**INSTRUCTIONS**

*Please read the guidelines for the application of the Land Transport Innovation Fund (Appendix A) before filling up this application form. Completed application form should be submitted to LTIF secretariat (LTA-LTIF@lta.gov.sg).*

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| I,  |  | , am the main applicant and declare  |
| that I have received my organisation’s support for the submission of this proposal.*(please attached a copy of main applicant/ lead PI’s CV together with the LTIF External Application Form.)* |

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| Name of Applicant | Position | Organisation | Email Address | Contact Number | Signature |
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**1 Title of Proposal**

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**2 Information on Proposed Project**

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| --- |
| (a) Category[ ]  Product Innovation [ ]  Process Innovation [ ]  Service Innovation [ ]  Resubmission (LTA Ref . FY     ) |
| (b) Total Project Cost[[1]](#footnote-1) : | SGD $ |  |
|  *(Please produce detailed cost breakdown in Appendix B)* |
|  Total LTIF Funding Applied1 : | SGD $ |  |
|  *(LTIF will fund up to a maximum of 90 % of total project value)* |
| (c) Total Project Duration : |  | months |
|  *(Project duration should be kept within 24 months)* |

**3 Abstract**

*(Briefly describe the specific aims, hypothesis, methodology and approach of the proposed project including its importance to land transport in Singapore. The abstract must be able to provide a succinct and accurate description of the proposal. List down the project timeline and payment milestones in Appendix C and D, respectively.)*

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**4 Proposal Details**

*(Provide detailed write-up of the proposal in sections 4.1 – 4.8.)*

**4.1 Objectives**

*(State clearly what are the outcomes expected at the end of the project)*

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**4.2 Methods**

*(Elaborate on the experimental design and proposed methodologies that will be used to accomplish the objectives of the proposed project. Highlight the potential difficulties, limitations and/ or challenges of the proposed methodologies, providing alternative approaches to achieve the objectives.)*

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**4.3 Innovative Element(s)**

*(Elaborate on the innovativeness of the proposed project.)*

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**4.4 Industry Significance**

*(Briefly describe the background leading to this proposed project, evaluate existing technologies/ solutions and identify any gaps/ problems that the proposed project intends to address. Elaborate on the importance of the proposed project in helping to achieve LTA’s vision. Highlight the significance of the proposed project in bringing about tangible improvements in the land transport ecosystem. Relevant references should be provided in section 4.8.)*

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**4.5 Project Deliverable(s)**

*(List down and elaborate the proposed deliverables, including but not limited to, new technologies introduced to the industry and new products and/ or services developed.)*

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**4.6 Measuring the Success of the Proposed Project**

*(Elaborate on how the success of the proposed project can be measures. e.g. reduce cost by 20 %, reduce processing time by 10 %, increase customer satisfaction by 5 %, etc.)*

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**4.7 Risk Assessment & Mitigation**

*(Identify and describe any risks associated with the conduct of this project, such as dangerous procedures/ situations, involvement of hazardous materials, etc., and the corresponding risk mitigation plan in the table attached in Appendix E.)*

**4.8 References and Patents**

*(List down references and patents held that are related to the proposed project.)*

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**APPENDIX A**

**Guidelines for the Application of the Land Transport Innovation Fund (LTIF)**

**OBJECTIVE OF LTIF**

LTA is committed to deliver public service innovation by leading initiatives in the land transport sector that will promote synergy among academia, industry partners, technology experts and the public sector. LTA aims to promote the spirit of innovation among partners and suppliers of the land transport industry, shaping Singapore’s land transport development for the future. The Land Transport Innovation Fund is set up with the intention to encourage new research initiatives by providing funding support for conceptual stage research and pilot trial of innovative ideas, which would result in a more viable and sustainable land transport ecosystem.

**APPLICATION ELIGIBILITY**

* The project’s objectives must support LTA's vision of ‘A people-centred land transport system’ and falls into the following broad themes:
	+ Achieving the goals of Land Transport Master Plan 2040 (LTMP2040)
		- 20-Minute Towns & 45-Minute City
		- Transport for All
		- Healthy Lives, Safer Journeys
	+ Generating Operations & Cost Effectiveness
	+ Generating Productivity Improvements
* Only Singapore-based organisations are eligible to apply. This includes, but is not limited to, Singapore-registered companies, tertiary institutions, and research institutions.
* Applicants must use Singapore as a base to own, manage and exploit rights of all intellectual property that is developed.
* Applicants must grant LTA an irrevocable, non-exclusive, royalty-free, perpetual license to use the Project Results developed for non-commercial, research, development, academic purposes and performance of LTA’s statutory functions. This will include the use of the developed Project Results by LTA’s contractors and subcontractors in order to fulfil their contractual obligations to LTA.
* Proposed project should be an original innovative idea not receiving funding from another public agency.
* Length of the proposed project should be capped at a maximum of 24 months
* LTIF will consider co-funding of the total project cost on a case-by-case basis.

Items that cannot be funded are in the table below. The list is not exhaustive and the LTIF committee’s decision on funding arrangement is final.

|  |
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| **Type of Expenses that Cannot be Funded** |
| Salaries of Lead Principal Invetigators/ Investigators/ Visiting Professors & Researchers/ General administrative support staff |
| Teaching buy outs, including hiring of substitutes to perform Investigators’ teaching duties) |
| Stipend top-up for existing post-graduate scholarship holders |
| Undergraduate stipend and tuition support |
| Costs related to general administration and management. This includes common office equipment such as furniture and fittings, office software, photocopiers, scanners and office supplies. |
| Costs of office or laboratory space. This includes renovation/outfitting costs, rent, depreciation of buildings and equipment, and related expenditures such as water, electricity, general waste disposal and building/ facilities maintenance charges. |
| Personal productivity tools & communication expenses (unless the use of mobile phones and other form of smart devices were indicated in the methodology for the research). |
| Audit and Legal fees |
| Entertainment |
| Refreshments, unless these are related to a hosted conference or workshop for the project. |
| Fines and Penalties |
| Patent Applications, including application filing, maintenance and other related costs. |
| Professional Membership Fees |
| Staff retreat and team-building activities |
| Contingency fund |

**SUBMISSION**

Please make sure that the latest version of the application form, available on the LTIF website, is used. Please submit completed application form to LTIF secretariat (LTA-LTIF@lta.gov.sg). Incomplete application forms will be rejected.

**APPENDIX B**

**Cost Breakdown**

**APPENDIX C**

**Project Timeline**

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | Mth 0 | Mth 1 | Mth 2 | Mth 3 | Mth 4 | Mth 5 | Mth 6 | Mth 7 | Mth 8 | Mth 9 | Mth 10 | Mth 11 | Mth 12 |
| Agreement Signing |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Task 1 |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Task 2 |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Task 3 |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Task 4 |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Submission of Final Report |  |  |  |  |  |  |  |  |  |  |  |  |  |

**APPENDIX D**

**Payment Milestones**

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| --- | --- | --- | --- | --- |
| S/N | Deliverables | % of Project Funding | Amount ($) | Timeline(T: Agreement Effective Date) |
| 1 | Submission of Inception Report | 20 % | $10,000.00 | T + 2 months |
| 2 | … … | 20 % | $10,000.00 | T + 4 months |
| 3 | … … | 20 % | $10,000.00 | T + 6 months |
| 4 | … … | 20 % | $10,000.00 | T + 8 months |
| 5 | Acceptance of Final Report for entire project | 20 % | $10,000.00 | T + 12 months |

**APPENDIX E**

**Risk Assessment**

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| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **S/N** | **Description of Work Activity** | **Hazards Identified** | **Possible Accident/ Ill Health & Persons-at-Risk** | **Existing Control Measures** | **Initial Risk Index** | **Additional Preventive & Control Measures** | **Residual Risk Index** | **Action By** |
| **F** | **S** | **R** | **F** | **S** | **R** |
| e.g. | Working at height | Falling from height | Bodily injury or fatality | 1. All workers to don PPE
2. All workers to wear harness
 | 4 | 3 | C | 1. Ensure all PPE and harness in good condition
 | 5 | 3 | D | Tan Chee Heng |
| 1 |  |  |  |  |  |  |  |  |  |  |  |  |
| 2 |  |  |  |  |  |  |  |  |  |  |  |  |
| 3 |  |  |  |  |  |  |  |  |  |  |  |  |
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Note: **F** – Frequency of Occurrence; **S** – Severity of Hazard; **R** – Risk Index

|  |  |
| --- | --- |
| Risk Category | Severity of Hazard (**S**) |
| Catastrophic(1) | Critical(2) | Marginal(3) | Negligible(4) |
| Accident Frequency (**F**) | Frequent (1) | A | A | A | B |
| Probable (2) | A | A | B | C |
| Occasional (3) | A | B | C | C |
| Remote(4) | B | C | C | D |
| Improbable (5) | C | C | D | D |

|  |  |  |
| --- | --- | --- |
| Risk Index (**R**) | Classification | Definition |
| A | Intolerable | Risk shall be reduced by whatever means possible |
| B | Undesirable | Risk shall only be accepted if further risk reduction is not practicable  |
| C | Tolerable | Risk shall be accepted subject to demonstration that the level of risk is as low as reasonably practicable |
| D | Acceptable | Risk is acceptable |

1. Amount excluding GST [↑](#footnote-ref-1)