



SPRU

Science Policy Research Unit

Shaping the future

US

UNIVERSITY
OF SUSSEX



Study at a leading international centre of science policy, technology and innovation

Welcome from Professor Johan Schot, Director

SPRU, the Science Policy Research Unit, is based at the University of Sussex, near Brighton, UK. We are a world-renowned research community working on science policy, technology and innovation and offering a range of opportunities for Masters' and Doctoral level. With a proud history of excellence that spans half a century. SPRU remains at the forefront of new ideas, problem-orientated research and inspiring teaching. We are rated as one of the top 10 science and technology think tanks in the world and have been ranked behind only Harvard for impact on innovation studies*. We welcome exceptional scholars from around the world to study and work with us.

Our approach draws on insights from across the social and natural sciences, engineering and humanities, and builds on a proud tradition of inter-disciplinary research at SPRU and the University of Sussex. We are focused on delivering academic excellence in the collaborative production of knowledge across multiple disciplines.

We also pride ourselves on having impact and engaging outside academic arenas – with diverse real-world problems, policy-makers, stakeholders, the media and civil society, offering practical ideas, perspectives and solutions to ensure that innovation and change deliver positive societal outcomes.

Founded in 1966 by Christopher Freeman, SPRU was one of the first interdisciplinary research centres in the field of science and technology policy and management, and continues to be internationally recognised as a leading centre in this field.

Today, with over 50 faculty members, SPRU is at the forefront of new ideas, problem-oriented research, inspiring teaching, and creative, high impact engagement with decision makers across government, business and civil society.

* Research Policy <http://www.sciencedirect.com/science/article/pii/S0048733312000698>



Study at SPRU

With Masters and doctoral students from all over the world, our postgraduate courses provide aspiring professionals with the knowledge and skills to analyse and guide policy, as well as to manage scientific change and technological innovation within public-sector organisations, non-governmental organisations and companies. Our courses will put graduates in a great position to help to shape the future.

SPRU is the largest academic body in the world studying science, technology and innovation. We offer both postgraduate Masters (MSc) and research degrees (MPhil and PhD), attracting top students from all over the world. Teaching at Masters level is via small, highly interactive lectures and seminars that foster a culture of knowledge sharing, ideas generation, critical thinking and enthusiastic debate. Discussion often continues long after teaching has finished.

At SPRU students learn how to devise science, technology and innovation policies to: deal with the fast pace of innovation; manage large infrastructure projects; offer sustainable energy services to a growing population and design appropriate innovation policies for sustainable economic development. Ambitious to develop and achieve in their chosen specialisms, our bright students come from a range of academic backgrounds. What makes them special is their thirst for knowledge, open-mindedness and curiosity, and interest in tackling some of today's pressing challenges.



New for 2016 entry!

SPRU 50th Anniversary Scholarships

To celebrate fifty years of shaping innovation research, teaching and policy, and to help the very best students to study at SPRU, we are offering a number of £10,000 scholarships for any of our 5 Masters courses. To be eligible to apply you must have either a first or 2.1 undergraduate degree in any discipline (or equivalent). In addition, you must meet all the University's general entrance requirements as well as apply for a Masters course and receive and accept an offer of a place by 1 August 2016.

Sponsorship opportunities for students from Colombia

If you are a Colombian, the Colombian Government's Department of Science, Technology and Innovation, Colciencias, offers sponsorship to study a Masters or PhD at SPRU, subject to satisfying the standard admissions procedures.

For more information:

E: SPRU50@sussex.ac.uk - quoting 50th Anniversary Scholarship or Colciencias Sponsorship.





SPRU Masters Courses

Energy Policy

This course provides broad-based, interdisciplinary social science training for future energy policy professionals working in the public, private and not-for-profit sectors. The course focuses on the role of technological innovation and explores the opportunities, challenges and constraints in creating sustainable and low-carbon energy systems throughout the world. Our approach is interdisciplinary, practical and applied. The course is unique in combining ideas from economics, innovation studies and policy studies, providing you with the skills to analyse policy problems and to propose and evaluate viable policy solutions.

"I chose to study Energy Policy at SPRU because I wanted to study sustainable energy policy not only from an orthodox economics perspective but also from the viewpoint of innovation studies. I'm particularly interested in the theory of transition management and I'm sure that SPRU is the best place to study it because you can be taught by several faculty members who actually contribute to the literature of this field."

Katsumasa Hamaguchi - Assistant Director, General Affairs Department Japan International Cooperation Agency (JICA).

Sustainable Development

This course equips students with the knowledge and skills to translate theories of innovation into effective development policies and practices to achieve inclusive growth in the Global South. The United Nations' post-2015 Sustainable Development Goals propose to end poverty and hunger while achieving sustainable production and consumption. The World Bank and other influential international agencies increasingly talk about sustainable development in terms of 'Inclusive Green Growth'. Yet the different aspects of economic growth, greening and inclusiveness may be at odds with each other. Therefore, strategies to address these challenges are fast becoming a 21st century imperative.

"I chose to study Sustainable Development at SPRU to complement my background in international economics with state-of-the-art, interdisciplinary knowledge on innovation for sustainable development. I wanted to become an international professional, able to design a development strategy for my country, Ukraine. The academic environment at SPRU, with students from all over the world provided a unique opportunity to learn."

Alexander Ryabchyn, Ukrainian MP

Science and Technology Policy

This Masters course is the world's longest-established and most comprehensive introduction to this field, and has trained successive generations of policymakers who now occupy senior roles in governments, businesses and NGOs. This course provides a solid foundation in the language, logic and tools of policy analysis, enabling you to investigate specific science and technology policy challenges across public policy, industrial innovation and strategy, and evaluate and recommend policy solutions. The course will equip you to tackle tomorrow's most important social and environmental challenges.

"I can't speak highly enough of SPRU's Science and Technology Policy Masters Course. The commitment and enthusiasm of the lecturers opened up a world of scholarship and practice and my professional life since has been strongly shaped by the insights I gained and connections I made at SPRU."

Dr Rob Doubleday, Executive Director, University of Cambridge Centre for Science and Policy (CSaP).



The SPRU Experience

Project Management

As a student on this course you will develop a compelling set of critical skills to help you manage projects in today's dynamic business and economic environment. The course provides you with a comprehensive understanding of core competencies including how to manage complex projects, risk and innovation. In addition, we have introduced exciting new modules in advanced project management good practices and leadership. Skills in these areas are highly valued by employers and many of our graduates have found immediate employment in large international corporations, not-for-profit organisations and management consultancies. You will graduate with solid analytical skills and the critical thinking essential for leadership roles.

"The Project Management course at SPRU had a great range of modules; so every student could find something for themselves and develop their interests. All modules are well organised and every single module had a strong focus on discussion. This allowed us to ask questions, express our concerns, think out loud and hear other people's points of view. Through this form of teaching, I gained a better understanding of a given problem from many different perspectives. It also helped to develop our individual thinking and analytical skills. Moreover the lecturers were not just teachers but mentors and friends whom I could always count on and who wanted me to succeed. Sometimes I had a feeling they believed in me more than I believed in myself.

*Patrycja Kasiwiecz, Business analyst, Worldpay.
Patrycja was offered a job in project management one month after she completed the MSc.*

Strategic Innovation Management

Successful innovation management can create significant value, both economic and social, but is neither easy nor automatic. This course equips you with the knowledge and skills needed to lead and manage innovation at both operational and strategic levels. You will develop an integrative approach that combines management of the market, technological and organisational changes, and learn how to create value from innovation. SPRU is a global leader in research and teaching in innovation management, with its impact ranked second only to Harvard.*

"I had a fantastic time studying Strategic Innovation Management. The classroom environment was friendly, and learning was kept interesting by means of various activities and exercises. The faculty members are also very inspiring and readily available to offer help."

Richa Misra, Manager at Blueocean Market Intelligence

Interested in finding out more?

Full information about course structures, how to apply and fees is available online. There are a number of University of Sussex level and general scholarships for which SPRU students may be eligible to apply.

Visit: www.sussex.ac.uk/spru/study



PhD Level Study

Interested in advanced, research-based study? We offer two routes to PhD study:

- An integrated degree combining one of SPRU's MSc degrees with doctoral research. The expected duration of the combined degree is about four years.
- A stand-alone degree of doctoral research undertaken by students whose prior research training in a relevant field has been equivalent to that provided by a SPRU Masters' degree. In this case the expected duration of the degree is three years.

Our doctoral supervisors include world-renowned experts in their fields. Working with outstanding scholars, our students are an integral part of the development of new research agendas as part of their training. We pride ourselves on offering problem-led teaching. SPRU has embarked on a new ambitious strategy which aims to identify and lead research on key policy areas, and offer practical ideas, perspectives and solutions for transformative change and innovation towards more positive societal outcomes. Our student community has the opportunity to help shape and contribute to our new research agenda.

"Since it was founded, SPRU has been at the forefront of ground-breaking innovation studies. There is hardly any area of innovation study, policy, or related event around the globe where SPRU is not represented or its contributions not felt. The academic rigour and quality of PhD research, warmth and support from faculty and friendly atmosphere at SPRU is next to none. For me, SPRU has lived up to its name. I am very pleased with my decision to study for my PhD at SPRU."

Chux Daniels,
Teaching Assistant, SPRU
Former PhD student



"I knew SPRU was a pioneer and leader in science and technology policy and economics of innovation research before starting my PhD. Yet my experience has exceeded my highest expectations. As you would expect, the programme offers a solid background into essential qualitative and quantitative research methods but beyond this, PhD students are constantly exposed to high-level original research developed by SPRU's faculty. What is more, at SPRU you will find a spirit of collegiality from day one and develop friendships that last well beyond your PhD years."

Dr Caetano Penna,
Institute of Economics, Federal University of Rio de Janeiro, Brazil
Former PhD student



The SPRU Experience

Whether undertaking one of our taught programmes or a PhD, students at SPRU have:

Access to an extensive range of expertise

Our academics are world-class researchers in their respected fields of study who pioneer new understandings and approaches in governance and policies for science, technology and innovation.

Work experience opportunities

Students can gain work experience in policy institutions, firms, government departments, not-for-profit and non-governmental organisations to conduct research for their dissertation.

A variety of ways to learn and engage

We encourage interaction, collaboration and creativity. You are invited to participate in SPRU's weekly research seminars as well as a variety of conferences and workshops. Working closely with our academics, you will also have the opportunity to learn and contribute directly to SPRU research as part of your training.

First rate facilities

SPRU is housed in the Jubilee building, a new academic building at the heart of the Sussex campus, one of the most beautiful in Britain. The campus is surrounded by the South Downs National Park and not far from the lively city of Brighton and Hove. As SPRU is a department of the School of Business, Management and Economics, you have further access to a wider network of academics and students in related fields, and our close collaboration with the world-renowned Institute of Development Studies provides additional learning opportunities.

Multidisciplinary research environment

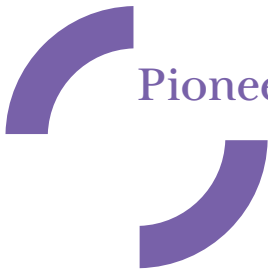
SPRU's emphasis on problem-led academic study means that students experience a range of interdisciplinary interactions across multiple socio-political perspectives. This has created a unique SPRU style, consisting of inter- and intra-disciplinary study, strong empirical research and an emphasis on developing new analytical tools, theoretical frameworks and policy approaches.

Teaching Perspective

"SPRU has long maintained strong teaching and research links with China and the Far East and we have provided a welcoming and cosmopolitan environment for generations of students who have attained Masters and Doctoral degrees here. SPRU offers outstanding teaching in areas that are experiencing increasing demand: the management of technology and innovation, and the development and implementation of sustainable energy and innovation policies. SPRU has been ranked as one of the most influential think tanks in the world in the field of science, technology and innovation and our students benefit from being part of a community actively engaged in policy development worldwide. Our students gain knowledge and skills that will help them develop as professionals and leaders in the rapidly moving world of science, innovation and technology management. SPRU graduates have taken leadership positions in industry, academia and government, both in their countries of origin and internationally, and are now part of a growing network of SPRU alumni defining the future of science and technology across the world,"

Puay Tang,
SPRU Head of Teaching





Pioneering Research

High quality research underpins all of our teaching programmes here at SPRU. Our research addresses pressing global policy agendas, including the future of industrial policy, inclusive economic growth, the politics of scientific expertise and funding, energy policy, security issues, entrepreneurship and pathways to a more sustainable future. We are driven by a desire to tackle real-world questions, whilst also contributing to a deeper theoretical understanding of how innovation is shaping today's world. Located within the School of Business, Management and Economics, SPRU is a dynamic contributor to the University of Sussex.



Science, Policy and Decision Making

Whether it's President Obama pledging to “restore science to its rightful place” or President Xi Jinping calling for “innovation with Chinese characteristics”, the emphasis that leaders place on science and technology makes designing effective policies a priority worldwide. At the same time, scientific advice to inform policy-making is in high demand. From climate change to cybersecurity, food technologies to fracking, controversies continue to erupt at the boundaries between science, politics and society.

Our world-leading research helps policy-makers – and wider democratic debates – to set directions and priorities for science and innovation policy, and enables them to navigate uncertainties and controversies. We apply a deep historical understanding to how the choices made about science and technology shape our societies.

A particular focus of our work is the governance and policy challenges surrounding chemical and biological weapons. The Harvard Sussex Program, co-hosted at SPRU for over 25 years, uses technology as the lens through which to view issues of conflict and vulnerability.

Economics of Innovation and Industrial Policy

Modern capitalism faces great societal challenges. Given Europe's era of financial crisis and austerity coupled with serious global issues such as climate change, poverty, and the proliferation of armed conflicts, it is critical to address the pressing challenge of redirecting economic growth and driving the innovation needed for sustainable, inclusive growth.

Economics of Innovation has been a historical backbone of SPRU's diverse research portfolio, providing key theoretical and empirical tools for policy areas as diverse as innovation policy, development policy and energy policy. Indeed, SPRU has trained and nurtured several generations of scholars in Economics of Innovation and has been a leader of the analysis of properties of firm growth and industrial dynamics. SPRU's research focuses on advancing the economic theory of innovation, whilst also resetting the foundations of orthodox economics and advancing the fields of evolutionary and institutional economics. We seek to understand the structure and dynamics of innovating firms including industrial systems and how to manage innovation capabilities in firms. Our key concern is to help strengthen innovation and industrial policies around the world.

Energy, Sustainability and Development

How do we meet the world's growing need for water, energy, and food in an equitable manner without compromising the environment or future generations? Despite increasing reference to a more sustainable world, global progress remains very limited. We need to urgently explore the compatibility of growth and sustainability, whilst also addressing environmental degradation and poverty.

Since the 1970s, SPRU has been at the heart of international debates about the role of science, technology and innovation in fostering sustainability and development. We also have a long history of academic research with practical application in the critical area of energy policy, through the Sussex Energy Group (SEG). Our research seeks to identify ways to facilitate global transitions to a genuinely sustainable future, looking specifically at key areas such as energy, food, agriculture, and water. Our aim is to help organisations, industries and policy makers ensure that appropriate technologies and innovations are developed and deployed to produce positive effects.

In addition to the SEG, SPRU is home to three other major research centres working within energy, sustainability and development: the Centre on Innovation and Energy Demand, the STEPS Centre (co-hosted with IDS), and the Nexus Network.

Technology and Innovation Management

High growth firms such as Google or Apple often create value and grow because they are innovative. Yet innovation, and the benefits it generates, does not happen easily or automatically. It needs to be managed, involving skills and knowledge that are significantly different from the standard management toolkit.

In an increasingly competitive international environment, understanding how to effectively manage technology and innovation has become critical to success. SPRU is a global leader in research and teaching in innovation management. Our work focuses on enhancing innovation in all types of organisations and across all sectors. It involves developing and delivering tools to improve the management of innovation within organisations, and between organisations and their suppliers and customers.

Key aspects of our work include: technology strategy, new technology based firms, complex systems and products, high-growth new ventures, innovation in business model, infrastructure sectors, healthcare, biopharmaceuticals and services, the management of knowledge and intellectual property. One of SPRU's strengths is our pervasive interest in the direction of technological change (not just its pace and impact), and understanding the varied pathways through which science, technology and innovation may develop and how that can be strategically managed.



Life Beyond SPRU

The SPRU alumni network is global. Our graduates are employed by governments, businesses, international organisations, not-for profit organisations and charities, research and academic institutions. From multinational companies such as Airbus and international organisations such as the United Nations, our graduates are also hired by governments and Civil Services around the world. Others have become entrepreneurs. Many SPRU students also stay on to teach or undertake more research here at SPRU, or become visiting fellows. This is a testament to our community.

In the modern world we all recognise the importance of work experience and professional skills. Alongside University-level employability support, at SPRU we offer a range of student placement opportunities. The feedback we receive from employers about our students is excellent.

"I was impressed by the student group's ability to deal with both the practical issues that could affect future exploitation of Rolls Royce technology, and the abstract challenges of the various business models and evaluation techniques that they applied...the project demonstrates that considerable 'intellectual horsepower' can be accessed effectively through the relationship with SPRU".

Head of Technology Control, Rolls Royce plc

"We had a challenging project centred around a very complex subject, but from the onset it was evident that the student team had quickly obtained a sound grasp of the salient issues. The students promptly arranged themselves into a well-organised team and pitched themselves into the project with great enthusiasm. The key milestones were all achieved on time, this being testament to the team's total commitment to the Project, which also made it a thoroughly enjoyable experience from Doosan Babcock's perspective."

Doosan Babcock



Connect with SPRU

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SPRU

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