*Text in GREEN colour represents guidelines only and must be deleted in the final submitted application.*

This Seed Fund is administered by Rhodes University Technology Transfer Office and Completed forms should be submitted electronically to Ms Suzanne Wolhuter at S.Wolhuter@ru.ac.za as well as any queries (+27 (0) 46 603 7334). Please do not contact TIA directly regarding these applications.

|  |
| --- |
| **Application Details** |
| Short Project Title |  |
| Name of Applicant: |  |
| Title (Prof, Dr, etc.): |  |
| Applicant Race |  |
| Applicant Gender |  |
| Department: |  |
| Research Group: |  |
| Telephone Number (land line): |  |
| Alternate Telephone Number (cell phone): |  |
| Email Address: |  |
| Principal Investigator (if different from applicant): |  |
| List other Project Partners if part of a Consortium |  |
| University’s project reference number or code |  |
| Total Funds Requested  |  |

|  |
| --- |
| **Identify the sector into which the project falls**: Mark with an X |
| Agriculture Sector |  |  | Advanced Tech Manufacturing Sector |  |
| Health Sector |  |  | Energy Sector |  |
| Industrial Biotechnology Sector |  |  | ICT Sector |  |
| Mining Sector |  |  | Other (specify): |

|  |
| --- |
| **Table 3: Select the activity(ies) for which funding is sought** : Mark with an X |
|  Techno-economic evaluation studies |  |  | Initial product, process (comprehensive technology package) and prototype development |  |
| Sourcing of intellectual property opinions |  |  | Production of market samples and/or associated testing |  |
| Refining and implementing designs |  |  | Conducting field studies to test the assumption made about the technology, market and/or customer need |  |
| Support of certification activities and specification sheet development |  |  | Piloting and technology scale-up |  |
| Detailed primary market research |  |  | Business plan development |  |

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| **Section 1: Project Description & Purpose** |

## Concise description of the project:

1. Briefly describe the project to be undertaken (5-10 sentences).
2. What is the specific RU technology innovation (product/process/service) that either has been or is planned to be developed?
3. What is the end goal of this specific project?

## Overall project purpose:

1. What is the purpose of undertaking this project i.e. where does this proposed project fit into the commercialisation of the technology as mentioned in 1.1 b?
2. What identified problem/need in the market are you addressing? How significant is the need/ problem? Please quantity and substantiate as far as possible.
3. List the groups of people who have this problem/need, and who is likely to pay to have it solved?
4. List competitors or competing technologies or possible other products/services/processes which will compete in the same space as your intended innovation using the below table.

|  |  |  |
| --- | --- | --- |
| **Current/alternative offerings in the market** | **Features of current/alternative offerings****(mention the most important advantages and disadvantages of current offerings)** | **Competitive advantage: any superior features that you have over your competitors’ offerings/current offerings.** |
| Competitor 1: |  |  |
|  |  |  |
|  |  |  |

1. Explain the competitive advantage of your innovation compared to current or other potential offerings as mentioned in 1.2 d.

## Project Technology Status:

1. What technology readiness level (TRL) is the innovation currently at? What TRL are you hoping to reach upon successful completion of the project?

Use the Technology Readiness Levels (TRL) table provided below.

|  |  |  |
| --- | --- | --- |
| Technology Readiness Level | Description | Mark TRL with anX= current, G = goal |
| 1 | Basic Technology research | Basic science. Not application-focussed. Principles are observed and reported on. |  |
| 2 | Concept formulation | Some practical applications identified materials or processes required and confirmed. Technology and hypothesis formulated. Research plans and protocols are developed, peer reviewed and approved. | x |
| 3 | Analytical and experimental critical function or research proof of concept established | Laboratory measurements validate analytical predictions of separate technology elements. Hypothesis tested.  |  |
| 4 | Validation in laboratory environment | Test results confirm design and meet technical performance. Hypothesis refined. Formulations tested. |  |
| 5 | Laboratory scale validation in relevant environment | Validation under relevant operational conditions, mimicked in the laboratory. |  |
| 6 | Integrated prototype system verified in relevant environment | Prototype demonstration in the operational environment. E.g. Phase 1 trials |  |
| 7 | Integrated pilot system demonstrated in operational environment | Integrated full scale pilot systems demonstrated in an operational environment or site. |  |
| 8 | Actual system completed and validated through test and demonstration | Actual product completed and qualified through certification, tests and demonstrations. |  |
| 9 | Proven system and ready for full commercial deployment | Product proven ready through successful operations in operating environment. |  |

1. What is a follow-on technology development or commercialisation strategy for this technology after this proposed project?

**Section 2: Intellectual Property**

**2.1 IP Position:**

1. Do you have patents or other IP protection in place that pertains to the project? If so, who owns the IP? If third-party IP is involved mention what it is and do you have rights to exploit that IP commercially?
2. Is there a strong likelihood that you will develop new IP that is protectable? If so, briefly describe potential IP.
3. What do you regard as the most difficult aspects for competitors to copy in your offering?
4. Has a prior art search been completed? If so, briefly summarise the outcomes.
5. Has a Freedom to Operate search been completed? Do you know of any third party IP that one would need a license to in order to sell the final product or service envisaged?

**Section 3: Project Plan & Budget**

## Project plan and associated budget:

1. Complete the budget template for the project

No RU staff members may receive a salary payment from the RU TIA Seed Fund. An exception may be made where a service is being rendered by a RU staff member, who is not part of the project team. This should be clearly highlighted and motivated.

Actual quotations must be obtained and included for listed expenses as far as possible.

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| **Main Project Activities** | **Timeline** | **Deliverables** | **Person/Team Responsible** | **Names of Non RU people included** | **Materials Budget****[R]** | **Labour****Budget****[R]** | **Total****[R]** |
|  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |
| **TOTAL** |  |  |  |

1. Briefly describe or elaborate each main project activity (from table above) to be undertaken in the project. Also reference the planned milestone(s) and deliverable(s) associated with each main project activity.

|  |
| --- |
| Flow Chart of Main Project Activities by Research Team |
|  |  |
| Main Activity  |  |
| Milestones |  |  |  |
| Deliverable |  |
|  |  |
| Main Activity  |  |
| Milestones |  |  |  |
|  |  |  |  |
| Deliverable |  |
|  |  |
| Main Activity  |  |
| Milestones |  |  |  |
| Deliverable |  |
|  |  |
| Main Activity  |  |
| Milestones |  |  |  |
| Deliverable |  |

1. Please provide a Gantt chart and a Drawdown Schedule for the proposed projects. Example as:

|  |  |
| --- | --- |
|   | Start Date 1 January 2019     |
|   | Month 1 | Month 2 | Month 3 | Month 4 | Month 5 | Month 6 |
| Activity 1 |   |  |  |
| Activity 2 |   |   |   |  |  |
| Activity 3 |   |  |  |
|  |   |  |  |   |  |  |
| Drawdown Schedule |  |   |  |  |  |  |
|  |  |  |  |  |  |
|  |  |  |  |  |  |
|  |   |   |   |   |   |   |
| Milestone |  |  |  |  |
|  |  |  |  |  |

|  |  |
| --- | --- |
|   | Start Date 1June 2019     |
|   | Month 7 | Month 8 | Month 9 | Month 10 | Month 11 | Month 12 |
| Activity 4 |  |  |  |  |
| Activity 5 |      |  |  |  |
| Activity 6 |   |  |  |
|  |   |  |  |   |  |  |
| Drawdown Schedule |  |  |  |  |  |  |
|  |  |  |  |  |  |
|  |  |  |  |  |  |
|  |   |   |   |   |   |   |
| Milestone |  |  |  |  |  |

|  |  |
| --- | --- |
|   | Start Date 1 Jan 2020     |
|   | Month 13 | Month 14 | Month 15 | Month16 | Month 17 | Month 18 |
| Activity 7 |  |  |  |
| Activity 8 |   |  |  |
|  |   |  |  |   |  |  |
| Drawdown Schedule |  |  |  |  |  |  |
|  |  |  |  |  |  |  |
|  |   |   |   |   |   |   |
| Milestone |  |  |  |  |

1. Please attach a summary of results on work already conducted on this project. Or detail this below.
2. What further activities (beyond the above) would be required before you can sell your offering (enter the market)? If additional development / innovation funding will be required once this Seed Project has been completed, briefly describe what activities would be included in the scope of that next phase.
3. Provide information on prior funding received for this project (funder’s name and amount received and outcome reached with funding)
4. Have you approached other potential business partners/funders for financial support? If so, what is the status of your application? Please provide information on any other possible funding sources.

**Section 4: Project & Commercial Risks**

**4.1 Risk mitigation plan**

1. List any technical and non-technical risks pertaining to the project and state how these risks will be mitigated. Please complete the table below:

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Potential Risks | Probability of occurrence(0-very low, 10- very high) | Impact/effect of Identified risk(0-very low, 10- very high) | Mitigation Plan | Person Responsible |
|  |  |  |  |  |
|  |  |  |   |  |
|  |  |  |  |   |

1. Who are the key team members required to execute this project? Should one of these people leave RU, how would this impact the project? Here, it is important to give an idea of the depth of expertise available in the research team – i.e. are there other staff / students who could act as replacements.

**Section 5: National Benefits**

## Describe potential national benefit:

How will your offering benefit South Africa and/or South Africans? Please consider the following, as appropriate to the proposed project:

Level and potential intensity of:

* economic impact e.g. contribution to GDP growth, increased taxation revenue, meaningful job creation, increased and value added exports, increased competitiveness of industrial sectors and lowered net intellectual property cost,
* increased highly skilled capacity and knowledge base and increased capabilities for technology innovation,
* social impact including improvement in quality of life, and poverty alleviation and the potential impact in lowering barriers to entry for other South African technology innovations.

**Section 6: Assumptions & Limitations**

## What assumptions are made in this project?

## What are the technical limitations of the project? For example, is certain infrastructure required that is not available at RU, or does the Grahamstown climate preclude the use of certain materials?

## What is the furthest this project can be taken prior to engaging a commercial partner?

**Section 7: Declaration**

I declare that:

* I declare that I undertake to execute the project according to the project plan in Section 3.
* I have read and understood TIA Seed Fund Application General Guidelines in the invitation letter or call for proposals; and I have engaged with my University’s technology transfer office, or the equivalent, in the preparation of this application form.
* I am familiar with the Intellectual Property Rights from Publicly Financed Research and Development Act, 2008 (Act 51 of 2008) and understands the implications of this Act on intellectual property derived from projects funded by TIA; primarily my Institutions’ Rights in terms of the Act.
* I am aware that there may be further information required by TIA in respect of this application, and that my failure to provide requested information timeously may lead to a rejection of this application.
* The information contained in this application plus any supporting information is to the best of my knowledge true, accurate and complete at the time of application. I accept that TIA has the right to terminate this application and/or any project funding that may ensue in instances where the information provided is found to be false, and where instances of fraud are detected.
* Unless disclosed above in section 3, I have not applied for or received any other funding from TIA or its previous entities in regard to the technology that is the subject matter of this application.

Applicant Name\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ RSA ID No: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Signature: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Date: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**Institutional Authorisation:**

Technology Transfer Manager:

Ms Suzanne Wolhuter

Signature: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Date: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_