



Funding Scheme for Scientific Research Platforms – R&D-Oriented Platforms

Application Guide (2025 Edition)

To align with national policies and the policy directives of the Macao SAR Government, and to support the establishment and operation of R&D-oriented scientific research platforms in Macao, the Science and Technology Development Fund (hereinafter referred to as the “FDCT”) has formulated this application guide in accordance with Article 2, Chapter II of the “Funding Scheme for Scientific Research Platforms”, with a view to regulating the application process for R&D-oriented scientific research platform funding.

I. Administration

1. The processes of application and acceptance, assessment and approval, implementation and management, as well as project closure, shall be governed by the provisions of the current “FDCT Funding Regulation”, the “Funding Scheme for Scientific Research Platforms”, and this guide.
2. The host institutions of platforms approved for funding must sign the “Funding Agreement” with the FDCT.

II. Priority Areas

1. Integrated Circuit Sector: In line with national strategic priorities and the industrial layout of Macao and Hengqin, efforts shall focus on computing power demands in specific areas, by establishing development platforms based on programmable chips/FPGA, researching hardware-software acceleration technologies based on the open-source RISC-V instruction set, and collaborating with leading institutions in China and abroad to tackle key technologies in hardware architecture and software algorithms. The goal is to foster industry-academia-research synergy, accelerate R&D and application transformation of semiconductor technologies, and support the innovation and upgrading of the integrated circuit industry integrated with AI acceleration.
2. Smart Elderly Care Sector: Leveraging Macao’s strengths in AI, nursing, and social work research, the aim is to collaborate with major Mainland research institutions and address local social needs by developing new smart elderly care technologies, equipment, and standards. The initiative seeks to promote interdisciplinary innovation and translate research outcomes into intelligent and inclusive elderly care service systems.



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3. Advanced Materials Sector: Building upon Macao's advantages in optoelectronic materials, especially light-emitting diode technologies, and its role as a platform between China and Portuguese-speaking countries, this initiative will support joint research with key research institutions in Portuguese-speaking countries. It will focus on cutting-edge areas such as new display materials and light-emitting devices, promote technological innovation, internationalisation, and industrial application of optoelectronic materials, and foster high value-added industrial chains in Macao and Hengqin.
4. Biopharmaceutical Sector: Capitalising on Macao's strong R&D capacity, this initiative aims to attract renowned listed companies from China and overseas to provide advanced instruments and equipment, with a focus on R&D in high-throughput sequencing and spatial transcriptomics. It seeks to establish biobanks to offer innovative tools for life sciences and precision medicine, and support interdisciplinary breakthroughs in biophotonics technologies.
5. Application of Macao Science Satellites: Using high-precision magnetic field measurement data from the Macao Science Satellite series, and leveraging Macao's role as China's platform for international science and technology cooperation, this initiative will promote collaboration with institutions in relevant sectors both domestically and internationally. It will support scientific research using high-precision geomagnetic satellite data, including model building, technology development, algorithm R&D, software development, and experimental validation, to encourage the widespread application of geomagnetic data in the national economy.

III. Funding Amount

The maximum funding amount for applications in the fields of integrated circuits, smart elderly care, advanced materials, and biopharmaceuticals is MOP 20 million.

The maximum funding amount for applications in the application of Macao Science Satellites field is MOP 30 million.

IV. Application Period

From **23 April 2025** to **13 June 2025**.

V. Eligibility Criteria

The applicant must be the **host institution** of the platform, and the platform must meet **at least one** of the following conditions:

1. Established with approval from relevant ministries or commissions of the People's Republic of China (not applicable for this application round);



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2. Currently receiving funding from the FDCT's "Funding Scheme for Laboratories and R&D Centres" and completing the project this year (not applicable for this application round);
3. Jointly established with a listed enterprise, an enterprise invested in by a national-level fund from Mainland China, a national high-tech enterprise, or a nationally recognised "Specialised, Refined, Differential and Innovative" (SRDI) enterprise from Mainland China;
4. Jointly established with a national-level scientific research platform¹ from Mainland China;
5. Jointly established with a higher education institution ranked among the **Top 100 in the latest editions** of Times Higher Education, QS World University Rankings, U.S. News & World Report, or Academic Ranking of World Universities (ARWU), either domestic or international;
6. Jointly established with a higher education institution from a Portuguese-speaking country participating in the "Forum for Economic and Trade Co-operation between China and Portuguese-speaking Countries (Macao)", and ranked **Top 10** in its respective country according to the latest edition of any of the above rankings (Times, QS, US News, or ARWU);
7. A scientific research institution in the field related to the application of the Macao Science Satellites.

VI. Application Requirements

1. The host institution must undertake the responsibility to ensure the platform's long-term operation and provide support in terms of manpower, funding, and resources.
2. The platform must be equipped with independent and centralized laboratory facilities and scientific equipment necessary for its construction and operation.
3. The Director of the platform must be a staff member or structural member of the host institution and shall be a high-level academic leader in the relevant field. The host institution must grant the Director autonomous decision-making authority in areas such as research organisation, fund utilisation, personnel recruitment, and results transformation.

VII. Expected Deliverables

¹ Those included in the National Science and Technology Innovation Base Optimization and Integration Plan, as set out in the Notice by the Ministry of Science and Technology, the Ministry of Finance, and the National Development and Reform Commission on Issuing the National Science and Technology Innovation Base Optimization and Integration Plan (Guo Ke Fa Ji [2017] No. 250), namely: National Laboratories, National Key Laboratories (including National-Level Key Laboratories), National Engineering Research Centers, National Technology Innovation Centers, and National Field Scientific Observation and Research Stations.



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The expected research outputs may include academic or applied outcomes, such as papers, publications, research (consultation) reports, patents, talent training, software, hardware (prototypes or models), technical standards, formulations, new materials, or new processes, etc.

VIII. Submission of Application

1. Applications must be written in one of the official languages of the Macao Special Administrative Region or in English.
2. Applicants must submit the complete application dossier to the FDCT **on or before the application deadline**.

IX. Other Provisions

For matters not provided for in this Guide, the provisions of the current “Public Financial Aid System of the Macao SAR”, the “FDCT Charter”, the “FDCT Funding Regulation”, the “Guidelines for the Inspection of Subsidised Activities or Projects” and the “Guidelines for the Supervision of Related-Party Transactions in Public Financial Subsidy Procedures” issued by the Macao SAR Public Assets Supervision and Planning Office, the FDCT’s “Funding Scheme for Scientific Research Platforms”, “Agreed Procedures Guidelines for Research Projects”, other relevant FDCT funding rules or guidelines, and the signed “Funding Agreement” shall apply.