

## Manchester Institute of Innovation Research

# Understanding the social, economic, political and managerial dimensions of science, technology and innovation.

Research at the Manchester Institute of Innovation Research seeks to better understand how science, technology and innovation contribute to solving societal problems. We approach this challenge through a holistic programme of four connected research areas.

#### **Innovation in firms**

We analyse the ever-changing strategies, processes, mechanisms and sources of innovation in firms, including the evolving international division of labour in generating innovation. We pioneer research into business models, digital platforms and the creative industries.

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Innovation is fast changing the world. Our challenge is to understand better how innovation can be a force for the 'good' and have a positive impact on society and the environment.

**Professor Jonatan Pinkse** Executive Director, Manchester Institute of Innovation Research

#### The specific role of the state

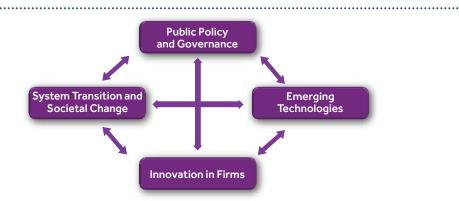
Our research helps to develop our understanding of the role of the state in creating, maintaining and improving the conditions for science, technology and innovation. We study the relationship between public policies and funding decisions, as well as the direction and effects of innovation on society.

#### **Dynamics of emerging technologies**

Emerging technologies, such as nanotechnology or synthetic biology, hold enormous potential for wealth and societal wellbeing. However, the nature of their contribution is uncertain and often socially contested. We work to develop new concepts and methods to understand the significance of emerging technologies, new business models for their commercialisation and the conditions for responsible innovation.

### System transitions and societal challenges

Addressing societal challenges such as climate change, energy security, transport and resource efficiency requires a radical shift in entire systems. We conceptualise and analyse the necessary combinations of new technologies and service models, industrial supply chains, public infrastructures, public debates and consumer practices, and supporting policies and regulations.





## Manchester Institute of Innovation Research

#### International profile

The Institute is a leading global contributor to science and innovation studies literature. Our staff are members of international research councils and sit on the editorial boards of leading academic journals, while many are also elected members of national and international academies.

The Institute plays a leading role in international academic associations such as the European Forum for Studies of Policies for Research and Innovation (www.euspri-forum.eu), the International Sustainability Transitions Research Network (www.transitionsnetwork.org), and the Academy of Management (www.aom.org).

#### Examples of our research Synthetic biology of fine chemicals

New synthetic biology technologies to design and engineer biological components and systems hold great promise to address grand societal challenges. Yet, applications of synthetic biology also raise significant risks regarding ethics, equity, and public acceptability. We are leading an interdisciplinary social science team that is engaged in initiatives to anticipate and prepare for the implications of synthetic biology on society, economy, and the environment.

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Innovations are increasingly generated in global systems and networks. It is essential to understand these processes and the nature of global innovation value chains for enhancing firms' competitiveness and value creation.

Professor Silvia Massini Manchester Institute of Innovation Research

#### Sustainable innovation and transitions

We investigate innovation and transition pathways to sustainable, low-carbon societies in electricity, heat, mobility, and agro-food. We combine system-level and firm-level perspectives to investigate what drives and hinders sustainable innovation and transition pathways, and to inform private and public stakeholders about the necessary changes in consumer practices, firms' business models, and public policies.

## Global Innovation Policy Accelerator programme

We are one of the partners involved in the Global Innovation Policy Accelerator programme (GIPA). Led by Nesta, GIPA is funded through the UK government's Newton Fund and delivers executive development to national cohorts of senior policymakers from the main innovation institutions, while



strengthening the implementation capabilities of their teams. The programme is delivered by a consortium of leading UK expert organisations including the universities of Manchester and Oxford, and innovation and design expert consultants 100% Open and Uscreates.

### Understanding the contribution of creative industries

Creativity and design are essential sources of – and ingredients for – innovation, but have long been neglected. We analyse the significance of creativity and cultural and creative industries in Europe and beyond, substantially enhancing the level of knowledge and understanding of the nature and characteristics of creativity and innovation.

#### The impact of research on society

We are part of the Oslo Institute for Research on the Impact of Science (OSIRIS) and study how scientific research achieves impacts upon society, policy and the economy. The project is taking a long-term view of impact of research as a process and investigates how different policy organisations use scientific knowledge according to their organisational characteristics and in particular how scientific ideas are taken up.

#### Working with stakeholders

An integral part of our mission is to have an impact on policy, industry and society. We work closely with international organisations, ministries, agencies and third-sector organisations in the UK and abroad, and with regional bodies such as the Greater Manchester Combined Authority. We also have strong research links with the corporate world.

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