



CALL FOR PROPOSALS: UCT 2030 RESEARCH CATALYTIC PROGRAMME

Grand Challenges Programmes and Pilot Projects

Call duration: 13 June - 16 September 2022

Submission of applications to the Research Office via
internationalgrants@uct.ac.za

UCT's 2030 Vision for Research strives to unleash knowledge in, for and from Afrika to redefine and co-create a sustainable global future. The implementation plan for this vision recognises the need for enhanced research support systems, facilitating approaches to inter- and transdisciplinary research and to engaged scholarship, development of the next generation of transformed and diverse research leaders, the nurturing of strong postgraduate programmes and the facilitating of impactful research programmes, particularly those focused on grand challenges core to Africa.

The 2030 Research Catalytic Programme, developed to deliver on this implementation under the custodianship and leadership of the DVC responsible for Research & Internationalisation, Prof Sue Harrison, will comprise of various initiatives.

The first of these is the UCT Vision 2030 Grand Challenges Programme, which seeks to provide impetus to further advance on UCT's research and innovation capabilities for addressing Africa's Grand Challenges. Through this initiative we aim to build and leverage on our unique and emerging strengths in a way that will enable and enhance UCT's capacity to contribute meaningfully to generating new knowledge relevant to, and for the benefit of, the City of Cape Town and its surrounding areas, South Africa and our continent while, importantly, also contributing positively to the global knowledge base from our Global South perspective. Through the Initiative we also seek to build the next generation of transformed and diverse research leaders to maintain sustained research excellence at UCT.

Proposals are invited for two research calls within the UCT Vision 2030 Grand Challenges Programme, building towards UCT's Research 2030 Vision:

- The Vision 2030 grand challenges programmes
- The Vision 2030 grand challenges pilot projects.

These calls, centred within UCT's strategic priority research areas and built on an inter- and transdisciplinary research approach, are detailed below.



The University Research Committee has approved, under the 2030 Research Catalytic Programme, five priority areas based on UCT's areas of strengths – see Annexure A.

VISION 2030 GRAND CHALLENGES RESEARCH CALL

Through the UCT Vision 2030 Grand Challenges Research Call, the University will support Grand Challenges programmes and pilot projects.

In line with UCT's 2030 Vision for Research and its intent of advancing Africa-led impactful and translational research focused on the Grand Challenges critical to our society and of building capacity in discipline-grounded inter- and transdisciplinary (IDTD) research required to address these, the University invites teams of researchers drawn from across relevant disciplines and departments to develop proposals for grand challenges programmes that seek to address pressing grand challenges at national and/or continental levels. The proposals must demonstrate the impactful approach and transformative potential of IDTD and multi- sectoral collaborative research in addressing the Sustainable Development Goals.

1. VISION 2030 GRAND CHALLENGES PROGRAMME

The Vision 2030 Grand Challenges programmes must support big and bold research ideas that have high potential for impact, scale, and sustainability. The programmes must be of large scale, with the overarching focus based on any or a combination of the five priority areas (listed in Annexure A), where applicable include emerging critical research areas such that the programme will confer a competitive advantage for the University.

The Programme will provide 3-year funding grants, with potential for renewal for a further two cycles of three years (should funding be made available to the Research Office for this). Successful applications are also expected to secure significant external research funding to ensure self-sustainability beyond the funding period. The University envisages to support two programmes at a maximum annual amount of R2M in the first year and R3M in subsequent years (totalling 8M per programme). The grant will cover research-related activities including running costs, travel costs, research postgraduate scholarships, postdoctoral fellowships and pro-rated salaries for soft-funded research staff, excluding costs for large capital items above R100 000 (motivation considered in unusual cases). The proposed budget should be well motivated. In addition, Junior Research Fellowships and Postdoctoral Research Fellowships may be allocated to the selected programmes on motivation through a separate process.

Proposals can bring together sub-themes within the five priority areas. Underpinning competencies such as data science, big data, 4IR technologies, developmental studies, governance etc. may be embedded in the proposal.



Furthermore, proposed programmes must:

- Address a grand challenge recognised to be of importance in Africa, with potential for global reach;
- Identify the programme's geographic focus e.g., Cape Town, South Africa, Africa or defined sub-region within these;
- Demonstrate how the new research and innovation programme will build and leverage on existing strengths and achievements;
- Outline the pathway for translational research towards uptake and policy influence;
- Use a cross-cutting inter- or transdisciplinary approach, built on disciplinary strengths from multiple research teams from at least four departments, drawn from at least two faculties;
- Address at least two of the Sustainable Development Goals (SDGs);
- Have a significant collaboration with at least two external non-academic partners, for example, NGOs, policy makers, civil society and/or industry;
- Including researchers from other academic and research institutions will be an advantage;
- Have a demographically (gender and race) diverse project leadership team;
- Plan to build critical mass in the broad areas in a way that will sustain excellence in research through production of the next generation of future research leaders.

Expected deliverables for Grand Challenges programmes:

- Socio-economic, political, legal, creative, technological, policy or other impact of the research; This includes demonstrable translation for societal and/or environmental benefit;
- Training of students, particularly at master's and doctoral levels; with a focus on the number and demographic profile of students trained and on student throughput rate, in addition to ensuring good student experience and development opportunities;
- Critical mass of adequately skilled researchers, including early career researchers, technical staff and postdoctoral research fellows;
- Accredited research, creative research, and innovation outputs, including inter- and transdisciplinary outputs, with emphasis on quality of outputs
- Leveraged external programme-based funding;



- Level and significance of established collaborations, partnerships and networks with industry, civil society, government departments and other strategic partners nationally, regionally and/or internationally;
- Other measures, including staff and student prizes, prestigious awards, NRF ratings, plenary and key-note speakers, etc.

2. VISION 2030 GRAND CHALLENGES PILOT PROJECTS

Seed funding for pilot projects to stimulate research and piloting of ideas towards formation of large-scale programmes addressing the Africa-focused grand challenges, as set out above, is offered. The University invites teams of UCT researchers from at least three departments, drawn from at least two faculties to develop proposals in support of promising cross-disciplinary research projects.

Up to 4 pilot projects at a maximum of R500k per annum will be supported, renewal where needed and motivated for a second year (maximum of R1M per project over two years). Under exceptional circumstances, this may be re-calibrated to 2 projects at a maximum of R1M per annum. The grant will cover research-related and project development activities including research postgraduate students, postdoctoral fellowship and pro-rated salaries for soft-funded research staff (both academic and support). The proposed budget should be well motivated. In addition, Postdoctoral Research Fellowships may be allocated to selected projects through a separate process and on motivation.

The University will provide funding for a single year, renewable for a 2nd year where needs require, and appropriate motivation is provided. This funding forms a basis for project development and pilot research to enable the development of expanded projects, which can be funded from externally sourced research funding and/or Vision 2030 Grand Challenges grant funding (subject to availability of funding). Successful seed projects will be prioritised by the International Grants Hub (Research Office) and, where possible, the Development & Alumni Department (DAD) for assistance in securing external funding for large scale projects of extended duration.

Expected outputs for Grand Challenges pilot projects include:

- Project developed to full-scale research or innovation project;
- Leveraged funding to support the full-scale research project;
- Recognised research output units, including creative and innovation outputs should be at least two per annum;
- Training of postgraduate students; with a focus on the demographic profile of students trained and on student throughput rate;
- Level and significance of established collaborations, partnerships and networks with industry, civil society, NGOs, academic collaborators -



particularly in South Africa and elsewhere in Africa, government departments and other strategic partners nationally, regionally and/or internationally.

ADDITIONAL INFORMATION AND APPLICATION MATERIAL

A: APPLICATION AND SELECTION PROCESS

Each proposal must include:

- Programme/Project title and details of Principal Investigator and Co-Investigators with their department and faculty of primary appointment.
- An abstract, written for a general audience, that summarizes the programme/project and its expected outcomes. The abstract must not exceed 300 words.
- Proposal detail on the scope of work, including the objective(s), the significance and relevance of proposed work, the methodology or approach to be used, the expected outputs and outcomes, and the contribution that a successful project in delivering on the University's strategic goals. A template will be provided by the International Grants Hub in the Research office on request or on submission of an [intention to submit](#)
- A theory of change. A template will be provided.
- A budget that lists the major categories of expenses, with a budget justification.
- Plans to move towards financial sustainability
- A management plan, explaining the roles of each investigator in the project and including a 2-page biosketch for each investigator. A template will be provided.
- Ethics review and clearance by the most suitable faculty research ethics committee(s) or the IF-REC will be required.

B: BRAINSTORMING EVENT

To stimulate brainstorming and the building of across disciplinary teams around a common focus on the grand challenge of interest, a sandbox event will be hosted. Further details on this event to follow.



ANNEXURE A: VISION 2030 RESEARCH PRIORITY AREAS

1. Advancing Africa

building towards Africa's agenda and "the Africa We Want" (AU Agenda 2063)

- Climate mitigation & adaptation
- Poverty & Inequality
- Building Economic Complexity
- Crime & Violence
- Southern Urbanism / Cities in Afrika
- Youth empowerment & health
- Health infrastructure
- Infrastructure for development

2. Our Southern Location

focuses on knowledge specific to our location, providing unique insights and targeted benefit

- Southern Skies
- Southern Oceans
- Biodiversity: our unique biomes

3. Building a Healthy Afrika

a focus on our health and health equity

- Infectious diseases
- Low-cost biotechnology solutions
- Vaccine discovery & efficacy
- Health Equity
- Drug Discovery
- Brain Health
- Child & Adolescence Health

4. On Being Human

is about advancing equity, justice, and belonging and how different communities can be furthered in terms of historical injustices

- Heritage & Identity
- Citizenship & Democracy
- Gender & Sexuality Studies
- Governance

5. Natural Resource Efficiency for Sustainable Development

Valuing our natural resources and how we use them within their regenerative capacity

- The Biosphere & Biodiversity (incl. Human-wildlife conflict)
- Water – quality, quantity and equity
- Food security
- Minerals & Soils
- Atmosphere
- Energy

Underpinned by:



- Data science and big data
- 4th Industrial Revolution studies
- Governance
- Research integrity