THE UWI-TRINIDAD AND TOBAGO RESEARCH AND

DEVELOPMENT IMPACT FUND

INNOVATION PROOF OF CONCEPT GRANTS

GUIDE TO APPLICANTS

March 2018

1.   Background

1.1   In 2017, the University of the West Indies (UWI) approved a new strategic plan 2017-2022 entitled "Revitalizing Caribbean Development". The plan identified three fundamental pillars at its core, deemed the "Triple A Strategy": increasing Access, Alignment and Agility. Among the principal outcomes the university identified as priorities to be achieved in the period 2017-2022 were an increase in the number of spin-off companies launched and an increase in the number of patents commercialized by industry.

1.2   Given that there are very few projects at the UWI St Augustine Campus (UWISTA) currently that would be able to attract private capital from institutional or corporate investors, there is a need to bridge the funding gap and nurture ideas with potential through the proof of concept and pre-seed stages to establish technical and economic viability of ideas produced at UWISTA and reduce the information asymmetries associated with academic entrepreneurial ventures.

1.3   The RDI Fund's Innovation Proof of Concept (I-POC) Grants are designed to bridge this gap and prime the commercialization pipeline at UWISTA with more innovations which can be further developed into licensable technologies and start-ups. These grants also provide more focused support for the activities required to establish the commercial potential of ideas generated at UWISTA. Priming the commercialization pipeline is critical as the country pursues a more innovative, competitive and truly diversified economy.

2.   Overview

2.1   The RDI Fund's I-POC Grants are intended to foster the transformation of UWI discoveries and innovations into commercial products, processes and services for the benefit of the society.

2.2   This is in keeping with the RDI Fund's stated objective of supporting research-directed action that will have impact on policy, practice, products and/or services. It is envisioned that these grants will help to bridge the funding gap identified in academic entrepreneurship, often termed "the valley of death", by supporting progression from pioneering research results through proof of concept towards investment ready technologies and innovations which have been adequately developed, validated, scaled and de-risked, ready to be transitioned to commercial development.

2.3   The I-POC Grants are intended to provide monetary support and commercialization resources/services to facilitate the demonstration of the technical and/or economic

feasibility of an idea. Sufficiently developed ideas should be subject to an invention disclosure, legal agreement and/or some form of intellectual property (IP) protection which stipulates that the intellectual property (IP) in question is owned or co-owned by The UWI. Focusing primarily on research ideas in the technology readiness levels (TRLs) 1-6[1] with an already identified commercial and/or social application, I-POC grants aim to protect, develop and scale indigenous innovation, inclusive of social innovation as well as innovation in the creative industries. Particular emphasis will be placed on supporting the development of ideas with the potential to earn much needed foreign exchange and/or advance import substitution as well as those with potential to transform the social and economic realities of the society we serve.

2.2   Projects proposed should plan to develop already identified ideas, technologies and inventions, preferably already owned or co-owned by The UWI, with a view to commercializing, scaling, and/or licensing the resultant innovations if deemed viable upon project completion. Competitive proposals would identify distinct, perceptible barriers to commercialization and/ or scaling and propose discrete and defined tasks, with accompanying tangible milestones, which seek to eliminate the hurdles identified.

2.3   A successful project would have validated an idea, technology or invention, enabling it to be licensed, scaled and/or form the basis of a start-up to further develop and commercialize the technology or innovation within 5 years or project completion.

2.4   Activities that could be supported by I-POC grants include:

- ❖ Building or iterating a prototype
- ❖ Product development, optimization and testing
- ❖ Widening proven applications
- ❖ Commercial feasibility studies for ideas with commercialization potential in the creative industries

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[1] For the purposes of the I-POC Programme, Technology Readiness Levels (TRLs) will be defined as follows (based on definitions developed by the National Aeronautics and Space Administration (NASA) available here https://www.nasa.gov/sites/default/files/trl.png

TRL 1	Basic principles observed and reported
TRL 2	Technology concept and/or application formulated
TRL 3	Analytical and experimental critical function and/or characteristic proof of concept
TRL 4	Technology validation in laboratory environment
TRL 5	Technology validation in relevant environment
TRL 6	Technology model or prototype demonstration in a relevant environment
TRL 7	Prototype demonstration in an operating environment
TRL 8	Actual technology completed and qualified through test and demonstration
TRL 9	Actual technology proven through successful operational deployment

- ❖ Development of technology transfer solutions for industry partners
- ❖ Validating proof of concept for a social innovation or development intervention which is scalable and replicable
- ❖ Market Research
- ❖ Validating business and revenue models
- ❖ Creating an app to aid a socio-economic intervention or creative experience
- ❖ Enhancing product design and user experience
- ❖ Research on understanding user behaviour
- ❖ Research to address an industry-specific barrier which impairs the ability to license or attract private investment
- ❖ Risk mitigation studies to improve technology attractiveness to potential licensees

2.5   Activities which cannot be supported by this programme include:

- ❖ Basic exploratory studies, theory development, model development
- ❖ Activities which do not have a clear connection to commercialization, development solutions at scale and/or technology development
- ❖ Activities which cannot be completed within 24 months

3.   Goals:

3.1   Leverage the commercial value of the rich and diverse IP of The UWISTA to address pressing development needs in the country, region and the world for the socio-economic benefit of the society.

3.2   Foster the growth of a dynamic, productive and entrepreneurial research ecosystem at UWISTA where the development of high risk – high reward technologies can be actively supported and encouraged.

3.3   Stimulate the development of an innovation pipeline of de-risked technologies and investment-attractive start-up opportunities at UWISTA to cultivate sustainable, long-term success in research commercialization and facilitate the translation of UWI research into innovative, high-growth, forex earning enterprises.

4.   Objectives:

4.1   Accelerate the development of innovative, commercially promising indigenous technologies and ideas for the creation or improvement of superior value-added

products, processes and services which are responsive to market demand, particularly those with export market potential.

4.2   Support research demonstrating the technical and/or economic feasibility of UWISTA ideas, discoveries and technologies, helping to elucidate the value of IP and increase the commercialization potential of IP owned or co-owned by The UWI while empowering UWI researchers to maintain a greater share of ownership of their IP.

4.3   Incentivise the disclosure of inventions and innovations developed at UWISTA and their subsequent commercialization with a view to ensuring that as much of the knowledge created at UWISTA as possible is protected and transferred for the benefit of the wider society, fostering innovation and competitiveness in the economy.

4.4   Encourage the successful transfer of technologies developed at UWISTA into the operations of suitable industry partners, particularly among SMEs.

4.5   Stimulate the development of projects with the potential for innovating the country's creative economy.

4.6   Accelerate the deployment of social innovations with demonstrated potential to produce measurable impact which is scalable and replicable.

4.7   Provide a mechanism for closing the loop in the indigenous knowledge creation value chain through the reinvestment of research commercialization proceeds back into the UWISTA research ecosystem.

5.   Framework

5.1   Given the 'innovation imperative'[2] confronting the country and region as well as the strategic imperative for The UWI to more aggressively support innovation, research application and research commercialization by facilitating more effective knowledge transfer, The UWI St. Augustine Campus is committed to providing more focused, impact-oriented support to develop ideas into innovations and innovations into commercial ventures.

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[2] The new Pro Vice Chancellor and Campus Principal at UWI St Augustine, Professor Brian Copeland, expounds on the innovation imperative as follows: "A necessary condition for sustainable development in the nation and the region is that our nations must re-create, must kick-start and must maintain their engines of wealth creation by establishing effective National Innovation Systems".

5.2 The provision of I-POC grants within the RDI Fund's existing framework provides a more focused facility to support UWISTA inventors and innovators in decreasing the technical risk and thus increasing the commercial value of their ideas. To clearly distinguish the target of funding support provided by I-POC grants, this financing facility was created to strengthen the overall performance of the Fund, ensuring that it meets its objectives in a measurably impactful way, particularly as it relates to the creation of new and/or improved products, processes and services as well as the development of scalable development interventions.

5.3 This facility also positions the Fund as the primary source of university and national funding for substantiating the commercial viability of the Campus' research, helping to close the loop in the knowledge value chain by fostering the development of new products, processes and services from discovery to commercialization and providing a mechanism for feeding some of the potential proceeds back into the indigenous knowledge creation process.

5.4 The facility also provides additional opportunity for the UWISTA to demonstrate its actions and responses to development challenges and foster a greater appreciation in our stakeholders of the value and impact of research, innovation and knowledge transfer, particularly on wealth creation, export entrepreneurship and the diversification of the economy.

5.5 The management of the I-POC Grants facility shall be guided by governance mechanisms approved by the RDI Fund's Technical Evaluation Committee to preserve the integrity of the Fund's Application, Evaluation and Approval processes and to ensure transparency and accountability to the donor(s) and other stakeholders.

5.6 The Technical Evaluation Committee reserves the right to review and amend this Guide to Applicants as needed to provide an effective framework for the management of I-POC Grants' activities by the RDI Fund's Secretariat.

6. Scope of Award

6.1 The maximum amount that can be requested in a single proposal is **TT$ 2 million**. Competitive proposals will include counterpart funds that are non-UWI funds, particularly from industry and/or development partners.

6.2   The maximum duration of a project is **36 consecutive months** from the date stated on the letter of approval from the Fund. The maximum execution time would only be granted for projects that present a compelling case for such an execution timeline.

6.3   Disbursements shall be linked to achievement of project milestones and these shall be outlined in the approved Project Proposal as part of the project implementation schedule.

6.4   In addition to the financial award, supported projects will also be offered commercialization and knowledge transfer support from the Office of Research Development and Knowledge Transfer (ORDKT).

6.5   The financial award will be considered a grant. However, should the invention, innovation or intervention which forms the basis of the funded proposal go on to be successfully commercialized, recovery costs claimed by The UWI by virtue of its ownership or co-ownership of the IP in question should prioritise a full reimbursement in the total amount of the grant awarded for the project to the RDI Fund to replenish funding and ensure the sustainability of support for research commercialization and knowledge transfer at UWISTA.

7.   Eligibility Criteria for Submitting and Executing Proposals

7.1   Full-time academic staff at UWI St. Augustine shall serve as Lead Researchers/Project Team Leaders for submitted I-POC Grant proposals. Any UWI staff member or student may serve as team members.

7.2   For sufficiently developed ideas, the Lead Researcher/ Project Team Leader should ensure that an invention disclosure form has been submitted to the ORDKT disclosing the IP upon which the proposed project will be based, either prior to or concurrent with the application for I-POC Grant funding consideration.

7.3   The IP which forms the basis of the proposal should be owned or co-owned by The UWI.

7.4   The technology, innovation or invention which forms the basis of the proposal should not be exclusively licensed by an entity outside of The UWI and should not be encumbered by any other prior obligation e.g. sponsored research agreement, research contract, consultancy agreement or academic-industry collaboration. Optioned or non-exclusively licensed technologies or inventions may be considered on a case by case basis.

7.5   Project teams should include members from other Faculties/Departments to ensure a multidisciplinary approach in project design and execution as well as to ensure that questions with regard to both technical and economic viability of the idea can be sufficiently addressed upon project completion. Competitive proposals would also include relevant industry/ stakeholder partnerships. Project teams may also wish to demonstrate collaboration with researchers from other UWI Campuses, public and private sector institutions, and/or international universities and research institutes. Inclusion of PhD students and post-doctoral researchers in the project teams is also strongly encouraged. Non-UWI personnel should be clearly identified in the proposal and their project role explicitly defined.

7.6   In the case of collaborative proposals, ownership of IP must be settled prior to commencement of the project. A signed collaboration agreement must be signed before the initial disbursement of the financial award. Award letters in this case will be considered conditional upon the receipt by the Secretariat of a signed collaboration agreement within **three (3) months** of the date on the award letter.

7.7   The Lead Researcher/Project Team Leader shall have responsibility for ensuring technical quality, and shall be accountable to the UWI St. Augustine Campus on all matters pertaining to effective and timely execution and reporting.

7.8   UWI research institutes, centres and units are eligible to submit proposals once the Lead Researcher/Project Team Leader is based at the St. Augustine Campus.

7.9   Components of the project executed by team members of other UWI Campuses and/or other institutions shall be channelled through the Project Team Leader for reporting purposes or the processing of disbursements related to the specific component.

7.10   Given the stated focus of I-POC Grants, protected or proprietary research results should not be publicised until a determination is made on the exploitation of the IP which forms the basis of the proposal as well as any IP generated during the project, and on the commercial viability of the project. Publication and dissemination strategies should be developed with the ORDKT so as not to compromise the commercial viability and competitiveness of the technology or invention.

7.11   Resulting publications from projects supported by I-POC Grants must include a funding acknowledgement. While the exact wording will depend on the format stipulated by the publisher, the following text is recommended:

"This work was supported by a University of the West Indies - Trinidad and Tobago Research and Development Impact Fund Innovation Proof of Concept Grant."

7.12   Intellectual Property and Commercialization

The UWI Policy on Intellectual Property Management and Commercialization and the University Financial Code shall be applicable to projects supported by I-POC Grants. The policy documents are available online at:

https://sta.uwi.edu/ordkt/documents/UWIIPPOLICYREVISIONFINALVERSIONAPPROVEDBYUNIVERSITYFGPCMAY2015VERS2.pdf

and

http://uwi.edu/sf-docs/default-source/finance-docs/Revised_Financial_Code_Aug_13_2008.pdf?sfvrsn=0

7.13   Research Ethics

The UWI Policy on Research Ethics shall be applicable to projects supported by I-POC Grants. This policy document is available online at:

https://sta.uwi.edu/ordkt/documents/UWIPolicyonResearchEthics.pdf

7.14   Code of Ethics and Conflicts of Interest

The UWI Statement of Principles/ Code of Ethics for Academic and Senior Administrative Staff and the University Bluebook shall be applicable to project team leaders and team members of projects supported by I-POC Grants. The policy documents are available online at:

https://sta.uwi.edu/hr/documents/Statement_of_Principles_Code_Of_Ethics_for_Academic_and_Senior_Administrative_Staff.pdf

and

https://sta.uwi.edu/hr/documents/bluebook-may2015.pdf

8.   Eligible Research Areas

8.1   Proposals will be accepted from all fields of research. However, projects which address the priority research areas of the UWISTA and the RDI Fund, are particularly encouraged.

8.2   Projects which demonstrate support for the short, medium and/or long-term national development goals, captured by the GORTT in its Vision 2030 policy document, are also encouraged. Details on the specific development goals included in each of these themes can be found in the Vision 2030 policy document, available on the GORTT Ministry of

Planning and Development's website here: http://www.planning.gov.tt/content/vision-2030.

8.3   Projects which demonstrate support for the global development priorities acceded to in the United Nations' 2030 Development Agenda[3] as described by the 17 Sustainable Development Goals (SDGs) are also encouraged. The SDGs can be viewed here: https://sustainabledevelopment.un.org/sdgs.

8.4   Projects that involve the development, validation or scaling-up of already completed pilot projects not previously supported by I-POC Grants shall be eligible for consideration and funding, once all other eligibility criteria stated in this document have been met.

8.5   Projects that are currently being funded by the RDI Fund may not apply for further funding. Projects previously funded by the RDI Fund may reapply provided that their application includes a brief report regarding their previous reward and a strong justification for additional support.

9.   Eligible Expenditure Items

9.1   A list of activities and items that are ELIGIBLE for funding is provided below:

i.   Budget expenses incurred before the award date **will not** be reimbursed;

ii.   Consultancies/short-term contracts for services that are essential to achieving the outcomes earmarked in the various components of the project, including technical feasibility and market studies. This may include support for post-doctoral scholars and current PhD students performing the duties of Research Assistants. Research assistantships, consultancies and other types of service contracts (whether for an individual or a firm) shall be guided by the UWI Financial Code. Procurement of eligible and/or approved goods (materials, equipment etc.) shall also be guided by the UWI Financial Code as well as the UWISTA Procurement Policies and Procedures Guide.   These   policy   documents   can   be   accessed   here https://sta.uwi.edu/cpo/guidelines.asp   and   http://uwi.edu/sf-docs/default-source/finance-docs/Revised_Financial_Code_Aug_13_2008.pdf?sfvrsn=0

iii.   Inputs/ingredients, chemicals and other materials related to the conducting of experiments and/or sample testing;

iv.   Project-related equipment (expenditure should not exceed 20% of the total project budget and shall become the property of the UWI St. Augustine Campus and shall comply with the UWI Asset Management policy guidelines);

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[3] http://www.un.org/ga/search/view_doc.asp?symbol=A/RES/70/1&Lang=E

v. Expenses related to travel and/or the organization of meetings during the execution are only eligible if they are **required** to conduct project activities (this expenditure should not exceed 10% of the total project budget and shall be in keeping with existing UWI travel policies/guidelines).

vi. Expenses related to print, electronic or radio advertisement and/or other media promotion of activities related to the project's methodology shall not exceed TT$100,000. Expenses exceeding that amount shall require special approval by the Technical Evaluation Committee.

9.2 Ineligible Expenditure Items

The following items are NOT ELIGIBLE for funding:

i. Acquisition or upgrade of any land, property, vehicle or physical asset (capital expenditure);

ii. Consultancies or short-term contracts for persons who are already full-time employees of the UWI;

iii. Consultancies or short-term contracts for persons who are full-time employees of other institutions shall be consistent with the policies in force at those institutions or shall otherwise be deemed ineligible. In such cases, the written consent of the partner institution shall be submitted to the RDI Fund Secretariat for the preparation of the relevant contracts;

iv. Refreshments for meetings and conferences (this may be covered by counterpart resources);

v. Honoraria and/or appearance fees for guest speakers at meetings, conferences or other project-related events;

vi. Travel to attend conferences or present research findings

vii. Publication costs

viii. Legal costs

ix. Expenses related to obtaining IP protection

x. Sales and general business operating expenses

xi. Reimbursements for personal funds spent on project-related items or activities. [However, Faculty or Departmental advances, not exceeding TT$10,000, which are related to approved project activities, shall be eligible for reimbursement].

xii. Personal telephone bills, ICT tools and/or products such as cell phones, laptop computers, etc.

xiii. Contingencies shall not be recognized as an expenditure line item in I-POC Programme project budgets.

xiv. Departmental or Faculty charges not related to the execution of project activities as stated in the approved project proposal and itemised in the approved project budget shall not be eligible for payment from I-POC Programme approved project funds.

9.3   Transfers between budget categories for approved projects may be considered by the Technical Evaluation Committee following the submission of a written request with justification.

9.4   Changes to the project scope, methodology and implementation schedule may not be undertaken without the prior approval of the Technical Evaluation Committee following the submission of a written request with justification.

9.5   Project Team Leaders or their designates are responsible for categorizing each expenditure item according to their approved budget. The Spending Authorization Template should be used to authorize all project related payments. The Template is available on the RDI Fund's website http://sta.uwi.edu/rdifund/ .

9.6   Unexpended funds shall return to the RDI Fund.

9.7   No-cost extensions shall only be granted for extenuating circumstances and requests for such an extension should be made in writing six (6) months prior to the expiration of an award for consideration by the Technical Evaluation Committee. Extensions will not be granted for more than 6 months.

10.   Application and Evaluation Process

10.1   Applications shall be submitted in response to a Call for Proposals issued by the I-POC Programme. The RDI Fund Secretariat will not accept proposals submitted beyond the stipulated deadline for a Call for Proposals.

10.2   Reviewers will be asked to sign non-disclosure and non-compete agreements. However, protected or proprietary information **should not** be included in concept notes or proposals submitted in response to a Call for Proposals but should provide sufficient information for reviewers to make a determination regarding commercialization potential.

10.3   Project teams shall firstly submit a Concept Note outlining the proposed project for evaluation by the Fund's Technical Evaluation Committee. The template for the Concept

Note is available from the RDI Fund Secretariat and on the RDI Fund's website http://sta.uwi.edu/rdifund/

10.4   The assessment of Concept Notes shall be based on the following criteria in addition to the criteria described in the RDI Fund's Operational Guidelines:

- Technical quality
    - Strength of the IP that currently exists and/or will be generated
    - Clearly defined hurdle to commercialization/ scaling
    - Project's proximity to commercialization/scaling
    - Evidence to support scaling of development interventions
    - Appropriate technology readiness level
    - Can the proposed project deliverables advance the TRL of the idea
    - Demonstrated industry need
    - Demonstrated ongoing industry collaboration
    - Demonstrated familiarity with literature in the field and current competing or emerging technologies
    - Clarity of purpose and objective(s)
    - Description and suitability of methodology
    - Discrete programme of work identified
    - Appropriateness of funding amount and project timeline
- Support for RDI Fund objectives
    - Commercialization potential of the project
    - Interest from industry partners
    - Market attractiveness, particularly to global markets
    - Will I-POC Grant funding enable commercialization and/or scaling
    - Focus on research-directed action that will have an impact on products, processes and/or services
    - Multi-disciplinary/cross-Faculty/cross-Campus/ industry collaboration and/or other strategic partnerships
    - Participation of students
- Anticipated project outputs and potential of these to generate impact in the short to medium-term (3-5 years). These outputs should include conclusive evidence to enable a determination to be made on the viability and sustainability of the project.
- Strategy for project execution
- Creative approaches for market exploration and development, improving user experience, and other customer facing initiatives;

10.5   Each Concept Note will be scored and ranked individually by members of the Technical Evaluation Committee, reviewed and considered during the deliberations of the Technical Evaluation Committee Meeting before arriving at a consensus on the Concept Notes to be shortlisted.

10.6   Project Leaders whose Concept Notes are shortlisted **may** be invited to do a pitch presentation to the Technical Evaluation Committee if deemed necessary to aid the deliberation process.

10.7   Project teams whose Concept Notes are successful shall be invited to submit a detailed project proposal for review and consideration for funding by the Technical Evaluation Committee. The template for the full Project Proposal is available from the RDI Fund Secretariat and on the RDI Fund's website http://sta.uwi.edu/rdifund/ . Full proposals submitted without an invitation will not be reviewed.

10.8   Project teams whose Concept Notes were unsuccessful but whose projects were considered to have high potential and merit may be asked by the Technical Evaluation Committee to re-submit a revised and/or updated Concept Note to the subsequent Call for Proposals. Critiques of unsuccessful Concept Notes will not be provided.

10.9   Once submitted before the stipulated deadline, the Technical Evaluation Committee shall review the full Project Proposals and consider the extent to which each project proposal has adequately met the criteria outlined in point 8.3 and satisfactorily provided the additional details required in the full Project Proposal.

10.10   Letters of approval shall be forwarded to the project Team Leader within 1 week of the final decision of the Technical Evaluation Committee.

10.11   Approved Project Proposals must be submitted to the Head of Department of the Project Team Leader and the Dean of the corresponding Faculty for noting and non-objection.

10.12   The approved Proposal must then be forwarded to the Bursary for registration and the assignment of a Project Code in preparation for the commencement of project execution.

11. Reporting Requirements, Evaluation & Impact Assessment

11.1 Consistent with the RDI Fund's Operational Guidelines, Project Teams shall submit progress reports to the Fund Secretariat every six (6) months and attend progress monitoring meetings with the Secretariat when requested. Completion Reports shall be submitted to the Secretariat within 2 months of the completion of a project. Project Teams shall also submit Impact Reports to the Secretariat on an annual basis up to 5 years post the submission date of a project's Completion Report. For more information on the RDI Fund's reporting requirements please see the Fund's Operational Guidelines on the RDI Fund's website http://sta.uwi.edu/rdifund/ . Templates specific to I-POC Grantees will be provided by the RDI Fund Secretariat and on the RDI Fund's website.

11.2 All RDI Fund projects are subject to project evaluations and impact assessments. These will be conducted as outlined in the Fund's Operational Guidelines.