coverage area | |  |
| Benefit to Macao society | |  |
| Availability date | |  |
| In  past one year | Sales Volume\* | MOP |
| Sales Amount\* |  |
| Unit Price\* | MOP |
| Product profit mode | |  |
| Partner | |  |
| Venture capital institution and amount involved\* | |  |
| The next stage of work / existing challenges | |  |
| Sustainable development plan and directions | |  |
| Others | |  |

\* Please attach the corresponding supporting information

**Transferable Scientific and Technological Achievements I**

|  |  |  |  |
| --- | --- | --- | --- |
| File No. | Applying Entity | Principal Investigator | Project Title |
|  |  |  |  |

|  |  |
| --- | --- |
| Name of technological achievement |  |
| Advantages of achievement |  |
| TRL |  |
| Scope of application |  |
| Preconditions and expected economic benefits |  |
| Cooperation method |  |

|  |  |  |  |
| --- | --- | --- | --- |
| Address |  | | |
| Contact person |  | Tel. |  |
| Website |  | Fax |  |

1. **Project Research Results List (within the whole research period)**

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Type of Achievement** | **Title of Achievement** | **Main Achiever** | **Description of Achievement** | **Citation and Inclusion of Achievement** | **IF** | **\*Related field** | **\*Ranking in that field** | **\*No. of journals in that filed** |
|  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |

\* Please refer to the latest edition JCR Index published by ISI.

Remarks: Any published or accepted papers and their index, other listed achievements and certificates, copies of these documents must be attached. For example: the original copy of representative works and papers or their photocopies can be provided; it is suggested to provide the photocopy of the acceptance notification of the accepted paper from the editorial department; as for the special guest report, the invitation letter and photocopy of the relevant catalogue of the conference papers should be provided.

1. **Personnel Training Statistical List (within the whole research period)**

|  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **No.** | **Name** | **Sex** | **Category** | **Department /faculty** | **Research direction** | **Participation time** | | **Macao resident** | **Graduation Date** | **After Graduation** | | |
| **Begin** | **End** | **Work in Macao** | **Employer** | **Work position** |
|  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |

**Category:** Master student, doctoral student or postdoctoral student; undergraduate participating in this project (including in-service staff)

**Participation time:** Fill in the beginning time and end time of the individual to participate in this project, with the format of “D/M/Y”, e.g. 15/06/2018

**Macao resident:** Fill in “Yes” or “No”; it includes Macao permanent and non-permanent resident ID card.

**Employer:** Fill in the work unit of postdoctoral or graduate student after graduation.

**Work position:** For example: R&D Researcher, Research Assistant, Postdoctoral Researcher, etc.

**Part IV: Declarations**

1. **Declaration on Interested Party Transactions**

|  |  |  |
| --- | --- | --- |
| 1. **If the expenditure is related to product procurement or service provision that involves the following situations, please declare the transaction on the form below.**   All the transactions declared must be fully justified, such as significant market price advantage or irreplaceability, and necessary supporting documents shall be provided for final evaluation and review by FDCT.   1. **The vendor or the interested party of product procurement or service provision falls under one of the following situations:**    1. A shareholder of the applying entity, a member of the administrative organ and spouse thereof, any lineal relative by blood or by marriage within the first degree of consanguinity, any collateral relative by blood or by marriage within second degree of consanguinity, or any person who lives with them under a common economy, is also a shareholder of the vendor or a member of the administrative organ;    2. The applying entity is a shareholder of the vendor;    3. The vendor is a shareholder of the applying entity;    4. The interested party who receives personnel subsidies for the implementation of the project is also a shareholder of the applying entity, a member of the administrative organ and spouse thereof, any lineal relative by blood or by marriage within the first degree of consanguinity, any collateral relative by blood or by marriage within the second degree of consanguinity, or any person who lives with them under a common economy. | | |
| 1. Are all the proposed expenditures related to the above situations? | | **Yes / No** |
| 1. If the answer of the above question 1 is “Yes”, please complete the form below: | | |
| * 1. Name of vendor or interested party: |  | |
| Relations with the applying entity: |  | |
| Product purchased or service provided: |  | |
| Amount: |  | |
| Reasonable basis: |  | |
| * 1. Name of vendor or interested party: |  | |
| Relations with the applying entity: |  | |
| Product purchased or service provided: |  | |
| Amount: |  | |
| Reasonable basis: |  | |
| * 1. … |  | |
|  |  | |
|  |  | |
|  |  | |

**Declaration of Principal Investigator and Project Assessment by Organization**

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| --- |
| Promise of Principal Investigator:  With regard to the Project Title: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_, File No. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_, I hereby declare that the content of the Annual Report is true and accurate, and in later research, I will strictly conduct the research work and report the major changes in time.  Signature of Principal Investigator: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_  Name of Principal Investigator: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_  Date (D/M/Y): \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ |
| Project Assessment and Suggestion by Organization (More pages can be added if necessary):  Authorized signature and Stamp of Applicant/Organization: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_  Date (D/M/Y): \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ |

Note: For an individual applicant, the column of “Project Assessment and Suggestion by Organization” will be filled in by the applicant.

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| --- |
| **Other attachments including:**   1. Relevant proofs of expenditures – shall be arranged in the sequence according to the Item No. mentioned on the list of expenditure.  * For those claiming for local researchers’ allowances, receipts declared with their personal signature shall be attached, together with relevant valid identification documents (such as Macao ID or work permit, etc.) and their CV. * For those claiming for external expert and consultant fees, receipts declared with their personal signature shall be provided, together with relevant valid identification documents (such as valid identification from their hometown or passport, etc.) and their CV. * Receipts in smaller size shall be attached to A4 paper. * For those submitting copies of the receipts, the original receipts shall be submitted together for checking by FDCT.  1. A compact disc that contains the Annual Report of the project and the relevant attachments. |