

# RESEARCH REVIEW 2021-22



#### **REFLECTING ON REF**

Highlights from the REF 2021 assessment

#### **CENTRE STAGE**

A deep dive into the Business School's research centres

#### **SUSTAINABILITY AT SUSSEX**

How the School is working towards the SDGs



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## WELCOME FROM THE DEAN

Welcome to our annual Research Review, which showcases the innovative research taking place in the University of Sussex Business School, as well as sharing our recent successes and our plans for the year ahead.

This edition shines a light on our major research centres, which are working to tackle some of the key challenges facing modern government, industry and civil society – from innovation policy and digital practices at work to low-carbon energy systems and international trade. We also highlight the many projects across the School that are investigating different ways to meet the UN's Sustainable Development Goals.

The results of the Research Excellence Framework (REF) 2021 underline the School's strengths in producing world-class research with impact. 97% of Economics and Econometrics research and 86% of Business and Management Studies research was graded either world-leading (4\*) or internationally excellent (3\*), while the impact of our Economics and Econometrics research was rated joint sixth in the UK.

Of course, our groundbreaking research is made possible by our high levels of research income: we are immensely proud that the School became the highest earner of research grant income among business schools in the year 2020-21.

Looking ahead, the School is revising its research strategy, which is now five years old. Aside from its age and the fact that much in the wider research landscape has changed, the strategy requires revision partly in virtue of how successful it has been.

The School embraces the University of Sussex's institutional mission and overarching ambition to be 'a better university for a better world' and this aim is supported every day by the hard work of staff across the School. We hope this Review provides a flavour of some of their dedication and passion.

**Professor Steven McGuire**Dean of the Business School



## INTRODUCTION

May 2022 saw the publication of the results of the latest Research Excellence Framework (REF 2021) – the UK's national research assessment exercise, which runs every six to seven years and brings no small amount of trepidation to those of us in the business of research management. Happily, the School did very well (see p12). So well, in fact that our annual quality-related (QR) research grant – the funding allocated by Government on the basis of research excellence – is now 80% higher than it was following REF 2014.

This welcome increase in investment power is timely, coinciding as it does with a period of re-evaluation of our research strategy and a re-framing of our research objectives. The increased QR funding will help us to support new strategic initiatives while sustaining current high levels of investment in our research infrastructure, our environment, and our exceptionally talented people. All of this, in turn, will stand us in good stead to face the many challenges and uncertainties ahead, putting us in a strong position to build on our successes and expand our global influence.

#### **Turbulent times (still...)**

The past year has seen the continuation of trends that have defined the UK higher education sector in recent times: deep uncertainty and rapid change around policy, funding, and governance.

The UK's association with Horizon Europe has only just been (tentatively) confirmed, despite the country having formally exited the EU back in 2020. The Government has yet to cement in policy its approach to research and innovation or to commit to an industrial strategy. The UK's new



Advanced Research & Invention Agency (ARIA) has recently been launched and, at the same time, the relevance, function, and effectiveness of both UKRI and the Office for Students are coming under increasing scrutiny.

The general operating environment for most UK business schools has also become more challenging, with tuition fees still frozen and double-digit inflation putting immense pressure on institutions to increase revenues and reduce costs. These challenges have brought a renewed focus on protecting academic research time, reducing operating costs, and recovering more grant income than ever before.

There are other challenges, too. Although we are now three years on from the start of the first lockdown following the advent of the Covid-19 pandemic, we are still witnessing the dire effects this terrible disease has had on our students, staff, and environment. Medium- to long-term health (including mental health) complications, travel restrictions, social difficulties, shifts in attitude and institutional culture. accelerated digitisation of the workplace, changes to recruitment markets, and a rapid pivot by major funders in response to shifting research priorities can all be directly or indirectly attributed to the global pandemic.

In addition to grappling with Covid, the University is tackling the innumerable challenges of Brexit, industrial action, an ageing campus, and an infrastructure showing signs of severe strain under the weight of multiple and ever-increasing pressures.

#### Strategic development

The above factors are just some of the reasons why our now five-year-old research strategy is overdue a refresh. It needs to be brought up to date, not just to reflect the fact that times have changed but to incorporate the huge amount of learning we have gleaned as a result of navigating these many obstacles and finding solutions to these various problems.

We are an agile and adaptable institution, and this was reflected in the fact that both of our accrediting bodies - AMBA (the Association of MBAs) and EFMD (the organisation responsible for EQUIS) reaccredited the School in the past year, following processes of intense and rigorous assessment by specialist peer-review panels (see p26). In the case of EQUIS, in particular, our research was identified as a central component of our success. And our research prowess is already proving to be a clear strength as we develop our submission for the third of the so-called 'triple crown' international business school accreditations: AACSB.

What should our strategic priorities be, going forwards? And what concrete steps ought we to take now in order to shore-up our research environment and maximise our chances of future success? These questions will be answered in full by our revised research strategy, publication of which is imminent. In summary, we will focus on the following:

- Consistency in excellence: we will aim
  to continue generating world-leading
  research but with an unwavering
  commitment to producing quality over
  quantity. Optimising our submission
  to the next REF requires a reframing
  of our research ambitions in a way
  that encourages all faculty to focus on
  producing output of the highest quality as
  part of a balanced portfolio of research,
  impact and knowledge exchange work.
- Impact maximisation: we will seek to maximise the impact of all our research, both by designing (particularly, codesigning) projects with impact in mind and by exhausting all avenues for impact generation from existing work.

- Disciplinary and interdisciplinary
   excellence: as dictated by the subject
   of inquiry, we will ensure methods and
   approaches are maximally appropriate,
   whether these be inherently disciplinary
   or interdisciplinary in nature.
- Challenge focus: in accordance with the diverse interests of our research community, we will pursue a broad range of subjects; but those pertaining to contemporary grand challenges will continue to benefit from concentrated internal investment and strategic development of external bids.
- Engaged research: we will ensure our research engages meaningfully and systematically with a broad range of stakeholders, effectively 'bookending' the research process from initial codesign through to targeted knowledge exchange and real-world impact.
- External funding: research grants are
  vital for the pursuit of meaningfully
  engaged, high-impact, grand-challenge
  research the kind of research for
  which we have become internationally
  renowned. With the additional challenges
  of operating under increasing financial
  constraints, research grant funding
  has never been more important to our
  success.
- Research environment: our environment will enable all researchers to excel in their areas of study, regardless of career stage, background, individual characteristics, or disciplinary/interdisciplinary focus.
- Culture and ethos: our environment will also sustain a culture and ethos that recognises, rewards and incentivises only the most positive research behaviours within a diverse, inclusive and supportive community.

• Common understanding: finally, we will ensure researchers know what is meant by the above, and especially what we mean – and, perhaps just as importantly, what we do not mean – when we talk about research excellence. Faculty will understand what the School's expectations are, in terms of high performance across disciplines and career stages.

Our new strategy will set out to achieve these aims in a way that empowers individuals but also encourages collaboration and citizenship. Mentoring, internal peer-review and critical friendship will be key. As will a deep and shared understanding that research is often, by nature, a team game, to be undertaken in partnership with collaborators and stakeholders. Just as important, however, is the role of individual researchers – their perspectives, skills, personalities, cultures, and strengths.

Our approach will further embed principles of equality, diversity and inclusion throughout the research culture, in a way that recognises and appreciates the strengths of both individuals and teams, and celebrates what makes us and our research truly distinct.

#### **Identity and individuation**

One distinctive feature of our work is the extent to which it often combines cutting-edge theoretical advances with solutions to problems that are highly practical. This is exemplified in our work on international trade, transformative innovation, and energy policy, for example. These are areas where engagement, impact and knowledge exchange are part and parcel

of the research process, rather than mere addenda to it. Such work stands us in good stead for submission to the Knowledge Exchange Framework (KEF) and will allow us to better translate our inputs (investment and external funding) into equally high-calibre outputs.

We continue to win research funding at outstanding levels. We again placed second in the most recent CABS annual research income rankings, and for the year 2020-21 succeeded in winning more research grant income than any other UK business school. Also on the input side, we are in the process of overhauling our PhD programme under the auspices of a new PGR Strategy. again focusing on excellence across the board, from attracting high-calibre applicants at the start of the programme to delivering world-class methods training and providing enhanced career support throughout. A renewed focus on quality across the research lifecycle will enable us to leverage our outstanding performance on the input side to achieve equally impressive results in terms of the outputs and outcomes of our research.

Of course, we are talking here about the future and our current direction of travel; but it is equally important that we celebrate what the School has already achieved and that we recognise those who achieved it. What follows is a small insight into just some of this work – with a focus on some of the School's research centres and our achievements throughout the 2021-22 academic year, including our approach to meeting the Sustainable Development Goals, our REF successes, newly launched projects, publications, events and media coverage. We hope you enjoy reading about our work.



Professor Paul Nightingale Associate Dean, Research

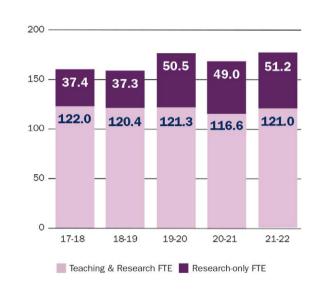


Dr Richard Taylor Senior Research Manager

# UNIVERSITY OF SUSSEX BUSINESS SCHOOL RESEARCH IN NUMBERS

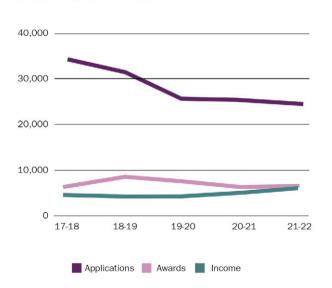
#### **PEOPLE**

STAFF (2017-2022)



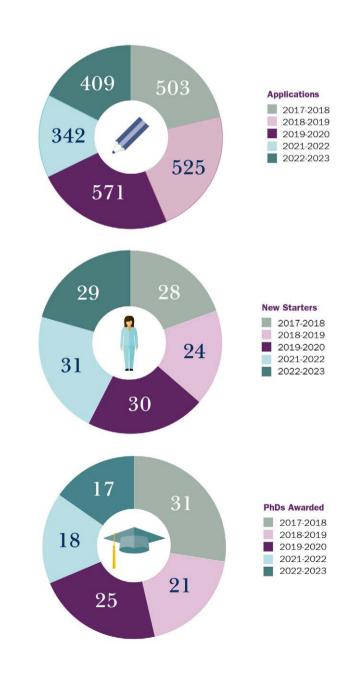
#### **RESEARCH FUNDING**

**PROJECTS** (2017-2022)



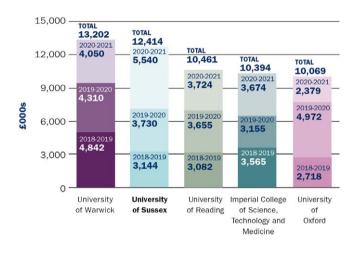
#### **DOCTORAL STUDENTS**

PGRS BY FINANCIAL YEAR (2017-2022)



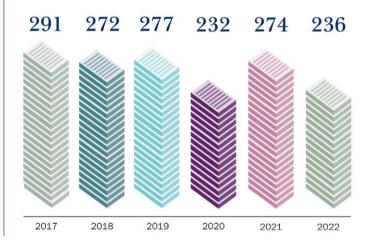
#### RESEARCH FUNDING

## TOP 5 BUSINESS SCHOOLS BASED ON RESEARCH INCOME (2018-2021)



#### **RESEARCH OUTPUTS**

**NUMBER OF JOURNAL ARTICLES PUBLISHED** (2017-2022)



#### **RESEARCH INCOME RANKING (2020-2021)**



of Sussex







TOTAL 3,724 University of Reading



3,674
Imperial College of Science,
Technology, and Medicine



2,379
University
of Oxford

Source: Chartered Association of Business Schools



## **NEW PROJECTS**

We share a selection of the projects involving Business School researchers that began in the academic year 2021-22.



#### **Cheaper bills, warmer homes**

Dr Donal Brown is the lead author of the *Cheaper Bills, Warmer Homes* report, commissioned by Ed Miliband MP last year. The project developed a costed 10-year plan to support the 'future fitting' of UK homes to tackle the cost-of-living crisis, improve quality-of-life, and address climate change. The authors expect the research to influence the Labour Party manifesto for 2024.

Dr Donal Brown

£19,646, Centre for Research into Energy Demand Solutions, 2022-23

#### **TransCIIT**

Due to a lack of access to relevant knowledge, expertise, information, skills, and infrastructure, and an absence of supportive policies, the Kenyan climate innovation ecosystem is not favourable for SMEs. The Transforming Climate Innovation Ecosystems through Inclusive Transdisciplinarity (TransCIIT) project addresses this gap in infrastructure by enhancing the links between universities and the private sector through a student-entrepreneur 'matchmaking' service.

Dr Rob Byrne

£100,000, British Council, 2021-22



## Hansalim as a model for sustainable food systems

This project investigates how multistakeholder cooperatives (MSCs) and the 'solidarity economy' can offer sustainable alternatives to the modern industrial food system. Focusing on Hansalim in South Korea – one of the world's largest MSCs – the study will have practical and policy lessons for the sustainable transformation of the global agri-food system.

Dr Jonathan Dolley

£228,552, European Union, 2021-24

www.sussex.ac.uk/business-school/ research/centres-projects/living-together

## **Ecofeminist migrations and women's civil labour on the land**

This project explores women's experiences of land-based work in contemporary Britain, with a focus on those who are not from traditional land-working or land-owning backgrounds. The research will involve a series of transformation lab sessions (T-labs), co-produced with participants, with the aim of developing tools and capacities to empower the women who participate.

Dr Rachael Durrant

£91,750, Leverhulme Trust, 2021-26

www.sussex.ac.uk/business-school/research/centres-projects/women-land

#### **Perception and rationality**

To explore the physiological foundations of economic decision-making, this project investigates the relationship between the economic rationality of individuals and their ability to differentiate between sensory stimuli. It tests the theory that departures from rationality may be related to the psychophysical notion of imperfect sensory discrimination.

Dr Pawel Dziewulski

£9,955, British Academy, 2022-23

#### **Bargaining and reputation**

Using laboratory experiments based on recent insights from the theory of bargaining and reputation, this project focuses on 'red lines' and commitment strategies employed in political and economic negotiations. It explores the interaction between commitment tactics and communication, and the use of available norms of fairness in negotiating.



## **Environmental impacts of digital** services for health

Working in partnership with a housing association, a digital systems developer, and the NHS, this project aims to understand how digital technologies for health and wellbeing in the home can be designed, operated and used in social housing in a way that reduces their environmental impact. The project uses a life-cycle assessment to quantify the technologies' impact on carbon and energy use, alongside an innovative methodology to understand residents' interactions with digital technologies.

Dr Ralitsa Hiteva

£320,817 (from larger consortium), EPSRC, 2021-23

www.sussex.ac.uk/business-school/ research/centres-projects/environmentalimpacts-of-digitalisation

#### **Democratising the just transition**

Community wealth-building is a global policy movement that seeks to retain jobs, growth, wealth, ownership and governance of local economies within localities and regions. This project involves a comparative analysis of community wealth-building approaches in the UK, Europe and the USA. The aim is to explore innovative pathways that focus on democratic ownership and participation, and to measure their potential impact against conventional economic development models.

Dr Max Lacey-Barnacle

£114,310, Leverhulme Trust, 2021-24

## Heat transitions in the UK and the Netherlands

The UK and the Netherlands are taking very different approaches in their transitions from natural gas, with the pace of change much faster in the Netherlands. This study draws on lessons from Dutch policy actors, regulators, industry and civil society to better inform the governance of heat transitions at a local level in the UK.

Dr Matthew Lockwood

£190,327, EPSRC, 2021-23

www.sussex.ac.uk/business-school/ research/centres-projects/going-dutch

## **SCOPE:** Sustainable operation of post-combustion capture plants

A lack of data about emissions and environmental health impacts is preventing the rapid commercialisation of amine-based carbon capture technology. This multicentre project aims to build an international network of stakeholders from industry, policy, academia and civil society to improve understanding of carbon capture, usage and storage and the regulatory implications.

Dr Abigail Martin

£182,770, Department for Business, Energy and Industrial Strategy, 2021-24

www.sussex.ac.uk/business-school/research/centres-projects/scope-project

#### NFTs as digital brand elements

To shed light on how the use of non-fungible tokens (NFTs) affects brand perception, this project proposes a consumer-perceived innovation (CPI) mechanism. It also considers the environmental impact of cryptocurrency mining, how that impacts the perception of NFT use and whether regulation is warranted.

Dr Mudra Mukesh

£9,600, British Academy, 2022-24

#### **Employed by the crowd**

This project focuses on subscription crowdfunding platforms and the challenges and opportunities they present for artists' work and the creative industry at large. By exploring artists' perceptions of the impact such platforms have on their work, their art and their relationship with fans and clients, it aims to develop evidence-based recommendations for platforms, creative industries, and policymakers.

Professor Dimitra Petrakaki

£9,720, British Academy, 2022-2023

#### Using data to improve public health

Part of the Government's Covid-19 National Core Studies programme, this research secondment at the University of Oxford analysed electronic health records and multiple population longitudinal studies to assess pandemic-related disruption to health services. It involved collaboration with other universities and the Office for National Statistics on multiple projects with important implications for healthcare professionals and patients.

Dr Dominik Piehlmaier

£98,015, Medical Research Council, 2021-22

## The interdisciplinary university and transitions

This project supports a new innovation management and entrepreneurship model at the University of Talca, Chile, with the aim of developing alternatives to unsustainable agricultural practices. Underpinning the initiative is the idea that universities have a crucial role to play in enabling sustainable transitions. Sussex researchers have so far supported eight new research projects tackling problematic areas in the Chilean agricultural system.

Dr Matias Ramirez

£25,974, University of Talca (Chile), 2021-23

## NFTs: Evolution, revolution or fad in creative industries?

The use of NFTs is gaining popularity in many sectors of the creative industries. Drawing on interviews with UK creators and artists, this project uses a value creation/value destruction lens to explore both the positive and negative side of NFT use, with a focus on the visual art market.

Dr Mariachiara Restuccia £9,194, British Academy, 2022

#### Createch R&D

This project was part of an Arts and Humanities Research Council (AHRC)-funded initiative to understand the nature of 'createch' businesses – those that carry out technology-related research and development (R&D) and operate in creative sectors. Findings revealed distinctive organisational and R&D funding characteristics compared with more conventional tech companies.

Dr Josh Siepel £44,000, Nesta, 2022



#### **ACCESS**

The Advancing Capacity for Climate and Environment Social Science (ACCESS) project involves a consortium of UK universities. Dr Gerardo Alonso Torres Contreras at Sussex is leading the work to understand the experiences of social scientists in climate and environment research, training, policy and practice. Findings will feed into new resources to influence interdisciplinary research and knowledge mobilisation, with the aim of bringing about changes in policy, business and civil society.

Professor Benjamin Sovacool £58,764, ESRC, 2022-27

#### **Trans-Reg**

The transformative regulation of chemical pesticide-based agricultural systems (Trans-Reg) project aims to understand the lack of major change in agricultural methods since the introduction of EU pesticide legislation in 2011. Research with legislators, policymakers, NGOs and farming associations will provide insight into the opposition to changes and help improve planning for future transformations in farming strategies.

Professor Andrew Stirling and Dr Patrick van Zwanenberg

£178,590, European Union, 2022-24

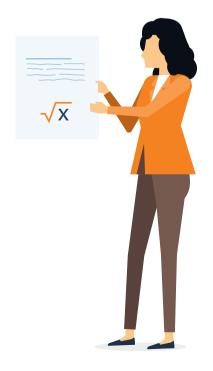
www.sussex.ac.uk/business-school/research/centres-projects/trans-reg

## Access to finance and productivity growth

Using unique firm-level data, this project focuses on how access to finance and underinvestment constrain the ability of UK small- and medium-sized enterprises (SMEs) to invest in productivity-enhancing activities. The research was designed with policymakers from the Government's Department for Business, Energy and Industrial Strategy (BEIS), and findings will be shared with them to support the development of a post-Covid strategy for SMEs.

Professor Radu Tunaru and Professor Ranko Jelic

£2 million across seven universities, ESRC. 2022-25





## **OUR REF SUCCESS**

The national Research Excellence Framework assessment (REF 2021) confirmed the University of Sussex Business School as one of the UK's foremost producers of excellent research that creates meaningful impact. The results highlighted our strengths as a pioneering, research-intensive, interdisciplinary school with a distinctive portfolio.

#### **OUR SUBMISSION**

The REF submission involved:

302

pieces of research by 128 academic FTE from the Business School<sup>1</sup> 11

impact case studies – showcasing research projects that had a positive impact on the world beyond academia 2

environment statements that describe how the School supports research and enables impact across the two key Units of Assessment

#### THE RESULTS

## Unit of Assessment 17 (Business and Management Studies)

- 86% of our research overall was rated as world-leading (4\*, 39%) or internationally excellent (3\*, 47%).
- 87.5% of our research impact was recognised as outstanding (4\*, 50%) or very considerable (3\*, 37.5%).
- More than a third (34.3%) of our research outputs were judged to be world-leading (4\*), and a further 48% internationally excellent (3\*).
- The overall quality of the submission was ranked joint 28th out of 108 institutions in the UK by Times Higher Education (THE).<sup>2</sup>
- We were ranked 22nd out of 108 institutions for research power by THE.

#### Unit of Assessment 16 (Economics and Econometrics)

- 97% of our research overall was rated as worldleading (4\*) or internationally excellent (3\*).
- 100% of our research impact was recognised as either outstanding (4\*) or very considerable (3\*).
- 94.7% of our research outputs were assessed as either world-leading (4\*, 28.1%) or internationally excellent (3\*, 66.6%).
- The overall quality of the submission was ranked 13th out of 25 submitting institutions in the UK by THE.
- We were ranked 6th highest in the UK for impact by THE.

#### **PROGRESS SINCE REF 2014**

- The overall grade point average (GPA) for our research in Business and Management Studies rose from 2.87 in 2014 to 3.23 in 2021.
- The GPA for our research in Economics and Econometrics increased from 2.84 to 3.34.

<sup>&</sup>lt;sup>1</sup> This is the amount of academic time expressed as full-time equivalents (FTE), including part-time staff.

<sup>&</sup>lt;sup>2</sup> https://www.timeshighereducation.com/news/ref-2021-subject-rankings



"Researchers from the Business School are challenging conventional thinking and providing innovative solutions to shape policies and practices worldwide. We're delighted that REF 2021 has recognised the high quality and real-world impact of our work."

Professor Steven McGuire,
Dean of the Business School

#### **IMPACT CASE STUDIES**

The School submitted 11 impact case studies to the REF assessment, as summarised below. All demonstrated how our research projects have created a positive change in the world – from transforming waste management in India to using science and technology to reduce poverty and achieve the UN's Sustainable Development Goals.

## Transforming waste management in India's cities

Award-winning interdisciplinary research led by Professor Fiona Marshall led to more sustainable waste management policy and practice in India's cities.

The research team, which involved a local university and NGO, worked with diverse stakeholders to uncover the negative effects of the existing policy of centralised waste incineration. "Environment, health and residents' livelihoods were being threatened," explains Marshall, "and innovative solutions were being overlooked."

The team's policy recommendations went on to influence a key piece of Indian waste management legislation, which recognises the central role of the informal sector and localised initiatives. As a result, toxic emissions are reduced, more waste is recycled, and the livelihoods of waste pickers are preserved.

In 2022, Professor Marshall received a Financial Times Responsible Business Education Award in recognition of the impact of her team's research.

## Gaining consensus for the UK's minimum wage

Professor Richard Dickens' research was instrumental in the introduction of the UK's National Living Wage. Dickens, a Professor of Economics, is a member of the Low Pay Commission, which advised the government on increasing the value of the minimum wage. This paved the way for the introduction of the National Living Wage in 2016, which raised the earnings of around two million workers. Dickens also provided the evidence that convinced the South African government to introduce a minimum wage policy.

As well as changing the minds of politicians, Dickens' research forced many economists to reassess their positions on minimum wage policy. For Dickens, a key achievement is the impact on everyday lives. "As Commission members, we visit workplaces up and down the country, and the stories we hear of people struggling on low wages are quite sobering. This really brings to life the reality of what this policy means to people."

## The link between energy bills and the UK's nuclear deterrent

Research by Professor Andy Stirling and Dr Phil Johnstone revealed that domestic energy tariffs were providing a hidden subsidy for the UK's nuclear weapon programme – raising important questions about accountability and transparency.

"UK citizens are unwittingly subsidising military nuclear activity through their domestic energy bills to the tune of many tens of billions of pounds," explains Johnstone. The research concluded that the costs of the Trident programme could be unsupportable without this subsidy.

Their findings led to questions being asked (and significant answers being obtained) in a UK parliamentary Select Committee, as well as many questions posed in Westminster and a motion being passed through the Scottish Parliament. The research has also received major media attention, with stories in the *Guardian*, the BBC, the *Independent* and *New York Times* – with clear benefits for the public interest.

## Using science, technology and innovation to meet the SDGs

Insights from Business School research have been adopted by the United Nations and are shaping the way that governments worldwide use science, technology and innovation to reduce poverty and achieve the UN's Sustainable Development Goals (SDGs).

Dr Adrian Ely and Professor Johan Schot worked closely with the United Nations Committee on Trade and Development (UNCTAD) to create a new framework for UNCTAD's science, technology and innovation policy (STIP) review programme, which guides innovation in developing countries. UNCTAD has applied the new framework – which draws directly on the School's research – in its STIP reviews in Ethiopia and Zambia, with the support of Dr Chux Daniels.



Shamika Sirimanne, Director of UNCTAD's Division of Technology and Logistics explains the far-reaching impact of the review process: "The reformulation of the science, technology and innovation policies in these countries will have long-term impacts on poverty alleviation, environmental sustainability and economic development – impact that links directly to the research conducted by the University of Sussex."

## Structural modelling to manage risk in the energy sector

Dr Michael Coulon, (Accounting and Finance) collaborated with energy companies in Europe and the US to design and implement new mathematical models for managing electricity price risk in the face of rapidly changing market conditions.

Coulon's research led to a formal collaboration between the University of Sussex and Alpiq, a leading Swiss energy company which operates in 31 European countries. The collaboration involved modelling for renewables, in particular wind park management. Coulon also worked with three US companies, applying his modelling techniques to power markets and developing structural price models for solar renewable energy certificate markets.

## Driving investment and growth in the creative industries

A series of research projects by Dr Josh Siepel, Dr Roberto Camerani, Dr Monica Masucci and Professor Paul Nightingale led to substantial government investment and support for the creative industries across the UK.

"Our initial research found that 'fused' companies – those that combine arts and humanities skills with science, technology, engineering and mathematics (STEM) skills – play a major role in the UK economy, growing at more than twice the speed of 'unfused' firms," explains Siepel.

Subsequent research for the Creative Industries Policy and Evidence Centre's Creative Radar project identified high growth rates and ambition in businesses located in 'micro clusters' of creative industries, outside larger, more established areas.

In response to the project's recommendations, the government announced the £40m Create Growth programme in 2022. Siepel is now on the advisory board for the programme, which will provide six English regions outside London with a bespoke package to support high-growth potential creative businesses and build investor networks.

## Tackling global challenges through transformative innovation

Pioneering research in transformative innovation policy is making an impact around the world – from shaping national policies in Colombia to addressing complex social and environmental needs through local projects across Latin America.

Professor Johan Schot and Dr Matias Ramirez co-authored a strategic science, technology and innovation policy document, which was later adopted as law by the Colombian government. The policy adopts the concepts and tools of transformative innovation policy – emphasising social justice and sustainable, environmentally conscious development.

Building on this success, the Transformative Innovation Policy Consortium (see p22) established a Latin American Hub in 2020, bringing together ten institutions from Colombia, Chile and Mexico. Dr Ramirez, one of the leaders of the Hub, explains: "The Hub is working on local projects across Latin America that use transformative innovation principles to address complex social and environmental needs."

## Promoting climate technologies in developing countries

Interdisciplinary research by Dr Rob Byrne advocates for a new approach to deploying climate technologies in the developing world.

Climate technologies –such as droughtresistant farming technology, wind farms or solar PV – can help countries adapt to or mitigate the adverse effects of climate change. But putting these methods into place in developing countries, where they are needed most, isn't always easy.

"One of the key challenges is the lack of skills and knowledge to use, operate and work with the technologies," explains Byrne. "Also, policymakers often view sustainable technologies as inferior. This attitude can be reinforced by fossil fuel industries, making it difficult to overcome."

The Climate Relevant Innovation-system Builders (CRIBs) approach, developed by Byrne and Professor David Ockwell (Geography), helps to overcome these barriers. CRIBs now forms part of the UN's \$10bn Green Climate Fund and informs the World Bank's climate policies in developing countries.

#### **Shaping UK trade policy after Brexit**

Following the Brexit vote in June 2016, Professor Alan Winters (Economics), together with colleagues from across the university, established the UK Trade Policy Observatory (UKTPO). The aim was to provide immediate research and analysis on UK trade policy.

"Brexit required the UK to establish a wholly new set of trading relationships that had to be made in a world experiencing rapid and transformational technological change and beset by a range of trade tensions," explains Professor Winters.

UKTPO fellows went on to respond to more than 40 Select Committee inquiries, which led to UKTPO research being cited in Parliament more than 30 times – highlighting issues of concern, shaping parliamentary discussions and aiding government decision making.

The research also directly shaped the responses of industry, trade bodies, consumer groups, and unions. A project with EURIS – a trade association with a turnover of 1.1 million employees – resulted in 150 industry leaders writing to the Prime Minister to warn of the consequences of a 'no-deal' Brexit, and to lobby for better trade agreements that would protect income and jobs.

## Software tools and training facilitate trade policymaking

Professor Michael Gasiorek, Dr Peter Holmes and Professor Jim Rollo provided consultancy via spinout company InterAnalysis to support effective decision-making by trade policy practitioners around the world. Two research-based software tools – TradeSift and Trade Analysis using Partial Equilibrium Simulations (TAPES) – improved the capacity of practitioners to analyse trade policy options and develop appropriate negotiating positions.

The researchers delivered training programmes using TradeSift to several national governments, regional economic communities and international organisations. They also provided training, analytical input and a bespoke version of TAPES to the Scottish, Northern Irish and UK governments, enhancing their ability to analyse post-Brexit scenarios and support UK trade interests.

## Influencing the Government's Industrial Strategy

Evidence about the economics of innovation had a major influence on the UK Government's Industrial Strategy, underpinning core policy and funding decisions. The research, by Professor Mariana Mazzucato and colleagues, identified links between the most innovative companies and state investment. It provided comprehensive analyses of instances where the state had played a pivotal role in fostering sustainable, innovation-led economic growth.

Through intense engagement with policymakers, including giving evidence to the parliamentary Select Committees and presenting to government officials, the researchers shaped the Government's approach and inspired the Industrial Strategy Challenge Fund, which committed £1 billion to fund UK business and research, with the aim of placing research and innovation at the heart of the Industrial Strategy.



The Research Excellence Framework (REF) assessment is conducted every six to seven years by the four UK higher education funding bodies: Research England, the Scottish Funding Council (SFC), the Higher Education Funding Council for Wales (HEFCW), and the Department for the Economy, Northern Ireland (DfE).

REF judges the quality of published research in UK universities and considers the impact of research on wider society. It aims to:

- provide accountability for public investment in research and produce evidence of the benefits of this investment
- provide benchmarking information for use within the HE sector and for public information to inform the allocation of research funding
- $\cdot\,$  inform the allocation of research funding





## SUSSEX ENERGY GROUP

## How to reduce energy use for a successful transition to net-zero

Research from the Sussex Energy Group (SEG) is tackling key questions about how to reduce society's demand for, and use of, energy.

Using less energy is not only important to households concerned about rapidly rising bills. It's also vital for a fair, affordable and healthy transition to net-zero. By cutting the overall size of the energy system, we can limit the risks and costs of some proposed supply-side solutions such as carbon dioxide removal. Lower energy use would also increase the UK's energy security, create jobs and wealth in local economies, and improve public health as a result of warmer homes, cleaner air, and more active lifestyles.

Seventeen members of the Sussex Energy Group (SEG) – one of the research centres based in the Business School – are involved in two large research projects focussed on reducing energy demand in the UK: the Centre for Research into Energy Demand Solutions (CREDS) and an exciting new research centre that's still in its early stages.

Unusually for an energy policy research group, SEG leans strongly towards the social sciences – making it ideally suited to answering questions about the complex connections between energy and society.

#### The CREDS project

Established in 2018, CREDS is a collaboration between more than 100 researchers at 26 institutions (including the University of Sussex Business School), working together to research how, and to what extent, the UK can reduce its energy demand.

Members of SEG are currently contributing to several CREDS-funded projects.

### Fuel and transport poverty in the UK's energy transition (FAIR)

Mari Martiskainen, SEG Co-Director and Professor of Energy and Society in SPRU, leads the CREDS FAIR project, which looks at fuel and transport poverty. Her team includes SPRU colleagues Professor Benjamin Sovacool, Dr Marie-Claire Brisbois and Dr Gerardo A. Torres, as well as researchers from the Energy Saving Trust, Cambridge Econometrics and universities including Oxford, Edinburgh and Manchester.

## A problem with deep roots and wide-ranging impact

The FAIR research found that vulnerability to energy and transport poverty is deep-rooted in the structure of societies, extending beyond the energy and transport domains. Causes include not just low incomes but also poor housing quality, use of expensive technology such as prepayment meters, a lack of public transport, and 'forced' ownership of personal cars. The impact of fuel and transport poverty on people's lives is also far-reaching, with detrimental effects on health, education and life opportunities.

## Policies to address fuel and transport poverty

The researchers concluded that well-designed and delivered net-zero policies can boost the economy while also reducing vulnerability to fuel and transport poverty, although there may be winners and losers. "Low-carbon technology adoption is likely to cluster in more affluent households unless there is sufficient government support," explains Professor Martiskainen. "It's therefore important for policymakers to take into account equity and redistribution."



Research participants identified the following priorities for policies to improve energy poverty:

- Regulations requiring landlords to improve the energy efficiency of homes
- Increasing the level of support under the Warm Homes Discount scheme
- Ensuring new homes are much more energy-efficient

Priorities to reduce transport poverty were:

- Making bus and train fares and ticketing simpler and cheaper
- · Restoring bus services post-COVID-19
- Resourcing local authorities so that they can install electric vehicle charging

## Digital society: the need for policy interventions to ensure energy saving

The Digital Society theme within CREDS is led by SPRU Professors Tim Foxon and Steven Sorrell, supported by the following Business School staff and students: Kanika Balani, Dr Noam Bergman, Dr Bernado Caldarola, Yushi Chen, Dr Ralitsa Hiteva, Dr Max Lacey-Barnacle, Dr Kat Lovell, Professor Mari Martiskainen, Dr Giulia Mininni, Professor Benjamin Sovacool, Devon Wemyss and Dr Laurence Williams.

The theme consists of 15 projects. Together, the projects have identified three core ways that digital technologies can enable substantial energy savings:

By using digitalisation to optimise energy control

- By substituting information and digital services for material goods and services
- By enabling sharing of material goods, for example car-sharing, ride-sharing or foodpairing apps

However, the use of digital technologies will not automatically reduce energy use. For example, there is no strong evidence that substituting physical goods with digital services (such as e-books) delivers significant energy savings. While energy savings can occur under certain conditions (if user devices are energy efficient, long-lived and intensively used), savings are highly sensitive to user behaviour, socioeconomic context and other variables.

While digital technologies have made a positive contribution to economic growth and provide benefits to consumers, there are also negative effects for users (for example, the security implications of smart devices) and society (for example, the generation of e-waste). These trade-offs need to be anticipated and managed.

The research also found that improvements in the energy efficiency of digital technologies, coupled with improvements in performance and utility, can encourage large rebound effects. Evidence from a number of applications (for example, teleworking, video streaming) suggests that these effects may lead to a net increase in energy consumption.

A key finding is that specific policy and market mechanisms are needed to ensure that digital solutions deliver energy savings.

#### New UK Energy Demand Research Champion in the Business School

As the CREDS project draws to a close, UK Research and Innovation (UKRI) has funded two new Energy Demand Research Champions to lead the next phase of energy demand research in the UK. The new champions are Professor Mari Martiskainen from the University of Sussex Business School and Professor Sara Walker from Newcastle University.

#### An exciting research centre in the works

The two champions are developing a new cross-cutting multi-disciplinary research centre that will build on the knowledge developed in CREDS. Key research themes of this (as yet unnamed) centre will include equity, flexibility, governance and place. Each of these themes will combine engineering and physical sciences with social science approaches, concepts, tools and methods.

"We need a stronger focus on how we can reduce energy demand and reduce bills while also tackling climate change," explains Professor Martiskainen. "We understand the urgency of this work and look forward to collaborating with experts in different sectors to help the transition to an energy system that is affordable, reliable and sustainable."



Professor Mari Martiskainen







## **EXPLORING THE DIGITAL FUTURE OF WORK**

The ESRC-funded Digital Futures at Work research centre (Digit) exists to find out how new technologies are changing the world of work – from retail and the public sector to finance and business services.

"Too much speculation and too little empirical evidence - that's the problem," says Professor Jacqueline O'Reilly. "Individually, we may feel that there has been a massive acceleration in the way we work with digital technologies but, as researchers, we know that anecdotes are not evidence." It was from a desire to fill this gap in evidence that the ESRC-funded Digital Futures at Work research centre known as Digit - was born.

Established in January 2020 with a fiveyear, £8 million grant from the ESRC, the Centre is co-led by the University of Sussex Business School and the University of Leeds Business School, with partners at the Universities of Cambridge, Manchester, Aberdeen and Monash in Australia. With questions about remote and hybrid working, automation and algorithmic decision-making at the centre of public and policy debates - and made more salient by the pandemic - it seems the ESRC made a very timely investment.

"For years, the conversation around technology and work has been dominated by the idea of job replacement," says Professor O'Reilly, the Centre's Co-Director. "The media love a 'robots are stealing our jobs' story. But it's increasingly clear that the future of work isn't going to be that simple: in many cases, it's augmentation not automation we are seeing. Our research at Digit aims to illuminate and bring evidence to a debate too often characterised by speculation and hype."

## "I am really proud of the way we have been able to build a network of researchers across the UK and internationally"

## Digital acceleration – don't believe the hype?

While the pandemic led to a flurry of headlines about the great digital acceleration, there is still a lack of reliable, empirical evidence about how far such acceleration has occurred. One key strand of Digit's research is the first nationally representative survey of employers' digital practices at work. The aim is to discover the extent to which new technologies are being adopted, why or why not, and how they are being used. Initial findings will be published in early summer, 2023.

Alongside the survey, Digit researchers are conducting several in-depth case studies examining the impact of digital technologies in different sectors, including retail, finance, public sector and the creative industries. Case studies looking at the use of Al in manufacturing and financial services also form part of a major OECD report, published in early 2023, that considers the implications of Al use in these sectors in eight countries.

#### The digitalisation of retail

The retail sector, which accounts for almost 10% of UK jobs, is undergoing rapid transformation as a result of digitalisation and the after-effects of the pandemic. One development is the advent of 'dark stores' and 'q-commerce' - rapid-delivery models that rely on networks of microfulfilment centres and delivery drivers. Digit research fellows Dr Wil Hunt, Dr Steve Rolf and Dr Rachel Verdin have examined how employment within these models differs from traditional retail jobs and other jobs in the platform economy. The findings of their research on this issue with European think tank the Foundation for European Progressive Studies (FEPS) were published in early 2023.

#### **Working with Walmart**

A strong focus on knowledge exchange is at the heart of the Digit research programme. and researchers have worked closely with both policy and business. Dr Hunt, now a permanent lecturer in the Business School, worked with Walmart to study the implementation of the company's new Al-based hiring system. Introduced during the pandemic, when the company recruited more than 460,000 new workers in its US stores, the machine-learning algorithm helped to manage the huge volume of applicants. Dr Hunt found that human interaction with the new technology was mixed. "Some staff used it automatically, not really understanding exactly how it worked; others were much more sceptical, preferring to rely on their own assessments," he explains. "Trusting the recommendations was key to whether staff would use the system in the way intended."

## Developing mid- and early-career researchers

One important objective of Digit's work is to support the development of midand early-career researchers (MECRs). Dr Emma Russell and Professor Dimitra Petrakaki work closely with the Centre's 90 MECRs – providing a range of events and opportunities to help them connect and develop their skills. Ongoing support includes mentoring, training and the opportunity to present and receive feedback at regular seminars. This crossdisciplinary feedback can be a valuable challenge to siloed thinking and helps to open up new perspectives.

Several Digit MECRs have now moved on to permanent lectureships or professorships, and Digit PhD student Lorraine MacKenzie is taking up a sought-after placement at the Department for Work and Pensions.

The 18 Marie Jahoda visiting fellows funded by the Centre have collaborated on topics including digital surveillance at work, blockchain skills in the UK and Ireland, and how AI technologies may shape the roles of HR professionals.

Digit has also funded 16 Digit Innovation Fund one-year research projects, in which PIs conduct their own projects in line with Digit research themes. Dr Ayomikun Idowu, for example, investigated whether young people in the UK and Nigeria can earn a sustainable income from selling clothes on digital resale platforms such as Depop or Jumia. His research, with Monica Richards and Jacqueline O'Reilly, found that, while opportunities to make this a stable income stream for young people in the UK seemed limited to a few top sellers, in Nigeria it was seen as a more sustainable form of work. The findings are published in a report for the International Organisation of Employers. part of the UN's International Labour Organization (ILO).

## Looking ahead to the next three years

The first three years of the Centre have seen 50 publications, more than 90 presentations at academic and industry conferences, five working papers, 36 Digit Debates seminars from leading thinkers and 35 blogs. There is plenty more to come, with plans to produce a report for policymakers and business leaders about the Centre's major survey findings, as well as a series of policy briefs.

"I am really proud of the way we have been able to build a network of researchers across the UK and internationally," reflects Professor O'Reilly. "These are people working at the forefront of their disciplines to understand the significant changes in the way we are working. Collectively, we are bringing real empirical evidence to the table about how these changes are progressing at different rates and their effects on firms and employees. While we have achieved a lot in the past three years, the varied pace of changes indicates that there is so much more to know. We are just at the tip of the iceberg."



Professor Jacqueline O'Reilly Digital Futures at Work research centre

Find out more: https://digit-research.org



# CENTRE FOR INCLUSIVE TRADE POLICY

The newest research centre in the Business School aims to be a centre of excellence for innovative trade policy research.

A major new research centre – the Centre for Inclusive Trade Policy (CITP) – was launched in April 2022. It is one of six new national centres funded by the ESRC to tackle urgent social and economic issues. Led by Sussex Economics Professors Alan Winters and Michael Gasiorek, the Centre aims to provide robust research evidence that can support decision-making in the crucial area of trade policy.

## A response to a rapidly changing landscape

Recent years have seen huge changes in UK and international trade. Having left the EU, the UK is in the process of devising its own trade policy – one that will shape economic and welfare outcomes for generations. At the same time, international trade is evolving rapidly and becoming increasingly complex as the world's trading system faces major challenges – from Covid-19 to trade wars, disruptive digital technology and climate change.

Against this turbulent backdrop, the need for evidence about effective, inclusive trade policy is more important than ever. "International trade accounts for nearly a third of UK output and a third of what it consumes," explains Professor Winters. "Our research also suggests that perhaps 6.5 million jobs are linked directly or indirectly to exporting. The country really needs a 'go-to' location, both intellectually and for policy formulation."

#### The CITP approach

CITP aims to be a centre of excellence for innovative trade policy research. As well as conducting frontier disciplinary and interdisciplinary research into international trade policy and applying research skills to pressing practical trade problems, the Centre will:

- develop data, including a 'Jobs in Trade' dataset that will provide information over time to establish the effects of different policies on jobs and earnings across UK regions
- work with international partners to analyse broad challenges to the world trading system
- inform public debate and understanding of trade policy issues
- engage with policymakers, businesses and civil society organisations to support better and more inclusive trade policymaking

As its name suggests, CITP is concerned with trade policy that is inclusive – both in policy formulation and outcome. It focuses on four dimensions of inclusiveness: geography, political domains, society and generations. "The Centre's aim is to equip the UK with the capability to formulate and implement a trade policy that's tailored to the needs of the whole of the UK," says Professor Winters.

The Centre builds on the work of the UK Trade Policy Observatory – a partnership between the University of Sussex and Chatham House that was established in 2016 (see p15).

#### The importance of a trade strategy

The Centre's first briefing paper, First Things First: Start with a Trade Strategy, calls for greater clarity about the UK's objectives across the wide range of issues involved in trade policymaking.

"A sensible trade strategy should be one that seeks to support and contribute to domestic policy objectives," says Professor Gasoriek. "Given the gains from international trade, it's tempting to see the desire to sign free trade agreements as a step in the right direction. But this pays too little attention to broader public policy issues of equity and security. It also ignores what can be achieved multilaterally via international bodies such as the World Trade Organization."

The paper concludes that free trade agreements should be seen as a part of the Government's trade strategy, as opposed to being the strategy, and that trade liberalisation, including signing free trade agreements, needs to be done selectively, coherently and consistently across agreements.

The briefing has been shared with a range of policy practitioners across the UK.





## Exploring public attitudes to trade policy

As part of its initial research, the Centre is conducting deliberative research on public attitudes towards UK trade policy, in particular the inevitable choices and tradeoffs that trade policy requires. Researchers will explore how people think their way through making these trade-offs, including what are essentially quantitative aspects. For example, what might somebody accept if it resulted in 2,000 new jobs that they would not accept if only 20 new jobs were created?

"We believe that understanding how people think about trade-offs in trade will help future governments identify optimal policy options and explain them," says Professor Winters. "It will also help to focus the Centre's research on issues that really matter to people."

The research involves five sessions with five groups of individuals in five different locations across the UK. The aim is to document public attitudes and aspirations for trade and how these differ across the UK nations and regions. Results are expected in mid 2023.

## Addressing UK greenhouse gas emissions through trade policy

The independent Committee on Climate Change recently commissioned CITP and the UK Trade Policy Observatory to produce a report about trade policies and emissions reduction. This is a complex – and extremely important – area as countries struggle to reach their net-zero emissions targets. The CCC estimates that 46% of the UK's consumption emissions take place outside the UK, but the UK's net-zero emissions target for 2050 focuses largely on domestic emissions. If the UK simply outsources its emissions, it will not address its global contribution to climate change.

The report, *Trade policies and emissions reduction:* establishing and assessing options, focuses on whether and how the UK should introduce border carbon adjustments (which price the emissions embodied in imported products) and product standards (which require that imported products fall below specific embodied emissions thresholds). The EU has implemented these approaches in its Carbon Border Adjustment Mechanism.

Findings and recommendations from the report fed into the CCC's 2022 Progress Report to Parliament.

"The Centre's aim is to equip the UK with the capability to formulate and implement a trade policy that's tailored to the needs of the whole of the UK"





Professor Alan Winters Professor Michael Gasiorek

#### The CITP team and partners

Bringing together expertise in economics, law, business management, politics and international relations, the CITP team comprises researchers from all four nations of the UK – from the University of Nottingham, the University of Strathclyde, Queen's University Belfast, Cardiff University and the University of Cambridge – as well as from several overseas universities.

The Centre also has nine non-academic partners: Ernst & Young LLP, Fieldfisher LLP, the International Trade Group of the Professional and Business Services Council, the British Chambers of Commerce, the Trade Justice Movement and trade officials in all four UK administrations, including the Department for International Trade. These partners bring practical experience and a direct link to users of trade policy research.

The Centre is supported by an £8 million grant from the ESRC and by funding from its contributing universities.

#### Find out more

https://citp.ac.uk/

Read the recent briefing paper, First Things First: Start with a Trade Strategy, at https://citp.ac.uk/publications/ start-with-a-trade-strategy







# THE TRANSFORMATIVE INNOVATION POLICY CONSORTIUM

A coalition for sustainable change.

As the Transformative Innovation Policy Consortium (TIPC) reaches the end of its first five-year programme, we look back on its aims, its achievements, and the researchers' ambitions for the future.

TIPC, based in the Business School's Science Policy Research Unit (SPRU), is an international strategic partnership dedicated to promoting and supporting innovative policy approaches. The consortium's action-oriented research and resources are stimulating radical new ways of providing energy, food, transport, finance and housing across the globe.

"TIPC's central aim is to build an international network dedicated to transformative change as embodied in the SDGs," explains the project's PI, Dr Matias Ramirez, a Senior Lecturer in Management in the Business School. "Our five-year programme, launched in 2018, focused on shaping science, technology and innovation strategies and systems in a way that doesn't neglect or sideline social and environmental consequences."

The Centre's approach is underpinned by research into third-generation innnovation policy – or transformative innovation policy (TIP) – which was pioneered at SPRU by TIPC founders Professor Johan Schot and Professor Ed Steinmueller.<sup>1</sup>

#### **TIPC** methodology

TIPC researchers have designed a **TIPC methodology** – a multi-step learning journey that uses a reflexive, formative evaluation approach as a springboard to transformative outcomes. The methodology is being applied in a series of live policy experiments in TIPC member countries – enabling researchers to draw on lived experiences to create more equitable and resilient futures.

Experimentation with the TIPC approach in real-world situations is creating a rich evidence base of insights to accelerate green policy and socially just initiatives, as described below.

#### **TIPC** research in action

The *BiodiverCities by 2030* report, coauthored by TIPC, together with the World Economic Forum, the Humboldt Institute and the Colombian Presidency, shows TIPC's ground-breaking research in action. Using the TIP framework, the authors invite decision-makers to embrace and harness biodiversity to transform life in urban spaces – with the aim of halting biodiversity loss and mitigating the effects of climate change. The report highlights the crucial role of ecosystems in rainwater infiltration, local climate regulation, reduction of pollution, increasing recreation, and improving mental and physical health.

<sup>1</sup> Johan Schot, W. Edward Steinmueller, Three frames for innovation policy: R&D, systems of innovation and transformative change, Research Policy, Volume 47, Issue 9, 2018, https://doi. org/10.1016/j.respol.2018.08.011





In South Africa, the TIPC methodology is being used by the Water Research Council and the South Africa National Biodiversity Institute (SANBI) to help a water security and sanitation programme – the Living Catchments project – deliver transformative outcomes. Inspired by the learnings and insights of this project, other policy initiatives are starting to implement the TIP method. SANBI is now recommending the TIP methodology among its network as the preferred policy approach to ensure essential water provision for the country.

South Africa – whose Department for Science and Innovation was a founding member of TIPC – is now home to the thriving South African Transformative Innovation Policy (TIP) Community of Practice, which includes a Research Chair and fellowships at the University of Johannesburg. Its aim is to develop context-specific TIP knowledge and practice to promote transformative, egalitarian systems.

In Europe, TIPC researchers have collaborated extensively with Vinnova, the Swedish Innovation Agency – another TIPC founding member – to examine national food and preventative health systems. TIPC researchers worked closely with a dedicated policy team for more than two years to implement system mapping and transformative change methodology, evaluating which transformative objectives and outcomes had been reached and which further challenges remained.

As a result of this direct policy engagement, Vinnova launched an innovation funding call based on the six TIP principles to support projects working towards system transformation.

#### **Launch of TIPC Resource Lab**

In March 2023, TIPC launched its online Resource Lab: a set of structured tools, actions and learnings brought together in a digital web space. The Lab is built from an inventory of more than 400 articles, blogs, policy and research briefs, case studies, infographics, reports, recordings and tools, developed since 2016 across Africa, Asia, Europe and Latin America. It comprises policy development tools and analytical instruments with accompanying training and learning guides, and activities for familiarisation with the method. Components include:

- understanding systems and change
- how to design and facilitate TIP experimentation for transformative system change
- how to use formative evaluation throughout a project to increase the potential for transformational shifts
- · how to build TIP skills and capabilities
- how to build and use a local TIP knowledge infrastructure and community of practice

To bring the Resource Lab to the policymaking sphere, an international voluntary network of TIP coaches are working as educators and mobilisers in their own policy and project settings. In addition, TIPC is building a searchable one-stop shop for global transformative projects and initiatives that will be openly accessible to all.

#### **Next steps for TIPC**

Reflecting on the Consortium's first five years, Dr Ramirez states: "TIPC is an exemplar of the University's strategy to deliver 'better research for a better world'. The next stage in our work is to further activate, develop and expand our ground-breaking research and actions to achieve even more impact and to help deliver a sustainable, just future."



TIPC Resource Lab tool:
Transformative Innovation Policy Radar

#### Who is TIPC?

A truly global network, TIPC's members include researchers, policymakers and practitioners from universities, science, technology and innovation agencies, and third-sector organisations from Sweden, South Africa, Colombia, Mexico, Chile, China, Senegal, Ghana, Kenya, Panama, Norway, and Finland. Along with the University of Sussex, the coordinating institutions are the Centre for Global Challenges at Utrecht University, INGENIO – a research centre of the Spanish National Research Council, and the University of Valencia.

Three core collaboration hubs – the TIP Africa Hub, led by Dr Chux Daniels, the TIP Latin America Hub led by Dr Matias Ramirez, and the Nordic Hub – help to provide insights into the optimal practices for societal transformation.

The following staff from the University of Sussex Business School are involved in TIPC research: Dr Paloma Bernal Hernandez, Geraldine Bloomfield, Pip Bolton, Dr Rob Byrne, Dr Chux Daniels, Dr Bipashyee Ghosh, Christina Miariti, Dr Matias Ramirez, Chandra Singgih Pitoyo, Victoria Shaw and Prof Ed Steinmueller.

#### Find out more

www.tipconsortium.net www.tipresourcelab.net Twitter: @tipconsortium







# SUPPORTING THE SUSTAINABLE DEVELOPMENT GOALS

## Our commitment to the United Nations Sustainable Development Goals is world-leading

The 17 UN Sustainable Development Goals (SDGs) are a universal call to action to preserve our planet and improve the lives of everyone, everywhere – by ending poverty and hunger, providing education for all, protecting our environments, and combating climate change.

As we approach the mid-point of the UN's Agenda for Sustainable Development, with fewer than 10 years left to achieve the SDGs, academic research has a vital role to play in providing stakeholders and policymakers with the knowledge they need to meet the goals.

In 2022, the University of Sussex was placed 7th in the UK (and 37th in the world) for our SDG-related impact by the Times Higher Education World Impact Rankings – the only global assessment of universities' progress towards the SDGs. Our highest score – 3rd in the world – was for SDG 17 (Partnerships for the Goals) – reflecting the University's many successful collaborations with global and local partners.

This institutional strength is strongly supported by research taking place in the Business School. For example:

 Our work on the national minimum wage (see p13) addresses SDG 1

- Research by the Sussex Energy Group (see p16) explores issues relating to SDG 7
- The Digit centre (see p18) addresses SDG 8
- The Centre for Inclusive Trade Policy (see p20) contributes to SDGs 10 and 16
- The Transformative Innovation Policy Consortium (see p22) supports the achievement of SDG 9
- Our climate economics and climate finance work, along with our research into climate change mitigation, supports SDG 13

Much of the University's sustainability research is supported and funded through the Sussex Sustainability Research Programme (SSRP) - an interdisciplinary partnership between the University of Sussex and the Institute of Development Studies. SSRP is managed and administered from within the Business School but brings together and encourages sustainability research across the University, and has played a significant role in enhancing the University's reputation in sustainability science and policy. "Our mission is to be a world-class centre, delivering research with and for international, national and local stakeholders to help achieve transformative, positive change," explains Katie Hiscock, SSRP Programme Manager.

To date, SSRP has supported 53 seed projects in partnership with 117 researchers across the University, with 14 of those projects led by or developed in partnership with Business School researchers. Some of the 2021/2022 projects involving Business School colleagues are described below.

#### **Agricultural Voices Syria**

The award-winning Agricultural Voices Syria (AVS) project is promoting sustainable agricultural practices in Syria through an innovative series of podcasts for farmers the first of their kind in a conflict zone.

During the Syrian war, the country's agriculture sector suffered major setbacks. including the collapse of support services for farmers. Dr Mirela Barbu (Management), together with Professor Martin Spinelli (Media), collaborated with the Syrian Academic Expertise NGO and the Council for At-Risk Academics (Cara) to fill this critical gap. Combining their expertise in global value chains, podcasting and agricultural practices, the team helped set up the AVS podcast to support Syrian farmers, improve food security and livelihoods, and aid the country's recovery.

The project won Emerald Publishing's 2021 Real Impact Award for Interdisciplinary Research, an award designed to 'recognise an innovative research project that promotes action on the UN SDGs and global challenges'. More than just a podcast, AVS is now being developed as a broader communication platform for local and international actors working to achieve food security in northwest Syria. The project is helping to address SDGs 2 and 12.

#### CarbonMap initiative for sustainable land management

Led by Dr Lokendra Karki (SPRU), this project developed the CarbonMap - a tool that provides information about carbon sequestration and emission reduction at an individual farm level. The tool can aid decision-making and contribute to carbon neutrality in the agricultural sector. This project addresses SDGs 13 and 15.

#### Developing an ecosystem of business networks to support SMEs' transition to the circular economy

Dr Shova Thapa Karki (Strategy & Marketing) is working with Circular Brighton and Hove and Brighton and Hove City Council to understand what support SMEs require to transition to the circular economy, and to build business networks to support this shift. This project addresses SDGs 12 and 13.

#### **Environmental, social, and corporate** governance in global supply chains

Dr Anthony Alexander (Management) explored indicators and metrics for free trade, following the recognition that labour and environmental dimensions were not integrated in the Regional Comprehensive Economic Partnership (RCEP). The metrics facilitated the evaluation of benefits and risks, underpinning visions of change and defining objectives and targets. This project addresses SDGs 3, 6, 7, 8, 12, 13, 16 and 17.

#### Scoping networks of support for sustainable forest frontiers

Led by Dr Anthony Alexander (Management), this project addressed drivers of deforestation, including global food demand and local economic development. It involved a scoping study, piloted in Peru, for a physical map of supply chains and a compendium of legal and voluntary drivers for commodities and jurisdictions. This project helped stakeholders support SDGs 1, 2, 8, 12, 15, 16, and 17.

#### Prospects for decent work in green economy initiatives after multiple shocks

Professor Ödül Bozkurt (Management) led an international team to establish a network of academics and stakeholders focused on generating decent work through green economy initiatives to support recovery from major shocks in developing economy city regions. This project addresses SDGs 4, 5, 8, 9, 10, 11 and 17.

#### **UK Food Systems Centre for Doctoral Training**

SSRP also leads the University's involvement in the UK Food Systems Centre for Doctoral Training – a consortium that aims to develop the next generation of food system change makers for a healthy and sustainable food future. Professor Fiona Marshall (SPRU) is the University's academic lead on the consortium management team.

#### **Parliamentary partnership**

In 2021, SSRP academics including Ruth Segal (SPRU) produced a key report, Saving Resources: Actions that achieve both climate goals and the SDGs. Written in partnership with the All Party Parliamentary Group on the UN Global Goals for Sustainable Development, it explains how aligning the climate and SDG agendas can help to meet critical targets.

#### Find out more

SSRP: https://www.sussex.ac.uk/research/centres/ sussex-sustainability-research-programme/

AVS: https://agricultural-voices.sussex.ac.uk/

UK Food Systems Centre for Doctoral Training: https://foodsystems-cdt.ac.uk/











































Sustainable Development Goals





# ACCREDITATIONS AND RECOGNITIONS

The Business School boasts an ever-growing list of accreditations from professional bodies

The Business School is well on the way to achieving 'triple crown' accreditation (AACSB, EQUIS and AMBA) – a recognition achieved by only one per cent of business schools worldwide. We have recently been re-accredited by both EQUIS and AMBA, and are in our third year of the AACSB initial accreditation cycle.

These accreditations not only testify to our current research excellence, but also mean we are in a state of continuous, expertly guided and monitored professional improvement. Reporting to these international professional bodies ensures we maintain world-class standards, continually improve our research environment, and exemplify best practice in our research approaches.

#### **EQUIS**

In November 2022, we maintained our place among the top business schools worldwide by achieving EQUIS re-accreditation for a further three years, in recognition of the high quality of research and teaching in the School.

EQUIS – the European Foundation for Management Development's Education Quality Improvement System – is the most comprehensive accreditation system for business schools. It involves a rigorous peer-review assessment of overall quality, viability and self-improvement commitment to students, employers and academic partners.

In the latest accreditation, the EQUIS review team commended the School for its excellent research spirit and output, commenting on the "high emphasis on impact on policymakers, companies, practitioners, think tanks, national and local governments, and international institutions".

#### **AMBA**

In December 2022, the School received re-accreditation from the Association of MBAs (AMBA) for a further five years.

Accreditation from AMBA represents the highest standard of achievement in postgraduate business education. Its rigorous criteria ensure that only programmes that demonstrate the highest standards in teaching, curriculum, and student interaction achieve accreditation.

AMBA's accreditation panel, representing senior managers from AMBA-accredited business schools across the globe, praised the School's research strengths, which inform our MBA teaching. The panel also commended our high-quality teaching facilities.

## Principles for PRME Principles for Responsible Management Management Education (PRME)

In 2016, the School signed up to the United Nations' Principles for Responsible Management Education (PRME) – a voluntary initiative with more than 880 signatories worldwide. PRME aims to transform management education and develop the responsible decision-makers of tomorrow to advance sustainable development.

As a member institution, we incorporate global social responsibility and sustainability values into our teaching and research, and work closely with other organisations to understand the challenges and to improve policy and practice.

The School is also a member of the United Nations Global Compact – an international network of organisations working towards "a sustainable and inclusive global economy that delivers lasting benefits to people, communities and markets". PRME works closely with the UN Global Compact to promote collaborations between academia and business.

The School submits reports to PRME and the UN Global Compact every two years, detailing how innovation and sustainability are embedded and demonstrated in the research, academic and practical work carried out by the Business School and its alumni. The next reports will be submitted in 2024.

#### **PRME Champions**

In January 2023, the School was selected to join the 2023 PRME Champions group, alongside 46 other PRME member

The mission of the Champions is to contribute to thought and action leadership on responsible management education in the context of the United Nations sustainable development agenda. Faculty members, students and industry leaders will work together to develop educational methods and share ideas.

institutions from around the world.

Representing the Business School are our three PRME Champion co-leads – Dr Alejandro Luna, Lecturer in Sustainability, Innovation and Energy Policy, Dr Katerina Psarikidou, Lecturer in Sustainable Development, and Dr Madina Tash, Lecturer in Accounting and Finance.

#### **AACSB**

AACSB

AACSB's accreditation of business schools across

the globe involves a "rigorous external review of a school's mission, faculty qualifications, curricula, and ability to provide the highest-quality programs". We are currently working our way through the AACSB accreditation process, with a visit expected in 2024/25.

Meanwhile, the School is a member of the AACSB Business Education Alliance and. in 2021, the Transformative Innovation Policy Consortium (TIPC, see p22) was awarded an AACSB Innovations that Inspire award. The awards recognise "institutions around the world that are creating relevant, impactful, and visionary business schools for tomorrow".

#### Other accreditations and partnerships

The Chartered Association of Business Schools helps us maintain world-class standards of teaching and research. We are also members of the European Foundation for Management Development (EFMD).

We are a partner member of the Responsible Research in Business and Management (RRBM) network, which recognises us as a Pioneering Institution.

#### RANKINGS FOR THE BUSINESS SCHOOL

#### **Chartered Association of Business Schools**

1st in the UK for research income in the year 2020/21.

#### **TTCSP Global Go To Think Tank Index Report 2020**

7th in the world and 1st in the UK among science and technology policy think tanks for SPRU

#### Research.com Top **University Ranking 2022**

10th in the UK for Economics and Finance

20th in the UK for Business and Management

#### Research Papers in **Economics 2021**

3rd in the UK in the field of innovation 4th in the UK and 21st in the world in the field of energy economics

### **Shanghai Ranking Global Ranking of Academic Subjects**

Top 51-75 in the world for Economics 3rd in the UK for journal citations in

5th in the UK for journal citations in Business Administration

6th in the UK for journal citations in Fconomics

#### **Times Higher Education World Impact Rankings 2022**

Joint 37th in the world for delivering on the UN Sustainable Development

#### **Times Higher Education World University Rankings 2023**

Top 15 in the UK and Top 125 in the world for Business and Economics

8th in the UK and Top 60 in the world for citations in Business and

#### **US News and World Report Best Global Universities Rankings** 2023

11th in the UK for Economics and

#### **Research Excellence Framework** (REF) 2021

See p12





## **EVENTS**

The Business School's research events continued apace during 2021-22, with a mix of online and in-person events attracting speakers and delegates from across the globe.

#### 10 Sep

HYBRID CONFERENCE

## Chris Freeman centenary & Research Policy 50th anniversary conference

Hosted by the Science Policy Research Unit (SPRU), this one-day conference marked the 100th anniversary of the birth of SPRU founder Chris Freeman and the 50th anniversary of Research Policy - the journal he founded. The event involved presentations from contributors to a special issue of Research Policy devoted to Professor Freeman and his enduring significance in the field of innovation studies. Twelve early career researchers from across the globe also presented their papers, reflecting Freeman's encouragement of new researchers.

#### 6 Oct

#### ONLINE CONFERENCE

## Sustainable Futures for Project Delivery

Presenting key research findings from Project X - an ESRCfunded research collaboration focusing on the performance of major government projects and programmes - this event attracted academics, policymakers and delivery officers for major projects. Several SPRU academics spoke at the event: Professor Andrew Davies and Professor Paul Nightingale introduced Project X, while Dr Rebecca Vine and doctoral researcher Phillippa Groome participated in the 'Reflexive Practitioner and Building Skills for the Future' panel.



SPRU founder Professor Chris Freeman

## 15-16 ONLINE CONFERENCE NOV Climate finance: Challen

## Climate finance: Challenges and lessons for the future

This two-day conference, coorganised by Professor Radu Tunaru (Accounting & Finance), explored key developments in the financial and capital markets industry. It provided unique insights, for example into current processes in leading institutions and the strategic considerations that will be central in governing climate finance over the next decade.

#### 14 Dec

#### HYBRID LECTURE

## University of Sussex Business School Al lecture

The School's annual Al lecture is a distinguished keynote speech that provides a high-level view of fruitful avenues of research and practice at the intersection of artificial intelligence and social science. Organised by SPRU's Dr Simone Vannuccini and Dr Frédérique Bone (former leads of the School's Al Research Mobilisation Group), the 2021 lecture was given by Sara Hooker, Research Scientist at Google Brain. This was followed by a fireside chat with Melissa Heikkilä, POLITICO Europe's Al Correspondent and author of the Al:Decoded newsletter.

#### 26 Jan

ONLINE LECTURE

## Marie Jahoda Annual Lecture

The Marie Jahoda Annual Lecture series celebrates the outstanding contributions that Professor Marie Jahoda CBE made to SPRU. Guest keynote speaker Professor Michael Billig gave an engaging account of Marie's extraordinary life, career and trailblazing legacy. Professor Maximilian Kasy (University of Oxford), Dr Andreas Kranebitter (University of Graz) and Professor Maria Savona (SPRU) also presented, discussing their research in relation to Professor Jahoda's intellectual legacy.

### 28 1 Mar

ONLINE WORKSHOP

#### $Feb \hbox{-} \quad \text{strings final project} \\$ workshop: Perspectives and policies to steer science. technology and innovation for the Sustainable **Development Goals**

The Steering Research and Innovation for the Global Goals (STRINGS) project held its final workshop to explore how to direct research, innovation and investments towards sustainable. inclusive solutions. The twoday, interactive event involved presentations by STRINGS researchers, followed by guest speakers and group discussions. Speakers from NGOs, grassroots innovators, research funders and universities brought perspectives from countries in the Global South - including Ghana, South Africa, India, Tanzania and Argentina.

#### 28 Jun

IN-PERSON EVENT

#### **Supply Chain Resilience -**The dangers of 'pick n mix' **Briefing Paper Launch**

At its first in-person event since 2019, the UK Trade Policy Observatory (UKTPO) launched its briefing paper, Supply Chain Resilience: The dangers of 'pick n mix', at Chatham House, London. Presented by Dr Camilla Jensen, the event provided a longawaited opportunity for in-person discussion with the UKTPO's established and growing network of policymakers and policy scrutinisers on a topic of major importance for UK and global trade policy.



Director of SPRU, Professor Jeremy Kent Hall, delivers the keynote EurOMA speech

#### 1-6 July

IN-PERSON EVENT

#### 29th International EurOMA Conference

The Business School hosted the 29th International EurOMA Conference in Berlin on the timely theme of 'Brilliance in resilience: operations and supply chain management's role in achieving a sustainable future'. The three days saw engaging keynote speeches from Professor Stefan Seuring (University of Kassel), Professor Feryal Erhun (University of Cambridge) and SPRU Director, Professor Jeremy Kent Hall.



Welcome address by Professor Constantin Blome, Chair of the EurOMA 2022 conference organising committee



Dr Annemie Maertens introduces STAARS Fellows to the workshop

#### 26-28 ONLINE AND IN-PERSON WORKSHOP Sep

#### The Structural **Transformation of African Agricultural and Rural** Spaces (STAARS) workshop

This workshop was organised by Dr Annemie Maertens (Economics) in partnership with the African Economic Research Consortium (AERC) and Cornell University, as part of the STAARS 2022 Fellowship Programme. Of this year's six Fellows, the Sussex mentoring team supervised Muhammed Usman, John Maara and Gildas Kadoukpè Magbondé. Presenters included STAARS Fellows, Cornell and Sussex faculty members, and Dr Abebe Shimeles, Director of Research at the AERC, who gave the keynote speech.



#### ONLINE LAUNCH EVENT

#### **Launch of STRINGS report**

Csaba Kőrösi. President of the 77th United Nations General Assembly, provided the keynote address at the launch of the STRINGS project's final report: Changing Directions: Steering science, technology and innovation for the Sustainable Development Goals. The report highlights how science, technology and innovation (STI) are failing to address the world's most urgent sustainability challenges, and contains recommendations for policymakers and research funders worldwide. Ugandan climate activist Vanessa Nakate also presented at the event. followed by presentations from the project team, UKRI and UNESCO representatives, and an insightful panel discussion, led by Ehsan Masood, science writer and Bureau Chief at the journal Nature.

#### 21-22 in-person workshop

## Oct Coworking and the Future of Work – Extending the Debate

Organized by Professor Ödül Bozkurt (Management) for the Coworking Research Collective, in partnership with the Digital Futures at Work Research Centre (Digit), this two-day workshop considered the role of coworking spaces in the post-pandemic context, focusing attention on 'third spaces' outside and between the home and office. The first day took place in Brighton's Plus X Innovation Hub and day two was held on the University of Sussex campus.

#### 2 IN-PERSON CONFERENCE

## Dec Fifth UKTPO Annual Conference – Trade and Sustainable Futures

Organised by Dr Camilla Jensen, former UKTPO Fellow, and Professor Michael Gasjorek. UKTPO Director, the conference brought together economists, lawyers, political scientists, international relations scholars, and policy experts to consider emerging issues and the latest evidence and thinking on sustainable international trade and trade policy. The event provided a timely forum for discussions between presenting researchers and the large audience of stakeholders from policymaking, think tank and civil society backgrounds.



Dr Suze Wilson delivers keynote speech at the International Studying Leadership Conference

#### 11-13 IN-PERSON CONFERENCE

#### Dec The 20th International Studying Leadership Conference

Organised by Professor Dennis Tourish (Management) and Dr Zahira Jaser (Management), this event took place at the Brighton Hilton Metropole Hotel. The ambitious theme of 'Leadership and the Future of Humanity' resulted in a diverse range of sessions on topics including sustainability, gender and ethics, which raised many issues of global significance. Professor Mats Alvesson (Lund University), Dr Suze Wilson (University of New Zealand), Professor Donna Ladkin (University of Birmingham) and Dr Thomas Fischer (University of Geneva) gave the keynote speeches.



Conference co-organiser Dr Zahira Jaser welcomes attendees to the International Studying Leadership Conference



## IN THE MEDIA



Business School research led to

1,100
items of coverage
between September 2021
and December 2022



With a total reach of 2.2 billion people



### **TOP STORIES**

NHS test and trace 'failed its main objective', says spending watchdog

(October 2021)
The Guardian
Michael Hopkins, Professor of
Innovation Management (SPRU)

Is Putin to blame for the UK energy crisis?

(March 2022)
Euronews
Roman Sidortsov, Senior
Research Fellow in Energy Justice
(SPRU)

Biden fires 'warning shot' at UK over Brexit as tensions boil - 'not interested'

(December 2021)
Express
Michael Gasiorek, Professor of
Economics (Economics)

No savings, smaller homes and shunning family events: Here are six ways the rocketing cost of living is changing our lives

(April 2022)

Daily Mail

Ralitsa Hiteva, Senior Research
Fellow (SPRU)

Cryptocurrency broker Voyager
Digital files for bankruptcy
protection

(July 2022) The Guardian Carol Alexander, Professor of Finance (Accounting and Finance)

Use England's plentiful brownfield sites for windfarms, urge scientists

(April 2022) The Guardian Benjamin Sovacool, Professor of Energy Policy (SPRU)

Low taxes and levelling up: the great freeport experiment comes to Teesside

(November 2021)
The Guardian
Peter Holmes, Emeritus Reader
(Economics)

Three Arrows Capital to become latest casualty of crypto crash

(June 2022)
The Guardian
Carol Alexander, Professor of
Finance (Accounting and Finance)

Crypto crisis: how digital currencies went from boom to collapse

(June 2022)
The Guardian
Carol Alexander, Professor of
Finance (Accounting and Finance)

Another court case fails to unlock the mystery of bitcoin's Satoshi Nakamoto

(August 2022)
The Guardian
Carol Alexander, Professor of
Finance (Accounting and Finance)

Universal Credit roll-out 'led to rise in home repossessions and burglaries'

(July 2022)
Mail Online
Rocco d'Este, Lecturer in
Economics (Economics)

1 2 Working from home part-time could harm the environment, study says

(April 2022)

Mail Online

Steven Sorrell, Professor of Energy Policy (SPRU)

## ARTICLES IN TOP-RANKED JOURNALS 2021-2022

This list includes only those outputs published in journals ranked highly by the Academic Journal Guide and the Oxford Bulletin. We encourage readers to explore our publications supplement, which illustrates the full breadth and depth of the School's outputs, as not all impactful, high quality research appears in the highest ranked journals.



#### **ACCOUNTING & FINANCE**

Alexander, Carol; Deng, Jun; Zou, Bin (2022) Hedging with automatic liquidation and leverage selection on bitcoin futures. European Journal of Operational Research.

Alexander, Carol; Meng, Xiaochun; Wei, Wei (2021) Targeting Kollo skewness with random orthogonal matrix simulation. European Journal of Operational Research.

Al-Nasseri, Alya; Menla Ali, Faek; Tucker, Allan (2021) Investor sentiment and the dispersion of stock returns: evidence based on the social network of investors. International Review of Financial Analysis, 78.

Andries, Alin Marius; Ongena, Steven; Sprincean, Nicu; Tunaru, Radu (2021) Risk spillovers and interconnectedness between systemically important institutions. Journal of Financial Stability.

Colak, Gönül; Korkeamäki, Timo (2021) *CEO* mobility and corporate policy risk. Journal of Corporate Finance, 69.

Colak, Gönül; Öztekin, Özde (2021) The impact of COVID-19 pandemic on bank lending around the world. Journal of Banking and Finance, 133.

Danso, Albert; Fosu, Samuel; Owusu-Agyei, Samuel; Ntim, Collins G; Adegbite, Emmanuel (2020) Capital structure revisited. Do crisis and competition matter in a Keiretsu corporate structure? International Journal of Finance and Economics, 26 (4).

Goncharenko, Galina (2022) The role of accountability in workplace democracy. Business Ethics Quarterly.

Kaeck, Andreas; van Kervel, Vincent; Seeger, Norman J (2021) *Price impact versus bid-ask* spreads in the index option market. Journal of Financial Markets.

Van Der Heijden, Hans (2022) Predicting industry sectors from financial statements: an illustration of machine learning in accounting research. British Accounting Review.



#### **ECONOMICS**

Anthoff, H; Tol, R (2022) Testing the dismal theorem. Journal of the Association of Environmental and Resource Economists, 9 (5).

Balbus, Ł; Dziewulski, P; Reffett, K; Woźny, Ł (2022) Markov distributional equilibrium dynamics in games with complementarities and no aggregate risk. Theoretical Economics, 17 (2).

Blundell, Richard; Green, David; Jin, Wenchao (2021) The U.K. as a technological follower: higher education expansion and the college wage premium. The Review Of Economic Studies, 89 (1).

Crafts, Nicholas; Mills, Terence C (2022) Considering the Counterfactual: Real Wages in the First Industrial Revolution. Economic Journal, 132.

De Rock, B; Potoms, T; Tommasi, D (2022) Household responses to Cash Transfers. Economic Development and Cultural Change. 70 (2).

D'Este, Rocco; Harvey, Alex (2022) The Unintended Consequences of Welfare Reforms: Universal Credit, Financial Insecurity, and Crime. The Journal of Law, Economics, & Organization.

Dobbie, Will; Liberman, Andres; Paravisini, Daniel; Pathania, Vikram (2021) *Measuring Bias*. Review of Economic Studies, 88.

Disney, Richard; McKay, Andy; Shabab, Rashaad (2022) Household inequality and remittances in rural Thailand: a life-cycle perspective. Oxford Economic Papers.

Gibbons, Steven; Scrutinio, Vincenzo; Telhaj, Shqiponja (2021) Teacher turnover: Effects, mechanisms and organisational responses. Labour Economics, 73 (102079).

Rodrigues Dos Santos, Marcelo; Maestri, Lucas J; Santos, Marcelo R (2022) *Redistribution*. Journal of Economic Theory, 201.



#### **MANAGEMENT**

Alexander, Anthony; Blome, Constantin; Schleper, Martin; Roscoe, Samuel (2022) Managing the 'new normal': the future of operations and supply chain management in unprecedented times. International Journal of Operations and Production Management.

Bozkurt, Ödül; Xheneti, Mirela; Vicky (2021) On the front line of the circular economy: the entrepreneurial, identity and institutional work of a female entrepreneur towards the circular transition. Work, Employment and Society, 36 (1).

Cohen-Chen, S; Brady, G L; Massaro, S; van Kleef, G A (2022) *Meh, whatever: the effects of indifference expressions on cooperation in social conflict.* Journal of Personality and Social Psychology.

Elbanna, Amany; Idowu, Ayomikun (2021) Crowdwork, digital liminality and the enactment of culturally recognised alternatives to Western precarity: beyond epistemological terra nullius. European Journal of Information Systems, 31 (1).

Fletcher, Luke; Everly, Benjamin A (2021) Perceived lesbian, gay, bisexual, and transgender (LGBT) supportive practices and the life satisfaction of LGBT employees: the roles of disclosure, authenticity at work, and identity centrality. Journal of Occupational and Organizational Psychology, 94 (3).

Faruquee, Murtaza; Paulraj, Aantony; Irawan, Chandra A (2021) Strategic supplier relationships and supply chain resilience: is digital transformation that precludes trust beneficial? International Journal of Operations and Production Management, 41 (7).

Liston-Heyes, Catherine; Juillet, Luc (2021) What has become of the audit explosion? Analysing trends in oversight activities in the Canadian Government. Public Administration.

Rolf, Steven; O'Reilly, Jacqueline; Meryon, Marc (2022) Towards privatized social and employment protections in the platform economy? Evidence from the UK courier sector. Research Policy, 51 (5).

Russell, Emma; Daniels, Kevin A; Jackson, Thomas W; Fullman, Marc (2021) The work-habits intervention model: a 12-month study to change work-email habits. Journal of Occupational and Organizational Psychology, 94 (4).

Spicer, Andre; Jaser, Zahira; Wiertz, Caroline (2021) The future of the business school: finding hope in alternative pasts. Academy of Management Learning and Education, 20 (3).



#### **SPRU**

Adbi, Arzi; Chatterjee, Chirantan; Mishra, Anant (2022) How do MNEs and domestic firms respond locally to a global demand shock? Evidence from a pandemic. Management Science.

Alimadadi, A;, Davies, A; Tell, F (2022). A Palace fit for the future: Desirability in temporal work. Special Issue: 'Temporal Work: The Strategic Organization of Time', Strategic Organization, 20 (1).

Ciarli, Tommaso; Kenney, Martin; Massini, Silvia; Piscitello, Lucia (2021) *Digital technologies, innovation, and skills: emerging trajectories and challenges.* Research Policy, 50 (7).

Geels, F W; Sareen, S; Hook, A; Sovacool, B K (2021) Navigating implementation dilemmas in technology-forcing policies: a comparative analysis of accelerated smart meter diffusion in the Netherlands, UK, Norway, and Portugal (2000-2019). Research Policy, 50 (7).

Johnson, M; Roehrich, J K.; Chakkol, M; Davies, A (2021) Reconciling and reconceptualising servitization research: drawing on modularity, platforms, ecosystems, risk and governance to develop mid-range theory. International Journal of Operations and Production Management, 41 (5).

Kivimaa, Paula; Rogge, Karoline S (2021) Interplay of policy experimentation and institutional change in sustainability transitions: the case of mobility as a service in Finland. Research Policy, 51 (1). Kumar, M; Pullman, M; Bouzdine-Chameeva, T; Sanchez Rodriques, V (2022) The Role of the hub-firm in developing innovation capabilities: Considering French wine industry cluster from a resource orchestrations lens. International Journal of Operations & Production Management 42 (2).

Romero Goyeneche, Oscar Yandy; Ramirez, Matias; Schot, Johan; Arroyave, Felber (2022) Mobilizing the transformative power of research for achieving the Sustainable Development Goals. Research Policy, 51 (10).

Sovacool, Benjamin K; Newell, Peter; Carley, Sanya; Fanzo, Jessica (2022) Equity, technological innovation and sustainable behaviour in a low-carbon future. Nature Human Behaviour.



#### STRATEGY AND MARKETING

Adams, Ansellia; Luiz, John M (2022) Incomplete institutional change and the persistence of racial inequality: the contestation of institutional misalignment in South Africa. Journal of Management Studies.

Beverland, Michael B; Eckhardt, Giana M; Sands, Sean; Shankar, Avi (2020) *How brands craft national identity*. Journal of Consumer Research, 48 (4).

Bozkurt, Ödül; Xheneti, Mirela; Vicky (2021) On the front line of the circular economy: the entrepreneurial, identity and institutional work of a female entrepreneur towards the circular transition. Work, Employment and Society, 36 (1).

Brieger, Steven A; De Clercq, Dirk; Meynhardt, Timo (2020) Doing good, feeling good? Entrepreneurs' social value creation beliefs and work-related well-being. Journal of Business Ethics. 172.

de Ruyter, Ko; Keeling, Debbie Isobel; Plangger, Kirk; Montecchi, Matteo; Scott, Maura L; Dahl, Darren W (2021) Reimagining marketing strategy: driving the debate on grand challenges. Journal of the Academy of Marketing Science.

Golf Papez, Maja; Veer, Ekant (2022) Feeding the trolling: understanding and mitigating online trolling behavior as an unintended consequence. Journal of Interactive Marketing, 57 (1).

Konara, Palitha; Batsakis, Georgios; Shirodkar, Vikrant (2022) 'Distance' in intellectual property protection and MNEs' foreign subsidiary innovation performance. Journal of Product Innovation Management.

Manning, Stephan (2022) From mainstream to niche: how value regimes shift in emerging economy upgrading. Research Policy, 51 (6).

Stadtler, Lea; Karakulak, Özgü (2021) The targeted "Solution" in the spotlight: how a product focus influences collective action within and beyond cross-sector partnerships. Business and Society, 61 (3).

Zayadin, Rana; Zucchella, Antonella; Anand, Amitabh; Jones, Paul; Ameen, Nisreen (2022) Entrepreneurs' decisions in perceived environmental uncertainty. British Journal of Management.









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BUSINESS SCHOOL