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Definitions of Research or Development Projects

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What type of project are you seeking funds for?

(Research Innovation Project, Development Innovation Project, Both, or Other)

Purpose

The purpose of this document is to provide a clear and concise differentiation between innovative research and innovative development projects.

It aims to guide applicants for the Grand Challenges Nigeria (GCNg) funding in understanding the key characteristics and objectives of these two types of projects. By outlining the distinct features, stakeholder involvement, nature of work, and typical outcomes of innovation research and innovation development projects, this document assists applicants in categorizing their ideas accurately. Furthermore, it explores the possibility of projects encompassing both research and development elements, encouraging applicants to consider the full spectrum of their project's potential impact.

Scope: The scope is limited to providing a foundational understanding for applicants to classify their projects effectively and does not delve into specific application procedures or funding criteria. It is designed as a guide for those considering submitting proposals for the GCNg funding, ensuring clarity in project categorization and alignment with the grant's objectives.

Background

The distinction between research and development projects lies in their fundamental objectives and methodologies. A research project primarily seeks to expand knowledge and understanding, focusing on exploring uncharted territories, investigating novel phenomena, or verifying existing theories. In contrast, a development project is oriented towards creating practical applications by leveraging existing knowledge.

Both research and development can be innovative. Innovative research projects push the boundaries of knowledge, offering fresh perspectives and novel approaches and interpretations to existing problems. These projects are essential in addressing global challenges, as they provide the intellectual groundwork that can be harnessed for practical solutions. Innovative development projects, on the other hand, transform research insights into tangible outcomes that can deliver significant value to

various stakeholders, from individuals and organizations to society at large. They can disrupt markets or systems, introduce new functionalities, and offer enhanced experiences.

The relationship between research and development can be described using the concepts of constructive collaboration and symbiosis. Constructive collaboration refers to the idea that the combined output of research and development efforts is greater than the sum of their contributions. Symbiosis emphasizes the interdependence and mutual benefit between the two; research provides the foundational knowledge necessary for development, while development applies and often refines this knowledge, generating new questions and areas for research.

In practical terms, the interplay between research and development results in a dynamic cycle of innovation, where each phase informs and enhances the other. Innovative research projects lay the groundwork for future advancements, while innovative development projects bring these advancements to life, offering practical benefits and potentially spurring new avenues of research.

Criteria	Research Project	Development Project
Objective	The primary goal is to generate new knowledge, theories, or understanding. It focuses on exploring unknown areas, investigating new phenomena, or verifying existing theories.	The main goal is to create a new product, service, or process, or improve existing ones. It focuses on applying existing knowledge to develop practical applications.
Stakeholder Involvement	Stakeholders encompass a broad spectrum that may include academic collaborators, institutions, funding agencies, and the broader scientific community.	Conversely, stakeholder involvement is often more focused on end-users, the Government, investors, and internal teams.
Nature of Work	Typically involves systematic investigation, experimentation, and analysis. The outcomes are often theoretical or conceptual.	Involves design, prototyping, testing, and iteration. The work is often more practical and application oriented.
Outcome	Produces reports, academic papers, or patents that contribute to the scientific community's knowledge base. The results are often disseminated through publications and presentations.	Results in tangible products, services, or systems that can be marketed, used, or implemented. The outcomes are practical and functional.
Examples	Researching the molecular mechanisms of a specific cancer type to understand how it progresses.	Developing a new targeted therapy drug based on the research findings, followed by clinical trials and regulatory approval processes.

Conclusion

In summary, research projects are primarily focused on expanding knowledge and understanding, while development projects aim to create or improve practical applications based on existing knowledge. Research endeavours contribute to the scientific foundation, enabling future innovations, while development projects translate these innovations into real-world solutions. However, projects can indeed span both categories, representing a continuum from theory to practice. This overlap often leads to groundbreaking innovations with profound impacts.

Therefore, applicants should carefully consider the nature of their projects to determine the most appropriate category or acknowledge a blend of both, ensuring alignment with their goals and the broader impact they seek to achieve.

References

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