



Africa Engagement Week

US
UNIVERSITY
OF SUSSEX



SPRU's approach to science, technology and innovation

Whether it be in the provision of food, energy and healthcare, or in the development of more inclusive, innovative economies, our aim is to deliver new fundamental knowledge on the nature and governance of these transformative changes, as well as to offer practical ideas and solutions for setting the direction of change towards more positive societal outcomes.

The world is currently facing a series of crises and persistent problems, which the Sustainable Development Goals aim to address. The modern way of provisioning our basic needs is not sustainable in the long run, and is already causing the double challenge of inequality and climate change on an unprecedented scale. It is clear that we cannot globalise our current ways of providing food, energy, mobility, healthcare and water. These problems will likely worsen as time progresses, with a risk of increased climate change and profound societal turmoil, tensions and war. These issues cannot be solved by optimising current scientific and technological

solutions, burning more fossil fuels, investing more money in high-tech medicine, nor by globalising value chains and continuing to promote car-based mobility patterns. We need to move away from a costly "business as usual approach" to these persistent problems.

At SPRU, we are working to address these issues head-on through an innovation policy lens that aims at transformative change. This work is focused on two primary aspects: first, the potential for innovation, in the widest sense, to radically reconfigure the entire economy and society, and second the associated need to transform processes of innovation governance. This would allow for more exploration and experimentation outside the narrow boundaries often set by incumbents, with scientific advice based on a wider range of perspectives, as well as nurture a policy making process which provides an opportunity for various stakeholders to challenge dominant and less-dominant views.

SPRU VALUES



ACADEMIC EXCELLENCE

Pushing frontiers of knowledge while spanning great divides



ENGAGEMENT

Partnering to address real world problems



RESEARCH-LED TEACHING

Students are participants



SOLIDARITY

Nurturing networks, team work and collaboration within and beyond SPRU

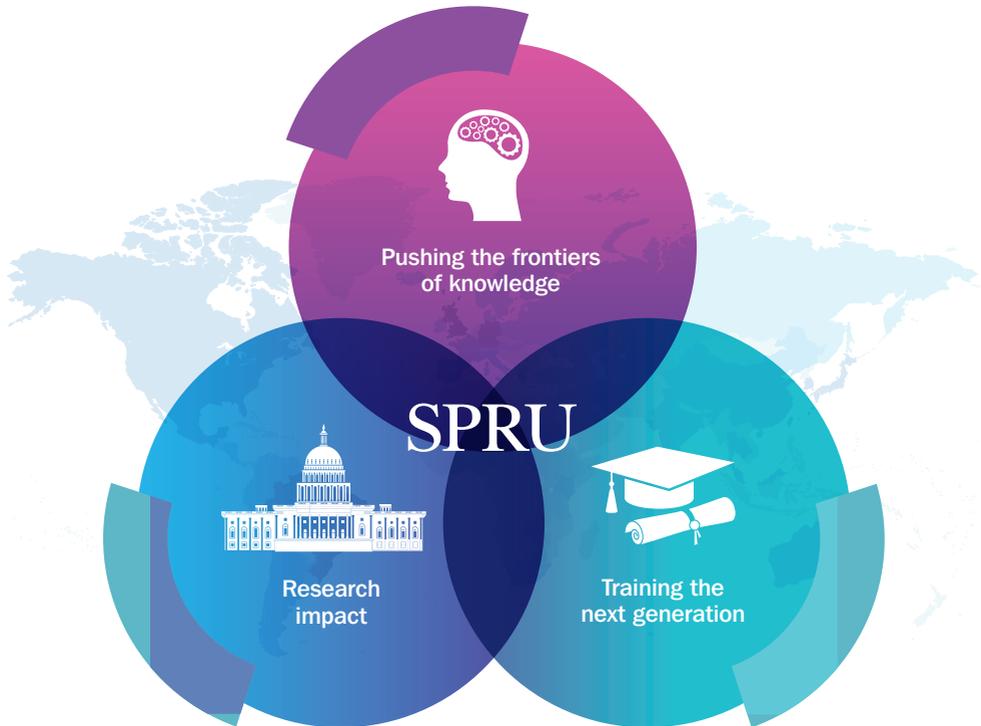
Policy training

SPRU offers high quality, research-led teaching at postgraduate level as well as bespoke training for science, technology and innovation policy professionals.

Our courses are based around the three frames for innovation policy: – research and development (R&D), National Systems of Innovation and Transformative Change/Innovation, and how to apply these to specific innovation policy initiatives in your country/region. Key concepts and tools including the multi-level perspective and strategic niche management are unpacked to allow a deeper understanding of the nature of transformative change, the role of

experimentation and an opportunity to re-think the aims of innovation policy in direct relation to specific societal challenges. In addition, our courses explore the use of different evaluation tools for specific roles within the policy process.

The multidisciplinary nature of SPRU means that we can provide an extensive range of expertise and training modules in innovation policy to suit the needs of your organisation. We take a partnership approach and can work with your team to design a bespoke course incorporating modules such as innovation policy for transformative change, inclusive and grassroots innovation, research evaluation and energy policy.



SPRU's work in Africa

For more than 50 years SPRU has been involved in various science, technology and innovation policy projects, activities, capacity-building and research collaborations across Africa. This includes; the formulation of Science, Technology and Innovation Strategy for Africa, South Africa's Science and Technology Policy and Consultancy, and Building a New South Africa,. Recent work is focused around two core themes and includes:

SCIENCE, POLITICS AND DECISION MAKING

Chux Daniels is currently involved in the implementation, monitoring and evaluation of the 10-year Science, Technology and Innovation Strategy for Africa (STISA-2024). This has involved critically examining STISA'S fit into Africa's broad development strategy, governance issues, funding and roles for citizens in Africa and the Diaspora. Mr Daniels is also advising the Tanzanian Government Commission for Science and Technology (COSTECH) on finance, research and innovation capabilities. He recently completed a project on Nigeria's national science, technology and innovation policy formulated by the Federal Ministry of Science and Technology, Abuja.

ENERGY, SUSTAINABILITY AND DEVELOPMENT

Low Carbon Development

Research by Dr Rob Byrne into Solar Home Systems (SHSs) in Kenya was used to provide key policy insights on the transfer and uptake of low carbon energy, and other climate technologies, in Least Developed Countries. The findings provided a detailed picture of the full spectrum of actors, together with the institutional frameworks and events that assisted the uptake of SHSs in Kenya, and will contribute to new policies that ensure more people benefit from using sustainable energy technologies. Dr Byrne has worked with the African Development Bank on its green growth strategy, developing and delivering a training course on energy and climate change for senior managers

at the Bank and writing background papers for the Green Growth edition of the African Development Report 2012.

Dr Lucy Baker has worked on South Africa's energy transition since 2009. Dr Baker has worked as a researcher on the 'Rising Powers and the low-carbon transition in Southern Africa' project, undertaking an in-depth analysis of South Africa's energy policy, including the Renewable Energy Independent Power Producer's Procurement Programme (RE IPPPP) launched in 2011. She has also been involved in comparative research on the energy sectors in Mozambique and South Africa, and a comprehensive study into some of the political and economic challenges to decarbonisation in South Africa's electricity sector.

In 2015, SPRU together with the African Centre for Technology Studies (ACTS), African Technology Policy Studies Network (ATPS) and Stockholm Environment Institute Africa (SEI Africa), and the Institute of Development Studies launched the STEPS Africa Sustainability Hub in Nairobi. The Hub, part of a STEPS Global Consortium, aims to develop a pan-African programme of comparative research addressing a range of existing knowledge gaps on low carbon energy access. In addition, it provides training for finance ministries on accessing international climate finance and opportunities to merge climate finance with finance for development agendas, as well as training for African negotiators on strategies for engaging with the UN climate negotiations.

More widely, research at Sussex in the field of low carbon technology transfer and low carbon energy access in developing countries has had significant impacts on the policies, negotiating positions and funding strategies of a range of national and international government organisations, including: United Nations Framework Convention on Climate Change (UNFCCC), World Bank, Asian Development Bank, African Development Bank and the Governments of the UK, India, Kenya and Chile.