UNIVERSITY OF CAPE TOWN: THE REALIZATION OF ITS RESEARCH POTENTIAL 2015 – 2025

INTRODUCTION

What we want to be

Research is a transformative activity: it has the power to change how the world works and how people think – and universities are today the sites of the most exciting thought about the future. The combination of disciplinary depth of understanding coupled with the opportunity to learn from other disciplines ensures that universities are ideally placed to find solutions to the complex problems that face the world – whether those problems are local or global. The opportunity to be a shaper of the future is part of the reason why the best minds are drawn to universities, where they are given the opportunity to make the discoveries that make our country, our continent, and our world a better place. Moreover, we want to be an important gateway to our continent. Thus we have publically stated that, by taking advantage of our global networks and our distinct vantage point in Africa, we want to be a meeting point between South Africa, the rest of Africa and the world.

Through our research and innovation, we want to contribute to the better health of our nation's citizens and those of our continent, we want to help build democracy across Africa, we want to encourage sound public policies that are efficient in enhancing education and cultural life, in eliminating poverty, and in creating the conditions for a meaningful life. Through our research we want to confront big questions such as globalization and climate change; and we want to be at the forefront of the great scientific quests of the day, such as the drive to understand the origins of the universe and its makeup; or to unravel the mysteries of the brain.

The University of Cape Town holds the position of South Africa's and Africa's leading university (as measured by all the top ranking systems) mainly due to its superb research output. However, in the intensely competitive modern academic world, in order not to stagnate, the University has to set itself new and ambitious targets in order to inspire and enable staff and students to achieve even greater heights in research. To this end, the University has declared that it wants to be *research intensive*. To achieve this status, we believe, it would be most productive not to dwell on simplistic comparisons with our local and global competitors, but rather to aspire to doing what we do ever better, that is to say, to set ourselves the ideal of excellence in everything that we do – and in this way to be firmly recognised as one of the very best universities in the world. We believe that, in setting and achieving this goal, we will serve both South Africa and the rest of our continent. We will contribute to research and innovation, and the ability to innovate, in a world where new and radical thinking ensures the competitive edge.

What we commit to

We realise that to achieve this goal, we have to commit ourselves to certain basic principles:

1. We affirm that academic freedom is a central prerequisite to fostering intellectual debate and free inquiry, and we reiterate our commitment to protecting this freedom vigorously.

2. We recognise that an integral part of academic freedom is the ability to undertake the research that one believes should be done - and therefore we will cherish the right to pursue knowledge for its own sake and we commit ourselves to protecting basic research and to nurturing and valuing creativity in the sciences and arts, including the performing and creative arts.

3. We acknowledge that, on the one hand, excellent research requires a context of disciplinary strength, while, on the other, the cutting edge is often to be found at the intersection between disciplines – and therefore we commit ourselves both to nurturing our basic disciplines and to fostering interdisciplinary research. Furthermore, we are committed to engaged scholarship as a means of creating knowledge that is relevant to our context and we recognise interdisciplinary research and engaged scholarship as primary vehicles through which we are able to realise our goals of producing knowledge that will have a meaningful societal impact.

4. We are acutely conscious of the fact that all research must be conducted to the highest ethical standards and we commit ourselves unreservedly to maintaining ethical standards at the level that is internationally accepted as best practice.

5. We realise that excellent research is inextricably bound to it being properly resourced. We therefore commit ourselves to ensuring the optimal availability of all the different kinds of resources appropriate to a world-class research endeavour: funding, both internal and external; a well-resourced and technologically enabled library; equipment that supports top-end research as well as skilled staff to maintain and service the equipment; state-of-the-art ICT support; advice- and support-structures to assist researchers with their funding applications, ethical concerns and the general advancement of their research; and support in entering into research contracts, protecting intellectual and cultural properties and bringing innovations to the market.

6. We affirm the central importance of international co-operation in the production of high-impact research and we commit ourselves to stimulating international linkages of researchers and research groupings; and, given our vantage point, we further commit ourselves to extending our networks on the continent and to expanding our expertise together with our colleagues in Africa and offering it to the world. We further affirm the importance for the research endeavour of having an internationally diverse staff and student body.

7. We recognise that excellent research is inextricably linked with being able to attract the best staff and graduate students and that, in order to do so, we need to create a welcoming, supportive environment. In particular, we are conscious of the fact that we need to ensure that we create an inclusive environment which supports our ambitions to reach beyond the injustices of the past and the distortion of opportunities afforded to previous generations of staff and students.

8. We strongly support the open-access movement and we commit ourselves to refining continually the University's policies aimed at making our research optimally visible, available and impactful.

9. We recognise that our plans to improve our research performance must be constructed in such way that it is fully consistent with the teaching and learning mission of the University. The production of knowledge through research, the dissemination of knowledge through teaching, and its further dissemination as a part of engaged scholarship are critical to the University's mission. To deliver most effectively on this mission may require a certain measure of differentiated expectations in regard to the research and teaching performance of individual staff members. Neither research nor teaching should be rewarded to the detriment of the other.

10. We unequivocally affirm our commitment to excellence and the need to encourage research that is of the highest possible quality, working hard to ensure that we maximise the relevance and specific implications of our research, policy and strategy outcomes to alleviate the social challenges that we face.

Terminology

Before setting out the details of our strategy it is important to explain the sense in which we use key terms in this document:

'Research-intensive': This term is preferable to 'research-led', which has been the term employed by UCT to describe itself until now. First, 'research-led' can be understood to relegate the teaching function of the University to a lesser place than research, whereas its intended meaning is to stress the central place that the University accords research, but not to stress it at the expense of teaching. As Gerhard Casper, a former President of Stanford University, once put it in describing what a research-intensive university is: 'I do not use the common American designation "research university" because, as will become apparent, I do not think of the university as a research institute, but as an institution where the intensity of research is part and parcel of the traditional university functions of teaching and learning.'[1] This is also how UCT sees itself. Secondly, although 'research-led' and 'research-intensive' are sometimes used as synonyms, in the sense of denoting universities that are 'primarily dedicated to the search for knowledge', the term 'research-intensive' has come to be used in many quarters as describing universities at the top end of universities in this category, that is to say, universities that do world-leading research across a wide range of disciplines; attract a postgraduate student population that is in the region of 40 per cent of the on-campus student population – a large proportion of whom are doing research Master's and PhDs; receive the greater part of their research income from outside sources; are strongly internationally oriented – as evidenced by their staff composition and their student population; engage in pure and applied research; and teach in ways informed by current research. .

'Interdisciplinary research': We adopt the definition of interdisciplinary research accepted by National Science Foundation in the USA: 'Interdisciplinary research is a mode of research by teams or individuals that integrates information, data, techniques, tools, perspectives, concepts, and/or theories from two or more disciplines or bodies of specialized knowledge to advance fundamental understanding or to solve problems whose solutions are beyond the scope of a single discipline or area of research practice'.[2] In some instances, interdisciplinary research leads to knowledge being integrated in such a way that a field beyond the original disciplines is created, often referred to as transdisciplinary research. In this document we will refer to interdisciplinary/transdisciplinary research by using the acronym 'IDTD'.

'eResearch': eResearch refers to the capacity to apply advanced computing and internet communication technology (ICT) in research and an eResearch Centre is aimed at working side-by-side with researchers to provide this support, including the ability to store and manage research data (including very large datasets), to apply high-performance computing to the data, to analyse the data using visualisation and other analytical tools, and to collaborate virtually with research partners across the world.

'Innovation': The UCT Innovation Working Group has defined innovation as 'the creation and successful implementation of new ideas and inventions that make a real difference through the generation of tangible outcomes (products or processes) with social and / or financial value'.

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[1] 'The advantage of the research-intensive university', address delivered at the Peking University Centennial, on 3 May 1998 in Beijing.

[2] This is the definition developed by Committee on Facilitating Interdisciplinary Research, Committee on Science, Engineering, and Public Policy (2004).*Facilitating interdisciplinary research*. National Academies. Washington: National Academy Press, p. 2.

2 OUR STRATEGY FOR BECOMING A RESEARCH-INTENSIVE UNIVERSITY

How will we give substance to the vision of UCT as a research-intensive university? How will UCT realize its research potential? What specific objectives do we need to put in place that will promote research-oriented scholarship with an international outlook that competes with the best in the world?

To achieve success we will require a strategy that encompasses a number of different dimensions. It will have to take into account (i) that research at UCT is produced in a complex way in departments, units, centres and institutes, some of these overlapping with each other spontaneously and some consciously put together as signature themes, and with a range of governance structures and methods of ensuring quality, (ii) that UCT values equally all the disciplines contained within it and that the promotion of research must be sensitive to the different needs and sensibilities across the University; (iii) that careful and dedicated support to our researchers (in both the human and technical spheres) is a central component of our success thus far and essential to us retaining a leading role in the world and transforming our university; and (iv) that the University must find creative ways to inspire and incentivise researchers.

Below we set out the key components of this strategy.

2.1 THE TIME LINE: 2015 - 2025

To make a meaningful change to the research performance of a university requires time. Significantly improved results in research will require a variety of new, carefully planned policies and the dedicated implementation of these policies over time. It is important to aim high, but to plan properly. Below, we set a decadal strategy with enough time to achieve the raised contributions that we envisage.

2.2 RESOURCING RESEARCH

The Department of Education and Training (DHET), the Department of Science and Technology (DST), and the Medical Research Council (MRC) are the major sources of South African governmental funding for UCT's research and they will remain an important part of our strategy to fund our research. We continue to hope that the dream expressed by the Minister of Science and Technology around the middle of the last decade, namely to achieve a spend of 1% of GDP on research and development, might still be realised and even exceeded to reach 1.5% and that that will lead to increased funding of the research effort of universities. However, the current reality is that the average per-capita funding of our researchers from these governmental sources has significantly declined in real terms during the last decade and the predicted growth rate of the South African economy over the next decade makes it unlikely that these sources will be able to deliver the level of *general* funding necessary for us to keep up with the global expectations of research performance at top-end universities. (Governmental funding is, however, expected to continue to be available in a variety of instances for specific purposes and projects and these funds from various Departments such as Science and Technology, Health, Trade and Industry and from entities such as the Treasury and the Water Commission must actively be pursued as part of UCT's total funding strategy.)

Considering the very tight governmental funding environment, together with the fact that the national funding system is hampered by a lack of flexibility, in that a large proportion of the money that is available to the NRF is tied up in ring-fenced projects, those universities that place research at the centre of their activies – especially one like UCT that aspires to become research-intensive – must accept the challenge increasingly to find their own funds – over and above those provided by the state funding agencies.

Of course, UCT has very successfully won external funding over a long period of time, and our experience in this regard will stand us in good stead. (For instance, UCT's research income rose from R230 million in 2004 to R894 million in 2012 and the value of the new research contracts signed in 2013 by UCT in 2013 was just below R1 billion.) However, in the context of the targets that research-intensive universities currently set for themselves and the amounts of funding that our global competitors have at their disposal, it will be necessary to achieve at an even higher levels to remain competitive overall and be a leader in our chosen fields.

In embarking on this new level of activity to fund our research appropriately, we will have to do things that we have never done before and also do things that we currently do even better:

> We will develop an evolving fundraising plan in co-operation with DAD that is specifically focused on raising funds for research; the plan will be created in close co-operation with the researchers in various departments and research units and tailored to their specific needs and aimed at the funders that are most likely to be interested in their research. UCT has before raised funds for research equipment and scholarships from donors, but we have not had an overarching strategy to raise funds to support the research effort as a whole.

> We will strengthen the training of and guidance to all our researchers in gaining increasingly sophisticated abilities in grant-writing and we will constantly review all our other internal research-support mechanisms (discussed in more detail below) as well as our application processes to ensure that, when our researchers are competing for local and international funding, they are doing so on a level playing field.

> We will target the development of strategic partnerships that have clear goals and deliverables as a mechanism to drive fundraising for research (set out in more detail below).

Adequate funding within the University is also necessary to oil the research wheels and to galvanise, inspire and support researchers. In this regard it is of vital importance that we work out how to incentivise our high-performing researchers in imaginative and sustainable ways. Incentive strategies should include recognition for bringing large research grants into the University, publishing work with a high impact on a regular basis and it should contemplate appropriate business plans for soft-funded researchers, and the production of greater numbers of Master's and PhD degrees.

We recognise that the production of world-class, internationally competitive research cannot, and should not, come entirely from outside sources and it is vital that the University contributes to the costs associated with developing and maintaining a research infrastructure, the sustainability of formative disciplines as well as the stimulation of new research themes, especially cross-cutting ones, and to train the next generation of academics. To this end, as soon as budgetary conditions allow, we will appropriately increase both the standard URC Block Grant and the URC Growth Block Grant (approved in 2011).

Resourcing is about more than providing funding for research. It also involves providing adequate equipment for research and we commit ourselves to developing a comprehensive policy to ensure that UCT researchers have access to the equipment that is needed to conduct top-level research. However, proper resourcing in terms of equipment also includes making the best use of what one has and to this end we will improve our ability to share the infrastructure that we have by making visible what equipment is available where, who can apply to use it, and what it costs.

Resourcing in the modern research environment also means cutting-edge IT support. This includes having abundant bandwidth, a sophisticated research portal (described in more detail below), and the ability to store and analyse very large data sets. Proper resourcing further involves having in place an excellent library, equipped to provide the services required in a modern, top-end research environment, including the capacity, fully integrated with ICTS and developed with the co-operation of the researchers

themselves, to capture, store and manage research output in a way that is consistent with UCT's open-access policy as well as the capacity to store and manage research data.

Last but not least, offering efficient finance and HR support to researchers is part and parcel of the proper resourcing of research and levelling of the playing fields for our researchers. The high-stakes environment in which we compete for research funds requires maximum flexibility in regard to the appointment of staff as well as efficient tracking mechanisms in respect of how research funds are being used. In both these areas we are in the process of working out what changes to policy and organisational design will be necessary to improve UCT's research-administration capacity in this context.

2.3 SUPPORTING RESEARCH

In order to make research truly central to the University's endeavours means the capacity to support researchers at every level and to have available a variety of mechanisms to do so.

Research-development support offered to staff

The UCT Framework for Research Development is geared to playing a transformative role and aims to support researchers at different levels of – and indeed throughout – their research careers. The Emerging Researcher Programme (ERP), the Programme for Research Development (PERC) and the Supervision Training Programme (STP) have all contributed meaningfully to this goal. We are committed to refining our provision of research-development offerings to be able to provide even more sophisticated support to our researchers at every stage of their careers.

Support to soft-funded researchers

Soft-funded researchers as a group contribute meaningfully to the research enterprise, since this section of the UCT research community contains many important research leaders as well as many of those who will constitute the next generation of academics. It is therefore important that the University should find the right balance between supporting the soft-funded research enterprise without imposing budgetary obligations that will unnecessarily curtail the freedom to create research units outside of GOB constraints. Besides encouraging faculties to identify, recognise and incentivise soft-funded researchers in their areas, the URC will provide support for such researchers who currently do not qualify for URC support[3] to undertake short research visits and attend conferences. Similarly, T2 contract researchers will be eligible for certain categories of support in the Emerging Researcher and Thuthuka programmes.

Support to young persons to enter academia and contributing to transformation

In addition to renewed emphasis on the importance of postgraduate student training and the role of postdoctoral fellows to strengthen the research enterprise, UCT is mindful of the need for career tracks for those that exit the postdoctoral phase but are not yet positioned in the system as fully-fledged academics. The current groundswell of awareness regarding the rich resources for research and the future of academia inherent in this cohort confirms the importance of looking after this section of our scholarly community. We are determined to train our postgraduate cohort and postdoctoral fellows in a way which prepares them optimally for entry into careers in scholarship and the world of work generally.

Furthermore, our Programme 'Growing the Next Generation of Academics' (NGA) involves training and retaining people for academia in and for Africa. Launched through the provision by the Carnegie Foundation of a substantial number of doctoral and postdoctoral fellowships in areas where it is a particular challenge to retain scholars for academia, this programme demonstrates UCT's commitment to strengthen higher education on the African continent and to ensure that UCT is a place that attracts a culturally and internationally diverse community of scholars. This approach helps to create a more

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[3] Soft-funded researchers who are on permanent conditions of service – and many are – qualify of course for all URC-funded opportunities.

equitable and non-racial society that is affirming and inclusive of all staff and students and promotes diversity in demographics, skills and backgrounds and we are committed to expanding and strengthening it.

Support for research through advanced internet communication technology

Excellent research in the 21st century presupposes excellent ICT support and to this end we commit to developing our growing ICT support for research by completing the creation of a fully integrated research portal. This portal will give researchers a one-stop shop from which they can access their (i) online research tools, (ii) research data, (iii) research contracts, (iv) grants and grant applications, including ethics clearances, (v) student details and MoUs, as well as (vi) the HR details of research staff working for them, (vii) the finance information pertinent to all their grants and research contracts. It will also allow researchers to deposit work in the library's repository for open-access purposes (and this includes of course the deposit of PhD theses) and to display their research profiles efficiently. In its completed form it will provide one place for a researcher to update all their details which can then automatically be pulled into applications for grants.

Furthermore, we commit to building an eResearch Centre, led by academics and developed and refined in consultation with the user community, to provide the infrastructure to store the very large datasets that are so ubiquitous across all fields of research, to lend support to staff in managing the data as well as to analysing these datasets through the use of high-performance computing, visualisation techniques and other tools. Funding has already been given and staff within ICTS have been deployed to begin the process of building this capacity. The development of eResearch capacity is an absolute necessity in a world where the appropriate handling of big data, in the natural sciences, medicine, the humanities and the social sciences is of paramount importance.

Offering an efficient pipeline of research-contract management,

The business of entering into research contracts starts with proposal writing. The Research Office already offers a large measure of support in the connection with the preparation of proposals, but plans are afoot to make this support more comprehensive and to integrate the pre-award support offered by the Research Office with the post-award support offered by the Research Contracts and Intellectual Property Services (RCIPS). RICPS supports researchers by centrally managing, authorising and negotiating the contracts when they are actually concluded (which includes assistance to the researchers throughout the process of negotiating the contract).

2.4 SUPPORT FOR INNOVATION

A cohesive and strongly networked innovation support system is a pre-requisite for deriving the wider economic and social benefits of research and achieving alignment of the wide range of stakeholders in order to overcome the so-called 'chasm' in the innovation chain. UCT's Research Contracts and Intellectual Property Services plays a facilitative role in mobilizing stakeholders to action and to be imbedded within a local and national economic development framework. We are committed to extensive relationship-building with national research councils and advisory bodies as well as with government departments and both public and private sector economic development entities. In addition the rich variety of innovation-related initiatives that are developing in Faculties and the GSB will continue to be encouraged and supported as necessary. Lastly, an integrated and focused strategy for innovation is being developed.

IP management and the commercialisation of research

The Research Contracts and IP Services Office (RCIPS) supports the commercialisation and implementation of UCT's intellectual property. Knowledge production is our business, and knowledge production has been shown to have a high return in generating new businesses or in improving business

practice and and competitiveness. By supporting business development we are contributing to transforming our society and to the general social and commercial wellbeing of the country. High-level and efficient support for innovation is inextricably part of the service that a modern, world-class university must provide to its staff and students and we are committed to growing and perfecting the service that we offer in this regard.

2.5 INTERNATIONALISING RESEARCH

At the heart of UCT's approach to developing its research capabilities is the conviction that, in an environment of ever-increasing competition for the best researchers and students, strong international partnerships represent a key element in producing research that matches the best in the world.

Consistent with this plan, UCT will articulate an explicit policy in respect of the internationalisation of its research. The deliberations of a URC Task Team on Internationalisation brought the realisation that we now need to develop a specific strategy on the international dimension of our research (which must feed into and dovetail with the general Internationalisation Strategy of the University). This strategy will rest on several pillars:

Its point of departure will be that the most productive international collaborations are created by the academics themselves and the policy should in the first place be geared to assist and strengthen organically grown partnerships, while also being in a position to suggest and support new international partnerships. While the central adminstration of research should never interfere with spontaneously developing partnerships, it should be selective in which partnerships it actively supports.

To be able to give appropriate support, the University's systems will have to be modified and grown to strengthen the capacity (i) continuously to monitor where international research collaboration is taking place and where it can profitably be encouraged, and (ii) to give the necessary support these collaborations.

Those collaborations that are actively identified and supported by the centre, will be known as UCT Global Research Partnerships and will typically consist of a UCT research unit, centre or insitute with one or more international partner(s) working on a common theme, and will include PI's, collaborators, postgraduate students and postdocs. Our vision is to support these partnerships in competing for collaborative research bids to funders; to encourage them to produce joint-degrees and / or co-badged degrees; to increase their visibility through co-authored publications; to increase their mobility (of both staff and students) and to increase their access to international research funds. Examples of the specialized support required include information and partnership management systems, international grants access, research integrity, IP and risk management.

In addition, PhD training and postdoctoral and early-career fellowships are seen as drivers to strengthen international partnerships for research. Based on previous experience and through recent perspectives gained, there is recognition of the value in postgraduate-training models that are embedded in areas of strong, preferably already well-established global research collaboration. The concept of joint or shared training of the next generation of academics in a global context, addresses multiple institutional objectives and is predicated on a number of attributes that are likely to impact significantly on PhD training in South Africa – and Africa - in general, and at UCT in particular:

Increased international exposure: The opportunity to spend time at the partner institutions involved in the research collaboration within which training is taking place, expands the horizon of postgraduate students and enhances their ability to hold their own anywhere in the world.

Increased supervision capacity in the face of growing student numbers: Universities in South Africa, including UCT, are under pressure to increase the number of PhD graduates they produce per annum. In addition to this national and continental imperative, as a result of the University's aspiration to be a

research-intensive institution, a concerted effort is being made to greatly increase our postgraduate student numbers. Against this backdrop, and to complement existing models of supervision, UCT encourages innovative co-supervision and co-badged or joint-degree options that are developed within the framework of strategically selected global partnerships.

Strengthened international collaboration: Co-supervision of PhD students is probably the strongest driver (besides funding) for collaborative research as it provides the glue of shared interest, advantage and commitment between supervisors. The students' field- or bench work serves and informs the co-supervisors own research agendas and helps to shape over-arching research themes through shared research findings.

Enriched postgraduate experience: As flipside to the above, internationally collaborative research provides the richest platform imaginable for PhD training. Such students do not operate in isolation and their whole learning experience is embedded in a collaborative team, which in the best-case scenario would consist of PhD students, postdoctoral fellows, early career academics as well as well-established researchers. These students benefit from pooled resources and expertise as well as the co-learning that takes place in the team context.

Expansion of North-South partnerships: Particularly in some disciplines, South African students tend to attend conferences or take up postdoctoral fellowships at institutions in the global North rather than elsewhere on the African continent. Similarly, students from the global North are not guaranteed exposure to collaboration with the global South. UCT is able to assist in improving this situation.

Generally speaking, PhD training that takes place within the context of international collaborations will be less likely to work in silos and will be more sensitive not only to challenges in other parts of the world but also to how they can contribute to solutions that have a global reach.

More specifically, there are solutions to global research challenges that critically depend on perspectives unique or pertinent to Africa or that are geographically embedded in the continent (e.g. in infectious and chronic diseases; development economics; climate change; archaeology; linguistics; environmental and cultural sustainability, rapid urbanization, etc.). In the same vein, much can be gained from studying local issues against a global background.

The foundation for all of the above can be laid through global partnerships that enable PhD training and postdoctoral and early-career fellowships to be embedded in research collaboration, including research collaborations that have another African partner. Young individuals would be exposed to different facilities and institutional environments as well as having the opportunity to forge links with counterparts and integrate themselves into a true community of scholars in their field. Not only will this enrich their learning but it will also provide them with a unique launch-pad for further engagement as career scientists or academics. North-South (particularly African) alliances will be encouraged - especially as part of tripartite collaboration. All parties will participate on the most equally distributed basis feasible, which may have to be determined on a case-by-case basis. Not only should the initiative incentivise students to spend time at each of the participating institutions but the relevant co-supervisors should also be involved in the exchange. This would bring more South African students into direct, practical contact with the African academy, especially significant in the context of decades of enforced isolation of South Africans *vis-à-vis* their African colleagues.

2.6 INCREASING THE VISIBILITY OF OUR RESEARCH

The more visible our research becomes, the greater its impact will be. We are committed to maximising the use of ICT tools to make UCT's research available as widely as possible.This includes, as described above, having a research portal, making UCT's research digitally available in terms of the Open Access Policy, and developing a web-communications strategy for our research effort that is appropriate to a research-intensive institution – all in co-operation with the research community and taking account up-front of what their needs and expectations are. It

also requires an investment in dedicated support to ensure that UCT research features on all the best marketing platforms and are done to excellent quality that demonstrably contributes to the positioning of UCT internationally.

2.7 ENHANCING INTERDISCIPLINARY AND TRANSDISCIPLINARY RESEARCH (IDTD)

IDTD has the potential to contribute to, and play a leading role in, the production of quality 'new' integrative and path-breaking research, and maximising socially responsive research that contributes to policy formulation and its implementation, as well as to improving the quality of life and knowledge of constituencies beyond the academy. IDTD provides an opportunity for engagement with research by undergraduate students and the community in our city, region and continent and also for internationalisation, both globally *and* as part of UCT's Afropolitan agenda. For these reasons UCT is committed to IDTD, and to give it a higher profile. We will do this by finding a mechanism or mechanisms that:

- provide an organisational space and focus for IDTD;
- develop funding and administrative modes that cater specifically to cross-faculty collaborations;
- assist researchers in realising funding opportunities to support IDTD;
- produce simpler and more efficient administrative models and procedures which will enable and promote IDTD research and the recruitment and training of postgraduate (and postdoctoral) students;
- provide administrative support that will secure the viability and sustainability of IDTD projects;
- produce mechanisms for the recognition of IDTD research; and
- allow for strategic, university-wide decision-making.

We recognise that, as with all research, the promotion of IDTD involves both supporting what academics spontaneously build and giving a central lead to facilitate IDTD. Thus our model should have two arms:

1) An arm that ensures that we know, through constantly scanning the environment, the detail of the research that is happening at UCT, which will enable us to identify and label a set of strategic areas in which there is much activity. Doing this will, in turn, enable us to start making known this collective research effort across the university, writing reports about it, and promoting seminars in each area. Even at this point the whole is will be greater than the sum of the parts. This may lead to joint proposals and joint work. But even if it does not, it will allow UCT to tell the world about its collective contribution in key areas and it communicates to the researchers that we are really proud of their contribution to our important work.

2) A strategic arm along the lines of the current Signature Themes where IDTD research is directly facilitated. Having achieved great success, the current Signature Themes come to the end of their funding from UCT in 2015, and all have leveraged outside funding and developed into strong entities that will survive beyond the UCT funding period. Now is the time to stimulate new IDTD work with a new call for a new set of Signature Themes. (The new themes may of course include the existing ones where we think that it is appropriate to include them again (as is or in a modified form.) Through various processes we have seen that there are a great many possibilities for the exciting renewal of our Signature Themes: thus climate adaptation, challenging inequalities, curating the archive, water for socio-economic development, cosmology and gravity, new approaches to neuroscience, safety and violence and many others have emerged as very good candidates for future Signature Themes.

2.8 FOCUSING RESEARCH

All universities that place a particular emphasis on research recognise the necessity of focusing available resources and UCT, too, in accordance with international trends, will identify a set of major research strengths and make these areas its strategic priority. These priority areas will be based on (i) geographic advantage, (ii) established research strengths, and (iii) critical mass. This does not mean, of course, that research falling outside these areas will not be supported; it merely means that we recognise that, in so far as central resources are concerned, it is most effective not to try to do everything, but to concentrate a

appropriate amount of central resources on those areas where UCT is most likely to achieve a major impact.

2.9 SUPPORTING ENGAGED SCHOLARSHIP

Our research must engage (a) our students and (b) the community in our city, region and continent. We are committed to ensuring that our students are exposed to the benefits of the research done at the University and, secondly, we seek to extend those benefits to the community within which we operate. We consider it to be especially appropriate for a university in a developing country to earn the respect of the communities that it serves by making a difference to the problems faced by our communities – and therefore research that is of relevance to a community of interest is strongly supported including initiatives such as the "Knowledge Co-op" (Science Shop.) Equally pertinent are modes of civic engagement that aim to popularise new ideas generated by academics and animate critical public debate on key issues of the day. This is one of the key ways in which universities bolster the democracy and we are committed to enhancing our capacity to contribute to our society in this way.

2.9 BRINGING RESEARCH INTO TEACHING

UCT has always recognised that, to be a research-*led* university, our research must inform our teaching, that is to say, all UCT students must experience the importance of creating new knowledge by virtue of the fact that their teachers infuse their courses with the results of their research. To be a research-*intensive* institution implies more, namely that our teaching must also provide students with the requisite skills, and undergraduate students with the opportunities, to undertake their own research. At postgraduate level, the scope for inter- and transdisciplinary research (IDTD) must be exploited to the benefit of Master's coursework curricula, thus enriching the student experience and providing a multi-dimensional window into the chosen field.

3 CONCLUSION

This is the beginning of the work of laying down a strategy that will enable our staff and students to fulfil their research ambitions – and to aim high when they set those ambitions – by providing, as abundantly as we are able, the critical ingredients of freedom, support and resources. This outline of the research strategy must continuously be refined through consultation to ensure that it reflects current thinking in the University and that it aligns with the research strategies being worked out in the various faculties.