CENTRE FOR GLOBAL HIGHER EDUCATION

Centre for Global Higher Education Working Paper series

Pathways to Engagement at the University of Rwanda: Pressures, Relevance and Alignment

James Ransom

Working paper no. 118
October 2024

UKRI Economic and Social Research Council

Published by the Centre for Global Higher Education,
Department of Education, University of Oxford
15 Norham Gardens, Oxford, OX2 6PY
www.researchcghe.org

ISSN 2398-564X

The Centre for Global Higher Education (CGHE) is an inclusive international partnership supported by the UK's Economic and Social Research Council. The Centre promotes research into global higher education, its inequalities and its futures.

Contents

Pathways to Engagement at the University of Rwanda: Pressures, Relevance and Alignment

James Ransom

Dr **James Ransom** is a higher education researcher whose work looks at how universities can help solve challenges facing society. He is an Honorary Senior Research Fellow at UCL Faculty of Education and Society, and a Specialist Advisor on higher education to the European Bank for Reconstruction and Development. He is the author of the open-access book *Revisiting Africa's Flagship Universities: Local, National and International Dynamics*, published by African Minds in 2024. From 2020 to 2022 he was a Research Affiliate at the University of Rwanda.

Abstract

This paper presents a framework for understanding university engagement in the context of sub-Saharan African public universities, using the University of Rwanda as a case study and drawing on interviews with 16 university staff and government officials. Building on McCowan's model of university impact on climate change, the paper develops a comprehensive framework that maps the pathways and mechanisms of engagement between universities and society. The framework distinguishes between direct and indirect paths of engagement, incorporating key 'bridging' actors such as government, industry, and communities. It develops the concept of staff circulation as a crucial indirect engagement mechanism, building on Etzkowitz and Dzisah's triple helix model in the African context. The paper analyses how institutional foundations, external pressures, and individual actions shape engagement activities. It argues that effective engagement requires both relevance to broader development agendas and alignment with specific stakeholder needs. The

framework provides a tool for universities, policymakers, and researchers to conceptualise, plan, and evaluate engagement activities in complex development contexts. By offering a nuanced understanding of the multifaceted role of large public universities in national and local development, this paper contributes to ongoing debates about the future of higher education in Africa and its potential to drive societal change.

Keywords: Higher education; University of Rwanda; Engagement; Development policy; Staff circulation; University partnerships; Policy influence; Local outreach; National development

Acknowledgements: Thank you to Professor Tristan McCowan and Professor Vincent Carpentier at UCL, and Dr Vincent Manirakiza at the University of Rwanda, for your invaluable input on earlier versions of this paper.

Introduction

The University of Rwanda was formed in 2013 following a merger of seven public higher education institutions. It presents an interesting case study of engagement – defined here as projects, programmes, activities and relationships with external parties outside of the university – for several reasons. First, the University of Rwanda was not created on a blank sheet: have its predecessor institutions shaped its activity, or constrained its role? Second, there are six colleges across nine campuses: three campuses (including the headquarters) are in the capital and largest city, Kigali, and the remainder are in satellite cities (near the capital), secondary cities, or in smaller towns or rural areas. How do relations between the central campuses in the Kigali city region and campuses in towns and cities outside the capital exert influence on the role and engagement functions of the university? Third, Rwanda itself has a strong, centrally driven development ethos, captured in the Vision 2050 national development strategy. This may suggest an overriding national focus, yet there is also a strategy of economic decentralisation by building up eight secondary cities.

The extent of local engagement activity at the University of Rwanda is determined in large part by three components: the history and institutional setup of the university, the demands made of the university by external stakeholders, and the actions of individual staff. This paper begins with a high-level view of Rwanda's development model, and a snapshot of the role of the university in Kigali. The three components are then examined in turn, with emphasis on consultancy and on mapping the engagement that does occur. In the second half of the paper, the focus shifts from inside the university – how structures and forces shape internal decision-making and the capacity to engage – and looks at external interactions, in particular the processes and pathways for the University of Rwanda to engage with partners. It then looks at how engagement works in practice by assessing the university's influence on policy development. The final section ties together two of the overarching themes from this paper – relevance and alignment – and discusses these in relation to community-focused research. Findings are based on 16 interviews (see appendix).

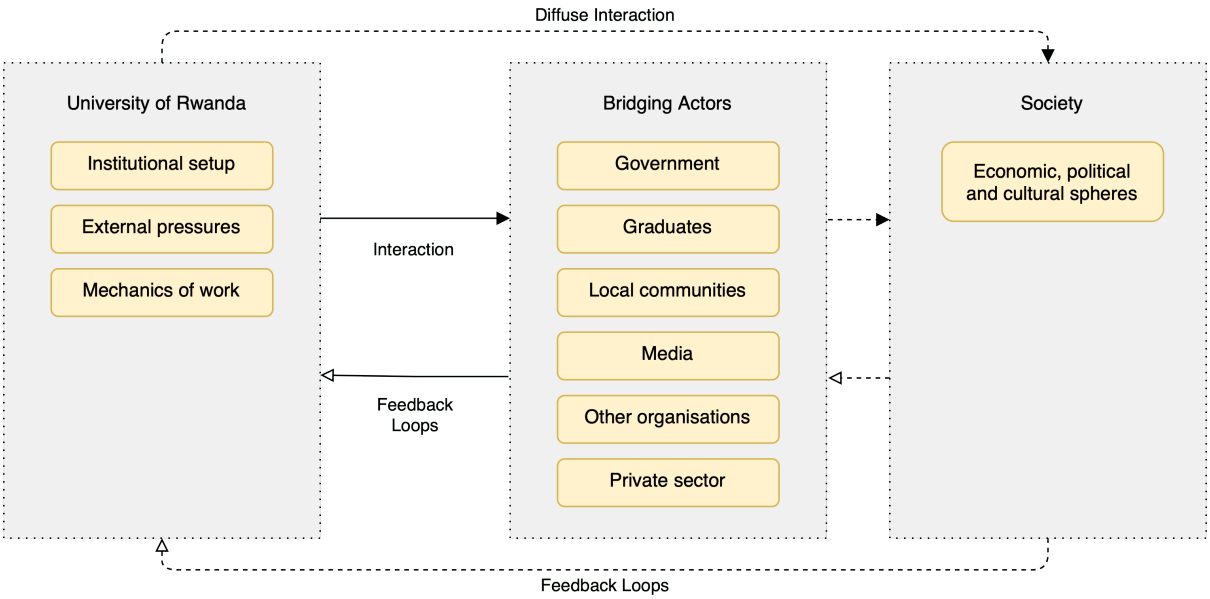

Figure 1: Stages of engagement

An overarching framework captures the engagement process and shows the stages of interaction. It is based on a model of the stages of university impact on climate change developed by McCowan (2020, p. 9). Figure 1 shows interactions from the university on the left to society on the right (the original model included the ecosphere on the far right). The University of Rwanda stage is the actions of members of the university community, primarily staff and students, but also its organisational structures. Instead of the modalities used by McCowan (which include education, public debate and service delivery), the focus here is on the three components which shape engagement at the university and the activities of the university community. 'Bridging actors' are groups outside the university that interact directly with it, and who in turn shape wider society. An example is City Hall commissioning a study from the university which is used to inform policy on informal housing. Graduates, organisations and communities are included as bridging actors in McCowan's model; in this framework government has been separated from organisations: the former includes parastatals and institutions such as City Hall, and the latter includes aid agencies, multilateral bodies, and NGOs. The private sector is included due to the importance of graduate employability, explored in section 4, and so too is the media, covered in section 8. It is worth noting that some of these bridging actors have emerged from the university (notably graduates, some of whom will work for the other actors) whereas others are from outside and make connections in to the university; this circulation is

developed in section 8. The final stage is society as a whole, also used here as shorthand for the general public in Rwanda.

In this framework engagement usually extends from the university to society via bridging actors as a knock-on effect. It can also flow direct from the university to society. As McCowan (2020, p. 10) explains, the 'diffuse interaction of ideas, products and influences' can be less easy to directly trace to the university, citing the development of a vaccine or a breakthrough in mathematics. Diffuse interaction may also include the impact of the university on the broader economy (whether positive, for example investments boosting GDP, or negative, for example pushing up land values), any environmental effects on society (emissions or planting trees), or – even more intangible – the impact of any prestige associated with the university. Such engagement bypasses the bridging actors – although they likely still play a legislative, funding, or promotional role – and is less of a focus for this paper. The more diffuse forms of interaction are marked with a dotted line and stronger forms with a solid line; we may assume that in most cases the more diffuse interactions take place over a longer timeframe and – much like a tanker changing course – there may be lag before impact is felt or feedback received.

Engagement flows in stages from left to right, but there are also feedback loops from right to left. These are pressures on, and expectations of, the university, demonstrated most explicitly in directives from government to the university. These external pressures, covered in section 4, form one of the components within the University of Rwanda stage, and this could be visualised as an arrow from government as a bridging actor to this component. Other bridging actors will have strong feedback loops to particular components, as covered in the sections that follow; to avoid overcomplicating the diagram these are not shown. However, there are feedback channels from all actors, and even from society itself – albeit in an abstract form open to interpretation by university staff.[1]

[1] The University of Rwanda strategic plan, for example, includes numerous references to meeting the needs of society (for instance University of Rwanda, 2018, p. 13). These 'needs' will be channelled in part through bridging actors, but will also likely be the subjective interpretation of university staff based on their personal experience. As a result, views on what society demands will differ between staff members, and colleges and departments as a result.

Before the intricacies of the framework are explored further, it is helpful to take a step back for a high-level view of Rwanda's development model, the University of Rwanda's role in Kigali, and the role of the university in national development.

1. Rwanda's development model

Rwanda has a distinctive development model. In some respects this pre-dates the 1994 genocide: the country is, and has always been, a centralised and hierarchical state where 'all citizens are considered agents of development who march together under the stewardship of forward-looking and enlightened leaders' (Reyntjens, 2018, p. 524). Other elements are inescapably bound with the aftermath of the genocide, in particular strong relations forged by astute Rwandan politicians with some Western governments – especially the UK and US – following the failure of the international community to stop the violence, and the resulting emergence of Rwanda as a 'donor darling' (Takeuchi, 2019, p. 129). Today Rwanda has been described as a 'neo-developmental state' – an African variation of the East Asian 'tiger' economies, a mantle also shared with Ethiopia in the region (Goodfellow, 2017).

Rwanda's development model has three interrelated characteristics especially relevant for discussions of the engagement role of large, public universities. First is the relentless and centrally driven push towards development, and achieving middle-income status, and the channelling of all activity towards this objective. "What makes [Rwanda] one of the unique countries in the region is the commitment to development – they are really, really serious about their development in the country", said an official from an aid agency. Within this, the focus on becoming a knowledge-based economy pervades Rwandan policymaking. Government official B explained how this filters down to what children are taught in schools, encouraging the production and not just the acquisition of knowledge. It extends also to Kigali Innovation City, an ambitious plan to attract investment and develop the knowledge economy in the country, and mentioned by several interviewees ("it'd be *the* address for high-tech companies in Rwanda", said one). The site is currently anchored by two higher education campuses: Carnegie Mellon University (CMU) Africa, with a new campus opened by Kagame in 2019, and the African Leadership University.

Second, the concept of ‘high modernism’ helps to explain the approach taken by the Rwandan government.

> High modernism is saying, “we need to look like a modern society and modern societies have don’t have outages of electricity”, and so on. So development was driven by this vision that investing in science and technology to show that you invest in science and technology is a goal in and of itself, regardless of whether it’s the most cost-effective thing or the thing that your nation needs the most at this moment. [Staff member, private university]

With its focus on technological progress to overcome poverty, often with reliance on experts (who tend to be from the West), high modernism has its roots in postwar development in the 1950s and 1960s, but still manifests itself in projects such as dam construction, as explored by Dye (2016) with the Nyabarongo Dam in Rwanda. A risk of such approaches is the sidelining of Indigenous knowledge and expertise. However, as Dye explains, whilst well-meaning planners put great emphasis on overseas expertise and technology-led infrastructure as the solution to complex problems, Rwandan officials worked to resolve grievances and keep local communities on side, and the President clamped down on allegations of corruption. Dye concludes that in Rwanda the dam is not seen as a symbol of development and progress in itself, but as part of a wider modernist development agenda. Other phenomena can be seen as relatives of high modernism: the proliferation of five-star hotels in Kigali; the ‘Visit Rwanda’ sponsorship deals with Arsenal and Paris Saint-Germain football clubs; the regional hub role played by the national carrier, RwandAir; and the influence of external experts and world-famous institutions in Rwandan higher education (as we will see in section 3).

The third characteristic is also closely related to high modernism, and concerns the adoption of strategies and practices from abroad. The Presidential Advisory Committee (PAC), a group that offers strategic advice to the President and the Rwandan government, has included Tony Blair and prominent academics such as Michael Porter and Paul Collier (Kagire, 2019). A similar international advisory group has supported the City of Kigali (Nshimiyimana, 2017). In the early years following the genocide and the rebuilding of Rwanda, government ministers were often spotted

carrying *The Singapore Story: Memoirs of Lee Kuan Yew* on flights to business meetings abroad (Wrong, 2021). The Republic of Korea has been another influence, and Rwanda's development model has traits in common with the push for development in South Korea from the 1950s following the devastation of the Korean War (Kalinowski and Park, 2016). Rwanda has also benefitted from a knowledge-sharing programme run by the Government of the Republic of Korea.

> They're working with countries such as Rwanda. And you choose a particular area, like human capital development – how did Korea develop their human capital satisfactorily? And so they look at the policies in place in Rwanda, the policies in Korea, they look at where Rwanda is in terms of its current development, how did Korea overcome certain bottlenecks, and how they can be adapted to the Rwanda context. [Government official A]

These partnerships influence the education system. An example is Meister software high schools, a model imported from Korea for providing intensive coding skills to promising students, and the establishment of the Rwanda Coding Academy. Within higher education, institutions with international lineage such as CMU Africa are regarded by government officials as a potentially positive influence on the way academic business is run at the University of Rwanda, in addition to producing technologists and engineers. Private institutions often market themselves as being more agile and more responsive to the job market, and as such sometimes win the favour of government in the process. Yet they are fundamentally different types of institution: the gulf in resources and student numbers between exclusive private institutions and the largest public university render direct comparisons fairly redundant.[2]

Within the University of Rwanda, involvement in international consortia is seen as a pathway to, and a facilitator of, national development.

[2] Whilst CMU Africa and the University of Rwanda may, for example, forge productive research partnerships, they are unlikely to be direct competitors for students. Tuition fees at CMU Africa are subsidised for African nationals by the Government of Rwanda, but even with financial aid and a further 50% scholarship package from the government tuition fees are ten times the GDP per capita.

> There was a push to involve, and get involved in, as many international consortia, or networks, of research, perhaps even getting international academics to come and work at the University of Rwanda. Some of our highest profile research papers were done in collaboration with international researchers. [Staff member B, University of Rwanda]

The University of Rwanda is a product of Rwanda's development model. It is a publicly-owned institution, and comes under the purview of the Government of Rwanda, sits within the broader governance structures of the country, and is expected to be embedded within the national development agenda. Rwanda's development model also provides the context for the university's engagement activity, and, crucially, it shapes the direct and indirect paths this activity takes.

2. A dual local and national role

The University of Rwanda contributes to local and national development. Government officials recognise the economic impact of the University of Rwanda in Kigali, in particular the highly-concentrated presence of students and staff in the capital, and the economic and cultural contributions they make. On the surface, the role is an instrumental one.

> I see the role of the university in the city as being on one hand a producer of human resource which goes beyond the city, for the nation and for the other parts of the country. Number two, I see the University of Rwanda as one of the contributors to the revenues for the city. [Government official C]

University staff often adopted a somewhat different – and more strategic – perspective.

> In Kigali, the presence was not so much about driving the economy, but more about being close to government, but also making use of infrastructure that had been developed and invested in over a period of time, particularly in the former College of Education campus [now the College of Medicine and Health Sciences] and the College of Science and Technology campus. [Staff member B, University of Rwanda]

For staff member C at the University of Rwanda, the role of the university in Kigali "is to provide higher education to the people who need it", and produce the future workforce. This role is shared by the many private universities within Kigali. For most interviewees, training or education was the number one role of the university in the city. Many also identified that the university has additional roles that private institutions do not have: in particular to participate in community outreach activities, but also to inform policy, and to act as consultants.

The relationship between the University of Rwanda and the City of Kigali is complex. It is simultaneously intangible – "the university is the main thinker for the country, and the main thinker for the city", said government official C – and tangible, as seen in a thick network of formal appointments and interpersonal relationships. It also varies between colleges and campuses, reflecting the diversity of expertise at the university, and more pragmatic concerns – such as the proximity between a campus and City Hall. Students from certain disciplines – environmental management or urban studies, for example – do two-month internships with the City of Kigali. Staff from the city give guest lectures, and university staff speak at City Hall. Graduates work in government ministries or for the city, and are consulted when designing courses.

> We have three main tasks [in Kigali]: teaching, conducting research, and providing outreach services to the community. We will [also] meet Kigali city when – at least in my department – we are designing new programmes or revising existing programmes, every time we call people from the City of Kigali to give their input… our role is to provide skilled staff who can help the City of Kigali to attain its development objectives. It is not a formally written as an MOU, unless I'm not aware, but we work closely together… we have a good collaboration with the city. [Staff member A, University of Rwanda]

Interviewees within the same school or college often mentioned different projects, suggesting a wide range of activities that are not necessarily centrally recorded or coordinated. What counts as 'outreach' (which interviewees used interchangeably with local engagement) varied between individuals and schools, but most fit the traditional model: staff conducting citywide soil studies to determine load bearing capacities for geotechnical databases used by the city; students analysing informal housing or flood-

prone areas and advising communities; contributing to masterplans for secondary cities; setting up a legal clinic to give advice to the local population. Outreach and engagement largely take place outside the campus, within communities or at 'town hall' events in other public spaces; it is easier to walk into a government building than a university campus in Rwanda.[3] When I mentioned this to an academic, they acknowledged that "we need to have open days of the university where people can come and visit and see what is happening; we don't have such days".

Speaking at public events or on panels or commenting to the press was frequently mentioned – what might be considered public engagement in the UK rather than 'local development'. These contributions were often at the behest of the city or a government ministry, and intended to help 'sensitise' the public on particular issues within development priorities such as health, urbanisation, or the environment. However, staff member D from the University of Rwanda noted that it is important to distinguish the outreach activities above, in which staff invest their time with the aim of helping the community benefit from their expertise, from 'citizenry'. An example of citizenry is Umuganda, the monthly community cleaning morning, an activity that the entire country participates in and which is a local driver of Rwanda's socio-economic development (Turok, 2019, p. 221). This distinction reflects a dual personal and professional contribution to development. Several interviewees noted that all Rwandans are expected to contribute to the development of their area: the push for national development is deeply embedded, transcending individuals and institutions in favour of a collective, joined effort.

An institution for national development

Although there is extensive local activity, the role of the University of Rwanda is broadly seen as supporting the nation at a countrywide level. There is widespread sub-national activity, but ultimately this is for the benefit of Rwanda as a whole. Working more closely with communities and businesses in Huye and expanding the campus there, for example, is part of strengthening the role of secondary cities, to ensure development activity is more evenly distributed. Improving facilities in Kigali is seen as

[3] I am not the first to be slightly bemused by this. 'I am still amazed how easy it is to walk into a Ministry in Rwanda: very little security, nobody asks who I am, or what I want', recalled one researcher (Schräpel, 2015, p. 33). In contrast, campuses of the University of Rwanda have significantly more security than visitors to universities in Europe or North America will be familiar with.

part of training more skilled graduates that can work across the nation, and to produce leaders that can effectively deliver national development. Similarly, international activities, partnerships or engagement undertaken by the university are to strengthen the development mission of Rwanda; internationalisation is not an end in itself, but a means of bringing in expertise or funding for national development by increasing the connections and credibility of the university. “The main thrust of the university, I think it’s fair to say, was about building the country, building a nation, driving the economy”, said staff member B at the University of Rwanda.

Local engagement activity is subsumed within the government-led focus on high-level development strategies for the nation as a whole, spearheaded by *Vision 2050*. There is a determined, almost frantic, push for development, a sense that raising the quality of life of Rwandans can help the country move on from the genocide. The university is viewed as part of this effort, operating as an institution within the umbrella of this national focus, rather than in parallel or outside it. This does not mean that tensions are avoided – as will be seen, graduate employability and research relevance are recurring themes. Other characteristics of the university role mentioned here will also be revisited over this paper: the mapping and coordination of engagement activities, the circulation of staff between the university and other parts of the national development apparatus, the function of public engagement, and the capacity for critical, independent challenge. These are also the defining characteristics of, and challenges facing, the modern ‘flagship’ university – institutions that serve individual students but also the public, that are entwined with government but compete in private markets, have relationships with local communities whilst being monitored in global league tables, and that are inescapable products of their history (Ransom, 2024).

Understanding the internal configuration of the University of Rwanda helps to explain the role it plays. The next three sections explore this configuration in the form of three components, based on themes generated from my interviews. Crudely speaking these represent a narrowing of focus: from the broad historic foundations of the university, to pressures exerted on it today, to the actions of individual staff. But they criss-cross, continually reshaping each other. The evolution from separate institutions to a multi-campus university, for example, continues to inform the policies of government and the engagement activity of university staff today.

3. The institutional foundations of a multi-campus university

Within the planning circles of Rwanda's leadership, the first five years or so following the genocide were about recovery, explained government official A. The focus then shifted to development, including higher education – and the entire Vision 2020 national development strategy was underpinned by science and technology. A thread through the history of the nation and the university since has been a keen interest in bringing in expertise from high-income countries to inform policymaking. This is illustrated by, for example, the formation in 1997 of the Kigali Institute of Science and Technology (KIST), today the College of Science and Technology at the University of Rwanda.

> There was this idea in government that the development of capacity in science and technology was needed. And hence they started looking at how did other countries in the world do it: how did India achieve where it is now in terms of science and technology? How did Singapore achieve it? How did Korea achieve it? And so one of the models was chosen at the time was the IITs [Indian Institutes of Technology] in India. And to try set up one in Rwanda, which was KIST. [Government official A]

KIST was one of seven higher education institutions merged into the University of Rwanda in 2013. Before the genocide, the higher education sector in Rwanda was small – and even smaller immediately afterwards. Today, the University of Rwanda has over 28,000 students across nine campuses. Although the merger and growth in student numbers represents both a consolidation and evolution since 1994, the path to becoming a flagship with a presence in cities, towns and rural areas across the country was marked by challenges that continue to shape the local role of the university.

The 2013 merger and the impact on place

There were several practical incentives for the merger, according to interviews with government officials who were involved. First, to realise cost savings by combining the existing 'fragmented' institutions into one. Second, to achieve better bargaining power

with government to secure adequate resources, rather than many separate discussions taking place with different government departments. Third, to attract a single, exceptional leadership team at the helm to drive higher education in Rwanda. Fourth, for more effective procurement of computers, books and equipment – a significant portion of the budgets of higher education institutions. In all, a single large university could have greater impact, thought officials. Leaders and policymakers looked to the flagship universities in the region – Makerere in Uganda, Dar es Salaam in Tanzania and Nairobi in Kenya – which were seen as managing with 40,000 or 50,000 students, whereas the constituent institutions of University of Rwanda combined had less than half this.

In an example of bringing in external expertise, Sir David King, former Chief Scientific Officer of the UK Government, chaired the group on forming the University of Rwanda. This echoes the formation processes of other flagship universities – from the University of Cape Town to the University of Zambia (Phillips, 2004, p. 123; Masaiti and Mwale, 2017, p. 477) – where experts from the North were brought in. However, whereas older flagships drew expertise largely based on colonial ties, the selection process in Rwanda more closely resembled a meritocracy, with the Government of Rwanda inviting the most prestigious names from the US and UK, a reflection of the striking ambition of the country's development aspirations and willingness to draw on 'best practice' from the Global North.[4]

The merger had varied impacts on the places surrounding the campuses. In the southern city of Huye, home to the former National University of Rwanda, the country's oldest and most prestigious institution, the sudden reduction in the number of faculty and students "immediately caused a devastating impact on the economy of the city", government official C noted – "in the absence of students and faculty the city of Huye was just dying". Restaurant owners and managers of student accommodation, known as hostels, lost their custom and their representations were heard directly by the President's Office. As a result, campuses in Rwanda's secondary cities were then strengthened to try to reverse this damage, and the School of Medicine, for example, relocated to Huye to increase the student population in the city. The move appears to

[4] The Indian Institutes of Technology were a model for KIST in 1997. But by the twenty-first century, the focus had shifted to the US and the top of global league tables: Carnegie Mellon University Africa was established in Kigali in 2011, and the University of Global Health Equity, affiliated with Harvard University, opened in 2015.

have worked; a reporter noted that “the town is now coming to life” and 2,000 students have returned (Bahati, 2019). This recognition extends to other sites. Both the College of Business and Economics and the College of Agriculture, Animal Science and Veterinary Medicine have a presence in the north-eastern city of Nyagatare, in part to improve the social and economic prosperity of the area.

There were also significant internal challenges, especially as seven public institutions with their own cultures and leadership structures and cultures merged into a single entity with one leadership team.

> People who were rectors and given a lot of respect [were now] three or four levels down in this new hierarchy, and they had built very committed, dedicated teams around them, so there was a lot of resentment from those teams if their bosses were now not afforded the dignity of sitting on the front row. So those dynamics were difficult. [Staff member B, University of Rwanda]

This was also understood within government.

> Naturally, each university had its own DNA. And when you bring them together, it means that we’re bringing different DNAs all together. And sometimes it works, other times it doesn’t. [Government official C]

As such, the new University of Rwanda was shaped by its predecessors in a way that a new institution, designed on a blank slate, would not be. The impact of this history had a regional dimension given the distributed nature of the new campuses. Colleges were split across several campuses; the College of Education was unusual in having its own campus. This caused, and continues to cause, difficulties for college leaders, who spend a lot of time travelling between campuses, and means senior leadership teams are scattered across the country. In turn, it became difficult to create a strong identity – “who do you feel you belong to – the campus that you’re on, the university, the College, or your department?”, asked one staff member. “I think all of the colleges, if they had a choice, would want to be in Kigali”, they added. Ensuring coherence was also a challenge.

> You had some campuses that had the principal as the head, so the head of college was the head, and other campuses where a dean from a school was the head and people might say, well, that doesn't matter, but actually it does matter quite a lot because the university is quite a hierarchical bureaucratic system, like it or not. And so you have a campus that's headed by a dean, and even the local authorities would be saying, "what's happening here, are you not serious about your commitment to the town?" [Staff member B, University of Rwanda]

Moves to strengthen secondary cities, decentralise the university and encourage the relocation of government offices outside of the capital have not dampened the convening power of Kigali, which remains the centre of power for the government, the head office of the University of Rwanda, and the meeting point for international partners. Senior staff on campuses outside of Kigali spent a lot of time travelling to the capital for meetings.

> Then you get people saying, "well, the principal's never on the campus, so what kind of university is this?", because students and the local community wanted to see the senior person moving around. And that was another cultural shift, that no longer was the head of the campus in Huye the most powerful Vice Chancellor in the country. [Staff member B, University of Rwanda]

Interviewees observed signs, however, that the merger and creation of a unified institution has led to more cross-sector, multidisciplinary work between colleges, as seen with the Regional Centre of Excellence in Biomedical Engineering and eHealth, bringing together the College of Medicine and Health Sciences and the College of Science and Technology.

Implications of a multi-campus university

Kigali is the economic and social heart of the country. In 2013, the Government selected six secondary cities to promote urban development beyond the capital; each has a masterplan and ambitious growth targets (Republic of Rwanda Ministry of Infrastructure, 2018, p. 36). Since then, the categorisation has expanded to eight

secondary cities, three satellite cities surrounding Kigali, and 16 district towns (Tabaro, 2022). Bodies such as the Higher Education Council (HEC) have been instructed to relocate outside Kigali; the HEC will join the Rwanda Agriculture Development Board (RAB), and the Institute of National Museums of Rwanda (INMR) in moving to Huye (Bahati, 2019). The university reflects and reinforces these policies with its presence throughout the country, and the distribution of resources (including staff and students) at each of the nine campuses – several of which are in satellite and secondary cities.[5]

> There was very much a move when we reduced from 16 to nine campuses that we wanted to be part of building secondary cities. I think that's a difficult one to pull off because you can't build a city on a transient student population, you get intense activity during term time, during semester time, and everybody, including many of the academics, go away and, on occasion, academics are only in that city when they've got teaching intensive weeks. [Staff member B, University of Rwanda]

Local engagement appears to persist in spite of these rises and falls in the number of staff and students on campus.

> The campus community, town-gown interactions are pretty much the same in all of the campuses. In fact, in some of the further away campuses, the interaction might be greater. The College of Agriculture up in the north of the country had a very good interaction with the local community, providing a veterinary outreach clinic, and doing a lot of outreach with local farmers on a fairly regular basis, as well as having a dairy unit. [Staff member B, University of Rwanda]

However, three campuses, including the head office at Gikondo, remain in Kigali. Some saw a clear power dynamic, with those based in the city having access to senior officials in the Ministry of Education and elsewhere. Yet it is more challenging for the university to assert itself in a bustling capital than a small town. A member of staff at a private university observed that the distributed nature of the University of Rwanda's campuses in the city means it lacks a dominant footprint, adding that "the Marriott

[5] The role of universities in secondary cities in Africa has only recently begun to receive scholarly attention. See, for example, Fongwa et al. (2022), which has South Africa as a primary focus.

Hotel may have as much influence on city planners as the University of Rwanda's Nyaragenge campus nearby".

The comparison to one of several five-star hotels in Kigali is not accidental. These hotels are "nexuses of power", said the staff member, bringing a constant stream of international visitors and influential Rwandans together in a long line of conferences and meetings, "a well-oiled machine planting the seeds of future investments in Rwanda" and changing the perceptions of outsiders of what an African country looks like. It is a reminder that the University of Rwanda, with its modest auditoriums, "does not play that role… it's not in their mindset". The university is part of the institutional make-up of the country, rather than a strong influence on it; a contributor to national goals, rather than a body helping to set the direction. Yet its role is complex and challenging, forcing the university to balance ambitious demands to try to meet societal needs both now and into the future.

4. A hierarchy of pressures

The University of Rwanda is accountable to the national government (including government agencies), the Board of Governors, external funders, students and their families, and the public, of which some will be local communities. Each stakeholder (all of whom are de facto bridging actors) has political, economic, social or policy-related levers of varying strengths, acting as feedback loops to the university. Most powerful, the government sets budgets and national development goals, the Higher Education Council monitors standards, and the Cabinet appoints senior university officials. Local community members, on the other hand, may be involved in specific outreach projects or use university facilities, and they may choose to send their children to the university. If they have an idea or a complaint, they can offer feedback in a university town hall event or – if they are lucky – to the President directly at a government town hall event. Each stakeholder has its own expectations of the university.

The University of Rwanda strategic plan is an attempt to distil these complex and sometimes competing expectations into a public document, and to translate published directives and public sentiment into priorities and targets (University of Rwanda, 2018). The strategic plan offers a guiding framework for university leaders, and the

goals and indicators provide a measure of progress for administrators. The aims and objectives also give a useful snapshot of the role and direction of a flagship university for researchers. However, the careful compromise of the strategic plan can struggle to hold in reality. The levers of accountability can change; a meeting with a senior government official can nudge decision-making in a new direction; a local opportunity, national scandal or international crisis can upend a carefully-balanced set of goals. The outcome is a large and complex institution that needs to both respond (or be seen to respond) to events, whilst simultaneously pushing forwards its core mission. The flagship university moves around resources and people to try new things and exploit opportunities, and then – to ensure it remains accountable – enters survival mode to keep students getting degrees and lecturers getting paid.

The result is a hierarchy of pressures for a large public university. Maslow's hierarchy of needs for the individual has a foundation of food and shelter, intermediate layers for job security and friendship, and achieving one's full potential at the top of the pyramid. Each layer needs to be satisfied before the next can be met (Maslow, 1943). To ensure survival and remain accountable to its stakeholders, a public university has its own hierarchy, with the production of employable graduates at the base. Employability has become central to the mission of universities; although questions have been asked about the desirability and downsides of this trend (McCowan, 2015), in East Africa the 'skills gap' of graduates is seen as a major challenge (Guardia et al., 2021). Atop the base of this hierarchy sit several layers that may change depending on institutional priorities: for the University of Rwanda, these will include (in rough ascending order) research in national priority areas, local community engagement and partnerships with business, and international partnerships. At the apex sits the somewhat-fuzzy conclusion to the university vision statement: to produce 'appropriate innovations that advance quality of life' (University of Rwanda, 2018, p. 7), a feat likely to draw on most of the preceding layers. Various inputs are also required throughout: satisfied and skilled staff, students with sufficient capability to embark on a degree course, adequate physical infrastructure, and sufficient budgets for maintenance. As we will see, this hierarchy – and in particular the importance of building a foundation of employable graduates – explains the incentives for, and scope of, local engagement activity.

The pressure to create employable graduates

The definition of employability is contested in academic literature (Palmer, Young and Campbell, 2018, p. 371), and understandings of what an employable graduate looks like vary amongst stakeholders. Despite its perceived importance, there is often overlap in discussion between employability (where, for example, an employer considers an applicant unfit for the role), employment (a graduate may be employable but unable to find work) and underemployment (a graduate is employed, but in a role that does not utilise their knowledge and skills). Often omitted in discussions of employability are the role of broader social inequalities and structural problems with labour markets. These deeper challenges are replaced instead with an onus on individuals to boost their skills and experience, and for universities to facilitate this effort (Moreau and Leathwood, 2006, p. 305).

One interviewee said that many of the moto (motorbike taxi) drivers in Kigali have a degree. Another said that some of the youth selling mobile phone airtime vouchers near their house have degrees from the University of Rwanda. Graduate employability was mentioned by most interviewees, and is perhaps seen as the major issue facing the University of Rwanda. As such, it has implications for local engagement activity if all resources and attention are focused on employability, but also raises a question: could local engagement activity improve employability if the two issues were more closely aligned? The debate will be familiar to anyone who has followed discussions about employability in the UK or elsewhere, with similar themes recurring about the relevance of courses and links with employers.

> There's always a tension in that narrative around workforce readiness: what does it mean? We pass the responsibility for a young person's development on to the employer. We don't, we can never provide a workforce-ready person, somebody who can turn up first day and run, and most companies would provide an induction for example. [Staff member B, University of Rwanda]

The university does, however, take the employability of its graduates seriously, especially given the sizeable investment from the government to put students through education. Staff member D from the University of Rwanda said that although the

debate over employability “will always be there”, there are now rigorous employability policies in place. Every programme has a scorecard and self-assessment spreadsheet asking questions deemed important to increasing the relevance of courses: how many times are business representatives invited to speak to students? How many modules taught in the department involve field-based activities? To what extent are private sector partners involved in evaluating the programme? The result is a sliding scale, with clear metrics provided for increasing activity the following year. A review of all 158 academic programmes offered by the university, conducted with a view to phasing out those that do not meet labour market needs, attracted national and international press coverage (Mbonyinshuti, 2020; Nkurunziza, 2021).

There are challenges to improving employability, and which explain the gap between expectations and reality. These include pressures on staff, and the capability of students to embark on degree programmes.

> We feel like we have been doing our best but when I speak to people out here, when I speak to companies that have hired our graduates, when I speak to ministries, or NGOs, or the private sector, people that have to work with our graduates, something is always missing: “you need to do this, you need to do that”. We are confident that what is going out is good enough… our first year students, our feeling here is always that they are a year below where they should be. So our first year of instruction tends to be just updating them to become admissible. If we look for other excuses, they are there: we are still understaffed, [there are] very few staff members. The numbers of students: we used to take only 25 per year. Now, since last year, we have been asked to take 50. [Staff member E, University of Rwanda]

Another constraint is the availability of jobs, with questions asked about employer demand: “I had a very strong feeling that the employers didn’t really have the capacity to employ and yet felt obliged to go through a process of recruiting people”, said staff member B at the University of Rwanda, with companies sometimes rejecting students on superficial grounds at the end of the process. A staff member for a multilateral organisation observed that “the market is so tight, there’s a very fine line between training in the skills that are needed and actually countries having the employment and

resources to hire those people". This is even more pronounced at higher levels of education: "are the jobs available, or can they effectively create jobs that add value to the region and the country?". For example, Rwanda has strong ICT programmes (both at the University of Rwanda and CMU Africa), and a commitment to develop the sector through, for example, Kigali Innovation City, but interviewees were concerned whether there are enough jobs being created.

Lastly, and speaking about African higher education in general, a staff member for a multilateral organisation noted that careers centres, and the associated work on careers and employability, is not as developed as in some parts of the North.

> They're not bringing people in from the companies and they're not tracking where the students are getting interviews and then getting jobs afterwards. But they're also not bringing in the companies to help drive the academic programmes… companies [in Africa] say that "my graduates are not trained in the right area", they may well be accurate in that, but there's a lack of dialogue between the potential employers and the institutions and the programmes as to what that training needs to be. And that's a real issue. [Staff member, multilateral organisation]

Challenges of employability are put into sharper focus when comparisons are made to TVET providers such as Rwanda Polytechnic (for example Ntirenganya (2018)), an institution with an explicit focus on meeting labour market needs, formed in 2017 through a merger of eight colleges spread across the country. The polytechnic faces similar resource constraints and large class sizes as the University of Rwanda. However, as a staff member from Rwanda Polytechnic put it, "our graduates are more needed… this means we don't really have unemployed people from the polytechnic because of the nature of the work". Yet despite its traditional 'academic' focus, the University of Rwanda exemplifies a trait of large public universities: the training of key workers. The university is the primary provider of teachers, nurses and doctors in the country. Government official B explained that the University of Rwanda, as an implementing agency of the Ministry of Education, is focusing on training secondary school teachers – an essential part of the pipeline of talent needed to become a knowledge-based economy ("we need more secondary teachers every single year"). The university is also a place where government turns to meet future needs. For most

requests it is likely to be (in the absence of a specialist institution) the only body with the breadth of academic expertise, and the depth of student numbers, to respond.

> The government would always look to us to say, "we need this new cadre", or "we're now looking at occupational therapists within hospital teams – can you develop occupational therapy for us?". [Staff member B, University of Rwanda]

Long-term approaches to graduate employability

There are several tensions inherent in the focus on graduate employability. These play out as a challenging balancing act between the short- and long-term, where the university bears the brunt of the struggle in the short term to build long-term capacity.

> If you produce these graduates, and they struggle for jobs in Rwanda, are you going to lose those graduates, or are you going to lose the popularity of the programmes? You've got to build that bridge, and it's the same sort of thing as any innovation-type activity, you have the valley of death period where you have to make sure you get those graduates engaged in-country. [Staff member, multilateral organisation]

It will take time for companies in ICT and other new industries, and within physical sites such as Kigali Innovation City, to grow, and for new jobs to be created. The need for diversification of jobs was flagged by government official C as a major concern facing Rwanda's economy. The University of Rwanda plays an important role in supporting long-term diversification, in coordination with broader government policy. The university works with the President's Office, the Rwanda Development Board and the National Council for Science and Technology, amongst others, to anticipate skills needs, and prepare for future workforce demand and a changing economy. These often sometimes took the form of workshops with Rwanda Polytechnic.

> It was very much about looking at [areas such as] manufacturing, maybe pharmaceutical manufacturing, in the future and how we might build that. Maybe building a new international airport, making sure that we have the right skills going out… A knowledge-based economy is driven by knowledge, and driven by skills as well, so therefore what kinds of skills

> do we need… there are some very tangible examples of trying to produce people who, by the end of their time at university, had skills beyond their diploma. [Staff member B, University of Rwanda]

The impact of changes to teaching methods to enhance employability will also take time to show. Some employers are unhappy with the mindset of students.

> There is a need to invest in capacity building, especially the graduates… you get a student to do an internship. It is a six-week internship, and then they do it as just one of the requirements [of their degree]. We get some, and we say, "there is an opportunity and you can extend". Maybe we've seen [their] potential. And [they] say, "no, I'm supposed to do only six weeks". [Staff member, non-governmental organisation]

But again the university is preparing to make changes for long-term improvements, and there is recognition that changing teaching methods can affect how students work to solve societal problems in their careers.

> Oftentimes people hold back because they have this respect for authority, if they were taught in a classroom where they were not given an opportunity to constantly express themselves, simply because the teacher is [seen as] the master… All programmes in general need to rethink the way we teach. Because it influences whether somebody goes into practice and applies themselves by the textbook, or goes into practice and is exploring ways of leading and pioneering problem-solving. [Staff member D, University of Rwanda]

Moving up the hierarchy

A theme infusing all levels of the hierarchy of pressures for the University of Rwanda is *relevance*. For students to be employable in so-called knowledge society jobs, they need to be trained in relevant disciplines and have relevant skills for the workplace. For research and engagement to be effective, activities should be relevant to societal needs. The foundation of graduate employability, however, is unique in that it is a top priority for all of the bridging actors and stakeholders (although their understandings of what employability means in practice will likely differ). The government wants a

capable future workforce, and parents want children with jobs. The World Bank wants a pipeline of employable graduates to emerge from the university's Centres of Excellence, and the public want a return on taxpayer-funded investment in students. Getting this foundation right also greatly facilitates local engagement, in a demonstration that the two areas are closely linked: employable (and enterprising) graduates can help facilitate greater local engagement, and vice versa. A first step is getting students into the community.

> I really enjoy… getting out of the classroom, taking the students out of the building, and putting them in the community. I tell students about [informal settlements and] they are always too judgmental: "those people, they live in a very bad way". Just like the arial picture here [shows a photo taken from overhead of an informal settlement]. "They look really bad and horrible and terrible", and, "why do they live like this?". So everybody complains. I always tell them to forget about the bird's-eye view… But the moment I bring the students on the ground, for all week just visiting every day, their faces completely change. "Now we understand why it was like this because the topography, so the road could not go like this, the roofs are like this because it was constructed in the 1970s or '80s… we didn't see a lot of this green [before]". So they start connecting with the on-the-ground realities, and that is what I like. And if students are able to do that, to be on the ground, then the solutions that they come with are more fitting. [Staff member E, University of Rwanda]

Once more, there are potential payoffs in the future from enhancing student engagement, not least a deeper understanding of community needs that should – at least in theory – be reflected in more effective and appropriate decisions taken throughout the course of a career. These transcend discussions on employability and focus instead on values of citizenship and civic responsibility. Staff member A at the University of Rwanda explained that staff leading on outreach and engagement activities "may change their interest", but many of the students involved in projects will be in "top positions" in a few years, and the history of flagship universities tells us that their alumni often have an outsized influence on national development (Teferra, 2017, p. 82).

Closer to the top of the hierarchy of pressures looms the spectre of league tables and comparisons. Despite an overriding focus on national development, the University of Rwanda is nonetheless affected by the forces of international higher education policies. Partly this is a condition of funded projects: the World Bank required the university to adopt measures of 'best practice' such as the accreditation of degrees to international standards, necessitating the university to hire a commercial agency to assist. The push for international credibility is more pervasive than just a string attached to funding, however. There is "very much an explicit push around international benchmarking – are you as good as other places? – which got us stuck and caught up and wrapped up in ratings and rankings", said staff member B at the University of Rwanda. Some of this pressure comes from other university leaders around the world, and manifests in unequal research partnerships: many African vice chancellors "feel rather oppressed by the narratives from higher education leaders in other parts of the world", they added.

University staff acknowledged that the various pressures on the institution constrain local engagement activity, and some concluded that it is the duty of individuals to think of ways to work beyond these.

> I'm not sure the university can accuse communities for not looking into the university, I think they're doing a lot to bring us their children here to educate them and train them. But it's more of us reaching out more widely: community engagement and mentorship. [Staff member E, University of Rwanda]

These individuals – the lecturers, the cadre of leaders at all levels – operate within and sometimes beyond institutional structures. The pressures that shape their decisions and activities form the third component for understanding local engagement.

5. The mechanics of work for university staff

Institutional goals and priorities mould the incentives and obstacles that face university staff. Policies and targets determine a path of least resistance for staff to fulfil their core responsibilities and get promoted. Altogether these form the 'mechanics' of work: how time is spent, processes and paperwork that need to be completed, and the items

that end up top of the *to-do* list of university staff. This section explores how the mechanics of work affect local engagement activity. National priorities filter through to institutional priorities, which in turn filter through to personal priorities, configured to the college, school, department and ultimately to the individual role. As a result, it is possible to trace a national directive issued by the Government of Rwanda to reduce carbon emissions, for example, to a lecturer at the University of Rwanda teaching a new master's course on sustainable construction techniques. Yet there are exceptions to this generalised idea that individuals are 'constrained' by the priorities of the university and the structures and process that follow; the implications of these exceptions are then briefly considered.

How to get promoted: incentives for local engagement

The adage 'what gets measured gets managed' holds true in university departments.

> It seems to be the monitoring is always around contact hours, teaching and research. Did you publish? Did you write book chapters? Did you teach? Are you in class? But there is never a question of monitoring mentorship schemes, how are we building capacities of students or peer staff members? Community engagement – have I taken the knowledge, and tested it out there? So these questions tend not to be answered or asked in the university setup. During the [previous Vice Chancellor's tenure] there were things I know we used to fill in, weekly reports [on] teaching, research, mentorship, and community engagement. And I know that those reports were always looking heavily at teaching and research… so we have these four legs, but two of them are still very strong, and others are weak, the lines were more dotted, not as bold as the other ones, but I really appreciated that kind of thinking. [Staff member E, University of Rwanda]

There is wide acceptance amongst University of Rwanda staff that the traditional triad of university activity – teaching, research, and outreach – can be mutually reinforcing, and an effective lecturer will be able to find and develop areas of overlap between them. Outreach activity is included within the criteria for promotion, "but I think a lot of people haven't benefited from it, because they don't document it", said staff member

D from the University of Rwanda. If staff have published and have a strong teaching record, they do not need to have engaged in outreach activity, but the staff member added that some activities combine research and outreach, or teaching and outreach, or even all three, so “some people do it without thinking about it”. However, there are numerous challenges in incorporating local engagement into teaching and research. For teaching, rigid schedules can inhibit community engagement.

> The community is a very natural, organically flowing space. So I get calls from local people saying, “you said you will come back, where are you?”. Because for them, life is not supposed to be very structured. You can come any day, we can talk, we can have a conversation. For the university, we are completely structured. I have to teach 11 weeks, then let the students do revision for one week, students do exams for two weeks, start I teaching again, 11 weeks… Academic means structured, and this is where the problem is. I’m sure it’s a problem for almost everyone that’s trying to do things with the communities… where do I even find the time to write the grant? [Staff member E, University of Rwanda]

The clearest path for most university staff members to increase local engagement is a research project that involves work with communities. Given heavy teaching and supervision workloads, it can be challenging to find time for research. And where research depends on fieldwork, this has been disrupted by COVID-19, and in some cases has shifted to review studies or online data collection, with clear implications for face-to-face work in the community. At least some departments are looking to catch up on teaching time lost during COVID-related lockdowns, so are doubling their teaching efforts, at the expense of other activity.

Even given more time for research, there are limited budgets. Staff member C at the University of Rwanda noted that the small research budget is partly because some of the decision-makers in government are unfamiliar with academia (despite extensive staff circulation, covered in section 8), and prefer to prioritise infrastructure and other tangible investments – the research budget might be smaller than the budget to repair roads, they added. Where lecturers have a performance contract that demands publications, limited time and budgets will push individuals towards desk-based, small-

scale research projects rather than initiatives involving extensive community engagement, especially where there is no peer group of active researchers. Beyond performance contracts, there are few incentives.

> You're a civil servant – you're not going to get any pay raise for being published in *Science*. There's no research funding available nationally so you're reliant in many cases upon donors for it, and you're not getting released from teaching because you're a research active faculty member [in] a university that has a student-to-teacher ratio of 50 or 70 to 1. [Staff member, multilateral organisation]

There are also few incentives to engage in speculative or long-term research, and there can be limited willingness to put in bids for work with no upfront funding.

> For example, when we are developing a proposal, and we want to work with the university lecturers, they wanted me to pay for developing the purpose. And I said, "I can't pay you for developing a proposal, we're looking for money, let's look for money". But they will not do it, because they feel it's their time. Not looking at the long term, the big picture… When you can develop a big project for five years… they would rather if a ministry has some workshop, on maybe urbanisation, they go there, they give a talk… I think it's [the] mindset on research… I don't know if it is the structure of the university that encourages this. Because I think the research funding at the university, maybe the accessibility of funds is not enough. So I think it's both structure and mindset. [Staff member, non-governmental organisation]

Those that do build up a research portfolio or pioneer community engagement initiatives are often exceptional individuals.

University staff pushing boundaries

The University of Rwanda is home to some key individuals who pioneer work outside of the remit of the strategic plan and formal processes whilst still meeting institutional goals, who push boundaries whilst bringing the university closer to the community,

and who understand how to get things done and respect tradition whilst iterating and improving.

> The people who are the leading academics in the university were kind of renaissance people, because they were the people who worked until two o'clock in the morning, and operated in a bit of a world of their own a lot of the time, writing papers and collaborating and putting in funding proposals. [Staff member B, University of Rwanda]

Leading academics often become leaders, and leaders – as we will see in section 8 – often move between sectors and organisations.

> It's a very difficult environment to build up a research enterprise, which is why, when you have them, these people are very, very strong, and centre leaders often become vice chancellors as well, or take leadership roles in universities, because they are those who have a global vision of a university. [Staff member, multilateral organisation]

This was understood, and appreciated, outside of the university.

> The City of Kigali [has] got to be led by people who have brilliant minds who understand the national vision, who understand the developmental path of the country, who understand the context in which the country is governed. And those people [you] won't find them elsewhere, you find them at the university. Knowledgeable people, trusted people, the most trusted people – you will find them at the university. [Government official C]

This pathway is driven by *individual excellence*, not an institutional norm of *cross-sector collaboration*, and it is therefore much harder to plan and implement. Encouraging greater local engagement activity across the university requires new incentives and a closer alignment of the hierarchy of pressures explored in the previous section. However, there are steps that can be taken to better understand the activity that does take place, as well as other forms of engagement which rely less on university processes and structures.

6. The history and future of engagement

For large, public universities to thrive, minimum requirements must be met. For the University of Rwanda, this means producing graduates who are perceived to be employable. Beyond this, *relevance* is the guiding precept – ensuring research and outreach activities are relevant to the needs of industry, the public, the government, and ultimately the development of Rwanda. For local engagement to thrive, employability is also key. This is not only because a long-term failure to produce graduates who are seen as employable will likely lead to government intervention and falling student numbers – meaning there will likely be no time or resources for effective engagement – but because the two issues both benefit from alignment. Students can get experience working with communities and local businesses during their degrees, and can better understand the development needs of the nation. Enterprising graduates may establish businesses and hire within the community. When graduate employability efforts support engagement activity the two can form a virtuous circle, with outreach and engagement providing opportunities for the university, for research, for teaching, and for students.

This pragmatic approach may allow the University of Rwanda to fulfil the hierarchy of pressures of a large public institution, to meet the indicators and goals within its strategic plan, and to drive development – and my interviews suggest that the university is performing strongly in all three areas. This approach does, however, raise questions which shed light on the fundamental purpose of the university: does the conceptualisation of development, as articulated within the national *Vision 2050* strategy (and influenced by frameworks such as the UN Sustainable Development Goals), have limitations? Can the university – and academics within it – effectively challenge national priorities and policies, or provide a space for discussion on what is working? Goodfellow and Smith (2013, p. 3197) suggested a decade ago that there could be ‘dubious implications for future stability’ in Rwanda if civic engagement is constrained. Are there any costs of this instrumentalist orientation, for example neglected areas of study, or a lack of exploratory research? So-called ‘blue skies’ research can lead to both unforeseen advances in knowledge and artistic and cultural vibrancy (McCowan, 2016, p. 520). “90 percent of all scholarships [from the Government of Rwanda] would go to STEM subjects… you won’t find a lot of liberal

arts degrees in Rwanda", said staff member B at the University of Rwanda.[6] Some of these questions are addressed in the following sections; the answers to others may only be clear in decades to come.

The evolution of engagement

The University of Rwanda is a multi-campus flagship university, playing an important role in local and national development. This role is shaped by its institutional foundations, which have a strong place-based history. Most interviewees who worked for the university joined after 1994, although a couple had a longer service, joining a constituent part of today's University of Rwanda in the 1980s, and are thus afforded an inside view of how engagement activity has evolved – partly due to an expansion in subjects and disciplines that involve communities, but also changes in how the university positioned itself in society.

> It has changed tremendously, and positively… the university used to stand like an island, isolated within our area, doing our business. There were no such events as I see now, no research conferences where you see people from outside, and it was really insulated. Even at the Faculty of Agriculture at that time, which was working on farming, and livestock, there was no link between the university and the outside, the community…
>
> The change comes after '94. The university gets really involved in activities aiming at developing the community, but also working hand-in-hand with cities where they are based. And this was a very positive attitude. And the involvement has been very, very beneficial for the country, I think, because there are some policies that have been initiated thanks to the collaboration between the university and the administration.
>
> The mindset of students and staff have changed… now we have realised that we are part of the community. The same for students. The behaviour of students has changed considerably. And they are also involved in

[6] There is some awareness of the limitations of relying solely on STEM-subjects, with an article in Rwanda's *The New Times* newspaper quoting the executive director of the Higher Education Council on the important role private institutions play in providing education in arts subjects (Byishimo, 2020).

> development activities in their respective area. For instance, medical students participate in sensitisation of a population about disease, about fighting malnutrition. People from economics advise the population how they can create small businesses and become entrepreneurs. [Staff member A, University of Rwanda]

In looking for reasons for this shift in mindset, it is difficult to disentangle the need for a new kind of university as part of Rwanda's post-genocide recovery, and a more general movement towards community engagement over this period (Birch, Perry and Taylor, 2013, p. 7). Most likely it is a combination of the two. Nonetheless, the transformation of the university is striking, especially for those from overseas. Officials working with the University of Rwanda report significant changes over the past decade, marked by achievements such as hosting four World Bank ACE centres in the face of regional competition.

> There's been growing confidence in terms of the University of Rwanda and its capacity. [In the past] we had very few researchers that were Rwandan researchers, the majority of the people who were here then were internationals. Today, what you have is a growing number of Rwandan researchers, some of them trained, of course, in Europe… some of them in North America, but coming back, the majority of them actually diaspora coming back, or doing research without having left the country. So a lot of capacity is now coming back. [Official, aid agency]

The mindset of working with communities and the increased capacity of the university, together with the ever-present push for relevance, means a growing volume of engagement activity. This presents the university with several issues, of which two in particular directly affect the mechanics of work of university staff. The first is an alternate channel of activity whereby academics undertake consultancy projects with external partners outside of university structures, sometimes known as 'moonlighting'. The pitfalls of consultancy are well-documented in the literature, and have a long history (Court, 1980, p. 662; Coleman, 1986, p. 492). This includes academics undertaking projects at the expense of their core duties, and not through official channels.

> Because the salaries of staff are so low, they end up doing more consultancy instead of research. And now consultancy mostly enriches the individual who is doing consultancy, rather than the institution. [Government official D]

The university responded with a policy on consultancy that recognises the important role it plays in building partnerships, and includes an 11-stage flowchart, day rates based on seniority, and evaluation processes (University of Rwanda, 2016). There are many advantages of the University of Rwanda increasing its consultancy activity, both for partners and the university itself, and these are detailed in the next section. However – and the second issue facing the university – there is a need to better map, understand and harness activity that takes place: both course-based engagement and consultancy, informal collaborations and formal partnerships, big university projects and those which sit outside of university processes and structures. We saw in section 3 an example of where tracking – in this case of graduates – could be beneficial, but where no structured system exists, in common with much of sub-Saharan Africa. Rectifying this is a complex undertaking, but one perhaps well-suited to the effective governance models in Rwanda.

> You don't have a university email address: everyone's using yahoo.fr or gmail.com. Graduate students, people in the Ministry, people in the university… it's very difficult to track people, and the universities tend not to do it, [whereas] G20- and OECD-type countries are tracking their graduates and it's not just for the institution, but also for the labour market observatory-type work that goes on at the national level. [Staff member, multilateral organisation]

Mapping local engagement could offer similar benefits for both the university and at national level. Measuring, understanding, improving and expanding engagement activity all rely on capturing the necessary information: who is working with whom, which organisations are partnering on what projects, which communities (or community leaders) are involved in university activity or have been consulted, who is sitting on which panel or committee, and – ideally – what informal connections exist between university staff and other partners. There is, however, a balancing act involved in this professionalisation of engagement: between using the information to

support staff, strengthen the university offer, and learn from what works on one hand, and avoiding stifling new projects through excessive regulation and bureaucracy on the other. The view from inside the University of Rwanda is a flagship institution that is well-positioned to increase its engagement activity; to fully understand the role of the university in society we now need to take a broader view.

7. Direct engagement: from MOUs to consultancy contracts

This section and the next set out two paths for university engagement and build these into the framework of engagement. *Direct* paths are formal agreements such a memorandum of understanding or consultancy contract, and *indirect* paths include contributing to public debate and the circulation of staff. The following sections argue that, whilst there is considerable interplay between the two paths, the University of Rwanda exercises considerable (and likely under-appreciated) influence via the indirect path, and there are opportunities to strengthen and extend direct engagement, in particular by building the long-term capacity of the university.

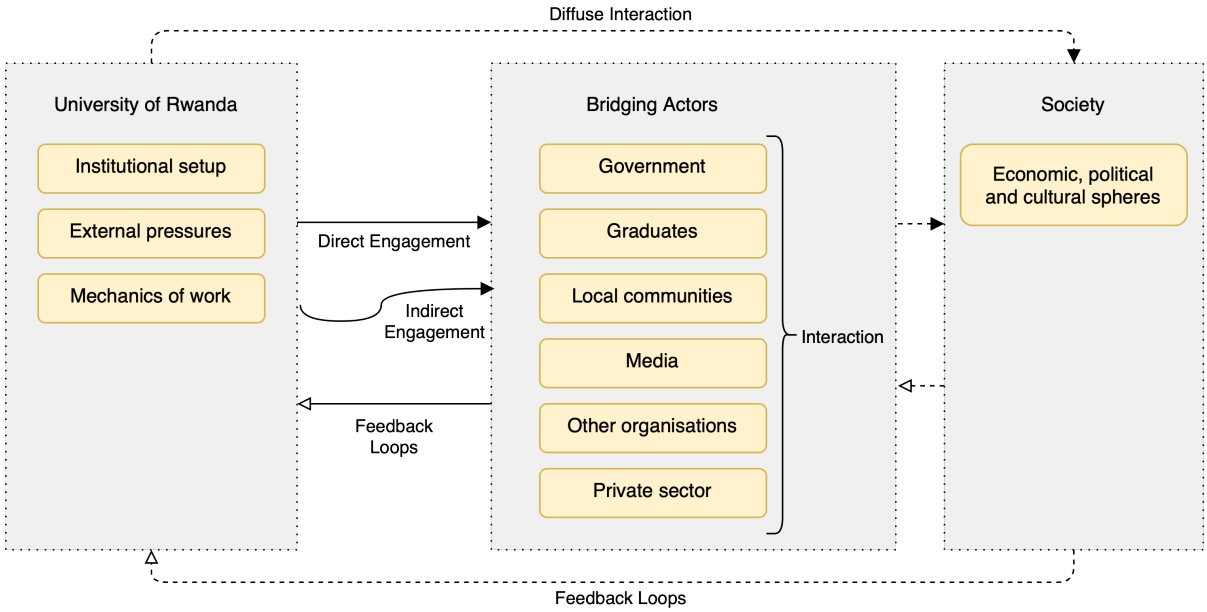

Figure 2: Pathways of engagement

Figure 2 integrates the direct and indirect paths as well as interaction between the bridging actors into the framework of engagement. The following sections will show how these pathways serve as conduits for engagement between the University of Rwanda and the bridging actors, and how there is interaction amongst the bridging

actors: the government minister who reads an opinion piece in the newspaper, for example. Staff circulation is incorporated into the final iteration of the framework in section 8.

A *direct path* for the University of Rwanda to engage with society (usually via the bridging actors: government, communities, other organisations) is an agreement or a piece of work agreed between the university and another party. These operate openly within Rwanda's development model. This section will explore a couple of these: memoranda of understanding (or MOUs), which could be considered an example of an *early stage* direct path as they can lay the groundwork for further work, and consultancy projects, which are an example of a *later stage* direct path given it involves a concrete exchange of knowledge or services.

The next section will consider *indirect paths*. These are less formal, less tangible connections between the university and bridging actors, and are both a product of everyday interactions between people within and outside the university setting, and the deliberate boundary-pushing by a few individuals we saw in section 5. The relationship between direct and indirect paths is complex. An MOU can facilitate work, and open up new (indirect) avenues for discussions in adjacent areas, leading to (direct) work. But an MOU likely arises in the first place from indirect engagement, perhaps personal interaction between colleagues meeting at a conference. As such, one can precede the other, and they can run in parallel. An example of the transition from an indirect to direct path of engagement is an interviewee from the University of Rwanda who penned an op-ed in *The New Times* (a national newspaper), and was later invited to join an influential advisory group in City Hall on the topic. This demonstrates how indirect engagement with one bridging actor – the press – can lead to direct engagement with another – the government. Interactions are therefore also vertical amongst the bridging actors, and better understanding these relationships may be a useful mechanism for amplifying university engagement and impact.

Legitimising and facilitating: MOUs and strategic plans

MOUs often have a poor reputation. The conclusion of a 1990 article on the global spread of their use declares that MOUs are often more memorandum than understanding (Murthy, 1990, p. 66), a view still likely widely held today. Yet they

remain a common tool for higher education institutions and other organisations seeking to establish new institutional relationships, including in Rwanda. By itself the value of an MOU is limited, acting as an invitation to work together rather than a guarantee of cooperation, and subject to the headwinds of power imbalances between individuals and institutions. Effectively employed, however, an agreement can overcome bureaucratic hurdles, provide a gateway for new personal relationships, and act as a legitimising force for new activity.

An agreement signed in 2020 between Rwanda Polytechnic and the Mayor of the City of Kigali provides an example of the positive impact an MOU can have. The document identifies areas of broad cooperation for mutual benefit, and has facilitated training services and internships (Rwanda Polytechnic, 2020). Students need to complete two to three month placements as part of their degree programmes, and the City of Kigali has many large tourism and ICT projects; the city also benefits from these skilled students. The MOU has also led to an increase in a more symbiotic form of engagement.

> [The MOU] has really helped. For instance, we have the construction of this highway [indicates unpaved road that runs alongside the campus]. They are now renovating it. And because of the MOU, we got some support from the City of Kigali. So they will now do soundproofing against our wall [when they] build the highway. And also all the leftover [materials] from the roads they will give us because of the MOU. So we will pave the smaller roads in [the campus] next year… So I think we have started benefiting. It's not much because it's a new MOU, but we find our contribution is really immense in helping the city of Kigali to grow. [Staff member, Rwanda Polytechnic]

There is no similar MOU between the University of Rwanda and the City of Kigali, although some interviewees recalled seeing an agreement between the one of the colleges and City Hall, and this alone was sufficient to legitimise activity.[7]

[7] Other official forms of collaboration exist: the University of Rwanda is an implementing agency of the Ministry of Education for the purpose of training teachers, for example.

> I've seen a copy of it somewhere; it was just never so detailed. It always needs very active, motivated people inside to create addendums to that MOU… So I take a lot of refuge in just that conceptualisation, that the MOU must be there, whether it's formal or informal [to facilitate trips into the community]. [Staff member E, University of Rwanda]

The idea of a further-reaching MOU covering the entire university and the City of Kigali was cautiously welcomed.

> A formal framework or collaboration would be interesting. Otherwise we go there as individuals. Unless we are participating in those technical committees, we don't have a clear framework. [Staff member A, University of Rwanda]

Although MOUs are precarious and can, as elsewhere, fall by the wayside, the importance of formal agreements is elevated in Rwanda's development model, as epitomised by the status of strategic plans. The importance of such plans is worth briefly exploring because they carve a direct path for engagement.[8] Detailed strategic plans complement the top-down administrative structure and 'instinctive efficiency' in the country (Wrong, 2021, p. 387).[9] Plans and strategic visions play an outsized role in Rwanda, both at institutional level and national level, where *Vision 2050* has recently superseded *Vision 2020*.

> The strategic plan is not some sort of policy wonk's assessment [that says] "I think this is what the country should do". They are literally marching orders, and if you have any doubt about what you should do as the Vice Minister of Infrastructure for Roads, you just open up the Vision 2050 plan and see "OK, where can I contribute to that?". And so it's really quite effective as it's treated seriously by everybody. And it's public and

[8] Including, incidentally, for the formation of further MOUs. At least three strategic priorities in the University of Rwanda's strategic plan have the number of new MOUs signed as a key performance indicator (University of Rwanda, 2018, p. 32).

[9] Goodfellow and Smith (2013, p. 3193), who also conducted research in Kigali, express this nicely: 'the [city development] plan wields enormous influence: one interviewee even commented that "[we] are all impaled on the Master Plan"'.

> it's transparent and creates the environment that attracts continued international investment. [Staff member, private university]

Plans can be considered loosely 'nested', in that the plans of individual government departments and economic sectors are aligned with the overarching ambitions of Vision 2050. The same applies to the University of Rwanda, and then for the constituent colleges – each with a role as part of the hierarchy of national development. Although individual lecturers were less familiar with the detail of strategic plans, staff with administrative responsibilities at college level noted that they interact regularly with the strategic plan, and that it is aligned "quite nicely" to the annual action plans.

> There's a very deliberative effort to align with government, the vision of the government, especially the Ministry of Education. This idea of becoming a knowledge based economy and responding to the National Strategic Plan for Transformation. So all these things feed in, and it's intentional… it's a credit to governance and how they are trying to make things happen… But at times of course, the targets are a bit too ambitious. And with COVID it was just crazy. [Staff member D, University of Rwanda]

As such, the broad aims but also the philosophy of strict adherence filters down from government to individual departments and colleges. This is a double-edged sword: a high probability of success for activities included in strategies, including engagement between the university and its local area, but a risk of burnout.[10]

> In Rwanda, everything that we've written, we must do. So we work very, very hard… even if I promise that I will teach ten hours a day, I would struggle, but do it. So when you take a society that is so honest, and so loyal to what they plan to do, and you [introduce] an ambitious or an impossible dream, then it causes problems. [Staff member E, University of Rwanda]

[10] The important status of strategic plans may also serve to inhibit additional activity, and – perhaps especially for institutions with a defined, technically-focused remit – restrict the direct engagement path. A City Hall staff member said that no projects or programmes outside of the Kigali City Masterplan 2050 will be undertaken.

MOUs and strategic plans act as early stage direct paths for engagement. They ease the passage of – but are not necessarily a precondition for – later stage direct paths such as the signing of consultancy contracts. For staff at the University of Rwanda, consultancy work is managed through a consultancy policy, covering approval processes and the division of funds between staff and university (University of Rwanda, 2016). This work is encouraged in the strategic plan, which features diversification of income as a strategic priority, and an ambitious target of a quarter of university funds generated through the UR Business Company by 2025 (University of Rwanda, 2018, p. 51)). Looking more closely at consultancy as engagement helpfully illustrates the complexity of achieving such a target, but also the potential for the university to play a greater role in Rwanda's economic and social development.

The potential of the University of Rwanda to increase indigenous consultancy

The embeddedness of the University of Rwanda in national development structures does not translate automatically into practical projects, such as the provision of evidence and policy advice, conducting research studies, or testing and evaluating new initiatives (typically described as consultancy). Interviewees saw this as a missed opportunity.

> There is a gap of electrification in Kigali. So the City of Kigali could just contract the University of Rwanda to study that problem and propose solutions in one way or another, because you have expertise both in electrical engineering, energy, and sustainable development… You find on one hand we have the leaders of the University of Rwanda at the top level of leadership of the City of Kigali [as members of the City of Kigali Council], on the other hand when it comes to understanding or conducting studies to inform policy for Kigali city, they hire or contract independent or private companies or think tanks mostly from abroad. [Government official C]

There are several possible reasons for this tendency to hire from abroad. The influence of high modernism and the preference for international experts plays a role. There may also be concerns about the capacity of the university to respond quickly.

However, interviewees saw a shift taking place and a growing depth of engagement with the university.[11]

> The government recognised several years ago that, rather than putting up consultancy for international consulting firms to come and do a piece of work and go away again, that they would target the University of Rwanda as a place of consultancy and we could reinvest [money] back into the country and the university. And so more consulting is now done for the government by the university. [Staff member B, University of Rwanda]

Another interviewee agreed that this transition to more 'in house' research has been underway for some time, but there is still a long way to go.

> There are many, many collaborations [between the University of Rwanda, the Government of Rwanda, and City Hall]… one time I remember we wrote to government [and said] look, we have capacities in the university which you guys can use. For example, we're struggling to raise resources for institutions. But if you know the amount of consultancy funds which are being used in Rwanda to do one study or another, most of these are consultancies from outside who actually use our own staff to work with them and do it. So why can't we be one of them, where they could call on at any time to assist in studies, to assist in some research areas, to assist in consultancies. I think that would not only be a win-win situation, but also would build the capacities of our own staff so much better in the future. [Higher education official]

A greater reliance on the university for consultancy will depend upon the capacity and capability for policy research being in place. Achieving this maturity is a product of experience built over time, and developing and investing in university expertise is in the interest of the government. Apart from strengthening the university itself and investing money in the Rwandan economy, a greater role for the University of Rwanda

[11] Interestingly, this shift can also be seen in the university leadership. The first two vice chancellors of the University of Rwanda were UK citizens. The two most recent appointments have been Rwandan citizens: Professor Alexandre Lyambabaje was appointed in 2021, and was succeeded by Dr. Didas Kayihura in 2022 following his retirement. The Chancellor, Patricia Campbell, and chair of the board of governors, Paul Davenport, are US citizens.

would allow a broader range of expertise to be applied to complex challenges, and this expertise will have been gained closer to the point of delivery than if an international organisation was brought in. Interviewees gave examples.

> There are some places in Kigali which are planned neighbourhoods. And other places which are informal. So the complexity of the neighbourhoods is a problem which [has existed] for the past 10 years… They need a developed study, with a broader perspective, with more options, and from a different perspective – technical, social, environmental and so forth. [Government official C]

This could then allow more holistic solutions.

> The City of Kigali would not just rely on a programme by Rwanda Energy Group, for instance. The University of Rwanda could increase their capabilities, and then propose solutions at household level. And then the City of Kigali can use that evidence to source different support from government and from other people. [Government official C]

And, as one interviewee from the University of Rwanda noted, it should result in better quality reports, as international consultancies were seen as charging high fees for reports that are largely copied and pasted efforts. Instead, academics and university staff would be accountable for the research and evidence produced. A couple of interviewees noted that university staff could work alongside these external consultancy bodies to build up expertise, rather than abruptly shifting all business in-house. Faculty members and students could work with international organisations in this process, helping to build capacity. The university needs self-awareness of gaps in expertise and managing such projects, and then to actively learn from others to build capacity.

> If they [the University of Rwanda] are really serious about learning, acquiring these capabilities, after a few years they will be able to do the job themselves, because problems are always there… The issue is who should start that discussion? Having someone from the University of

> Rwanda at the Board or at the Council of the City, I think would help. [Government official C]

Another suggested starting with a hybrid approach.

> Unfortunately in Rwanda civil servants sometimes lack capacities. Why can't they use the institutions which are available? Even if you combine them with expertise from outside, but work with our people. [Government official D]

The University of Rwanda is seen as an especially strong long-term partner. Government official B said that if it is a five- or ten-year project, for example a new teacher training model, "we always work with the University of Rwanda". But smaller projects may go to smaller consultants, and multilateral bodies like UN agencies who fund work may have their own experts who lead on work before it is brought under government control. Open competition can also thwart university involvement.

> They [the University of Rwanda] are challenged by the international organisations… they need to work as quickly as possible, provide us the information, [and are judged on] the quality of their work. It's a competition. [Government official B]

There are internal hurdles for a member of university staff to overcome when taking on consultancy work. These help explain why the university might be outmanoeuvred by a private organisation.

> When you are conducting research or implementing a project, you should be released from teaching activities for – I don't remember the number of hours – but it doesn't work. Because they have to find someone else to replace you. And this is not easy in the short term. [Staff member A, University of Rwanda]

Whilst the consultancy policy has such limitations (perhaps understandably, given its need to also protect the teaching functions and reputation of the university), it has opened up the opportunity for more – and more varied – work. Staff member D from the University of Rwanda said that tenders for consultancy are now treated in much

the same way as the application process for research grants, although the contracting might not be exactly the same. Staff member A at the University of Rwanda said that in the past, processes were too slow, and money was not disbursed in time to conduct the study or other activity within the timeframe of the project.

> But now things are changing with the setup of University of Rwanda Holding Company [which manages consultancy services], maybe two years [ago]… Now when you apply through this it is smooth. But when you go through the Single Project Implementation Unit it is too bureaucratic. [Staff member A, University of Rwanda][12]

However, staff may choose to undertake small-scale projects privately and outside the auspices of the university, perhaps via a private company who will pay them directly. Nor are all consultancy projects paid, or paid in cash through formal contracting processes. For these, and other forms of partnership and knowledge exchange, maintaining oversight of engagement across the university is a key challenge.

Centralised knowledge of partnerships and engagement

The University of Rwanda strategic plan calls for 'aggressive advertisement' of consultancy opportunities (University of Rwanda, 2018, p. 24). However, rather than the university proactively offering its services, the examples of consultancy given by interviewees tended to be responses to tenders (as seen above), or Government authorities contacting the university.

> I think [the national and city government are] heavily invested in the strengths and capabilities of the University of Rwanda, and they look to the University of Rwanda all the time. So they will come to the university and say, have you got people who can do this? How quickly can you do a soil analysis? On this construction site, how quickly can you get a team of engineers out? Or can we have this professor [for] a technical working group on transport and logistics. Can you send some people, we're going to convene a day to celebrate the International Day of Forests, or

[12] The Single Project Implementation Unit manages projects at the University of Rwanda. All ministries and public sector agencies in Rwanda are required to have such a unit.

> whatever, can you put together a panel of people for us? [Staff member B, University of Rwanda]

Although the hierarchy of authority in Rwanda may prevent a truly 'aggressive' advertising campaign to increase consultancy (the priority will likely remain the effective implementation of government programmes), several interviewees called for a more pragmatic role for the university, to move beyond formal representation on boards and committees and to expand beyond pockets of engagement from some academics and programmes. The presence of academic staff on local government committees or graduates within ministries may have helped to raise awareness of the capabilities of the University of Rwanda, which translated into government departments and parastatals then making overtures to the university. Nonetheless, a stronger outward-facing offer of the university's services and expertise may yield further engagement, and this was a priority of the former vice chancellor during his tenure, according to press interviews.

> We can look at how to build our capacity and, whenever our country seeks to conduct any study or research, we can be right there to do the job. I am very sure we can do it in a professional way. I don't see any reason [why] the country should lose money to foreign researchers. (Professor Alexandre Lyambabaje, quoted in Mbonyinshuti, 2021)

Building capacity, strengthening the university offer, and increasing engagement relies upon some form of centralised knowledge of the partnerships and engagement taking place. Not only does this help staff to understand the breadth of activity taking place, mapping engagements across the university can uncover gaps in expertise (and possibly in communities benefitting from engagement), provide a platform for joining up projects across disciplines and departments, and facilitate the evaluation of impact. A staff member in the College of Education, Rukara campus will list different engagement activities that the university is involved with to a staff member based at the headquarters at the Gikondo campus. To some extent this is inevitable: differing views of the extent of university engagement, of the degree of involvement of the University of Rwanda in national or local consultancy projects, can be partly explained by who has oversight of these partnerships and projects across a large, highly complex, multi-campus, multi-faculty university. Whilst it is evident that engagement

does take place, and that there is a shift underway from relying on private consultancies to the 'indigenous' capacity of the university, the exact number of partnerships and engagements that take place is unclear. Metrics on community engagement, for example, will be collated to measure progress against strategic plan objectives. But this is only one component of local engagement activity: capturing, even periodically, participation on boards and panels, the provision of policy advice, research programmes with external partners, student projects with communities, and so on, would be helpful. Developing such an overview is a serious undertaking, and needs to be considered alongside other calls for better information, such as tracking graduates.

The consultancy office will have an understanding of the number of commercial contracts signed, but this offers only an incomplete picture. Requests for high-level support from ministers or other senior government officials go through the vice-chancellor's office as well as direct to the staff involved. This means the senior leadership team and central administration have a unique overview of significant engagement projects across the entire institution, and an opportunity to capture, and perhaps systematise, these links. Few others would have a complete picture of all the high-level engagement taking place – not the education minister, nor academic staff studying higher education, nor heads of colleges and schools.

Any mapping would need to be replicated at college level, where a similar process takes place.

> Sometimes the city of Kigali writes to the Deputy Vice Chancellor, or the principal of a college, requesting staff to participate in activity A, B, C, etc. And then the principal or DVC contacts his collaborators and asks them to find the right candidate. And then he nominates you to represent the university or the college within this committee. But on a data site, the city of Kigali can also ask the college or the university to let Mr. X participate in a committee on X, Y, Z… [Staff member A, University of Rwanda]

Ultimately, however, a great deal of collaboration takes place at a personal level, rather than through formal institutional structures – at least at first.

> I don't think there's a very active City of Kigali–University of Rwanda, or [college-level], collaboration. This is really a disappointment. It happens more at the individual level… I just feel it's a few individuals who knock on these doors and they get opened. [Staff member E, University of Rwanda]

As such, it is important to consider indirect paths to engagement alongside the likes of MOUs, strategic plans, and consultancy contracts.

8. Indirect engagement: from public debate to staff circulation

Indirect paths for engagement can allow work to take place outside the framework of Rwanda's development model, and beyond priority areas in strategic plans. Examples include opening up spaces for discussion and debate, and the critical examination of proposed policies. Views differed on the extent to which this took place.

> The government loved the engagement by academics, and some of the leading academics in the country were often on platforms with the government debating and discussing issues. [Staff member B, University of Rwanda]

Others wanted more involvement in public debate.

> In other countries you see professors participating in debates on television, in debates on radio, in debates in media. Why are ours quiet?… I think there's something lacking, because I still don't see these professors, despite being researchers and teachers, they're on top of their game, [but] they don't go to debate on television, on radios, in other media to influence policy, to influence the thinking of the leaders, to influence the public, you don't see it… I think it's part of the culture. I think

> we can do much better than what we're doing at the moment. [Government official D][13]

However, indirect paths to engagement are sometimes a *feature* of the development model. The most notable is the circulation of staff, examined below. In the broadest sense, however, the university helps to shape the overall long-term trajectory of society by educating students, some of whom will be involved with drafting national development plans, working in local government, and residing in local communities. The influence of the University of Rwanda's alumni on society was mentioned by about half of interviewees. Many decision-makers and officials in Rwanda, including in the City of Kigali, have graduated from, or worked for, the University of Rwanda. The quality of teaching can therefore help shape the capability of officials.

> I've always invited the City Hall [to events and workshops]. Actually 50 percent of the employees there are our graduates… I can tell you more than 20 names of people that are working there. I like to see them there and they're doing important things, but I also feel they need more training because the bachelor degree is no longer enough [given the complexity of the work]. [Staff member E, University of Rwanda]

This role of the university is diffuse and the attribution of impact is difficult to disentangle from other factors. Setting the conditions for long-term development is less amenable to objectives within an MOU or targets within a strategic plan. Nonetheless, this contribution should not be downplayed, and efforts to trace graduates, for example, could help to illustrate the scale of this long term, indirect path of engagement. Nor should this role be viewed in isolation; for talented students, and especially those who are fortunate to win scholarships abroad, the training of individuals is part of a broader development apparatus that includes the University of Rwanda as a core component.

[13] This reticence may be explained by some academics being wary of speaking their mind: the level of press freedom in Rwanda is one of the lowest in Africa (Reporters Without Borders, 2024). Notably, however, the university runs a radio station, *Radio Salus*, set up with UNESCO support (with the aim of creating a new, independent media outlet) at the former National University of Rwanda in 2005. The station encourages community debate and works closely with the university's journalism school; a student described it as 'kindergarten for aspiring journalists' (Tembasi, 2021). This acts as a form of direct engagement, especially when used to share public health messages, for example. Radio stations play an important role in community outreach at other African public universities too: see, for example, Acquah and Budu (2017, p. 197) and Udegbe and Ekhaguere (2017, p. 335) at the universities of Ghana and Ibadan respectively.

> There are fantastic ecosystems [in Rwanda] where you don't just finish [studying abroad] and then you know, disappear in the system somehow, which happens more so in the European environment… when students come back, they come back to of course their home college [at the University of Rwanda], but there is also a plan of action to make sure that that person continues becoming vibrant and active. Of course, here is the the interesting thing, some of these extremely brilliant minds and active people are being nominated now for government positions. So we see ministers, we see director generals of offices, and so they leave the university. [Official, aid agency]

This movement, or circulation, of staff is a phenomenon common to many African flagship universities (Ransom, 2024, p. 85). It plays a vital role in Rwanda's development by sharing knowledge, skills and ideas, and forging links between institutions, and it is a key indirect path for university engagement.

Staff circulation and the triple helix

The triple helix model of innovation seeks to capture university-industry-government relations (Etzkowitz and Leydesdorff, 2000). Given the tantalising possibility of transformational economic change, the triple helix model has been popularised by policymakers outside of academia, and has spawned an annual international conference, an association in Rome, and an institute in Silicon Valley (ITHI, 2023; Triple Helix Association, 2023). At the core of the triple helix model is the relationship and interaction between three primary institutional spheres: universities, industry, and government. The government provides funding and support, industry brings innovations to market, and universities have an important role in generating and disseminating knowledge, providing human capital, and helping new firms (Etzkowitz et al., 2000, p. 315). The triple helix later became the quadruple helix, incorporating the public sphere (including media and culture), and then the quintuple helix, adding the environmental sphere and socio-ecological interactions, although these have gained less traction in academic studies (Galvao et al., 2019).

Etzkowitz and Dzisah (2008, pp. 661–2) argue that improving the interaction between universities, government and industry is fundamental to creating a knowledge-based

society, and their work extends the model to low-income countries. More specifically, it promotes the movement of people between these spheres, especially in places where government is the 'only game in town', or where universities are effectively an extension of government.

> Lateral social mobility, introduction of expertise from one social sphere to another, can stimulate hybridisation, invention and innovation… Horizontal circulation is thus more likely to have a radicalising effect than vertical circulation [the internal promotion of talent] with its inherent conservative bias. (Etzkowitz and Dzisah, 2008, p. 658)

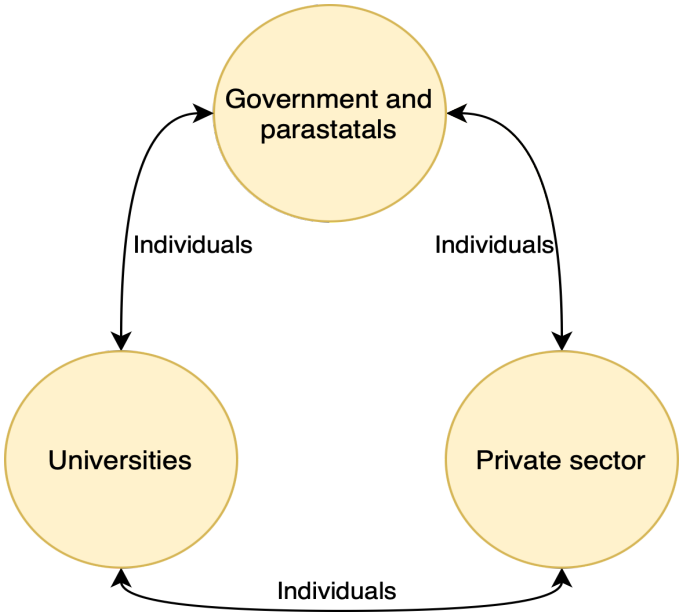

Figure 3: Staff circulation in the triple helix.

Adapted from Etzkowitz and Dzisah (2008, p. 662). In the original version, the three spheres are university, industry and government. Here, the government is the primary decision-maker and is placed at the top.

Etzkowitz and Dzisah's model – which is based on a geographically-broad sample of challenges faced in low-income countries, drawn from the academic literature, rather than an empirical study in which the model has been tested – illustrates the circulation of individuals between university, government and industry. It proposes macro-level circulation, whereby policies, projects, and networks are created between the spheres, and micro-level circulation within spheres, in which individual outputs relating to that helix are produced. Figure 3 is an updated version of this model. It provides a useful

way of understanding the movement of staff in Rwanda, and the central role of universities, especially the University of Rwanda, in this. In practice, circulation does not take place on a purely horizontal plane, as Etzkowitz and Dzisah suggest. Instead, the government acts as conductor, and staff move at its behest. However, circulation often begins with the university training future leaders.

> I think most of the senior managers [in government] at the moment have come from [the University of Rwanda and its predecessors] and they have made a lot of impact in terms of human capital, human resources. I think they've made a lot of difference. They're the ones who move in the government. Some of them are ministers. Some of them are permanent secretaries, some of them are heading parastatal and private institutions. The impact of producing human resources has been felt. [Government official D]

University staff will often take on leadership roles, sometimes in addition to their day job. Some academics are involved in local politics for either the ruling Rwandan Patriotic Front party or opposition parties, forming links with local communities. Government official C observed that the university is seen as a "feeder of leaders for the city". Local government, including the City of Kigali and councils at the city and district level, have boards of governors. Administrative and academic staff are involved in these, but the numbers are unknown. However, translating this representation on boards into impact is important, and perhaps lacking: this is a "starting point", the same official noted, to aligning the strategic plans of the city and the university. Staff can end up "overwhelmed" by these leadership roles, when instead they should be supported to influence the way the university itself operates, to respond to the problems of the city – to, in other words, reflect this external experience back into the university setting.

> I see the role of the university being not only to sit in the city's councils just for the sake of advising them, but more broadly using the expertise and capability in terms of students, engineers, etc. [Government official C]

The highest-profile moves are usually those between public offices. These are usually appointments made by the Cabinet, with scrutiny and vetting by civil servants.[14] The mayor of Kigali, Pudence Rubingisa, was Deputy Vice Chancellor Finance and Administration at the University of Rwanda before his appointment ("he is really doing amazing things and transforming the city of Kigali", said one member of staff at the University of Rwanda). Following this, other senior appointments were made of university staff in the city administration. This is one of many examples of senior staff moving between public offices.

> You can look at almost every cabinet paper, at every cabinet meeting record, and it was always a case of "I wonder who else from the university has been appointed?". People get appointed to ambassadorial roles, to directors general roles, to ministerial roles, from the university. The Minister of Education was a dean of science in the university before she was made minister and you can tell the same story with countless other ministers and not just in education. And so there is that kind of movement, and the university is seen as a place that develops public service leaders. [Staff member B, University of Rwanda]

These relationships were viewed positively.

> People didn't apply to leave the university, people were appointed from the university. There was no kind of disinvestment in the university in the lead up to looking and searching for another job and so people were very positive about the university. People continue to meet and have their friendship groups, and many of the people who've been appointed outside the university still keep up their research or their affiliation with the university. [Staff member B, University of Rwanda]

Compared to many regional neighbours, Rwanda has a small landmass, and this size makes circulation easier: moving between institutions is more practical, and people in different organisations are in closer proximity to each other, making it easier to meet and share ideas. An interviewee from a multilateral organisation observed that the

[14] The Vice Chancellor and Deputy Vice Chancellors of the University of Rwanda are political appointments, for example. For most high-profile appointments there is no formal application process. Individuals do not necessarily need to be members of the ruling party, and ministers do not necessarily need to be members of parliament.

research, science and innovation community in Rwanda is a relatively small one, which means close working. Staff circulation occurs here too: “those involved in science and technology in Rwanda move around between higher education, the Research Council, the Ministry of ICT [& Innovation] and those sort of things”. This has potential benefits: “they can be more targeted in… engaging with the private sector in terms of graduate needs, and the skills gap that exists, [and] thinking about long-term research funding”.

Etzkowitz and Dzisah’s model puts the university at the heart of a transformative process from an industrial to a knowledge-based economy. Yet there are costs to such extensive circulation in practice. A couple of interviewees commented on churn, citing as an example the high number of Ministers of Education over the past decade.[15] The upsides of fresh perspectives and broad experience need to be balanced against the delivery of long-term programmes and maintaining institutional memory. A higher education official was in discussions with a donor to fund an engagement programme for academic staff. This official moved posts, and “when they moved me, everything was forgotten”. There is also a sacrificial element for the university: the loss of talented staff and the need for constant renewal of expertise and leadership. This is perhaps offset when the university is the beneficiary of people moving to the institution from government departments and elsewhere. And, given Rwanda is home to only one major public research university, there is less of the mentoring role seen with other large African public universities, who are often called upon to provide staff and resources to nurture new universities, often in distant regions (see, for example, Acquah and Budu, 2017, p. 174).

[15] High turnover of ministers is not confined to Rwanda. In the UK since 1997, secretaries of state have stayed in post for two years on average and junior ministers typically last little more than a year. This ‘undermines good government’, and means ministers ‘lack the expertise they need to do their jobs effectively and are unable to see policies through to results’ (Sasse et al., 2020, p. 2).

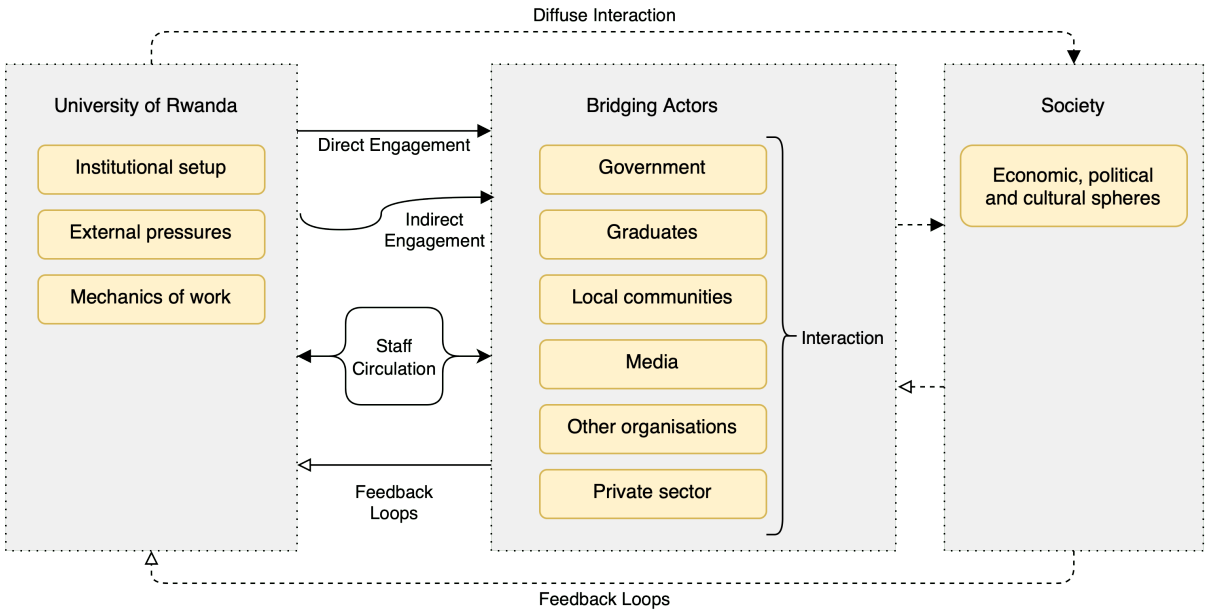

Figure 4: Pathways of engagement incorporating staff circulation

Nonetheless, the model of circulation in figure 3 can be usefully adapted and integrated into our framework, as in figure 4. Instead of the three helixes of university, government and industry, circulation takes place amongst the University of Rwanda and the bridging actors, in particular government (including parastatals, such as the National Council for Science and Technology) and other organisations. Together, these form a constellation of public offices and parastatals that senior personnel move around. The impression given is that the priority is not so much about crossing sectors and helping them to work better together, but *service* more broadly to the nation: how can this person best meet the development needs of Rwanda? The question is: how well do the indirect and direct paths for university engagement work in practice?

9. Engagement in practice: assessing university influence on policy development

An open pathway for engagement – whether direct or indirect – provides no guarantee that collaboration will take place, even if favourable conditions are in place. The circulation of staff from the university to city hall does not necessarily lead to the alignment of city and university strategies, and an MOU does not compel staff to involve industry or the community in curriculum design. Nor, in the case of later stage direct engagement such as a piece of research consultancy, does it mean that findings will be adopted or further work commissioned. A full appraisal of the local impact of

the University of Rwanda is beyond the scope of this paper, but we can examine views of the university's effectiveness in a subset of this: influence on policy development.

According to government and city officials, the University of Rwanda's role as a provider of technical expertise and skills is widely valued and appreciated. However, university staff observed that when input extends beyond this, and broader critiques of long-term impact or unintended consequences are shared, these are not always incorporated.

> When you give comments not only for the City of Kigali, but also for other departments, when studies have been conducted, especially by consultants, we provide comment, and some changes. They value this in workshops. But unfortunately, when you look at the final report, you have just validated what they already wrote. This is frustrating. This leads to some colleagues to say they won't participate in the validation workshop anymore. We wanted to be involved from the beginning, not necessarily to get paid… but you want to see our contribution as citizens who are keen to see the country developing in the right way, to give our ideas and those ideas to be considered. Because one of the roles of the university, when we provide those outreach services, should also be to contribute to the development of the country, to the transformation of the society. [Staff member A, University of Rwanda]

A common assertion was that political leaders should work more closely with academics to source the evidence and data to develop their policies. Whilst this is likely a sentiment shared in many countries around the world, it is one tinged by Rwanda's preference for international expertise.

> You will find that most of the policies that will be developed, they are not informed by evidence. And it's a big issue. It comes from the political leaders most of the time not consulting academia… From the experience of Rwanda, and within this region, the Horn of Africa, you find there is this issue of not basing [policy] on sound evidence. You find the government is not investing in strengthening these research activities to develop policies in the local context… Sometimes you find people develop

> policies based on the policies from other countries, and if you bring the policy from Singapore, from the USA, it will not meet the local context. [Staff member C, University of Rwanda]

There are several reasons why the flow of advice and evidence from the university of decision-makers is hampered. The relentless push towards development encourages a focus on technical deliverables.

> I think this is the nature of leadership for local leaders in Rwanda, because they have fixed objectives that must be reached by year two, year three, year four and so forth. So, they are rushing, heading to that objective, attaining that objective, but not necessarily looking at the long-term consequences, the outcome of such decisions, because sometimes, you see what is done and you wonder, you ask yourself, "has this been conceived by people who are knowledgeable in that field?" Or if yes, "was it peer-reviewed by other people?" [Staff member A, University of Rwanda]

Others emphasised the need for a plurality of views. As government official A explained, "the idea is that science advice comes from different quarters, so if there's a challenge facing the government, it will work with different players… to provide that evidence-based science advice".

This means the university, although an important actor, is just one of several voices and not the sole arbiter of knowledge. The sheer volume of publications can also drown out excellent work. Staff member D from the University of Rwanda noted that "the government is overwhelmed by development research". Universities across and beyond the continent produce research and scholarship on Africa. Aid agencies produce research briefs, multilateral organisations promote evidence papers, and different government departments commission their own studies. In a best-case scenario, the staff member speculated, a competent minister will evaluate the credibility of the methodology of each study, looking at the scope, sampling, relevance. They may evaluate based on who used primary and who used secondary data. And this may favour an international organisation with dedicated funding for research ahead of the university team with a minimal budget. Perhaps more likely still: fortune

will favour the paper on the top of the pile, or the one where the recommendations or conclusions align with government thinking. Again, these are not issues confined to Rwanda, or to public universities. But they do suggest that a particular focus on local development could yield a comparative advantage for a university embedded in its community.

Power imbalances between institutions and bureaucracy are additional factors: without political expediency or the intervention of a senior member of staff from either side, collaboration can stagnate.

> Each entity is just working towards achieving their own goals, looking at themselves. If you are to strengthen that collaboration, there are always obstacles. For instance, if we say in Kigali city, we want to reach [a community to introduce a health project], it has to pass through a long process to first get permission to reach them, and then the people who should be the collaborators in some of the activities we might be doing that may develop the city, they become gatekeepers… If there is a political campaign that is only targeting a certain area, that's when the political leaders will need academia to be involved. But for the academy, when we have something that we need? The political leaders of Kigali city or any other province or any other district, for us we will have to go and beg, and it takes too much time. While for them, whenever they need us, we are always ready to participate. You see the difference? [Staff member C, University of Rwanda]

Yet the university itself can do more to increase its chances of successful engagement, and staff were quick to identify some self-sabotaging activities. Starting projects with lengthy literature reviews is not conducive to impact. Repositories of knowledge maintained by the university, such as the open-access Rwanda Journal, are difficult to navigate, requiring visitors to know exactly what they are looking for.[16] Funded projects are often structured around university-university collaboration, and fail to invest enough time or resource at the start to bring on board stakeholders from the community, city hall or government ministries.

[16] https://www.ajol.info/index.php/rj.

This discussion reflects the widespread view that the University of Rwanda has the potential to engage more deeply, and should strive to have greater impact. It does not diminish the core role it plays as the national flagship university, with many examples given of the widespread links between the university and communities, and the substantial contribution it makes to Rwanda's development agenda. Realising a greater local development role for the University of Rwanda means widening the direct and indirect paths to engagement, and increasing the incentives to make the most of these paths. These incentives are likely to be varied: through the funding programmes of major donors to higher education such as the Swedish International Development Cooperation Agency (Sida) and the World Bank, a preference from government for local consultancy, changing the mechanisms of work and motivations of university staff and – above all – developing a common understanding that the University of Rwanda can play an important role in local development, and one that complements its teaching and research functions.

10. Relevance and alignment

Interviews revealed that the Rwandan government has long been aware of the potential contribution of universities to local development. In one example, an interviewee recalled discussions about universities and place within a meeting of university leaders at the Higher Education Council (HEC), with higher education institutions describing a direct, instrumental relationship – their community as a source of students.

> The head of the HEC was saying, "how many of you view your university as a place of learning and those people who are walking by outside are irrelevant to what you do? Why do they walk around the gates, why don't you invite them to walk through universities? Why don't you think about having your faculty and students engage with those people and talk to them about what issues they have and see if you can [do] something that the communities will find relevant?"… Some people raised their hand and said, "yeah we do this, and we do that… we have the community and that's where our students come from". [Staff member, private university]

Ultimately, the only means of connecting the university and bridging actors over the longer term is to maintain relevance and alignment: relevance to broader development agendas (explored in section 6), and alignment with the needs of individual actors or groups. (As we saw at the start of the paper, there are also more diffuse means by which the university can shape society, such as a Humboldtian model of higher education, and 'blue skies' research.) Given the resource constraints of the University of Rwanda, the only way to ensure this is sustainable is for engagement to complement, and ideally strengthen, teaching and research. This concluding section briefly discusses the trade-offs and complexities inherent in this process with a particular focus on research.

Professor Alexandre Lyambabaje, former Vice Chancellor, said at a press event that "it is very important is to know how the research we carry out helps the communities around us and contributes to socio-economic development" (quoted in Mbonyinshuti, 2021). Concerns over research relevance are a perennial concern, and one that persists beyond Rwanda and Africa. These concerns have perhaps been cast into sharp focus only recently for the continent as Africa's share of world publication outputs begins to increase from a low base (Cloete, Bunting and van Schalkwyk, 2018, p. 33), and are unlikely to dissipate. Definitions of research relevance – and impact – will be contested, and will differ from the perspective of a community to that of government. Nonetheless, the university should maintain an awareness of what is deemed relevant, as well as seek to anticipate future challenges.

> I would like to see a more productive role of the university in the city of Kigali, which has so many problems [for] which you need robust evidence… We find their research is not tackling the problems on the market, partly because their research agenda is not aligned into the developmental agenda of the city. Of course it's a tricky issue from the academic perspective, but it is possible because the university is both developmental and entrepreneurial. There's a need to align their strategy towards practical problems, practical issues on the ground… to align their research agenda with the strategic development programmes of the city and therefore the university [would] have the capability of interacting with

> city governors or managers and then be able to sell their agenda. [Government official C]

Interviewees noted differences between schools: for example those in public health and medicine were viewed as conducting research closely aligned with local needs; the school of economics or law less so. When students study for their PhDs abroad, even in subjects aligned with Rwanda's development needs, some interviewees observed issues in making the most of this expertise.

> When we send our professors to study in universities in Sweden, universities in the US, they do a lot of research. Some of it is relevant research, but how they continue with it when they come back becomes a bit of a problem… when you keep sending people outside, yes, it's good, it's not bad, to send them to top universities. But at the same time, when they come back, they found that maybe the topics they worked on are not relevant. And sometimes they don't have the facilities to continue with the same research so that they can assist the country. [Higher education official]

Others take a different perspective: that the pursuit of relevance favours consultancy over long-term research projects. This raises several questions, some of which are beyond the scope of this paper: are concerns from the 1970s about the neglect of university teaching and research in favour of consultancy (Yesufu, 1973, p. 265) still applicable today? Do insufficient research budgets encourage short-termism? What degree of overlap is there between consultancy and research? How does the policy-driven nature of consultancy shape university research culture? Does the university have the ability to shape its research agenda, and examine long-term, 'big picture' issues facing the country?[17]

> Rwandese work very, very hard. Everybody's very, very busy. But the end product, what happens? If I'm a lecturer at the university, I'm

[17] It is clear that although some of these questions emerge from the particular historical context of the developmental university in Africa (and are framed within discussions of resource constraints), they nonetheless apply beyond Rwanda's borders. For example, broader trends in educational research towards evaluative studies (Cohen, Manion and Morrison, 2013, p. 48), and research thus becomes less open-ended, or well-intentioned funding for research centres leading to a form of path dependency and misalignment with national development priorities (Ssembatya, 2020, p. 13). Both research and consultancy are bound together with politics.

> completely busy. Not only lecturing. I think the consultancies they do is the problem. Quick money. Maybe they are underpaid? I don't know. They tend to look at quick money. We give a workshop, we give a lecture… We work with the university [of Rwanda], but in most cases, you find that we are working with individuals, assistant lecturers, lecturers, which to me is a big challenge, because if we are to develop in this area of research… how can we contribute towards developing the local capacities for sustainability? The lecturers are too busy, there is no structure really to organise students to work with you on research. [Staff member, non-governmental organisation]

Ultimately – and sensibly, pragmatically – university staff will usually follow the money. Funds for research are limited in Rwanda, with a significant proportion of work supported by Sida, and through World Bank assistance. Government official D suggested a fund for supporting research with public relevance, and disseminating the results, but recognised the limitations of the very small research budget in Rwanda.[18] A staff member for a multilateral organisation acknowledged that at least Rwanda has a functioning, if small, research council; other countries such as Nigeria may have the likes of the TETfund, but this was viewed as having limited impact on research funding. Others were less convinced that further funding was the answer.

> I don't see [a greater local role] in the short term through increasing the financing of the university. I see it as a need for the university to increase its impact. Having it on the university agenda… being proactive and engaging and advocating their research agenda. Just not relying on government support. [Government official C]

Nonetheless, discussions over domestic funding of research will grow, and so too will debate over the relevance and alignment of university activity. The University of Rwanda will be at the heart of these discussions: about 90 percent of all publications from Rwandan authors emerge from the university (University of Rwanda, 2017, p. 7). Similar discussions will be taking place across Africa. Kraemer-Mbula et al. (2019, vi)

[18] Higher education expenditure on research and development in Rwanda 2018/19 was 16,220,801,366 Rwandan francs, or about £9 million at October 2024 rates. This is, however, more than a fourfold increase since 2015/16 (NCST, 2021, p. 36).

observe that whilst governments in the Global South are increasingly looking to establish grant councils and fund domestic research, they are often ‘poorly equipped’ to balance the demands for high-quality research, growth in research capacity, and research that is relevant to local needs. Decisions made to resolve these issues will shape African public universities and their local role, and in turn the development impact that these vital institutions have in society.

Appendix: interview information

I conducted 16 semi-structured interviews with academics and leaders from the University of Rwanda, officials from the Government of Rwanda and the City of Kigali, and senior staff at other organisations working in Rwanda. This sample captures four key constituencies: academics and university staff responsible for delivering university activities, senior figures who lead on strategic direction, officials and advisors who are influential behind-the-scenes to implement these policies, and individuals based at other organisations but who work with the University of Rwanda or are familiar with its operations. Five interviewees were employed by the University of Rwanda; nine worked within higher education including for other institutions in Kigali; five were civil servants or in political positions; and four worked for international or civil society organisations. However, and in what became an example of an important phenomenon as my research unfolded, some interviewees have worked within both the government (or other public bodies) and higher education institutions in Rwanda.[19] Where this is the case, I have used the most relevant post when pseudonymously identifying them in the text.

Interviewees were selected on the basis of seniority within their institution (to capture the views of leadership teams and insight into the strategic positioning of the organisation) and domain expertise (in external engagement, urban development, and higher education). Individuals were initially identified through their authorship of articles and planning documents, involvement in relevant research projects (including, for example, UK-funded Global Challenges Research Fund projects), and a search of institutional websites and the professional networking site LinkedIn. However, following my initial interviews, 'snowball' sampling – where existing study subjects recruit or recommend future subjects from among their acquaintances – became the main driver for identifying interviewees. In some cases, an interview was willingly granted after a brief introduction by email. In other cases, for high-profile individuals, multiple gatekeepers granted access as my request was passed upwards through increasing levels of seniority, a process of securing access that seemed

[19] This is also why the total for the aforementioned categories exceeds 16 people.

unsurmountable without personal introductions from contacts trusted by the gatekeepers.

Interviews lasted an average of approximately one hour. Many were supplemented by emails or additional calls where I clarified points and asked further questions, and seven were preceded by meetings where I introduced myself and my research before being granted a full interview at a later date. Nine interviews were conducted in-person during two visits to Rwanda, and seven interviews were conducted remotely due to COVID-19 travel restrictions, in 2021. My data collection was facilitated by a mandatory research permit granted by the Government of Rwanda, and during this period I was a Research Affiliate at the University of Rwanda.

References

Acquah, E.H.K. and Budu, J.M. (2017) 'The University of Ghana: A "Premier" University in National Development', in D. Teferra (ed.) *Flagship Universities in Africa*. Cham: Springer International Publishing, pp. 143–195. Available at: https://doi.org/10.1007/978-3-319-49403-6_5.

Bahati, M. (2019) 'Progressively, Huye town is coming back to life', *The New Times*. https://www.newtimes.co.rw/news/progressively-huye-town-coming-back-life.

Birch, E., Perry, D.C. and Taylor, H.L. (2013) 'Universities as Anchor Institutions', *Journal of Higher Education Outreach and Engagement*, 17(3), pp. 7–15.

Byishimo, B. (2020) 'STEM vs Arts: Making room for both', *The New Times*. https://www.newtimes.co.rw/lifestyle/stem-vs-arts-making-room-both.

Cloete, N., Bunting, I. and van Schalkwyk, F. (2018) *Research Universities in Africa*. Cape Town: African Minds. Available at: https://doi.org/10.47622/9781928331872.

Cohen, L., Manion, L. and Morrison, K. (2013) *Research Methods in Education*. Seventh Edition. Routledge.

Coleman, J.S. (1986) 'The Idea of the Developmental University', *Minerva*, 24(4), pp. 476–494. Available at: https://www.jstor.org/stable/41820668.

Court, D. (1980) 'The development ideal in higher education: The experience of Kenya and Tanzania', *Higher Education*, 9(6), pp. 657–680. Available at: https://doi.org/10.1007/BF02259973.

Dye, B. (2016) 'The return of "high modernism"? Exploring the changing development paradigm through a Rwandan case study of dam construction', *Journal of Eastern African Studies*, 10(2), pp. 303–324. Available at: https://doi.org/10.1080/17531055.2016.1181411.

Etzkowitz, H. *et al.* (2000) 'The future of the university and the university of the future: Evolution of ivory tower to entrepreneurial paradigm', *Research Policy*, 29(2), pp. 313–330. Available at: https://doi.org/10.1016/S0048-7333(99)00069-4.

Etzkowitz, H. and Dzisah, J. (2008) 'Rethinking development: Circulation in the triple helix', *Technology Analysis & Strategic Management*, 20(6), pp. 653–666. Available at: https://doi.org/10.1080/09537320802426309.

Etzkowitz, H. and Leydesdorff, L. (2000) 'The dynamics of innovation: From National Systems and "Mode 2" to a Triple Helix of university–industry–government relations', *Research Policy*, 29(2), pp. 109–123. Available at: https://doi.org/10.1016/S0048-7333(99)00055-4.

Fongwa, S. *et al.* (eds) (2022) *Universities, Society and Development: African Perspectives of University Community Engagement in Secondary Cities*.

Stellenbosch: African Sun Media. Available at: https://doi.org/10.52779/9781991201850.

Galvao, A. *et al.* (2019) 'Triple helix and its evolution: A systematic literature review', *Journal of Science and Technology Policy Management*, 10(3), pp. 812–833. Available at: https://doi.org/10.1108/JSTPM-10-2018-0103.

Goodfellow, T. (2017) 'Taxing property in a neo-developmental state: The politics of urban land value capture in Rwanda and Ethiopia', *African Affairs*, 116(465), pp. 549–572. Available at: https://doi.org/10.1093/afraf/adx020.

Goodfellow, T. and Smith, A. (2013) 'From Urban Catastrophe to "Model" City? Politics, Security and Development in Post-conflict Kigali', *Urban Studies*, 50(15), pp. 3185–3202. Available at: https://doi.org/10.1177/0042098013487776.

Guardia, L. *et al.* (2021) 'Graduates' employability skills in East Africa', *Journal of Teaching and Learning for Graduate Employability*, 12(2). Available at: https://doi.org/10.21153/jtlge2021vol12no2art988.

ITHI (2023) 'International Institute of Triple Helix'. http://www.triplehelix.net/home.html.

Kagire, E. (2019) 'Kagame Pays Tribute to his Advisory Council Members with New Faces on the List', *KT PRESS*. https://www.ktpress.rw/2019/09/kagame-pays-tribute-to-his-advisory-council-members-with-new-faces-on-the-list/.

Kalinowski, T. and Park, M.J. (2016) 'South Korean Development Cooperation in Africa: The Legacy of a Developmental State', *Africa Spectrum*, 51(3), pp. 61–75. Available at: https://doi.org/10.1177/000203971605100303.

Kraemer-Mbula, E. *et al.* (eds) (2019) *Transforming Research Excellence: New Ideas from the Global South*. Cape Town: African Minds. Available at: https://doi.org/10.47622/9781928502067.

Masaiti, G. and Mwale, N. (2017) 'University of Zambia: Contextualization and Contribution to Flagship Status in Zambia', in D. Teferra (ed.) *Flagship Universities in Africa*. Cham: Springer International Publishing, pp. 467–505. Available at: https://doi.org/10.1007/978-3-319-49403-6_12.

Maslow, A.H. (1943) 'A theory of human motivation', *Psychological Review*, (50), pp. 370–396.

Mbonyinshuti, J. d'Amour (2020) 'Universities align programmes with market needs', *University World News*. https://www.universityworldnews.com/post.php?story=20200225114558938.

Mbonyinshuti, J. d'Amour (2021) 'Minister asks new vice-chancellor to boost research', *University World News*. https://www.universityworldnews.com/post.php?story=20210221204621953.

McCowan, T. (2015) 'Should universities promote employability?', *Theory and Research in Education*, 13(3), pp. 267–285. Available at: https://doi.org/10.1177/1477878515598060.

McCowan, T. (2016) 'Universities and the post-2015 development agenda: An analytical framework', *Higher Education*, 72(4), pp. 505–523. Available at: https://doi.org/10.1007/s10734-016-0035-7.

McCowan, T. (2020) *The impact of universities on climate change: A theoretical framework*. Working Paper 1. London: Climate-U Transforming Universities for a Changing Climate.

Moreau, M.-P. and Leathwood, C. (2006) 'Graduates' employment and the discourse of employability: A critical analysis', *Journal of Education and Work*, 19(4), pp. 305–324. Available at: https://doi.org/10.1080/13639080600867083.

Murthy, K.R.S. (1990) 'MOU: More Memorandum than Understanding', *Economic and Political Weekly*, 25(21), pp. M59–M66. Available at: https://www.jstor.org/stable/4396316.

NCST (2021) *Analysis Report: Rwanda National Research and Experimental Development (R&D) Survey for 2018/2019*. Kigali, Rwanda: National Council for Science and Technology.

Nkurunziza, M. (2021) 'Why UR wants to phase out some academic programmes', *The New Times*. https://www.newtimes.co.rw/news/why-ur-wants-phase-out-some-academic-programmes.

Nshimiyimana, L. (2017) 'Kigali City Picks International Experts for New 'Advisory' Panel', *KT PRESS*. https://www.ktpress.rw/2017/05/kigali-city-picks-international-experts-for-new-advisory-panel/.

Ntirenganya, E. (2018) 'Technical skills registered highest rate of employment in 2018', *The New Times*. https://www.newtimes.co.rw/news/technical-skills-registered-highest-rate-employment-2018.

Palmer, S., Young, K. and Campbell, M. (2018) 'Developing an Institutional Evaluation of the Impact of Work-Integrated Learning on Employability and Employment', *International Journal of Work-Integrated Learning*, 19(4), pp. 371–383.

Phillips, H. (2004) 'A Caledonian college in Cape Town and beyond: An investigation into the foundation(s) of the South African university system', *South African Journal of Higher Education*, 17(3), pp. 122–128. Available at: https://doi.org/10.4314/sajhe.v17i3.25411.

Ransom, J. (2024) *Revisiting Africa's Flagship Universities: Local, National and International Dynamics*. Cape Town: African Minds. Available at: https://www.africanminds.co.za/flagship-universities/

Reporters Without Borders (2024) 'Rwanda RSF'. https://rsf.org/en/country/rwanda.

Republic of Rwanda Ministry of Infrastructure (2018) *Urbanisation & Rural Settlement Sector Strategic Plan for National Strategy for Transformation 2018/19 - 23/24*. Kigali: Ministry of Infrastructure.

Reyntjens, F. (2018) 'Understanding Rwandan politics through the longue durée: From the precolonial to the post-genocide era', *Journal of Eastern African Studies*, 12, pp. 1–19. Available at: https://doi.org/10.1080/17531055.2018.1462985.

Rwanda Polytechnic (2020) 'RP and the City of Kigali join efforts to lay the foundation to the sustainable and growth of City'. https://www.rp.ac.rw/news-detail/rp-and-the-city-of-kigali-join-efforts-to-lay-the-foundation-to-the-sustainable-and-growth-of-city.

Sasse, T. *et al.* (2020) *Government reshuffles: The case for keeping ministers in post longer*. London: Institute for Government.

Schräpel, N. (2015) 'Getting the papers right: Some reflections on the politics of research permits in Rwanda', in U. Engel, C. Gebauer, and A. Hüncke (eds) *Notes from Within and Without: Research Permits between Requirements and "Realities"*. University of Leipzig: German Research Foundation (Working paper series, 16).

Ssembatya, V.A. (2020) 'Sustaining research excellence and productivity with funding from development partners: The case of Makerere University', in *Transforming Research Excellence: New Ideas from the Global South*. Cape Town: African Minds. Available at: https://doi.org/10.5281/zenodo.3603928.

Tabaro, J. de la C. (2022) 'Rwanda Publishes Land Use Plans for Entire Country', *KT PRESS*. https://www.ktpress.rw/2022/05/rwanda-publishes-land-use-plans-for-entire-country/.

Takeuchi, S. (2019) 'Development and Developmentalism in Post-genocide Rwanda', in Y. Takagi, V. Kanchoochat, and T. Sonobe (eds) *Developmental State Building: The Politics of Emerging Economies*. Singapore: Springer (Emerging-Economy State and International Policy Studies), pp. 121–134. Available at: https://doi.org/10.1007/978-981-13-2904-3_6.

Teferra, D. (ed.) (2017) *Flagship Universities in Africa*. London: Palgrave Macmillan. Available at: https://doi.org/10.1007/978-3-319-49403-6.

Tembasi, A. (2021) '"Radio Salus" like "kindergarten" for aspiring journalists', *University World News*. https://www.universityworldnews.com/post.php?story=20210629161348108.

Triple Helix Association (2023) 'Welcome to the Official Website of the Triple Helix Association', *Triple Helix Association*. https://www.triplehelixassociation.org/.

Turok, I. (2019) 'Cities as platforms for progress: Local drivers of Rwanda's success', *Local Economy: The Journal of the Local Economy Policy Unit*, 34(3), pp. 221–227. Available at: https://doi.org/10.1177/0269094219852600.

Udegbe, B. and Ekhaguere, G.O.S. (2017) 'University of Ibadan: A Beacon of Higher Education in Africa', in D. Teferra (ed.) *Flagship Universities in Africa*. Cham: Springer International Publishing, pp. 281–332. Available at: https://doi.org/10.1007/978-3-319-49403-6_8.

University of Rwanda (2016) *Consultancy Policy*. Kigali: University of Rwanda.

University of Rwanda (2017) *Towards the University of Rwanda We Want: UR Concept Note for Research Capacity Development and Institutional Advancement 2018 - 2023*. Kigali: University of Rwanda.

University of Rwanda (2018) *University of Rwanda 2018-2025 Strategic Plan*. Kigali: University of Rwanda.

Wrong, M. (2021) *Do Not Disturb: The Story of a Political Murder and an African Regime Gone Bad*. New York: HarperCollins.

Yesufu, T.M. (ed.) (1973) *Creating the African university: Emerging issues in the 1970's*. Oxford University Press: Association of African Universities.