

# **Innovation and Technology Commission**

# **Innovation and Technology Fund**

#### **Midstream Research Programme for Universities**

# **Guide to Filling in the Application Form**

This Guide explains how to complete the application form of the Midstream Research Programme for Universities (MRP) under the Innovation and Technology Fund (ITF).

- 2. Details of the ITF and the MRP are available at <a href="http://www.itf.gov.hk">http://www.itf.gov.hk</a>. addition to the information in this Guide and the application form, the Innovation and Technology Commission (ITC) may issue supplementary information and guidelines from time to time. Please check the above website to see if there is any updating before submission.
- If you have any question on this Guide and the application form, please 3. contact -

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# General

- 1. Before filling in the application form, applicants are requested to consult the following paper endorsed by the Finance Committee of the Legislative Council in June 2016:
  - (a) "The creation of a new block vote subhead under the Innovation and Technology Fund, with a commitment of \$2 billion, for financing projects under the Midstream Research Programme for universities funded by the University Grants Committee" (Ref. FC paper no. FCR(2016-17)38):

http://www.legco.gov.hk/yr15-16/english/fc/fc/papers/f16-38e.pdf

- 2. Sample of a completed application form is at *Appendix I*.
- 3. The Midstream Research Programme for Universities (MRP) provides funding support for midstream applied research projects undertaken by universities funded by the University Grants Committee (UGC)<sup>1</sup>. Midstream research covers a wide range of activities, including concept proofing, laboratory validation, system/process optimisation, prototyping and trials, and has the potential of leading to further downstream research and development (R&D) work, the outcome of which could be applied or commercialised. The duration of the project period should normally not exceed 36 months. **Industry sponsorship requirement is not mandatory for MRP projects.** There are two types of projects
  - (a) Standalone Projects

The maximum funding support for standalone projects is HK\$5 million per project.

(b) Collaboration Projects involving multiple disciplines or research institutions

The maximum funding for collaboration projects is HK\$10 million per project. A co-applicant can be a different unit of the same university, or a different local/non-local university/research institution.

Please refer to the website of UGC (<u>www.ugc.edu.hk</u>) for an up-to-date list of universities.

As a general rule, intellectual property (IP) rights generated from the project should be vested with the lead applicant which is a UGC-funded university. The relevant institution is encouraged to disseminate the research outcomes to the industry after project completion by means of licensing or contract services. The benefits arising therefrom may be retained by the lead applicant or shared with its co-applicant(s)/partner institution(s) on an equitable and proportional basis in accordance with the established policy of the respective institutions. All the IP benefit sharing and related arrangements must be agreed before the commencement of the project and set out in the project proposal.

- 4. Applications must be submitted to the ITF Secretariat (MRP Section) either -
  - (a) through the Innovation and Technology Commission Funding Administrative System II (https://itcfas.itf.gov.hk); or
  - (b) in hard copy in triplicate (one original plus two duplicate copies) and a soft copy (preferably in MS Word 2010 or above) in person or by post.
- 5. ITC reserves the right to require the lead applicant to produce the originals of the supporting documents for verification and seek additional information where necessary. Unless on request of the ITF Secretariat, supplementary information provided after submission of application will NOT be accepted and will NOT form part of the application. Supplementary information which is not specifically referred to in the application form will NOT be considered and will NOT form part of the application.
- 6. Upon receipt of an application, the ITF Secretariat will conduct a preliminary screening and may seek clarification or supplementary information from the lead applicant. Where necessary, individual application may be subject to external review. The ITF Secretariat's assessment, together with the views of external reviewers (if any), will be submitted to the Innovation and Technology Fund Research Projects Assessment Panel for examination.
- 7. The lead applicant will be notified of the result of its application in writing. Withdrawal of an application should be made by the lead applicant in writing to the ITF Secretariat (MRP Section) before the project agreement is signed.

# Part A The Applicant

# I. Information on Lead Applicant

- 1. The lead applicant must be a university funded by the University Grants Committee (UGC).
- 2. The lead applicant should obtain prior consent of parties concerned if they are referred to in the Application Form.
- 3. Where an application is successful, the lead applicant will enter into a project agreement with the Government of the Hong Kong Special Administrative Region ('the Government') and is required to comply with the terms and conditions therein, including monitoring project progress and expenditure, submission of reports and audited accounts, etc.

# **II.** Information on Co-applicant(s)/Sponsor(s)/Supporting Party(ies)

- 1. Co-applicant is only applicable to collaboration projects involving multiple disciplines or research institutions. The lead applicant should provide details of the R&D work to be undertaken by each co-applicant.
- 2. While industry sponsorship is not mandatory for the MRP, we would welcome applications which include sponsorships or supporting parties. There is no limit on the number of sponsors and supporting parties. It is necessary that supporting documents are enclosed in the application with the company/organisation chop(s).

# Part B The Project

# I. Key Project Details

#### (A) Total Project Cost

1. The total project cost is the sum of all estimated expenditure to be incurred (including items to be covered by in-kind contribution, if any) and the administrative overheads. Applicants are required to provide details of the project cost items under the 'Financial Considerations' section in Part C of the Application Form.

#### (B) Payment Schedule

- 1. MRP funding will normally be disbursed on annual basis, subject to satisfactory project progress against agreed milestones and/or due payment of the industry sponsorship and other sources of financial contribution, if any.
- 2. As a general rule, at least 50% of the pledged industry sponsorship, if any, should be paid before the project commences and the remaining sponsorship should be received before the 'mid-point' of the project period. Payment of more than 50% of industry sponsorship upfront is welcomed.
- 3. For other sources of financial contribution, consideration will be given to allowing greater flexibility on the payment schedule but all contribution must be received by the 'mid-point' of the project period.

## (C) Schedule of the Project Period

1. The duration of the project period should not exceed 36 months in general. There is however no minimum time requirement.

## (D) Industry Sponsorship and Other Sources of Financial Contribution

- 1. **Industry sponsorship requirement is not mandatory for MRP.** However, the lead applicant is encouraged to obtain sponsorship for such projects to demonstrate reasonable market interest.
- 2. <u>Industry sponsorship</u> refers to sponsorship from private companies (which may be related to the lead applicant/co-applicant(s) or their staff, e.g. a subsidiary of the lead applicant/co-applicant(s) set up to commercialise the R&D outcome, a company owned/managed by the project coordinator or a member of the project team as long as such arrangement has the support of the university/research institution concerned and does not violate the relevant rules and regulations of the university/research institution), which should in general be the users of the project deliverables. Moreover, to avoid conflict of interests, sponsors should not be the equipment/service suppliers of the project.
- 3. Other sources of financial contribution refers to contribution to the project obtained from various parties, including contribution in cash or in-kind from the lead applicant and supporting parties, e.g. charitable organisations, individuals, etc. It can also include personal contribution by project team members. They shall exclude industry sponsorship as mentioned above and project income.
- 4. <u>Total financial contribution</u> refers to the summation of industry sponsorship and other sources of financial contribution.
- 5. Industry sponsorship and other sources of financial contribution can either be in cash or in-kind or a combination of both. In-kind sponsorship in the form of equipment or consumables would only be accepted if:
  - (a) the in-kind sponsorship is essential to the project and is contributed specifically for the project; and
  - (b) documentary proof of the value of sponsorship has been provided to facilitate a fair assessment of the value of contribution, e.g. details of the valuation for new and used equipment and consumables. In general, the lead applicant should provide two independent quotations for each item of in-kind sponsorship. Under special circumstances such as the sponsor being the sole supplier of the item or the item is unique in terms of IP ownership or technology, in which case there is genuine difficulties in obtaining a second independent quotation, other form of documentary evidence from the sponsor may be accepted.

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Manpower contribution from industry sponsor will be counted as other sources of financial contribution but not industry sponsorship.

#### (E) Related Information

1. The provision of information on previous research work done (including ITF-funded projects and earlier applications for funding support from sources other than ITF) is to enable us to have a comprehensive understanding of the project proposal, especially where the relevant work was funded by UGC/Research Grants Council (RGC) (e.g. Areas of Excellence Scheme, Theme-based Research Scheme and Collaborative Research Fund, etc.).

# **II. Brief Description of Project Proposal**

#### (A) Location of R&D Work

- 1. The majority R&D work funded under MRP projects should be conducted within the territory of Hong Kong. However, given the close ties between Hong Kong and the Mainland, up to 50% of the R&D work of the MRP project can be conducted (and relevant expenditure incurred) in the Mainland.
- 2. Where certain R&D tasks need to be conducted outside Hong Kong (other than the Mainland), prior approval from ITC must be sought with justifications.

#### (B) <u>Project Milestones</u>

1. The project will be monitored against the agreed project milestones. The lead applicant is required to submit progress report(s) and final report until project completion.

## Part C Assessments

- 1. The assessment framework comprises 7 components. Their weightings are as follows
  - (a) Innovation and Technology Component (26%);
  - (b) Technical Capability (20%);
  - (c) Financial Considerations (14%);
  - (d) Plan for Downstream Research and/or Product Development Activities (18%);
  - (e) Relevance with Government Policies or in Overall Interest of the Community (4%);
  - (f) IP Rights and Benefit Sharing (6%); and
  - (g) Management Capability (12%).
- 2. In general, the framework aims to achieve the following -
  - (a) encouraging and selecting projects with greater prospect of further downstream research or development of new products or services;
  - (b) fostering more collaborative efforts among local and non-local universities and research institutions;
  - (c) encouraging concerted research efforts to develop innovative technology solutions to address topics with strategic importance;
  - (d) motivating the private sector to invest more in R&D activities in Hong Kong; and
  - (e) enhancing co-operation among Government, industry, academia and research institutes (官產學研).
- 3. The Innovation and Technology Fund Research Projects Assessment Panel, comprising members from different sectors including academia, industry and the

Government, will provide the necessary expertise during the assessment and monitoring process. Project team members may be required to attend assessment meetings to present their projects to and answer queries from the Assessment Panel/ITF Secretariat where necessary. The membership list of the Assessment Panel is available at the website [http://www.itf.gov.hk/l-eng/ITSP\_COM.asp].

# I. Innovation and Technology Component

- 1. The ITF is set up to finance primarily applied R&D projects that contribute to innovation or technology upgrading in industry. The innovation and technology component is hence crucial. The project should focus primarily on deliverables having a reasonable chance for application in due course.
- 2. Under the MRP, upstream or theoretical research will not be funded. However, if funding by the RGC has taken a project from the stage of foundation research to the stage of applied research, for instance in the Areas of Excellence Scheme, consideration may be given for further funding under the MRP. This will provide continued support to the R&D activity as well as establishing better interface between the two key funding sources. The lead applicant should provide supporting documents from the UGC/RGC Secretariat as appropriate.

#### (A) Nature of the project

- 1. On whether a project will give rise to new technologies or projects, consideration will be given in the overall sense if the R&D can bring benefits to Hong Kong.
- 2. On whether a project will enhance the quality of existing products (e.g. capacity, reliability, speed, etc.), the lead applicant should set out the type and extent of such improvements.
- 3. On whether a project will render production or application cost more competitive, the lead applicant should explain the basis of such improvements and provide an estimate on the percentage in terms of cost savings.

## **II. Technical Capability**

#### (A) Viability and quality of technical proposal

- 1. The viability of the technical proposal refers to whether, at the current point in time, the technical proposal is reasonably achievable.
- 2. While the majority of research work should be done locally, there will be some flexibility and it is acceptable that the R&D team obtains a reasonable proportion of component(s) of technology/product through collaboration with non-local universities or research institutions, or contracts out certain component(s) of the research work. It is imperative on the lead applicant and the project coordinator to ensure that all necessary IP licensing and authorisation arrangements are in order before the relevant external IPs are used in their R&D work. Whilst there is no need to 're-invent the wheel', one must consider the nature and extent of any proposed technical improvement and whether such improvement merits IP protection.
- 3. In assessing the quality of the funding application, factors such as technical approach to the problem, accuracy of technical data, reasonableness of assumptions, etc. will be considered.

#### (B) Competence of technical team

- 1. This refers to the technical ability of the project coordinator and the research team to deliver the proposed project fully (e.g. background and experience of the research team and feasibility of the R&D work plan).
- 2. In assessing the research team, apart from studying the qualifications and experience of individual members, we will consider whether the overall size of the team, the mix of staff at various levels, role of key members/involving parties in implementing the project etc. are appropriate. Proven track record in applied R&D work will be favourably considered.
- 3. The lead applicant is welcome to provide all relevant information (including that of co-applicant(s)) to support the application e.g. industry and academic awards won in the past, endorsement of outstanding experts in the field, etc.

#### **III. Financial Considerations**

The lead applicant should ensure that all the necessary financial information has been provided in this section and the basis of calculation is reasonable.

#### (A) Project Expenditure

1. The lead applicant should provide a breakdown of the estimated project expenditure to be incurred during the project period.

#### (a) Manpower

- (i) Project funding can generally be used to cover the salary of project staff, including employer's mandatory contribution to the Mandatory Provident Fund (MPF), contract gratuities, annual salary adjustment (excluding increments and promotion) and general fringe benefits (e.g. medical) in accordance with the established mechanism of the universities concerned.
- (ii) MRP will not fund the emolument to a person who is on the payroll of local university (i.e. existing teaching staff) or co-applicant. However, administrative overheads will be provided (see part (e) below).
- (iii) The lead applicant is required to seek prior consent from ITC for any change in key project staff, for example the project coordinator or deputy project coordinator.

#### (b) Equipment

- (i) The applicants should critically examine how the equipment required for the project can be obtained in the most economical manner -
  - the applicants should first make use of existing equipment;
  - the applicants should proceed to rent if it is more economical than to purchase; or
  - new equipment can be procured if it is genuinely necessary, but the applicants should supply information on the expected usage

rate of the equipment e.g. usage time vs. down time and the plan or alternative use after project completion or disposal.

We will take into account expected usage rate, mode of acquisition (purchase vs. rental), future use/divestment (e.g. for teaching/research purposes at one or more university) to ensure the greatest possible cost-effectiveness. Where necessary, ITC will require the lead applicant to transfer any equipment whose acquisition cost is HK\$500,000 or above to the Government or another party (e.g. the Hong Kong Science and Technology Parks Corporation) within a period of two years after project completion.

- (ii) The lead applicant and the co-applicant(s) are encouraged to share the use of existing equipment within its organisation or with other organisations where possible (e.g. local universities and the Hong Kong Science and Technology Parks Corporation).
- (iii) Individual equipment or parts that will eventually form part of the project deliverables (e.g. the prototype) are regarded as consumables and the relevant cost should be grouped under 'other direct costs'.
- (iv) The lead applicant is required to seek prior consent from ITC for any subsequent change in any equipment with an estimated cost of HK\$500,000 or above per item.
- (v) Project funding cannot be used to cover
  - 1. charges/time cost for use of existing equipment already owned by the lead applicant or co-applicant(s);
  - 2. depreciation/amortisation or provisions not representing actual expenses incurred; and
  - 3. general office and IT equipment.
- (vi) The lead applicant should ensure that all procurement for goods and services is carried out in an unbiased and fair manner and must comply with the following procedures, or with the established mechanism of individual public research institutions -

Aggregated value of each procurement	Requirement
HK\$50,000 and below	Quotations from at least two suppliers
Above HK\$50,000 to HK\$1,430,000	Quotations from at least five suppliers
Above HK\$1,430,000	Open tender

#### (c) Other Direct Costs

- (i) Project funding can be used to cover
  - 1. external consultancy;
  - 2. purchase of consumables and technology licences;
  - 3. promotion and marketing activities for disseminating project deliverables and technology transfer;
  - 4. patent registration fee up to \$250,000 per project; and
  - 5. external audit fees as required by the MRP project agreement. (The maximum provision allowed for an annual/final audited account of a project costing less than HK\$1 million, between HK\$1 million and HK\$5 million and more than HK\$5 million should <u>not</u> exceed HK\$8,000, HK\$14,000 and HK\$20,000 respectively.)
- (ii) Project funding cannot be used to cover other costs like
  - 1. building facilities (including office, laboratory, accommodation) rates, rental, renovation, and operation, repair and maintenance expenses;
  - 2. costs of setting up office or forming association/consortium;
  - 3. utilities charges for electricity, gas, water, telephone and fax;
  - 4. transport shuttle bus services and home to workplace

# travelling expenses;

- 5. general administration and office expenses;
- 6. staff-related costs provident fund handling charges, staff training and development costs and staff facilities;
- 7. entertainment expenses, and any prizes, either in the form of cash or other types of souvenirs;
- 8. advertisement (except for disseminating project deliverables, or staff recruitment);
- 9. organisation of trade missions and participation fees at study/trade missions for individuals/companies;
- 10. charges for non-R&D services (e.g. accounting, personnel, procurement, library, security, cleansing, legal, and central and departmental administrative support) provided by the lead applicant/co-applicant(s) or their contractors/agents; and
- 11. capital financing expenses (e.g. mortgage and interest on loans/overdrafts).

#### (d) <u>Co-applicant's Expenditure</u>

(i) For collaboration projects, the lead applicant should set out clearly the expected R&D work to be undertaken by each of the co-applicant(s) and provide a breakdown of the estimated project expenditure with justifications for each co-applicant.

#### (e) Administrative Overheads

(i) Administrative overheads are allowed as part of the project cost in the project budget. The administrative overheads to be included in the project budget can be up to 15% of the MRP funding requested (i.e. net of overheads).

(ii) The MRP funding for the administrative overheads would be disbursed to the lead applicant upon request, and after receipt of the final audited account. Subject to the ceiling of MRP funding approved for a project, the Government's share of the administrative overheads would be capped at 15% of the MRP funding utilised for the project, i.e. total disbursed MRP funding less the residual funds remaining in the project account (excluding interest income).

### (B) <u>Industry Sponsorship/Other Sources of Financial Contribution</u>

- 1. **Industry sponsorship is not mandatory for MRP projects.** As a general observation, it is noted that the higher degree of contribution, the stronger the industry has demonstrated its interest in the project and hence the greater potential for downstream research or development of new products and services. Therefore a project with a larger number of industry sponsors or higher level of industry sponsorship will be considered more favorably in the process of vetting.
- 2. Apart from sponsorship by the industry, there may be other sources of financial contribution provided by the lead applicant, co-applicants or supporting parties including charitable organisations, or even private individuals such as project team members.
- 3. The lead applicant is required to provide details and supporting documents on industry sponsorship and other sources of financial contribution.
- 4. Under the Research & Development Cash Rebate Scheme, industry sponsorship by a private company towards an ITF project (including an MRP project) is eligible for cash rebate. Further information on the Scheme is available at http://www.itf.gov.hk/l-eng/crs.asp.

#### (C) Project Income and Residual Funds

1. All MRP funding, industry sponsorship, other sources of financial contribution, project income received during the project period should be credited to the project account and ought to be used for offsetting project expenditure. After completion (or termination, as the case may be) of the project or its earlier termination, the lead applicant shall return to the Government all unspent funding contributed by the Government, including all residual project income and interest income in the project account, and any other income under IP rights benefit sharing (if any) as set out in the project agreement.

# IV. Plan for Downstream Research and/or Product Development Activities

- 1. To enhance the chance of downstream research/product development activities, the lead applicant should provide information such as -
  - (a) the stage at which the R&D project is positioned (e.g. concept, optimisation for scaling, prototyping and trials, etc.);
  - (b) future positioning of the technology/product in the market vis-a-vis existing products;
  - (c) the exact deliverables/milestones (both qualitative and quantitative) and the expected time frame;
  - (d) whether ITF funding will be required for a further phase of research work;
  - (e) whether there are associated/complementary technology development projects which will add to chance of realisation; and
  - (f) to provide an analysis of the strengths/weaknesses/opportunities/threats of competing products (i.e. SWOT analysis).
- 2. The lead applicant should where appropriate supply supporting document(s) -
  - (a) from company(ies) interested in taking out a licence of the project deliverables for further development;
  - (b) from manufacturer(s) interested in manufacturing the product in a commercial scale; or
  - (c) from Government departments or public bodies supporting the project.

# V. Relevance with Government Policies or in Overall Interest of the Community

- 1. Apart from serving the industry, ITC encourages R&D in technologies that will dovetail with relevant Government policies, or bring benefit to the community at large, for example -
  - (a) support important Government initiatives;
  - (b) bring significant social benefit;
  - (c) contribute to the upgrading of the industry;
  - (d) provide opportunities for training of local engineering and scientific personnel;
  - (e) foster closer collaboration among key stakeholders (官產學研); and
  - (f) enhance the image of Hong Kong internationally.
- 2. For projects that will involve activities/expenditure outside Hong Kong, the lead applicant should provide details to demonstrate the 'Hong Kong angle', namely benefits that will be enjoyed by the Hong Kong community.
- 3. The Government is keen to train up local engineering and scientific personnel. While the R&D team should mainly comprise local staff, overseas expertise could be engaged, provided that it is within a reasonable limit.

# VI. IP Rights and Benefit Sharing

While seeking a reasonable financial return from commercialisation, ITC allows for the necessary flexibility to motivate various stakeholders. In fact, it should be stressed that the ITF is set up to fulfill the public mission of promoting innovation and technology and monetary return from the R&D projects it supported is not the only consideration. For details on the general policy and arrangements pertaining to IP rights and related matters for R&D projects funded under the MRP, please refer to the 'Guide on IP Arrangements for R&D Projects Funded Under the ITSP and the **MRP** of the ITF' promulgated December by ITC in 2016 [http://www.itf.gov.hk/l-eng/IPGuide.asp]. The key points are summarised below –

- 1. The lead applicant will be required to provide information on-
  - (a) whether, and if so the plan to have the R&D result patented or protected by other means;
  - (b) whether there are any plans for spin-offs in due course and if so, the details;
  - (c) the proposed formula of benefit sharing among all parties concerned (e.g. licence fees and royalties); and
  - (d) whether unrestricted use of the technology would be allowed for relevant Government departments/public bodies.
- 2. As a general rule, the IP generated from a project should be vested with the lead applicant. This will allow the institutions to assume a more proactive role in downstream research or development of new products or services.
- 3. The lead applicant is required to disseminate the project deliverables and promote technology transfer to the industry through workshops, seminars, licensing or consultancy, etc. The benefits arising therefrom may be retained by the lead applicant or shared with its co-applicant(s) on an equitable and proportional basis in accordance with the established policy of the respective institutions.
- 4. The lead applicant is expected to generate income where appropriate by charging fees for project deliverables so as to recoup at least part of the project cost.

- 5. MRP projects are intended for the benefit of the industry as a whole and hence the usual licensing arrangement should be non-exclusive. The guiding principle is to enable the use of technology and R&D results by interested parties in an open, transparent and non-exclusive manner.
- 6. Where there are exceptional circumstances which require some elements of exclusivity in order to encourage industry interest, the lead applicant should seek prior approval from ITC with full justifications. ITC will consider such proposed arrangement on a case-by-case basis having regard to factors such as whether the arrangement would increase the chance of commercialisation of the R&D results, and the overall benefits to the community.

#### *Indemnity*

7. If the project involves using background IPs of a third party, the lead applicant should indicate in the Application Form whether the consent/licence for use of such IPs has been obtained. The applicants shall indemnify and keep indemnified the Government against any claims, actions, investigations, demands and all liabilities arising from the use of such IPs on the term set out in the project agreement.

# VII. Management Capability

- 1. Management capability is more than technical capability. It pertains to whether the applicants and their R&D teams and other supporting members have and can demonstrate the ability to bring the project to fruition. For example, apart from the research team, whether there are other facilities such as a technology transfer office of a university which will devote the effort to bring the project to realisation, or whether the R&D team has the support of companies already well-established in the market.
- 2. The capacity of the project team(s) will be considered having regard to its commitments in other areas including on-going ITF projects.
- 3. Where appropriate, the track record of the lead applicant and the project team in previous ITF projects (including management of project schedule and compliance with reporting/monitoring requirements) will also be reviewed.