

DST/NRF/Newton Fund Trilateral Chair in Transformative Innovation, the 4IR and Sustainable Development



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Prof Erika Kraemer-Mbula

We have an ambitious agenda, but one that we firmly believe in.



OVERVIEW

The second year of the Trilateral Chair was marked by COVID-19, which raised fundamental questions core to the Chair's programme of work. COVID-19 has made evident the need to redirect our systems towards low-carbon and social inclusion. Moreover, the pandemic has put a spotlight on scientific knowledge and innovation. Our collective ability to pave the way towards a more sustainable and inclusive future depends on how we respond to this crisis, both through policy and through behavioural changes at the community and individual level. The Chair has responded to these fundamental challenges by embedding them into our research programme and by embracing flexibility, adaptation and changes in the way we work, collaborate, and co-create. 2020 has been a productive research year, resulting in 3 books, 10 journal articles and 10 book chapters published. Our researchers have been involved in many presentations and conferences throughout the year, advancing the field and making our research visible.

GROWING OUR COMMUNITY

The Chair's partners: Prof Erika Kraemer-Mbula (UJ), Dr Ann Kingiri (African Centre for Technology Studies, Kenya) and Dr Rob Byrne (Science and Policy Research Unit, University of Sussex, UK), developed multiple joint activities throughout the year, strengthening their collaboration and deepening their partnership.

In 2020 the Chair recruited nine PhD students. Six at the University of Johannesburg (Amanda-Leigh O'Connell, Wondia Mireille Yeo, Gaboile Mabeba, Sigfried Tivana, Gerard Ralphs and Liesel Kassier);

two at Jaramogi Oginga Odinga University of Science and Technology (JOUST) in Kenya (Mbeo Ogeya and Ann Numi) and one at the University of Sussex in the UK (Nora Ndege).

Postdoctoral Fellows hosted at the Trilateral Chair in UJ during 2020 were Dr Larry Onyango, Dr Pamela Mreji, Dr Bertha Vallejo and Dr Afeez Jaiyeola. In 2020 we also welcomed several new Visiting Professors (Professor Johan Schot, Prof Edward Lorenz, Prof David Walwyn, Prof Jacob Park and Prof Fred Gault), Visiting Associate Professors (Prof Rasmus Lema), Professors of Practice (Dr Michael Gastrow) and Senior Research Associates (Dr Sibusiso Manzini, Dr Blanche Ting, and Dr Kehinde Medase). This growing community has provided a fertile ground for the exchange of ideas, mentorship and learning.

STRONG FOCUS ON CAPACITY BUILDING AND PUBLIC ENGAGEMENTS

2020 opened new possibilities for online engagements, and we made the most of them by offering several online training events to our students and designing online workshops to build their capacity and keep our research community connected. Some examples include:

- Participation of our students in a two-week online African Doctoral Academy (ADA Online Winter School 2020 - The University of Stellenbosch).
- The Trilateral Chair designed a training workshop for our PhD students (PhD Engagement Week) to provide a platform for students and senior researchers to meet each other, as well as discuss the theoretical pillars of the Chair.
- Our students undertook a 3-month Online

Research Methodology course offered at UJ, to strengthen their research methodology skills to design and execute their research more effectively.

- We developed a new series of events called “Conversation with Authors”, designed for students and emerging scholars within the Chair to engage interactively with key readings written by leading scholars in the field, and to facilitate their incorporation into ongoing and planned research projects. We held 5 events in 2020, and they have become a regular offering of the Chair.

AFRICAN PERSPECTIVES ON THE FOURTH INDUSTRIAL REVOLUTION

The 4IR has taken centre-stage in academic and policy debates due to its potential to transform economies and societies across the world. In South Africa, the Presidential Commission on the 4IR released its report to the President in 2020, identifying key priorities for the country to focus on. The Trilateral Chair engaged in several activities related to the 4IR, including:

- Hosting an online panel on the “Adoption and impacts of emerging technologies in manufacturing activities: perspectives from Africa, Asia and Latin America” in collaboration with the Global Network for the Economics of Learning, Innovation, and Competence Building Systems (Globelics).
- Launch of the book “Leap 4.0: African Perspectives on the Fourth Industrial Revolution” co-edited by Prof Kraemer-Mbula as a collaborative effort with MISTRA. The book seeks to identify the challenges and opportunities the 4IR presents to South Africa and the rest of the African continent, especially to workers and marginalised sectors of society.
- Prof Kraemer-Mbula was invited by DSI to serve on a panel of Data Analytics as part of a national Foresight Exercise; and contributed as a speaker in multiple conferences and seminars throughout the year on the 4IR theme.

POLICY EXPERIMENTATION

The Trilateral Chair engaged in a Transformative Innovation Policy (TIP) Experiment coordinated by The Transformative Innovation Policy Consortium (TIPC). The policy experiment started on 9th

of July 2020, lasted 14 weeks and involved bi-weekly workshops with multiple stakeholders. The policy experiment was developed around the ‘Living Catchments Project’ led by the South African National Biodiversity Institute (SANBI) in partnership with the Water Research Commission through funding from the Department of Science and Innovation. The policy experiment applied the Transformative Innovation Policy lens by going through the formative evaluation with the Transformative Outcomes methodology developed by the TIPC team at SPRU, INGENIO (CSIC-UPV) and Utrecht University in a step-by-step process of co-creation and learning. The three Chair’s partners were actively involved in the project.

The experiment culminated in the Transformative Innovation Xers. As part of the event, we showcased our PhDs and emerging scholars’ research, highlighting their contributions to advance the field of transformative innovation.

TRANSFORMATIVE INNOVATION AND COVID-19 RESPONSES

The Trilateral Chair embraces its academic responsibility to respond to societal challenges. Given our focus on using innovation as a tool for sustainable development, we are uniquely positioned to provide valuable knowledge that can help think about multiple issues and possible responses to COVID-19. Some examples are:

- The Chair hosted an Online Panel “The African informal economy in the era of covidCOVID-19” in collaboration with the Open African Innovation Research (OpenAIR) network.
- We released a call for papers called “Harnessing innovation for transformative change in the age of COVID-19: theoretical and policy responses in Africa” seeing contributions from scholars and practitioners on ways in which innovation can be harnessed to provide short-term and long-term transformative solutions for Africa in response to COVID-19. The selected contributions are part of a book to be published in 2021.
- Prof Kraemer-Mbula was appointed to be part of an Expert Group leading the development of the COVID-19 County Report on the implementation of measures to combat COVID-19 in South Africa, led by the Department of Planning, Monitoring and Evaluation (DPME), the NRF and the Government Technical Advisory Centre (GTAC).