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DURBAN UNIVERSITY OF TECHNOLOGY
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Project proposal for a digital funding forum platform

Prepared for: The Department of Economic Development, Tourism and Environmental Affairs (EDTEA)

Organization: Enterprise Development Unit

Project Title: Project proposal for a digital funding forum platform

Project Timeframe: 15 months

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TABLE OF CONTENTS

Technical proposal

EXECUTIVE SUMMARY

In the South African market, there are a variety of funding programs and financing schemes which are available in both the private and public sectors. However, the general awareness and availability of these programs has been very low among SMME's. Research shows the failure rate of South African SMME's is extremely high with approximately 440 000 businesses closed due to lack of funding in the last five years. The major problem facing South African entrepreneurs, is the lack of access to finance to stabilise the business operations. This has had an adverse reaction on increased unemployment, stagnated economic growth and an increase in poverty.

Introducing a digital funding forum platform to SMME's and investors will allow business the best opportunity to flourish. Simplifying the process of connecting fund seekers to investors with a central portal, providing affordable finance avenues to SMME's. The digital funding forum app will include a knowledgebase for businesses and investors to exchange best practices, aiding in growth and networking.

NEEDS STATEMENT

One of the major impediments of SMME's is the lack of access to financial support and associated services, with a credit rejection rate of 75% and constrained access to financing, it is impacting economic growth within the region and by extension impairing employment generation. The key challenges are accessing financial support and services required to sustain their business operations throughout the various stages of the business's lifespan.

The digital funding forum platform aims to bridge the information gap between finance lenders and fund seekers, allowing SMME's to showcase their business on a platform to potential investors.

PROJECT OBJECTIVES

We have identified the following project objectives from the terms of reference and conceptual document. Additional objectives maybe added as and when they are uncovered. Typically, additional objectives will be added in the project initiation phase. These objectives are:

- Design, develop, test, deploy, operationalize and maintain a web-based digital funding forum platform
- Provide users with the ability to lodge new applications and get updates on existing applications
- Proactively provide users of the system with information when existing applications are updated
- Provide trend analysis on applications to assist the EDTEA in identifying general trends in the province. These trends may relate to product or company or even geographic location
- Use information from resolved applications and marketing material to aid in the knowledgebase offered to users
- Provide archiving and record keeping facilities for all financial applications and profile information of funders

SCOPE

A high-level scope for the project has been defined below. These items will be refined as the project progresses. Additional items may be added as required however care must be taken to avoid scope creep as this may risk product quality and timelines.
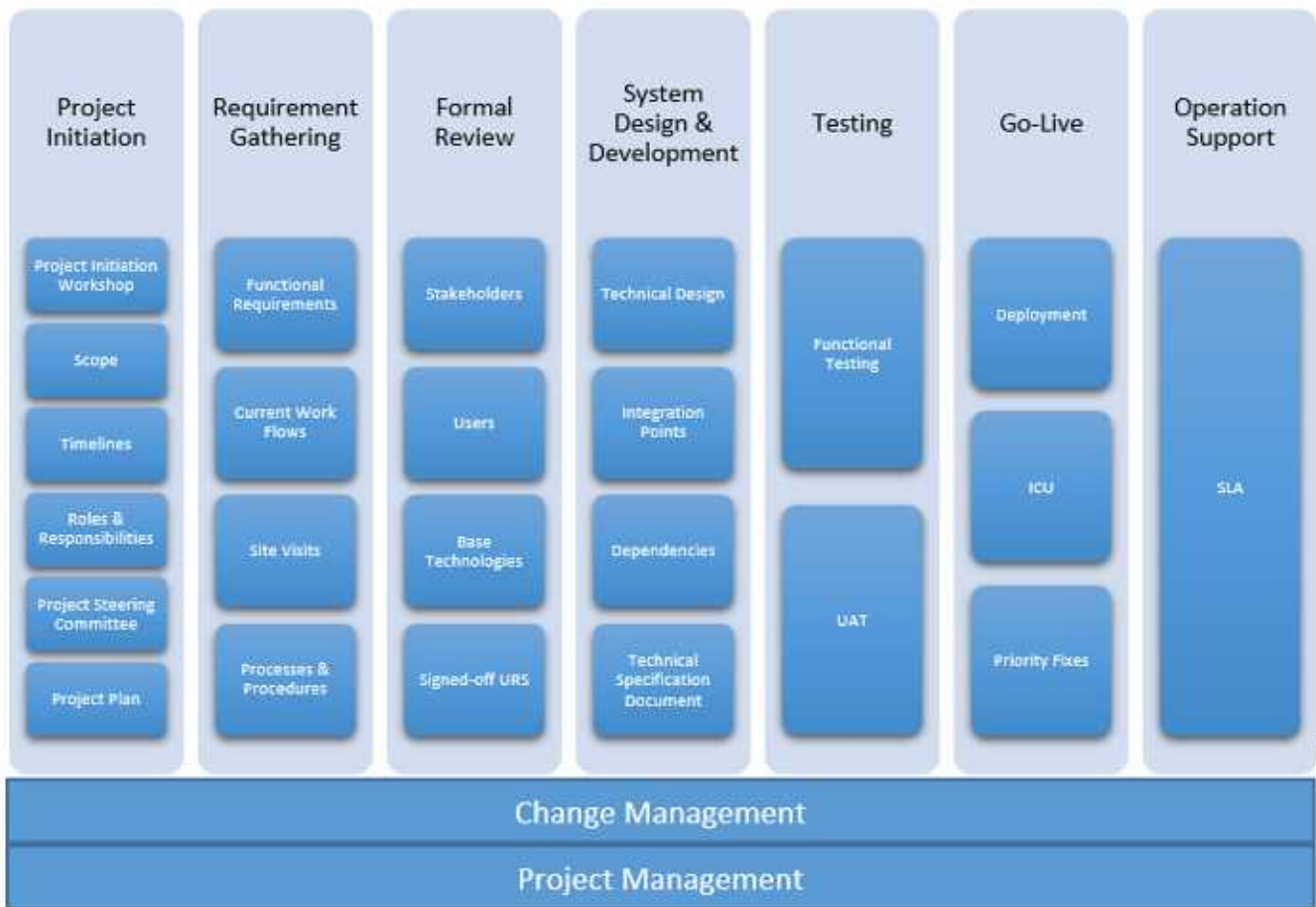
High-level Scope Items:

- Conduct the initial project definition workshop with client to agree on the scope of the project, draft a high-level project plan and define a roles and responsibilities matrix. The Project Steering Committee will also be established. The inception report will be derived from this process and provided in the required time.

- Following the project definition workshops, we will conduct meetings with the business to identify and document the functional requirements of the system, as well as current workflows. Site visits will be conducted as necessary.

- A formal review process will then be conducted with all stakeholders to confirm our understanding of the user requirements. Negotiations regarding features and options for technical design and implementation may also be

discussed and agreed-upon at this stage. This is an iterative process that will ultimately result in a signed-off User Requirement Specification Document, which will form the basis for the systems design.

- System design and development will follow a signed-off User Requirement Specification. This process will result in a fully operational system housed in a test environment that is designed to mimic live conditions. This process will result in a Technical Specification Document which will include the following:
    - o Technical Design
    - o Technologies Used
    - o Integrations Points
    - o Dependencies, both software and hardware
    - o Suggested specifications of Hardware requirements
    - o Operational Requirements including Disaster Recovery and High Availability

- System demos and walk through with EDTEA employees and stakeholders may also be conducted

- System testing will then be conducted in test environment with all functions and features being testing and signed-off by an in-house quality assurer. This process results in numerous test scripts and test plans being devised and run against the test system. User Acceptance Testing with EDTEA employees may also be conducted at this stage.

- The software will be installed and tested in a soft-go-live state on the final production environment. EDTEA stakeholders will have the opportunity to interact with the final system.

- Documentation and SOP's will be created and provided to the EDTEA. All necessary processes procedures and Service Levels will be tested and signed-off to ensure compliance and to ensure that project objectives have been met or exceeded.

- Continuous Service Improvement. The system and all components will be actively monitored for a period of three months after soft-go-live This period is usually referred to as "hand-holding" with EDU technical and project specialists being made available to resolve issues in near real time. This process will result in the Continuous Service Improvement plan which will detail changes or enhancements that we feel will improve the service.

- Finally, a project close-out meeting and lessons learnt meeting will be held to formally close the project as well as to document any import learnings that will assist both EDU and the EDTEA with any future endeavours

METHODOLOGY

As this system represents a significant financial investment by the EDTEA, it is imperative that an appropriate methodology is selected to increase the projects chance of success. EDU have refined traditional methodologies and adapted them to fit our unique style of working. Pictured below is a diagrammatic representation of our methodology.

Project Initiation	Requirement Gathering	Formal Review	System Design & Development	Testing	Go-Live	Operation Support
Project Initiation Workshop	Functional Requirements	Stakeholders	Technical Design	Functional Testing	Deployment	SLA
Scope	Current Work Flows	Users	Integration Points		ICU	
Timelines						
Roles & Responsibilities	Site Visits	Base Technologies	Dependencies	UAT	Priority Fixes	
Project Steering Committee						
Project Plan	Processes & Procedures	Signed-off URS	Technical Specification Document			

Change Management

Project Management

Our methodology is based on the traditional Systems Development Lifecycle, with additional steps added based on our experience. All of these activities are underpinned by Project Management and Change Management to ensure compliance with ITIL best practice and to deliver a system that exceeds your expectations.

APPROCH

Our approach to delivering a comprehensive solution on time and within budget will be based on our understanding of your requirements coupled with our methodology, described above. To this end we have defined an approach that we feel will best fit this project unique requirements.

PHASE 1: PROJECT INITIATION

With reference to the terms of reference; we shall provide a conceptual framework to undertake the project, detailing each phase's milestones including relevance, efficiency, effectiveness, sustainability and impact. We shall provide a detailed work plan or work breakdown structure which indicates timings, key derivable, and milestones. A work process flow chart shall be provided to keep track of progress and ensure a clear understanding between all parties at all times.

We will engage with all relevant people within your department to ensure consensus and agreement to the project milestones and deliverables.

PHASE 2: DESIGN SPECIFICATION

A business analyst shall analyse the operations, documenting the business processes, assessing the business model and identify integration points and providing a scope of work. We shall provide an industry benchmark report for evaluating operational efficiency. Use case and activity diagrams will be provided to ensure all objectives are fully catered for.

A user requirements specification document (URS) shall be provided to outline business needs, and a functional requirement document shall be included to outline technical the operations and functionality that the system must be able to perform, specific screens, outlines of work-flows performed by the system, security and regulatory compliance requirements the system must meet.

A dedicated hosting solution with a firewall shall be offered ensuring the system's availability, scalability, reliability, security and performance at 99.9% threshold.

A business continuity and disaster management plan (DMP) shall be provided and implemented to address comprehensive planning focusing on long term changes to the platform's success, illness or departure of key team members, critical malware infections, power failures, temporary office relocation, restoring servers from backup's to resume operations, and keep mission-critical functionality operational during and after a disaster, this plan shall adhere to all regulatory and international standardization. We intend on basing our Business Continuity Management approach to the ISO22301 standard.

PHASE 3: INFRASTRUCTURE SETUP

Costing overview

| Type	Cost
Project	R 1,492,125.00
Annual hosting and maintenance	R 200,000.00

For further information on costs, please see the forecast budget on page 12 of this document.

The costing option provided includes all necessary staff and resources who shall be provided with the necessary qualification and training. All staff and resources will be maintained for the duration of the project, ensuring operational efficiency. We will endeavour to monitor and an escalation if required, with consolidated reporting provided on a daily, weekly, and monthly, ad-hoc basis as required.

All resources and systems are a vital part of the success of the project, we shall provide a detailed service level plan and we shall endeavour to implement ISO 29119, designing and testing in compliance with international standards. All communication shall be recorded, referenced and archived in accordance with EDTEA requirements.

As all resources evolve and grow, we shall provide a detailed continuous service improvement plan, leveraging the PDCA cycle below to ensure ongoing efforts to improve the service we render to the EDTEA and its customers. We shall implement ISO 9001,

ISO 27001 standards for the continuous service improvement plan. The picture below is a diagrammatic representation of the PDCA cycle for the continuous improvement plan.
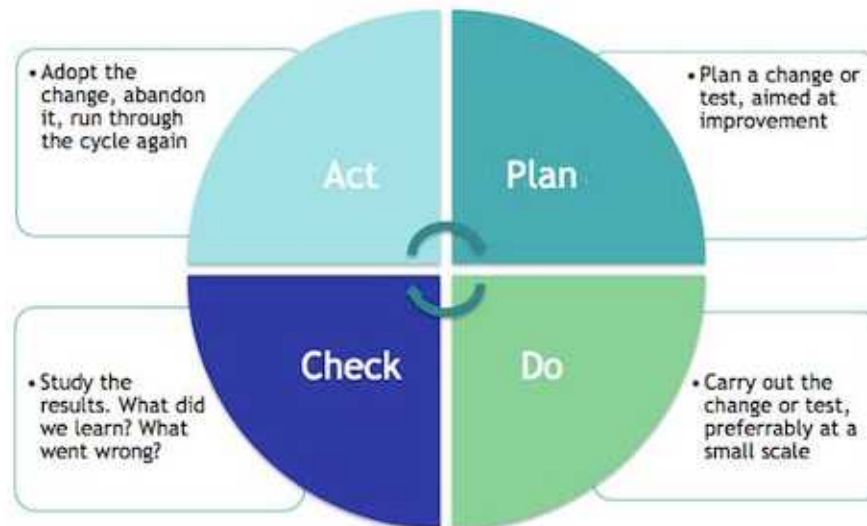
QUALITY AND SECURITY

We will endeavour to implement the following international standards to protect this project, and the final software product.

Specification	Description
ISO 27001	**Information security management system (ISMI).** An ISMS is a framework of policies and procedures that includes all legal, physical and technical controls involved in an organization's information risk management processes. *We will provide a firewall implementation adhering to Section A.13.1.2 - Security of network services*
ISO 9001	**Quality management framework (QMF).** This sets out the criteria for a quality management system and is the only standard in the ISO family that can be certified to.
ISO 29119	**International Software Testing Qualifications Board (ISTQB)** This is a series of software testing standards is to define an internationally-agreed set of standards for software testing that can be used by any organization when performing any form of software testing.

PHASE 4: SYSTEM IMPLEMENTATION

We shall provide a quality digital funding forum platform developed, maintained and hosted with the latest technologies. For clarity and clear understanding, we shall provide detailed user training, standard operating manuals, and host training workshops as required for all stakeholders or interested parties.

System security and profile management shall be provided as part of this platform. An additional e-Learning portal shall be provided to increase the knowledge base and assist in improving the usability of the platform. We endeavour to provide reports and dashboards as required as requested by the EDTEA.

PHASE 5: SOURCE DOCUMENTS AND SYSTEM HANDOVER

We shall hand over all required documentation, including manuals and licenses and source code used to develop the digital funding forum platform to the EDTEA, these resources shall become the property of EDTEA. We shall endeavour to provide a

seamless handover process thus ensuring operational efficiency and no interruption to the platform. A report shall be provided at the end of this phase.

PHASE 6: FINAL PROJECT CLOSE OUT

A monthly progress report shall be provided to the PSC, and a consolidated project report shall be provided at the end of this phase, detailing all project bottlenecks and resolution with preventative recommendations for future reference.

ADVOCACY AND AWARENESS

It is important that people and businesses understand this platform and its benefits. We shall endeavour to raise awareness through social media marketing, direct marketing publicity and a launch event for societal support. The knowledgebase will highlight benefits and usability guides of the platform, this will be used to spread up-to-date news. We will also share updates on the various social media channels for the public to follow, and publish a monthly newsletter with a summary.

JOB CREATION

This project will be expanding public and social employment, creating new job opportunities. EDU will be working vigorously to ensure the success of this project and provide coordination and implementation to EDTEA and ensure that those who need jobs the most are mobilised to be part of this project and our countries economic recovery.

PROJECT PLAN

The following high-level project plan has been created, this plan may be adjusted and refined in the project definition workshops.

EVALUATION

The success of this project will be measured by:

- Deployment of the application to the production environment
- The number of users that utilize the application, reporting daily, weekly and monthly submissions
- Tracking notifications sent to users with active applications
- Evaluating the trend predictions of applications, monitoring the predicted trend vs the actual trend
- The knowledgebase interactions by users will recorded and reported
- The Reporting on the data collected by all parties, kept securely and made easily accessible to relevant stakeholders

DISSEMINATION

The projects performance and results will be provided to the PSC in the form of a monthly report and a consolidated project report shall be provided at the final phase detailing all project bottlenecks and resolutions with preventative recommendations for future reference.

We are proud to offer the EDTEA the use of the following skilled resources for the duration of the project.

Role	Responsibility
Project Manager	Planning, executing, monitoring, controlling and closing of this project. This role is accountable for the entire project scope, project team and resources
Business Analyst	A development team member, who analyzes the business domain, documents its processes and systems, outlines business requirements, and matches a software business model with the software being built.
Software Developer	Researching, designing, implementing and managing software. This role is responsible to produce clean, efficient code based on specifications, integrating software components as necessary.
Software Quality Engineer	Reviewing quality specifications and technical design documents to provide timely and meaningful feedback. This role is responsible for creating detailed, comprehensive and well-structured test plans and test cases. Estimating, prioritizing, planning and coordinating quality testing activities.
Administrator	This role includes coordinating office activities and operations to secure efficiency and compliance to policies. Managing correspondence and work items. Create spreadsheets and presentations, handle budgeting and bookkeeping procedures.

Financial proposal

FORECAST BUDGET

We have prepared a detailed forecast budget for the anticipated duration of the project.

Resource/Month	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	Total
Project Manager	R17 500,00	R17 500,00	R17 500,00	R17 500,00	R17 500,00	R17 500,00	R17 500,00	R17 500,00	R17 500,00	R17 500,00	R17 500,00	R17 500,00	R17 500,00	R17 500,00	R17 500,00	R262 500,00
BA/DBA	R20 000,00	R20 000,00	R20 000,00	R20 000,00	R20 000,00	R20 000,00	R20 000,00	R20 000,00	R20 000,00	R20 000,00	R20 000,00	R20 000,00	R20 000,00	R20 000,00	R20 000,00	R300 000,00
Software Developer	R20 000,00	R20 000,00	R20 000,00	R20 000,00	R20 000,00	R20 000,00	R20 000,00	R20 000,00	R20 000,00	R20 000,00	R20 000,00	R20 000,00	R20 000,00	R20 000,00	R20 000,00	R300 000,00
Software Quality Engineer	R20 000,00	R20 000,00	R20 000,00	R20 000,00	R20 000,00	R20 000,00	R20 000,00	R20 000,00	R20 000,00	R20 000,00	R20 000,00	R20 000,00	R20 000,00	R20 000,00	R20 000,00	R300 000,00
Administration	R5 000,00	R5 000,00	R5 000,00	R5 000,00	R5 000,00	R5 000,00	R5 000,00	R5 000,00	R5 000,00	R5 000,00	R5 000,00	R5 000,00	R5 000,00	R5 000,00	R5 000,00	R75 000,00
Consumables	R0,00	R0,00	R0,00	R0,00	R0,00	R0,00	R0,00	R0,00	R0,00	R0,00	R0,00	R0,00	R0,00	R0,00	R0,00	R0,00
Software	R0,00	R0,00	R0,00	R0,00	R0,00	R0,00	R0,00	R0,00	R0,00	R0,00	R0,00	R0,00	R0,00	R0,00	R0,00	R0,00
Hardware	R0,00	R0,00	R0,00	R0,00	R0,00	R0,00	R0,00	R0,00	R0,00	R0,00	R0,00	R0,00	R0,00	R0,00	R0,00	R0,00
Internet	R0,00	R0,00	R0,00	R0,00	R0,00	R0,00	R0,00	R0,00	R0,00	R0,00	R0,00	R0,00	R0,00	R0,00	R0,00	R0,00
Travel	R2 000,00	R2 000,00	R2 000,00	R2 000,00	R2 000,00	R2 000,00	R2 000,00	R2 000,00	R2 000,00	R2 000,00	R2 000,00	R2 000,00	R2 000,00	R2 000,00	R2 000,00	R30 000,00
Marketing	R2 000,00	R2 000,00	R2 000,00	R2 000,00	R2 000,00	R2 000,00	R2 000,00	R2 000,00	R2 000,00	R2 000,00	R2 000,00	R2 000,00	R2 000,00	R2 000,00	R2 000,00	R30 000,00
Office space	R0,00	R0,00	R0,00	R0,00	R0,00	R0,00	R0,00	R0,00	R0,00	R0,00	R0,00	R0,00	R0,00	R0,00	R0,00	R0,00
Utilities	R0,00	R0,00	R0,00	R0,00	R0,00	R0,00	R0,00	R0,00	R0,00	R0,00	R0,00	R0,00	R0,00	R0,00	R0,00	R0,00
Total (Excluding VAT)	R86 500,00	R86 500,00	R86 500,00	R86 500,00	R86 500,00	R86 500,00	R86 500,00	R86 500,00	R86 500,00	R86 500,00	R86 500,00	R86 500,00	R86 500,00	R86 500,00	R86 500,00	R1 297 500,00
Total (Including VAT)	R99 475,00	R99 475,00	R99 475,00	R99 475,00	R99 475,00	R99 475,00	R99 475,00	R99 475,00	R99 475,00	R99 475,00	R99 475,00	R99 475,00	R99 475,00	R99 475,00	R99 475,00	R1 492 125,00

If required, the resources marked as zero in the table above shall be provided by EDTEA.

PRIMARY CONTACT PERSONS

Name and Surname	Office number	Cell number	email	Designation
Professor Sibusiso Moyo	031 373 3607		dvcrie@dut.ac.za	DVC: Research, Innovation and Engagement
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