**SAUDI APPLIED RESEARCH & TECHNOLOGY – Technology Development Grant (TDG)**

Standard Full-Proposal

|  |  |  |
| --- | --- | --- |
|  | Structure of the Proposal |  |

* The proposal contains two parts:
* Part A of the proposal captures the general information regarding the project and participants.
* Part B of the proposal is the narrative part that includes sections covering the evaluation criteria.

|  |  |  |
| --- | --- | --- |
| **Section** | **Title** | **Page No** |
| **Part A: Application Form** | | |
| 1 | Project Information |  |
| 2 | Team Structure |  |
| 3 | Budget Breakdown and Duration |  |
| 4 | Modification from Pre-Proposal |  |
| **Part B: Technical Description** | | |

|  |  |  |
| --- | --- | --- |
|  | General instructions for filling the form: |  |

* The structure of this template must be followed when preparing your proposal. It has been designed to ensure that the important aspects of your planned work are presented in a way that will enable the experts to make an effective assessment against the evaluation criteria
* The proposal template is downloadable from the portal. It needs to be filled, saved as a PDF and uploaded to the portal.
* Proposal page limit: 50 pages maximum (for technical part B)
* Fonts and font size: Arial, Courier New or Palatino: 10 points or larger; Times New Roman, Calibri: 11 points or larger.
* Margins: At least 1.5cm on all sides. Single line space or larger.
* Footer: Include proposal title (smaller font size can be used) and page number (outside right corner)
* References: Use numbered referencing styles which are characterized by references indicated in-text by superscript numbers, or numbers in brackets.
* Further details regarding the grant: max ticket size, duration, eligibility and award criteria, please refer to the call for proposal document

PART A: APPLICATION FORM

|  |  |  |
| --- | --- | --- |
|  | General Information |  |

|  |  |  |
| --- | --- | --- |
| **Grant Program** | Saudi Applied Research & Technology | |
| **Grant** | Technology Development Grant | |
| **National Priority** |  | |
| **National Mission** |  | |
| **Research Focus** |  | |
| **RDI Domain** |  | |
| **Key Technology Used** |  | |
| **Proposal Title** | Max 200 characters (with spaces). It must be understandable for non-specialists in your field. | |
|  |  | |
|  |  |  |
| **Keywords** | Enter any words you think give extra detail of the scope of your proposal (max 200 characters with spaces) | |
|  |  | |

## Abstract

|  |  |
| --- | --- |
|  | |
| **Maximum words:** | **400** |

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Has this proposal (or a very similar one) been submitted in the past 2 years in response to a call for proposals under any RDIA initiative? \* | ○ | Yes | ○ | No |
| Please give the proposal reference or contract number | | |  | |
|  | | |  | |
|  | | |  | |

## Declarations

|  |  |
| --- | --- |
| 1. We declare to have the explicit consent of all applicants on their participation and on the content of this proposal. | □ |
| 1. We confirm that the information contained in this proposal is correct and complete and that none of the project activities have started before the proposal was submitted (unless explicitly authorized in the call conditions) | □ |
| 1. We declare:  * To be fully compliant with the eligibility criteria set out in the call * To have the financial and operational capacity to carry out the proposed project | □ |
| 1. We acknowledge that all communication will be made through the official portal, unless directly specified otherwise | □ |
| 1. We have read, understood and accepted the  [Terms of Use](https://rdia.gov.sa/terms-en.html) that set out the conditions of use of the Portal and outline the responsibilities, limitations, and guidelines for accessing and using its services. | □ |
| 1. We declare that the proposal has an exclusive focus on civil applications. If the project involves dual-use items or other items for which authorization is required, we confirm that we will comply with the applicable regulatory frameworks (e.g. obtain export/import licenses before these items are used) | □ |
| 1. We declare that this proposal does not contain any investigators included on the basis of personal or reciprocal arrangements, and that the list of Principal Investigators and Co-Principal Investigators is formed based solely on their ability to contribute meaningfully to the project. | □ |
| The coordinator is only responsible for the information relating to their own organization. Each applicant remains responsible for the information declared for their organization  **False statements** or incorrect information may lead to disqualification of the applicant and further legal action |  |

|  |  |  |
| --- | --- | --- |
|  | Team Structure |  |

## List of Participating Organizations and Potential Partners

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **#** | **Organization Name** | **Role** | **Location** | **Beneficiary Type** | **Country** | **Brief Description** | **Website** | **Status** |
| 1 |  |  |  |  |  |  |  |  |
| 2 |  |  |  |  |  |  |  |  |
| 3 |  |  |  |  |  |  |  |  |
| 4 |  |  |  |  |  |  |  |  |

## List and Role of Researchers in the Project

|  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **#** | **Title** | **First Name** | **Last Name** | **Gender** | **Nationality** | **Organization** | **Email** | **Position** | **Qualification** | **Role Category** | **Role** |
| 1 |  |  |  |  |  |  |  |  |  |  |  |
| 2 |  |  |  |  |  |  |  |  |  |  |  |
| 3 |  |  |  |  |  |  |  |  |  |  |  |
| 4 |  |  |  |  |  |  |  |  |  |  |  |
| Please append CVs of all team members at the end of the proposal | | | | | | | | | |  |  |

## Leading Organization Data

|  |  |  |
| --- | --- | --- |
| **Lead Entity** | **Legal Name** | |
|  |  | |
| Short Name: |  | |
| Address: |  | |
| Street: |  | |
| Governate: |  | |
| Postcode: |  | |
| Country: |  | |
| Webpage: |  | |
| Specific Legal Statuses (Yes/No) | | |
| * Research Institute.................................................. | |  |
| * University ............................................................ | |  |
| * SME (Small Medium Sized Enterprise)............................................................... | |  |
| * Corporate ………............................ | |  |
| Description of the Organization / Specialization, etc. | |  |
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## Point of Contact (POC) Details

|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Title |  | | Gender | | ○ | | Female | ○ | Male |
|  |  | |  | |  | | | | |
| First Name |  | | Last Name | |  | | | | |
| E-Mail |  | |  | |  | | | | |
| Position in Org. | Please indicate the position of the person. | | | | | | |  | |
|  |  | | | | | | |  | |
| Department | Name of the department/institute carrying out the work. | | | | | | |  |  |
|  |  | | | | | | |  |  |
| Street | Please enter street name and number. | | | | | | |  |  |
|  |  | | | | | | |  |  |
| Governate | Please enter the name of the governate. | | Post code | | | Area code. | |  |  |
|  |  | |  | | |  | |  |  |
| Country | Please select a country | | | | | | |  |  |
|  |  | | | | | | |  |  |
| Website | Please enter website | | | | | | |  |  |
|  |  | | | | | | |  |  |
| Phone | +xxx xxxxxxxxx | Phone 2 | | +xxx xxxxxxxxx | | | |  |  |
|  |  |  | |  | | | |  |  |

## List of up to 5 publications, widely-used datasets, software, goods, services, or any other achievements relevant to the proposal

|  |  |  |
| --- | --- | --- |
| **#** | **Type of Achievement** | **Short Description** |
| 1 |  |  |
| 2 |  |  |
| 3 |  |  |
| 4 |  |  |
| 5 |  |  |

## List of up to 5 most relevant previous projects or activities related to the proposal

|  |  |  |
| --- | --- | --- |
| **#** | **Name of Project/ Activity** | **Short Description** |
| 1 |  |  |
| 2 |  |  |
| 3 |  |  |
| 4 |  |  |
| 5 |  |  |

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | Budget Breakdown & Duration | |  | |
| Estimated Budget in SAR | | | 00 | |
| Total duration required for the completion of the project (in months) | | | 00 | |
| Total in years | | | 00 | |

## Summary of Budget Category Costs Proposed (Individual Grant)

|  |  |
| --- | --- |
| Organization Name |  |
| Beneficiary Type |  |
| Funding Rate |  |

## *\*Please fill and submit the budget sheet in excel format in addition to the table below*

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Category** | **Year 1** | **Year 2** | **Year 3** | **Year 4** | **Year 5** | **Total Costs by Category** | **% of Total Costs** | **Justification\*** |
| a. Manpower cost |  |  |  |  |  |  |  |  |
| b. Equipment cost |  |  |  |  |  |  |  |  |
| c. Travel cost |  |  |  |  |  |  |  |  |
| d. Other Operating cost |  |  |  |  |  |  |  |  |
| e. Indirect cost |  |  |  |  |  |  |  |  |
| f. RDI Unit Overhead |  |  |  |  |  |  |  |  |

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Total project cost** |  |  |  |  |  |  |
| **RDIA contribution** |  |  |  |  |  |  |

|  |  |  |
| --- | --- | --- |
|  | Modification from Pre-Proposal |  |

## *Please indicate any changes in the full proposal when compared to pre-proposal and the reasons for the modification*

|  |  |  |
| --- | --- | --- |
| Are there any substantial changes from pre-proposal? | Yes | No |

|  |  |
| --- | --- |
| Partnership | *List any substantial differences and indicate the reason* |
| Budget | *List any substantial differences and indicate the reason* |
| Approach | *List any substantial differences and indicate the reason* |

PART B- TECHNICAL DESCRIPTION

|  |  |  |
| --- | --- | --- |
| **Table of content** | | **Main evaluation criteria addressed** |
| SHORT PROPOSAL | | |
| 1. **EXECUTIVE SUMMARY** | | |
| 1. **POTENTIAL FOR TECHNICAL BREAKTHROUGH** | | |
| 1 | PROBLEM STATEMENT | TECHNICAL EXCELLENCE AND NOVELTY |
| 2 | PROPOSED SOLUTION |
| 3 | IP STRATEGY |
| 4 | PAST & FUTURE TRL ADVANCEMENT PLAN |
| 5 | CONTRIBUTION TO GRANT CALL FOCUS | POTENTIAL IMPACT |
| 6 | BROADER IMPACT |
| 7 | MARKET AND COMPETITION ANALYSIS |
| 8 | SCALE-UP AND COMMERCIALIZATION PLAN |
| 1. **TEAM AND IMPLEMENTATION** | | |
| 9 | ORGANIZATION DESCRIPTION | TEAM AND EXPERTISE |
| 10 | PI AND CO-PI TRACK RECORD |
| 11 | TEAM MANAGEMENT |
| 12 | IMPLEMENTATION PLAN | PROJECT IMPLEMENTATION |
| 13 | RISK ASSESSMENT |
| 14 | IMPORTANCE OF RDIA FUNDING |
| 15 | BUDGET REQUEST WITH JUSTIFICATION |

Fill in the title of your proposal below.

|  |
| --- |
| **TITLE OF THE PROPOSAL** |

1. EXECUTIVE SUMMARY (approx. ~2 pages)

This section should provide a concise and compelling overview of the entire proposal.

Important elements to include:

* Clear articulation of the problem or opportunity.
* Proposed solution and its innovation/breakthrough potential.
* Target market and its size.
* Team's expertise and capabilities.
* TRL advancement plan.
* Importance of RDIA funding and expected impact.

1. **POTENTIAL FOR TECHNICAL BREAKTHROUGH** (approx. ~20-25 pages)
2. **Problem Statement:** (approx. ~2 pages)

* Clearly define the problem being addressed and its significance.
* Provide evidence to support the problem statement (data, research, case studies).
* Explain why existing solutions are inadequate, how the project outcomes will be innovative or distinctive with respect to the state-of-the art.

1. **Proposed Solution:** (approx. ~8 pages)

* Explain how the proposed solution works in simple terms.
* Describe the solution's main features.
* Indicate key areas that require further improvement or innovation.
* Present the solution's value proposition, emphasizing its uniqueness, breakthrough potential, advantages over existing solutions, timeliness for market entry, and why the proposed research is not being pursued by industry today.
* Explain the extent to which the proposed solution has been validated/certified.

1. **IP Strategy**: (approx. ~1 page)

* Describe the proposed strategy for protecting intellectual property. Include a list of currently held key patents along with their registration numbers and current status.
* Highlight any relevant scientific publications. Additionally, mention patents owned by others for which usage rights have been secured.
* Discuss new intellectual property and data that is anticipated to be created as part of this effort, if any.
* Clarify whether a combination of patents and trade secrets is being utilizing. Lastly, explain how freedom to operate will be ensured.

1. **Past & Future TRL Advancement Plan**: (approx. ~2 page)

* Clearly present the current TRL and the targeted TRL after the proposed project.
* Highlight requirements to advance the proposed solution to the target TRL, along with key gaps to be overcome, including proposed advancement plan.
* Detail the current development stage alongside with the evidence of the currently attained Technology Readiness Level (TRL).
* Outline the key activities successfully completed to achieve the current TRL.

1. **Contribution to Focus of Grant Call:** (approx. ~2 pages)

* Demonstrate how the project aligns with the RDIA call's objectives and priorities (research topics indicated).
* Explain how the project will contribute to the field and meet the call's expected outcomes and impacts.

1. **Broader Impact**: (approx. ~2 pages)

* Discuss the societal, economic, environmental, and climate impacts of the proposal.
* Describe the organization’s potential for job creation over the next five years (including indirect jobs).
* Explain whether and how the proposal contributes to developing technologies of strategic importance to KSA.

1. **Market and Competition Analysis**: (approx. ~5 pages)

* Define the targeted market and provide data on the Total Addressable Market (TAM), Serviceable Available Market (SAM), and Serviceable Obtainable Market (SOM).
* Analyze the market's growth rate (Compound Annual Growth Rate - CAGR).
* Explain why the target market would be willing to pay for the solution.
* Provide evidence of market demand, such as Proof of Concepts (POCs) conducted with users and clients.
* Identify key competitors and analyze their strengths and weaknesses compared to the proposed solution

1. **Scale-Up and Commercialization Plan**: (approx. ~2 pages)

* Describe the solution’s scale-up potential to meet the outlined market demand.
* Describe how the proposed technology is expected to transition from the lab to commercial deployment, including a description of the potential commercialization approach, specific organizations expected to be involved in the transition, and the commercialization timeline.
* Describe the business model plan, including revenue model, key activities, resources, channels, revenue streams, scalability, and geographical market focus.
* Outline the go-to-market plan and its milestones.
* Explain the key barriers preventing market entry and how the proposed plan to overcome them.

1. **TEAM AND IMPLEMENTATION** (approx. 20-25 pages)
2. **Organization Description**: (approx. ~2 pages)

* This section should provide a clear and concise overview of the applicant organization.
* It should highlight the organization's core mission and vision, key assets/resources available (e.g., offices, laboratories, production facilities), and relevant experience.

1. **PI and Co-PI Track Record:** (approx. ~1 page)

* Present the Principal Investigator's (PI) relevant experience, qualifications, and past successes, particularly those demonstrating their leadership ability.
* Provide the same for any co-PIs suggested as part of the project team.

1. **Team Management** (approx. ~ 3 pages)

* Present the proposed team, highlighting the track record of PIs, co-PIs and other team members and showcase available skills and experience.
* Identify missing skills and outline proposed recruitment plans to address these gaps.
* Elaborate on the plan to manage the team, role of team members and their expected contribution to project goals.

1. **Implementation Plan:** (approx., ~ 10 pages)

* Present an overview of the work plan's structure, describing the logical sequence of activities and corresponding deliverables.
* Describe the infrastructure and equipment required to successfully complete project, highlight resources the project team has already secured access to and outline the plan for gaining access to the missing ones.
* Provide a visual representation of the project timeline using a Gantt chart or similar tool / representation.
* Leverage tables such as the one below to submit a list of deliverables and milestones.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Deliverable Number** | **Deliverable Name** | **Short Description** | **Type of Deliverable** | **Delivery date**  **(in months)** |
|  |  |  |  |  |
|  |  |  |  |  |
|  |  |  |  |  |
|  |  |  |  |  |

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| --- | --- | --- | --- |
| **Instructions:**  Deliverable numbers in order of delivery dates.  **Types of deliverables**  Use one of the following codes:  R: Document, report (excluding the periodic and final reports)  DEM: Demonstrator, pilot, prototype, plan designs  DEC: Websites, patent filing, press & media activity, videos, etc.  DATA: Data sets, microdata, etc.  DMP: Data management plan  ETHICS: Deliverables related to ethics issues.  SECURITY: Deliverables related to security issues  OTHER: Software, technical diagram, algorithms, models, etc.  **Delivery date**  Measured in months from the project start date (month 1) | | | |
| **Milestone Number** | **Milestone Name** | **Due Date (in months)** | **Means of verification and link to the objectives of the project** | |
|  |  |  |  | |
|  |  |  |  | |
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|  |
| --- |
| **Due date**  Measured in months from the project start date (month 1)  **Means of verification**  Show how it will be confirmed that the milestone has been attained. Refer to indicators if appropriate. For example: an existing laboratory prototype; software released and validated by a user group; field survey complete and data quality validated. Please also indicate how the milestone will contribute to achieving the objective of the project (including achievement of a specific TRL level). |

1. **Risk Assessment:** (approx. ~2 pages)

* Describe financial risks and those related to technology, the market, competition, and the team that are not directly linked to project implementation.
* Outline the likelihood of these risks occurring, their potential effects, and the planned mitigation methods.
* Describe the proposed strategy for obtaining regulatory approvals and ensuring compliance.
* Leverage tables such as the one below to summarize foreseen risks.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Description of Risk** | **Likelihood of occurring (Low/ Medium/ High)** | **Impact on project, if occurs** | **Severity of impact**  **(Low/ Medium/ High)** | **Risk Mitigation Measure** |
|  |  |  |  |  |
|  |  |  |  |  |
|  |  |  |  |  |
|  |  |  |  |  |

1. **Importance of RDIA Funding** (approx. ~2 pages)

* Explain why RDIA funding is required and critical to support the successful execution of the project.
* Explain how RDIA funding will enhance the innovation's development and business scalability.
* Outline the overall funding strategy for the future.
* Address any financing issues that could impact a project partner's ability to exploit the innovation.

1. **Budget Justification** (approx. ~2 pages)

* Provide the reasoning behind total project cost and highlight significant cost items.
* Explain if there is any deviation from industry standards.

1. **Any additional information** (optional)

Appendix - Program Deliverables

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **#** | **Deliverable Category** | **Deliverable Type** | **Description** | **Quantity** |
| **1** | Publication | Publication in High-Impact Journal | Submit and have accepted one full-length research paper in a top-100 journal by 2024 Impact Factor (e.g. Nature, Science, Cell). |  |
| **2** | Publication | Publication in Q1 Journal Articles | Submit and have accepted original research articles in Q1 journals (Scimago SJR). |  |
| **3** | Publication | Publication in Q2 Journal Article | Submit and have accepted articles in Q2 journals. |  |
| **4** | DEMO | Demonstrator Prototype | Functional prototype showcasing project innovation. |  |
| **5** | DEMO | Proof of Concept | Validated concept model demonstrating feasibility. |  |
| **6** | Pilot Study | Field or Clinical Pilot Study | Pilot implementation with documented use-case, outcomes, and evaluation results. |  |
| **7** | IP Licensing | Technology Licensing Agreement | Licensing agreements or negotiations for intellectual property developed in the project. |  |
| **8** | Patent Filing | Patent Application Submission | Formal submission of patent applications based on project innovations. |  |
| **9** | Software | Research Software / Tool | Developed tools, scripts, or applications published or deployed. |  |
| **10** | Technical Diagram | System Architecture / Workflow Diagram | Technical drawings, blueprints, workflows, or system architecture. |  |
| **11** | Videos | Project Video or Animation | Project-related videos, simulations, or digital animations used for dissemination or demonstration. |  |
| **12** | Plan Designs | Engineering or Technical Designs | Engineering or architectural design plans contributing to implementation or scale-up. |  |
| **13** | Product | Product Ready for Commercialization | Tangible or digital product ready for market introduction and commercialization (e.g. MVP, market-tested prototype). |  |
| **14** | Others | Algorithms, Technical Diagram, Software | Documented algorithms, system diagrams, flowcharts, or software artifacts complementing the main output. |  |