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SCIENCE

Policy Report

# The Place to Be

How social sciences are helping  
to improve places in the UK



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The Academy of Social Sciences promotes social sciences in the UK for public benefit. We showcase, champion and advocate for the social sciences, raising awareness of their immense influence and helping to secure a flourishing future for them.

The Academy's Campaign for Social Science demonstrates how social science improves public policy, society and all our lives. It highlights the value of applied social science research and advocates for its greater use in decision-making and in government.

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# Executive Summary



**This report draws on 24 case studies to illustrate what university-based social scientists are already doing to make places in the UK better – to ‘level up’ economic and social outcomes in different parts of the UK.**

In these cases, across the UK, social scientists are helping:

- Local businesses to improve their productivity and economic prospects
- Consumers and small businesses to get better and more equitable access to loans and finance
- Cities and regions to improve their attractiveness to new industries and investment
- Cities to plan for better retail shopping and better local transport
- Cities to plan better and more flexible housing for people as they age
- Local authorities to plan their services better and more efficiently by understanding their local populations

- Health authorities and other public authorities to address local COVID patterns
- Health authorities to deliver better results in preventative health work
- Local schools to achieve better educational outcomes for pupils
- Local police forces to address issues such as knife crime, crime hot spots, domestic violence, paramilitarism and crime
- Local policy makers to get better evidence about the impact of proposed policies

### **There are six key messages:**

- Social sciences matter for 'levelling up'. Using social science makes a difference to 'levelling-up' plans and outcomes.
- Virtually every social science discipline – economics, geography, demography, political studies, business and management, education, sociology, psychology, social statistics and others – has a part to play.
- University-based social scientists often do this work as part of the civic mission of their university, a role that universities take seriously and which many fund themselves to make their areas better.



- Results often arise when funding from universities and local businesses or local authorities is based on long-term partnerships. Having clear and stable funding to support this work matters.
- Social scientists increasingly use complex data, often working with computational social science experts to make sense of social characteristics, patterns of behaviour, or data that links economic, social and physical statistics. COVID-19 showed how essential these data can be. We need more social scientists with these skills, and even better and more accessible data for them to use.
- Local areas would benefit even more if there was more co-ordination in support, more partnership working across institutions in particular areas, and more learning about what works.



# Introduction

**This Academy of Social Sciences report shows how UK social sciences are making powerful practical contributions to improving places – cities, regions, counties or countries – in the UK. It includes 24 case studies highlighting how university-based social scientists are helping with place-based ‘levelling up’. It covers many different social science disciplines in all parts of the UK working on projects from the purely local to those that tackle issues that occur across the UK but that affect different areas or regions differently. The examples are not about broader social science research or policy prescriptions but practical efforts to work with private sector businesses, local authorities and local health and education bodies and others to improve area-based disadvantage in the UK.**

## **Background**

Place-based differences in the UK are real. There are differences in economic prosperity, productivity and prospects; differences in longevity and mental and physical health; and differences in educational quality and outcomes. Quite how the UK stacks up against other countries in the amount of regional or area inequality depends on the measures used, but by any account the differences are large, and blight the prospects of many, depending on where in the UK people live.

‘Place-based’ differences can refer to different things. There are disparities between regions and countries in the UK; differences between the prospects of cities and towns, depending on where they are located; and differences *within* areas, including *within* counties and boroughs that are, at aggregate level, comparatively well off. Many of these place-based inequalities are related to histories of industrial concentration, industrial decline, poor transport and housing provision. Some even relate to different patterns of agricultural use and development.

While the causes are complex, all these ‘place-based’ differences can result in real disadvantage in incomes, work and retirement patterns; in household characteristics; and in health and education opportunities and outcomes. ‘Levelling up’ can refer to any of these.

For decades, governments have paid intermittent attention to place-based disadvantage. Some have directed spending at certain areas, or ‘planned’ for particular types of industrial growth. Others have focused on place-based service provision, such as the successful initiatives to drive up London school results. But overall, the UK has a relatively poor record in addressing long-term causes or supporting longer-term measures to redress these disparities.

Part of this is because many initiatives have been based on short-term interventions, rather than on recognising that these changes take a long time – certainly longer than electoral cycles. Most experts and analysts, whatever their area of expertise or their policy views, acknowledge that addressing issues related to place-based disadvantage and inequality will take years of significant investment and a sustained strategy to redress.

The previous government’s ‘Industrial Strategy’, launched in 2017, had one particular focus. It included work to develop interventions to improve economic growth in particular areas, alongside broader nationwide mechanisms to support research and development spending (by the private and the public sectors) to support economic growth more generally. It supported work to understand and promote improvements in productivity. Though much of it was about manufacturing, attention was paid to physical infrastructure, and the need to promote innovation and productivity in the service sector too.

Despite the discontinuation of the ‘Industrial Strategy’ as a theme of this government, and the disbanding of the Industrial Strategy Council, some of the research-based activities that were formulated then have continued. These include aspects of research funding by UK Research and Innovation, and various What Works centres aimed at evaluating the evidence about how health, social and children’s care, education, crime reduction, local economic growth and ageing can be addressed, and promoting evidence-based conclusions.

More recently, government has preferred to talk about ‘levelling up’. While much of the actual focus to date has been on grants to improve high streets, transport and physical infrastructure, at the time of writing we await a statement of more concerted strategic policies that government might enact to ‘level up’.

## This report

This report is not an examination of the degree of regional or place-based disadvantage across its many dimensions. Nor is it a set of policy prescriptions for changing it.

In both of these areas, the social sciences have a lot to offer, and indeed already do. There is a large body of robust research by economists, geographers, demographers and others about the degree and dimensions of economic disadvantage in different places across the UK, ranging from the mix of industries and jobs in areas, to productivity differences, differences in transport infrastructure and how they affect economic development. Similar robust information is available about area-based differences in health and education, including longevity and mental and physical health disadvantage, in the quality of education and education outcomes and other aspects of wellbeing.

In addition to these descriptive studies, there is an increasing body of evidence-informed policy suggestions about *how to achieve* ‘levelling up’. The Academy’s Campaign for Social Science currently has a web resource in which we ask prominent social scientists – both academics and practitioners – from various disciplines for their top three prescriptions to address ‘levelling up’.

Much public discussion focuses on the importance of science, technology engineering and mathematics (STEM) as the basis for regional development strategies. For instance, there are projects to develop science-based manufacturing and research in areas outside the southeast of the UK. These include initiatives on renewable energy, battery manufacturing and energy storage, and manufacture of electric automobiles. Initiatives in areas like Teesside, Manchester, the Northern Powerhouse Partnership and many others are already working to link new industrial and service sector growth with wider area-based strategies. Many of these initiatives involve universities as partners. Some aim to foster start-ups based on STEM technologies. Many of these STEM-based projects also involve social scientists working to understand market demand and pricing, travel-to-work areas, skills analyses, and all the social factors required for new technologies to grow. These STEM-based initiatives are undoubtedly an important element in strategies for addressing regional disadvantage.

But achieving 'levelling up' will require more than building regional centres of new manufacturing, or repairing ageing or inadequate infrastructure, important though those are. It also requires understanding the characteristics, demographics and behaviours of those working in an area, or receiving health services or education there. It requires engagement with local governments and businesses, local schools, local transport, local health services, about what they can do to better for local residents, families and service users.

In short, 'levelling up' requires social science data, evidence, skills and expertise. And in many areas, social scientists are already helping to make this happen. They are already playing an important practical role in making their local areas or regions or countries within the UK better. They are doing this in concrete and varied ways. They have not waited for further national policies or new sources of funding.

This report showcases some examples of the important roles they are already playing in 'levelling up'. In that sense, it parallels our 2020 report, Vital Business, showing how social science knowledge and skills are used in UK private sector businesses.

## Some features of the case studies

Our case studies come from across the UK. They include projects in Scotland, Wales and Northern Ireland, and from universities across the regions in England.

Some are focused on very particular issues within a region, such as the Growing Kent and Midway case study. Others focus on challenges that arise in a number of areas, such as how to ‘level up’ cities outside London in the case of the LSE Cities Research Centre, how to improve productivity (*The Productivity Institute* or *Help to Grow: Management*), or how to improve local schools (*The Research Schools Network*).

Some cases are based on partnerships with local businesses or business groups, such as the *Global Open Finance Centre of Excellence* or *GMAP Analytics Ltd – Spatial Modelling & Retail Network Research*.

Many of the cases involve partnerships between university-based social scientists with local authorities or local health authorities or police authorities. They work on issues ranging from planning (see for instance the *Newcastle City Futures Urban Living Partnership Project* aimed at improving specifications for sustainable homes that also adapt as people reach different life stages) to city and regional improvement (such as the *West Midlands Region Economic & Development Institute (WM REDI)* or the *Essex Catalyst Programme*). Many are based on helping public bodies understand more about the areas they serve – the characteristics of their populations, travelling patterns, education and skills, and health behaviours. Some of these partnerships work on a consultancy basis, and others are longer-lasting collaborations. Very few follow the ‘spin out’ model more typical of STEM, although *GMAP* represents a case where that has happened.

Social scientists may also work with STEM scientists, as with *Fuel & Transport Poverty in the UK’s Energy Transition (FAIR)*. This project brings geographers, political scientists, planners and economists together with environmental scientists and energy efficiency experts to help develop specific options for net zero in the UK.

# Implications

Our case studies have some implications for the future – for ‘levelling up’, for universities, for funding and for social science. We highlight five key messages.

First, **social sciences matter to ‘levelling up’**. Whether they are working with STEM scientists on new industries and technologies, with other social scientists on the social aspects of ‘levelling up’, including educating and training local workforces, or helping to improve public services, social science can help to improve people’s prospects. In these case studies, social scientists are actively involved in defining problems, supplying and analysing data, and developing solutions.

Second, while social science disciplines like economics, business and management, demography and geography are involved in many of our cases, **virtually every social science discipline takes part in ‘levelling-up’ work**. Economists have, of course, special knowledge about the economic aspects of ‘levelling up’, and geographers’ expertise in spatial data is crucial. But other disciplines have a role to play too, not only in specific areas like health, education and welfare, but in working together to understand behaviour, and to evaluate and disseminate what works in making things better. Much of this is applied social science at its best, and benefits from an ability to work across disciplines and sectors.

Third, as is clear from many of our cases, university-based social scientists are acting as part of the civic mission of their university. While many universities have long had commitment to and engagement with their local areas, the idea that they should do so strategically, as a core part of their mission, has gained ground in recent years. The UPP-funded Civic University Commission, and the UK 2070 Commission, both chaired by Lord Kerslake, made this argument powerfully.

Various analytic tools now attempt to measure how universities contribute to local economic growth and improve their local areas. Working with a wide variety of local bodies – local and health authorities, schools, local businesses, local developers – requires social science evidence and data to help answer such questions



as ‘Who would benefit and by how much?’ and ‘How can we decide where best and most effectively to put resources?’.

**Universities have recognised the importance of social sciences for their civic role in their local areas.** Increasingly, this includes evidence about where their own skilled graduates – an important part of their contribution to their areas – go on to work, both the places where they work and the jobs they do. These contributions will be measured by a focus not only on maximising the salaries of individual graduates, but also on how and where to employ graduates in local areas to help drive up skills – again, an issue which needs social science evidence.

Fourth, we discovered no clear pattern in funding for the ‘levelling-up’ activities we found. Some are financed by UKRI or the ESRC or others, either as part of research or outreach programmes. Some have been given central government funding. Some have undoubtedly been funded at least indirectly by the Knowledge Exchange Framework (KEF), awarded in part because of the incentives created by the current Research Excellence Framework. Some have funds from their universities, some from local businesses and some from local public bodies. But many of our case studies are built on long-term partnerships between universities and local bodies, not short-term consultancies or one-off projects. **Ensuring universities have clear and stable funding to support their strategic engagement with their local areas is important.** This may require thinking more broadly about knowledge exchange and incentives for universities, including university social scientists, to support them in playing their civic role.

Fifth, it is clear that **social sciences play a key role in assembling the data that are used to set targets for ‘levelling up’, or that are used to evaluate the effects of particular policies or interventions.** Local-level data about population characteristics, service users, health, education, labour market behaviour, and business characteristics and behaviours all require social science. The Academy of Social Science made this point when it commented on the 2021 Budget spending projects. For both the £4.8 billion ‘levelling-up’ fund (to support high street regeneration, local transport projects, etc.) and the £3.6 billion ‘towns fund’ (for initiatives such as street cleaning and converting derelict buildings into new homes), social science evidence is essential to ensure the appropriate targeting and allocation of resources and

to evaluate initiatives so that longer-term lessons are learned. This is an issue both of ‘what works’ and how we can do better.

This means that an important, and often overlooked, contribution of social scientists is **unlocking the power of social data** to help understand and solve place-based issues. Social scientists often work with computational data scientists to make existing data more usable, to understand their shortfalls and to design new and more useful data. UK social scientists have existing strengths in these areas but need to continue to address the need for more data skills in their disciplines. And ‘levelling up’ will require continuing attention to better and more accessible data, such as that managed by the ESRC’s Administrative Data Network, along with investment in the skills needed to reap the benefits of these data.

It is worth noting that place-based inequality is not the only challenge facing the UK where social science expertise, skills, data and evaluation are essential. The transition to Net Zero, addressing the changes brought about by an ageing society, or pandemics like COVID-19 are all benefitting from social science, alongside other scientific and technological advances.

## Conclusions

Our aim in this report is to highlight the practical contributions that social sciences are making to improving life across the UK in specific practical ways that are not often discussed. Policy makers, whether in government or Parliament, for the UK or in the devolved authorities, or in local authorities and other public-sector bodies, already understand the importance of STEM and STEM-based research and projects for long-term regeneration. Many understand the importance of the humanities and creative arts for helping to build communities and cities that people want to live in and visit.

**This report shows that they should also explicitly welcome the distinctive usefulness of social science in helping to tackle the challenges of ‘levelling up’.** Its 24 case studies illustrate the many and varied ways in which the social sciences are useful and important to any strategic approach to ‘levelling up’.

These cases have all arisen in different ways, from different initiatives. **Local areas would benefit even more if there was more co-ordination in support, more partnership working across institutions in particular areas, and more learning about what works.** The Academy of Social Sciences and its Campaign for Social Science will be working to get this message across to all those who are committed to a strategic approach to 'levelling up' and are happy to work in partnership with others.

After all, it can only help policy makers and others concerned to address place-based inequality if they make use of all the ways the social sciences can help to make places across the UK better – economically and in terms of other life chances. Making them, in short, the place to be.

# Case Studies

The image features a minimalist design with a white background. Two large, overlapping teal-colored arcs are positioned in the lower half of the frame. The upper arc is larger and more prominent, while the lower arc is smaller and partially obscured by the first. The arcs are smooth and continuous, creating a sense of movement and depth.

# 1 The Global Open Finance Centre of Excellence (GOFCoE)

**Regional Focus:** Scotland

**Disciplines:** Finance, Business Studies, Economics,  
Accounting, Computational Social Science

**Major Partners:** University of Edinburgh and Data Driven Innovation  
(part of the Edinburgh & SE Scotland City Regional Deal)

**Major Funders:** UKRI's Strength in Places Fund

## What is it?

The Global Open Finance Centre of Excellence (GOFCoE) is an independent non-profit organisation whose mission is to improve people's lives by securely and ethically harnessing Open Finance and other data. Open financial data – such as that gathered from banking or financial technology (fintech) apps that track consumer habits, behaviours and choices – can provide invaluable insights. Rather than limiting such data to financial institutions for their own purposes, GOFCoE uses them to help customers to improve their credit, small businesses to improve their financial strategies, and government to improve a wide array of policies, including how to tackle poverty and financial inclusion. All this depends on maintaining privacy while using the data for public good.

GOFCoE's purpose is to foster innovation, provide opportunities for research, and develop talent in this new field. It helps businesses, universities, public bodies and charities to share data safely, both by providing a secure infrastructure with the help of the supercomputing centre at the University of Edinburgh, and by working to create ethical standards for Open Finance. Its key objectives are to catalyse financial data collaboration to enable research and innovation, scale-up industry adoption of Open Finance, lower development costs, conduct data-driven research, and work with regulators to establish

ethical standards and best practice for how such data can be stored, analysed and shared.

## **What role does social science play?**

GOFCoE relies on the expertise of academics and practitioners from a number of social science disciplines. These include finance, accounting, economics, business studies and the computational social sciences. It also works in partnership with STEM data science and information technology.

Increasing social science capacity for this kind of work is also an important part of GOFCoE's mission. Education and training are therefore a major focus, along with a focus on data ethics and privacy protections, for financial data in particular. Partnerships with the University of Edinburgh and other Scottish and UK universities are a crucial part of GOFCoE's mission to educate.

## **What partners are involved?**

The idea for such a centre first came in a 2018 paper by Gavin Littlejohn, Chairman of the global Financial Data and Technology Association (FDATA), headquartered in Edinburgh, Scotland. From there, the FDATA partnered with Fintech Scotland and the University of Edinburgh to apply for seed-corn funding for a Global Centre of Excellence in Open Banking. After demonstrating potential for success, the partners were awarded funding from UKRI's Strength in Places fund to create GOFCoE. The funding bid was made with the help of the Data-Driven Innovation team at the University of Edinburgh, which is part of the Edinburgh and South East Scotland City regional deal.

Although it is an independent non-profit, GOFCoE was created with the University of Edinburgh. Physically, it sits within in the University of Edinburgh's Futures Institute (EFI), its secure data infrastructure is housed in the University of Edinburgh's EPCC supercomputing centre, and it is able to draw on the expertise of the University's social science and STEM academic experts.

# Levelling-up impact

GOFCoE will play a central role in central Scotland's fintech corridor, helping to bring about collaborations that can lead to exciting innovations for society – from the individual saver or borrower to the public and private sectors more widely.

The February 2021 Kalifa Review of UK Fintech recognised the momentum of the Fintech Scotland cluster, which included growing expertise in open finance, payments, regulatory innovation and 'fintech for good'. The report also specifically mentioned GOFCoE as an example of innovation and excellence.

To improve outcomes in the region and beyond, GOFCoE is working with the EPPC to create a Financial Data Safe Haven. This will allow subsets of data to be linked and made available within a strict framework to academic researchers, policy makers, regulators, financial institutions and companies that use technology to improve the delivery of financial services while preserving individual privacy. Access to the data is subject to ethical and privacy review and information security controls. Insights from the Safe Haven will help policy makers and public bodies to understand the impacts of their decisions.

Indeed, this is already happening. Their work is credited with helping the UK Government to study financial behaviour during the coronavirus pandemic.

## 2 Ageing in Newcastle

**Regional Focus:** North-East England

**Disciplines:** Human Geography, Demography, Psychology, Social Policy, Sociology, Planning, Business and Management, Political Science, and more

**Major Partners:** Newcastle University, Invest Newcastle, the UK's National Innovation Centre for Ageing; Department for International Trade, UKRI, North East Local Enterprise Partnership (LEP), NHS

**Major Funders:** Strength in Places Fund, UK Government High Potential Opportunities (HPO) programme

### What is it?

Newcastle is emerging as a national and global hub for research and innovation into ageing and longevity. For years Newcastle University has been recognised as a leading centre of collaborative research in ageing, drawing on a network of over 500 researchers across many disciplines. Its work now encompasses several different streams of research, one of which focuses on translational research and applied innovation, delivered through the National Innovation Centre Ageing (NICA) at the University.

NICA was established in 2017 with £40 million funding from the UK Government and Newcastle University. NICA has created an interdisciplinary innovation eco-system, including design, computer science, engineering, health and social sciences, and data and business studies. The aim is to help private and public bodies to develop, build, test and market new products and services designed to make lives easier and better as people age. This includes projects on issues ranging from designing homes and consumer products to rethinking transport and mobility.

NICA's aims to add 'intelligence' to ageing and longevity. Working together with its sister organisation VOICE® (an international citizen's network), it brings together data of all sorts, including 'big data', to inform its work. NICA aims to help older people but also to improve business and society in the context of ageing societies.



## What role does social science play?

Understanding ageing and how to improve the lives of older people needs the social sciences to work hand in hand with the health and life sciences. The Newcastle Institute for Ageing, for example, draws on research and practical expertise from a variety of social and STEM sciences. Expertise among social science staff members of NICA includes those with backgrounds in human geography, psychology, social policy, sociology, planning, business and management, and political science.

For example, NICA is helping to test human interaction and user acceptance of the Gita® robot that can help the elderly by following them and carrying up to 23 kg of cargo for them. Gita® is designed to help mitigate loneliness and isolation, boost healthy behaviour by encouraging more walking, and foster more independent and sustainable living. Another recent project undertaken in partnership with Newcastle University, the Design Network North and Butters Innovation involved the co-design of the 'vitality bench'. This is intended for multi-generational use, with handles to assist sitting and rising, and a design that is easy to keep clean and safe. Urban planners and social scientists were involved in its design and development.

**The National Innovation Centre for Ageing is in the privileged position of bringing together academics from a variety of areas – social sciences, medical sciences and humanities – alongside the public. The work we are doing on ageing and longevity is where technology, business models, societal inclusion, ethical principles and sustainability meet, with amazing opportunities to help design the future of our society.**

**(Professor Nic Palmarini, Director of NICA)**

## What partners are involved?

NICA is hosted by the Newcastle University and has an array of partners in the public and private sector. International and national partners include the World Bank, Ageing Asia, Innovate UK, the Department for Business, Energy & Industrial Strategy, The Design Age Institute, and the International Longevity Centre UK. Local partners include Newcastle City Council and Northumbria University. It also works with local STEM-based organisations like the NIHR Newcastle Biomedical Research Centre, which in turn partners with NHS and local government to address ageing.

## Levelling-up impact

The North East LEP Industrial Strategy recognises its local assets on the issue of ageing and the need to respond to an ageing population in its own industrial strategy – specifically mentioning the Newcastle Institute for Ageing and NICA.

More recently, Invest Newcastle's 'hub' for Healthy Ageing in North-East England was selected by the UK Department for International Trade (DIT) as part of the High Potential Opportunities programme it co-ordinates. This designation will help support inward investment by showcasing the North East's healthy ageing assets to investors in more than 177 cities around the world via the DIT's global network.

# 3 GMAP Analytics Ltd – Spatial Modelling & Retail Network Research

**Regional Focus:** West Yorkshire

**Disciplines:** Geography, Demography,  
Social Computational Analysis

**Major Funders:** Various commercial partners

## What is it?

GMAP is a global leader in geographic modelling, demographic analysis and location planning. It offers data, software and consulting services to the public and private sector to assist in strategic decision making. GMAP has grown out of work started over 30 years ago at the University of Leeds' School of Geography by Professors Martin Clarke and Alan Wilson, who used spatial modelling techniques to help retailers to improve their location choices. It is now a private company and joined the NEXUS Leeds innovation campus as GMAP Analytics.

The NEXUS Leeds campus is part of a strategy by the University of Leeds to support building a community of technology businesses and innovation in Leeds, enabling them to work with the University where appropriate.

GMAP has worked with some the world's largest organisations in over 60 countries, and is widely recognised as a leader in location intelligence. It has helped numerous private sector companies in the retail, automotive, forecourt, leisure, and transport sectors to optimise profitability and react intelligently to changing markets and demographics. Private sector clients have included many household names, such as Exxon, Volkswagen, Niké, Iceland and Domino's.

In the public sector, UK Government agencies, local authorities, and the police have also used GMAP's software to optimise resource allocation in policing, education and healthcare. Companies of public significance to the UK, such as the Post Office and Royal Mail, have also been clients.

## **What role does social science play?**

GMAP's business started with spatial interaction modelling research originally undertaken at the University of Leeds' School of Geography (SoG) – relying on expertise from disciplines like human and political geography, demography, economics and social computational analysis. That research focused on how the physical configuration of retail networks could be optimised and how place-based decision making could be improved, for example through linkage of geo-demographic classifications of population and consumer behaviour and the analysis of long-term retail market trends. Since then, it has become more computationally advanced, and links physical and social geo-spatial data. GMAP's success shows how important population and demographic data can be to public and private sector investment.

## **What partners are involved?**

GMAP is now a private company, although it resides physically in the NEXUS Leeds innovation centre, which reflects local aims to build a flourishing tech and data industry. GMAP has a number of 'data partners' with whom it collaborates, including through the resale of linked data products. These include Edge Analytics, Cap hpi, Royal Mail (and its Postcode Address File), TransUnion (and its CAMEO geographic data), and the Driver and Vehicle Licensing Agency and its anonymised data.

## Levelling-up impact

In its early days, GMAP and the Universities of Leeds and Sheffield worked with the Office for National Statistics (ONS) to develop a way of classifying demographic information by geographic area, through a code known as the 'Output Area Classification', now linked to significant ONS data series like the British Population and Family Spending surveys. These data have been used by local government authorities, such as the South Yorkshire Police, to profile the victims of crime and anti-social behaviour, and by other local authorities to help with the efficient delivery of public services.

GMAP works with service providers and businesses that can only operate in physical space to help them locate in places that are no longer occupied by traditional retailers. GMAP's RetailVison product provides a comprehensive depiction of the UK retail market. Its MVPLUS mapping tool is used by transport infrastructure providers to manage passenger demand. **As high streets and travel change in response to digital retail, changing habits and the lasting impact of COVID-19, the data-informed insights provided by spatial modelling such as GMAP's will be crucial to 'levelling up' cities and towns.**

# 4 Strategy for Inward Investment to Birmingham

**Regional Focus:** West Midlands

**Disciplines:** Business and Management Studies

**Major Partners:** Greater Birmingham & Solihull Local

Enterprise Partnership (GBSLEP), Marketing Birmingham,  
Birmingham City Council

**Major Funders:** Economic and Social Research Council (ESRC)

## What is it?

Professor Nigel Driffield (Aston University Business School, and later Warwick Business School) helped Greater Birmingham to develop a highly successful inward investment strategy, building on over 20 years of research on inward foreign direct investment (IFDI) and how it benefits both investors and the regions in which they invest. A £90,000 ESRC grant helped to target this research into Greater Birmingham's strategy on approaches that would bring the greatest returns, and to identify sectors that would both attract and benefit from investment. In 2015, the strategy helped Greater Birmingham become one of the most successful cities in Europe for attracting business investment.

## What role does social science play?

Professor Driffield's research, based on 20 years of work on inward investment, led him to work with the City and the Local Enterprise Partnership. His key insight was evidence about what investors were looking for. **'The crucial point for Birmingham ... was to stop focusing on traditional sectors ... and consider what businesses could be looking for in terms of new sectors such as logistics...'** This also included work on the wider West Midlands area, and the implications for greater economic autonomy.

## What partners are involved?

Professor Driffield worked closely with the intended end users of the research throughout, including Greater Birmingham & Solihull Local Enterprise Partnership, Marketing Birmingham (a vehicle developed by local authorities to promote IFDI) and Birmingham City Council.

## Levelling-up impact

The IFDI strategy developed for Birmingham attracted £150 million in investment to the region between 2015 and 2017 alone. Since then, Professor Driffield has worked with what is now the Department for International Trade to identify foreign firms with a high probability of expanding internationally. His work has been used by the Confederation of British Industry, sectoral bodies, professional service firms, as well as government and other investment promotion agencies. More recently, Professor Driffield is also part of an £811,000 ESRC grant to bring together academics to focus on the cross-cutting themes of skills, management, investment, regional supply chains, innovation and enterprise to address the productivity gap. That project partners with the West Midlands Combined Authority and West Midlands Region Economic and Development Institute (REDI) to identify and address industry and firm-level factors that underlie the lower levels of productivity in the Midlands.

# 5 The Wales Centre for Public Policy

**Regional Focus:** Wales

**Disciplines:** Many social science disciplines

**Major Partners:** Economic and Social Research Council (ESRC), Welsh Government, Cardiff University, and the UK What Works Network

**Major Funders:** ESRC, Welsh Government, and Cardiff University

## What is it?

The Wales Centre for Public Policy (WCPP) provides authoritative independent social science-based evidence and expert advice to the Welsh Government, local authorities, health boards and other public key services. It plans its work programme in consultation with ministers and public service leaders to ensure that evidence is available at the time it is needed for policy decisions. This ensures that it focuses on key societal challenges and can provide evidence when it is most needed.

The Centre's remit covers all devolved matters. Recent work includes projects on: tackling loneliness and social isolation; improving race equality; volunteering and wellbeing during the COVID-19 pandemic; improving outcomes for looked-after children; the impact of remote working; the implications of Brexit for the health and social care workforce; and priorities for recovery from the pandemic.

In 2019, the WCPP was a finalist in the ESRC's prestigious Celebrating Impact Prize and one of just two teams recognised for their outstanding impact on policy.

Since its establishment in 2017, the WCPP has undertaken at least 180 studies to date for use by the Welsh Government, drawing on the expertise of over 200 social scientists.

WCPP staff include research apprentices and PhD candidates to build relevant skills among UK researchers for the future.



## What role does social science play?

The WCPP draws on research and expertise from across the social sciences to inform the evidence it gives policy makers, and the evaluations of policies and their implementation. Staff members have expertise in political science, public policy, geography, social policy, sociology, health and social care, psychology, economics, and business and management studies, as well as other areas. Since its establishment in 2017, the WCPP has worked with 200 social scientists from across the UK and internationally to review and synthesise evidence. It has conducted more than 60 studies, and published more than 200 reports.

**We safeguard the rigour of our research through peer review by experts and oversight by an independent advisory group. We publish reports within six weeks of presenting them to ministers so that the evidence is available to everyone.**

**(Professor Steve Martin, Director of WCPP)**

## What partners are involved?

The WCPP is based at Cardiff University and is funded primarily by the ESRC, the Welsh Government and Cardiff University. The WCPP is an associate body of the UK What Works Network, which was established in 2013 by the UK Government to provide robust evidence, from the social sciences and STEM on issues ranging from wellbeing and policing to schooling, and local economic growth to policy makers in central, regional and local governments.

## Levelling-up impact

The WCPP has helped to influence and inform policy making and decision making in a number of areas, from preventing youth

homelessness to helping to ensure that early years childcare provision is more efficiently targeted towards working parents.

**The work of the Wales Centre for Public Policy greatly strengthens our policy-making in Wales. It gives us high-quality independent evidence to challenge current assumptions and improve our decisions.**

**(The First Minister of Wales,  
the Rt Hon Mark Drakeford)**

Over the course of 2020 and 2021, the WCPP concentrated much of its effort on the COVID-19 pandemic and its impacts, as well as on the impact of Brexit on different areas of the Welsh economy, such as fisheries and household incomes. In relation to COVID-19, the WCPP has examined the economic and social fallout of the pandemic and possible policy responses, as well as related issues such as how to address social isolation, reform social care and improve productivity. It also produced a series of briefings on how to improve societal and economic resilience in Wales in the post-pandemic environment. Ministers commissioned briefings on: public service delivery and financing; low carbon production and local business; land management, travel and transport; renewable energy, housing and town centres; human capital, skills, further education and higher education; and digital public services.

These briefings helped inform an Expert Group that met regularly with the commissioning minister in 2020, and whose conclusions fed into Cabinet discussions about the Welsh Government's future priorities. Finally, WCPP has broadened its scope to improve services in Wales at more local levels. Since 2019, it has worked on projects for 19 Public Services Boards in Wales, including local authorities, Welsh NHS and social care providers and others. This work is directly informing their statutory Wellbeing Plans.

## 6 The Productivity Institute

**Regional Focus:** Across the UK – with eight regional hubs in: Scotland; Northern Ireland; Wales; the Midlands; the North West; Yorkshire, Humberside and the North East; Cambridgeshire and East Anglia; and London and the South

**Disciplines:** Multi-disciplinary social sciences, including: Economics, Human Geography, Management and Business Studies, and Political Science in partnership with STEM

**Major Partners:** University of Manchester, University of Cambridge, Cardiff University, Economic Statistics Centre of Excellence, University of Glasgow, King's College London, National Institute of Economic and Social Research, Queen's University Belfast, University of Sheffield, and Warwick University

**Major Funders:** Economic and Social Research Council (ESRC)

### What is it?

The Productivity Institute (PI) is based at the University of Manchester, and has eight Regional Productivity Forums hosted by PI partner universities, and a nationwide Productivity Commission that sits under its umbrella. Its mission is to pinpoint the causes of the stagnation in UK productivity and lay the foundations for sustained and inclusive productivity growth to improve the UK's material standard of living.

**One of the keys to 'levelling up' the different regions of the UK economy will be to understand why productivity varies to a greater degree across the UK regions than it does in the sub-national regions of other OECD countries.**

The Productivity Institute and its regional forums work with policy makers and industry and business leaders to understand local, national and sectoral factors that affect UK productivity, and to help find solutions. The PI has nine major research themes, led by its different university partners with particular areas of social science expertise. These themes focus on: (1) geography and place; (2) productivity studies; (3) human capital; (4) knowledge capital; (5) organisational capital; (6) institutions and governance; (7)

macroeconomic trends and policy; (8) measurement and methods; and (9) social, environmental and technological transitions.

The Productivity Institute is primarily funded by the ESRC, with over £30 million invested between 2020 and 2025. Businesses are also involved, with business leaders from local, national and multinational enterprises involved in the regional hubs; each hub is chaired by a regional business leader.

## **What role does social science play?**

The Productivity Institute's research draws on insight and expertise from the social sciences – including economics, human geography, management and business studies, and political science – together with those from STEM disciplines such as engineering, physics and data science.

Each of the PI's areas of research interest requires multi-disciplinary working. Understanding how to raise or multiply human capital – to determine which skills and abilities are important for productivity and wellbeing, and how these can best be developed and deployed in a rapidly changing digital economy – requires insights from economists, econometricians, business and management experts, sociologists and social psychologists. Understanding the geographical and place-based challenges to productivity – including the effectiveness of local economic development strategies, infrastructure investment, land use and housing policy, educational and social interventions, and their interactions – involves the expertise of economic geographers, human and social geographers, business and management experts, and economists. All of the Institute's research themes requires similar collaboration among disciplines, policy makers and businesses.

## What partners are involved?

The Productivity Institute has ten supporting partner organisations. These partners include the eight universities that host its Regional Productivity Forums (RPFs): the University of Manchester (which hosts the PI Headquarters and is the North-West England RPF lead), the University of Cambridge (Cambridgeshire and East Anglia RPF lead), Cardiff University (Wales RPF lead), the University of Glasgow (Scotland RPF lead), King's College London (London & the South RPF lead), Queen's University Belfast (Northern Ireland RPF lead), the University of Sheffield (Yorkshire, Humberside, and North East RPF lead), and Warwick University (Midlands RPF lead). Together with the PI's other two partners – the Economic Statistics Centre of Excellence (ESCE) and the National Institute of Economic and Social Research (NIESR) – these universities and their social science researchers also support the research themes of the Institute.

## Levelling-up impact

The Productivity Forum is just getting started, with all its regional hubs launched in spring 2021. The PI's regional forums will provide much needed insights into local barriers and place-based challenges, helping to solve the UK's productivity puzzle, as well as providing a means of putting solutions into action. According to Tony Venables, the Institute's Research Director, **the Institute's regional focus is rooted in the awareness of the need for research that can offer policy-relevant and practical proposals for raising productivity and economic performance in different types of firms and in different regions, as well as in the UK as a whole.**

# 7 Spatial Design Network Analysis (sDNA)

**Regional Focus:** Wales (Cardiff), South West England (Wiltshire), and other regions globally

**Disciplines:** Architecture, Built Environment and Planning; Economics; Applied Econometrics

**Major Partners:** University of Cardiff's School of Planning & Geography and the Sustainable Places Research Institute, and later the Universities of Hong Kong and Tongji

**Major Funders:** University of Cardiff, Economic and Social Research Council, the Building Research Establishment, software sales (ongoing)

## What is it?

High resolution transport models are essential to the creation of healthier and more sustainable cities, but low resolution and high costs have impeded their use.

Spatial Design Network Analysis (sDNA) is a project to promote spatial network analysis through:

- providing specialist software for 2D and 3D spatial network analysis, to predict pedestrian and cyclist flows in greater detail than traditional transport models
- providing training in the usefulness of this type of analysis
- providing knowledge that can be used for evidence-based decisions and policy.

The sDNA software was designed to help regional policy makers and urban planners to make better decisions about how to develop their cities. The software brings together spatial data and analysis with economic and other data so that changes in urban design can be

modelled. Since its development, the sDNA tool has been used by numerous cities and regions in the UK and all over the world to help decision makers design cities that are better for people's health, have lower crime rates, desirable economic outcomes, and encourage sustainable transport. It has been used by city planners and others for urban network analysis for tasks including prediction of pedestrian, cyclist, vehicle and metro travel, and aspects of built environment relevant for epidemiology, crime rates, economic outcomes, and other aspects of urban planning and design. Initially funded by Cardiff University and the ESRC, further development of the sDNA tool has been financed by project contracts, commercial sales of the software and continued support from Cardiff University.

## **What role does social science play?**

The underpinning and ongoing research behind the sDNA software tool combines disciplinary expertise from the social sciences of architecture, built environment and planning, economics, applied econometrics, and geography. It blends spatial analysis with other data to allow appraisal of current circumstances and then evaluation of the impact of alternative urban layouts. It rests on the premise that understanding how people interact is helped by understanding a city's street network at a higher level of detail than is usual. The software has been designed so that it does not need to be used by experts in geographical modelling software, but can also be used by external consultants or local teams, and that it can be used in conjunction with 'big data' or simpler data.

## **What partners are involved?**

The research underpinning the sDNA software was undertaken in partnership between the University of Cardiff's School of Planning and Geography and its Sustainable Places Research Institute with funding from the University of Cardiff, the ESRC and the Building Research Establishment. It later agreed research partnerships with the Universities of Hong Kong and Tongji.

## Levelling-up impact

The sDNA tool has been used in the UK and abroad (in countries like China, France and Turkey) to help improve place-based development on issues ranging from improving pedestrian options to modelling property values. In South-West England, the sDNA software was used by engineering consultancy Arup to prepare a spatial strategy plan for Wiltshire County Council, which included a model of pedestrian networks that would lead to healthier lifestyles for its residents. Arup also engaged in award-winning work on Newport's city centre, using the sDNA software to help optimise transport links into the city and make them more sustainable. Indeed, Arup has now used sDNA in over 40 projects across the UK and internationally.

**sDNA is now a fundamental component of our early-stage design process, enabling quicker and more responsive planning designs.**

**(Ringo Chan, Senior Transport Planner at Arup)**

In Cardiff, sDNA was used by a cycling charity to develop a geographic model of cycling routes that then fed into the implementation of the Wales Active Travel Act, which identifies areas for infrastructure improvement in Cardiff', including promotion of long-term health.

The Canal and River Trust used sDNA to quantify the recreational benefits to deprived households of restoring two derelict sections of canal for the Monmouthshire and Brecon Canal. Based on this work, the Canal and River Trust won £2.54 million to commence canal restoration, including commitments to improve local transport (through pedestrian and cycling routes on the towpath) and recreational benefits to the general public. The project will particularly help those living in lower income housing near the canal.



sDNA software has also been used to help UK decision makers to better understand the effects of the local built environment on health and wellbeing, to help target more meaningful public health interventions now and in the future. The University of Cardiff's sDNA team worked with the Biobank team (Biobank is a long-term study of 500,000 participants across the UK) to develop the UK Biobank Urban Morphometric Platform (UKBUMP), which links the Biobank individual health data to data about the built environment in which they live, in order to create a comprehensive evidence-base for policies that try to support built environment interventions that could have positive public health outcomes. This resource has been used by the Department for Communities and Local Government (DCLG) and the Royal Town Planning Institute in the UK.

# 8 The Research Schools Network

**Regional Focus:** Multiple UK regions

**Disciplines:** Education

**Major Partners:** Education Endowment Foundation (EEF) and the Institute for Effective Education (IEE)

**Major Funders:** Education Endowment Foundation (EEF) and the Institute for Effective Education (IEE) (Initial funding for EEF was provided by a £125 million grant from the Department of Education)

## What is it?

The Research Schools Network (RSN) started as a collaboration between the Education Endowment Foundation (EEF) and the Institute for Effective Education (IEE). Following the closure of the IEE, the Network is now run in partnership with the Education Endowment Foundation. It seeks to use robust evidence to improve teaching to bring about improvements in education outcomes.

It works with 37 partner schools across the UK regions, and through them reaches many other schools in their areas. It aims to use evidence about how improve teaching and learning by encouraging schools to make use of evidence-based programmes and practices through regular communication and events. It also provides training and professional development for senior leaders and teachers on how to improve classroom practice based on the best available evidence.

## What role does social science play?

The range of education research drawn on is very wide. It includes working with schools to help them understand their school intakes better, and the particular challenges facing their schools. It provides evidence-based materials and training on such issues as student behaviour, improving teaching and learning in literacy, maths and

science, and student self-discipline. It also provides more general programmes about what works with disadvantaged pupils, and on training and retaining good teachers.

In its work it draws on the best available robust evidence from an international body of education research and evaluations of education interventions and working with Research Schools to support school leaders and teachers in using this evidence. It also funds independent evaluations of high-potential projects. Together with the Sutton Trust, the EEF was designated as the UK What Works Centre for Education in 2013 – part of the UK's wider What Works Network.

## What partners are involved?

**While Network is run by the Education Endowment Foundation and comprises 37 named schools, those schools act in turn as regional champions, affiliating with other local schools and stakeholders in their region to promote evidenced-based educational programmes and practices more widely.** The Research Schools act as training hubs to support near-by schools in understanding the evidence in key areas – and how it can be used effectively as part of their programme of professional development for teachers and senior leaders – in a way that recognises local challenges.

## Levelling-up impact

An independent evaluation of the programme in 2020 based on the first five Research Schools in the Network found that the RSN had learned, adapted and evolved over its first four years and that there is distinct evidence of promise in its impact on educational outcomes. In particular, it found that the Research Schools were playing a vital role in a systemic shift towards the use of evidence in the schools, and that the RSN had been successful in attracting schools of different types/need. More disadvantaged schools tended to focus on the RSN's training and development programmes, while those schools rated most highly by Ofsted tended to be the biggest users of their newsletters and other forms of direct evidence dissemination. It also found that more support from other funders and local stakeholders committed to school improvement would yield stronger outcomes.

As the RSN has grown, the EEF has established other initiatives to help ensure that it contributes to regional educational development where it is needed most. It has, for example, established two long-term collaborative partnerships: one with teaching schools across Cornwall to help maximise the impact of the pupil premium, and the other with Tameside Metropolitan Council, focused on raising disadvantaged pupils' attainment.

Since 2018, the EEF has also been piloting in two regions, the North West and the North East, to support regional school improvement priorities, particularly for schools serving the most disadvantaged areas.

Finally, because the EEF is aware of the distinct challenges faced by educators across the UK, it has established team leads for each of the six major regions in the UK to help better tailor advice and support on practice, interventions and implementation.

## 9 West Midlands Region Economic & Develop- ment Institute (WM REDI) – part of City REDI, the City Region Economic & Development Institute

**Regional Focus:** Multiple UK regions

**Disciplines:** Economic, Geography, Business and Management, and others

**Major Partners:** University of Birmingham, West Midlands Combined Authority (WMCA), Greater Birmingham and Solihull Local Enterprise Partnership (GBS LEP), GBS Chamber of Commerce, West Midlands Growth Company (WMGC), the Black Country Consortium Ltd, Aston University, Birmingham City University (BCU), Birmingham City Council, the seven metropolitan West Midlands Local Authorities, the Midlands Engine, and the University of Warwick.

**Major Funders:** Research England and the University of Birmingham, along with additional funding from many of its partners

### What is it?

Launched in 2020, the mission of the West Midlands Region Economic & Development Institute (WM REDI) is to support inclusive and sustainable economic growth in the West Midlands. Working with a large consortium of regional stakeholders and partners, the Institute, based in the University of Birmingham, combines multi-disciplinary academic research with professional consulting services to help develop and improve local policy. WM REDI is a programme of research within City REDI, the City Region Economic & Development Institute (established in 2015). It will

also contribute to the evidence base on local economic growth for use by other regions across the UK.

WM REDI's focus is on understanding the relative impact of various interventions and investments for regional economic growth, sustainability and the reduction of social inequality in the West Midlands. It concentrates on six major issues: regional innovation ecosystems; local and regional economic development; skills and labour markets; firms and industrial demography; governance and institutional arrangements; and regional society and communities.

## **What role does social science play?**

WM REDI and City REDI use a wide range of social sciences to understand the specific local challenges for regional development strategies. A 2020 review of City-REDI's work recognised its expertise in areas ranging from skills and employment support, systemic economic modelling, small and medium enterprise growth, firm-level innovation and productivity, spatial planning, and transport systems analysis. They draw on social science disciplines such as economics, human, social and economic geography, business and management studies, political studies, sociology, social research and evaluation, and urban planning.

## **What partners are involved?**

WM REDI's primary funder is the Research England Development Fund. Matching funding from the University of Birmingham and some of its regional partners – including the West Midlands Combined Authority, the Greater Birmingham and Solihull Local Enterprise Partnership (LEP), the Coventry and Warwickshire LEP, the West Midlands Growth Company, the Black Country Consortium Ltd, the GBS Chamber of Commerce, Aston University and Birmingham City University – brings its total funding to over £11.5 million. Other (non-investing) regional partners include the Chief Executives of all seven local metropolitan authorities, Birmingham City Council, the Midlands Engine and the University of Warwick.

## Levelling-up impact

WM REDI has already contributed to the UK Government's development of its Place-based R&D Strategy. During the COVID-19 pandemic, it provided analysis of the West Midlands' economic exposure to COVID-19 by bringing together easily shareable and accessible data to help regional decision makers respond to pandemic-related challenges. This included, for example, a weekly monitor tracking the many different economic and social impacts of the pandemic on the region. Presented every week to the Economic Impact Group, chaired by Mayor Andy Street, this has enabled tailored interventions and business support to limit the local impacts of the lockdown.

Many policy leaders in the West Midlands have noted the important policy impact of City REDI, and WM REDI will continue to build on this success with its wider range of partnerships in the region. Midlands Connect Director Maria Machancoses noted that City REDI helped 'empower industry leaders to make decisions in a more considered and informed way than ever before', and Midlands Innovation Director Helen Turner said that 'City-REDI's leadership of the Midlands Engine Economic Observatory has made a real difference' to the region's ability to think strategically about its priorities for investment.

**City-regions need to grow not just faster but better. This means more sustainably and more inclusively, reducing inequalities across socio-economic groups, communities and regions that benefit unequally from growth. Transport and housing infrastructure, types of firms, skill levels and the health and well-being of different people and communities are all connected. Understanding how they connect underpins our ability to support better policy for inclusive growth.**

**(Professor Simon Collinson, Director of WM REDI and City REDI)**

# 10 Tackling Paramilitarism & Criminality in Northern Ireland

**Regional Focus:** Northern Ireland

**Disciplines:** Social Policy, Criminology

**Major Partners:** Queen's Belfast University and  
the Department of Justice for Northern Ireland

**Major Funders:** Northern Ireland Executive

## What is it?

An inter-disciplinary team of scholars (Dr Walsh, Dr Schubotz and Professor Maruna) from the Queen's Belfast University School of Social Sciences, Education, and Social Work (SSESW) recently won funding to carry out research to inform policy related to the Northern Ireland Executive's Tackling Paramilitarism Programme. The SSESW team's research is intended to increase understanding of the specific individual and background features that place some people at elevated risk of engaging in paramilitary violence and organised crime, and to help develop policy responses that reduce participation.

## What role does social science play?

This project draws on the expertise of academics from a number of social science disciplines to work alongside practitioners and policy makers as they design and test approaches to reduce vulnerability to participation in paramilitary violence. This will help to assess 'what works' and inform wider data collection about youth services and their impact.



## What partners are involved?

The Queen's University Belfast School of Social Sciences, Education, and Social Work are working in partnership with the Department of Justice for Northern Ireland. Other government partners include the Department of Education, The Executive Office, Department of Communities, Department of Health, and delivery partners, including the Education Authority of Northern Ireland, Police Service of Northern Ireland, Probation Board, Belfast City Council, Mid and East Antrim Council, as well as a wide range of voluntary and community organisations across Northern Ireland.

## Levelling-up impact

Northern Ireland continues to deal with the legacy of decades of community conflict, violence and trauma, alongside a recognition that some communities were disproportionately affected during the conflict. Very often, these same communities continue to experience higher levels of disadvantage on a range of social and economic measures. The partnership will help to ensure co-ordination of policy and practical responses through models such as 'Common Purpose', and evaluating whether they make a difference. This model has already been tested in one council area and will be replicated across other sites throughout the programme.

The QUB team is also working with its partners to help develop better connections between local practice and empirical evidence. Additionally, a bespoke accredited short course has been designed and taught through QUB. The course aims to provide a space for practitioners to engage with evidence about relevant topics.

There are few examples in Northern Ireland of academics working in partnership with policy makers and practitioners to design, test and refine delivery in this way. Although the issues are complex, this study has significant potential to increase our understanding of the issues affecting some of the most vulnerable communities across NI while preventing violence and reducing the criminal exploitation of younger people.

(Dr Colm Walsh, Queen's University Belfast)

# 11 Newcastle City Futures Urban Living Partnership Project

**Regional Focus:** North-East England

**Disciplines:** Urban Planning, Building & Architecture; Public Policy; Social Data Analysis; Economics; Demography, and many more

**Major Partners:** Newcastle University (lead), Northumbria University, Newcastle City Council, Gateshead Council, North East Local Enterprise Partnership (LEP), Innovate UK, Research Councils UK

**Major Funders:** Newcastle University, Research Councils UK / Innovate UK (UKRI)

## What is it?

Newcastle City Futures (NCF) was established in 2014 by Newcastle University Professor Mark Tewdwr-Jones to contribute to Newcastle's growth by brokering new research and innovation for the city and region. In 2016, Research Councils UK and Innovate UK (now UKRI) funded Newcastle City Futures as one of its Urban Living Partnership pilot projects aimed at tackling place-based challenges. The £1.2 million Newcastle City Futures Urban Living Partnership (ULP) pilot drew on the previous work of Newcastle City Futures. The Newcastle City Futures Urban Living Partnership focused on improving the lives of over a million people living in the wider conurbation of Newcastle and Gateshead. It focused on three main issues: better *ageing*, improving *sustainability*, and generating *social renewal* by addressing issues like unemployment and health inequalities.

By the end of the pilot's funding period, the NCF ULP had helped establish over 50 project ideas and consortia on projects initiated by partner agencies. **It has contributed to the leveraging in of £30 million to Newcastle and Gateshead since August 2016.** Projects covered issues such as: digitally enabled homes for an ageing society; accessible designs for new metro trains; digital retailing and city

centres; digital planning tools; health and wellbeing options for city parks; the design of safe refuges for people with addictions; and helping with a regeneration programme for the transformation of Gateshead Town Centre in partnership with Gateshead Council.

## **What role does social science play?**

NCF was established by Newcastle University's School of Architecture, Planning & Landscape because of the vital role played by planning in urban reconfiguration and renewal. The NCF has worked with researchers and practitioners from across many social science disciplines since its establishment, including public policy, social data analysis, economics and demography.

## **What partners are involved?**

The NCF ULP, led by Newcastle University, started with 20 partners from across the academic, government, private and third sectors, and by the end had almost 170 partners. Its core partners included: Northumbria University, Newcastle City Council, Gateshead Council, North East LEP, IBM, Arjuna, Intu, Newcastle Airport, Nexus, AECOM, Arup, BuroHapold, Zero Carbon Futures, Northumbrian Water, Northern Gas Networks, Northern Power Grid, Federation of Small Businesses, TechCity, the NHS, Newcastle Schools Forum, Newcastle Council for Voluntary Service, Quality of Life Partnership, and the Royal Society of Arts.

## **Levelling-up impact**

The NCF and its partners across government, civil society and industry have worked on projects ranging from smaller 'proof of concept' initiatives to its larger Metro Futures project, which engaged 3,000 citizens in the design of the future train fleet to replace the 40-year-old rolling stock of the Tyne and Wear Metro, in the end helping the city to secure £337 million from the Department of Transport for upgrading.

One initiative has been the 'Future Homes' project, to come up with a modular, low-energy, flexible home that can be adapted for use by people at any stage of their lives. In August 2020 approval was given for 66 test bed future homes to be built on the Newcastle Helix campus, with the goal of delivering 400 homes by 2025. Additionally, five of the initial 66 homes will be used by industrial partners as test sites for innovative products, trialling a range of technologies related to sustainability, affordability and ageing, so the project will contribute to future innovation.

The NCF continues to work on Newcastle's Connected Cities initiative and Gateshead's digital and planning initiative. It is also contributing to Newcastle's recovery from the COVID-19 pandemic by assisting in city-wide plans to ensure the accurate measurement of key outcomes.

# 12 N8 Policing Research Partnership

**Regional Focus:** Northern England

**Disciplines:** Criminology, Sociology, Law, Organisational Behaviour, Education, Public Health, Social Care

**Major Partners:** The N8 universities and 12 police forces and their Policing and Crime Commissioners in North England

**Major Funders:** Higher Education Funding Council for England (HEFCE), originally

## What is it?

The N8 Policing Research Partnership (PRP) is a collaboration between the N8 universities and 12 policing forces and their Policing and Crime Commissioners (PCCs). The N8 PRP brings academics from various social science disciplines together with policing practitioners across northern England. The aim is to produce the research and evidence needed by police for police policy, practice and training. Established in 2015 with funding of a £3 million Catalyst Grant from the Higher Education Funding Council for England (HEFCE) and a matching £4 million from its partners, the N8 PRP has become self-sustaining in 2020 with the establishment of a three-year business plan and a new model where it is funded wholly by its academic and policing partners.

## What role does social science play?

The N8 PRP primarily draws on academic expertise from the social sciences of policing, criminology, sociology, criminal justice and law, while also drawing from social science disciplines such as education, social policy and social work, in order to deal with a complex variety of issues faced by police today.

## What partners are involved?

The N8 PRP partners include the N8 universities – Durham, Lancaster, Leeds, Liverpool, Manchester, Newcastle, Sheffield and York – as well as 12 policing forces in northern England and PCCs from Cheshire, Cleveland, Cumbria, Durham, Greater Manchester, Humberside, Lancashire, Merseyside, Northumbria, North Yorkshire, South Yorkshire and West Yorkshire.

## Levelling-up impact

The N8 PRP's 2020 Annual report noted the impact that the programme's first five years have had on evidence-based policing and innovation in the North. It has helped to improve the data skills of police staff and others who need to use population and criminal justice statistics. They have helped deliver better understanding of the evidence for different models of policing domestic violence, knife crime, gang prevention and cybercrime. One of the most important elements of its work is that through continuing partnership, researchers and police forces work together on how to improve policing, using data, evidence and evaluating innovations, to enable better policing based on evidence.

**An annual research programme, innovation forums, data analytics support, and CPD and training has allowed N8 PRP to assist partner police forces to develop policy and practice on an informed and evidence-based footing.**

**(Professor Geoff Pearson,  
University of Manchester Law School)**

# 13 Growing Kent & Medway (GK&M)

**Regional Focus:** South-East England

**Disciplines:** Business & Management Studies

**Major Partners:** NIAB EMR, University of Kent, University of Greenwich, Thanet Earth, Berry Gardens, RH Group, APS Group, Worldwide Fruit, Kent & Medway Economic Partnership (KMEP), Locate in Kent, Geku Automation, Chapel Down, Gusborne, Smurfit Kappa

**Major Funders:** UKRI (Strength in Places Fund)

## What is it?

Growing Kent & Medway is a collaborative project that aims to make the region a national leader in climate-smart technology in food production, processing, packaging and supply chains. Its purpose is to provide a world-class research, innovation and enterprise cluster supporting growth in the region and innovation in the sector, helping local businesses to thrive and leading to the commercialisation of new technologies that will help to reduce waste. The project is led by NIAB EMR, established in 1913 by local fruit growers and now the largest horticultural research centre in the UK. It is a network of 13 partners from across academia, industry and government with initial seed-corn funding from UKRI's Strength in Places Fund, which provided a further £18 million in funding to take the project forward in mid-2020.

## What role does social science play?

While much of the collaboration's research focuses on the horticultural, agricultural and environmental sciences, the project also uses expertise from business and management studies to help achieve its goals of involving local businesses in innovation and commercialisation. It draws on relevant social science expertise in improving food supply chains and making them more sustainable. The project also aims to work with companies to promote



entrepreneurship. The University of Kent, one of its academic partners, is developing a *Mentoring Hub* that will provide local enterprises with specialist advice from business and management experts on how to improve their marketing and promotion.

## What partners are involved?

The project is led by NIAB EMR in collaboration with partners from local universities (the University of Kent and University of Greenwich), the public sector (Kent & Medway Economic Partnership (KMEP) and Locate in Kent) and industry (Thanet Earth, Berry Gardens, RH Group, APS Group, Worldwide Fruit, Geku Automation, Chapel Down, Gusborne, Smurfit Kappa).

## Levelling-up impact

Growing Kent & Medway will help in 'levelling up' the region by supporting local growers and food processing companies, and investing in technologies such as artificial intelligence, automation and smart packaging. It is awarding grants of between £10,000 and £150,000 to local businesses to enable them to work with project partners on R&D. It is projected that by 2030, the project will have created 1,700 jobs and added £39 million annually to the local economy.

# 14 Fuel & Transport Poverty in the UK's Energy Transition (FAIR)

**Regional Focus:** All four UK nations

**Disciplines:** Energy and Social Science; Human and Social Geography; Transport Studies; Political Science; Urban Planning, Architecture and Building; Economics and Econometrics

**Major Partners:** Oxford University's Centre for Research into Energy Demand Solutions (CREDS); University of Sussex's Science Policy Research Unit (SPRU); University of Manchester; University of Edinburgh; University of Ulster; Liverpool John Moores University; TU Dortmund University; Cambridge Econometrics; Energy Saving Trust; Green Alliance

**Major Funders:** UKRI funding via Oxford University's Centre for Research into Energy Demand Solutions (CREDS)

## What is it?

FAIR works to ensure that policies to address the UK's energy transition – which is needed to tackle climate change – take account of regional and economic disparities. They bring together expertise on low carbon energy with an understanding of fuel and transport poverty, including their implications for different areas. As the UK begins to consider how to reach a Net Zero carbon economy by 2050, it is becoming clearer that solutions to transport and home heating will mean policies have to address both carbon transitions and policies to take account of energy poverty if decarbonisation is to be successful at scale, and there is to be regional 'levelling up'.

The £1.25 million project is funded by UKRI as part of Oxford University's Centre for Research into Energy Demand Solutions (CREDS). CREDS' research focuses on reducing energy demand, improving energy efficiency and understanding demand-side

flexibility. It is a consortium of over 20 organisations with around 150 staff in the UK, led by the University of Oxford.

## **What role does social science play?**

Working together with experts in energy social science, geography and economics, the project draws on expertise across the social sciences to understand the complex ways in which fuel and transport poverty are interlinked, and the policy implications that will have for energy transition in the UK and its regions. The principal investigator, for example, is an expert in science and technology policy in the energy sector. Other researchers have expertise in human and social geography, transport and urban planning, politics, economics, and econometrics (including quantitative modelling and analysis).

## **What partners are involved?**

The CREDS-funded project is led by principal investigator Dr Mari Martiskainen at the University of Sussex's Science Policy Research Unit (SPRU). Researchers on the project hail from a number of other universities across the UK and abroad, including the University of Manchester, University of Oxford, University of Edinburgh, University of Ulster, Liverpool John Moores University and TU Dortmund University in Germany. Private and public sector organisations also provide sectoral and methodological expertise, including investigators from Cambridge Econometrics, the Energy Saving Trust and the Green Alliance.

Those facing fuel poverty often struggle with transport poverty too. We want to provide evidence-based recommendations on how to tackle both. Being able to heat a home and get from A to B should be activities that everyone can do without breaking the bank in a Net Zero society.

(Dr Mari Martiskainen)

## Levelling-up impact

Fuel poverty is partly a function of the price of household fuel, and partly to do with housing conditions; it affects about 3.5 million households in the UK. Transport poverty includes the unaffordability and unavailability of transport, and affects around 2.5 million households in the UK. For both of these issues there is evidence about the effects on health, and access to jobs and healthcare.

The devolved nations of the UK face particular challenges related to fuel and transport poverty, often having poorer housing and lower than average incomes while tending to be more reliant on personal vehicles to access essential services and employment, especially in rural areas. We hope that the results of this project can help to break down some of the siloed thinking.

(Jack Wilkinson-Dix, Policy Officer with Energy Saving Trust)

These issues will become even more pressing with the move to low carbon household heating and travel, both of which will require infrastructure investment by government and individuals. Policies to underpin transition to low or no carbon alternatives will need to ensure that they take account of different types of households, and the characteristics of populations in different areas, and how they may be affected by transition planning and costs.

**2021 is a pivotal year for climate action in the UK, with the hosting of the COP26 conference, and the government due to publish a number of highly anticipated strategies including the Net Zero Strategy, Transport Decarbonisation Plan and the Heat and Buildings Strategy. It is essential that these acknowledge the importance of a place-based approach to tackling the climate emergency in which every part of the UK benefits from the switch to a zero carbon economy.**

**(Philippa Borrowman, policy adviser at Green Alliance)**

FAIR researchers aim to identify policy solutions for UK policy makers as they seek to 'level up' areas of the country while transitioning to a Net Zero future. For example, they plan to estimate the impact of policies such as public investment in household energy efficiency or incentives to purchase low-carbon vehicles on unemployment, employment by sector, household incomes and wage rates.

# 15 Lifeguide: Online Support for Positive Health Behaviour Change

**Regional Focus:** Applicable to all regions

**Disciplines:** Psychology, Social Statistics, Sociology, Economics, Computer Science, Medicine

**Major Partners:** Universities of Oxford, Cambridge, Bristol, University College London

**Major Funders:** National Institute of Health Research, UKRI, Medical Research Council, Economic and Social Research Council (ESRC), Engineering and Physical Science Research Council, European Union, medical charities

## What is it?

The LifeGuide research programme is a multi-disciplinary collaboration between STEM and social science researchers in the academic, public, private and third sectors led by the University of Southampton. The programme, led by Professor of Health Psychology Lucy Yardley, investigates how the internet can be used effectively to deliver behavioural health interventions, given the explosion of internet and mobile phone use across the globe over the last two decades. The LifeGuide team developed a set of tools that researchers with no prior programming experience could use to develop websites and apps. As a part of this research programme, the UBHave project, focused on how mobile 'sensing' data from social media might help to improve positive behaviour change by automatically sensing and providing information about users' moods and activities. The LifeGuide team used the software tools they developed to create websites to help people successfully adopt a healthy lifestyle and manage numerous health problems (such as infections, high blood pressure, dizziness and back pain). Through their experience of creating websites for many different health

problems, the team also created a new social science methodology (the 'Person-Based Approach') for ensuring that the websites were as easy to use and helpful as possible.

The first intervention developed by the LifeGuide team was Germ Defence, a website to help users to reduce the spread of infection in the home by providing personalised advice and behavioural support. A trial of Germ Defence in 20,000 people in the swine flu pandemic and following years showed it did reduce infections, consultations and antibiotic use. In March 2020 the team obtained UKRI funding to work with members of the public, GPs and Public Health England to rapidly update Germ Defence for COVID-19. It has been used by over 600,000 people to protect family members when someone in the household is infected or vulnerable (<https://www.germdefence.org/>).

Another example of how the LifeGuide research has been applied is the development, evaluation and large-scale implementation of an online weight loss management programme called POWeR. The LifeGuide behavioural scientists worked closely with members of the public to create the POWeR website and showed in a clinical trial in primary care that it helped people struggling with obesity to lose enough weight to improve their health. Next, the UBhave team created the POWeR Tracker mobile app to supplement and enhance the effectiveness of POWeR's online intervention. The LifeGuide team then collaborated with the UK company Changing Health to adapt and update the POWeR weight management website for delivery through a responsive web app.

## What role does social science play?

This project required the social science expertise of health psychologists, working in partnership with statisticians, economists and sociologists to create interventions that were cost-effective and could be implemented successfully in healthcare organisations.

**The social scientists worked closely with experts in information and computing technology to develop the appropriate internet and phone delivery and with clinicians to identify health problems and solutions for the interventions.**

## What partners are involved?

The LifeGuide research programme was initially funded by a grant of £750,000 from the ESRC. This was followed up with the £1.5 million UBhave funding from the Engineering and Physical Sciences Research Council (EPSRC) in partnership with the ESRC, led by a principal investigator from the University of Southampton, and involved partnerships with the private sector and collaborations with the public sector (including a variety of NHS bodies and County Councils across the UK's regions). Private sector partners in the UBhave project included Philips Research Labs (Cambridge) in the UK, and NEC Europe Ltd (Germany), bLife (USA) and Signal Patterns (USA) internationally. The private sector collaboration with the UK company Changing Health has led to the POWeR weight management intervention being rolled out through the NHS to help diabetic and pre-diabetic people manage their weight. Public sector collaborators that have rolled out the POWeR intervention include Hampshire County Council, Redcar and Cleveland Borough Council, Solent NHS Trust, Southampton, and Hertfordshire County Council.

## Levelling-up impact

Obesity is a consistent public health challenge, affecting life expectancy, health outcomes, and public health budgets and services across many of the UK's regions. The UBhave project's trial of the POWeR website in the North East of England showed that it had significantly improved self-reported weight among users, while the clinical trial in primary care showed that it led to sustained, clinically useful weight loss in obese patients. **Through the partnership with Changing Health, the POWeR app is now being delivered to 4,000 NHS patients through the NHS National Diabetes Prevention Programme 'Healthier You' and has been rolled out across the NHS to 600,000 people as part of NHS England's National Diabetes Education Programme.**



# 16 Geographic & Social Mobility of Higher Education Students in the UK

**Regional Focus:** Multiple UK regions

**Disciplines:** Education, Human Geography, Social Policy, Sociology

**Major Partners:** University of Bath

**Major Funders:** Economic and Social Research Council (ESRC)

## What is it?

This research project, led by the University of Bath, examined the geographic and social mobility of higher education students in the UK. Many people assume that going to university means going to another part of the country and living away from home. While this is true for many, a large number of students stay at their parents' homes. This may make university more affordable, and it may result in different types of labour and skills markets for graduates who stay in the regions where they grew up. But it may also mean that students from more disadvantaged backgrounds are more likely to stay in their region of origin, while more advantaged students become more geographically mobile. What does this mean for students and families, for local areas and for social mobility?

**This project ensures that the links between social mobility and geographic mobility, and their effects on individuals and different types of areas, are better understood.** It involves detailed analysis of official HESA data about young people in universities, as well as detailed case studies of 20 different areas with over 200 interviews, to understand particular types of trajectories and choices.

## What role does social science play?

The project involved the social science disciplines of education, human geography, social policy and sociology. Its work was necessarily multi-disciplinary, looking at the interactions of social and physical movements, and other demographic, social, cultural and political factors.

## What partners are involved?

This ESRC-funded multi-disciplinary research project was led by Professor Michael Donnelly at the University of Bath, with academic collaborators from the University of Bath and the University of Bristol. The project's stakeholder group also drew on expertise from the public sector, including the UK Department for Employment and Learning, the Higher Education Funding Council for England, the Higher Education Funding Council for Wales, and the Scottish Funding Council, and the third sector, including Universities UK, The Sutton Trust, the Social Mobility and Child Poverty Commission, and the Higher Education Policy Institute.

## Levelling-up impact

The project has found that many young people are not as easily able to leave home for higher education as is often assumed, and that this geographical immobility can have a significant impact on individual social mobility. The study found that the majority of young people going to university choose to stay relatively local, going to a university less than 55 miles away from their home address, with those from Pakistani and Bangladeshi communities being particularly unlikely to move away. Moreover, students from disadvantaged backgrounds are less likely to leave home. In fact, students from the lowest social class group are more than three times more likely to commute to university from their childhood homes than students from the highest social class group.

These findings help to inform practical and policy changes for those seeking to level up social attainment, outcomes and prosperity across the UK's regions. It will help to answer key policy questions about individual social mobility as well as how to improve skill levels in different parts of the UK. The researchers made proposals, recognising that a strong skills base can be vital for regional economies. They recommended that research-intensive universities, which tend to be the most socially exclusive institutions and are also unevenly spread across the UK, could do more to recruit locally and widen participation of those living at home by, for instance, making timetables more commuter friendly. One important implication is how post-1992 universities – which educate the majority of commuter students from disadvantaged backgrounds – can improve the skills and employability of students who are likely to stay in their home region, and how greater financial assistance to commuter students could help them add to local skills.

This issue has recently gained wider prominence in the discussion about 'levelling-up' policies and shows in detail why maximising individual graduate salaries (often necessitating geographic mobility) may not be best for improving regional growth and equality.

# 17 Manchester, The Centripetal City

**Regional Focus:** North-West England

**Disciplines:** Human Geography, Economic Geography, Political Science, Accounting, Management

**Major Partners:** University of Sheffield, ESRC

**Major Funders:** Economic and Social Research Council (ESRC)

## What is it?

This project, led by Professor Adam Leaver at the University of Sheffield's Management School, examines the implications of certain types of development for Manchester's long-term sustainability and prosperity. The Greater Manchester Combined Authority has pursued a city-first, property-led model of urban regeneration, leading to the recent development of large blocks of build-to-rent flats within the city centre. The goal of this model is to create agglomeration benefits that pull investment, technology and skills into central Manchester, leading to productivity improvements that will, in turn, spill out into surrounding areas.

There are, however, concerns that such gains may not be realised by the city, and that such a strategy may simply pull skills and investment away from neighbouring towns in harmful ways. Additional concerns are that a focus on build-to-rent development could actually diminish economic growth by leading to higher rents and creating opportunities for large global companies to take money away from local economies. One alternative would be to focus instead on regeneration strategies that are more *centrifugal* in nature, so that productivity gains in the city centre are distributed into the regions, with more diversified housing options as well. The project team, in collaboration with the Centre for Local Economic Strategies, is looking at the build-to-rent model and how its financial and economic benefits are distributed, from an accounting and

sustainability perspective, and then comparing the costs and benefits of different city regeneration models, including those with a better balance between core cities and satellite towns.

## **What role does social science play?**

This research draws on knowledge from human, social and economic geography, business and management studies (accounting) and political science (international political economy). Its methods draw on expertise in accounting and economic geography to investigate the financial and spatial relations and outcomes of build-to-rent construction, from the way it is marketed to its financial and spatial effects. This includes tracing the flows of income from buy-to-rent investments through their ownership structures.

## **What partners are involved?**

The project, begun in December 2020, is led by the University of Sheffield, with funding from the Economic and Social Research Council (ESRC) for the three years. The project team partners with the Centre for Towns and the Centre for Local Economic Strategy.

## **Levelling-up impact**

The overall purpose of this research project will be to understand what forms of development will lead to the best social and economic outcomes for Manchester and surrounding towns, and whether different and diversified strategies for regeneration are worth looking at.

Understanding the economic relation between core cities and their satellite towns is important when developing successful and sustainable urban renewal models for the levelling up agenda. Our project examines the centrifugal and centripetal forces produced by Greater Manchester's city-first, property-led model of urban regeneration, and its uneven impact on surrounding towns. Our findings will help policymakers understand these relations and flows, and build growth models that balance prosperity more equitably between town and city.

(Professor Adam Leaver)

# 18 Smart Data Analytics for Business and Local Government

**Regional Focus:** Multiple UK regions

**Disciplines:** Social Policy, Management & Business Studies

**Major Partners:** University of Essex (Lead), Lloyds Banking Group, Aviva Plc, Experian, BT Group, the South East Local Enterprise Partnership, the Norfolk Constabulary, and Essex, Kent, Medway, and Norfolk County Councils

**Major Funders:** Economic and Social Research Council (ESRC)

## What is it?

The Smart Data Analytics for Business and Local Government project, led by the University of Essex, seeks to help harness the power of 'big data' – routinely collected data from private or public sector interactions – by linking together previously disaggregated data into comprehensive data sets. These can then be used by local governments and small to medium-sized business enterprises. The use of smart data analytics can help local authorities and local businesses to understand how can they make best use of limited resources to deliver services to residents in health and social care, education, crime reduction, housing and transport. The project has partnered with local councils (including Kent, Essex and Norfolk) to help them use data that they and others already hold about the people living in their regions in order to improve service delivery in terms of cost and efficiency. The project has also partnered with local small and medium-sized businesses to help them to understand the barriers and opportunities for financing, innovation and growth.

The project started with a £5.2 million grant from the ESRC, and has continued with a further £1.2 million ESRC grant to the Business and Local Government Data Research Centre that is the outgrowth of this project. It will continue to focus on local economic growth, support for vulnerable people and 'greening' local infrastructure.

## What role does social science play?

**This project relies on insights and research from social policy and business and management to help local government authorities and businesses by understanding local, linked big data, held in an ethical, anonymised way that protects individual privacy.**

To do this, researchers in these fields work hand in hand with computational social scientists, and with those from the STEM disciplines of information and communications technology.

## What partners are involved?

The Smart Data Analytics for Business and Local Government project is led by the University of Essex in collaboration and partnership with a number of academic, public, private and third sector partners intended to multiply local and international policy and societal impact. The University of Essex was joined by 13 academic collaborators, including the London School of Economics and Political Science (LSE) and the Universities of Glasgow, Birmingham, Kent, Lincoln and Manchester in the UK, and internationally by the Curtin University of Technology, Florida Atlantic University, George Mason University, Xiamen University, York University Canada, National University of Distance Education and the University Hospital Magdeburg. The project also has six public sector partners in the UK – the South East Local Enterprise Partnership, the Norfolk Constabulary, and Essex, Kent, Medway and Norfolk County Councils – and a further 17 public sector collaborators in the UK and abroad, ranging from other county councils and the National Audit Office in the UK to the United Nations. Finally, the project has also had four private sector partners in the UK (Lloyds Banking Group, Aviva Plc, Experian and BT Group) as well as a further 13 private and third sector partners in the UK and abroad (ranging from London Southend Airport to IBM).



# Levelling-up impact

These projects have helped the local authorities to improve service delivery and help local businesses to grow. For example, to help provide greater support for vulnerable people, there have been special projects with local authorities focusing on the relationships between local demographics and health, which was also used to identify communities most at risk of COVID-19.

Funding has also allowed the creation of 'Data Analytics Innovation Vouchers' for special projects. A good example was a project Colchester Borough Council established to help it understand why health indicators in their region were worsening, and to suggest recommendations for policy to address this.

The project team has also helped to support local economic growth by examining the specific barriers that innovative local enterprises face in accessing finance in the East of England. They have also worked to improve local understanding of green infrastructure, through geospatial analysis linked with demographic data. This helped Essex County Council to identify opportunities to improve the provision of green space and to formulate a new *Essex Green Infrastructure Strategy*.

Finally, the project has helped others to use and understand how 'big data' can be a more routine part of their work. This has included specialised training for stakeholders, local governmental authorities and local enterprises in their own use of data, as well as the acquisition of over 400 data sets that are made available through the Centre.

# 19 The Midlands Innovation Social Science Research Accelerator (MISSRA)

**Regional Focus:** Midlands

**Disciplines:** Multi-disciplinary Social Science

**Major Partners:** Universities of Aston, Birmingham, Leicester, Loughborough, Nottingham and Warwick

**Major Funders:** UKRI (Economic and Social Research Council)

## What is it?

The Midlands Innovation Social Science Research Accelerator (MISSRA) is a collaboration of six Midlands-based universities to help local public, private and third sector organisations. It provides social science knowledge, research and skills to address their specific needs for evidence. MISSRA offers access to a network of academics with a range of research expertise to provide agile responses to meet business needs, including researcher secondments and people exchange.

## What role does social science play?

MISSRA draws on the expertise of over 2,500 social science academics across 18 social sciences: business and management studies, demography, development studies, health sciences, human geography, economics, economic and social history, education, environment planning, linguistics, political science, international studies and relations, psychology, law and legal studies, social anthropology, social policy, social work, and sociology.

## What partners are involved?

MISSRA is a partnership between the universities of Aston, Birmingham, Leicester, Loughborough, Nottingham and Warwick and is funded through the Economic and Social Research Council's (ESRC) Midlands Impact Acceleration Accounts of the universities of Birmingham, Leicester, Nottingham and Warwick from 2019 to 2023.

**The Midlands Innovation Social Sciences Research Accelerator enables collaborations with public, private and third sector organisations that need research that helps understand society, human behaviour and how we influence the world around us.**

**(Professor Todd Landman, Pro-Vice-Chancellor, Faculty of Social Sciences, University of Nottingham)**

## Levelling-up impact

MISSRA works on specific, bespoke projects. One example is the University of Birmingham project examining the potential ethical and regulatory barriers to the use of artificial intelligence (AI) in professional services. Professional services are major contributors to the UK economy and a key component of the West Midlands' Local Industrial Strategy. AI could transform many professional services, but it is widely agreed that such transformation needs to be accompanied by new regulations and ethical guidelines that can protect the privacy of consumers and the public, while at the same time allowing innovation. Researchers from the University of Birmingham's business and law schools worked with the public and private sector to identify some of the key barriers to the wider adoption of AI in the professional services industry and to make recommendations to both regulators

and the sector about how to overcome these. They collaborated with industry partners EngineB (a professional services data solutions firm) and Microsoft to win almost £9 million in funding from the Industrial Strategy Challenge Fund (ISCF) to develop new common models for audit, tax and legal services that will drive innovation and competition in professional services.

At the University of Warwick, the UK Gas Security Forum was established. This is a network of academics, industry organisations, think tanks and NGOs involved in UK energy policy and the UK gas supply chain. The forum provided an updated assessment of UK gas security to inform the formulation of post-Brexit gas security strategies. The project helped to shape the National Grid's Gas Operational Forum consultations with the Government following the 'Gas Deficit Warning' and has opened doors for further impact as the UK gas industry continues to respond to geopolitical developments and the demands of Net Zero.

Other MISSRA projects have helped East Midlands police to improve policies for the custodial detention of people with autism, and to consider what police policies and strategies might reduce knife crime and gang-related violence.

# 20 Help to Grow: Management

**Regional Focus:** Multiple UK regions

**Disciplines:** Business and Management Studies

**Major Partners:** UK Government (HM Treasury and the Department for Business, Energy and Industrial Strategy), the Chartered Association of Business Schools, and the Small Business Charter

**Major Funders:** UK Government and the Chartered Association of Business Schools

## What is it?

The Help to Grow: Management programme was announced in the March 2021 Budget. It is a three-year partnership between the UK Government and the Chartered Association of Business Schools aimed at delivering practical management training to 30,000 leaders of small and medium-sized enterprises (SMEs) to help their businesses grow. Help to Grow: Management executive development programmes are 12 weeks long and are delivered by UK business schools through a mix of online and in-person learning, with access to one-on-one mentoring support, peer-networking and an alumni programme. It is specifically designed to help SME leaders gain the skills that are vital to improving their business's performance, resilience and growth potential. The business schools delivering the programme are all accredited by the Small Business Charter, which recognises their excellence in supporting small businesses and local economies.

## What role does social science play?

The programme is delivered by experts in business and management studies. It draws on research and evidence of how to deliver effective management training and support to SME executives to promote business growth.

## What partners are involved?

The £220 million programme is funded in partnership between the UK Government and the Chartered Association of Business Schools, with the Government subsidising 90% of the cost of SME participation.

## Levelling-up impact

One of the most often identified reasons for uneven productivity levels across the UK – and the UK's relatively poor productivity performance' in general – is the low diffusion of technology and best practice in management across the country, particularly to SMEs. This programme will help to level up management and digital skills among SME leaders across the UK.

**The Help to Grow: Management programme is a collaboration between business schools across the UK, working together to devise and deliver a curriculum that will help the UK's small and medium sized businesses release their potential to boost productivity, employment and growth.**

**(Anne Kiem, Chief Executive of the Chartered Association of Business Schools)**

# 21 Consumer Data Research Centre

**Regional Focus:** Multiple UK regions

**Disciplines:** Economics, Environmental Planning, Human Geography, Management & Business Studies, Social Policy

**Major Partners:** University of Leeds, University College of London (UCL), University of Liverpool, and Oxford University

**Major Funders:** Economic and Social Research Council (ESRC)

## What is it?

The Consumer Data Research Centre (CDRC) was established to harness 'big data' (large complex data sets that require computational analysis) arising from consumer-related transactions to address social and economic challenges. It brings together academic researchers from across the social sciences to collaborate with the public sector and industry. The CDRC uses these consumer data to understand six main issues: (1) health and wellbeing, (2) urban mobility, (3) retail industry, (4) population, housing and infrastructure, (5) crime and emergency services, and (6) ethical and sustainable consumption.

**Data are being generated all around us, often in real-time. Using that could lead to a new paradigm of 'nowcasting' in cities.**

**(Professor Mark Birkin)**

## What role does social science play?

The CDRC draws on academic expertise from the social science disciplines of human and social geography, environmental planning, economics, management & business studies, and social policy to provide multi-disciplinary analysis of consumer data. These disciplines work hand in hand with computational social sciences and spatial data analysis methods.

## What partners are involved?

The CDRC was established in 2014 with over £12 million in funding from the Economic and Social Research Council (ESRC). The Centre is led by the University of Leeds in partnership with the University College of London, the University of Liverpool and the University of Oxford. To date, the CDRC has collaborated with almost 80 private, public, academic and third sector organisations on projects within its research streams.

**More data are collected about citizens today than ever before, with consumer data accounting for an increasing proportion of this huge resource. The CDRC delivers consumer data through its service, its research and its engagement with users across business, government and academia.**

**(Professor Paul Longley)**



## Levelling-up impact

The CDRC's research has already had a clear impact in helping to 'level up' the UK and its regions. The Centre has worked with local authorities, such as Leeds City Council, to enhance the accuracy of the population estimates it uses for planning purposes, and with the Lancashire Constabulary to identify hate speech on Twitter using a special technique to analyse language data. It has helped to analyse how city-centre neighbourhoods have changed since the 2011 Census, allowing more frequent updates between Census dates. It has worked with private sector businesses to understand food waste patterns, the mapping of high-speed internet access and the location of banks and use of financial services.

The CDRC has also been able to help the UK and its regions to address the impacts of the COVID-19 pandemic. It has developed geographic models and software to understand the impacts of the COVID-19 pandemic on different groups in society, particularly those in minority ethnic categories. It has mapped the location of COVID-19 vaccination centres and explored the implications for access. And, working in collaboration with the UK's Joint Biosecurity Centre, the Office for National Statistics and the Ministry of Housing, Communities and Local Government, it is helping to create the Local Data Spaces data set in the ONS Secure Research Service that will help local authorities in England to access detailed local COVID-related data safely and securely.

The CDRC seeks to address the shortage of data science skills by providing a variety of training opportunities and capacity building for social data research. This enables the CDRC to help build a skilled data workforce as well as upskilling the existing data workforce.

# 22 Essex Catalyst Programme

**Regional Focus:** East England

**Disciplines:** Political Science, Economics, Psychology

**Major Partners:** University of Essex (lead), Essex County Council, and Suffolk County Council

**Major Funders:** Higher Education Funding Council for England (HEFCE), Department for Communities and Local Government (DCLG)

## What is it?

The Catalyst Project, established in 2015, works to improve local community services for the vulnerable in Essex and Suffolk. Led by the University of Essex, in partnership with Essex and Suffolk County Councils, the project has three primary streams aimed at improving the lives of the 2.5 million people living in their local area. The first is to use the University's academic expertise in policy evaluation and social data analytics to evaluate the council-led programmes to help improve outcomes and allocate resources more efficiently. The second is to apply the University's expertise in data analytics and visualisation to help Councils to understand their populations better. The third is by creating a volunteering hub – a one-stop shop helping students to take part in volunteering opportunities offered by University groups, local community groups and non-profit and public sector organisations.

## What role does social science play?

The Catalyst project's evaluation team draws particularly on expertise from the Essex Department of Government. The Catalyst also has a dedicated team of social scientists from a wide range of disciplines that focuses on identifying groups 'at risk' or classed as vulnerable. This team is led by an economist and a mathematician, who work

hand in hand with team members who combine social science and STEM skills and knowledge.

## What partners are involved?

The project is led by the University of Essex in partnership with Essex County Council and Suffolk County Council. Funding for the project comes from two main sources. The first is the Higher Education Funding Council for England (HEFCE), who awarded the project £2.2 million for four years through its Catalyst Fund for universities that act as ‘anchor’ institutions in their local regions. Additionally, both of the County Councils involved also obtained funding from the Department for Communities and Local Government to implement a more integrated approach to targeting demand for services and improving outcomes for residents.

## Levelling-up impact

**The Catalyst project’s work is solely aimed at improving the lives of those that live in the University of Essex’s local region. The project has already completed six initiatives that covered issues ranging from school readiness to youth reoffending.** In the former case, for example, the risk team used machine learning methods to help predict levels of school readiness of children in a specific community in Essex in order to help the local authorities better target early intervention services and programmes to those who were most at risk of being unprepared. The initiative was able to identify over 500 households at risk of not being school ready, over half of whom were not yet known to public services, allowing the local authority and community to come together to design services that will give these children the skills they need to succeed at school.

The evaluation team has completed nine initiatives to date on issues ranging from dementia to anti-social behaviour. For example, one initiative was to evaluate the Essex County Council’s Parish Safety Volunteer (PSV) pilot programme, which intended to use PSVs to do home safety visits to help reduce the number of accidental dwelling fires in the region. The team found that the programme had an impact on fire reduction, and determined that the programme, after its cost

was factored in, was able to save the taxpayers in the region over £2.6 million annually. Other projects have used data to understand how to improve uptake of free school meals, identify children at risk, reduce youth knife crime, and identify communities with high levels of domestic abuse, to help plan police and appropriate services.

**The Catalyst project has also had a clear impact on increasing volunteering from the University of Essex student body in the local community.** In the three-year period between 2015/16 and 2018/19, the number of students volunteering hours tripled from 12,000 to 36,900 hours, and volunteering options in the community have also increased, both for those offered by the programme and those offered by organisations in the area.

## 23 LSE Cities Research Centre

**Regional Focus:** Many UK cities and regions

**Disciplines:** Architecture, Building, and Planning, Sociology, Geography, Business & Management Studies, Political Science

**Major Partners:** The London School of Economics

**Major Funders:** The London School of Economics

### What is it?

LSE Cities is an international and inter-disciplinary centre at the London School of Economics and Political Science (LSE). It undertakes research about today's urban environments and uses its expertise to advise local authorities, international organisations and NGOs in the UK and around the world. **The main focus of LSE Cities is to examine how complex urban systems are responding to the pressures of growth, change and globalisation and, consequently, how cities can be designed and managed to promote social inclusion, reduce environmental impact and be governed more effectively.** The group's work has three main research streams: Cities, Space and Society; Cities, Environment and Climate Change; and Urban Governance.

### What role does social science play?

LSE Cities is inter-disciplinary – drawing on expertise from the social science disciplines of urban architecture, building and planning, sociology and social policy, human and social geography, business and management studies, and political science. This allows LSE Cities to consider the interaction of the social and physical characteristics of cities.

## What partners are involved?

The centre is funded by the LSE, but it actively works in advising and consultancies with local bodies, including local governments and authorities, as well as other local, international, non-governmental and private-sector organisations and authorities. Building on its authoritative database of over 60 global cities, the centre works with local governments, international agencies and other institutions on applied research that shapes urban policy and practice.

## Levelling-up impact

LSE Cities has undertaken projects on high-density housing in different contexts, trends and futures for urban mobility, and work on possible future scenarios in some UK cities or boroughs after COVID-19. It works with the Department of Business, Energy and Industrial Strategy (BEIS) to consider housing and transport policies that could have positive social and environmental impacts in city development and planning. It also has an extensive portfolio of work with various international cities, ensuring that thinking about UK cities is kept in touch with wider international developments.

# 24 University of Glasgow Top Up Programme

**Regional Focus:** West Scotland

**Disciplines:** Education

**Major Partners:** University of Glasgow and about 100 West Scotland secondary schools

**Major Funders:** University of Glasgow and (originally) the Scottish Higher Education Funding Council

## What is it?

The University of Glasgow's Top Up programme helps secondary students from disadvantaged backgrounds in Western Scotland to gain the relevant skills and experience to improve their rates of entry into, and completion of, higher education. **The programme works with about 100 secondary schools in the West of Scotland and is made available to eligible disadvantaged students in those schools.** The programme is delivered by University of Glasgow postgraduate tutors and offers pupils an opportunity to learn key academic skills that will allow them to be successful once they enter further or higher education, including reading, debating and note-making skills. It also offers participants first-hand experience of being on a university campus by giving them the chance to attend a university lecture, seminar and student life workshop. Eligible students include those who are in lower socio-economic groups, are or have been in care, or are estranged from family, among other disadvantaged groups.

## What role does social science play?

The programme draws on evidence-based insights from research and evaluation in the field of education. It is delivered by postgraduate tutors at the University of Glasgow.

## What partners are involved?

The Top-Up Programme was originally part of the Scottish Higher Education Funding Council and local education authority-funded programme, GOALS (Greater Opportunity of Access and Learning with Schools) Project, established in 2000. It is now funded by the University of Glasgow.

## Levelling-up impact

A 2006 evaluation of the initial GOALS-funded programme found that pupils participating in the programme had both positive perceptions and real improved outcomes, helping to ensure a 'levelling up' of higher education skills and knowledge for disadvantaged students in the West of Scotland region. The evaluation determined that Top-Up students were progressing at better rates despite many more having come from disadvantaged backgrounds or who were known to be 'at risk'.



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